

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: <b>June 2001</b>
--	---------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT (PE) NAME AND NO. <b>0206313M Marine Corps Communications Sys</b>									
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Total PE Cost	<b>89.355</b>	<b>107.102</b>	<b>104.835</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2270 Command Post Systems	<b>24.131</b>	<b>24.480</b>	<b>24.976</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2271 Maneuver C2 Systems	<b>1.407</b>	<b>1.935</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>3.342</b>
C2272 Intelligence C2 Systems	<b>13.553</b>	<b>8.555</b>	<b>18.449</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2273 Air Operations C2 Systems	<b>16.417</b>	<b>24.553</b>	<b>18.238</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2274 Warfare Systems	<b>9.306</b>	<b>7.592</b>	<b>5.429</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2276 Communications Switching & Control Systems	<b>1.766</b>	<b>0.224</b>	<b>0.986</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>2.976</b>
C2277 System Engineering & Integration	<b>6.731</b>	<b>7.904</b>	<b>12.316</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2278 Air Defense Weapons Systems	<b>6.880</b>	<b>20.081</b>	<b>11.240</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2315 Training Devices/Simulators	<b>8.104</b>	<b>10.714</b>	<b>8.599</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
C2510 MAGTF CSSE & SE	<b>1.060</b>	<b>1.064</b>	<b>4.602</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
Quantity of RDT&E Articles										

**(U) 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. Doctrina 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 six functional areas and one supporting functional area as follows: maneuver C2, intelligence C2, fire support C2, air operations C2, combat service support C2, warfare 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. The Coastal Battlefield Reconnaissance and Analysis (COBRA) system is a passive multi-spectral sensor system capable of operating in a PIONEER unmanned aerial vehicle (UAV). Imagery recorded on the UAV or disseminated via data link is analyzed by the COBRA ground station. Ground station algorithm processing provides near real-time automatic minefield detection with Differential Global Positioning System (DGPS) location accuracy.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: <b>June 2001</b>
--	---------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT (PE) NAME AND NO. <b>0206313M Marine Corps Communications Sys</b>
--	--

This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrade of existing, operational systems.

**B. PROGRAM CHANGE SUMMARY**

	FY2000	FY2001	FY2002
<b>(U) FY 2001 President's Budget:</b>	96.293	96.153	93.735
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-1.515		
(U) Execution Adjustment	-1.009	-7.733	
(U) Minor Affordability Adjustment	-0.485	-1.003	-1.602
(U) Program Adjustment	-3.929	19.685	12.702
<b>(U) FY 2002 President's Budget:</b>	89.355	107.102	104.835

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>June 2001</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>		PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2270 Command Post Systems</b>					
COST (\$ in Millions)		FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost		<b>24.131</b>	<b>24.480</b>	<b>24.976</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
RDT&E Articles Qty											

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

(U) 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 battlespace. Maneuver C2 is the executive layer of decision support that retrieves and fuses information from the functional areas. It provides an integrated representation of the battlespace or a specific area of concern. The subprojects below develop systems that report unit status and location to the Tactical Combat Operations (TCO). They also disseminate maneuver information throughout the battlespace.

- Decision support integrates information from the seven Command and Control (C2) functional areas and the support function. The information is tailored to support the users' specific needs. As a result of the MAGTF C4I Baseline subproject, an integrated migration strategy is being incorporated into the MAGTF software baseline, which will be common across and used by all MAGTF C4I programs.
- The Tactical Command Operations (TCO) will provide systems to the command post which support Maneuver C2. Maneuver C2 is the executive layer of decision support that pulls and fuses information from other functional areas.
- The 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. A Marine Expeditionary Force (MEF) IAS variant will also process signal intelligence.
- Advanced Field Artillery Tactical Data Systems (AFATDS) will consist of fire support command and control software fielded on Marine Corps common hardware. AFATDS will provide the MAGTF with an automated ability to rapidly integrate, all supporting arm assets into maneuver plans
- The Expeditionary Integrated Combat Operations Center (EICOC)/Unit Operations Center (UOC) project develops and transitions two Command and Control Imperative ATDs (the Expeditionary Integrated Combat Operations Center (EICOC) and the Joint Tactical Communications ((JT COMMs) ATDs) into various Marine Corps and Joint Engineering and Manufacturing Development (E&MD) efforts. EICOC development efforts focus on: Cognitive Task Analysis (CTA); enhanced ergonomic physical design; evaluation of advanced multimedia hardware; integration and networking with advanced development communication systems; and advanced software development to support systems integration and advanced battlefield visualization concepts. EICOC developments are tailored to support transition of software and hardware developments as PIPs to the established MAGTF C4I baseline. EICOC is the interim name for the Unit Ops Center (UOC). The UOC name will replace the EICOC name starting with FY00. Unit Operations Center (UOC) will provide a facility and components for the integration of current and planned battlefield automation systems.

It will be, in essence a "system of systems" designed to optimize the positioning, interaction, and flow of information among the various staff agencies (G-2, G-3, Operations Directorate, etc.) their automated information systems and between the unit and higher, adjacent or subordinate units or headquarters. The Marine Corps deploys Component/Joint Task Force (JTF/Marine Air Ground Task Force (MAGTF) command elements throughout the world to fulfill operational requirements, often in joint/combined forces arenas. The UOC is designed in garrison and tactical versions. The tactical version is called the Combat Operations Center (COC) which is an outgrowth of the integrated COC (ICOC), COC-Interim (COC-(I), and the Enhanced COC (ECOC) developments over the last two years. The garrison version is called the Command Center (CC).

- TCAC PIP is a Product Improvement Plan (PIP) based on the MEF IAS program. TCAC PIP is a semi-automated signals intelligence (SIGINT) processing, analysis and reporting system integrated in to one HMMWV mounted standard tactical shelter housing essential computer and communication resources. Internal and external workstations, when connected via a local area network, will extend functional capabilities to multiple users. The system is modular in design allowing stand-alone operations support during high mobility or contingency operations. Essential voice and data communications and SIGINT processing capabilities will support and automate the management and dissemination of SIGINT-derived intelligence reports.
- GCCS-I3 (Global Command and Control System Integrated Imagery and Intelligence) comprises a core system infrastructure to access and store imagery and intelligence data on local database servers. The baseline segments are developed to comply with the Defense Information Infrastructure (DII) Common Operating Environment (COE). The core of this system is mandated by DoD and is paid via a tax levied on all services.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
---	--	------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2270 Command Post Systems</b>
--	--	--

8. The Data Automated Communications Terminal (DACT) will extend situational awareness to echelons below the battalion level within the Marine Corps. The DACT will receive, store, retrieve, create, modify, transmit and display map overlays, operational messages/reports, and position information via tactical radios, networks, and/or wire lines. A phased approach for fielding the full functionality of the system will be used consisting of software upgrades and enhancements to allow interoperability with other C4I systems. The DACT program's FY00 and FY01 efforts are being procured out of project C2271 of the PE.

9. Marine Corps Training, Exercise, and Employment Plan (MCTEEP) is a Windows-based, Marine Corps developed scheduling tool, identified in the Commandant's Planning Guidance (CPG) to standardize the "TEEP" process. MCTEEP software was first fielded in July 1995 to every G-3/S-3 in the operating forces.

10. The JECCS will facilitate command and control capabilities by providing "first in" backbone connectivity to Defense Information Systems Network (DISN) services in support of the JTFE mission. JECCS is designed to augment the current and planned communications architecture and to provide seamless transition to Digital Technical Control/Tactical Digital Network (DTC/TDN) in support of follow on forces. The system's capabilities and functions include Non-Secure Internet Protocol Router Network (NIPRNET), Secure IP Router Network (SIPRNET), DSN, Video Teleconferencing (VTC), UHF TACSAT, INMARSAT and Defense Messaging System (DMS). The system will support three simultaneous digital trunk groups and uses the AN/TSC-93B, AN/TRC-170, and AN/MRC-142 as transmission interfaces. JECCS also supports switching, patching and technical control of all circuits entering or leaving the system. The system is housed in an S-788 shelter mounted on a heavy-variant High Mobility Multipurpose Wheeled Vehicle (HMMWV).

**PROGRAM ACCOMPLISHMENTS AND PLANS**

**FY 2000 Accomplishments:**

- (U) \$ 0.460 TCO: Completed incorporating Phase V ORD requirements , completed Phase IV ORD requirements and integrated software changes into existing system.
- (U) \$ 0.312 TCO: Forward financed efforts to incorporate Phase V ORD requirements, completed PHASE IV ORD requirements and integrated software changes into existing system.
- (U) \$ 0.430 TCO: Continued Program Management Support.
- (U) \$ 0.121 TCO: Conducted OT&E on previously integrated systems.
- (U) \$ 0.400 TCAC: Developed software to maintain compatibility with Signals Intelligence systems.
- (U) \$ 0.407 TCAC: Integrated signals intelligence correlator.
- (U) \$ 0.160 IAS MOD: IAS AOA for hardware upgrade.
- (U) \$ 0.818 IAS MOD: Continued Program Management Support.
- (U) \$ 0.098 IAS MOD: Continued C2PC Intel software development.
- (U) \$ 0.206 IAS MOD: Completed Intel Fusion software improvements.
- (U) \$ 0.156 IAS MOD: Forward finances effort to continue C2PC Intel software development.
- (U) \$ 1.618 MAGTF C4I BASELINE: Designed, and build legacy system software release.
- (U) \$ 1.741 MAGTF C4I BASELINE: Completed trade studies, market surveys and functional assessments on Combat Information C2 System Applications from Squad Leader to MARFOROPFAC.
- (U) \$ 1.425 MAGTF C4I BASELINE: Designed and built DII COE compliant prototype.
- (U) \$ 0.270 MAGTF C4I BASELINE: Conducted an Early Operational Assessment of the DII/COE compliant prototype.
- (U) \$ 0.277 MAGTF C4I BASELINE: Commenced disciplined risk management, requirements tracking and system engineering and analysis efforts for the DII/COE compliant prototype.
- (U) \$ 1.795 MAGTF C4I BASELINE: Forward finances disciplined risk management, requirements tracking and system engineering and analysis efforts for the DII/COE compliant prototype.
- (U) \$ 1.387 AFATDS: Began and completed development efforts on AFATDS 99 Software. Migrated to DII COE. Added additional fire support functionality to support Marine Corps fire support systems. Completed training of test beds users (designated Marine Units) for release of AFATDS 99 Software. Initiated development of interoperability with MAGTF C4I system (IOW, DACT, TLDHS, and TCO).
- (U) \$ 0.543 AFATDS: Forward financed completion of development efforts on AFATDS 99 Software. Migrated to DII COE. Added additional fire support functionality to support Marine Corps fire support systems. Completed training of test beds users (designated Marine Units) for release of AFATDS 99 Software. Initiated development of interoperability with MAGTF C4I system (IOW, DACT, TLDHS, and TCO).
- (U) \$ 5.569 UOC: Completed modeling and simulation, hardware and software system engineering, analysis and prototyping.
- (U) \$ 1.866 UOC: Completed trade studies, market surveys and functional assessments and early development testing with operational forces.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>June 2001</b>
---	------------------------

<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	<b>PROGRAM ELEMENT NUMBER AND NAME</b> <b>0206313M Marine Corps Communications Sys</b>	<b>PROJECT NUMBER AND NAME</b> <b>C2270 Command Post Systems</b>
---	---	---

	• (U) \$ 1.314	UOC: Continued Program Management Support.
	• (U) \$ 2.758	UOC: Begin government lab prototyping of scalable UOC modules ranging in size from a small SUV, to larger HMMWV variants, and even larger expandable boxes.
(U) Total \$	24.131	

**FY 2001 Planned Program**

	• (U) \$ 0.765	TCO: Develop and test new equipment for refresh.
	• (U) \$ 0.194	TCO: Develop and integrate common system software.
	• (U) \$ 0.140	TCO: Program management and engineering support.
	• (U) \$ 0.000	TCO: Incorporate Phase V ORD requirements, complete PHASE IV ORD requirements and integrate software changes into existing system. This effort forward financed with FY00 funding in the amount of \$302K.
	• (U) \$ 0.147	IAS MOD: Begin integration lab support.
	• (U) \$ 0.287	IAS MOD: Continue Intel Fusion software improvements.
	• (U) \$ 0.136	IAS MOD: Begin interoperability assessment for IAS Systems.
	• (U) \$ 0.000	IAS MOD: Continue C2PC Intel software development. This effort was forward financed with \$156 of FY00 funding.
	• (U) \$ 1.360	MAGTF C4I BASELINE: Complete all trade studies, market surveys and functional assessments.
	• (U) \$ 2.366	MAGTF C4I BASELINE: Continue designing and building DII COE compliant prototypes.
	• (U) \$ 1.513	MAGTF C4I BASELINE: Conduct an Early Operational Assessment of a multi-echelon environment of all prototypes
	• (U) \$ 1.261	MAGTF C4I BASELINE: Continue disciplined risk management, requirements tracking and system engineering and analysis efforts.
	• (U) \$ 0.100	MAGTF C4I BASELINE: Program Management Support.
	• (U) \$ 0.000	MAGTF C4I BASELINE: Continue disciplined risk management, requirements tracking and system engineering and analysis efforts for the DII/COE compliant prototype. This effort forward financed with \$1,723 of FY00 funding.
	• (U) \$ 1.898	AFATDS: Begin development efforts on AFATDS 02 Software. Migrate to DII COE. Add additional fire support functionality to support Marine Corps fire support systems. Begin training of test beds users (designated Marine Units) for release of AFATDS 02 Software. Increase interoperability with MAGTF C4I system (IOW, DACT, TLDHS, and TCO) and Navy fire support control systems.
	• (U) \$ 0.000	AFATDS: Begin and complete development efforts on AFATDS 99 Software. Migrate to DII COE. Add additional fire support functionality to support Marine Corps fire support systems. Begin training of test beds users (designated Marine Units) for release of AFATDS 99 Software. Develop interoperability with MAGTF C4I system (IOW, DACT, TLDHS, and TCO). This effort forward financed with \$521K of FY00 funding.
	• (U) \$ 7.461	UOC: Continue modeling and simulation, COTS/GOTS hardware and software system engineering, analysis and prototyping.
	• (U) \$ 2.046	UOC: Conduct an Early Operational Assessment of the prototypes.
	• (U) \$ 2.413	UOC: Continue Program Management Support.
	• (U) \$ 1.931	JECC: Produce a Low Rate Initial Production (LRIP) unit that incorporates modifications recommended for the Engineering Development Models (EDMs).
	• (U) \$ 0.462	SBIR: Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.
(U) Total \$	24.480	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2270 Command Post Systems</b>

**FY 2002 Planned Program**

- (U) \$ 0.430 TCO: Develop and test new Client Software.
- (U) \$ 0.170 TCO: Incorporate software changes and test new releases into existing systems.
- (U) \$ 0.450 TCO: Test Client workstations for refresh of existing hardware.
- (U) \$ 0.166 TCO: Program management and engineering support.
- (U) \$ 1.009 IAS MOD: Begin critical improvements to GCCS-I3 Intelligence Support software for USMC requirements.
- (U) \$ 0.300 IAS MOD: Continue Intel Fusion software improvements.
- (U) \$ 0.100 IAS MOD: Continue support of integration facility.
- (U) \$ 0.079 IAS MOD: Continue interoperability assessment.
- (U) \$ 2.115 MAGTF C4I BASELINE: Build, test, field and support DII COE compliant versions of GCCS-M in support of the six warfighting functions. This effort focuses primarily on the integration, inclusion and incorporation of Fire Support, Maneuver and Intel capabilities.
- (U) \$ 0.550 MAGTF C4I BASELINE: Continue Program Management Support.
- (U) \$ 0.350 MAGTF C4I BASELINE: Continue disciplined risk management, requirements tracking and systems engineering and analysis efforts.
- (U) \$ 1.050 MAGTF C4I BASELINE: Implementation of completed Functional Assessment, Trade Study and Market Survey identified requirements in support of MOC requirements.
- (U) \$ 2.168 MAGTF C4I BASELINE: Development of WIN NT for USMC AFATDS and GCCS-M client solutions to provide increased functionality and interoperability to Fire Support, Maneuver and Intel clients.
- (U) \$ 0.300 MAGTF C4I BASELINE: Development and implementation of system education curricula including Computer Based Training, Distance Learning and embedded scenarios to increase operator proficiency.
- (U) \$ 0.250 MAGTF C4I BASELINE: Begin configuration management.
- (U) \$ 1.002 AFATDS: Complete final development and enhancement of AFATDS 02 software. Develop increased interoperability with all other MAGTF C4I automated systems. Increase software effectiveness with, and in support of, Marine Corps fire support systems.
- (U) \$ 0.804 AFATDS: Initiate development of AFATDS 04 software. Begin porting software to Windows NT environment. Simplify human factors interface to allow easier initial and sustainment training
- (U) \$ 0.417 AFATDS: Begin research of new hardware platform for system. Investigate the potential of moving to AFATDS server and Fire Support Client architecture.
- (U) \$ 1.590 GCCS-I3: Begin operational system development.
- (U) \$ 6.622 UOC: Prime contractor engineering and manufacturing development effort including design of production representative modules.
- (U) \$ 1.854 UOC: Continue modeling and simulation, COTS/GOTS hardware and software system engineering, analysis and prototyping.
- (U) \$ 1.450 UOC: Continue program management support.
- (U) \$ 0.513 DACT: Continue development of Application Software enhancements for Vehicle and Foot Mobile DACTs.
- (U) \$ 0.390 DACT: Continue system interface/interoperability with fielded systems receiving PDSS and new systems
- (U) \$ 0.147 DACT: Continue development of Computer Based Training enhancements for both Vehicle and Foot Mobile DACTs.
- (U) \$ 0.137 DACT: Continue Program Management Support.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>June 2001</b>
---	------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2270 Command Post Systems</b>
--	--	--

- (U) \$ 0.207 DACT: Conduct IOT&E for Foot Mobile DACT.
  - (U) \$ 0.356 MCTEEP: Begin the development, integration, testing and fielding of selected MCTEEP Software upgrades to enhance the capabilities of MCTEEP. The prospective S/W modifications include; 1) incremental upgrades to accomplish progressively higher levels of DII / COE compliance, 2) increased data sorting, correlation and filtering capabilities to further facilitate rapid responses to complex information requests, 3) transition from the current Sybase licensed data base management system (DBMS) to a DBMS having better long term supportability, 4) migration of MCTEEP to the MAGTF Software Baseline (MSBL), and implementation of MCTEEP as an available Unit Operations Center (UOC) function / application.
- (U) Total \$ 24.976

**(U) PROJECT CHANGE SUMMARY:**

	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	22.981	22.707	16.501
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.375		
(U) Execution Adjustment	-1.158		
(U) Minor Affordability Adjustment	-0.090	-0.227	-0.380
(U) Program Adjustment	2.773	2.000	8.855
(U) FY 2002 President's Budget:	24.131	24.480	24.976

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

**(U) B. OTHER PROGRAM FUNDING SUMMARY:**

<u>Line Item No. &amp; Name</u>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(U) PMC BLI# 463100 TCO	6.715	7.994	0	0	0	0	0	0	14.709
(U) PMC BLI# 474900 IAS MOD	1358	1417	1631	0	0	0	0	0 Continuing	Continuing
(U) PMC BLI# 463100 AFATDS	2909	2893	2186	0	0	0	0	0	7988
(U) PMC BLI# 463100 UOC	0	0	0	0	0	0	0	0 Continuing	Continuing
(U) PMC, BLI#463200, DACT	6573	0	0	0	0	0	0	0	6573
(U) PMC, BLI #463100, DACT	0	0	9645	0	0	0	0	0	9645

**(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) (Defense)
- (U) Navy Tactical Flag Communication and Control System.

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2270 Command Post Systems</b>

**(U) C. ACQUISITION STRATEGY: TCO-** Tactical Combat Operations: Contracting is via General Services Administration schedules with various vendors and are for software maintenance and COTS evaluation and integration. Performance base reviews are conducted quarterly by the PMO.

**(U) C. ACQUISITION STRATEGY: MCBL** funds applied to the INRI contract through ITM2K are on a Time and Materials Contract. Funds to Logicon, Orlando, Florida for the SPEED contract are on a Firm Fixed Price Contract. Funds to SPAWAR Systems Center, Charelston are through a Navy Working Capital Fund. Funds to Raytheon are through the AFATDS Time and Materials contract. Funds to Logicon, Dumfries are on a Time and Materials contract.

**(U) C. ACQUISITION STRATEGY: DACT-** Program is to develop software and hardware for two operational domains. The mounted DACT is a Command Control Situational Awareness device that will be installed in various tactical vehicles at the battalion and below levels with a special vehicle mounting kit, also being developed.

**(U) ACQUISITION STRATEGY: AFATDS** AFATDS is a Cost Plus Award Fee contract through Army CECOM, Ft. Monmouth, N. J. 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 (A99 and V7).

**(U) C. ACQUISITION STRATEGY: UOC -** The UOC COC will be a Competitively Awarded Contract for design (cost type) and FFP production options.

**(U) C. ACQUISITION STRATEGY: IAS.** The IAS program uses already existing Government contracts for hardware and software development and integration. System is comprised primarily of Commercial Off-the-Shelf(COTS) and Government Off-the-Shelf (GOTS) equipment.

**(U) C. ACQUISITION STRATEGY: GCCS** The acquisition of components (software/hardware) for the GCCS I 3 initiative will maximize the use of existing COTS, GOTS, NDI, and GFE equipment. The GCCS I 3 initiative will be accomplished in collaboration with Millennium Technologies Corporation and Computer Science Corporation. Maintenance support will be managed by MARCORLOGBASES and those contractors listed above. This strategy accomplishes several goals; procure and field equipment effectively and efficiently, reduce logistics support, and reduce operational maintenance support.

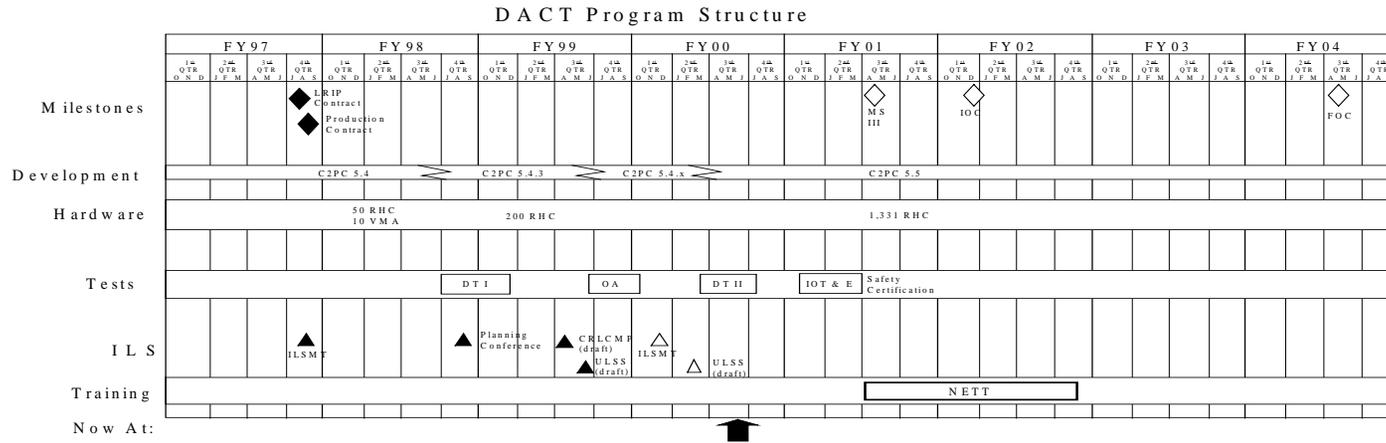
**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>June 2001</b>
---	------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDTE, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2270 Command Post Systems</b>
---	--	--

**(U) D. SCHEDULE PROFILE:**



**Acronyms:**

CMP	Configuration Management Plan	LAR	Logistics Assessment Review
CRCLMP	Computer Resources Life Cycle Management Plan	LRIP	Low Rate Initial Production
DT	Developmental Test	MBL	Marine Battle Lab
FOC	Full Operational Capability	MS	Milestone
H/W	Hardware	NETT	New Equipment Training Team
IKPT	Instructor & Key Personnel Training	OT	Operational Test
ILSM T	Integrated Logistics Support Management Team	RFP	Request for Proposal
ILSP	Integrated Logistics Support Plan	SS	Source Selection
IOC	Initial Operational Capability	SW	Software
IPT	Integrated Program Team	ULSS	Users Logistics Support Summary
LAP	Letter of Adoption and Procurement		

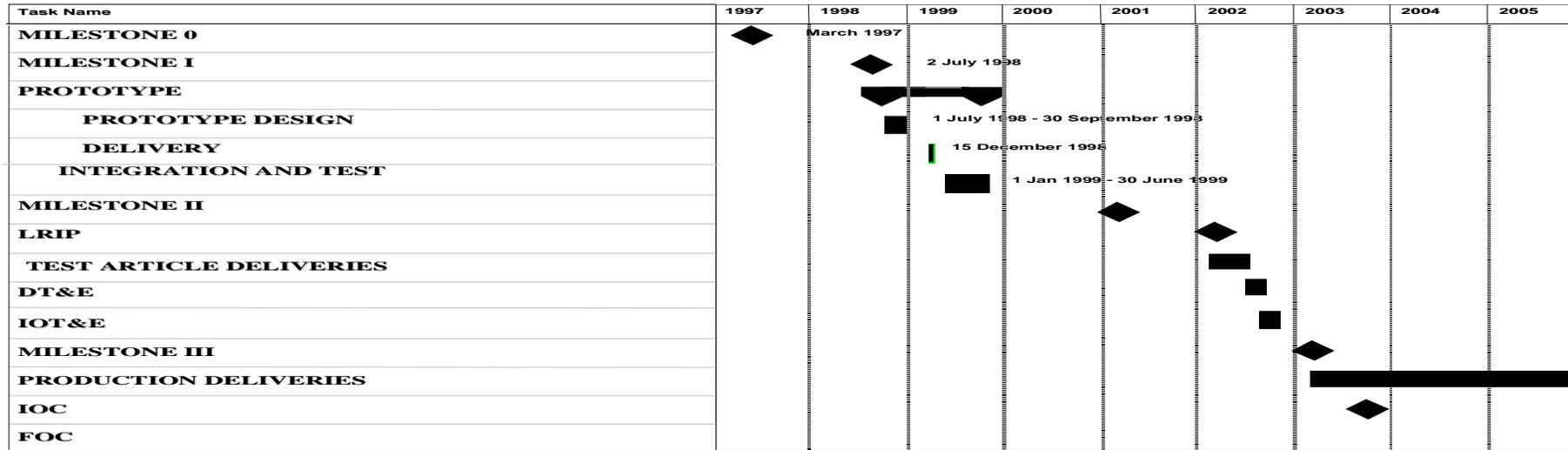
<u>Program Funding Summary</u> <u>(APPN, BLI #, NOMEN)</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>To Compl</u>	<u>Total Cost</u>
<u>(U) RDTE,N</u>	0.907	1.935	1.394	Continuing	Continuing
<u>(U) PMC, BLI#463200, DACT</u>	6.573	0	0	0	6.573
<u>(U) PMC, BLI#463100, DACT</u>	0	0	9.645	0	9.645

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2270 Command Post Systems</b>

**UOC Program Schedule**



<u>Program Funding Summary</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007 To Compl</u>	<u>Total Cost</u>
<u>(APPN, BLI #, NOMEN)</u>									
(U) RDT&E,N	11.507	12.159	9.926	0	0.000	0.000	0.000	0.000	Continuing
(U) PMC BLI# 463100 UOC	0	0	0	0	0	0	0	0	Continuing

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis										DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2270 Command Post Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
UOC	WR	SSC, Charleston, SC	0.674	2.191	12/99	2.535		6.622		Continuing	Continuing	
UOC	RCP	MCCDC, Quantico, VA	0.000	0.952	12/99	0.000		0.000		0.000	0.952	
UOC	WR	CECOM, Ft. Monmouth,NJ	0.000	0.650	12/99	0.000		0.000		0.000	0.650	
UOC	RCP	AMCOM, Huntsville, AL	0.000	1.120	07/00	3.734	06/01	1.070	01/02	Continuing	Continuing	
UOC	RCP	NRL, Washington, DC	0.000	5.280	07/00	4.472	06/01	0.784	01/02	Continuing	Continuing	
TCO	RCP	MCTSSA, Camp Pndlt,CA	0.584							0.000	0.584	0.584
TCO	RCP	NWSC, Crane In						0.430	01/02	0.000	0.430	
TCO	RCP	MCSC, Quantico, VA						0.450	01/02	0.000	0.450	
TCO	WR	SPAWAR, Charleston, SC	0.072	0.772	03/00	0.959	03/01			1.921	3.724	
IAS MOD	RCP	NSWC, Crane In	0.484							0.000	0.484	
IAS MOD	TBD	SPAWAR, San Diego, CA						1.009	01/02	Continuing	Continuing	
IAS MOD	WR	MCTSSA, Camp Pndlt,CA		0.254	10/99					0.000	0.254	
MAGTF C4I BASELINE	RCP	SSC, Charleston, SC	0.352	6.756	01/99	4.987	11/00	2.115	01/02	Continuing	Continuing	
MAGTF C4I BASELINE	WR	SSC, Charleston, SC						0.350	01/02	Continuing	Continuing	
MAGTF C4I BASELINE	RCP	Raytheon, Indianapolis, IN						1.050	01/02	Continuing	Continuing	
MAGTF C4I BASELINE	TBD	INRI, San Diego, CA						2.168	01/02	Continuing	0.000	
MAGTF C4I BASELINE	TBD	OSEC, Stafford, VA						0.300	01/02	Continuing	Continuing	
MAGTF C4I BASELINE	TBD	SSC, Charleston, SC						0.250	01/02	Continuing	Continuing	
AFATDS	MIPR	USA, Ft. Sill, OK	1.402	0.080	01/99	0.080	11/00	0.090	01/02	Continuing	Continuing	
AFATDS	C/FFP	Logicon, Stafford, VA	0.100	0.618	10/99	0.590	10/00	0.640	01/02	Continuing	Continuing	
AFATDS	CPFF/MIPR	USA, Ft. Wayne, IN		0.882	03/00	0.878	01/01	1.123	01/02	Continuing	Continuing	
AFATDS	WR	MCSC, Quantico, VA						0.020	01/02	Continuing	Continuing	
AFATDS	CPFF/MIPR	CECOM, Ft. Monmouth,NJ		0.350	01/99	0.350	01/01	0.350	01/02	Continuing	Continuing	
TCAC-PIP	TBD	BTG, Fairfax, VA		0.807	01/99					Continuing	Continuing	
GCCS-13	TBD	TBD						1.590	01/02	Continuing	Continuing	
DACT	TM	Raytheon, Indianapolis, IN	2.151					0.160	01/02	Continuing	Continuing	
DACT	FFP	EPS, Ft. Monmouth, NJ	0.080					0.030		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis										DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>				<b>0206313M Marine Corps Communications Sys</b>			<b>C2270 Command Post Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DACT	TM	INRI, San Diego, CA	0.611					0.627	01/02	Continuing	Continuing	
DACT	GSA	OSEC, Stafford, VA	0.275					0.110	01/02	Continuing	Continuing	
DACT	CFFP	Logicon, Stafford, VA	0.145					0.123	01/02	Continuing	Continuing	
MCTEEP	C/CPFF	TBD						0.356	02/02	Continuing	Continuing	
JECCS	FFP	TBD	4.000			1.545	10/01			Continuing	Continuing	
SBIR						0.462						
Subtotal Product Development			10.930	20.712		20.592		21.817		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
UOC	RCP	LOGICON, Stafford, VA		0.730	02/00	0.939	10/00	1.200	01/02	Continuing	Continuing	
UOC	RCP	HQMC, Washington, DC		0.584	09/99	0.240	11/00	0.250	01/02	Continuing	Continuing	
TCO	RCP	MCTSSA, Camp Pndltn, CA	0.097	0.430	01/99	0.140	01/01	0.166	01/02	Continuing	Continuing	
IAS Mod	C/FFP	LOGICON, Stafford, VA		0.818						0.000	0.818	0.818
MSBL	C/PFF	LOGICON, Stafford, VA		0.100	10/99	0.100	10/00	0.300	01/02	Continuing	Continuing	
MSBL	TBD	Visicom, Dumfries, VA						0.250	01/02	Continuing	Continuing	
DACT	CFFP	LOGICON, Stafford, VA	0.211					0.093	01/02	Continuing	Continuing	
DACT	GSA	OSEC Stafford, VA	0.155					0.044	01/02	Continuing	Continuing	
JECCS	CPFF	LOGICON, Stafford, VA				0.186	10/00			Continuing	Continuing	
Subtotal Support			0.463	2.662		1.605		2.303				
Remarks:												

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDTE&amp;E, N /BA-7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2270 Command Post Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												0.000
Operational Test & Evaluation												0.000
Tooling												0.000
GFE												0.000
TCO	RCP	MCTSSA, Camp Pndltn, CA	0.080	0.121	10/99	0.000		0.170	01/02	Continuing	Continuing	
IAS Mod	WR	SPAWAR, Charleston SC		0.160						0.000	0.160	
IAS Mod	RCP	NMAC		0.206	10/00	0.287		0.300	03/02	0.300	1.093	1.116
IAS Mod	WR	MCSC, Quantico, VA				0.147	10/00	0.100	01/02	0.100	0.347	
IAS Mod	WR	NSWC, Crane IN				0.136	10/00	0.079	01/02	0.449	0.664	
MSBL	RCP	MCOTEA, Quantico, VA		0.270	11/99	1.513	11/00			Continuing	Continuing	
DACT	WR	MCOTEA, Quantico, VA	0.075					0.207	01/02	Continuing	Continuing	
JECCS		MCOTEA, Quantico, VA				0.200	10/01			0.000	0.200	
												0.000
												0.000
Subtotal T&E			0.155	0.757		2.283		0.856		Continuing	Continuing	
Remarks:												
Contractor Engineering Support												0.000
Government Engineering Support												0.000
Program Management Support												0.000
Travel												0.000
Labor (Research Personnel)												0.000
Overhead												0.000
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost				24.131		24.480		24.976		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE:		<b>June 2001</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>			PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2272 Intelligence C2 Systems</b>				
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program	
Project Cost	<b>13.553</b>	<b>8.555</b>	<b>18.449</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>	
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 raw intelligence data on the battlefield, convert raw intelligence data into processed information and deliver the processed products to the Intelligence Analysis Systems (IAS) for analysis.

1. 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.
2. The Topographic Production Capability (TPC) is an advanced Geographic Information System, which employs commercial computer and software to provide the framework data for the common battlefield visualization by producing both hardcopy and digital geographic intelligence.
3. The Joint Surveillance Target Attack Radar (JSTARS) connectivity program will develop software which will allow the JSTARS Moving Target Indicator (MTI), Fixed Target Indication (FTI) Synthetic Aperture Radar (SAR) Data to be passed from the JSTARS Common Ground Station (CGS) to lower echelons within the MAGTF. Once the Connectivity Software has been developed, a requirement for a JSTARS CGS software upgrade is anticipated under Joint Program Office Pre-Planned Product Improvement (P3I) initiative.
4. The Coastal Battlefield Reconnaissance and Analysis (COBRA) system is a passive multispectral sensor system capable of operating in a PIONEER unmaned aerial vehicle (UAV). Imagery recorded on the UAV or disseminated via data link is analyzed by the COBRA ground station. Ground station algorithm processing provides near real-time automatic minefield detection with Differential Global Positioning System (DGPS) location accuracy.
5. The JSIPS-TEG is a highly mobile imagery ground station designed to process tactical imagery in support of the MAGTF commander. The system is an integral component of the Joint Service Imagery Processing System (JSIPS), complementing the capabilities of the JSIPS National Input Segment (NIS) located at Camp Pendleton. The system will provide the capability to receive, process, store, exploit, and disseminate Advanced Tactical Air Reconnaissance System (ATARS) electro-optical, infrared, and synthetic aperture radar imagery from the F/A-18D (RC) and receive national secondary imagery from the NIS.
6. The Counterintelligence (CI) and Human Intelligence (HUMINT) Equipment Program (CIHEP) is an intelligence collection, analysis and reporting suite of equipment, employing commercial-off-the-shelf (COTS) and non-developmental items (NDI) of equipment and software. It will produce digital soft copy as well as hard copy CI, Interrogator-Translator (IT) and HUMINT information reports and images for the Marine Air Ground Task Force (MAGTF) or Joint Force (JTF) Commander. CIHEP will allow for the electronic storage and dissemination of HUMINT information throughout the command, as well as for low volume traditional hard copy dissemination.
7. Team Portable Collection System - Multi-Platform Capable - The TPCS- MPC will provide the MAGTF commander with a modular and scaleable carry on/off suite of equipment capable of conducting SIGINT operations onboard organic non-dedicated Marine Corps air, ground, and water borne platforms. The TPCS-MPC will be highly modular, mission configurable, multi-platform system incorporating plug-and-play technologies. The system will provide state-of-the-art, versatile air/ground/water borne SIGINT and EW support to the MAGTF through the use of lightweight, flexible mission equipment suites capable of detecting, identifying, locating, and exploiting current and emerging communications technologies, intercepting non-communication signals, and improving the system's geolocation accuracy.
8. Tactical Remote Sensor System (TRSS-PIP) - The TRSS provides the Marine Air Ground Task Force (MAGTF) commander with an organic variety of sensors that will cover his Area of Responsibility for months at a time by allowing the commander to autonomously conduct unattended, semi-covert, ground surveillance of distant areas of the battlefield. Using a network of reliable passive sensors, these multiple systems enhance the commanders ability to cover gaps in the overall intelligence collection effort thus reducing the need to employ more costly hard to get weapons systems at a moments notice, and the sensor systems also remove the requirement to employ Marines behind enemy lines for extreme periods of time.

**UNCLASSIFIED**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2272 Intelligence C2 Systems</b>

**PROGRAM ACCOMPLISHMENTS AND PLANS**

**FY 2000 Accomplishments:**

- (U) \$ 0.332 TPC: Initiated test and evaluations.
- (U) \$ 0.733 TPC: Initiated engineering, manufacturing and development.
- (U) \$ 2.041 TPC: Began operational systems development.
- (U) \$ 0.238 TPC: In-house program management.
- (U) \$ 1.707 TENCAP: Continued advance technology demonstrations and integration into the established MAGTF C4I architecture.
- (U) \$ 0.390 TENCAP: Continued technical assessments of emerging national data dissemination capabilities.
- (U) \$ 0.485 TENCAP: Continued to support operational planning to enhance operating force capabilities to US national intelligence data within the MAGTF C4I architecture.
- (U) \$ 0.437 TENCAP: Continued to evaluate the utility of emerging exploitation, automated and manual target recognition and detection tools.
- (U) \$ 0.100 TENCAP: Continued TENCAP training and education efforts by providing the Fleet Marine Force with various TENCAP simulation, scripting, and processing hardware and software support.
- (U) \$ 0.831 JSTARS: Continued to develop connectivity software.
- (U) \$ 0.242 JSTARS: Engineering and technical management support for connectivity software.
- (U) \$ 0.885 JSTARS: Purchased Surveillance Control Data Link (SCDL) for III MEF Field User Evaluation.
- (U) \$ 0.16 COBRA: MarCorSysCom program support activities.
- (U) \$ 0.350 COBRA: Coastal Systems Station program engineering support.
- (U) \$ 2.745 COBRA: ATD risk reduction verification
- (U) \$ 1.093 JSIPS-TEG: Developed Full Operational Capability; implement factory system for integration of required software/hardware upgrades.
- (U) \$ 0.784 TRSS – Management support for Sensor Reduction Analysis, Fixed Wing Sensor Capability Analysis, and Acoustic Signature Data Base Collection Analysis.
- (U) Total \$ 13.553

**FY 2001 Planned Program**

- (U) \$ 0.147 TPC: Contractor support for Mods.
- (U) \$ 0.189 TPC: Perform mods from OT&E
- (U) \$ 1.97 TENCAP: Continue advance technology demonstrations and integration into the established MAGTF C4I architecture.
- (U) \$ 0.380 TENCAP: Continue technical assessments of emerging national data dissemination capabilities.
- (U) \$ 0.470 TENCAP: Continue to support operational planning to enhance operating force capabilities to US national intelligence data within the MAGTF C4I architecture.
- (U) \$ 0.440 TENCAP: Continue to evaluate the utility of emerging exploitation, automated and manual target recognition and detection tools,
- (U) \$ 0.125 TENCAP: Continue TENCAP training and education efforts by providing the Fleet Marine Force with various TENCAP simulation, scripting, and processing hardware and software support.
- (U) \$ 0.525 COBRA: Continue MarCorSysCom program support activities.
- (U) \$ 0.450 COBRA: Coastal systems station program engineering support.
- (U) \$ 1.224 COBRA: Continue ATD risk reduction verification. E&MD design.
- (U) \$ 0.800 COBRA: Engineering and Manufacturing Development (E&MD)
- (U) \$ 0.386 JSTARS: Continue engineering and technical support for development and integration of connectivity software that would reside on existing MAGTF systems ; utilize JSTARS data.
- (U) \$ 1.449 JSIPS-TEG: Continue to develop Full Operational Capability; implement factory system for integration of required software/hardware upgrac
- (U) Total \$ 8.555

# UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2272 Intelligence C2 Systems</b>	
<b>FY 2002 Planned Program</b>			
<ul style="list-style-type: none"> <li>• (U) \$ 0.147 TPC: Continue Contractor support for Mods</li> <li>• (U) \$ 0.190 TPC: Continue to perform Mods OT&amp;E</li> <li>• (U) \$ 0.110 CIHEP: Engineering, Integration and Technical support for technical refresh and update of program hardware/software upgrades.</li> <li>• (U) \$ 1.697 TENCAP: Continue advance technology demonstrations and integration into the established MAGTF C4I architecture.</li> <li>• (U) \$ 0.341 TENCAP: Continue technical assessments of emerging national data dissemination capabilities.</li> <li>• (U) \$ 0.400 TENCAP: Continue to support operational planning to enhance operating force capabilities to US national intelligence data within the MAGTF C4I architecture.</li> <li>• (U) \$ 0.400 TENCAP: Continue to evaluate the utility of emerging exploitation, automated and manual target recognition and detection tools.</li> <li>• (U) \$ 0.100 TENCAP: Continue training and education efforts by providing the Fleet Marine Force with various TENCAP simulation, scripting, and processing hardware and</li> <li>• (U) \$ 0.489 JSTARS: Continue engineering and technical support for development and integration of connectivity software what would reside on existing MAGTF systems : utilize JSTARS data.</li> <li>• (U) \$ 0.250 JSTARS: Contractor advisory and assistance services.</li> <li>• (U) \$ 0.142 JSTARS: Naval JSTARS interface OT&amp;E.</li> <li>• (U) \$ 0.185 JSTARS: Joint Services Work Stations (JSWS) Field User Evaluation (FUE).</li> <li>• (U) \$ 2.790 COBRA: Continue Engineering and Manufacturing Development (E&amp;MD).</li> <li>• (U) \$ 0.432 COBRA: Continue MARCORSYSCOM program support activities.</li> <li>• (U) \$ 0.350 COBRA: NAVSEA Coastal Systems Station Program Tech Support</li> <li>• (U) \$ 1.000 JSIPS-TEG: Complete develop Full Operational Capability; implement factory system for integration of required software/hardware upgrades.</li> <li>• (U) \$ 0.432 JSIPS-TEG: Begin Engineer and technical management support.</li> <li>• (U) \$ 0.360 JSIPS-TEG: Begin technical assessment of SIEC capability in support of the TEG-PIP initiative.</li> <li>• (U) \$ 1.995 TPCS-MPC: Begin EMD Design.</li> <li>• (U) \$ 1.239 TPCS-MPC: Begin System development.</li> <li>• (U) \$ 0.845 TPCS-MPC: Begin Testing and evaluation.</li> <li>• (U) \$ 0.510 TPCS-MPC: Begin Program support and management.</li> <li>• (U) \$ 0.644 TPCS-MPC: Begin Contractor advisory assistance service.</li> <li>• (U) \$ 3.401 TRSS-PIP: Begin Development of Unattended Ground Miniaturized Sensors (UGMS) for TRSS-PIP.</li> <li>(U) Total \$ 18.449</li> </ul>			
<b>(U) PROJECT CHANGE SUMMARY:</b>			
	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	13.763	8.634	9.861
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer			
(U) Execution Adjustment	-0.140		
(U) Minor Affordability Adjustment	-0.163	-0.079	-0.282
(U) Program Adjustment	0.093		8.870
(U) FY 2002 President's Budget:	13.553	8.555	18.449
CHANGE SUMMARY EXPLANATION:			
(U) Funding: See Above.			
(U) Schedule: Not Applicable.			
(U) Technical: Not Applicable.			

**UNCLASSIFIED**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2272 Intelligence C2 Systems</b>

**(U) B. OTHER PROGRAM FUNDING SUMMARY:**

<u>Line Item No. &amp; Name</u>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
PMC BLI 474700 Intell Support Equip TPC	0.000	7.096	4.671	0.000	0.000	0.000	0.000	0.000	0 11.767
PMC BLI 474900 Mod Kits Intell JSTARS	4.531	0.000	1.745	0.000	0.000	0.000	0.000	0.000	Continuing Continuing
PMC BLI 474700 Intell Support Equip CIHEP	2.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing Continuing
PMC BLI 474700 Intell Support Equip COBRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing Continuing
PMC BLI 474700 Intell Support Equip JSIPS-	0.946	0.950	4.618	0.000	0.000	0.000	0.000	0.000	0 6.514
PMC BLI 474700 Intell Support Equip TPCS-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing Continuing
PMC BLI474700 Intell Support Equip TRSS-PIP	0.000	0.000	0.326	0.000	0.000	0.000	0.000	0.000	Continuing Continuing

(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) (Defense Intelligence Agency)
- (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

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2272 Intelligence C2 Systems</b>

**(U) C. ACQUISITION STRATEGY JSTARS:** JSTARS will utilize existing Army JSTARS contracts with Motorola to procure CGS(s) and JSWS(s), for Pre-Planned Product Improvements (P3I) and Navy, JSTARS Interface software development. SPAWAR, Charleston, SC will oversee Naval JSTARS Interface (NJI) implementation into JSTARS CGS(s) and JSWS(s) and integration into the IAS. Motorola and SPAWAR contract reviews are held quarterly. Contractor logistical support will be provided through General Dynamic's I2P2 Contract.

**(U) C. ACQUISITION STRATEGY COBRA:** Cobra ACAT IV(T) program uses Full and Open competition for the prime of the EMD phase using a CPIF contract with a follow-on FFP for the production phase.

**(U) C. ACQUISITION STRATEGY JSIPS TEG:** The three deployed TEG(s) were procured from an ESC USAF Raytheon contract. During FY02, the Marine Corps brought control of the TEG program into Marine Corps System Command. A contract is in place with SPAWAR Charleston, SC to upgrade the TEG(s), conduct training, provide logistical support and program management. Once a system baseline is established and tested, a MS III decision will be scheduled.

**(U) C. 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) C. ACQUISITION STRATEGY TRSS:** Development will be competitive down selection process to two vendors for a Cost Plus Development Contract followed up with an award to one vendor with a FFP Production Contract. Air certification will be conducted in house at NAVAIR Patuxent River NAS, MD.

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

**(U) C. ACQUISITION STRATEGY C1HEP:** 8A contract will be used for ADP and Photo integration. US Army IMA will be used to integrate the TSS, Audio and Miscellaneous modules. The Communications module will us an existing USSOCOM contract.

**UNCLASSIFIED**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2272 Intelligence C2 Systems</b>

(U) D. SCHEDULE PROFILE: TPC

**SCHEDULE**

	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05
Milestone 0	4Q							
Milestone I/II								
EDM Contract			—					
Field User Evaluation				—				
Milestone III								
IOC								
FOC								
Mod Refresh						—		

<u>Program Funding Summary</u> <u>(APPN, BLI#, NOMEN)</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007 To Compl</u>	<u>Total Cost</u>
(U) <u>RDT&amp;E,N</u>	3.344	0.336	0.337	0	0	0	0	0 Continuing	Continuing
(U) <u>PMC, BLI# Intell Supp Eq-TPC</u>	0	7.096	4.671	0	0	0	0	0	11.767







# UNCLASSIFIED

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			PROGRAM ELEMENT <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2272 Intelligence C2 Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Engineering Support												0.000
Government Engineering Support												0.000
Program Management Support												0.000
Travel												0.000
Labor (Research Personnel)												0.000
Overhead												0.000
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
Total Cost				13.553		8.555		18.449		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>			PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2273 Air Operations C2 Systems</b>					
COST (\$ in Millions)			FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost			<b>16.417</b>	<b>24.553</b>	<b>18.238</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
RDT&E Articles Qty												
<b>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b>												
<p>(U) Air Operations C2 coordinates and plans Navy and Marine air combat operations and interfaces with joint and combined forces air operations. It also interfaces with fire support C2. The systems in this project are used to detect aircraft and missiles, process the detected information, deliver the processed information to the Advanced Tactical Air Command Central (ATACC), and conduct the air battle.</p> <ol style="list-style-type: none"> <li>The Air Defense Communications Platform (ADCP) provides an interface between the AN/TPS-59 (V)3 radar and for tactical ballistic missile defense as a JTIDS network user. The ADCP provides a direct interface between the AN/TPS-59 (v)3 and the joint services.</li> <li>The Aviation Radar (AN/TPS-59) is a "congressionally mandated" national asset. It is the only fielded ground based sensor which can detect and track Theater Ballistic Missiles at ranges of 400 nautical miles, for 360 degrees up to one million feet in elevation.</li> <li>The Common Aviation Command and Control System (CAC2S) will provide a common baseline of equipment, computer hardware, and software required to perform the mission of the Marine Air Command and Control System (MACCS). CAC2S will provide a complete and coordinated modernization effort for the equipment of the MACCS to support its employment in an Operational Maneuver From The Sea (OMFTS) environment. The CAC2S will eliminate the current dissimilar aviation Command &amp; Control systems, and will add the capability for aviation combat direction and air defense functions. CAC2S will be comprised of standardized tactical facilities, hardware, software and will significantly reduce the physical size and logistical footprint of existing MACCS equipment suite. Utilizing common hardware, the CAC2S will be an open architecture system that will migrate to the Defense Information Infrastructure Common Operating Environment (DII COE). Furthermore, CAC2S will execute real time functions of controlling aircraft and missiles, and employing weapon systems against time critical targets. CAC2S will provide a capability that allows operators to integrate Marine aviation into joint and combined air/ground operations. CAC2S will provide the tools that perform aviation C2 planning and execution functions in a positive control environment, assimilate the missions and fiscal resources of the Tactical Air Operations Center (TAOM), Tactical Air Command Center and the Direct Air Support Center (DASC) and the Air Defense Communications Platform (ADCP).</li> <li>The 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 legacy agencies ready, relevant and capable until their functions are replaced by the Common Aviation Command and Control System (CAC2S).</li> <li>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 with Marine Aviation Weapons and Tactics School (MAWTS) and the Battlestaff Training Facility (BSTF) sharing a system. Beginning FY00, CTAPS is migrating to the Theater Battle Management Core Systems (TBMCS) program within the USAF, and will change names from CTAPS to TBMCS.</li> <li>The Tactical Air Operations Module (TAOM) improves the current system; the TAOM is the center for directing aircraft and anti-air systems in real time as part of the joint air battle.</li> </ol>												

# UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
<b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	<b>0206313M Marine Corps Communications Sys</b>	<b>C2273 Air Operations C2 Systems</b>
<b>PROGRAM ACCOMPLISHMENTS AND PLANS</b>		
<b>FY 2000 Accomplishments:</b>		
• (U) \$	0.200 ADCP: Completed VMF development/meshnet upgrades.	
• (U) \$	0.070 ADCP: Continued software modifications.	
• (U) \$	0.589 ADCP: Initiated software development	
• (U) \$	5.900 AV RDR: Initiated Safety ECP's developing a replacement IFF Interrogator, maintenance lift, False Alarm Adaptation (FAA) software, and development of software in	
• (U) \$	0.758 AV RDR: Forward finances efforts to initiate safety ECP's developing a replacement IFF Interrogator, maintenance lift, False Alarm Adaptation (FAA) software, and development of software in support of two separate ORDs.	
• (U) \$	0.300 AV RDR: Program in Process Review (IPR), and contract management.	
• (U) \$	0.200 AV RDR: Life Cycle Cost Estimate.	
• (U) \$	0.562 AV RDR: Developed the ECP for replacement of AN/PSN-11 (PLGR)	
• (U) \$	0.050 AV RDR: Trade study for antenna obsolescence.	
• (U) \$	0.546 AV RDR: Performed studies and analysis to determine the best approach for upgrading the 59 radar Electronic Protection capability to comply with phase II of the	
• (U) \$	0.390 CAC2S: Continued program management support.	
• (U) \$	1.892 CAC2S: Continued the migration of existing equipment to a Technology Demonstration Laboratory (TDL) as a CAC2S proof on concept for a common suite of equipment; conduct user assessment of requirements for insertion into Performance Specification in preparation of PDRR.	
• (U) \$	1.420 CAC2S: Completed system performance specification and prepare solicitation documentation.	
• (U) \$	0.923 CAC2S: Conducted initial sensor interface/integration and interoperability analysis.	
• (U) \$	0.862 CAC2S: Initiated Software development, design, of host processing system, and conduct software integration of Joint mandated applications in prep for PDRR.	
• (U) \$	0.227 TBMCS: Continued USMC's TBMCS development.	
• (U) \$	0.025 TBMCS: Continued MCTSSA TBMCS software support.	
• (U) \$	0.412 TBMCS: Program support to provide documentation and support of TBMCS development and testing.	
• (U) \$	1.091 TAOM: Software upgrade and test facility	
(U) Total \$	16.417	
<b>FY 2001 Planned Program</b>		
• (U) \$	0.228 ADCP: Continue software enhancements to meet ADCP ORD requirements.	
• (U) \$	0 AV RDR: Continue safety ECP's developing a replacement IFF Interrogator, maintenance lift, False Alarm Adaptation (FAA) software, and development of software in support of two separate ORDs. This effort forward financed with \$758K of FY00 funding.	
• (U) \$	8.218 AV RDR: Antenna obsolescence ECPs to deal with diminishing manufacturing sources issue.	
• (U) \$	0.500 AV RDR: Counter arm missile defense capability to meet current threats.	
• (U) \$	0.800 AV RDR: Develop ECP to incorporate IFF antenna into main radar antenna.	
• (U) \$	0.300 AV RDR: Continue Program in Process Review and contract management.	
• (U) \$	1.992 CAC2S: Continue program management support.	
• (U) \$	0.781 CAC2S: Independent Validation & Verification (SPAWAR Systems Center Charleston) of Phase I Contractor's Systems Design.	
• (U) \$	10.524 CAC2S: Continue Phase I PDRR actions, award PDRR contract to demonstrate system engineering, software design and development, and Processing and Display Suite (PDS) efforts. Continue and complete initial sensor interface/integration and begin interoperability testing for in preparation of Engineering Development Model (EDM).	
• (U) \$	0.317 TBMCS: Continue USMC's TBMCS development.	
• (U) \$	0.025 TBMCS: Continue MCTSSA TBMCS software support.	
• (U) \$	0.268 TBMCS: Program management support.	
• (U) \$	0.600 SBIR: Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638	
(U) Total \$	24.553	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2273 Air Operations C2 Systems</b>	
<b>FY 2002 Planned Program</b>			
<ul style="list-style-type: none"> <li>• (U) \$ 0.145 ADCP: Test and certify software enhancements.</li> <li>• (U) \$ 0.100 ADCP: Continue software enhancements to meet ADCP ORD requirements.</li> <li>• (U) \$ 2.131 AV RDR: Develop ECP to incorporate electronic protection.</li> <li>• (U) \$ 1.500 AV RDR: Develop ECP to incorporate new transmitters for the antenna.</li> <li>• (U) \$ 1.098 AV RDR: Initiate ECP false alarm adaption software.</li> <li>• (U) \$ 2.000 CAC2S: Continue Program management support.</li> <li>• (U) \$ 2.200 CAC2S: Engineering Development Model (EDM), ie, integration of Engineering Development Model (EDM) hardware with existing assets and development of shelter configurations.</li> <li>• (U) \$ 4.855 CAC2S: Initiate Engineering Development Model (EDM) software development, design, of host processing system, and conduct software integration of Joint mandated applications.</li> <li>• (U) \$ 0.799 CAC2S: Continue Independent Validation and Verification (SPAWAR Systems Center Charleston) of Phase I Contractor's Systems Design.</li> <li>• (U) \$ 0.052 MACCS SUSTAINMENT: Initiate test and evaluation on the DASC Airborne SLEP.</li> <li>• (U) \$ 2.432 MACCS SUSTAINMENT: Plan software upgrades for the TAOM, JTIDS and TACC.</li> <li>• (U) \$ 0.162 MACCS SUSTAINMENT: Program management support.</li> <li>• (U) \$ 0.454 TBMCS: Continue USMC TBMCS development.</li> <li>• (U) \$ 0.033 TBMCS: Continue MCTSSA TBMCS software support.</li> <li>• (U) \$ 0.277 TBMCS: Continue Program management support.</li> <li>(U) Total \$ 18.238</li> </ul>			
<b>(U) PROJECT CHANGE SUMMARY:</b>			
	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	16.324	24.780	17.889
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.379		
(U) Execution Adjustment	2.129		
(U) Minor Affordability Adjustment	-0.064	-0.227	-0.271
(U) Program Adjustment	-1.593	0.000	0.620
(U) FY 2002 President's Budget:	16.417	24.553	18.238
<b>CHANGE SUMMARY EXPLANATION:</b>			
(U) Funding: See Above.			
(U) Schedule: Not Applicable.			
(U) Technical: Not Applicable.			

**UNCLASSIFIED**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:		<b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME			
<b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2273 Air Operations C2 Systems</b>			
<b>(U) B. OTHER PROGRAM FUNDING SUMMARY</b>										
<u>Line Item No. &amp; Name</u>		FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(U) PMC, BLI#464000,TBMCS (CTAPS)		4.007	3.123	3.395	0	0	0	0	0	Continuing
(U) PMC, BLI#462000, ADCP PIP		0.175	0.277	0.378	0	0	0	0	0	0
(U) PMC, BLI#463600, AN/TPS-59 ECPS		1.268	1.068	0	0	0	0	0	0	2.336
(U) PMC, BLI #463600, AN/TPS-59		1.029	0	5.298	0	0	0	0	0	Continuing
(U) PMC, BLI #464000, Air Ops Systems CAC2S		0	0	0	0	0	0	0	0	Continuing
(U) PMC, BLI #464000, MACCS SUSTAINMENT		0	0	1.219	0	0	0	0	0	1.219
(U) PMC, BLI 464000, TAOM		2.047	0	0	0	0	0	0	0	2.047
 (U) Related RDT&E: Not Applicable.										
<b>(U) C. ACQUISITION STRATEGY:</b>										
(U) AN/TPS 59: Perform research and development for electronic protection and continuing resolution of Diminishing Manufacturing Sources (DMS) as well as replacement of transmitters on the 12 arrays over the 5 year FYDP. A sole source contract was awarded to Lockheed Martin for life cycle system support in FY00.										
(U) CAC2S: The contracting strategy is centered on a family of options that will be exercised from PDRR through Increment II production based on contractor performance. The base contract is for PDRR and there will be options for EMD-1, EMD-II, Production-1 and Production-II. The PDRR contract is a Cost Plus Fixed Fee for up to two contractors. Following the PDRR phase, an option for the EMD-1 phase will be exercised for one contractor. The EMD contract options of Increment I and II will be Cost Plus Award Fee. After successful completion of each EMD, a production option will be exercised. The production contracts for Increment I and II will be Firm Fixed Price Successive Targets (Modified)										
(U) MACCS SUSTAINMENT: The Direct Air Support Central (Airborne) Abbreviated Acquisition Program is utilizing a sole-source strategy with Computing Devices Cana a wholly-owned subsidiary of General Dynamics, for procurement of Communications Distribution System equipment. Prototype development and system integration will be conducted by Naval Surface Weapons Center, Crane, IN.										



**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>June 2001</b>					
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>			PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2273 Air Operations C2 Systems</b>					
TPS-59 RADAR SCHEDULE:												
(V)3 Fielding Schedule:		3 <sup>rd</sup> Qtr 98 thru 3 <sup>rd</sup> Qtr 99										
IOC:		Sep 98										
FOC:		Aug 99										
CEC Integration:		1 <sup>st</sup> Qtr 99 thru 4 <sup>th</sup> Qtr 00										
Develop:		1 <sup>st</sup> Qtr 99 thru 3 <sup>rd</sup> Qtr 01										
IV&V:		3 <sup>rd</sup> Qtr 99 thru 4 <sup>th</sup> Qtr 00										
Antenna Obsolescences ECP's:		1 <sup>st</sup> Qtr 99 thru 3 <sup>rd</sup> Qtr 04										
Procure (Various):		1 <sup>st</sup> Qtr 99 thru 4 <sup>th</sup> Qtr 03										
IOC:		2 <sup>nd</sup> Qtr 01										
FOC:		4 <sup>th</sup> Qtr 07										
<b>Program Funding Summary</b>			<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
<b>(APPN, BLI #, NOMEN)</b>												
<b>(U) RDT&amp;E,N</b>			8.316	10.064	4.729	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
<b>(U) PMC BLI# 463600 AN/TPS-59</b>			2.297	1.068	5.298	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing



**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2273 Air Operations C2 Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
CAC2S	WR	MCSC, Quantico, VA	0.028	0.120	04/00	0.546		0.735		Continuing	Continuing	
CAC2S	WR	MCTSSA, CPndltn,CA	0.020	0.030	10/99	0.040		0.030		Continuing	Continuing	
CAC2S	WR	MCLB Albany GA	0.006	0.005	02/00	0.005		0.005		0.005	0.026	0.026
CAC2S	WR	3 <sup>rd</sup> MAW San Diego, CA	0.008	0.005	03/00	0.005		0.005		0.005	0.028	0.028
CAC2S	WR	NWSC Crane, IN	0.100	0.216	04/00	0.000		0.000		0.000	0.316	0.316
CAC2S	WR	CG 1 <sup>st</sup> MAW	0.009	0.005	04/00	0.005		0.005		0.005	0.029	0.029
CAC2S	WR	MCOTEA	0.000	0.175	07/00	0.175		0.200		Continuing	Continuing	
CAC2S	WR	2nd MAWCh Pt, NC	0.001	0.023	04/00	0.010		0.010		0.020	0.064	0.064
CAC2S	WR	MarForRes NO, LA	0.001	0.005	03/00	0.005		0.005		0.005	0.021	0.021
CAC2S	WR	MCAS Yuma, AZ	0.007	0.005	02/00	0.005		0.005		0.005	0.027	0.027
CAC2S	RCP	MCSC, Quantico, VA	0.124	0.000	01/00	0.000		0.000		0.000	0.124	0.124
MACCS Sustainment	WR	MCTSSA, CPndltn,CA	0.000	0.000		0.000		0.161		Continuing	Continuing	
ADCP	WR	MCTSSA, CPndltn,CA	0.020	0.100		0.080		0.088		Continuing	Continuing	
ADCP	WR	MCSC, Quantico, VA	0.017	0.023		0.030		0.030		Continuing	Continuing	
ADCP	WR	MCAGC, 29 Palms CA	0.002	0.000		0.000		0.000		0.000	0.002	0.002
ADCP	WR	MCLB Albany GA	0.004	0.000		0.000		0.000		0.000	0.004	0.004
AV RADAR	WR	NWSC Crane, IN	0.048	0.038		0.050		0.000		Continuing	Continuing	
AV RADAR	WR	MCTSSA, CPndltn,CA	0.000	0.020	10/99	0.050		0.000		Continuing	Continuing	
AV RADAR	WR	MCLB Albany GA	0.000	0.020	12/99	0.020		0.000		Continuing	Continuing	
AV RADAR	WR	NRL, Washington, DC	0.119	0.208		0.000		0.000		Continuing	Continuing	
AV RADAR	WR	2nd MAWCh Pt, NC	0.001	0.000		0.000		0.000		0.000	0.001	0.001
AV RADAR	WR	NSWC Crane, In	0.060	0.000		0.000		0.000		0.000	0.060	0.060
TBMCS	WR	MCTSSA, CPndltn,CA	0.000	0.025	10/99	0.025		0.033		Continuing	Continuing	
TBMCS	WR	3rd MAW El Toro, CA	0.005	0.050	10/99	0.000		0.000		0.000	0.055	0.055
TBMCS	WR	MCSC, Quantico, VA	0.017	0.046		0.091		0.102		Continuing	Continuing	
TBMCS	WR	MarForRes NO, LA	0.004	0.005		0.000		0.000		0.000	0.009	0.009

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>			<b>C2273 Air Operations C2 Systems</b>						
TBMCS	WR	CG 1st MAW	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001		
TAOM	WR	MCTSSA, CPndltn,CA	0.086	0.000	0.000	0.000	0.000	0.000	0.086	0.086		
TAOM	RCP	MCTSSA, CPndltn,CA	0.096	0.000	0.000	0.000	0.000	0.000	0.096	0.096		
Subtotal Support			0.784	1.124	1.142	1.414	Continuing	Continuing				
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Tooling											0.000	
MACCS Sustainment	RCP	MCTSSA, CPndltn,CA	0.000	0.000		0.000		0.053	01/02	Continuing	Continuing	
TBMCS	WR	Crane IN	0.000	0.132		0.000		0.000		0.000	0.132	0.132
ADCP	RCP	MCTSSA, CPndltn,CA	0.055	0.000		0.000		0.000		0.000	0.055	0.055
											0.000	
											0.000	
											0.000	
Subtotal T&E			0.055	0.132		0.000		0.053		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
TBMCS	CPFF	Logicon	0.000	0.131	10/99	0.177	10/00	0.175	01/02	Continuing	Continuing	
AV RADAR	CPFF	Logicon	0.000	0.451		0.460	10/00	0.000		Continuing	Continuing	
CAC2S	IDIQ	Logicon	0.000	1.069	03/00	1.000	06/01	1.000	01/02	Continuing	Continuing	
SBIR						0.600						
Subtotal Management			0.000	1.651		2.237		1.175		0.000	5.063	
Remarks:												
Total Cost				16.417		24.553		18.238		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>		PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>				
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	<b>9.306</b>	<b>7.592</b>	<b>5.429</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
RDT&E Articles Qty										

**(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:

1. The Tactical Electronic Reconnaissance Processing and Evaluation System (TERPES) is used to process, sort, analyze, display and correlate ES and EA data collected by EA-6B aircraft and maintains the Tactical Electronic Orders of Battle.
2. The Mobile Electronic Warfare Support System, Product Improvement Program (MEWSS-PIP) will be used to collect and process communication and non-communication signals and provide electronic attack capability from a mobile ground platform.
3. Team Portable collection System (TPCS) upgrade is a semi-automated, manpackable/team transportable signals intelligence system that provides communications intercept, radio direction finding analysis and reporting to the Marine Air Ground Task Force (MAGTF) Commander.
4. The Radio Reconnaissance Equipment Program (RREP) provides the FMF Radio Battalions, Radio Reconnaissance Platoons (RRP) with mission unique Signals Intelligence/Ground Electronic Warfare SIGINT/EW) Equipment suites. Continuing with an evolutionary acquisition approach, the third suite RREP-SS-2 will provide the RRP's with the capability to conduct SIGINT/EW operations in support of Marine Air Ground Task Force (MAGTF) Commanders during advance force special operations, and other special purpose missions where the use of conventional Radio Battalion assets are not feasible. RREP-SS-2 is a ruggedized, modular; man packable system specifically designed utilizing emerging NDI/COTS/GOTS technology for RRP operations, particularly those conducted under the most austere conditions. The RREP-SS-2 module configuration has an "open systems" architecture that will permit future upgrades by simply installing cutting edge NDI/COTS/GOTS technology into the standard modules. The fourth suite, RREP-SS-3, to be fielded in FY04, will have the added capability to intercept those emerging target sets as identified by the NSA, be operated from remoted positions, and incorporate polymer battery technologies.

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>

**(U) PROGRAM ACCOMPLISHMENTS AND PLANS**

**FY 2000 Accomplishments:**

- (U) \$ 1.800 MEWSS PIP: Completed integration of Electronic Attack subsystem.
- (U) \$ 3.981 MEWSS PIP: Completed integration and developmental testing.
- (U) \$ 0.160 MEWSS PIP: Forward Finance integration of Electronic Attack Module.
- (U) \$ 0.508 TPCS Upgrade: Began In keeping with the evolutionary acquisition strategy, these funds used to develop software to enhance the baseline including enhancements to improve the systems interoperability with other systems.
- (U) \$ 0.225 TPCS Upgrade: Began Systems Engineering and Technical Assistance (SETA).
- (U) \$ 0.362 TERPES: Continued development of TERPES mission planning software to maintain compatibility with the EA-6B aircraft software changes.
- (U) \$ 0.200 TERPES: Continued development of Tactical Automation Sanitation capability or similar Multi-Level Security (MLS) device or procedure.
- (U) \$ 0.100 TERPES: Forward financed the commencement and completion of software and hardware integration for Joint Tactical Terminal (JTT).
- (U) \$ 0.498 TERPES: Continued DII/COE compliance to reach level 6 and NT migration.
- (U) \$ 0.031 TERPES: Forward financed the continuation of DII/COE compliance to reach level 6 and NT migration.
- (U) \$ 0.397 TERPES: Continued development of advanced communications suite for Joint interoperability software changes.
- (U) \$ 0.509 TERPES: Forward finances the beginning of Enhanced TERPES Fusion Correlator Software.
- (U) \$ 0.535 RREP: Integrated GOTS/COTS electronic attack (EA) capability (SS-2).

(U) Total \$ 9.306

**FY 2001 Planned Program**

- (U) \$ 0.600 MEWSS PIP: Operational Testing
- (U) \$ 0.000 MEWSS PIP: Complete integration of Electronic Attack module. This effort forward financed with \$160K of FY00 funding.
- (U) \$ 4.670 MEWSS PIP: Mobility enhancements, data storage/archiving, data import/export, SEI, sensor control.
- (U) \$ 0.186 TPCS Upgrade: Continued Systems Engineering and Technical Assistance (SETA).
- (U) \$ 0.125 TPCS Upgrade: Funds to be used for development of further system enhancements including for software and later upgrades.
- (U) \$ 0.000 TERPES: Begin and completed software and hardware integration for Joint Tactical Terminal (JTT). This effort forward financed with \$100K of FY00 funding.
- (U) \$ 0.420 TERPES: Continued development of TERPES mission planning software to maintain compatibility with the EA-6B software changes.
- (U) \$ 0.100 TERPES: Continued development of advanced communications suite for Joint Interoperability hardware/ software changes.
- (U) \$ 0.443 TERPES: Continued DII/COE compliance to reach level 6.
- (U) \$ 0.000 TERPES: Continued DII/COE compliance to reach level 6 and NT migration. This effort forward financed with \$31K of FY00 funding.
- (U) \$ 0.275 TERPES: Begin enhanced TERPES Fusion Engine Software.
- (U) \$ 0.000 TERPES: Begin enhanced TERPES Fusion Correlator Software. This effort forward financed with \$509K of FY00 funding.
- (U) \$ 0.366 TERPES: Continued to enhance TERPES Fusion Correlator Software.
- (U) \$ 0.217 RREP: Development efforts in support of remote control operations (SS-3).
- (U) \$ 0.190 SBIR: Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

(U) Total \$ 7.592

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>	
<b>FY 2002 Planned Program</b>			
<ul style="list-style-type: none"> <li>• (U) \$ 0.400 MEWSS PIP: Funds system enhancements to include efforts toward full DII/COE compliance.</li> <li>• (U) \$ 0.656 MEWSS PIP: Development work to transition from centralized software architecture to a common EW architecture.</li> <li>• (U) \$ 0.211 TPCS Upgrade: Continue System Engineering and Technical Assistance (SETA) (CSC).</li> <li>• (U) \$ 0.293 TPCS Upgrade: Software revision/upgrade, system enhancements.</li> <li>• (U) \$ 0.650 TERPES: Continue development of TERPES mission planning software to maintain compatibility with EA-6B software changes and begin ICAP III final integration.</li> <li>• (U) \$ 0.150 TERPES: Continue development of advanced communications suite for Joint Interoperability hardware/software changes.</li> <li>• (U) \$ 0.500 TERPES: Continue DII/COE compliance to reach level 7.</li> <li>• (U) \$ 0.450 TERPES: Continue DII/COE compliance to reach level 7 and NT migration.</li> <li>• (U) \$ 0.700 TERPES: Continue Enhanced TERPES Fusion Engine Software.</li>   <li>• (U) \$ 0.450 TERPES: Continue Enhanced TERPES Fusion Correlator Software.</li> <li>• (U) \$ 0.231 TERPES: Continue TEPP/TSP enhancement processing.</li> <li>• (U) \$ 0.200 TERPES: Continue Hardware research testing and integration.</li> <li>• (U) \$ 0.150 TERPES: In-House program management.</li> <li>• (U) \$ 0.100 RREP: Complete integration GOT/COTS electronic attack (EA) capability (SS-2).</li> <li>• (U) \$ 0.288 RREP: Integrate GOTS/COTS electronic attack (EA) capability (SS-3).</li> <li>(U) Total \$ 5.429</li> </ul>			
<b>(U) PROJECT CHANGE SUMMARY:</b>			
	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	10.329	2.663	4.290
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.180		
(U) Execution Adjustment	-0.676		
(U) Minor Affordability Adjustment	-0.057	-0.071	-0.078
(U) Program Adjustment	-0.110	5.000	1.217
(U) FY 2002 President's Budget:	9.306	7.592	5.429
<b>CHANGE SUMMARY EXPLANATION:</b>			
(U) Funding: See Above.			
(U) Schedule: Not Applicable.			
(U) Technical: Not Applicable.			

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE:		<b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>			PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>			
<b>(U) B. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>		FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
(U) PMC BLI 474900 Mod Kits INTEL TERPES		3.566	0.000	3.043	0.000	0.000	0.000	0.000	0.000	Continuing
(U) PMC BLI 463600 Modification Kits MEWSS		7.791	4.893	14.803	0.000	0.000	0.000	0.000	0.000	Continuing
(U) PMC BLI 474900 Mod Kits INTEL TPCS		10.864	2.807	0.000	0.000	0.000	0.000	0.000	0.000	0 13.671
(U) PMC BLI 474700 Intell Suppt Eq RREP		2.761	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 2.761
 (U) Related RDT&E: (U) (U) PE 0305885G (Tactical Cryptologic Program)										
 <b>(U) C. ACQUISITION STRATEGY TERPES:</b> The acquisition of components for the TERPES upgrade refresh will maximize the use of existing equipment, NDI/COTS/GOTS/GFE equipment/software. The integration effort for TERPES hardware components will be accomplished under the control of the WSSA, NAWCWD. Software integration and support will be accomplished by contractors under the control of the TERPES WSSA NAWCWD. These activities report to, and are directed by, the program Manager, Command Information Systems, Marine Corps Systems Command (MARCORSYSCOM). This strategy accomplishes several goals: standardization, use equipment that can be serveral goals: standardization, use equipment that can be acquired and fielded quickly, reduce logitics requirements, and reduce costs of software maintenance.										
 <b>(U) C. ACQUISITION STRATEGY MEWSS PIP:</b> The MEWSS PIP is initiating Marine Corps Systems Command-administered contracts as folow-on to the Army CECOM Intellegence and Electronic Warfare Common Sensor (IEWCS) contract used for development of the three MEWSS PIP LRIP vehicles. These contracts are being pursued as sole source to Lockheed Martin systems Integration in Owego, New York.										
 <b>(U) C. ACQUISITION STRATEGY TPCS:</b> 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. The contract is a Contract Cost Plus Fixed Fee.										
 <b>(U) C. ACQUISITION STRATEGY RREP:</b> The RREP will incorporate and integrate cutting edge technologies through the use of Commercial off the Shelf (COTS) components to include Marine Corps Common Hardware components and Government off the Shelf (GOTS) DII COE compliant software. Contract is Cost Plus Fixed Fee (CPFF).										

**UNCLASSIFIED**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDTE, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>

**(U) D. SCHEDULE PROFILE:**

**MEWSS-PIP Milestone Schedule**

	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05
MILESTONE 0								
MILESTONE I/II								
OT PHASE 1	X							
OT PHASE 2				X				
MILESTONE III					X			
PRODUCTION CONTRACT AWARD					X			
PRODUCTION					X ----- -----			
IOC					X			
FOC								X

<u>Program Funding Summary</u> <u>(APPN, BLI #, NOMEN)</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
<u>(U) RDTE,N</u>	5.941	5.398	1.056	0	0	0	0	0	0	Continuing
<u>(U) PMC, BLI# 463600 Mod Kits MEWSS</u>	7.791	4.893	14.803	0	0	0	0	0	0	Continuing

**UNCLASSIFIED**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>

**TPCS UPGRADE  
MILESTONE SCHEDULE**

PHASE	FY 98	FY 99	FY 00	FY 01	FY 02
MILESTONE 0					
MILESTONE I/II					
OT		X			
MILESTONE III		X			
PRODUCTION CONTRACT AWARD			X		
PRODUCTION			X		
IOC				X	
FOC					X

<u>Program</u> <u>(APPN, BLI #, NOMEN)</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) RDT&E,N	0.733	0.325	0.504	0.000	0.000	0.000	0.000	0.000	0.000	Cont.
(U) PMC BLI 474900 Mod Kits INTEL (TPCS)	10.864	2.807	0	0	0.000	0	0	0	0	Cont.

**UNCLASSIFIED**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>

**RREP  
MILESTONE SCHEDULE**

PHASE	FY 98	FY 99	FY 00	FY 01	FY 02
MS II (SS-2)	2Q				
MS III (SS-2)			1Q		
ELECTRONIC ATTACK (EA MODULE)			3Q		
MS 0/I (SS-3)			4Q		
REMOTE EA CAPABILITY				2Q	
IOC/FOC (SS-2)				3Q	
MS II (SS-3)				3Q	
MS III (SS-3)					4Q

<u>Program</u> <u>(APPN, BLI #, NOMEN)</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) RDT&E,N	0.535	0.218	0.388	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
(U) PMC BLI 474700 Intell Suppt EQ RREP	2.761	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	Continuing

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis										DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT				PROJECT NUMBER AND NAME				
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>				<b>0206313M Marine Corps Communications Sys</b>				<b>C2274 C2 Warfare Systems</b>				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development												0.000
Ancillary Hardware Development												0.000
Systems Engineering												0.000
Licenses												0.000
Tooling												0.000
GFE												0.000
Award Fees												0.000
MEWSS	CPFF	Lockheed Martin	0.000	5.941	11/99	5.270	11/00	1.056	11/01	Continuing	Continuing	
TPCS Upgrade	CPFF	DAC/BTG	0.000	0.508	01/00	0.125	01/01	0.293	01/01	Continuing	Continuing	
TERPES	RCP	NSWC, Crane In	0.000	0.000		0.469	05/01	0.699	10/01	Continuing	Continuing	
TERPES	MIPR	SMC/ADF El Segundo	0.000	0.000		0.275	01/01	1.400	10/01	Continuing	Continuing	
TERPES	RCP	NAWCWPNS	0.000	1.569	02/00	0.520	05/01	0.700	02/01	Continuing	Continuing	
TERPES	WR	PT Mugu, CA	0.000	0.429	12/99	0.248	05/01	0.432	12/01	Continuing	Continuing	
RREP	CPFF	PM-CISS NEW,VA	0.000	0.535	06/00	0.217	01/01	0.388	01/01	Continuing	Continuing	
SBIR						0.190				Continuing	Continuing	
Subtotal Product Development			0.000	8.982		7.314		4.968		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equipment												0.000
Software Development												0.000
Training Development												0.000
Integrated Logistics Support												0.000
Configuration Management												0.000
Technical Data												0.000
TPCS Upgrade	CPFF	CSC		0.225	10/99	0.186	02/01	0.211	10/01	Continuing	Continuing	
TERPES	WR	NAWCWPNS, Pt Mugu		0.099	10/99	0.092	02/01	0.100	11/01	Continuing	Continuing	
TERPES	RCP	LOGICON		0.000		0.000		0.150	01/02	Continuing	Continuing	
Subtotal Support			0.000	0.324		0.278		0.461				
Remarks:												

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis										DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>				PROGRAM ELEMENT <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2274 C2 Warfare Systems</b>				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Tooling											0.000	
											0.000	
<b>Subtotal T&amp;E</b>			0.000	0.000		0.000		0.000		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
<b>Subtotal Management</b>			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
<b>Total Cost</b>				9.306		7.592		5.429		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Systems</b>				PROJECT NUMBER AND NAME <b>C2276 Communications Switching &amp; Control Systems</b>					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	<b>1.766</b>	<b>0.224</b>	<b>0.986</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
RDT&E Articles Qty										

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

This program consists of three interrelated projects: Digital Technical Control (DTC), Tactical Data Network (TDN), and Defense Message System (DMS). Together, these systems form an integrated, digital communications backbone for a deployed Marine Air Ground Task Force (MAGTF) which has the capability to manage, control, switch, and multiplex networks providing voice, data, message, imagery, facsimile, and video services to subscribers.

(U) The TDN augments existing MAGTF communications infrastructure to provide the commander an integrated data network forming the communication backbone for MAGTF tactical data systems and Defense Message System. The TDN consists of a network of Gateways and Servers interconnected with one another and their subscribers via a combination of common user long-haul transmission systems, local area networks, single channel radios, and the switched telephone system. The network provides its subscribers with basic data transfer and switching services; access to strategic, supporting establishment, joint, and other service component tactical data networks; network management capabilities; and value-added services such as message handling, directory services, file sharing, facsimile handling, and terminal emulation support. Required functionality was separated into three blocks of capabilities due to the leading edge technology required in the Operational Requirement Document (ORD). This evolutionary acquisition strategy and funding provide for development of additional capabilities which compose the Block II upgrade of the system.

(U) The DTC facilitates the installation, operation, restoration, and management of individual circuits and digital links consisting of many multiplexed circuits. It provides the primary interface between subscriber systems/networks within a local area and long-haul multichannel transmissions systems to transport voice, message, data, and imagery traffic. It can add, drop and insert digital circuits into multiplexed groups; provide a source of stable timing to connected equipment; condition circuits; and perform analog/digital, 2-wire/4-wire, and signaling conversions. It contains the monitoring, testing, and patching equipment required by technical controllers to troubleshoot and restore faulty circuits and links. This funding provides for the development of interfaces to new technology transmission systems.

(U) DMS is an OSD-mandated program to integrate Automatic Digital Network (AUTODIN) and E-Mail into a single, secure, DoD message communications system. DMS will expand writer-to-reader connectivity, support, and message security services. Organizations and individuals will be able to create, edit, send, receive, read, and process organizational and individual messages, secured with end-to-end protection, direct from desktop terminals/personal computers in their workspaces. DMS will do everything our current Banyan E-Mail and AUTODIN systems do with the following additional capabilities: connectivity to all users in DoD

(U) The Joint Network Management System (JNMS) is a CINC and Commander, Joint Forces joint communications planning and management system. It provides communication planners with the capabilities to conduct high level planning; detailed planning and engineering; monitoring; control and reconfiguration; spectrum planning and management; and security of systems and networks supporting joint operations. The CINC will utilize JNMS to support a deployed JTF Joint Communications Control Center (JCCC). All joint level managers and Service component headquarters level system controls (SYSCONS) will use the JNMS. Service components will use the JNMS to ensure that their plans are coordinated with the CINC's Annex K.

(U) The ULCS PIP Transition Switch Module (TSM) will provide a flexible Unit Level Switch capability that bridges legacy Tri-Tac switches with current commercial technology to provide Marine maneuver elements with more robust voice/data switching, data transport and bandwidth management capabilities. This program will maintain USMC joint interoperability as the other Services transition to COTS switching technologies

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N /BA-7 Operational Sys Dev	<b>0206313M Marine Corps Communications Systems</b>	<b>C2276 Communications Switching &amp; Control Systems</b>	
<b>(U) PROGRAM ACCOMPLISHMENTS AND PLANS</b>			
<b>FY 2000 Accomplishments:</b>			
• (U) \$	0.505 DTC: Developmental/Interoperability testing of ATM upgraded, obtained approval for ATM upgrade		
• (U) \$	0.255 DMS: Supported software and hardware integration/testing. Incorporate evolutionary security products into the unclassified DMS architecture within a Marine Corps-unique network infrastructure.		
• (U) \$	1006 TDN: Continued TDN BLK II development and S/W and H/W Integration testing. Achieve milestone III Decision for Block II		
(U) Total \$	1.766		
<b>FY 2001 Planned Program</b>			
• (U) \$	0.224 DMS: Support software and hardware integration/testing. Incorporate evolutionary security products into the unclassified DMS architecture within a Marine Corps-unique network infrastructure.		
(U) Total \$	0.224		
<b>FY 2002 Planned Program</b>			
• (U) \$	0.986 JNMS: Begin development of JNMS hardware suites and upgrade SPEED for DII COE LVL 6 compliance		
(U) Total \$	0.986		
<b>(U) PROJECT CHANGE SUMMARY:</b>			
	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	1.831	0.227	0.000
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.032		
(U) Execution Adjustment	-0.106		
(U) Minor Affordability Adjustment	-0.007	-0.003	-0.014
(U) Program Adjustment	0.080		1.000
(U) FY 2002 President's Budget:	1.766	0.224	0.986
<b>CHANGE SUMMARY EXPLANATION:</b>			
(U) Funding: See Above.			
(U) Schedule: Not Applicable.			
(U) Technical: Not Applicable.			



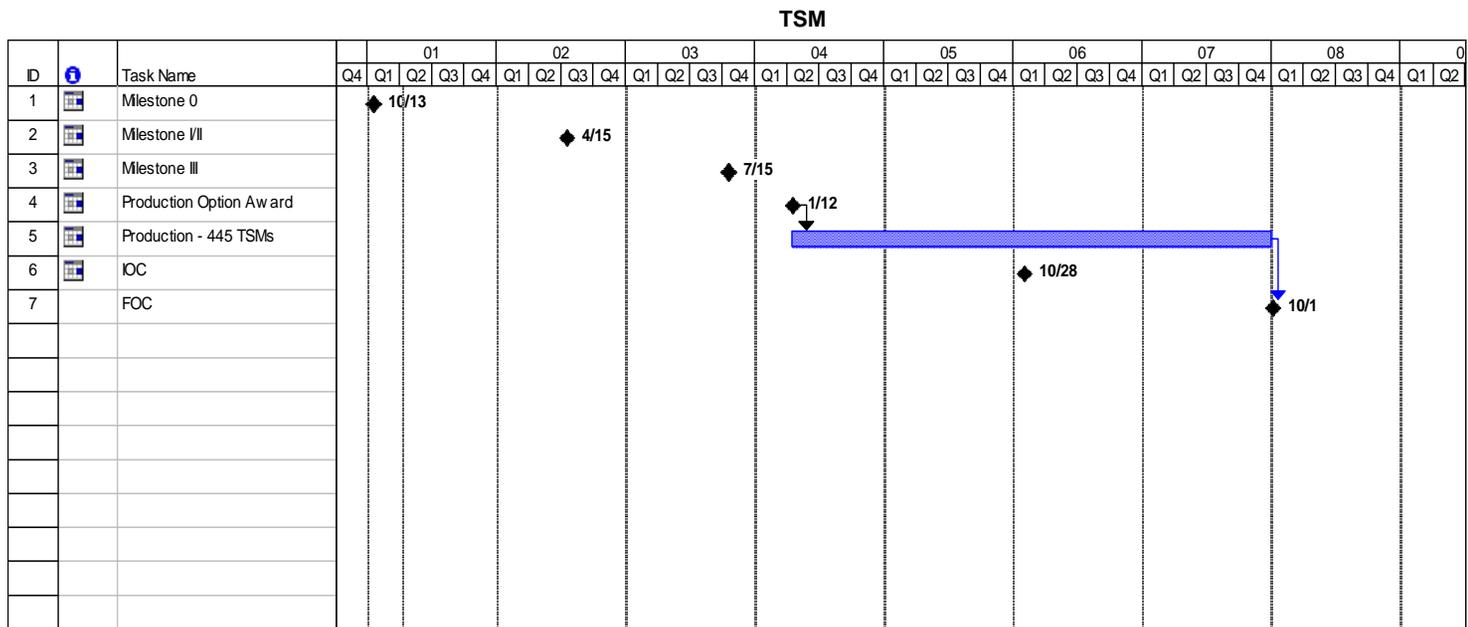
**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>June 2001</b>
---	---------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Systems</b>	PROJECT NUMBER AND NAME <b>C2276 Communications Switching &amp; Control Systems</b>
--	--	--

**(U) D. SCHEDULE PROFILE:**



<u>Program Funding Summary</u> <u>(APPN, BLI #, NOMEN)</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) RDT&E,N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Cont.
(U) PMC BLI# 463400 CommSwitch& Ctl Sys	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Cont.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>June 2001</b>
---	------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Systems</b>	PROJECT NUMBER AND NAME <b>C2276 Communications Switching &amp; Control Systems</b>
--	--	--

			JNMS																													
ID	Task Name		8		99				00				01				02				03				04				05			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	JROC Approval										△																					
2	Milestone I/II										△																					
3	RFP Release										△																					
4	Joint Service Contract Award											△																				
5	FQT Threshold																			△												
6	IOT&E																				△											
7	Milestone III Approval																					△										
8	Marine Corps Fielding																													△		

<b>Program Funding Summary</b>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
<b>(APPN, BLI #, NOMEN)</b>										
<b>(U) RDT&amp;E,N</b>	0.000	0.000	0.986	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
<b>(U) PMC BLI# 463400 CommSwitch&amp; Ctl Sys</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000



**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			PROGRAM ELEMENT <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2276 Communications Switching &amp; Control Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Eval											0.000	
Operational Test & Eval											0.000	
Tooling											0.000	
JNMS	MIPR	TBD	0.000	0.000		0.000		0.000		0.200	0.200	0.200
TSM	MIPR	TBD	0.000	0.000		0.000		0.000		0.200	0.200	0.200
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Engineering Suppt											0.000	
Govt Engineering Suppt											0.000	
Program Management Suppt											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost				1.766		0.224		0.986		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE:		
								<b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	<b>0206313M Marine Corps Communications Systems</b>				<b>C2277 Systems Engineering &amp; Integration</b>					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	<b>6.731</b>	<b>7.904</b>	<b>12.316</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
RDT&E Articles Qty										
<b>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b>										
<p>(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 across programs.</p> <p>1. The Marine Air-Ground Task Force Command, Control, Communications, Computers, and Intelligence Systems Engineering and Integration, Coordination. (MAGTF C4I SE&amp;IC) subproject is a non-acquisition effort which provides centralized planning and execution of MAGTF C4I Systems; it develops, certifies and manages the configuration of the MAGTF C4I Systems/Technical Architecture and its implementation; it is also used to develop and test common hardware and software for use in MAGTF C4I Systems; MAGTF C4I SE&amp;I also funds USMC participation in joint planning, technical standards development and joint exercise participation. MAGTF SE&amp;IC changes name to MAGTF SEI&amp;C in FY00.</p> <p>2. Global Broadcast Service (GBS) Terminal – The overall GBS is a satellite system composed of a space segment, a transmit suite and a Receive Suite. It provides near worldwide high data rate dissemination of large information products such as classified and unclassified intelligence and video, theater message traffic, joint and service-unique news, weather and MWR programming to deployed or garrison forces via small user platforms.</p> <p>3. MAGTF C4I SEI&amp;C Joint Distributed Engineering Plant (JDEP) is a DoD mandated program to evaluate the interoperability of the Family of Systems (FoS) C4ISR configurations that support joint forces, evaluate the interoperability of new acquisition systems, and provide an environment for engineering analysis to correct systems deficiencies and develop new capabilities</p> <p>4. Joint Warrior Interoperability Demos (JWID) is a JCS-mandated program to demonstrate new C4I interoperability concepts for the warrior. JWID offers the opportunity for demonstrations of evolving technologies in interoperability, information dissemination, fusing and digital communications.</p> <p>5. The Joint Interoperability of Tactical Command and Control Systems (JINTACCS) is a Joint Chiefs-of-Staff (JCS)-mandated program for joint development, implementation, and testing of data links under the direction of the Joint Interoperability Engineering Organization (JIEO).</p> <p>6. Common Computer Resources (CCR) mission – Central and standardized management and acquisition of all Tactical common computer hardware and infrastructure adopting the Joint Defense Information Infrastructure (DII) Common Operating Environment (COE) with consolidated Integrated Logistics Support. Ensure the environment remains in synchronization with computer hardware technology hardware improvements. The mission supports the Commandant's Planning Guidance and input to the Marine Corps Master Plan.</p>										

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
<b>RDT&amp;E, N/BA-7 Operational Sys Dev</b>	<b>0206313M Marine Corps Communications Systems</b>	<b>C2277 Systems Engineering &amp; Integration</b>
<b>PROGRAM ACCOMPLISHMENTS AND PLANS</b>		
<b>FY 2000 Accomplishments:</b>		
• (U) \$	1.27 JWID: Provide management, engineering and technical support in preparation for JWID-00, a JCS-mandated program. JWID offers the opportunity to demonstrate and evaluate emerging technologies.	
• (U) \$	1.237 JINTACCS: Participate in JINTACCS, a JCS-mandated program aimed at ensuring interoperability of tactical systems. Provide analysis, engineering and technical support in developing joint standards. Provides interoperability testing/certification in support of C4I systems. Provide technical support in various joint programs and ACTD's.	
• (U) \$	2.686 MAGTF SEI&C: Provide engineering and technical support for configuration management of MAGTF C4I system and its migration to the DII COE. Provide analysis, studies and reviews in the development and implementation of the COE migration strategy. Continue the development of the MAGTF C4I Systems/Technical Architecture and Repository (MSTAR). Support D-30 process to integrate Marine C4I systems onto amphibious ships for MEU deployments. Provide engineering support for remaining Y2K problems within MAGTF C4I systems. Provide USMC share of ASCIET exercise per established MOA.	
• (U) \$	0.177 MAGTF SEI&C: Forward finances engineering and technical support for configuration management of MAGTF C4I system and its migration to the DII COE.	
• (U) \$	1.361 CCR MCHS: Provide for research, evaluation, test and selection of computer hardware products for the Marine Corps Common Hardware Suite (MCHS). Develop MCHS system specifications and baselines; research and analyze computer technologies and hardware; conduct performance, compatibility and environment testing; support commercial product selection and application in support of Tactical Systems.	
(U) Total \$	6.731	
<b>FY 2001 Planned Program</b>		
• (U) \$	1.381 JWID: Participate in JWID, a JCS-mandated program, to demonstrate new C4I interoperability concepts. In JWID-01, USMC is the service lead; it will conduct primary planning equipment preparation, and hosting. JWID-01 offers the opportunity for demonstrations of emerging technologies in interoperability, information dissemination, fusing and communications.	
• (U) \$	1.078 JINTACCS: Participate in JINTACCS, a JCS-mandated program aimed at ensuring interoperability of tactical systems. Provide analysis, engineering and technical support in developing joint standards. Provide interoperability testing/certification in support of C4I systems. Provide technical support in various joint programs and ACTDs.	
• (U) \$	2.345 MAGTF SEI&C: Provide engineering and technical support for configuration management of MAGTF C4I systems and its migration to the DII COE. Maintain MSTAR system as technical roadmap to MAGTF C4I system integration Provide analysis, studies and reviews in the development and implementation of the COE migration strategy. Analyze the movement of MAGTF C4I systems to joint standards to mandated levels and provide technical recommendations to correct deficiencies. Continue engineering support to D-30 Amphib Ready Group (ARG) preparation process. Provide USMC fair share of ASCIET exercise per established MOA.	
• (U) \$	0.000 MAGTF SEI&C: Provide engineering and technical support for configuration management of MAGTF C4I system and its migration to the DII COE. This effort forward financed with \$177K of FY00 funding.	
• (U) \$	0.416 GBS: Provide for Product Development and Integration	
• (U) \$	0.615 GBS: Support and Management for Confidence/User Evaluation.	
• (U) \$	0.395 GBS: Operational Test Planning and Integration Testing Planning.	
• (U) \$	1.602 CCR MCHS: Provide for research, evaluation, test and selection of computer hardware products for the Marine Corps Common Hardware Suite (MCHS). Develop MCHS system specifications and baselines; research and analyze computer technologies and hardware; conduct performance, compatibility and environmental testing; support commercial product selection and application in support of Tactical Systems.	
• (U) \$	0.072 SBIR: Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USMC 638.	
(U) Total \$	7.904	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
<b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	<b>0206313M Marine Corps Communications Systems</b>	<b>C2277 Systems Engineering &amp; Integration</b>
<b>FY 2002 Planned Program</b>		
• (U) \$	2.563 JWID: Participate in JWID, a JCS mandated program, to demonstrate new C4I interoperability concepts. In FY02, JWID is concerned with transitioning the best products from the JWID-01 exercise in FY01 into the acquisition system. It will also support management and planning of exercise JWID-03.	
• (U) \$	1.680 JINTACCS: Participate in JINTACCS, a JCS-mandated program aimed at ensuring interoperability of tactical systems. Provide analysis Engineering and technical support in developing joint standards. Provides interoperability testing/certification in support of C4I systems. Provide technical support in various joint programs and ACTD's.	
• (U) \$	4.433 MAGTF SEI&C: Provide engineering and technical support for configuration management of MAGTF C4I systems and its migration to the DII COE. Maintain MSTAR system as technical roadmap to MAGTF C4I system integration. Provide analysis, studies and reviews in the development and implementation of the COE migration strategy. Analyze the movement of MAGTF C4I systems to joint standards to mandated levels and provide technical recommendations to correct deficiencies Provide USMC fair share of ASCIET exercise per established MOA.	
• (U) \$	0.858 MAGTF SEI&C (JDEP): DoD mandated program to evaluate the interoperability of the Family of Systems (FoS) C4ISR configurations that support joint forces, evaluate the interoperability of new acquisition systems, and provide an environment for engineering analysis to correct systems deficiencies and develop new capabilities.	
• (U) \$	0.624 GBS: Continue support and Management for Confidence/User Evaluation.	
• (U) \$	0.460 GBS: Operational Testing and Integration Testing.	
• (U) \$	1.698 CCR MCHS: Provide for research, evaluation, test and selection of computer hardware products for the Marine Corps Common Hardware Suite (MCHS). Develop MCHS system specifications and baselines; research and analyze computer technologies and hardware; conduct performance, compatibility and environmental testing; support commercial product selection and application in support of Tactical Systems.	
(U) Total \$	12.316	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>June 2001</b>			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME				
<b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	<b>0206313M Marine Corps Communications Systems</b>					<b>C2277 Systems Engineering &amp; Integration</b>				
<b>(U) PROJECT CHANGE SUMMARY:</b>										
	FY2000	FY2001	FY2002							
(U) FY 2001 President's Budget:	7.156	6.514	6.832							
(U) Adjustments from the President's Budget:										
(U) SBIR/STTR Transfer	-0.135									
(U) Execution Adjustment	-0.401		-0.193							
(U) Minor Affordability Adjustment	-0.027	-0.060								
(U) Program Adjustment	<u>0.138</u>	<u>1.450</u>	<u>5.677</u>							
(U) FY 2002 President's Budget:	6.731	7.904	12.316							
CHANGE SUMMARY EXPLANATION:										
(U) Funding: See Above.										
(U) Schedule: Not Applicable.										
(U) Technical: Not Applicable.										
<b>(U) B. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost	
PMC BLI 463000	99.974	79.916	21.302	0.000	0.000	0.000	0.000	0.000	Cont	Cont
(U) Related RDT&E:										
(U) PE 0604817A										
(U) PE 0206623M, Marine Corps Ground Combat/Supporting Arms Systems										
<b>(U) C. ACQUISITION STRATEGY JWID, JINTACCS MAGT SE&amp;IC, GBS, AND CCR:</b> Work will be led in-house. Necessary contractor support will be acquired using already existing contracts.										
<b>(U) D. SCHEDULE PROFILE: Not Applicable.</b>										

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2277 Systems Engineering &amp; Integration</b>					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev											0.000	
Ancillary Hardware Dev											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
JWID	WR	MCTSSA, Cp Pndltm, CA	0.110	0.391	10/99	0.477		0.000		Continuing	Continuing	
JWID	RCP	MCSC Quantico, VA	0.000	0.564	10/99	0.600	10/00	0.637	10/01	Continuing	Continuing	
JWID	WR	NSWC Dahlgren, VA	0.000	0.000		0.000		0.100	05/02	Continuing	Continuing	
JWID	WR	MCSC Quantico, VA	0.000	0.000		0.000		0.117	10/01	Continuing	Continuing	
GBS	WR	MCTSSA, Cp Pndltm, CA	0.000	0.000		0.100	11/00	0.000		0.000	0.100	0.100
GBS	C/CPFF	CTQ	0.000	0.000		0.240	12/00	0.000		0.000	0.240	0.240
GBS	WR	MCSC Quantico, VA	0.000	0.000		0.080	10/00	0.080		0.000	0.160	0.160
CCR	TBD	TBD	0.000	0.133	08/00	0.113		0.000		Continuing	Continuing	
CCR	TBD	TBD	0.000	0.146	08/00	0.121		0.000		Continuing	Continuing	
JINTACCS	SS	CECOM Ft Monmouth NJ	0.029	0.000		0.000		0.000		0.000	0.029	0.029
SBIR						0.072						
Subtotal Product Dev			0.139	1.234		1.803		0.934		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equip											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
JWID	C/FPP	Logicon, Stafford, VA	0.000	0.315	10/99	0.304	10/00	1.709	10/01	Continuing	Continuing	
MAGTF SEI&C	WR	CECOM Ft Monmouth NJ	0.175	0.175		0.164		0.369		Continuing	Continuing	
MAGTF SEI&C	CPFF	OSEC, Stafford, VA	0.080	0.000		0.000		0.000		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis							DATE: <b>June 2001</b>					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2277 Systems Engineering &amp; Integration</b>					
MAGTF SEI&C	C/FFP	Logicon,Stafford, VA	3.229	0.904	10/99	0.302		0.511		Continuing	Continuing	
MAGTF SEI&C	WR	MCSC, Quantico, VA	0.000	0.268	10/99	0.070		0.106		Continuing	Continuing	
MAGTF SEI&C	MIPR	Eglin AFB, FL	1.202	0.059		0.000		0.000		Continuing	Continuing	
MAGTF SEI&C	MIPR	ASCIET JPO	0.000	0.000		0.200	11/00	0.278		Continuing	Continuing	
MAGTF SEI&C	WR	II MEF	0.000	0.000		0.250	11/00	0.430		Continuing	Continuing	
MAGTF SEI&C	WR	MARFORRES	0.000	0.000		0.150	11/00	0.205		Continuing	Continuing	
MAGTF SEI&C	MIPR	NSWC Crane IN	0.000	0.000		0.108	11/00	0.214		Continuing	Continuing	
MAGTF SEI&C (JDEP)	TBD	TBD	0.000	0.000		0.000		0.858	TBD	Continuing	Continuing	
MAGTF SEI&C (INIT)	C/FFP	Logicon,Stafford, VA	0.000	0.000		0.000		1.495	12/01	Continuing	Continuing	
MAGTF SEI&C (INIT)	CPFF	Raytheon, Fullerton, CA	0.000	0.000		0.000		0.655	12/01	Continuing	Continuing	
GBS	C/FFP	Logicon,Stafford, VA	0.000	0.000		0.481	11/00	0.492	12/01	0.000	0.973	0.976
GBS	C/CPF	Raytheon, Fullerton, CA	0.000	0.000		0.040	11/00	0.040	12/01	0.000	0.080	0.080
GBS	TBD	TBD	0.000	0.000		0.100	11/00	0.092	10/01	0.000	0.192	0.200
CCR	Various	Various	0.000	0.000		0.000		0.395	11/01	Continuing	Continuing	
<b>Subtotal Support</b>			<b>4.686</b>	<b>1.721</b>		<b>2.169</b>		<b>7.849</b>				
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Eval											0.000	
Operational Test & Eval											0.000	
Tooling											0.000	
MAGTF SEI&C	CFFP	Logicon,Stafford, VA	4.444	1.158	10/99	0.941	10/00	0.000	10/01	1.966	8.509	8.509
MAGTF SEI&C	WR	MCTSSA, Cp Pndltn, CA	0.660	0.149		0.000		0.000		0.000	0.809	0.809
JINTACCS	C/CPFF	Logicon,Stafford, VA	1.968	1.199		1.044		1.530		Continuing	Continuing	
JINTACCS	WR	MCTSSA, Cp Pndltn, CA	0.120	0.038		0.034		0.150		Continuing	Continuing	
GBS	WR	MCTSSA, Cp Pndltn, CA	0.000	0.000		0.167	10/01	0.180		0.000	0.347	0.368
GBS	WR	MCOTEA, Qusntico, VA	0.000	0.000		0.218	10/01	0.200		0.000	0.418	0.418
CCR	TBD	TBD	0.000	1.082	03/00	1.368		1.303		Continuing	Continuing	
<b>Subtotal T&amp;E</b>			<b>7.192</b>	<b>3.626</b>		<b>3.772</b>		<b>3.363</b>		Continuing	Continuing	
Remarks:												

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			PROGRAM ELEMENT <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2277 Systems Engineering &amp; Integration</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Engineering Suppt											0.000	
Govt Engineering Suppt											0.000	
Program Management Suppt											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
MAGTF SEI&C	C/FFP	Logicon, Stafford, VA		0.150	11/99	0.160	11/00	0.170	11/01		0.480	
Subtotal Management			0.000	0.150		0.160		0.170		0.000	0.480	
Remarks:												
Total Cost				6.731		7.904		12.316		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>June 2001</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2278 Air Defense Weapons Systems</b>					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	<b>6.880</b>	<b>20.081</b>	<b>11.240</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
RDT&E Articles Qty										

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

(U) This project encompasses two sub-element programs which are part of the Integrated Air Defense System for the Marine Corps.

1. The Marine Air Command and Control Systems (MACCS) Radars will investigate, integrate, and test safety and diminishing source issues related to MACCS radars specifically with the intention of increasing the fleet's system maintainability and reliability. This effort includes all necessary prototyping, initial tooling and associated test equipment to prepare for production efforts. This line will also support all program requirements studies related to investigating future MACCS radar requirements.
2. The Expeditionary Air Defense System (EADS) is the Marine Corps low altitude ground based air defense system. Upgrades include mobility enhancements and expeditionary air defense improvements. Primarily, the Continuous Wave Acquisition Radar (CWAR) is the only sensor organic to the Marine Corps capable of providing low altitude target acquisition in a high clutter environment.
3. 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. As part of this effort, AN/TPS-63 modifications and system improvements will be researched and analyzed which complement existing components to preclude an expensive USMC investment in solid-state radar technology.
4. Combat ID (CID) will provide rapid and accurate determination of friends, foes, or neutral identities of all potential targets within a combatant's area of responsibility in time to take decisive action. It will enable fighting forces: to manage and control battlespace; optimally employ weapons and forces to increase the economy of force; lower combat attrition, and increase enemy losses while reducing fratricide.
5. The Cooperative Engagement Capability (CEC) enables all CEC-equipped, Anti-Air Warfare (AAW) weapons systems in a battle force to operate as a single, distributed AAW weapon system. This is accomplished providing timely sharing of fire control quality sensor data, correlated identification data, and AAW weapons management status. The sensor networking capability of CEC essentially allows forces to have a direct connection to the various sensors supported by forces throughout a battlefield enabling the development of a common understanding of the air situation. CEC consists of common processing units that interface with local and remote sensor data in order to develop a common track database and data communications pieces that enable the connectivity and networking of the sensors and processors.
6. The Complementary Low Altitude Weapons System (CLAWS) is a mobile ground based air defense missile system designed to defeat threat cruise missiles unmanned aerial vehicles, and aircraft. CLAWS takes advantage of government furnished equipment (GFE) and non-developmental items (NDI) and technology by integrating current inventory DoD missiles with existing High Mobility Multi-purpose Wheeled Vehicles (HMMWV). CLAWS shall provide a rapidly deployable, 8. mobile, high firepower, all-weather, standoff air defense system to defend Marine Expeditionary Forces and Naval Forces from attack by cruise missiles, aircraft and UAVs. It shall complement existing short range air defense (SHORAD) capabilities and shall interface with current and proposed Marine Air Command and Control System sensors and data paths.
7. The Low Atitude Air Defense (LAAD) Sustainment Program consists of various air defense platforms, simulators, and ground support equipment designed to provide air defense of vital areas in general or direct support of the Marine Air Ground Task Force (MAGTF). LAAD Sustainment comprises a number of configurations consisting of Marine Air Command and Control systems (MACCS) and Short Range Air Defense (SHORAD) assets integrated with a Remote Terminal Unit (RTU) and communications equipment.

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N/BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2278 Air Defense Weapons Systems</b>
<b>PROGRAM ACCOMPLISHMENTS AND PLANS</b>		
<b>FY 2000 Accomplishments:</b>		
<ul style="list-style-type: none"> <li>• (U) \$ 1.723 CEC: Software development: Finalization of the AN/TPS-59(V3) radar and IFF interface to CEC.</li> <li>• (U) \$ 1.227 CEC: Software development: Concept exploration of alternate/advanced technology supporting sensor networking (Tactical Component Network (TCN) modeling and simulation.</li> <li>• (U) \$ 0.550 CEC: Test and Evaluation: Independent Verification and Validation (IV&amp;V) and developmental testing of their radar interface. Software testing support and analysis.</li> <li>• (U) \$ 1.214 CEC: Studies and Concept Exploration activities: Communications and packaging requirements definition and development. Antenna design development, transport packaging designs.</li> <li>• (U) \$ 0.101 CEC: Program management support.</li> <li>• (U) \$ 0.400 CID: Tested and evaluated systems currently available COTS for applicability.</li> <li>• (U) \$ 0.900 CID: Program Definition and Risk Reduction of systems.</li> <li>• (U) \$ 0.250 CID: Initiated Studies to investigate feasibility of using various fielded systems to fulfill some CID requirements.</li> <li>• (U) \$ 0.350 CID: Program management support.</li> <li>• (U) \$ 0.150 CID: Life Cycle Cost Estimate</li> <li>• (U) \$ 0.015 EADS: Facilitated the testing and evaluation of the modified/improved Continuous Wave Acquisition Radar (CWAR) trailer.</li> </ul>		
(U) Total \$ 6.880		
<b>FY 2001 Planned Program</b>		
<ul style="list-style-type: none"> <li>• (U) \$ 2.026 CEC: Software development: Interface Design Document (IDD) development for CAC2S and CLAWS interface to CEC.</li> <li>• (U) \$ 1.450 CEC: Software development: Concurrent development of alternate/advanced sensor networking technology interfaces (TCN).</li> <li>• (U) \$ 2.000 CEC: Initiate development of Engineer Design Model.</li> <li>• (U) \$ 0.650 CEC: Test and Evaluation: Developmental testing support.</li> <li>• (U) \$ 0.251 CEC: Continue Program management support.</li> <li>• (U) \$ 1.834 CID: Test and evaluate systems identified by the RFP</li> <li>• (U) \$ 1.838 CID: Continue Program Definition and Risk Reduction of RFP systems.</li> <li>• (U) \$ 1.300 CID: Continue Studies to investigate feasibility of using various fielded systems to fulfill CID requirements (add'l mission areas).</li> <li>• (U) \$ 1.145 CID: Continue Program management support.</li> <li>• (U) \$ 5.252 CLAWS: Initial development design and integration of two CLAWS Proof of Concept Vehicles for User Evaluation and Development Testing.</li> <li>• (U) \$ 2.000 CLAWS: Program Management Support.</li> <li>• (U) \$ 0.335 SBIR: Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.</li> </ul>		
(U) Total \$ 20.081		

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N/BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2278 Air Defense Weapons Systems</b>

**FY 2002 Planned Program**

- (U) \$ 0.121 MACCS RADAR: Initiate developmental test and evaluation.
- (U) \$ 0.147 MACCS RADAR: Initiate development of Engineer Design Model.
- (U) \$ 0.025 MACCS RADAR: Program management support.
- (U) \$ 0.191 SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Initiate developmental test and evaluation
- (U) \$ 0.100 SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Initiate development of Engineer Design Model
- (U) \$ 0.100 SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Program management support
- (U) \$ 0.010 SHORT/MEDIUM RANGE AIR DEFENSE RADAR: Travel/TAD
- (U) \$ 1.100 CEC: Continue Software development: IDD development for CAC2S and CLAWS interface to CEC
- (U) \$ 0.622 CEC: Continue development of Engineer Design Model.
- (U) \$ 0.648 CEC: Continue Testing and Evaluation: Developmental testing support.
- (U) \$ 0.300 CEC: Continue program management support.
- (U) \$ 5.876 CLAWS: Finalize the development, design and integration issues related to the two Proof of Concept Vehicles. Continue to conduct Developmental Testing. Conduct CAIV trade-offs and design/build Pre-Production Model.
- (U) \$ 2.000 CLAWS: Continue program management support.

(U) Total \$ 11.240

**(U) PROJECT CHANGE SUMMARY:**

	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	9.705	21.730	27.408
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.178		
(U) Execution Adjustment	-0.549	-7.733	
(U) Minor Affordability Adjustment	-0.038	-0.199	-0.192
(U) Program Adjustment	-2.060	6.283	-15.976
(U) FY 2002 President's Budget:	6.880	20.081	11.240

**CHANGE SUMMARY EXPLANATION:**

- (U) Funding: See Above.
- (U) Schedule: CEC and CLAWS: Milestone charts have changed due to program adjustment
- (U) Technical: Not Applicable.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE:			
							<b>June 2001</b>			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N/BA-7 Operational Sys Dev</b>		<b>0206313M Marine Corps Communications Sys</b>			<b>C2278 Air Defense Weapons Systems</b>					
<b>(U) B. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>										
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl		Total Cost
(U) PMC LINE BLI 300600 LAAD SUS						0.000	0.000	0.000	Continuing	Continuing
(U) PMC LINE BLI 462000 EADS (CWAR)	1.447	1.493	0.430	0.000	0.000	0.000		0		3.37
(U) PMC LINE BLI 464000 CEC						0.000	0.000	0		0.000
(U) PMC LINE BLI 464000 CLAWS					0.000	0.000		0		0
(U) PMC LINE BLI 464000 SH/MED RANGE AIR			0.596	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
(U) Related RDT&E: PE 0603216C (Ballistic Missile Defense Organization, Theater Missile Defense)										
<b>(U) D. ACQUISITION STRATEGY:</b>										
CEC: The USMC's CEC acquisition strategy is to participate in the USN's program procurement and testing, making necessary modifications to support the Marine Corps requirements. The USMC CEC Project will be utilizing existing and future USN CEC contracts.										
CLAWS: Competitively awarded fixed price contract for design and development. Additionally, there are firm fixed price production options through FY07.										

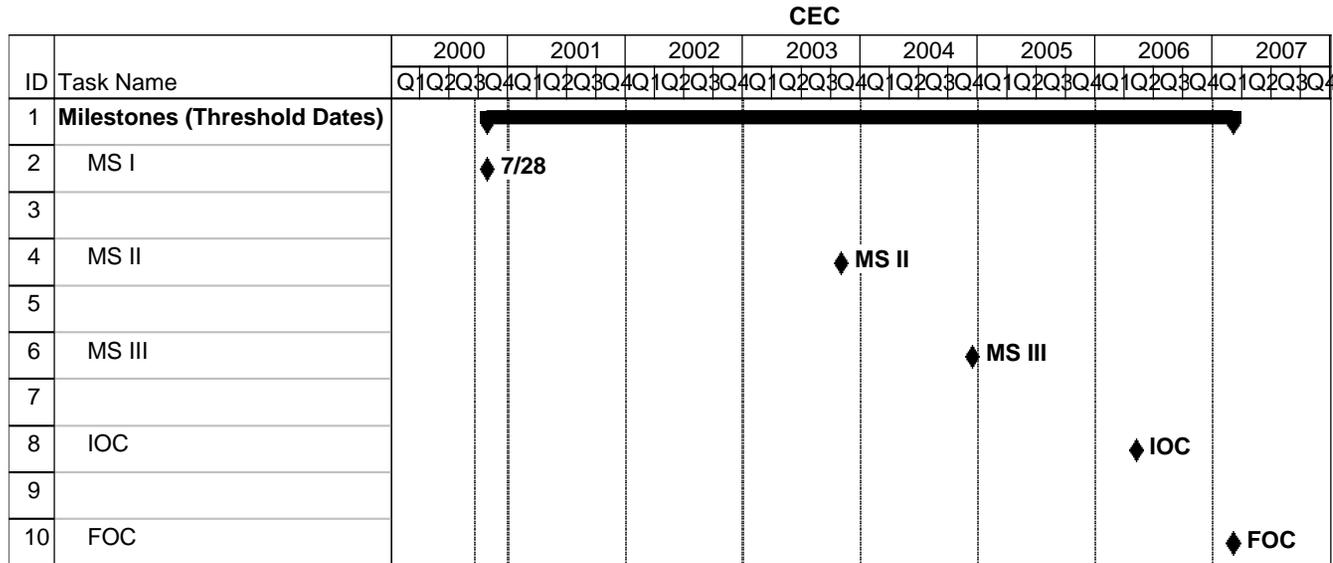
**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>June 2001</b>
---	------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2278 Air Defense Weapons Systems</b>
--	--	---

**(U) D. SCHEDULE PROFILE:**



<u>Program Funding Summary</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007 To Compl</u>	<u>Total Cost</u>
<u>(APPN, BLI #, NOMEN)</u>									
<u>(U) RDT&amp;E,N</u>	4.815	6.484	2.670	0.000	0.000	0.000	0.000	0.000	0.000
<u>(U) PMC, BLI# 464000 CEC</u>						0.000	0.000	0.000	0.000

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification

DATE:

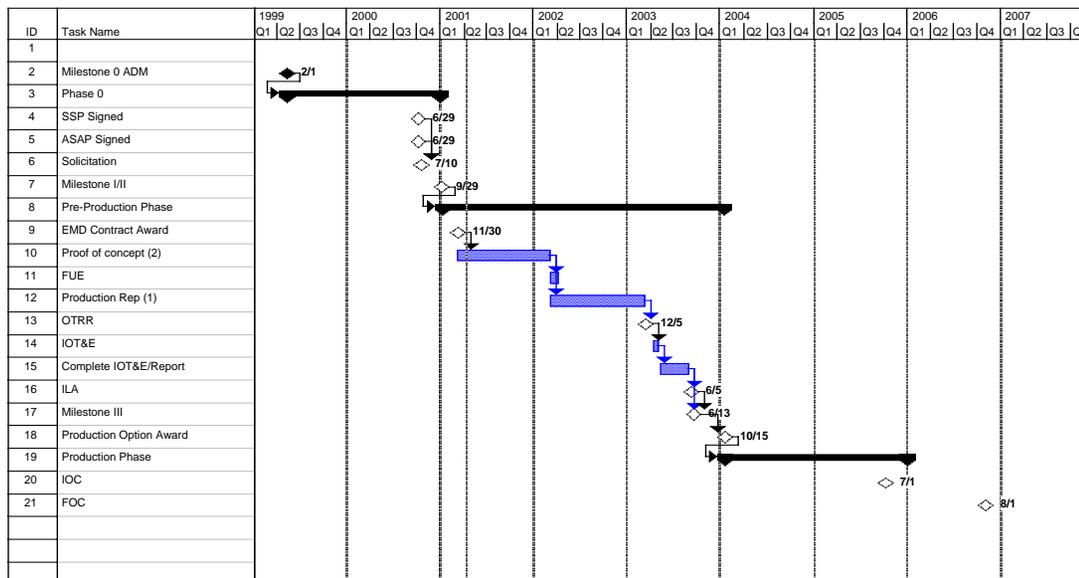
June 2001

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, N /BA-7 Operational Sys Dev

PROGRAM ELEMENT NUMBER AND NAME  
0206313M Marine Corps Communications Sys

PROJECT NUMBER AND NAME  
C2278 Air Defense Weapons Systems

## CLAWS



**Program Funding Summary**

(APPN, BLI #, NOMEN)

(U) RDT&E,N

(U) PMC BLI# 464000 CLAWS

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
(U) RDT&E,N		7.376	7.876	0.000	0.000	0.000			0.000	Cont.
(U) PMC BLI# 464000 CLAWS					0.000	0.000			0.000	Cont.

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2278 Air Defense Weapons Systems</b>					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev											0.000	
Ancillary Hardware Dev											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
MACCS Radar	MIPR	NSWC, Crane, IN						0.268	01/02	Continuing	Continuing	
S/M Range Air Defense Rdr	MIPR	NSWC, Crane, IN						0.291	01/02	Continuing	Continuing	
EADS	MIPR	MCLB Barstow, CA		0.015	01/00					0.000	0.015	0.015
EADS	MIPR	MILCOM, RA, AL	2.390							0.000	2.390	2.390
EADS	WR	MCTSSA, Cp Pnd,CA	0.029							0.000	0.029	0.029
CID	WR	USACOM, Norfolk, VA		0.750	01/00					0.000	0.750	0.750
CID	RCP	MCSC, Quantico, VA		0.400	01/00	1.253	07/01			0.000	1.653	1.653
CID	TBD	TBD				1.838	TBD			0.000	1.838	1.838
CEC	RCP	JHU/APL		1.221	12/99	0.850	06/01			Continuing	Continuing	
CEC	RCP	Sensis, Syracuse, NY		1.104	12/99	1.599	06/01			Continuing	Continuing	
CEC	WR	NSWC, Crane, IN		1.066	01/00	1.064		0.665		Continuing	Continuing	
CEC	RCP	Raytheon, St Ptrsbrg, FL		0.244	03/00	0.645	06/01	0.500	01/02	Continuing	Continuing	
CEC	WR	Solipsys, Laurel, MD		0.749	03/00	1.339		0.652		Continuing	Continuing	
CLAWS	RFP	TBD				5.252	TBD	5.876	TBD	Continuing	Continuing	
										Continuing	Continuing	
										Continuing	Continuing	
Subtotal Product Dev			2.419	5.549		13.840		8.252		Continuing	Continuing	
Remarks:												

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2278 Air Defense Weapons Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equip											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
SH/Med Rng Air Def Radar	RCP	MCSC, Quantico, VA						0.110	01/02	Continuing	Continuing	
MACCS Radar	RCP	MCSC, Quantico, VA						0.025	01/02	Continuing	Continuing	
CID	RCP	MCSC, Quantico, VA		0.450	01/00	0.970	06/01			0.000	1.420	1.420
CID	WR	MCSC, Quantico, VA		0.050	12/99	0.175				0.000	0.225	0.225
CEC	WR	Jaycor, FtWorth, TX		0.043	11/99					0.000	0.043	0.043
CEC	WR	MCLB Albany, GA		0.015		0.015		0.015		Continuing	Continuing	
CEC	MIPR	STA, FtWorth, TX		0.157	02/00	0.160		0.160		Continuing	Continuing	
CLAWS	RFP	MCSC, Quantico, VA				2.000	06/01	2.000	01/02	Continuing	Continuing	
Subtotal Support			0.000	0.715		3.320		2.310				
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Eval											0.000	
Operational Test & Eval											0.000	
Tooling											0.000	
CID	WR	NSWC China Lake, CA		0.400	01/00	1.881				0.000	2.281	2.281
CEC	MIPR	MCTSSA, Cp Pndltn, CA		0.010	12/99	0.050		0.050		Continuing	Continuing	
CEC	MIPR	MACS24 Damneck, VA		0.010	12/99	0.015		0.015		Continuing	Continuing	
CEC	RCP	Mitre, Bedford, MA				0.200	06/01	0.210	01/02	Continuing	Continuing	
CEC		DCMS, Syracuse, NY		0.020		0.020		0.020		Continuing	Continuing	
CEC	MIPR	NSWC, Dahlgren, VA				0.180	12/00	0.208		Continuing	Continuing	
Subtotal T&E			0.000	0.440		2.346		0.503		Continuing	Continuing	
Remarks:												

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			PROGRAM ELEMENT <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2278 Air Defense Weapons Systems</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Engineering Suppt											0.000	
Govt Engineering Suppt											0.000	
Program Management Suppt											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
CEC	RCP	Logicon, Stafford, VA		0.176	11/99	0.240	10/00	0.175	01/02	Continuing	Continuing	
SBIR						0.335						
Subtotal Management			0.000	0.176		0.575		0.175		0.000	0.926	
Remarks:												
Total Cost			2.419	6.880		20.081		11.240		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Development</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communication Systems</b>					PROJECT NUMBER AND NAME <b>C2315 Training Devices/Simulators</b>				
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	<b>8.104</b>	<b>10.714</b>	<b>8.599</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
RDT&E Articles Qty										

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

(U) Training simulators supported by this program element include Joint Simulation System (JSIMS), Closed Loop Artillery Simulation System (CLASS), Combined Arms Command & Control Training Upgrade System (CACCTUS), and Combat Vehicle Appended Trainer (CVAT). These training systems provide tactical weapons and decision-making skill training from entry level through Marine Air-Ground Task Force (MAGTF) staff level. CLASS integrates Marine Corps training requirements into the Joint Towed Artillery Digitalization System (TADS). Together these systems will be interoperable and will allow for mission planning, mission rehearsal and concept evaluation in a valid synthetic environment with objective, timely feedback. Through live, virtual and constructive simulation, the Marine Corps will have the means to train jointly, educate, develop doctrine and tactics, formulate and assess operational plans, assess warfighting situations and define operational requirements.

**PROGRAM ACCOMPLISHMENTS AND PLANS**

**FY 2000 Accomplishments:**

- (U) \$ 4.137 JSIMS: Continued to provide technical expertise to the US Army, US Navy and US Air Force in the development of USMC specific requirements. Participated in Collaborative Event 1 (a joint training exercise demonstration of software functionality). Procured testing hardware for Quantico site to support developmental testing and Verification, Validation and Accreditation of USMC requirements. Completed build 2 software development and continued build 3 software development.
- (U) \$ 0.265 JSIMS: Continued technical expertise to test planning group for build 1 demonstration. Participated in Collaborative Event and provided Verification, Validation, and Accreditation of USMC VRM 1 release.
- (U) \$ 0.528 JSIMS: Continued support in the development of USMC notional hardware configurations and participated in the Enterprise development of USMC C4I interface requirements.
- (U) \$ 1.997 CVAT: Performed system engineering testing of prototype functionality and interfaces.
- (U) \$ 0.781 CVAT: Developed, tested and integrated the application software.
- (U) \$ 0.396 CVAT: Procured non-developmental hardware for prototype development.

(U) Total \$ 8.104

**FY 2001 Planned Program**

- (U) \$ 3.796 JSIMS: Continue to provide technical expertise to the US Army, US Navy and US Air Force in the development of USMC specific requirements. Continue to participate in Federation Integration Events 1-4 and Functional Assessment 1.
- (U) \$ 0.450 JSIMS: Begin VRM 2.0 software development.
- (U) \$ 0.528 JSIMS: Continue support in the development of USMC notional hardware configurations and participate in the Enterprise development of USMC C4I interface requirements. Continue technical expertise to test planning group for build 1 demonstration. Participate in Collaborative Event and provide Verification, Validation, and Accreditation of USMC VRM 1 release.
- (U) \$ 2.963 CACCTUS: Plan, develop, integrate and test software interface with simulation and Combined Arms Staff Trainer (CAST) laser system.
- (U) \$ 2.501 CACCTUS: Develop C4I interface requirements.
- (U) \$ 0.476 CACCTUS: Procure NDI hardware for prototype development and integration. Study notional configurations and enhancements.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Development</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communication Systems</b>	PROJECT NUMBER AND NAME <b>C2315 Training Devices/Simulators</b>

(U) Total \$ 10.714

**FY 2002 Planned Program**

- (U) \$ 5.008 JSIMS: Continue to provide technical expertise to the US Army, US Navy and US Air Force in the development of USMC specific requirements. Participate in Federate Integration Event 5 and Functional Assessment 2.
- (U) \$ 0.612 JSIMS: Complete Version Release Milestone (VRM) 1.0 and begin participation in MOT&E.
- (U) \$ 0.716 JSIMS: Continue Verification, Validation, and Accreditation of the development of VRM 2.0 software.
- (U) \$ 1.836 CLASS: Plan, develop and integrate hardware and software of three different subsystem prototypes.
- (U) \$ 0.427 CLASS: Begin test and evaluation prototypes for functionality.

(U) Total \$ 8.599

**(U) PROJECT CHANGE SUMMARY:**

	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	12.088	5.871	9.529
(U) Adjustments from the President's Budget:			
(U) SBIR/STTR Transfer	-0.190		
(U) Execution Adjustment	-0.494		
(U) Minor Affordability Adjustment	-0.034	-0.109	-0.125
(U) Program Adjustment	-3.266	4.952	-0.805
(U) FY 2002 President's Budget:	8.104	10.714	8.599

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

**(U) B. OTHER PROGRAM FUNDING SUMMARY**

<u>Line Item No. &amp; Name</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) PMC, BLI# 653200 Trng Dev/Sims	13.308	33.437	30.566	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

(U) Related RDT&E: Not Applicable

**(U) C. ACQUISITION STRATEGY:**

- (U) **JSIMS** - Competitively awarded Level of Effort (LOE) contract followed by Cost Plus Fixed Fee (CPFF) contract.
- (U) **CVAT** - Development phase using a Cost Plus Fixed Fee (CPFF) contract utilizing an existing ID/IQC contract through NSWC, Indian Head, MD.
- (U) **CLASS** - Currently in the Concept Exploration Phase. A competitively awarded Cost Plus Fixed Fee (CPFF) contract will be utilized to do engineering, manufacturing and development.
- (U) **CACCTUS** - General Services Administration (GSA), Firm Fixed Price (FFP), with open competition will be used for software, hardware, installation and testing.

UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification

DATE:

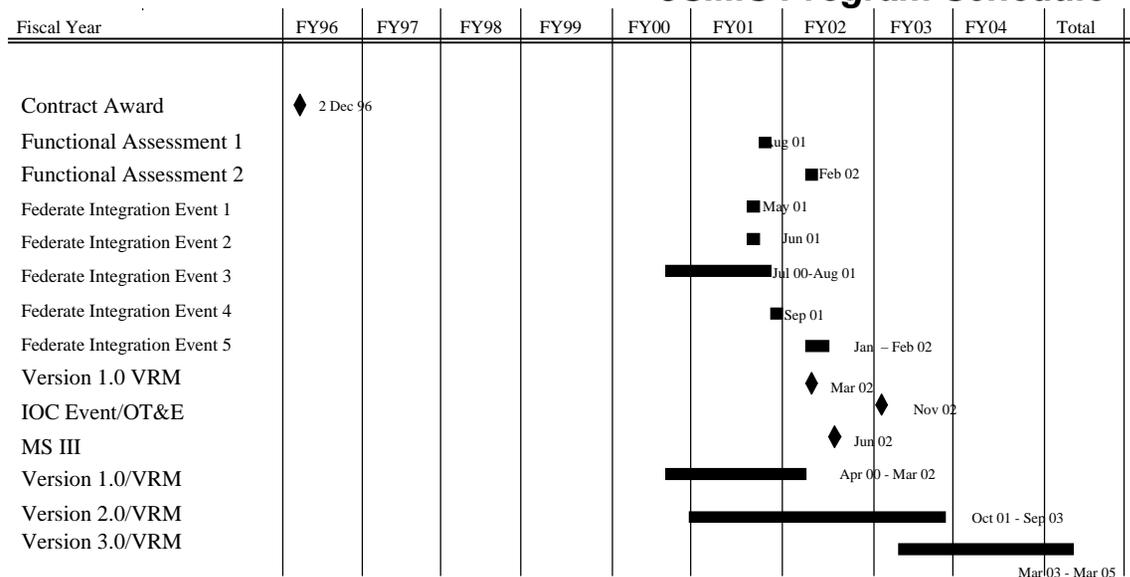
June 2001

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  
C2315 Training Devices/Simulators

**JSIMS Program Schedule**



**Other Program Funding Summary**

(APPN, BLI #, NOMEN)

(U) RDT&E,N

(U) PMC, BLI# 653200 Trng Dev/Sims

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
(U) RDT&E,N	4.930	4.774	6.336	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
(U) PMC, BLI# 653200 Trng Dev/Sims	0.000	0.000	1.328	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
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 C2315 Training Devices/Simulators

### CLASS Program Schedule

Fiscal Year	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	Total
Milestones VII			◆										
Developmental Contract Award			◆										
EMD			—										
KTR Test / DT			—										
IOT&E				■									
Milestone III					◆								
Contract Award					◆								
Production Lot 1					—								
IOC					◆								
Option Production Lot 2					—								
Option Production Lot 3						—							
FOC								◆					

Other Program Funding Summary (APPN, BLI #, NOMEN)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
(U) RDT&E,N	0.000	0.000	2.263	0.000	0.000	0.000	0.000	0.000	Cont.	2.263
(U) PMC, BLI# 653200 Trng Dev/Sims	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Cont.	0.000

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA 7 Operational Sys Development</b>			<b>0206313M Marine Corps Communication Systems</b>				<b>C2315 Training Devices/Simulators</b>					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev											0.000	
Ancillary Hardware Dev											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
	RCP	VISICOM, San Diego	6.926	3.539	1Q/00	3.941	2Q/01	4.537	2Q/02	Continuing	Continuing	
	MIPR	TACOM, Pctny Ars						2.559	1Q/02	0.573	3.132	3.132
	RCP	NSWC IH, MD		3.060	3Q/00					0.000	3.060	3.060
	WR	NRAD, SD, CA	1.796	0.415	2Q/00	0.400	1Q/01	0.408	1Q/02	Continuing	Continuing	
	MIPR	CECOM, FT M, NJ	1.903	0.528	3Q/00	0.528	2Q/01	0.538	2Q/02	Continuing	Continuing	
	RCP	TBD				5.460	3Q/01			0.000	5.460	5.460
	WR		0.015	0.015	1Q/00	0.015	1Q/01	0.015	1Q/02	Continuing	Continuing	
Subtotal Product Dev			10.640	7.557		10.344		8.057		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equip											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
	WR	NAWC, Orlando, FL	0.100					0.168	1Q/02	0.000	0.268	0.268
Subtotal Support			0.100	0.000		0.000		0.168				
Remarks:												

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis								DATE: <b>June 2001</b>				
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA 7 Operational Sys Development</b>			PROGRAM ELEMENT <b>0206313M Marine Corps Communication Systems</b>				PROJECT NUMBER AND NAME <b>C2315 Training Devices/Simulators</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Eval											0.000	
Operational Test & Eval											0.000	
Tooling											0.000	
	RCP	MCOTEA, Quantico, VA		0.298	1Q/00	0.200	1Q/01	0.204	1Q/02	Continuing	Continuing	
Subtotal T&E			0.000	0.298		0.200		0.204		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Engineering Suppt											0.000	
Govt Engineering Suppt											0.000	
Program Management Suppt											0.000	
	WR	NSWC, Indian Hd, MD		0.079	3Q/00	0.000		0.000		0.000	0.079	0.079
	RCP	SVERDRUP, Ft W Bch,FL		0.170	1Q/00	0.170	1Q/01	0.170	1Q/02	Continuing	Continuing	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.249		0.170		0.170		0.000	0.589	
Remarks:												
Total Cost				8.104		10.714		8.599		Continuing	Continuing	

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>June 2001</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N/BA-7 Operational Sys Dev</b>		PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>			PROJECT NUMBER AND NAME <b>C2510 MAGTF CSSE S&amp;E</b>					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	<b>1.060</b>	<b>1.064</b>	<b>4.602</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>Cont</b>	<b>Cont</b>
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 CINC's Common Operating Picture (COP) to support rapid accurate decision making.

1. The ATLASS PIP program funds the improvement of the fielded ATLASS II+ system as well as the migration of base and station (non-deployable) USMC intermediate and consumer level supply and maintenance systems from a mainframe environment into a personal computer application using a networked client-server architecture. The ATLASS PIP consolidates the total force intermediate and consumer level supply and maintenance information management functions into a single material management system. ATLASS PIP enhances ATLASS II+, retires existing mainframe legacy applications in use by the bases and stations, and improves logistic support to the operating forces. ATLASS PIP retains the flexibility to exploit existing commercial and government off-the-shelf software. This system remains compliant with the MAGTF C4I concept, GCCS COE, and published DOD standards for open systems architecture.

2. TC-AIMS II is a Joint transportation and deployment Automated Information System (AIS) supporting the DOD mission areas of mobility and sustainment. It will replace two of our MAGTF LOG AIS applications over a parallel transition starting in FY00. TC-AIMS II will be used by Command Elements, Traffic Management Offices (TMO), and all operating forces deploying units to automate the processes of planning, organizing, coordinating, and controlling deployment, redeployment, and sustainment activities worldwide, in peace as well as during contingencies. It provides modernized, scaleable, integrated, and easily deployable AIS that support reengineered deployment and business processes throughout DOD. TC-AIMS II is the key enabler towards Force Deployment Planning and Execution. It is the source system for In-Transit-Visibility (ITV) data, which provides CINCs and Components with critical visibility of items in the transportation pipeline. TC-AIMS II links all DOD Component unit movement and Installation Transportation Office/Traffic Management Office (ITO/TMO) functionality into a single transportation management system. It is a Joint ACAT 1A(M) program, with the USMC portion being handled as an ACA

3. MAGTF CSSE & SE: The CSSE Shared Data Environment is a cornerstone concept of the Integrated Logistics Capability. It will incorporate data warehousing technologies and products to provide one-stop shopping for data supporting CSSE/SE decision-making processes. It will stage CSSE/SE data and integrate decision support tools (DST) to enable command and control (C2), situational awareness, and total asset visibility at all levels of command, from the CINC to the Company Commander. The establishment of the CSSE SDE will eliminate the need for individual applications to perform these tasks for themselves and will contribute to a more cost-effective, efficient application development environment.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2510 MAGTF CSSE S&amp;E</b>
<b>PROGRAM ACCOMPLISHMENTS AND PLANS</b>		
<b>FY 2000 Accomplishments:</b>		
<ul style="list-style-type: none"> <li>• (U) \$ 0.741 ATCLASS PIP: Evaluated candidate design/development strategies for ATCLASS PIP in light of recast requirements by Integrated Logistics Capability (ILC).</li> <li>• (U) \$ 0.225 ATCLASS PIP: Explored web-enabling technologies to web-base ATCLASS II+.</li> <li>• (U) \$ 0.020 TC-AIMS II: Held conferences on Concept of Employment and Integration Plans exploration and development with Air/Ship/Rail Load Planning and Joint Planning &amp; Execution Tools.</li>   <li>• (U) \$ 0.021 TC-AIMS II: Held conference on training implementation.</li> <li>• (U) \$ 0.023 TC-AIMS II: Performed operational test independent service evaluation on version 3.01 of TC-AIMS II.</li> <li>• (U) \$ 0.010 TC-AIMS II: Held a Cross MOS training conference.</li> <li>• (U) \$ 0.020 TC-AIMS II: Began field site survey.</li> </ul>		
(U) Total \$ 1.060		
<b>FY 2001 Planned Program</b>		
<ul style="list-style-type: none"> <li>• (U) \$ 0.080 ATCLASS PIP: Begin development of implementation and support plans.</li> <li>• (U) \$ 0.319 TC-AIMS II: Begin exploration and development of service specific application enhancements.</li> <li>• (U) \$ 0.010 TC-AIMS II: Begin Incremental Development Package (IDP) testing .</li> <li>• (U) \$ 0.049 TC-AIMS II: Continue fielding site survey.</li> <li>• (U) \$ 0.200 TC-AIMS II: Begin migration of legacy systems study.</li> <li>• (U) \$ 0.399 Funding identified as a source to be reprogrammed to the Shipbuilding and Conversion, Navy appropriation.</li> <li>• (U) \$ 0.007 Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.</li> </ul>		
(U) Total \$ 1.064		
<b>FY 2002 Planned Program</b>		
<ul style="list-style-type: none"> <li>• (U) \$ 2.186 ATCLASS PIP: Begin Design and develop ATCLASS PIP strategies and continue development of implementation and support plans</li> <li>• (U) \$ 0.725 ATCLASS PIP: Evaluate and begin web-enabling technology for ATCLASS PIP.</li> <li>• (U) \$ 0.725 ATCLASS PIP: Pre-Site and Site survey for Pilot Site before actual testing begins.</li> <li>• (U) \$ 0.100 TC-AIMS II: Conduct a service specific study on the possibilities of Web Enabling TC-AIMS II</li> <li>• (U) \$ 0.005 TC-AIMS II:Conduct LAN/BANDWIDTH testing.</li> <li>• (U) \$ 0.125 TC-AIMS II: Continue service specific software enhancement to TC-AIMS II to provide interface capability with USMC systems.</li> <li>• (U) \$ 0.010 TC-AIMS II: Conduct Subject Matter Expert Evaluations of the system.</li> <li>• (U) \$ 0.046 TC-AIMS II: Conduct bi-annual Logistics Systems Working Groups.</li> <li>• (U) \$ 0.680 MAGTF CSSE &amp; SE: Begin design &amp; development of web-enabling technologies, messaging backbone, and integration with air/ship/rail load and joint planning &amp; execution tools. Begin</li> </ul>		
(U) Total \$ 4.602		

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>June 2001</b>
---	---------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2510 MAGTF CSSE S&amp;E</b>
--	--	--

**(U) PROJECT CHANGE SUMMARY:**

	FY2000	FY2001	FY2002		
(U) FY 2001 President's Budget:	1.135	1.074	0.681		
(U) Adjustments from the President's Budget:					
(U) SBIR/STTR Transfer	-0.028				
(U) Execution Adjustment	-0.058				
(U) Minor Affordability Adjustment	-0.020	-0.010	-0.067		
(U) Program Adjustment	0.031		3.988		
(U) FY 2002 President's Budget:	1.060	1.064	4.602		
<b>CHANGE SUMMARY EXPLANATION:</b>					
(U) Funding: See Above.					
(U) Schedule: Not Applicable.					
(U) Technical: Not Applicable.					

**(U) B. OTHER PROGRAM FUNDING SUMMARY:**

<u>Line Item No. &amp; Name</u>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 To Compl	Total Cost
PMC BLI 464100 ATLASS PIP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing
PMC BLI 464100 TC-AIMS II	3.535	3.330	3.998	0.000	0.000	0.000	0.000	0.000	Continuing

(U) Related RDT&E: Not Applicable.

**(U) C. ACQUISITION STRATEGY: \* An explanation of acquisition, management, and contracting strategies shall be provided for each project.**

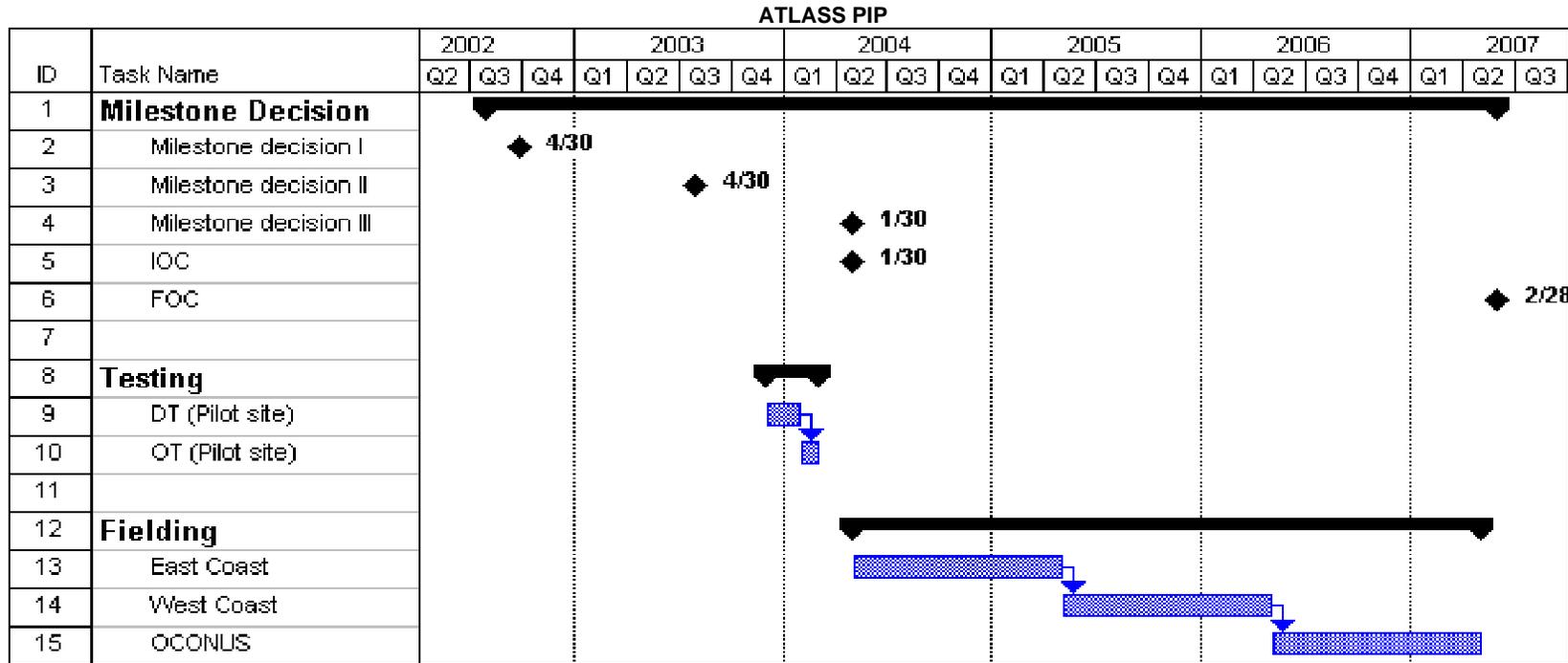
ATLASS PIP: The current acquisition strategy is to stay with SSC Chesapeake, the developer for ATLASS II+ for our development work. Studies will be conducted during Phase 0 to ensure that SSC Chesapeake is still the best value or should we look to industry to be the developer.

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>June 2001</b>
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA-7 Operational Sys Dev</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0206313M Marine Corps Communications Sys</b>	PROJECT NUMBER AND NAME <b>C2510 MAGTF CSSE S&amp;E</b>

**(U) D. SCHEDULE PROFILE:**



<u>Program Funding Summary</u> <u>(APPN, BLI #, NOMEN)</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007 To Compl</u>	<u>Total Cost</u>
<u>(U) RDT&amp;E,N</u>	0.966	0.087	3.636	0.000				0.000	Cont.
<u>(U) PMC, BLI# 464100 ATLASS PIP</u>				0.000	0.000	0.000	0.000	0.000	Cont.



**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis										DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
<b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			<b>0206313M Marine Corps Communications Sys</b>				<b>C2510 MAGTF CSSE S&amp;E</b>					
Cost Categories (Tailor to WBS, or Sys/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev											0.000	
Ancillary Hardware Dev											0.000	
Systems Engineering											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
ATLASS PIP	TBD	SSC Chesapeake	0.000	0.966	09/00	0.080	01/01	3.636	02/02	2.240	Continuing	
TC-AIMS II	C/FFP	Various				0.319	01/01	0.225	02/02	0.300	Continuing	
MAGTF CSSE&SE	C/FFP	Various						0.680	02/02	0.541	Continuing	
SCN Reprogramming	TBD	TBD				0.399				0.000	0.399	0.400
SBIR						0.007						
Subtotal Product Dev			0.000	0.966		0.805		4.541		Continuing	Continuing	
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support Equip											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
TC-AIMS II	WR	Various		0.071	Var	0.249	Var	0.056	02/02	Continuing	Continuing	
Subtotal Support			0.000	0.071		0.249		0.056				
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Eval											0.000	
Operational Test & Eval											0.000	
Tooling				0.023	09/00	0.010	03/01	0.005	02/02		0.038	
TC-AIMS											0.000	
Subtotal T&E	RCP	MCSC	0.000	0.023		0.010		0.005		Continuing	Continuing	
Remarks:												

**UNCLASSIFIED**

**CLASSIFICATION:**

Exhibit R-3 Cost Analysis										DATE: <b>June 2001</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /BA 7 Operational Sys Dev</b>			PROGRAM ELEMENT <b>0206313M Marine Corps Communications Sys</b>				PROJECT NUMBER AND NAME <b>C2510 MAGTF CSSE S&amp;E</b>					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Contractor Eng Suppt											0.000	
Govt Engineering Suppt											0.000	
Program Mngmnt Suppt											0.000	
Travel											0.000	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost				1.060		1.064		4.602		Continuing	Continuing	