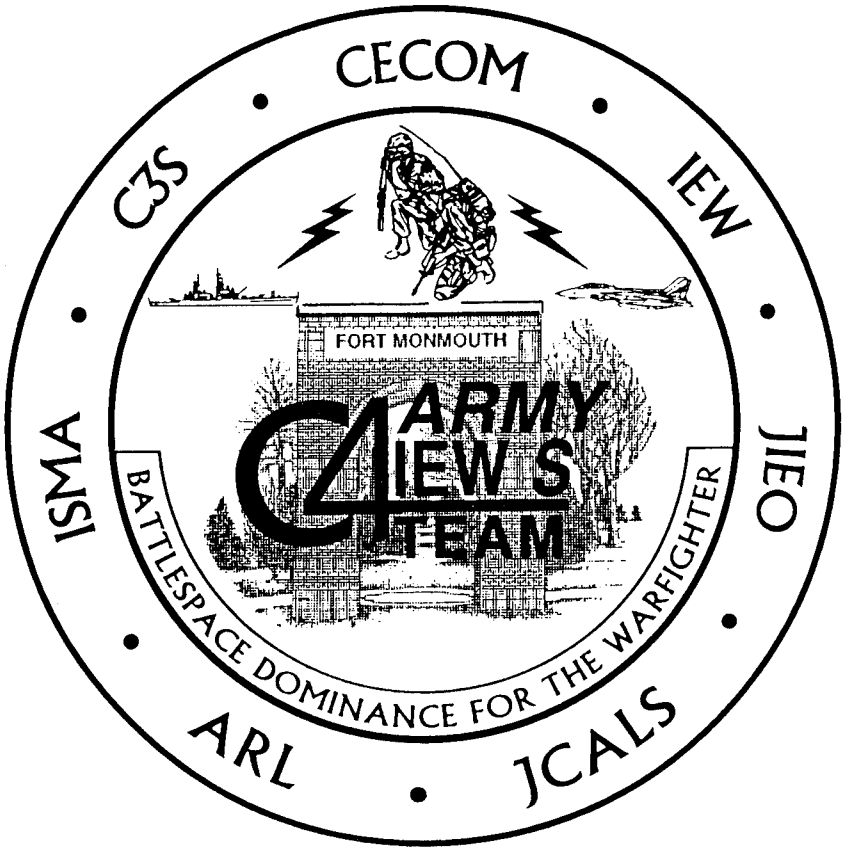
COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, INTELLIGENCE ELECTRONIC WARFARE (C4IEW) AND SENSORS

PROJECT BOOK

FISCAL YEAR 1996



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HEADQUARTERS, US ARMY COMMUNICATIONS–ELECTRONICS COMMAND
FORT MONMOUTH, NEW JERSEY 07703–5027

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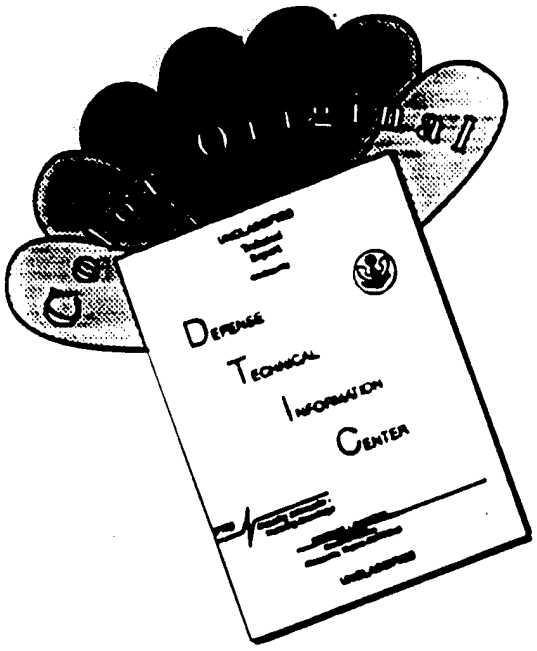

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C4IEW AND SENSORS PROJECT BOOK FISCAL YEAR 1996

Message from the Commanding General US Army Communications-Electronics Command (CECOM) and Fort Monmouth, New Jersey

Dear Reader:

I am pleased to present the final hard copy version of the Command, Control, Communications, Computers (C4), Intelligence and Electronic Warfare (IEW) and Sensors Project Book. It displays a cross section of the Army's C4, IEW and Sensors Team's systems and equipment which are currently in development, production, or in the field. This publication reflects a coordinated effort between CECOM, PEO Command and Control and Communications Systems (PEO C3S), PEO Intelligence and Electronic Warfare (PEO IEW), US Army Information Systems Management Activity (USAISMA), and Army Research Laboratory/Power Sources Directorate (ARL/PSD).

The C4, IEW and Sensors military community shares the critical mission of equipping, sustaining, and modernizing C4, IEW and Sensor systems using superior technology in support of worldwide power projection. This mission supports a trained and ready force capable of accomplishing decisive victory, and provides the foundation to Force XXI.

We must take the lead in meeting future challenges as we experience vast changes to our global environment and resources. The C4, IEW and Sensors Project Book serves to keep our audience abreast of our latest developments and initiatives toward this objective.

For your convenience, future editions will be located on the Worldwide Web site: www.monmouth.army.mil.

CECOM Bottom Line: THE SOLDIER.

Sincerely,

Gerard P. Brohm
Major General, US Army
Commanding

The Fiscal Year 1996 edition of the C4IEW and Sensors Project Book is presented in two formats. One is for use by DOD components only (critical technologies) and is For Official Use Only (FOUO). A second version is available for use by DOD components and their contractors and is available to the public.

The information found within is current at the time of publication (February 1996) and is subject to change. Requests for the FOUO version or comments/suggestions may be addressed as follows:

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U.S. Army Communications-Electronics Command (CECOM)
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INDEX OF ORGANIZATIONS

INDEX OF ORGANIZATIONS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

PEO C3S

PM, ADCCS

PM, ADCCS

AIR DEFENSE AUTOMATED COMMAND POST (STAFF PLANNING VAN)

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

PRODUCT MANAGER: LTC James Moran, DSN 788-3517
COMM 205/895-3517

NO PICTURE AVAILABLE

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:

DESCRIPTION: The Air Defense Automated Command Post (ACP) will consist of processors, displays, software, and communications equipment to meet the staff planning Force operations needs of FAAD, PATRIOT, and other Extended Air Defense systems, using available ATCCS S/W and Common Army Hardware/Software (CHS). The Van will be a Standard Integrated Command Post System (SICPS) shelter.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Jul 93 Inception of Idea.

REQUIREMENTS DOCUMENT: PATRIOT PAC III ORD, ADTOC UFD.

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Phase 2 Tech Demo	4					

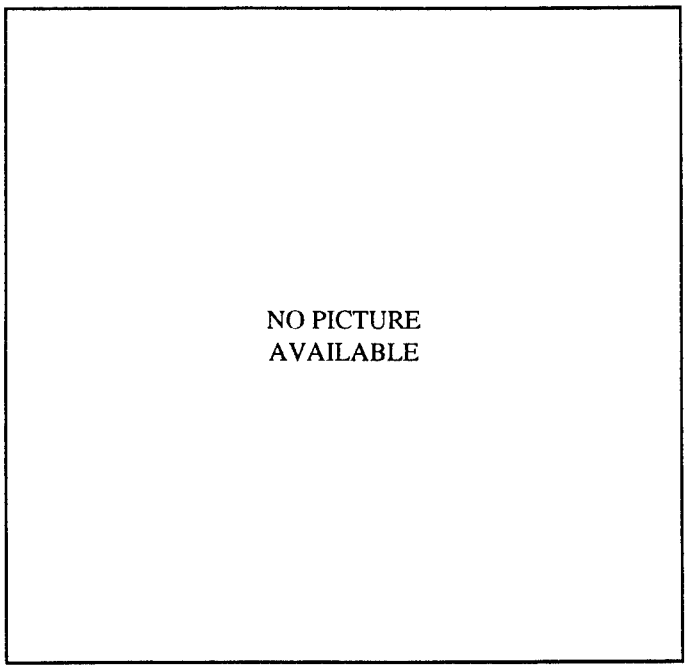
SYNOPSIS: THE AIR DEFENSE STAFF PLANNING VAN WILL PROVIDE S1/S4 CAPABILITIES AT BDE AND BELOW.

PM, ADCCS

AIR DEFENSE INTERFACE EQUIPMENT (ADI)

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

PRODUCT MANAGER: LTC James Moran, DSN 788-3517
COMM 205/895-3517



ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:

DESCRIPTION: The ADI equipment interfaces the analog voice and data that is generated/received at an air defense brigade or battalion tactical system and transmit the information to another system over the Mobile Subscriber Equipment (MSE) network. Similar equipment is used at the Air Force CRC to provide a joint interface. The system was developed by PM ADCCS, and used a contractual vehicle provided by PM, JTACS (formerly PM, MSE) with the MSE prime contractor, GTE. The ADI system is composed of an Analog/Digital Converter (ADC), an ADI Operator Interface (ADIOI), and - when required - a Secure Line Termination Unit (SLTU). All devices are bi-directional, making the interface a duplex communication link. The ADC converts nine channels of digital signals from MSE to analog signals used by the air defense systems. The ADIOI controls the connections to the MSE network. Functions include affiliation, Built in Test, and choice of voice/data connectivity. The SLTU multiplexes the nine channels into one signal flow and encrypts this signal. When an SLTU is present, the system interfaces to the MSE transmitter/receiver [(Line of Sight (LOS)]. In the absence of the SLTU, a MSE Small Extension Node (SEN) performs the SLTU function and at the same time carries many of the voice signals required at either air defense echelon.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Jun 91 Requirement identified and ADCCS given the development lead.
May 92 First Unit Equipped in OCONUS.
Dec 92 First Unit Equipped in CONUS.
Jul 94 ADI equipment provided to National Guard Units.

REQUIREMENTS DOCUMENT: The requirement was derived from each user system's continued requirement to interoperate with other systems as MSE was fielded. No other new functional capabilities were added.

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Training Tape Development	2					

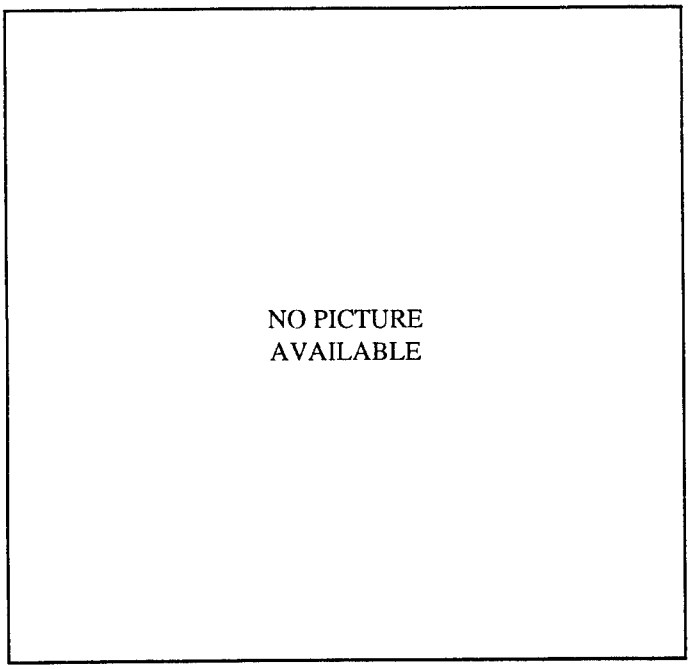
SYNOPSIS: ALL U.S. SYSTEMS IN GERMANY ARE ADI EQUIPPED AND HAVE A PROVEN CAPABILITY TO COMMUNICATE OVER THE MSE NETWORK. CONTINUE EFFORT TO PROVIDE SYSTEMS TO CONUS AIR DEFENSE SYSTEMS.

PM, ADDCS

AIR DEFENSE SYSTEMS INTEGRATOR (ADSI)
[formerly Joint TADIL A Distribution System (JTADS)]

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/894-3441

PRODUCT MANAGER: LTC James Moran, DSN 788-3517
COMM 205/894-3517



ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:

DESCRIPTION: The basic ADSI system receives TADIL A HF data, converts it to either TADIL B or ATDL-1, and, using modems, sends the data to an Army Air Defense Artillery system over a hard wire connection. Current software capabilities have been expanded to accomplish the following:

1. Provide TADIL A duplex capability.
2. Add a second TADIL A receiver to permit over the air frequency adjustments.
3. Provide UHF duplex radios for TADIL A and satellite communication.
4. Provide multiple TADIL B and ATDL-1 ports.
5. Accept and forward TIBS and TRAP data from a CTT.
6. Accept data from multiple radar sources.
7. Correlate all the surveillance data to provide a single air picture.
8. Preliminary versions available to receive the FAAD Data Link (FDL) and the Patriot Digital Information Link (PADIL).
9. Capability to act as a command and information center. The system does not currently control weapon/missile fires.
10. Planning aid for communications and sensor placement including maps and areas of coverage.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

3QFY89 TADIL A capability demonstrated during Desert Shield.
2QFY91 TADIL A requirement generated for Desert Storm.
3QFY91 JTADS systems installed in Patriot for Desert Storm.
2QFY94 ADSI Systems installed in 3 automated ADA Brigade TOCs.
2QFY95 ADSI Systems installed in 2 new SICPS-based ADA Brigade TOCs.

REQUIREMENTS DOCUMENT: Desert Storm - Required for joint interoperability. Operational Needs Statement - Joint TADIL A Distribution System (JTADS), May 93. ROCs for TADIL A capability included in Air Defense Systems (PATRIOT PAC 3, THAAD, FAAD C2I BLOCK 2).

TYPE CLASSIFICATION:

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ADSI Certification		4					

SYNOPSIS: THE JTADS EFFORT WILL STANDARDIZE AND PRODUCE SUFFICIENT JTADS SYSTEMS TO MEET THE CURRENT ARMY NEED FOR TADILA INTEROPERABILITY WITH JOINT AND ALLIED SYSTEMS.

PM, ADCCS

AN/TSQ-73, MODIFICATION TO INTEGRATE PATRIOT, HAWK, KSA WEAPON SYSTEMS

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

PRODUCT MANAGER: LTC James R. Moran, DSN 788-3517
COMM 205/895-3517

NO PICTURE AVAILABLE

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:

DESCRIPTION: The Security Assistance Management Directorate (SAMD) implemented a Foreign Military Sales (FMS) case (SR-B-JBV) with the Kingdom of Saudi Arabia (KSA) to procure the Patriot Missile System. The introduction of Patriot requires the necessary modifications to the Royal Saudi Arabian Air Defense Forces (RSADF) Command, Control, and Communications (C3) System to allow Patriot and subsequently HAWK Phase III to be integrated into the air defense environment. This effort will involve the modification of the KSA AN/TSQ-73 to allow the integration of Patriot, HAWK and Saudi Weapon Systems.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

- o FMS Case Signed.
- o ADCCS Study effort.

Jul 93 ADCCS Draft SOW and brief to LTC Sadek.
Feb 94 Effort on hold due to KSA funding shortfall.

REQUIREMENTS DOCUMENT: FMS Case No. SR-B-JBV SAMD letter to PM ADCCS entitled "Air Defense Command and Control (ADCC) Interoperability Upgrade for the Royal Saudi Air Defense Force (RSADF)".

TYPE CLASSIFICATION:

SYNOPSIS: THE KSA AN/TSQ-73 UPGRADE WILL PROVIDE THE RSADF INTEROPERABILITY WITH ALL OF THE RSADF WEAPON SYSTEMS.

PM, ADCCS

FORWARD AREA AIR DEFENSE, COMMAND, CONTROL and INTELLIGENCE (FAADC2I)

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

PRODUCT MANAGER: LTC E. Siomarco, DSN 788-4309
COMM 205/895-4309

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: Block II - Prod and Deployment
Block III - Engr & Mnfctrng Dev

PE & LINE #: RDT&E: 0604741A/D126
OPA

DESCRIPTION: The FAAD C2I System supports the FAAD battalion mission by providing C2I information to higher, adjacent, and lower units. The FAAD C2I mission encompasses the detection, acquisition, and identification of helicopters, fixed-winged aircraft, and unmanned aerial vehicles; the distribution and dissemination of C2I data among the ADA units and combined arms elements; the provision of early warning to the rest of the force; and the alerting of Air Force and rear area defenses to transiting enemy aircraft. To accomplish its mission, FAAD C2I is integrated into and will interoperate with both the Army Tactical Command and Control System (ATCCS) and FAADS.

The FAAD C2I system consists of processors and displays, software and communications equipment to meet the command and control and targeting needs of FAAD battalions and separate batteries. Computer displays will allow commanders access to data bases for the air picture, situation reports, enemy assessments, friendly force status, and maneuver control. The amount of data base access varies at each FAAD echelon. It will handle information classified up to SECRET. The system provides an embedded training simulation capability that will replicate those situations encountered in actual mission operation. Evolving SW capabilities are added by new versions across the FAAD C2I development cycle.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The FAAD C2I subsystems are air (C141, C17, C130, and CH-47D (wheeled variants)), rail, surface, and water transportable without disassembly from the carrrier.

HISTORICAL BACKGROUND:

Mar 85 Short Range Air Defense Command Control (SHORADC2) presented.
Jan 86 SHORAD C2 becomes subsystem of FAAD. System redesignated FAADC2I.
Jul 86 Milestone II full scale development of system software.
Jan 91 Program Restructured for Light Special Division (V3).
Feb 93 Technical Test/Limited User's Test (V3).
May 93 PEO CCS Decision (LRIP).
Sep 93 First Unit Equipped 101st AA (V3).
Aug 94 Block III contract awarded.
Aug 94 OT/ROTE Test V4 (Hwy Div).
Nov 94 IOT&E V4.
Dec 94 Developmental Test and Initial Operational Test completed (Block II).
Apr 95 HQDA approved full rate production (Block II) (Milestone III).
Oct 95 First Unit Equipped 24th ID (Block II).

REQUIREMENTS DOCUMENT: ROC approved Oct 85; Block II ROC approved Jul 92; O&O approved May 92, BLOCK I: V3.

TYPE CLASSIFICATION: PEO C3S approved low rate production for Block I May 93. HQDA approved limited procurement for Block II Apr 95.

SYNOPSIS: FAADC2 PROVIDES NEAR REAL TIME TARGETING & C2 INFORMATION, ACCURATE & TIMELY IDENTIFICATION OF TARGETS, ALERTING OF FAAD & FORCE ELEMENTS, CUEING OF FAAD WEAPONS, & INTEROPERABILITY WITH ALLIED & JOINT ADC2 SYSTEMS.

PM, ADCCS

III CORPS ARTILLERY ASSAULT COMMAND POST

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

PRODUCT MANAGER: LTC James R. Moran, DSN 788-3517
COMM 205/895-3517

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #:

DESCRIPTION: The III Corps Artillery Assault CP is the Deep Operations Control Center (DOCC) for the III Corps. The CP consists of inherent Field Artillery components (Corps Fire Support Element (FSE) and the Fire Control Element (FCE)) to control four artillery brigades, a planning cell, operations cell, augmentation by the Air Force, Army Airspace Command and Control (A2C2) element, a Cavalary element, and a command element. The CP utilizes the Automated Deep Operations Coordination System (ADOCS) to perform targeting. The Improved Fire Support Automated System (IFSAS) provides fire control, the All Source Analysis System (ASAS) Warrior and Collateral Enclave (CE) equipment provides intelligence, and the Commander Real Time Tactical Display (CRTD) merges the information to provide a complete picture of the battle. All computer equipment is LANed together and able to be selected on the Commander's large screen display. There is an integrated intercom communications system which allows access to all radios and Mobile Subscriber Element (MSE) devices. The CP is designed into the Standardized Integrated Command Post System (SICPS) Rigid Wall Shelters (RWS) mounted on High Mobility Multi-Purpose Wheeled Vehicles (HMMWVs) to allow transportability to C-141.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C-141 Transportable.

HISTORICAL BACKGROUND:

Jul 95 Requested through Depth & Simultaneous Attack Battle Lab (Ft. Sill, OK).
Sep 95 Concept Development.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Concept Approval		1				
Funding		1–2				
Development		3–4				
Deployment			1–2			

SYNOPSIS:

PM, ADCCS

CINC TMD CELLS

PROJECT MANAGER: LTC James Moran, DSN 788-5437
COMM 205/895-5437

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #:

DESCRIPTION: The CINC TMD cells integrate existing intelligence information and analysis applications to provide situational awareness of current TMD activities on the battlefield. TMD cells augment the existing capability of each CWS Operations Center. Each cell is configured to meet the specific needs of each Theater. Each TMD cell consists of communications equipment and software applications that enable an operator to monitor the TMD related activity throughout a theater. Each cell can be configured to receive and process messages from JTAGS, SIDS, TIBS, TDDS (TRAP), TADIL-A, TADIL-B, JMCIS (OTCIXS, OTH-GOLD) and STACCS. Currently only one cell is fielded - USEUCOM. This cell is configured in two S250 shelters mounted on CUCV's. In its current configuration, this cell is soldier operated and contractor maintained.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: All cells are C130 Deployable. Cell does not carry organic power. Can adapt to any power available within AOR.

HISTORICAL BACKGROUND:

May 94 USEUCOM identifies requirements to automate and integrate TMD capabilities.
Nov. 94 Delivery of EUCOM TMD cell.
Apr 95 Deployment of EUCOM TMD cell in support of Roving Sands in Texas.
Oct 95 Decision to retrofit EUCOM cell into HMMWVS in SICS.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Delivery of CENTCOM TMD Cell		2				
Completion of EUCOM TMD Cell Retrofit		3				
Delivery of PACOM TMD Cell		3				
Delivery of ACOM TMD Cell		4				
Delivery of USFK TMD Cell		4				

SYNOPSIS: CINC TMD CELLS INTEGRATE EXISTING INTELLIGENCE INFORMATION AND ANALYSIS APPLICATIONS TO PROVIDE SITUATIONAL AWARENESS OF CURRENT TMD ACTIVITIES ON THE BATTLEFIELD.

PM, ADCCS

TASK FORCE XXI TACTICAL OPERATIONS CENTERS (TFXXI TOC)

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #:

DESCRIPTION: The TFXXI TOCs are a group of automated tactical operations centers/command posts being integrated to support the 1st Brigade (BDE), 2nd Armored Division (2AD) Army Warfighting Exercise in the spring of 1997. The TOCs integrate digital hardware systems being provided by other Program Executive Officer Command, Control and Communications Systems (PEO C3S) to improve the warfighting capability of the Experimental Force. TOCs being constructed are the 2AD Command Post 2 (CP2), the BDE TOC, the BDE Alternate Command Post (TAC), the Brigade Support Area TOC, the 3rd Battalion, 66th Armor TOC, the 3rd Battalion, 41st Infantry TOC, the 1st Battalion, 5th Infantry TOC, the 1st Battalion, 3rd Field Artillery TOC, and the 17th Engineer Battalion TOC. The TOCs will incorporate the digital functionality provided by the Applique System/Phoenix (MCS/P), the All Source Analysis System Remote Work Station (ASAS RWS), the Combat Service Support Control System (CSSCS), Single Channel Ground and Airborne Radio System Improvement Program (SINCGARS SIP), and the Enhanced Position Location Reporting Systems (EPLRS) radios along with other communications and peripheral devices. TOCs will be integrated into Rigid Wall Shelter Standard Integrated Command Post Shelters (RWS SICPS), the M-1068 vehicle (a variant of the M-577) and the Command and Control Vehicle (C2V). PM ADCCS is responsible for integrating all the equipment furnished as GFE from other Army sources into the various TOC configurations. PM ADCCS will accomplish this integration as a customer funded activity.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: All tools are mounted on their own prime movers, either HMMWV, M-1068, or C2V.

HISTORICAL BACKGROUND:

Aug 95 PM ADCCS given mission of integrating TFXXI TOCs.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: All TOCs are being constucted as prototypes but will be left with 2AD upon completion of AWE.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Integration Mission Received	4					
TOC Integration		1---3				
Support Prototype TOCs		3--------	--2			
TFXXI AWE			2			

SYNOPSIS: THE TFXXI TOCS PROVIDE AN INTEGRATED ASSEMBLAGE OF DIGITAL COMPUTING AND COMMUNICATIONS DEVICES TO IMPROVE THE WARFIGHTING CAPABILITY OF THE 1ST BDE, 2AD.

PM, ADCCS

AIR DEFENSE ARTILLERY AUTOMATED BRIGADE TACTICAL OPERATIONS CENTER (TOC) (PROTOTYPE)

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #:

DESCRIPTION: The ADA Brigade TOC consists of six (6) HMMWV with SICPS Rigid Wall Shelters, connected by 6 SICPS tents to form a self-contained command and control element. The shelters are populated with automated systems to provide the commander with intelligence, tactical planning capability, air picture from multiple sources, air defense fire direction capability, admin/log staff functions and robust multi-mode communications. The TOC provides the Brigade commander critical new capabilities including real-time Tactical Ballistic Missile threat intelligence from space-based assets, a single-vehicle Jump TOC for echeloned redeployment, automated C2 links to both FAAD and HIMAD/TMD units, real-time air picture from AWACS, automated C2 linkages with higher headquarters, and automated roll-up of subordinate units logistics and personnel status. It is highly mobile, transportable by C-130 aircraft, and interoperable over a vast array of tactical communications to both Army and Joint Services.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Consists of 6 HMMWV-mounted SICPS Rigid Wall Shelters (RWS) towing 10kw prime power units. Air transportable by C-130 and larger.

HISTORICAL BACKGROUND:

FY93 Experimental automated TOC concepts validated at Exercise Roving Sands.
FY94 Prototype 5-ton vehicle mounted TOC fielded to 2 Bdes and exercised at Roving Sand.
FY95 Prototype HMMWV-mounted TOC fielded to 1Bde - exercised at Roving Sands '95.

REQUIREMENTS DOCUMENT: Draft ADA Bde TOC ORD, Oct 94.

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Prototype fielding - ADA Bde	2					
Prototype fielding - ADA Bde		1 3				
Training set fielding to training base		2				
Prototype fielding - ADA Bde			2 3 4			

SYNOPSIS: THE ADA BDE TOC IS AN AUTOMATED SYSTEM OF SYSTEMS PROVIDING THE ADA BDE COMMANDER AIR AND GROUND SITUATION AWARENESS, INTELLIGENCE, AND THE MEANS TO EXERCISE TACTICAL CONTROL.

PM, ADCCS

FORCE PROJECTION TACTICAL OPERATIONS CENTER (FP TOC)

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #:

DESCRIPTION: The FP TOC in initial configuration provided to US Army Space Command (ARSPACE), consists of four (4) HMMWVs, three SICPS Rigid Wall Shelters and one S-250 for support, and four (4) SICPS tents. The HMMWVs with SICPS RWS also have on-board 12.5kw power units. The FP TOC integrates the four pillars of TMD and supports the Army Land Component commander. The FP TOC shelters are populated with automated systems which provide on the Commanders Real Time Tactical Display (CRTD) a fused situation awareness with air breathing tracks, TBMs, enemy and friendly ground situations, weapon and sensor coverages on ATED or ADRG DMA maps. During early entry operations, the FP TOC can direct ATACMS missions against TBM targets. The FP TOC integrates available ABCS automated systems and supports robust communications interfaces including satellite, air to ground, and ground to ground.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Deployable by C141 or larger.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Prototype fielding	2					
Roving Sands	4					
JROC Demo		1				
Fort Franklin Demo with USAF		1				
AUSA		1				
Bright Star in Egypt		1				
Phase 2 Enhancements		3				
Roving Sands		4				

SYNOPSIS: THE FP TOC PROVIDES THE LCC EARLY ENTRY CAPABILITY FOR COMMAND AND CONTROL OF THE TBM FIGHT AND THE FOCAL POINT TO CONTINUE PROSECUTION OF THE TBM FIGHT AS THE THEATER MATURES.

PM, ADCCS

AVIATION TACTICAL OPERATIONS CENTER (AVTOC)

PROJECT MGR: COL(P) D. Montgomery, DSN 788-3441
COMM 205/895-3441

PRODUCT MANAGER: MAJ Timothy Eno, DSN 788-3995
COMM 205/895-3995

ACQUISITION CATEGORY: III
ACQUISITION PHASE: Concept Development

PE & LINE #:

DESCRIPTION: The AVTOC is an automated command, control and communications node for the aviation commander which is totally synchronized through digitization. It directly supports the Army Modernization Objective of Win the Information War. The AVTOC complements the SICPS and the Command and Control Vehicle (C2V) programs. It incorporates the capabilities of these systems and includes aviation unique capabilities to support the commander. It is a mobile, deployable, tactical wheeled vehicle with mounted shelter for aviation brigade, battalion, and separate company commanders to use for planning, controlling and reporting aviation operations. The AVTOC provides the equipment, software and space for performance of command and staff functions. It integrates communications and computers and provides for automation of mission planning, situation awareness, and execution of battle command.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C-130 transportable; mounted in HMMWVs with SICPS.

HISTORICAL BACKGROUND:

Sep 94 AVTOC ORD Approved.
Jul 95 Phase I design complete.
Aug 95 Contract award for Phase II development. integration and delivery of AVTOC.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ORD Approval	1					
Contract award	3					
Deliver AVTOC for Phase II		3				
MS III				1		
FUE					1	
Development/Integration/Test	4-	----3				
Training (for TFXXI)		2-3				
Test & Evaluation		4-	--2			
Production/Fielding				1-------	--------	--------

SYNOPSIS: AVTOC PROVIDES ARMY AVIATION COMMANDERS A DIGITIZED/HORIZONTALLY INTEGRATED C2 FACILITY THAT AUTOMATES MISSION PLANNING AND INTERFACES WITH ALL BFAs. IT HAS EXTENSIVE COMMUNICATIONS CAPABILITIES.

PM, APPLIQUE

PM, APPLIQUE

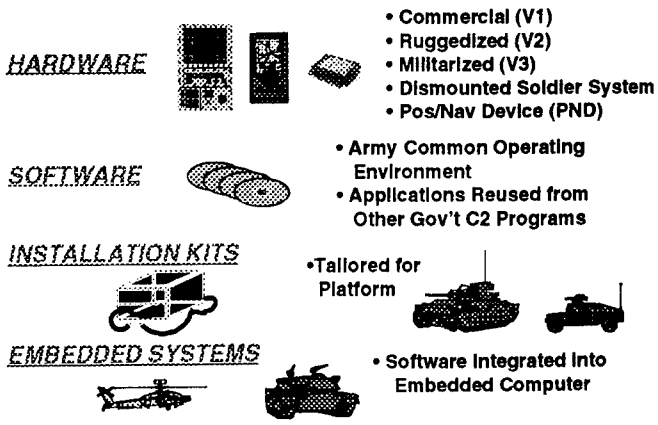
APPLIQUE PROGRAM

PROJECT MANAGER: COL Dean Nakagawa, DSN 987-3237
COMM 908/427-3237

ACQUISITION CATEGORY: III
ACQUISITION PHASE: I Concept Exploration & Demo

PE & LINE #: Money provided by Army Digitization Office Funds.

APPLIQUÉ CONCEPT



DESCRIPTION: The Applique Program is the centerpiece of the Army's efforts to digitize a Brigade-size experimental task force at Fort Hood by June 1996. Initially this program will consist of: over 1000 computers installed in Brigade Task Force vehicles and deployed with individual soldiers, software to support lower echelon battle command requirements, systems engineering, training and logistics support. The hardware consists of four basic computers: V1 is the commercial laptop version, V2 is the ruggedized version, V3 is the militarized version, and the Dismounted Soldier System Unit (DSSU) is the version for the soldier to carry which is also called a Pos/Nav Device (PND) when mounted in vehicles. The Applique System will interface with communications and electronic components installed on host platforms, and it will also interoperate with external command and control systems and digital systems embedded on other weapons platforms. Further development of computer hardware and software will follow the Brigade Task Force experiment scheduled for February 1997, at the National Training Center.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Aug 94 Solicitation issued.
Jan 95 Contract awarded to TRW.

REQUIREMENTS DOCUMENT: Force Battle Command Brigade and Below (FBCB2) User Functional Description , Jun 94. Horizontal Integration of Battle Command (HIBC) Mission Need Statement (MNS) was validated by JROC on 10 Jan 95. FBCB2 Operational Requirements Document (ORD) is at TRADOC for final approval and is an interim document until after TFXXI. The final ORD will process in 4th Qtr, FY97.

TYPE CLASSIFICATION: N/A.

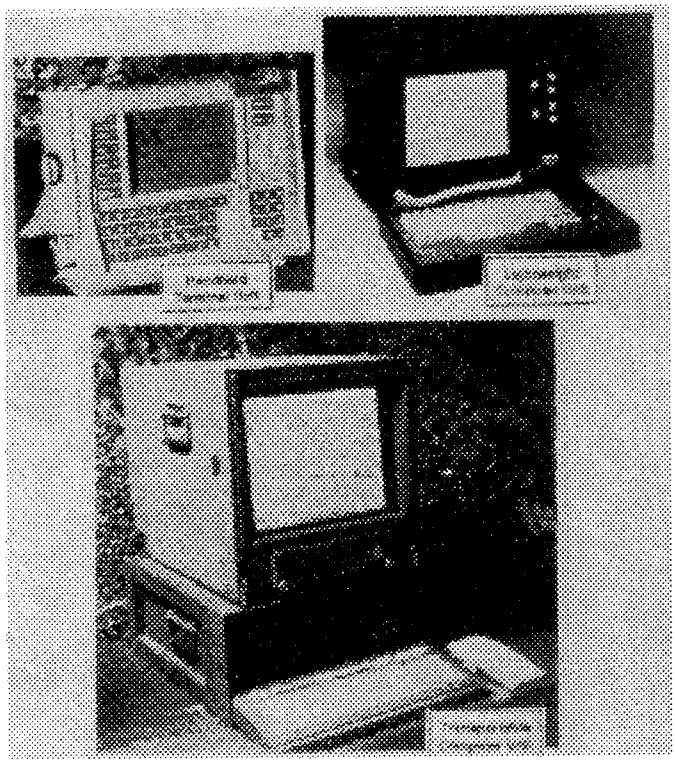
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Program Reviews	3 4	1 2 3				
Computer Deliveries		1 2 3				
NET		2 3				
ILS and Training Support for Exercises/Experiment		3---	---2			

SYNOPSIS: THE APPLIQUE SYSTEM IS AN EXPERIMENTAL BATTLEFIELD DIGITIZATION COMPUTER SYSTEM CONSISTING OF FOUR BASIC VERSIONS OF HARDWARE INSTALLED ON VEHICLES AND USED BY INDIVIDUAL SOLDIERS; CONNECTED BY A RADIO SYSTEM.

PM, CHS

PM, CHS

COMMON HARDWARE / SOFTWARE (CHS)



PROJECT MGR: COL Clarence B. Mitchell, DSN 987-4679
COMM 908/427-4679

ACQUISITION CATEGORY: CHS II; SICPS II; C2V II
ACQUISITION PHASE: CHS III; SICPS II; C2V II

PE & LINE #: 6.48.18A AEW27P03

DESCRIPTION: The Project Manager, CHS provides common hardware/software for the Army Battlefield Command and Control Systems (ABCCS) consisting of the five Battlefield Functional Areas Control Systems (BFACS); Forward Area Air Defense Command and Control System; Combat Service Support Control System; Maneuver Control System; Advanced Field Artillery Tactical Data System; and All Source Analysis System. Each BFACS Project Manager purchases CHS as building blocks and is responsible for fielding their complete system. The ABCCS emphasis is placed on minimizing the number of unique C2 hardware and software systems fielded by the Army. PM CHS is procuring NDI computers to include a Handheld Terminal Unit (HTU), Portable Computer Unit (PCU), Transportable Computer Unit (TCU), and compatible NDI peripheral devices. All but the HTU will be provided as a V1 version similar to commercial models or as a ruggedized V2 version. Procured commercial software includes operating systems, database management systems, word processing, spreadsheets, communications, training and maintenance diagnostic programs. A Programming Support Environment (PSE) will support BFACs application software development.

LIGHTWEIGHT COMPUTER UNIT (LCU) - The LCU is a lightweight computer system for use in applications requiring smaller size, less weight & limited graphic capabilities. The LCU is an NDI procurement similar to CHS 1 & interoperates with existing CHS systems.

COMMON OPERATING ENVIRONMENT (COE) - The COE is a collection of reusable software components which conform to an architectural framework based on state-of-the-art software reuse technology. Common applications will be developed and targeted to the COE/CHS platform for use by all ABCCS systems which will reduce the overall ABCCS development and maintenance costs and improve interoperability.

STANDARD INTEGRATED COMMAND POST SYSTEMS (SICPS) - SICPS provides the ABCCS nodal PMs with standardized hardware platforms [tent command post (CP), shelter CP, track CP (soft-top) and 5-ton CP] to house their respective CHS hardware. These platforms provide power, environmental control, mounting hardware, lights and grounding kits. When populated with CHS and communications equipment, these systems provide the capability to operate a survivable and mobile command post.

COMMAND AND CONTROL VEHICLE (C2V) - PM CHS has the program to design a C4I mission module for the C2V which will be used by maneuver forces to conduct commander/staff operations in heavy close combat providing command and control from corps through maneuver battalion. The C2V mission module will consist of racks, wiring and harnesses to interface with existing ABCCS equipment and will adopt to future C4I technologies.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C2V - C-5 aircraft transportable only; overweight restrictions for trucking; height restrictions for rail transport.

HISTORICAL BACKGROUND:

Jun 87	Program provisionally established.
Aug 88	Awarded CHS contract 1.
May 91	Awarded LCU contract; Initial delivery of V2 (LCU).
Aug 91	Awarded SICPS Rigid Wall Shelter contract.
Oct 92	CASS Release 0.4 delivery.
Sep 94	Awarded C2V Mission Module contract.
Apr 95	Awarded CHS-2 contract.

REQUIREMENTS DOCUMENT: Original ROC, Dec 86. ABCCS updated ROC Sep 90 to include LCU. ABCCS updated ROC Sept 92 to include CHS-2.

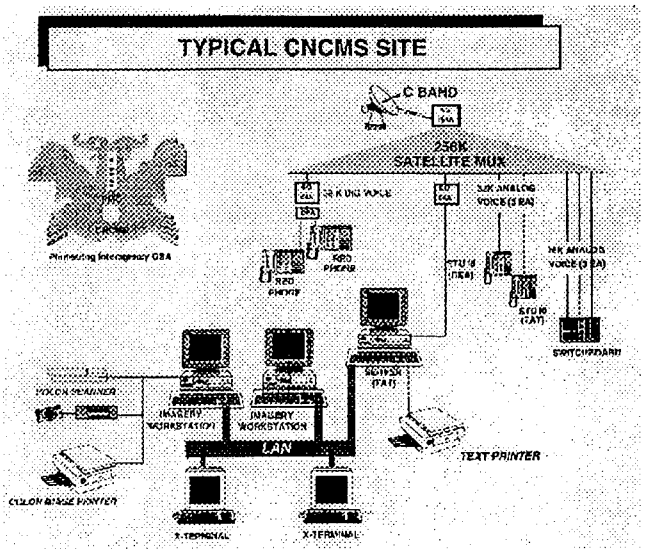
TYPE CLASSIFICATION: CHS hardware, as class IX repair parts, will not be separately Type Classified.

SYNOPSIS: CHS PROVIDES COMPATIBLE NDI COMPUTERS, SOFTWARE, PERIPHERALS, PROGRAMMING SUPPORT ENVIRONMENT, TECHNICAL ASSISTANCE AND COMMON LOGISTICS SUPPORT.

PM, CNCMS

PM, CNCMS

COUNTERNARCOTICS COMMAND AND MANAGEMENT SYSTEM (CNCMS)



PROJECT DIRECTOR: LTC J.P. Kimmel, DSN 235-8115
COMM 703/275-8115

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE:

DESCRIPTION: The Counternarcotics Command and Management System (CNCMS) is the only dedicated Department of Defense (DOD) communications system serving Central and South America. It provides U.S. Southern Command (USSOUTHCOM) with command management capability, as well as counterdrug-related communications. In addition, it provides similar capabilities to DOD/Joint Staff, Drug Enforcement Administration, U.S. Customs Service, the Departments of State and Justice, Atlantic Command and the Defense Information Systems Agency's (DISA) Anti-Drug Network (ADNET). The CNCMS uses a diverse communications network to provide reliable secure voice and secure data communications to its many users. The system also deploys a tactical configuration in support of forward forces in theater.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Strategic fixed and transportable secure communications and ADP capability. Tactical man-portable secure communications and ADP capability also provided.

HISTORICAL BACKGROUND:

May 90 ROC 1-90 approved by Joint Staff.
Dec 90 First prototype site installation.
Sep 91 System implementation transfered to PM CNCMS.
Sep 91 Joint Staff J6 directed transition to Open System Architecture.

REQUIREMENTS DOCUMENT: USCINCSOUTH RS 1-90 approved May 90.

TYPE CLASSIFICATION: Secret.

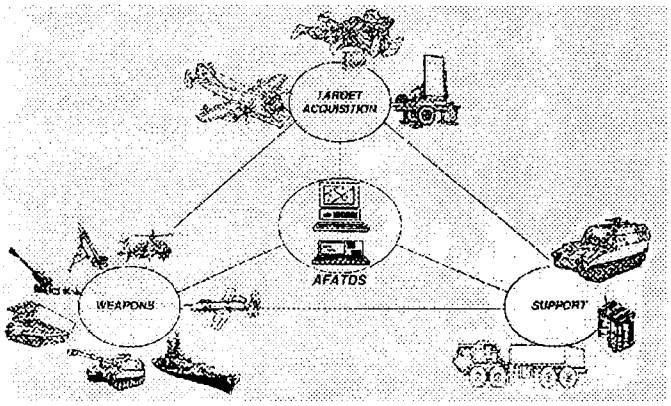
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
4 Site Installations	4					
Software Build 3.1	2					
Panama Area Network	3					
Transition to Open System Architecture		1				
10 Site Installations		4				
Software Build 4.0		2				
Program Transition			4			
Software Build 5.0 (GCCS Kernel)		4				

SYNOPSIS: CNCMS IS A SECRET VOICE AND DATA C3I SYSTEM SUPPORTING US SOUTHERN COMMAND AND CERTAIN DESIGNATED FEDERAL AGENCIES.

PM, FATDS

PM, FATDS

ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS)



PROJECT OFFICER: LTC John Grobmeier. DSN 987-3328
COMM 908/427-3328

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 1B423.726D322

DESCRIPTION: The Advanced Field Artillery Tactical Data System (AFATDS) will broaden and modernize the US Army Fire Support Command, Control and Coordination (FSC3) System. As a Battle Management System, AFATDS will provide automated fire support in the Army Command and Control System (ACCS) architecture in support of close, rear and deep operations, and fire support assets to complement the commander's scheme of maneuver. AFATDS will accomplish this by providing fully automated support for planning, coordination and control of all fire support assets (mortars, close air support, naval gunfire, rockets and guided missiles) in the execution of close support, counterfire, interdiction, suppressing of enemy air defense and deep operations. AFATDS in Version 2 will receive the Air Tasking Order from CTAPS, parse it, and provide a platform for CAS requests, ATO, input, and deconfliction.
AFATDS is composed of a common suite of hardware and software employed in varying configurations at different operational facilities (or nodes) interconnected by tactical communications. Both hardware and software will be capable of being tailored to perform the fire support command, control and coordination requirements at any level of command. Its modular software architecture, use of Common Operating Environment (COE) and decentralized processing approach will make AFATDS effective, flexible, survivable, mobile and easy to maintain.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: AFATDS may be transported in the following configurations:

- M1068 Command Post
- SICPS Rigid Wall Shelter
- 5 ton Expansible van
- SICPS soft top

HISTORICAL BACKGROUND:

Mar 81 AFATDS MENS approved.
May 84 AFATDS Concept Exploration (software) contract awarded to Magnavox Electronic Systems Co.
Jul 89 ASARC II.
Sep 89 DAB.
Apr 90 Full Scale Development - Version 1 contract award.
Oct 92 Version 2 Option Exercised.
Feb 94 FDTE I completed.
Jun 95 FDTE II (735) completed.
Sep 95 IOTE Completed.

REQUIREMENTS DOCUMENT: AFATDS revised ORD, 28 Sep 93. AFATDS TEMP dated 3 Aug 95.

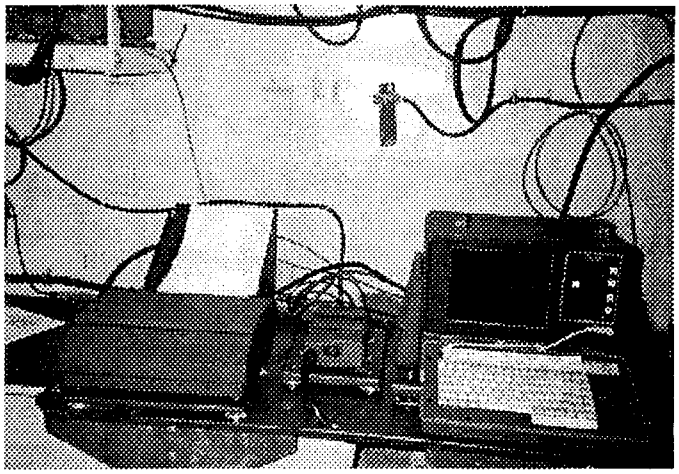
TYPE CLASSIFICATION: It is intended to TC AFATDS Standard.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Initial Operational Test and Evaluation (IOTE)	4					
ASARC Milestone III		1				
Field on ATCCS Hardware		4				

SYNOPSIS: AFATDS WILL BROADEN & MODERNIZE THE US ARMY FIRE SUPPORT COMM, CONTROL & COORDINATION (FSC3) SYSTEM.

PM, FATDS

FIRE SUPPORT ADA CONVERSION (FSAC)



PROJECT OFFICER: LTC Johnnie Bone, DSN 987-3368
COMM 908/427-3368

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE: B78400

DESCRIPTION: The Fire Support Ada Conversion Program is replacing the aging Field Artillery fire direction Battery Computer Units (BCUs) with modern Army Tactical Command and Control System (ATCCS) Lightweight Computer Units (LCUs) (known as the AN/GYK-37(V)1). The BCU is used in the Battery Computer System (BCS) for cannon-equipped artillery batteries and the Fire Direction System (FDS) for Multiple Launch Rocket Systems (MLRS) units. The existing software, written in Symbolic Intepreter Routine, was rewritten in the DoD standard Ada language. Initial fieldings of the BCS and FDS were deployed with an emulator version software and were upgraded with the Ada versions in FY94.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

MLRS	BCS	
Feb 89	Feb 90	Program Start.
Aug 90	Jul 91	Critical Design Review.
Oct 91	Jan 92	Formal Qualification Test.
Mar 92	---	IOT&E.
Jul 92	Jul 92	Production Decision.
Jan 93	Nov 92	FUE.
	Dec 94	Completed BCS ADA IOTE (PKG 10).
	Jul 94	FUE BCS ADA.

REQUIREMENTS DOCUMENT: ROC approved 12 Oct 90 (as part of Battery computer Unit ADA Conversion).

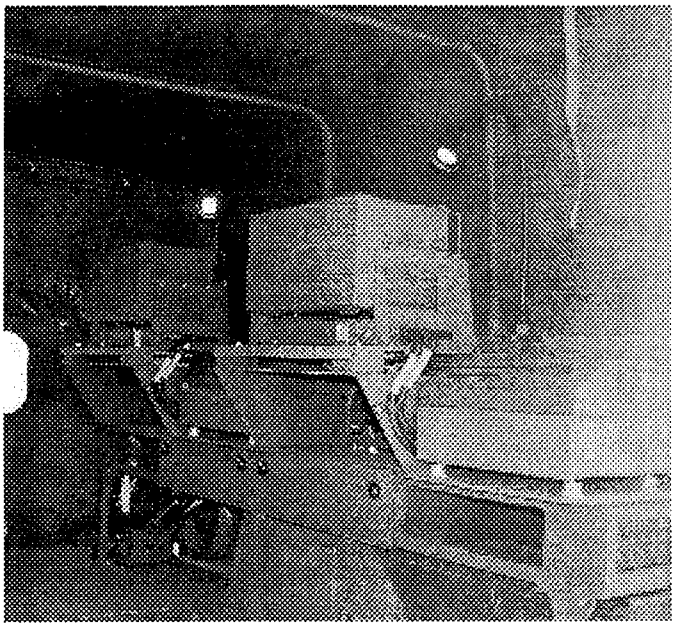
TYPE CLASSIFICATION: Jul 92.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
BCS ADA Fielding (Pkg 10)	-------	-1				
FDS ADA Fielding (Pkg 10)	--2					
BCS ADA IOTE (Pkg 11)			3			
FDS ADA IOTE (Pkg 11)			3			
BCS ADA (Pkg 11) FUE				1		
FDS ADA (Pkg 11) FUE				1		

SYNOPSIS: FSAC WAS ESTABLISHED TO PROVIDE FOCAL POINTS FOR THE MANAGEMENT OF BCS AND MLRS FDS.

PM, FATDS

INITIAL FIRE SUPPORT AUTOMATED SYSTEM (IFSAS)



PRODUCT MANAGER: LTC Johnnie Bone, DSN 987-3368
COMM 908/427-3368

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: B78100

DESCRIPTION: The IFSAS is designed to provide limited automation of Fire Support Command and Control at battalion nodes and above. The system will give commanders the ability to perform automated fire support planning and execution prior to the arrival of the AFATDS. The system will utilize the ATCCS CHS LCU and will be fielded to both active and NG/Reserve units to provide early automation capabilities.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Aug 91	Program Approval.
Dec 92-Jan 93	System comparison contractor selection.
Mar 93-May 93	Pkg 10 Operational Test.
Jul 93	Milestone III Approval.
Aug 93	FUE NG.

REQUIREMENTS DOCUMENT: DCSOPS msg, Jan 93, IFSAS Requirements Determination.

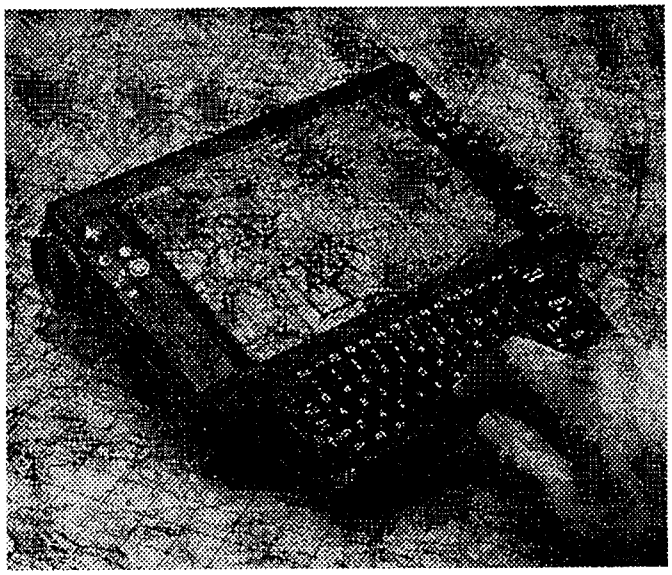
TYPE CLASSIFICATION: MS III Approval - 12 Jul 93, Type Class - Jul 93.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
BCD PKG 10 Software Development	2					
BCD Fielding		2				
IFSAS Pkg 11 IOT&E			3			
First Unit Equipped (FUE)				1		

SYNOPSIS: IFSAS PROVIDES AN INITIAL MODERN CAPABILITY TO BOTH THE ACTIVE ARMY (AA) AND NATIONAL GUARD (NG) FORCES.

PM, FATDS

LIGHTWEIGHT FORWARD ENTRY DEVICE (LFED)



PROJECT MANAGER: LTC Johnnie Bone, DSN 987-3368
COMM 908/427-3368

ACQUISITION CATEGORY: III
ACQUISITION PHASE: (DEVELOPMENT)

PE & LINE #: B78400

DESCRIPTION: The LFED is used by Forward Observers to compare, edit, transmit, receive, store, display messages and process the data used to conduct Fire Support Operations. It is a militarized handheld device utilizing the handheld terminal unit on the Common Hardware/Software II contract.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Sep 93 Annex G, AFATDS ORD.
Apr 95 Funding authority to use FSAC funding line.

REQUIREMENTS DOCUMENT: AFATDS ORD

TYPE CLASSIFICATION: 1Q97

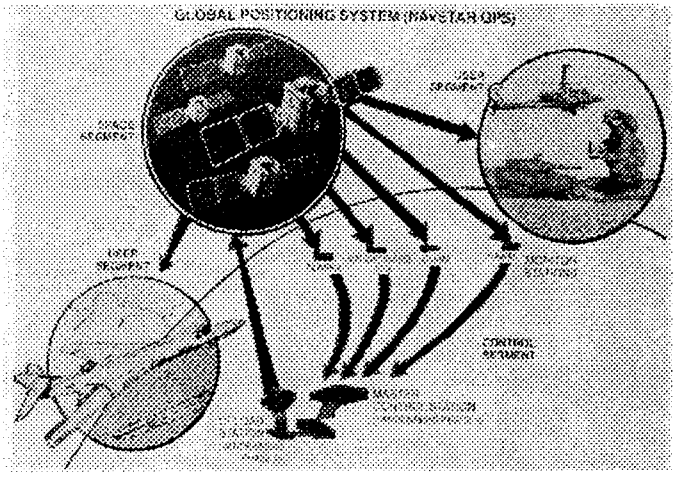
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
IOT&E Pkg 10		3				
MS III			1			
FUE Pkg 10			2------	----3		
IOT&E Pkg 11			3			
FUE Pkg 11				1-------	--------	----3

SYNOPSIS: THE LFED IS A HANDHELD TERMINAL UNIT HOSTING THE FORWARD OBSERVER SOFTWARE FOR USE BY THE LIGHT INFANTRY DIVISIONS.

PM, GPS

PM, GPS

GLOBAL POSITIONING SYSTEM (GPS)



PROJECT MANAGER: COL S. Young, DSN 992-6301
COMM 908/532-6301

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 1X564778.D168 SSN: K47800

DESCRIPTION: The GPS is a space based radio positioning/navigation (POS/NAV) system that provides extremely accurate, three dimensional, common grid position, velocity and time of day information to users anywhere on or near the earth. The system consists of space, control, and user equipment segments. The USAF Space Command manages the operational satellites and ground control facilities. The user segment consists of those equipments that receive the satellite signals and compute position and time of day for the user. The GPS User Equipment (UE) family consists of ten different models meeting needs that range from the foot soldier to high performance military aircraft. The basic UE capability is the determination and display of position and time data; most models do additional navigational calculations such as waypoint/target range and azimuth. Greater host vehicle dynamics and the need for interfaces to other navigation, communication or control systems may require enhanced capabilities. The USAF is the executive service. Army PM GPS provides personnel to man the Joint Program Office; coordinate Army user requirements; perform Army planning, programming and budgeting; and plan and implement Army logistics and deployment for Army UE.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: PLGR < 3 Lbs (w/Prime Battery Installed); < 90 Cubic In.; MAGR - 15 lbs, 2 LRUs. SAGR 3-1/2 lbs., 91 cubic inches.

HISTORICAL BACKGROUND:

Jul 79 Full scale competitive contract awards to Rockwell/Collins and Magnavox.
Dec 91 Restructure Army UE program to give priority to Ground Users; 1 & 2-Channel Receivers procurement projects cancelled.
Jan 92 MS III DAB approved Full Rate Production of 5-Channel Air and Sea UE.
Feb 92 USAF PEO approves Precision Lightweight GPS Receiver (PLGR) acquisition strategy; PLGR draft Letter Request for technical proposal and bid samples released.
Dec 92 PEO Comm IPR for PLGR-MSIII Decision and TC Standard.

REQUIREMENTS DOCUMENTS: NAVSTAR GPS Army UE ROC approved by HQDA 22 Mar 79; ASARC IIIA approved. baseline Revised ROC to include PLGR and MAGR approved 15 Apr 91.

TYPE CLASSIFICATION: MILSPEC Limited Production-Urgent/Limited Production-Test (LPU/LPT) approved Feb 87; SLGR Limited Production-Urgent approved Aug 90; PLGR Standard approved Jan 94; Standard approved for 1, 2 & 5 Channel Army UE Dec 91; MAGR LRP approved Jan 92.

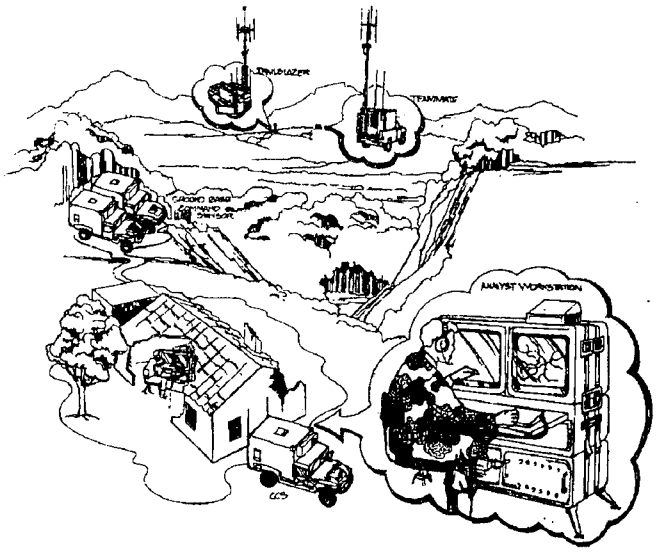
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Option 2 (PLGR)	2					
Option 4 (MAGR)	2					
PLGR Prod. Deliveries	----------	----------	----------	----3		
SAGR Contract award	4					
Option 3 (PLGR)		2				
Last option (MAGR)		2				
CUGR Contract award		3				
Option 4 (PLGR)			2			
PLGR II Contract award				2		

SYNOPSIS: GPS PROVIDES EXTREMELY ACCURATE THREE DIMENSIONAL POSITION AND VELOCITY INFORMATION TO COMPATIBLY EQUIPPED USERS ANYWHERE ON OR NEAR THE EARTH.

PM, INTEL FUSION

PM, INTEL FUSION

ALL SOURCE ANALYSIS SYSTEM (ASAS)



PROJECT MANAGER: COL Richard Johnson, DSN 235-8110
COMM 703/275-8110

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 64321A (ASAS) D926 All Source Analysis
Engineering & Mfg Development
DB19 ASAS Block Improvement.
Procure. Annex Line Item Data 2035

DESCRIPTION: ASAS is the Intelligence and Electronic Warfare subsystem of the Army Command and Control System (ACCS) and will provide all source intelligence fusion to gain a timely and comprehensive understanding of enemy deployments, capabilities, and potential courses of action. With this knowledge, combat leaders will be able to view the battlefield and more effectively conduct the land battle. ASAS is a tactically-deployable ADP system providing a capability which will be used to receive and correlate data from strategic and tactical intelligence sensors/sources; produce ground battle situation displays, rapidly disseminate intelligence information; provide target nominations, help manage organic IEW assets, and assist in providing operations security support. ASAS is theater independent and designed to operate in peace-time, contingency, crisis, and low and high-intensity wartime environments.
ASAS Block II strategy maximizes the use of Government Furnished Equipment; government and commercial Non-Developmental Item software; use of proven Office of Secretary of Defense and ACCS Command, Control, Communications and Intelligence software; multiple prototype deliveries; and continuous user test and evaluation opportunities. This strategy provides early user capabilities and streamlines acquisition.
ASAS-Extended is a directed acquisition based on a module approach that rounds out the active and reserve forces with a common intelligence fusion system earlier than originally planned. ASAS-extended has been fielded to the 10th Mountain Division and the 513th MI Brigade (Ft. Gordon, GS) and the 513th MI Battalion at Ft. Drum, NY. The 10th Mountain Division has been designated First Unit Equipped (FUE) for ASAS-E.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Jan 92 Block II RFP released.
Sep 92 IOT&E.
Jul 93 ASARC approved fielding of Block I.
Aug 93 Block I FUE.
Oct 93 Block II EMD Contract Awarded.

REQUIREMENTS DOCUMENT: ROC was approved Jun 86; Phased ROC validated by JROC 21 Nov 91. ORD approved by HQDA, DCSOPS on 3 Aug 93.

TYPE CLASSIFICATION: Limited Procurement, Block I, 4QFY93.

*As a result of a schedule breach under ASAS Block II, a draft APB will be submitted 1QFY96. A Deviation Report has already been submitted. Milestones will change when the APB has been approved. We expect this approval within 60 days after draft submission.

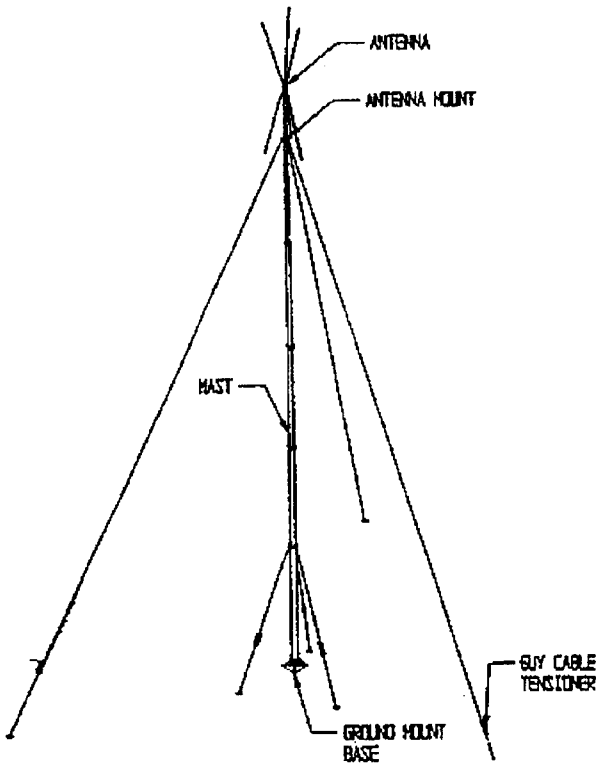
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Incremental Delivery Phase 2B		1				
Dev Test			2			
LUT			3			
PRD				1		
Incremental Delivery Phase 3			1			
Development Evaluation/Oper Assessment				2		
Program Review Decision				3		
Incremental Delivery Phase 4				3		
Development Test					1	
Program Review Decision					2	

SYNOPSIS: ASAS PROVIDES ALL SOURCE CORRELATED INTELLIGENCE TO COMMANDERS AT DIVISION, CORPS AND ECHELONS ABOVE CORPS.

PM, JTACS

PM, JTACS

AB-1386/U, QUICK ERECT ANTENNA MAST (QEAM)



PROJECT OFFICER: Mr. Jorge Tersy, DSN 992-3525
COMM 908/532-3525

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The QEAM is designed to accomodate the AS-3166/GRC, AS-4292, AS-4225, A30045068 VHF antennas and a wide range of other antennas in other frequency bands. The system is man transportable weighing less than 100 lbs. The largest item weighs less than 42 lbs. The QEAM can be erected in winds up to 25 MPH, operate in winds of 60 MPH, and survive in winds of 80 MPH; in field mount configuration or installed on HMMWV, M-577, and M113.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:
N/A.

HISTORICAL BACKGROUND:

Apr 92 Acquisition Plan Approved.
Jun 92 Solicitation Released.
Feb 93 Contract Awarded.
Mar 93 First Option Awarded.

REQUIREMENTS DOCUMENT: Operational & Organizational Plan, Jun 87; Required Operational Capability, Aug 89.

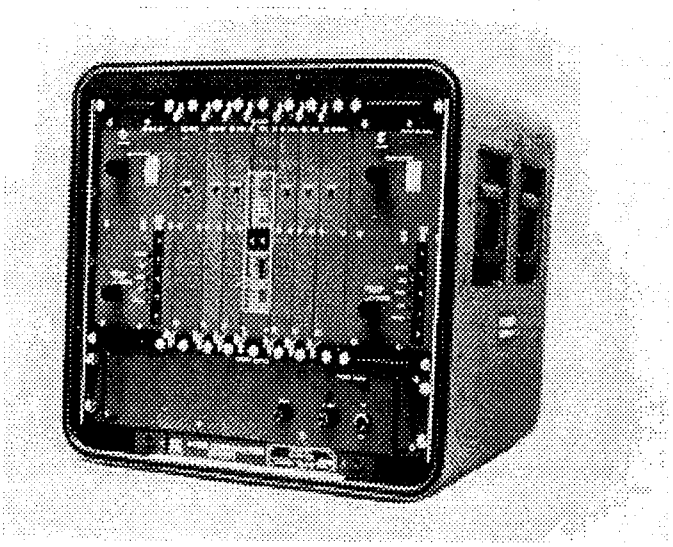
TYPE CLASSIFICATION: Generic, May 92; Standard, May 96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
First Article Test (Contractor)	---2					
Limited User Test (USAEPG)	---2					

SYNOPSIS: THE QEAM IS DESIGNED TO ACCOMODATE THE AS-3166/GRC, AS-4292, AS-4225, A30045068 VHF ANTENNAS AND A WIDE RANGE OF OTHER ANTENNAS IN OTHER FREQUENCY BANDS.

PM, JTACS

AN/GRC-222, RADIO SET



PROJECT OFFICER: Milan Schwartz, DSN 992-3525
COMM 908/532-3525

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III/IV Prod/Deploy/Op/Spt

PE & LINE #:

DESCRIPTION: The AN/GRC-222, Radio Set provides the Army with High Capacity Line-of-Sight (HI-CAP-LOS) and Short Range Wide Band Radio (SRWBR) capabilities while operating in the 4.4 to 5.0 gigahertz frequency range. These radios are deployed in the AN/TRC-175, Radio Terminal Assemblage located in the switching node at the "Bottom-of- the-Hill" and AN/TRC-138A, Repeater Assemblage located in the radio park at the "Top-of-the-Hill". The HI-CAP-LOS radio mode accommodates one group in the ATACS or TRI-TAC hierarchies of up to 144 channels at a group rate of 1024, 1152, 1536, 2048, 2304, 4096, or 4608 kilobits per second. The SRWBR mode of operation accommodates groups in the TRI-TAC hierarchy of up to 576 channels at master group rates of 9.36 or 18.72 megabits per second. The SRWBR is used to provide the link between a multichannel switching node and transmission facilities or "Top-of-the-Hill".

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: See AN/TRC-175( ) and AN/TRC-138( ) ASSE.

HISTORICAL BACKGROUND:

Mar 85 Coordinated decision with Signal Center to replace AN/GRC-144(V)3 radio with NDI AN/GRC-222 radio.
Sep 86 Contract awarded to Aydin Corporation for 733 radios.
Dec 88 FAT completed.
Apr 90 Final Logistics Support Concept (FLSC).
Aug 92 Peculiar Support Equipment (PSE) award.
Jan 94 Baseline Radio established for Retrofit/Field Swapout Program.
Oct 95 Final Production Lot Prat completed.

REQUIREMENTS DOCUMENT: HQDA Letter Requirement for DGM Assemblages, 19 Mar 76.

TYPE CLASSIFICATION: IPR, Jul 81, STD A for end items AN/TRC-138A/175.

SYNOPSIS: AN/GRC-222, OPERATING IN THE 4.4 TO 5.0 GIGAHERTZ FREQUENCY RANGE PROVIDES THE ARMY WITH HI-CAP-LOS AND SRWBR CAPABILITIES AT ECHELONS ABOVE CORPS (EAC).

PM, JTACS

AN/TRC-138A, B & C, RADIO REPEATER SETS

PROJECT OFFICER: Ms. Noreen Polo. DSN 992-3525
COMM 908/532-3525

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The AN/TRC-138A (fullsize), AN/TRC-138B (downsize), and AN/TRC-138C (HMDA) Radio Repeater Sets provide facilities terminating multi-channel radio and cable groups. The Radio Repeater Sets utilize three AN/GRC-222 radios, one AN/VRC-46 or AN/VRC-90 radio, and portions of the Digital Group Multiplexer (DGM) family of equipment. The DGM equipment which is being utilized is as follows: TD-1237(P)/H, MD-1026(P), Order Wire Control Unit C-10717/TRC, and MD-1024. The AN/GRC-222 also provides Short Range Wide Band Radio (SRWBR) for transmitting multiplexed groups from the radio park "Top-of-the-Hill" to the switching node "Bottom-of-the-Hill". It has the capability to terminate up to three systems and may be used for radio repeater, terminal, or SRWBR applications. The radio operates in the frequency range of 4.4 to 5.0 gigahertz. In the SRWBR mode it has a data rate of up to 18.72 megabits per second with a range of five miles. In the radio repeater mode it has a data rate of 4.608 megabits with a range of 25 miles. The AN/TRC-138A is mounted in an S-280C shelter and the AN/TRC-138B version is mounted in an S-749 shelter. The AN/TRC-138C is mounted in an S-805/G shelter and is transported on a heavy HMMWV.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: AN/TRC-138A and AN/TRC-138B roll-on/roll-off for C-5 only. AN/TRC-138C roll-on/roll-off capable for C-130, C-141, C5 aircraft.

HISTORICAL BACKGROUND:

1980	DT/OT-II.
1982	Army initiated production effort with TOAD.
Feb 84	TOAD First Article Tests (mechanical and electrical) completed.
Oct 87	FOT&E completed. New production contract awarded to Laguna Industries.
Jul 89	Production contract (downsize) awarded to Laguna Industries.
Mar 93	Downsize Heavy HMMWV Variant Version Re-Packing Effort Intitated/Contract Modified.

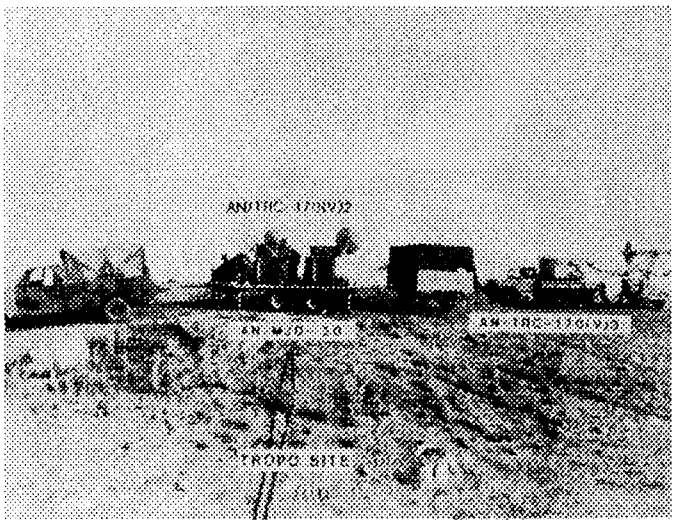
REQUIREMENTS DOCUMENT: HQDA Letter Requirement, 19 Mar 76.

TYPE CLASSIFICATION: Standard A approved Jul 81. Updated by Material Status Record change May 90.

SYNOPSIS: AN/TRC-138A & AN/TRC-138B RADIO REPEATER SETS PROVIDE FACILITIES FOR TERMINATING MULTICHANNEL RADIO/CABLE GROUPS FROM THE RADIO PARK "TOP-OF-THE-HILL" TO THE SWITCHING NODE "BOTTOM-OF-THE-HILL" FOR ECHELONS ABOVE CORPS SIGNAL UNITS.

PM, JTACS

AN/TRC-170(V)2 and (V)3, TROPOSCATTER RADIO TERMINAL (TROPO)



PROJECT LEADER: Mr. George Meyer, DSN 992-3474
COMM 908/532-3474

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The AN/TRC-170(V)2 & AN/TRC-170(V)3 are air and ground transportable troposcatter radio terminals. The terminals provide secure digital long haul radio trunking between major nodes of TRI-TAC/ATACS communication networks and interface with other TRI-TAC/ ATACS systems such as assemblages of Digital Group Multiplexer (DGM) equipment or various switching facilities. The terminals may be used in stand-alone applications as transmission links not associated with switching facilities. The terminals provide for the transmission and reception of digital voice and digital data over a nominal 150 mile path for the (V)2 radio and a nominal 100 mile path for the (V)3 radio by means of troposcatter. Line-of-Sight propagation may also be used in the 4.4 gigahertz to 5.0 gigahertz frequency range. The terminals provide for trunk group communications at switch selectable bit rates from 128 to 4608 kilobits per second in addition to orderwire traffic.

COMPOSED OF:

(V)2 M923 5-ton truck carries S-280 shelter towing M1061E1 5-ton trailer with two 30 kilowatt power units.
M35A2 2-1/2-ton truck carries antennas on Low Profile Pallet towing M105A2 1/2-ton trailer with HFR radio.
(V)3 M1097 (Heavy HMMWV) carries S-250 shelter towing M116A2 3/4 ton trailer with Quick Reaction Antenna (QRA).
M1097 carries 10KW power unit and HF radio towing PU-753/M 10KW power unit.

USED WITH: TRI-TAC/ATACS systems.

REPLACES: AN/TRC-132, 132A, 112, 121 and 80.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND: Air Force is the lead service for this program.

Jun 76 Air Force Research and Development contract.
Aug 80 DT&E/IOT&E.
Dec 86 Completed FOT&E.
May 87 Competitive contract awarded.
Sep 87 First Unit Equipped.
Dec 89 Fourth Materiel Release.

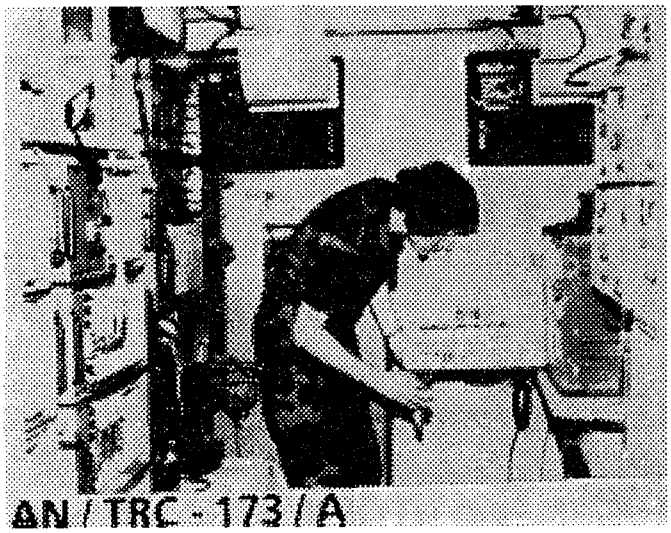
REQUIREMENTS DOCUMENT: JOR SM 86-75, 10 Feb 75.

TYPE CLASSIFICATION: Limited production approved Jan 83; Standard approved 27 May 85.

TROPO PROVIDES SECURE TRANSMISSION AND RECEPTION OF TACTICAL MULTI-CHANNEL DIGITAL VOICE AND DATA BY MEANS OF TROPO MODE OF PROPAGATION IN THE 4.4 TO 5.0 GIGAHERTZ FREQUENCY BAND.

PM, JTACS

AN/TRC-173( )



PROJECT OFFICER: Ms. Noreen Polo, DSN 992-3525
COMM 908/532-3525

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The AN/TRC-173( ) is used as an extension terminal at major nodes to provide up to 36 channels of digital trunk communications. AN/TRC-173( ) contains two complete communication systems housed in a shelter facility S-589( )/ AN/TRC-173( ) using an S-805(G) shelter mounted on a Heavy HMMWV. The AN/TRC-173( ) is composed of two AN/GRC-103(V)4 radio sets, one AN/VRC-46 or AN/VRC-90, and portions of the Digital Group Multiplexer (DGM) family of equipment. The DGM equipment, which is being utilized, is as follows: MD-1026(P)/G, MD-1023(P)/G, MD-1065/G, TD-1234(P)/TTC, MD-1025/G, TD-1236/G and Orderwire Control Unit C-10716/TRC. COMSEC equipment, which includes the KY-57 VINSON, KG-94 Trunk Encryption Device and KY-68 DSVT is also included as part of the assemblage. Each of the two communication systems in the AN/TRC-173( ) is capable of full duplex operation (simultaneous send and receive). Under normal operating conditions, one system in the AN/TRC-173( ) assemblage remains in standby condition in the event of malfunction. AN/GRC-103(V)4, Radio Set is used for operation in Line-of-Sight applications and has a frequency range of 1350 to 1850 megahertz with a transmission range of approximately 30 miles.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: AN/TRC-173 and AN/TRC-173A roll-on/roll-off for C-5 only. AN/TRC-173B roll-on/roll-off capability for C-130, C-141, C5 aircraft.

HISTORICAL BACKGROUND:

1980	DT/OT-II.
1982	Army initiated production efforts with TOAD.
Feb 84	TOAD First Article Tests (mechanical, electrical) completed.
Aug 85	New Production contract awarded to Laguna Industries Incorporated.
Oct 87	FOT&E completed; Awarded FY88 Production Option to Laguna Industries.
Jul 89	Awarded downsized Production contract to Laguna Industries.
Mar 93	Downsize Heavy HMMWV Variant Version Re-Packing Effort Initiated/Contract Modified.

REQUIREMENTS DOCUMENT: HQDA Letter Requirement, 19 Mar 76.

TYPE CLASSIFICATION: Standard A approved Jul 81; Updated by Materiel Status Record change May 90.

SYNOPSIS: AN/TRC-173( ) IS USED AS AN EXTENSION TERMINAL AT MAJOR NODES AND CONTAINS TWO LIGHT-OF-SIGHT TRANSMISSION SYSTEMS FOR ECHELONS ABOVE CORPS SIGNAL UNITS.

PM, JTACS

AN/TRC-174( ), RADIO REPEATER SET

PROJECT OFFICER: Ms. Noreen Polo, DSN 992-3525
COMM 908/532-3525

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The AN/TRC-174( ) is used as an extension repeater at major nodes to provide up to 36 channels of digital trunk communications. AN/TRC-174( ) contains 3 complete communications systems housed in Shelter Facility S-590( )/ TRC-174( ) using a S-805 (G) shelter mounted on a Heavy HMMWV. The AN/TRC-174( ) is composed of three AN/GRC-103(V)4 radio sets, one AN/VRC-46 or AN/VRC-90 radio, and portions of the Digital Group Multiplexer (DGM) family of equipment. The DGM equipment which is being utilized is as follows: MD-1026(P)/G, MD-1023(P)/G, MD-1065/G and Orderwire Control Unit C-10716/TRC. COMSEC equipment which includes the KY-57 VINSON and KY-68 DSVT is also included as part of the assemblage. Each of the three communication systems in the AN/TRC-174() is capable of full duplex operation (simultaneous send and receive). Under normal operating conditions, one system in the AN/TRC-174() assemblage remains in standby condition in the event of malfunction. Radio set AN/GRC-103(V)4 is used for operation in Line-of- Sight applications and has a frequency range of 1350 to 1850 megahertz with a transmission range of approximately 30 miles.

TRANSPORTATION CHARACTERISTICS/LIMITATIONS: AN/TRC-174 and AN/TRC-174A roll-on/roll-off for C-5 only. AN/TRC-174B roll-on/roll-off capability for C-130, C-141, C-5 aircraft.

HISTORICAL BACKGROUND:

1980	DT/OT-II.
1982	Army initiated production efforts with TOAD.
Feb 84	TOAD First Article Tests (mechanical, electrical) complete.
Aug 85	New Production contract awarded to Laguna Industries Incorporated.
Oct 87	FOT&E Completed; FY88 Production option awarded to Laguna Industries.
Aug 89	Downsized Production contract awarded to Laguna Industries.
Mar 93	Downsized Heavy HMMWV Variant Version Re-Packing Effort Initiated/Contract Modified.

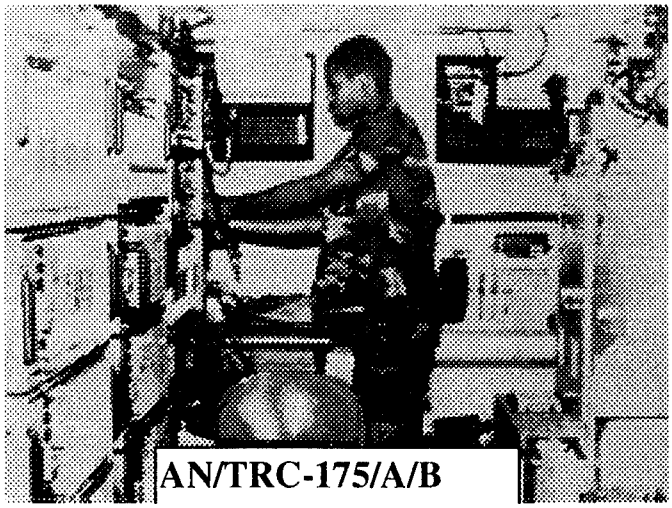
REQUIREMENTS DOCUMENT: HQDA Letter Requirement, 19 Mar 76.

TYPE CLASSIFICATION: Standard A approved Jul 81 IPR; Updated by Material Status Record change May 90.

SYNOPSIS: AN/TRC-174( ) IS USED AS AN EXTENSION REPEATER AT MAJOR NODES AND CONTAINS THREE LINE-OF-SIGHT TRANSMISSION SYSTEMS FOR ECHELONS ABOVE CORPS SIGNAL UNITS.

PM, JTACS

AN/TRC-175( )



PROJECT OFFICER: Ms. Noreen Polo, DSN 992-3525
COMM 908/532-3525

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The AN/TRC-175() is used at major switching nodes to transmit/receive trunk groups with the associated radio park. AN/TRC-175() contains two complete communication systems housed in a shelter facility S-591()/ AN/TRC-175/A using a S-805 (G) shelter mounted on a Heavy HMMWV. AN/TRC-175() is composed of two AN/GRC-222 radio sets, one AN/VRC-46 or AN/VRC-90 radio, and portions of the DGM family of equipment. The DGM equipment which is being utilized is as follows: MD-1026(P)/G, MD-1024/G, TD-1237(P)/G and Orderwire Control Unit C-10717/TRC. COMSEC equipment which includes the KY-57 VINSON and KY-68 DSVT is also included as part of the assemblage. Each of the two communication systems in the AN/TRC-175() is capable of full duplex operation (simultaneous send and receive). Radio Set AN/GRC-222 is used as a radio link to the AN/TRC-138A/138B located at the radio park and has a frequency range of 4.4 to 5.0 gigahertz with a transmission range of approximately five miles for the 18.72 megabits per second data rate and 25 miles for the 9.36 megabits per second data rate.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: AN/TRC-175 and AN/TRC-175A roll-on/roll-off for C-5 only. AN/TRC-175B roll-on/roll-off capability for C-130, C-141, C-5 aircraft.

HISTORICAL BACKGROUND:

1980	DT/OT-II.
1982	Army initiated production efforts with TOAD.
Feb 84	TOAD First Article Tests (mechanical, electrical) completed.
Aug 85	New Production contract awarded to Laguna Industries.
Oct 87	FOT&E completed; FY88 Production option awarded to Laguna Industries.
Jul 89	Downsized Production contract awarded to Laguna Industries.
Mar 93	Downsized Heavy HMMWV Variant Version Re-Packing Effort Initiated/Contract Modified.

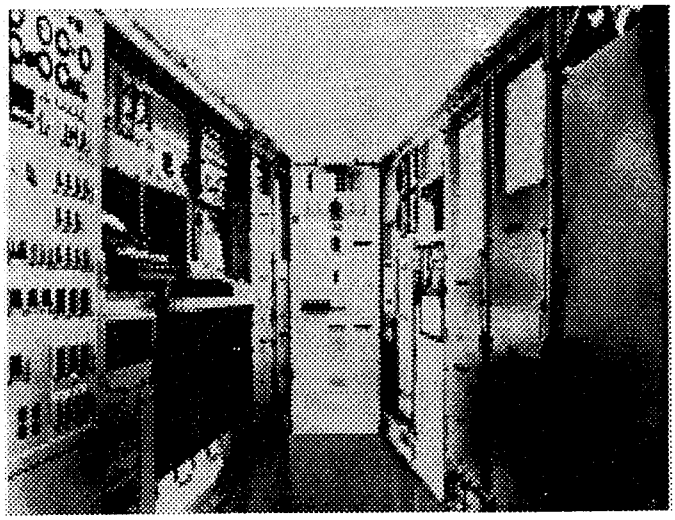
REQUIREMENTS DOCUMENT: HQDA Letter Requirement, 19 Mar 76.

TYPE CLASSIFICATION: Standard A approved Jul 81: Updated by Material Status Record change May 90.

SYNOPSIS: AN/TRC-175( ) IS A BOTTOM-OF-THE-HILL RADIO TERMINAL UTILIZED AT RADIO PARK TO TRANSMIT/RECEIVE TRUNK GROUPS AND CONTAINS TWO LINE-OF-SIGHT TRANSMISSION SYSTEMS FOR ECHELONS ABOVE CORPS SIGNAL UNITS.

PM, JTACS

AN/TTC-39A, AN/TTC-39D, CIRCUIT SWITCH



PROJECT OFFICER: William Benson, DSN 992-4226
COMM 908/532-4226

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 1X428010.D107

DESCRIPTION: The AN/TTC-39A Circuit Switch is a 744 line mobile, automatic, modular, electronic telephone switch which operates under the control of a central processor. It is configured in a single shelter with integral COMSEC and multiplex equipment. The minimum essential control functions for the AN/TSQ-111 have been inherently designed into the electronics. The AN/TTC-39A is compatible with and interface to the Defense Communications System, NATO Integrated Communication System, Allied Organic Combat Communications System and the tactical communication systems of the services. AN/TTC-39D is an all digital configuration providing service for 708 terminations. It provides flood search routing capability using the MSE routing subsystem, interface capability for the MSE Radio Access Unit (RAU), and analog capability using the Digital Line Termination Unit (DLTU). A Joint Service effort to transport the functions of the Routing Subsystem to the switch central processor has been completed. This new capability provides a common software package for the AN/TTC-39D, AN/TTC-39AV 3/4 and the MSE AN/TTC-46 and AN/TTC-47.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 39A and 39D are housed in S-280 shelters (625 cu ft). No transportation limitations.

HISTORICAL BACKGROUND:

Sep 89 AN/TTC-39D Production option award (23 kits).
Sep 90 AN/TTC-39D Production option award (11 kits).
Jun 91 First three AN/TTC-39D retrofits completed in Germany.
Feb 92 AN/TTC-39D Production option award (12 kits).
Apr 93 Fielding of First AN/TTC-39D with packet switching.
Jul 93 NRE for 390 routing improvements awarded.
Sep 95 Circuit Switch Routing Tests completed.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: ASARC-III, Jun 80, Standard.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Routing Improvements/GTE Production	1--------	---------	--------	-------4		
PATE/FIT/User Tests - Routing Imprv	2---4					
Award New GTE Tech Support Contract	4---	--2				
Initial Option - 39A to 39D Conversion	1--------	----3				

SYNOPSIS: AN/TTC-39 IS A MOBILE, AUTOMATIC, MODULAR ELECTRONIC CIRCUIT SWITCH UNDER PROCESSOR CONTROL WITH INTEGRAL COMSEC AND MULTIPLEX EQUIPMENT. AN/TTC-39A PRODUCTION IMPROVEMENT ADDS NODAL CONTROL CAPABILITY TO THE CIRCUIT SWITCH. AN/TTC-39D PRODUCT IMPROVEMENT ADDS MSE FLOOD SEARCH CAPABILITY TO THE CIRCUIT SWITCH.

PM, JTACS

AN/TYC-39, AN/TYC-39A, MESSAGE SWITCH

PROJECT OFFICER: George Fitzpatrick, DSN 992-3658
COMM 908/532-3658

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 1X428010.D222

DESCRIPTION: The AN/TYC-39 Message Switch is a mobile, automatic, modular, electronic store and forward switch under processor control with integral COMSEC and multiplex equipment. It is compatible with the Defense Communications System Automatic Digital Network. The Message Switch will operate independently or jointly with the AN/TYC-39A Circuit Switch. The Message Switch accepts, processes, stores, delivers and accounts for message traffic by utilizing the store and forward central processor, appropriate software programs and memory storage. The three prime capabilities of the Message Switch are of security, message accountability and verifying character/bit integrity of all message traffic. Provisions are also made for four day journal storage, control of message orbiting, six levels of precedence and continuous monitoring. AN/TYC-34A provides the field user significant security and reliability enhancements.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: TYC-39 and TYC-39A are housed in S-280 shelters. No transportation limitations.

HISTORICAL BACKGROUND:

Feb 85 Delivery of last production AN/TYC-39.
Mar 91 Production contract awarded for Materiel Change (9 kits).
Jan 92 Production option awarded for Materiel Change (7 kits).
Dec 92 Production option awarded for Materiel Change (17 kits).
Jan 93 First Qualification Unit completed.
Jul 94 Complete PATE Retest.
Oct 94 Limited User Test complete.

REQUIREMENTS DOCUMENT: JCS Memorandum 407-71 established requirements.

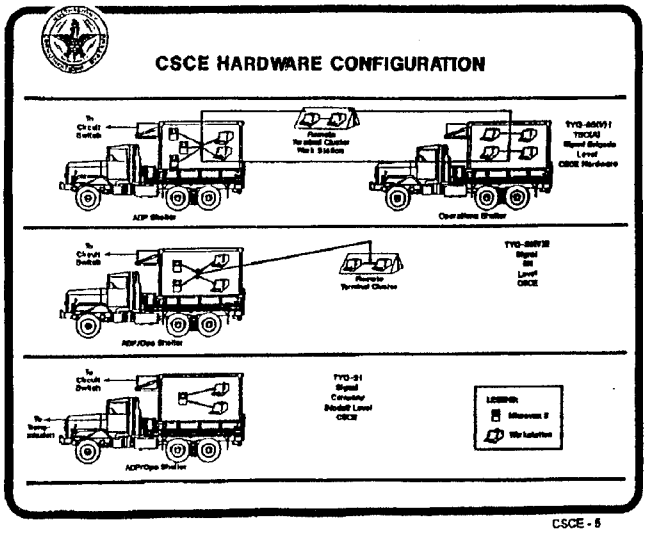
TYPE CLASSIFICATION: Standard approved Apr 80, ASARC III.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
AN/TYC-39A Limited User Test (LUT)	1					
AN/TYC-39A New Equipment Tng (NET)	--------	--------	-1			
AN/TYC-39A Fieldings	1-------	--------	-1			

SYNOPSIS: AN/TYC-3A IS A MOBILE, AUTOMATIC, MODULAR, ELECTRONIC STORE AND FORWARD MESSAGE SWITCH UNDER PROCESSOR CONTROL WITH INTEGRAL COMSEC AND MULTIPLEX EQUIPMENT.

PM, JTACS

AN/TYQ-30(V)1, (V)2, and AN/TYQ-31, COMMUNICATION SYSTEM CONTROL ELEMENT (CSCE)



PROJECT OFFICER: Mr. Luis Antomattey, DSN 992-3110
COMM 908/532-3110

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 1X428010.D107

DESCRIPTION: The CSCE is the principal element of the system management and control hierarchy for the tactical switched network in Echelons Above Corps (EAC). CSCE is a heirarchial system that includes the following three components: AN/TYQ-30(V)1 used by Signal Brigades; AN/TYQ-30(V)2 used by Signal Battalions; AN/TYQ-31 used by Signal Companies. It will exercise near real-time control over the allocation and use of resources within its assigned portion of the deployed tactical communications network. CSCE is an evolutionary program. The software is segmented into discrete and demonstrable "phases". The hardware is an NDI procurement. Software incorporates "off-the-shelf" software (e.g., VMS, ORACLE, PASSPORT, GRAPHICS) and new software written in HOL. Hardware is Microvax based with Government Furnished Equipment (e.g., DSVTs, DSDIs, DGM).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Shelters have to be removed from truck for air transport on C-130 and C-141 aircraft.

Problem Item(s) Model Lin	Operational Length / Width / Height (inches)	Maximum Reduced (For Shipping) L / W / H / In	Shipping Weight (Lbs)	Operational Weight (Lbs)	Operational Volume (Cu Ft)	Reduced (shipping volume) (Cu Ft)
S-280 shelter TYQ-30 (V)1, (V) 2, TYQ-31	191.6 / 87 / 86.7	191.6 / 87 / 86.7	6,633.8 / 6,533 / 6107	6,433.8 / 6,333 / 5,907	836.4	836.4
S-713 shelter OPS	211.6 / 87/ 89.3	211.6 / 87 / 89.3	5,807.3	5,601.3	951.4	951.4
M923A2 5 ton Truck	310.5 / 121 / 121	310.5 / 97.4 / 93.9	20,930	20,930	2,630.8	1,643.4
PU-406 Generator Set on 2 1/2 Ton M200A1 trailer chassis	185.88 / 95.5 / 87.0	166.38 / 95.5 / 87.0	6,380	6,380	893.74	799.98
S-280 shelter M923A2 truck	310.5 / 121 / 145.0			27,563.8	3,152.6	
S-713 shelter M923A2 truck	310.5 / 121 / 147.6			26,737.3	3,209.1	
S-280 shelter M923A2 truck towing PU-406	476.88 / 121 / 145.0			33,943.8	4,841.9	
S-713 shelter M923A2 truck towing PU-406	476.88 / 121 / 147.6			33,117.3	4,928.8	

HISTORICAL BACKGROUND:

Feb 83	Air Force transfers program to Army.
Feb 87	Production contract restarted, all protests denied.
Sep 87	Awarded Follow-On Software Development contract to GTE.
Aug 90	User Test conducted.
Feb 92	Fielding to Germany completed.
Mar 92	Fielding to ISC.
Feb 93	Fielding to EUSA.
Mar 94	Fielding INMS Version 2.3
Oct 95	Fielding INMS Version 2.4

REQUIREMENTS DOCUMENT: Joint Service Operational Requirement (JSOR) Jul 1994. (SM 393-74).

TYPE CLASSIFICATION: Standard approved Nov 90, Special IPR.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fielding to the 319th	2					
Fielding to the 359th	4					
Fielding to the 804th		2				
INMS Testing Version 2.5		4				
Transition to CECOM		4				

SYNOPSIS: CSCE IS USED TO AUTOMATE CONTROL OF THE TRI-SERVICE TACTICAL COMMUNICATION SYSTEM (TRI-TAC), A COMPLEX NETWORK COMMUNICATION EQUIPMENT AND SOFTWARE. THE CSCE ENHANCES THE ARMY'S ABILITY TO COMMUNICATE ACROSS A WIDELY DISPERSED AND DISTRIBUTED BATTLEFIELD AND TO ESTABLISH AN EFFECTIVE AND INTEGRATED COMMUNICATION NETWORK.

PM, JTACS

ARMY KEY MANAGEMENT SYSTEM (AKMS)

PROJECT OFFICER: Mr. John Skrletts, DSN 992-5988
COMM 908/532-5988

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II / III EMD/Production

PE & LINE #: 0303140A.D491

DESCRIPTION: AKMS is the combination of several programs to integrate all functions of COMSEC key management and frequency management into one system. These systems were formally known as Revised Battlefield Electronic CEOI System (RBECS), Automated COMSEC Management And Engineering System (ACMES), and Army Electronic Generation and Distribution System (AEGADS). The combined system is designed to meet the critical requirement to decentralize and automate the processes required to generate and distribute data required by communications systems. Data includes COMSEC Keys, ECCM fill and CEOI. It will be more responsive to rapidly changing and highly mobile battlefield conditions as an integral system used with SINCGARS, MSE, EAC COMMS, JTIDS, EPLRS and other systems.
The AKMS system is composed of workstation, an Automated Net Control Device (ANCD), a Key Distribution Device (KDD), Local COMSEC Management Software (LCMS), Revised Battlefield Electronics CEOI software, and COMSEC net planning software. The workstation software is hosted on the Lightweight Computer Unit (LCU) and includes the Key Processor (KOK-22) and a printer as peripherals. The ANCD and KDD are made up of Army unique application software hosted on the NSA developed Data Transfer Device (DTD). AKMS will elimate the use of paper CEOIs and hard copy key and will provide greater flexibility and security to user units. It will be used by all combat, combat support, combat service support units.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

May 91 ACMES and Battlefield Electronics CEOI System (BECS) programs combined.
Dec 91 ACMES program transitioned to PM MSCS.
Apr 93 ACMES Phase I milestone IIIb accomplished.
Apr 93 ACMES and AEGADS programs consolidated.
Jun 93 ACMES Phase I fielding started.
Feb 94 Critical Design Review Workstation Phase II.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Standard, Apr 93.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
AKMS Phase I Fielding	-------	------4				
AKMS - RBECS ACCEL Fielding	---2					
Workstation FQT Phase II	4					
Phase II Fielding			1-------	-------	------4	
IOT&E Phase II		2				
Milestone III Phase II		3				
Phase II IOC			3			

SYNOPSIS: AKMS IS THE COMBINATION OF SEVERAL PROGRAMS TO INTEGRATE ALL FUNCTIONS OF COMSEC KEY MANAGEMENT AND FREQUENCY MANAGEMENT INTO ONE SYSTEM.

PM, JTACS

DOWN SIZED CSCE (D/S COMM SYSTEMS CONTROL ELEMENT)

PROJECT OFFICER: Mr. Luis Antomattey, DSN: 992-8184
COMM: 908/532-8184

NO PICTURE AVAILABLE

ACQUISITION CATEGORY: III
ACQUISITION PHASE: II

PE & LINE #:

DESCRIPTION: The Downsize CSCE (D/CSCE) is the principal element of the system management and control hierarchy for the tactical switched network in Echelons Above Corps (EAC). It provides fully integrated network management capability with common hardware and software baseline at all echelons. The D/CSCE is a hierarchical system that includes Signal Brigades and Signal Battalions; AN/TYQ31 and Signal Company levels. It will exercise near real-time control over the allocation and use of resources within its assigned portion of the deployed tactical communications network.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The D/CSCE configuration consists of an S-250 shelter mounted on a HMMWV*(M-1097) with a trailer mounted PU-798 generator. There are no limitations with this configuration.

HISTORICAL BACKGROUND:

Aug 94 Contract award for development and First Article Testing of 3 FAT systems.

REQUIREMENTS DOCUMENT:

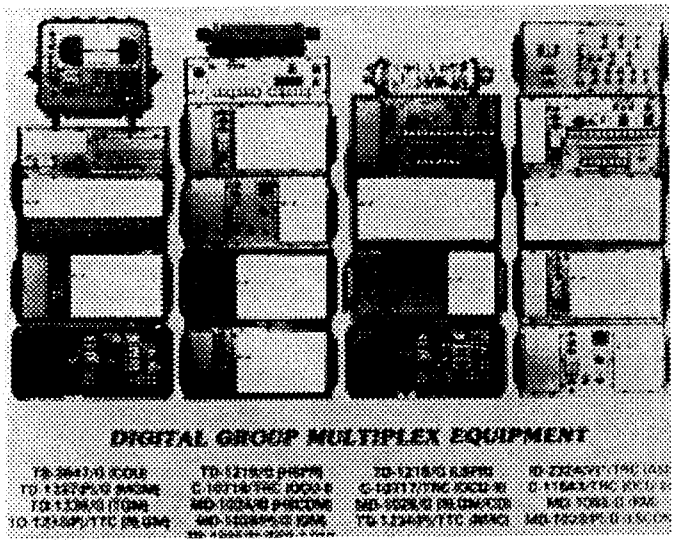
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
First Article Testing of 3 Prototype Systems		4				
First Unit Equipped			2			

SYNOPSIS: D/CSCE IS USED TO AUTOMATE CONTROL OF THE TRI-SERVICE TACTICAL COMMUNICATION SYSTEM (TRI-TAC). A COMPLEX NETWORK COMMUNICATION EQUIPMENT AND SOFTWARE. THE CSCE ENHANCES THE ARMY'S ABILITY TO COMMUNICATE ACROSS A WIDELY DISPERSED AND DISTRIBUTED BATTLEFIELD AND TO ESTABLISH AN EFFECTIVE AND INTEGRATED COMMUNICATION NETWORK.

PM, JTACS

DIGITAL GROUP MULTIPLEXER (DGM)



PROJECT OFFICER: Mr. Jon Vogel
DSN 992-3474, COMM 908/532-3474

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 1X428010.D107

DESCRIPTION: The DGM equipment is composed of a family of Digital Multiplexers, Cable Driver Modems, Pulse Restorers, and Orderwire Control Units for use as elements of the EAC (formerly TRI-TAC) comm system. The DGM family of equipment is deployed in the following DGM assemblages: AN/TRC-173, Radio Terminal Set; AN/TRC-175, Radio Terminal Set; AN/TRC-138A/B, Radio Repeater Set; and AN/TRC-174 Radio Repeater Set. They are also used in the following assemblages: AN/TRC-170, Troposcatter Radio Terminal; AN/TYQ-30/31, Communications System Control Element; AN/TTC-39A/D, Circuit Switch; AN/TSC-85( ), Tactical Satellite Communications Terminal, and AN/TSC-100A Multichannel Super High Frequency Satellite Communications Terminal. DGM is also used in the Air Force unique assemblages AN/TSQ-111, Communications Nodal Control Element and AN/TSQ-146, MUX VAN. In addition, DGM equipment is deployed in stand-alone applications by Army, Air Force, and Marine Corps. DGM equipment is provided as Government Furnished Equipment to a number of Army and Air Force assemblage contractors for integration into and delivery with their assemblages.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

May 75 FSED contract awarded to Raytheon.
Mar 82 Production contract awarded to Raytheon.
Aug 87 Initial Army fieldings of DGM.
Apr 89 Competitive contract award to Group Technology Corporation (GTC) for four High Volume units.
Jun 91 Raytheon Production Final Delivery.
Sep 91 GTC Production Deliveries began.
Jul 95 Final GTC Production Delivery.

REQUIREMENTS DOCUMENT: OSD Memorandum, JSOR, Dec 74.

TYPE CLASSIFICATION: Standard approved Aug 1981, IPR.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Final Deliveries	4					

SYNOPSIS: DGM IS A FAMILY OF VARIOUS MULTIPLEXERS, MODEMS, ORDERWIRE CONTROL UNITS, AND CABLE SYSTEM COMPONENTS THAT ARE DEPLOYED IN TRI-TAC EQUIPMENT.

PM, JTACS

DIGITAL GROUP MULTIPLEXER ANTENNA MAST PROGRAM (DAMP)

PROJECT OFFICER: Mr. George Meyer, DSN 992-3474
COMM 908/532-3474

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The DAMP consists of up to three Quick Erect 30 Meter Manual Antenna Masts stowed in a transit frame and mounted on an M1061A1 trailer, on the bed of a 5-ton cargo truck, and has auxilliary power under hood of M-1097 Heavy HMMWV. The configuration depends on the variant of the Digital Group Multiplexer (DGM) system it supports. These masts will deploy antennas in support of the AN/TRC-173( ), AN/TRC-174( ), AN/TRC-175( ) and AN/TRC-138A/138B. These systems will include two each MEP 003A 10 kilowatt diesel generators for system power, except the M-1097 which has one 10 kilowatt generator.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jul 86 Signal Center General Officer Meeting decided the AB-1309/TRC Antenna Mast would no longer be fielded with DGM assemblages but instead as an auxiliary mast system. The DGM Assemblage Mast Program will provide an objective antenna mast system for DGM assemblages.
Dec 88 DA direction to proceed with 30M Mast Procurement.
Feb 90 Contract (basic) awarded.
May 91 FAT completed.
Jul 92 First Unit Equipped (FUE). Conditional Release to Korea.
Jul 93 Full Materiel Release.

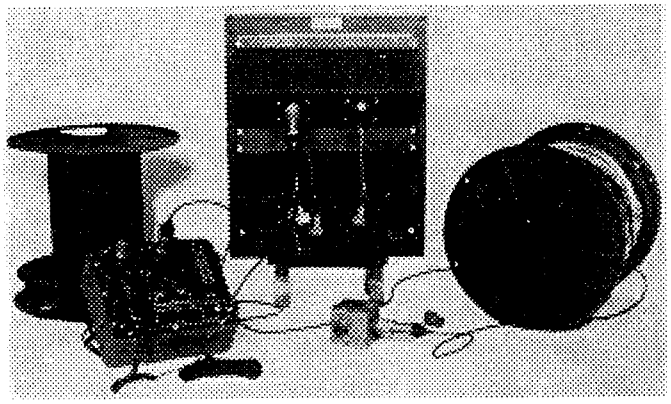
REQUIREMENTS DOCUMENT: DGM JSOR, Dec 74.

TYPE CLASSIFICATION: Standard (DGM) approved Aug 81; Updated by Materiel Status Record Change 1991.

SYNOPSIS: DAMP PROVIDES ANTENNA MASTS, GENERATORS AND ANCILLARY ITEM TRANSPORT IN SUPPORT OF THE DGM ASSEMBLAGES.

PM, JTACS

FIBER OPTICS TRANSMISSION SYSTEM (FOTS)



PROJECT OFFICER: Mr. Jon Vogel
DSN 992-3525, COMM 908/532-3525

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 1E464701.D48736

DESCRIPTION: The FOTS is designed to be a replacement for the CX-11230 Coaxial Cable. FOTS is composed of the following equipments: Fiber Optic Modem (FOM); Field Test Set (FTS); Fiber Optic Cable Assembly (FOCA), and Cable Repair Kit (CRK). It also includes a "mud box", which has not yet been procured. The FOM is mounted on the shelter entrance panel and converts the electrical signal to an optical signal for transmission down the FOCA. The FTS is utilized to troubleshoot the cable system. The CRK permits repair and retermination of the FOCA in a sheltered environment. The FOCA is a two fiber cable assembly and is provided in 300 meter and one kilometer lengths. The FOCA is the standard tactical two fiber cable assembly used by all services. The performance requirement for the FOTS is eight kilometers without repeaters.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Feb 79 Special In-Process Review for entry into Full Scale Engineering Development.
Jul 86 DT-II/OT-II completed.
Jul 90 First Article Test (FAT) approved AT&T (FOCA).
Aug 91 FAT approved, FiberCom, Incorporated (FOM & FTS).
Apr 92 Interoperability testing with Marine Corps IAW JIC3ATIS9109C.
Jul 92 Limited User Assessment Test, Ft. Gordon, GA.
Mar 93 FOTS System Test, 63rd Sig BN, Ft. Gordon, GA.

REQUIREMENTS DOCUMENT: ROC approved Nov 81.

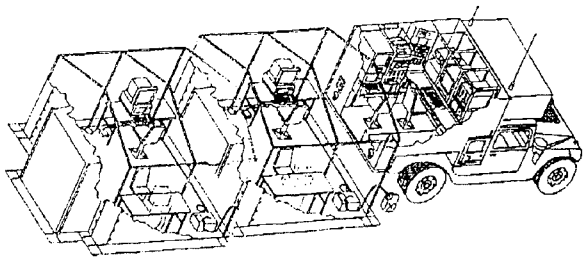
TYPE CLASSIFICATION: Standard approved Aug 87.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
FOM Requirements Contract Award and FTS	3					

SYNOPSIS: FOTS IS A REPLACEMENT FOR CX-11230 TWIN COAXIAL CABLE AND OFFERS INCREASED BANDWIDTH, DECREASED DIAMETER AND WEIGHT, INCREASED FLEXIBILITY, ELECTROMAGNETIC PULSE/RADIO FREQUENCY INTERFERENCE (EMP/RFI) IMMUNITY AND LOWER COST.

PM, JTACS

INTEGRATED SYSTEMS CONTROL (ISYSCON)



PROJECT OFFICER: John J. Nunziato, DSN 992-3110
COMM 908/532-3110

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 248010 D107

DESCRIPTION: The ISYSCON provides an automated, theatre-wide system that Signal Units will use to manage multiple tactical communications systems in support of battlefield operations. The ISYSCON facility will provide an automated, integrated method for managing the tactical communications networks and interface with each battlefield functional area in the Army Tactical Command and Control system (ATCCS) architecture. A change to the requirements document has added planning and management of MILSATCOM resources. The ISYSCON has been selected as the communications network planning and management system for joint task force use. The spectrum management software has been designated as part of the migration system for DOD use.
An ISYSCON node consists of a 250E shelter on a Heavy HMMWV and two extension tents, two server and four client workstations, and peripherals. An ISYSCON node can support up to 20 remote terminals distributed by the S3 to various signal officers. (Each ISYSCON node will be provided with 10 remote terminals).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Heavy HMMWV mounted with roll-on/roll-off capability. No limitations.

HISTORICAL BACKGROUND:

Jun 91 PM, JTACS assigned management responsibility.
Nov 91 Acquisition Plan approved; Milestone I/II IPR.
Sep 92 EMD Contract Award.
Dec 92 Protest resolved.
Nov 93 ISYSCON selected for use as the Joint Task Force Communications Planning/Management System (JCPMS).

REQUIREMENTS DOCUMENT: ROC signed 19 Dec 90; Change dated 12 May 94.

TYPE CLASSIFICATION: (Generic) scheduled for Dec 94.

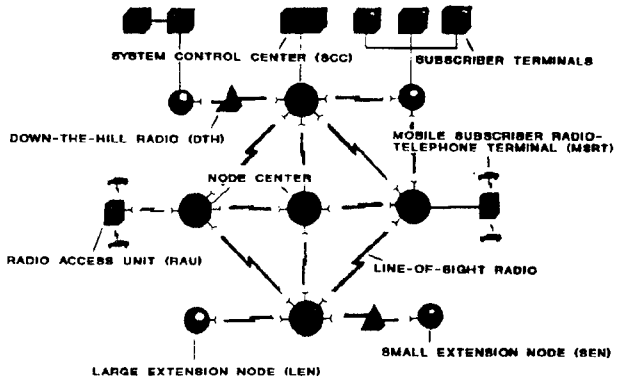
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
PI Development Progress Review (DPR)		1				
PI Beta Fielding		2---4				
PI PATE		4				
PI & DPR		3				
PI FUE		4				
PI IOT&E			1			
P2 DPR			1			
P3 DPR			3			
P2 FOT&E				1		

SYNOPSIS: THE ISYSCON WILL PROVIDE THE SIGNAL COMMAND & STAFF WITH AN INTEGRATED AUTOMATED PLANNING & CONTROL CAPABILITY TO ASSIST IN MANAGING COMMUNICATION SYSTEMS IN SUPPORT OF COMBAT FORCES, WEAPONS SYSTEMS, & BATTLEFIELD AUTOMATED SYSTEMS. IT WILL FUNCTION AS THE BATTLEFIELD SIGNAL MANAGEMENT SYSTEM AT DIVISION THROUGH THEATER/ECHELONS OR IN SUPPORT OF INDEPENDENT TASK FORCE OPERATIONS.

PM, JTACS

MOBILE SUBSCRIBER EQUIPMENT (MSE)

MSE SYSTEM ARCHITECTURE



PROJECT OFFICER: Thomas Nugent, DSN 992-1849
COMM 908/532-1849

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: BB1610 & BB1611

DESCRIPTION: The MSE system will provide the tactical force with increased mobility and a discrete address capability to user. The functions of switching, radio trunking, communications security and system control will be integrated into one composite system, which will replace the existing command and area communications system in both the division and corps areas of operation. The MSE system will provide users with a means of communicating throughout the battlefield, regardless of location, in either a static or mobile situation. The system will significantly reduce the need to install wire and cable when establishing command posts. It will provide telephone-like, full-duplex operation for massed or dispersed command posts. The MSE system will consist of five major hardware functional elements: subscriber terminals; multiple subscriber access; wire subscriber access; area coverage; and system control.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Oct 79 Joint Operational Requirement approved.
Nov 83 Under Secretary of the Army directed MSE be procured using a non-developmental acquisition approach.
May 83 Acquisition Plan approved.
Sep 83 Battlefield Communications Review determined MSE will be deployed throughout the Corps and Divisions of Army.
Dec 85 Contract award (basic); Contract award (1st option).
Feb 88 FUE completed.
Oct 88 FOTE completed.
Nov 89 TEMP approved.
Aug 90 MSE support of Operation Desert Shield began.
Sep 90 Mobilize Regional Support Center in Saudi Arabia.
Oct 90 1st MSE equipped III Corps deployed to SWA Theater of Operations; Dual LKG contract modification award.
Nov 90 LCCP and ADI contract modifications award; VECP consolidated fielding contract modification award.
Dec 91 MSE GOSC Review (Signal Architecture Review).
Jul 93 Negotiated GTE Global Settlement.
Nov 93 Fieldings Completed.
Mar 95 Completed "Retro Fit 94".

REQUIREMENTS DOCUMENT: MSE Operational Capability document approved by HQDA, 24 May 84.

TYPE CLASSIFICATION: Standard, Nov 85.

EVENT SCHEDULE / INITIAL FIELDING DATES	FISCAL YEAR / QTR	95				96				97				98				99				00			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Routing Improvement Program						1																			
NMT										1															
STSVT		2																							
ESOP/Global										1															
Tactical T1/E1										1															
Auto Combat Net Radio Interface										2															
Fly Away MSG Switch													4												

SYNOPSIS: MSE SYSTEM WILL INTEGRATE THE FUNCTIONS OF THE USER TERMINAL EQUIPMENT, SWITCHING, RADIO TRANSMISSION, COMMUNICATIONS SECURITY & CONTROL INTO ONE COMPOSITE COMMUNICATIONS SYSTEM. WHEN FIELDED, MSE WILL REPLACE THE EXISTING SWITCHING COMMUNICATIONS SYSTEMS IN THE CORPS & DIVISION AREAS.

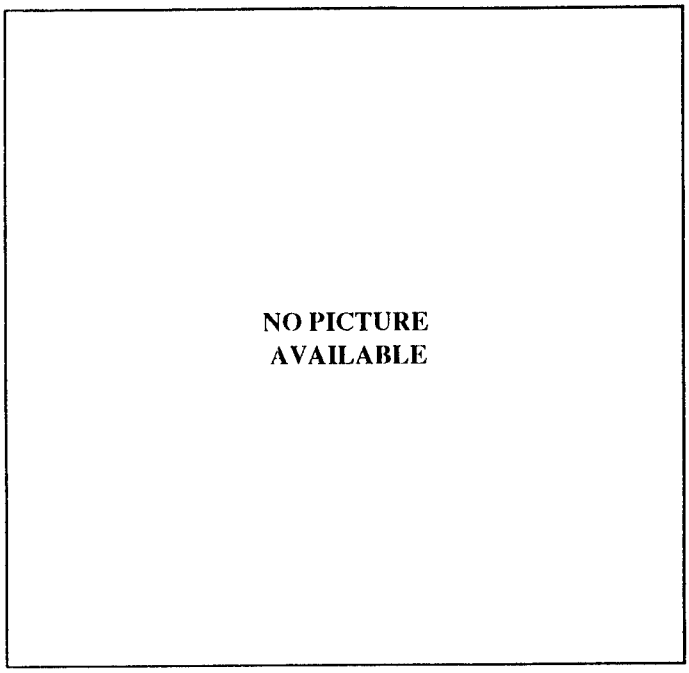
PM, JTACS

NETWORK MANAGEMENT TOOL (NMT)

PROJECT OFFICER: Mr. Joseph Schannen. DSN 992-3110
COMM 908/532-3110

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS III

PE & LINE #:



DESCRIPTION: The Network Management Tool (NMT) will provide the network management capability for the MSE network. The NMT will provide: network planning and engineering; battlefield spectrum management; network monitoring and control; equipment configuration and monitoring; and Signal Command and Control. The NMT replaces the System Control Center-2 (SCC-2) and the Network Planning Terminal (NPT) in the MSE network. The NMT will in turn be replaced by the ISYSCON, the objective network management system for the Army Common User System (ACUS). The NMT consists of a subset of the Common Hardware (CHS-2) and the software used in the ISYSCON.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: S-250E Shelter on HHMWV. Full MSE mobility.

HISTORICAL BACKGROUND:

Dec 94 ECP700C2 Approved to upgrade SCC-2 to NMT

REQUIREMENTS DOCUMENT:

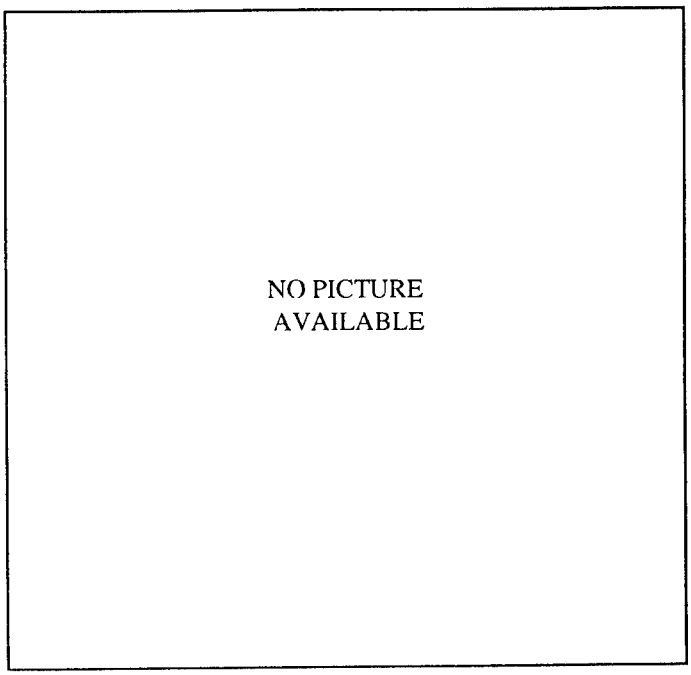
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ECP700C2 Approved	1					
PDT Assur. Test & Eval (PATE) Completed		3				
First Unit Equipped - Ft. Hood		4				

SYNOPSIS: THE NMT WILL BE THE NETWORK MANAGEMENT SYSTEM FOR THE MSE NETWORK. IT WILL BE BASED ON THE ISYSCON ARCHITECTURE AND WILL BE REPLACED BY ISYSCON.

PM, JTACS

COMPACT DIGITAL SWITCH (ON-422)



PROJECT OFFICER: Mr. Ronald Testa, DSN 997-3492
COMM 908/532-3492

ACQUISITION CATEGORY: III
ACQUISITION PHASE: Production/Operation/Support

PE & LINE #:

DESCRIPTION: The ON-422 is a 708 line circuit switch that provides switching multiplexing and COMSEC capability in a small and lightweight chassis assembly. Coupled with ancillary items, including a call service position, line termination unit, and rabidium timing standard, all operational features performed by the larger AN/TTC-39A and D are achievable. Current ongoing enhancements will provide commercial interfaces via TI or EI trunks. Operational upgrades include compatability with the new circuit switch routing (CSR) software.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The CDS is currently delivered for shelter or rack mounting in a mobile or fixed environment.

HISTORICAL BACKGROUND:

Jul 93 Initial contract awarded for production.
Apr 94 Initial fielding of equipment.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

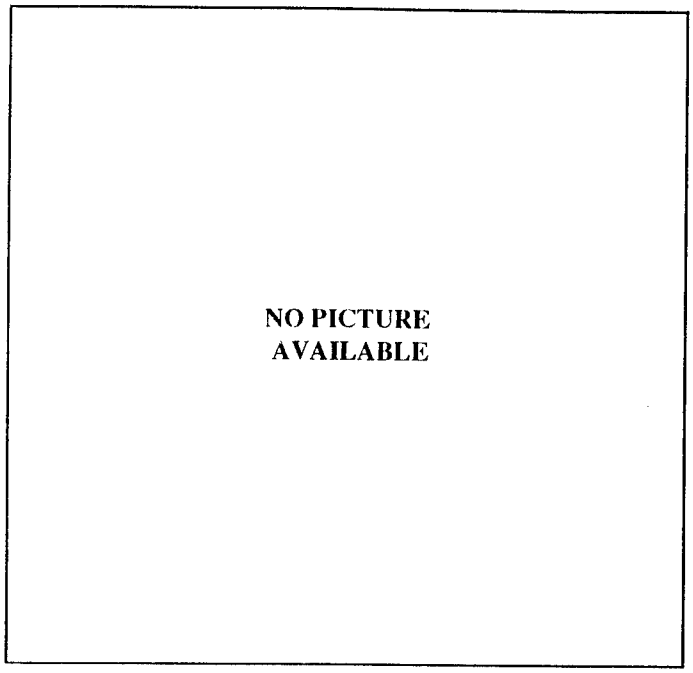
EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Follow on contract			2------	--------	--------	--------	

SYNOPSIS: A 1500 LINE CIRCUIT SWITCH THAT PROVIDES A COMPACT UNIT FOR INSTALLATION AS A SUBSYSTEM.

PM, JTACS

SWITCH MULTIPLEX UNIT (SMU)

PROJECT MANAGER: Mr. Ronald Testa, DSN 992-3492
COMM 908/532-3492



ACQUISITION CATEGORY:
ACQUISITION PHASE: Production/Operation/Support

PE & LINE #:

DESCRIPTION: The SMU is a 708 line circuit switch that combines the capabilities of the Compact Digital Switch (ON-422), Line Termination Unit (CV-4180) an anatomic timing standard source in a single chassis. The SMU will perform the features of the AN/TTC-39A and D. Current ongoing enhancements will provide commercial interfaces via TI or EI trunks, operational upgrades include compatibility with the new Circuit Switch Routing (CSR) software.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The SMU is currently delivered for shelter or rack mounting in a mobile or fixed environment.

HISTORICAL BACKGROUND:

Apr 95 Initial contract awarded for production.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Follow on contract			2-------	--------	--------	--------	

SYNOPSIS: A 1072 LINE CIRCUIT SWITCH THAT PROVIDES A COMPACT UNIT FOR INSTALLATION AS A SUBSYSTEM IN COMM ASSEMBLIES FOR WHICH WEIGHT AND SPACE ARE CRITICAL PARAMETERS.

PM, JTACS

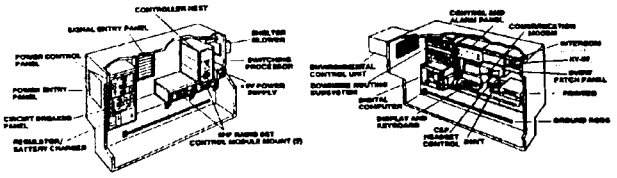
UNIT LEVEL DIGITAL SWITCH PROGRAM (ULDS)

PROJECT OFFICER: Mr. Cesar Mencia, DSN 992-9274
COMM 908/532-9274

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

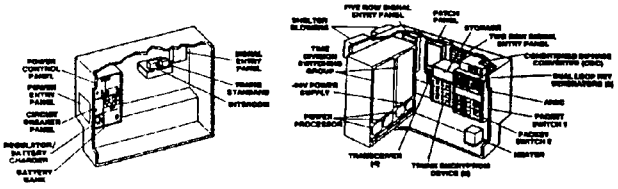
PE & LINE #:

DESCRIPTION: The ULDS is to be deployed at Echelons Above Corps (EAC) units. The ULDS is composed of an MSE Small Extension Node Switch (SENS), AN/TTC-48 and MSE Large Extension Node Switch (LENS), AN/TTC-46. The SENS will provide the primary means of telephone subscriber access into the EAC area system utilizing a 41-line automatic switchboard. The MSE SENS is housed in an extended S-250E shelter. It also provides a direct link between local subscribers as well as a manual interface to commercial telephone systems. The LENS will provide access for up to 164 subscribers into the EAC area system. It can also provide the flood search and automatic affiliation/disaffiliation capabilities. The EAC LENS will be housed in two assemblages, an S-250 Switching Group and an S-250E Operations Group.



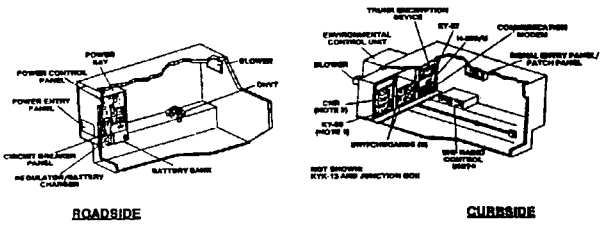
ROADSIDE CURBSIDE

ULDS LENS, OL-412/TTC-46C(V)
OPERATIONS GROUP SHELTER



ROADSIDE CURBSIDE

ULDS LENS, ON-305/TTC-46C(V)
SWITCHING GROUP SHELTER



ROADSIDE CURBSIDE

NOTES: 1. KY-90 INSTALLED IAW MISSION REQUIREMENTS. * NOT INSTALLED/UTILIZED FOR EAC FIELDINGS.
2. CNR SUPPLIED AND INSTALLED BY UNIT.

AN/TTC-48A(V)2 (SENS)

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

No limitations.

HISTORICAL BACKGROUND:

Dec 90 SENS fielded to 7th Signal Brigade.
Dec 91 SENS fielded to 304th Signal BN & 67th Signal BN.
Feb 92 Fielding to 307th Signal Battalion.
Apr 92 Materiel Release for LENS fielding.
Aug 92 Lens fielded to 97th SIG BN.
Apr 93 Materiel Release for AN/TTC-48A(V)2.

REQUIREMENTS DOCUMENT: DA Message 091129ZJUN87. TRI-TAC Block III Architecture.

TYPE CLASSIFICATION: Standard.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fielding/Training for 35 SB	1					
Packet for 35 SB	4---	-1				

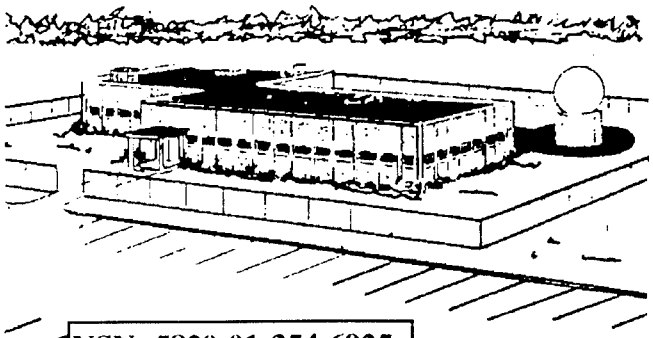
SYNOPSIS: ULDS PROVIDES PRIMARY MEANS OF TELEPHONE SUBSCRIBER ACCESS INTO THE EAC AREA SYSTEM UTILIZING A 41-LINE AUTOMATIC SWITCHBOARD.

PM, MILSTAR
(ARMY)

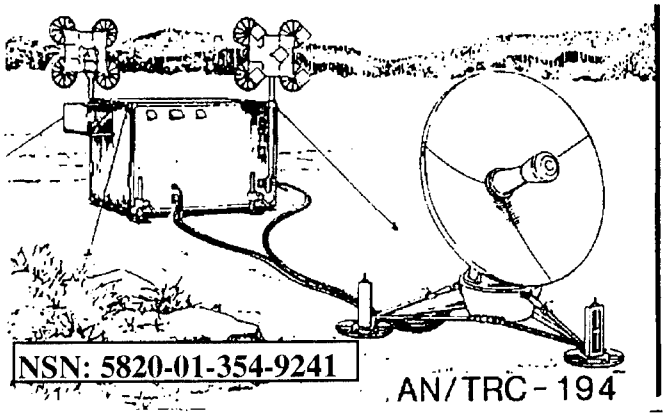
PM, MILSTAR (ARMY)

AN/FRC-181(V)1 and AN/TRC-194(V)1, (V)2, MILSTAR GROUND COMMAND POST (GNDCP) TERMINALS

AN/FRC-181



NSN: 5820-01-354-6925



NSN: 5820-01-354-9241

AN/TRC-194

PROJECT MANAGER: COL Michael Mazzucchi.
DSN 992-9767 COMM 908/532-9767

ACQUISITION CATEGORY: ID
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 33142.383 SSN: BC4001

DESCRIPTION: The Milstar program is a multi-service satellite communications system (consisting of satellites and terminals) which will operate with Extremely High Frequency/Ultra High Frequency (EHF/UHF) uplinks and Super High Frequency (SHF)/UHF downlinks. The terminal segment will provide: worldwide; two-way; anti-jam; survivable; secure voice; teletype; and data communications enabling the National Command Authority (NCA) to command and control strategic and tactical forces through all levels of conflict and crisis. Milstar system must be operational and serviceable in a severe warfare environment, (e.g. nuclear, biological, chemical and electronic).

AN/FRC-181(V)1 is a GNDCP fixed terminal housed in an operational center and installed at CINC and Special User locations. At some sites, the terminal replaces the AN/GSC-40. AN/TRC-194(V)1,2 is a GNDCP transportable terminal housed in a S-280 shelter, transported by two 5-ton vehicles and uses twin 30Kw generators with trailers. PM Milstar will integrate the GNDCPs into the Army force structure.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Feb 89 Army assigns PM SCOTT as Level I SICA Manager for 16 JCS Validated Terminals.
Dec 89 AF Low Rate Initial Production (LRIP) award Raytheon/Rockwell.
Jan 91 Milstar Restructuring Plan approved.
Oct 92 Re-evaluation of requirements for a quantity of 8 terminals to be integrated into the Army force structure.
Oct 92 Milstar Program DAB.
May 93 Core Buyout Raytheon/Rockwell.
Feb 95 Fort McPherson initial turnover.

REQUIREMENTS DOCUMENT: JORD, Oct 92.

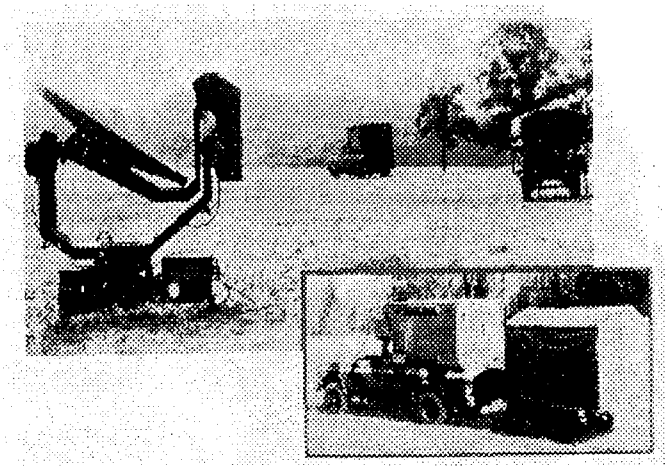
TYPE CLASSIFICATION: USAF to type classify.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Turnover Terminal to McPherson	2					
Turnover of Belvoir Terminals (2)		1				
Field Two Terminals to VIAHINGEN, GE			2			
Field Terminal to Shape Belgium			1			
Field Terminal to Ritchie		2				

SYNOPSIS: MILSTAR EHF-UHF GROUND COMMAND POST TERMINALS PROVIDE FIXED/SEMI-FIXED CAPABILITIES FOR NET CONTROL AND VOICE, TELETYPE AND DATA COMMUNICATIONS IN AN EXTREMELY HOSTILE ENVIRONMENT.

PM, MILSTAR (ARMY)

AN/TSC-124, MILSTAR ENGINEERING DEVELOPMENT MODEL TERMINAL (MET) [Formerly Single Channel Objective Tactical Terminal (SCOTT)]



PROJECT MANAGER: COL Michael Mazzucchi.
DSN 992-9767 COMM 908/532-9767

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 33142.455 SSN: K23700

DESCRIPTION: The MET is an EHF satellite terminal which will provide mobile, survivable, anti-jam and low probability of intercept communications. The MET configuration consists of an S-250 shelter mounted on a truck with a trailer and generator. MET is the ground segment terminal of the Milstar system assigned to support the Army. It can provide data or secure voice communications at 75-2400 bps for up to four users. The user can be remoted up to 2500 feet away. Due to the reduction in the Non-Strategic Nuclear Forces (NSNF) environment and Army downsizing, the MET production phase has been cancelled.

The Full Scale Engineering Development (FSED) terminals will be utilized as test assets for SMART-T and SCAMP, support satellite tests and interoperability demonstrations and possible contingency fielding. All fifteen FSED terminals have been accepted.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

May 80 IPR approves entering Advanced Development (AD) phase with Lincoln Laboratory on an EHF terminal.
Dec 85 FSD contract awarded to Magnavox ($105.9M FFP).
Oct 90 FY91 Congressional language directed SECDEF to restructure MILSTAR EHF programs.
Mar 92 Fourth successful Joint Service Interoperability Demonstration.
Dec 92 Successfully participated in MST-6000 (Satellite Simulator) Test.
May 93 Acceptance of final FSED Terminals.
Jun 94 Successfully participated in MST-8000 (Launched Satellite) Test.

REQUIREMENTS DOCUMENT: ROC approved Aug 85.

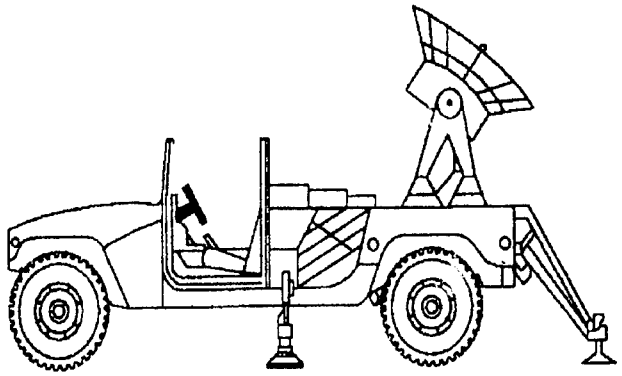
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Interoperability Tests with SCAMP	4	1	4			
Interoperability Test with SMART-T	3	1 4	2			

SYNOPSIS: MET IS AN EHF SATELLITE EARTH TERMINAL THAT PROVIDES MOBILE, ROBUST, SURVIVABLE ANTI-JAM AND LOW PROBABILITY OF INTERCEPT COMMUNICATIONS INSTALLED IN AN S-250 SHELTER MOUNTED ON A DUAL-WHEELED CUCV WITH A TRAILER MOUNTED THREE KILOWATT GENERATOR AND ANTENNA.

PM, MILSTAR (ARMY)

SECURE MOBILE ANTI-JAM RELIABLE TACTICAL TERMINAL (SMART-T)



PROJECT OFFICER: COL Michael Mazzucchi, DSN 992-9767
COMM 908/532-9767

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: FY93 and Prior: 33142.455
FY94 and Beyond: 33142.2PT
SSN: BC4002
BS9720

DESCRIPTION: The SMART-T terminal will provide tactical users with secure, survivable, anti-jam, low probability of intercept and detection satellite communications in a High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) configuration. This equipment will communicate/process data and voice communications at both low and medium EHF data rates. SMART-T will provide a range extension capability to MSE supporting Airland Operations. SMART-T provides a satellite interface to permit uninterrupted communications as our advancing forces move beyond the line-of-sight capability of MSE.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Oct 90 Congressional direction to restructure Milstar.
Jan 91 Deputy Secretary of Defense submitted restructured Milstar plan to Chairman, Armed Services Committee; Milstar restructure plan approved.
May 92 ASARC (Milestone II) approved.
Oct 92 MILSTAR Program Review DAB conducted.
Nov 92 Dual development contracts awarded to Raytheon Co., Marlborough, MA & Rockwell International, Richardson, TX.
Mar 94 Critical Design Reviews Completed.
Dec 94 Terminal to Payload Simulator Interface Test successfully completed.
May 95 Terminal to BrassBoard Payload Test successfully completed.
Aug 95 LRIP/FSP Solicitation released.

REQUIREMENTS DOCUMENT: Army Milstar Advanced Satellite Terminals (MAST) Operational Req'ments Document, Mar 92.

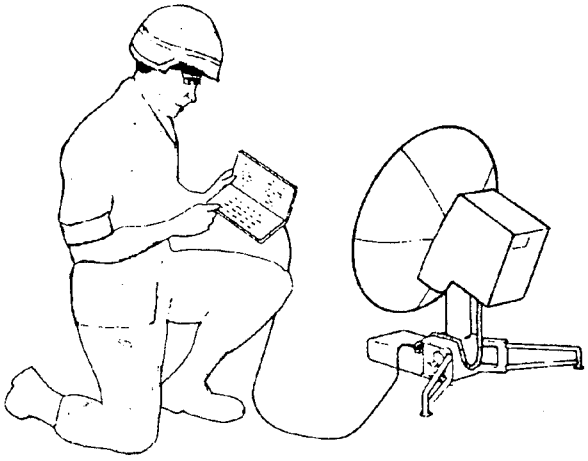
TYPE CLASSIFICATION: To be type classified LRIP in FY96; Type Classification standard to be accomplished prior to MSIII Decision in FY99.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Conduct Development Test and Evaluation	-------	---2				
Award LRIP Contract with FSP Options		2				
Conduct Government Technical Test			3			
Conduct MST-6000 (Ground test prior to Sat Launch)				1--2		
Conduct First Article Test				1--2		
Conduct Initial Operational Test and Evaluation				3--4		
Milestone III Decision/Exercise 1st FSP Option					1	
Conduct MST-8000 (MDR on-orbit Sat Test)					3--4	
Conduct Follow-on Test & Evaluation					4---1	

SYNOPSIS: SMART-T PROVIDES USERS WITH SECURE, SURVIVABLE, ANTI-JAM, LOW PROBABILITY OF INTERCEPT AND DETECTION SATELLITE COMMUNICATIONS IN A HMMWV CONFIGURATION.

PM, MILSTAR (ARMY)

SINGLE CHANNEL ANTI-JAM MANPORTABLE TERMINAL (SCAMP) - BLOCK I



SCAMP

PROJECT OFFICER: COL Michael Mazzucchi.
DSN 992-9767 COMM 908/532-9767

ACQUISITION CATEGORY: IC/III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: FY93 and Prior: 33142.455
FY94 and Beyond: 33142.386
SSN: BC4003

DESCRIPTION: BLOCK I: PM MILSTAR (Army) is responsible for development, acquisition, testing, product improvement and fielding of the Joint Service Extremely High Frequency (EHF) Milstar Program ground terminals segment. The Single Channel Anti-jam ManPortable (SCAMP) Terminal provides direct support to the tactical warfighter with secure anti-jam protected, low probability of intercept and low probability of detection. SCAMP is compatible with the Milstar waveform and interoperable with other terminals using the Milstar network. Block I is a 37 lb., single channel, Low Data Rate, user owned and operated terminal with a setup/teardown time of less than ten minutes. SCAMP - Block I has embedded COMSEC/TRANSEC and provides EMP protection with a Bio/Chemical protected case. Block I provides range extension interfacing with the Area Common User System (ACUS) and Combat Net Radio (CNR). The SCAMP terminal will be procured in a two block approach. Block I provides an interim manportable single channel, half duplex satellite capability using today's technologies. Engineering Feasibility Efforts (EFE) from FY96 through FY99 will explore the development and integration of key technologies required to achieve the objective Block II terminal manpackable capability. The Block I program is currently in the Milestone III competitive pre-award evaluation and on track for a Production award in February 1996.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jun 94 Market survey conducted for EHF Satellite Terminals.
Sep 94 Joint Congressional Appropriations Conference Report decremented Milstar (Army) 50% of FY95 resources.
Oct 94 Martin Marietta Corp EMD contract terminated for convenience.
Nov 94 Engineering and Manufacturing Development (EMD) phase terminated.
Nov 94 Advanced Planning Briefing to Industry held at Ft. Monmouth, NJ.
Nov 94 AAE Acquisition Decision Memo (ADM) approved Full Scale Production (FSP).
Apr 95 Redesignation of Block I to ACAT III by DAE.

REQUIREMENTS DOCUMENT: Army Milstar Advanced Satellite Terminals (MAST) Operational Req'ments Document, Mar 92.

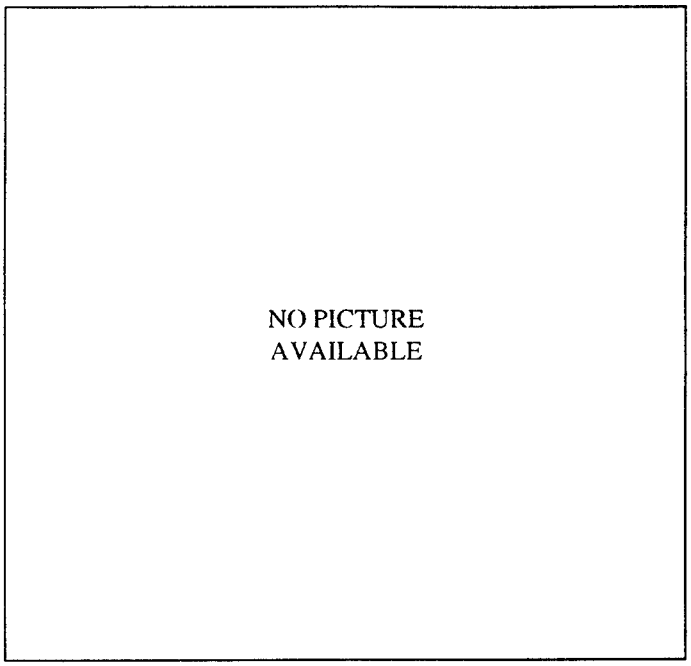
TYPE CLASSIFICATION: November 1997 standard

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Approved APB/ADM	1					
Vendor Demonstrations		1-2				
Pre Award Status Review		2				
Full Rate Production Award		2				
First Production Delivery				1		
FOT&E			4			
Contractor Depot Support - 5 yr. warranty				1-------	--------	-------
Terminal 10C				1		

SYNOPSIS: SCAMP TERMINAL PROVIDES WORLDWIDE, ANTI-JAM LOW PROBABILITY OF INTERCEPT AND DETECTION, ASSURED VOICE AND DATA COMMUNICATIONS FOR SMALL UNITS THAT REQUIRE RANGE EXTENSION FOR C3.

PM, MILSTAR (ARMY)

SINGLE CHANNEL ANTI-JAM MANPORTABLE TERMINAL (SCAMP BLOCK II)



PROJECT MANAGER: COL Michael Mazzucchi,
DSN 992-9767
COMM 908/532-9767

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE #: 33142.386 SSN: BC4003

DESCRIPTION: The SCAMP BLOCK II program will provide a manpackable 12-15 pound terminal to the tactical soldier. It will transmit and receive low rate data and voice in selectable point-to-point or broadcast modes. It will transmit in the EHF band and receive in the SHF band, and have a paging capability. Engineering Feasibility Efforts (EFE) approved at May 92 ASARC will begin in FY96 on packaging concepts; developing lightweight structures, composite drive motors, lightweight composite antenna petals; integrate mechanical prototype; develop paging system prototypes and perform digitalization and interoperability studies. Production is planned for FY03.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

May 92 ASARC Approved Engineering Feasibility Efforts (EFE).

REQUIREMENTS DOCUMENT: Army Milstar Advanced Satellite Terminals (MAST) Operational Req'ments Document, Mar 92.

TYPE CLASSIFICATION:

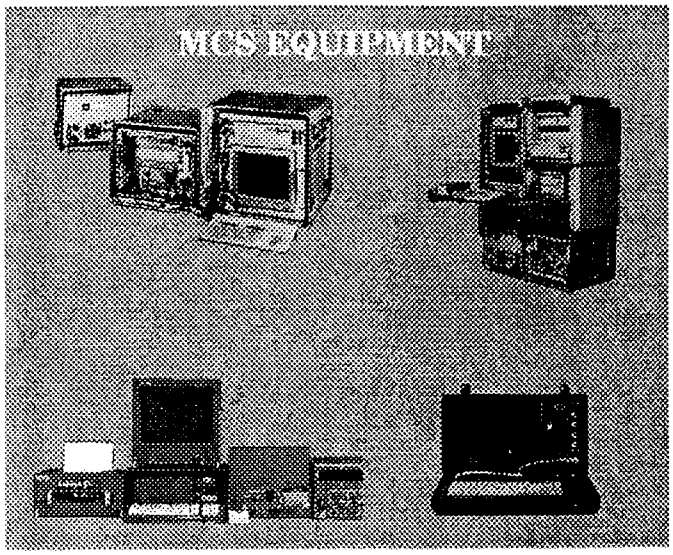
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Engineering Feasibility Efforts (EFE)		1--------	--------	--------	-------- 4	
Milestone II Decision					4	
Award EM Contracts						1

SYNOPSIS: SCAMP BLOCK II TERMINAL WILL PROVIDE 12-15 LB. MANPACKABLE, SECURE, ANTI-JAM COMMUNICATIONS, PAGING CAPABILITY TO THE TACTICAL SOLDIER.

PM, OPTADS

PM, OPTADS

MANEUVER CONTROL SYSTEM (MCS)



PROJECT OFFICER: COL Stanley C. Leja, DSN 992-4041
COMM 908/532-4041

ACQUISITION CATEGORY: ID
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 273740.D484 SSN: BA-9320
273740.D2HT BA-9710
BS-9710

DESCRIPTION: MCS is a tactical information and computer network utilizing a client-server architecture with a distributed database to automate the command and control process. Field commanders and staffs are provided the capability to receive, access and process information, rapidly disseminate decisions and orders, and react inside the enemy's decision cycle. MCS computers operate at Corps through maneuver battalion. MCS provides the analysis tools to allow tactical planners the ability to shift and concentrate combat power in conjunction with other friendly forces. Tactical battlefield information which can be readily accessed and graphically displayed include friendly and enemy unit activity on an electronic map background, unit task organization (using standard symbology), and unit readiness status. MCS interfaces to standard Army tactical communications (secure/non-secure, wire and radio) such as the Mobile Subscriber Equipment (MSE) and the Combat Net Radio Systems. It interoperates with other Army, joint and combined C2 systems. MCS is system capable of running on the Army's CHS. Unique and commonly-developed Ada software code executes on UNIX, with X-Windows and MOTIF for a graphical user interface. The primary components of MCS are the software applications which directly support the commanders and staff. As a support structure for the application software, MCS will reuse the Army Common Operating Environment.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: AN/TYQ-45; H 53.51, W 101.23, L 109.9, Wt 288.5 lbs.

HISTORICAL BACKGROUND:

Late 1980's	MCS V10 fielded on TCP&AC.
Feb 93	Rebaselined Program to be on Common Software foundation.
Aug 94	Integrated Interoperability Demo at Ft. Hood.

REQUIREMENTS DOCUMENT: ORD Oct 95.

TYPE CLASSIFICATION: TCP, AN/UYQ-43(V)1 and AC, AN/UYQ(V)2 type classification Standard, at IPR, Jun 86. (Equipment transitioned to CECOM).

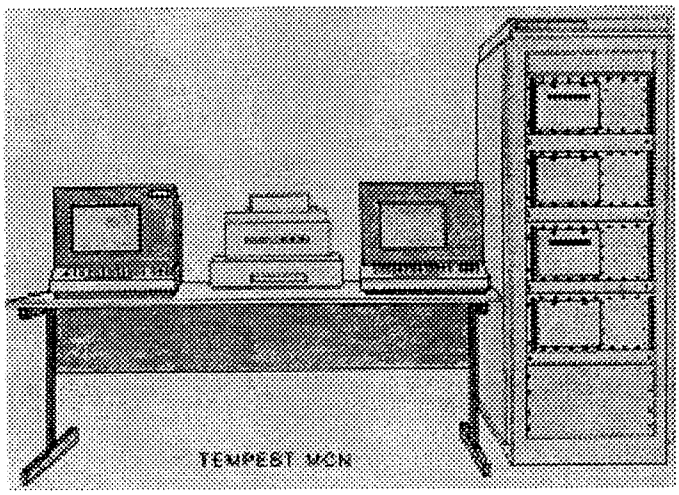
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
V. 12.01 IOTE			1			
V. 12.01 MS3 DAB			3			
V. 12.1 FOTE				4		
V. 12.2 FOTE					4	
V. 12.3 FOTE						4

SYNOPSIS: MCS IS A CORPS AND BELOW TACTICAL COMMAND AND CONTROL SYSTEM TO AUTOMATE DIGITIZATION OF BATTLE COMMAND.

PM, SATCOM

PM, SATCOM

AN/FGQ-13, SMART MULTI-CIRCUIT TERMINAL (SMCT)



PROJECT MANAGER: COL Dennis K. Raymond.
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. Ronald F. Johnson.
DSN 992-9728 x 5824 COMM 908/532-9728 x 5824

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operation/Support

PE & LINE #: BB8509

DESCRIPTION: The SMCT is an automated system which provides consolidation of the numerous control/coordination teletype requirements of the Terrestrial Critical Control Circuit (TCCC) through termination of each circuit on a display keyboard terminal and printer. It provides reliable time tagged communications with message routing capabilities in a clear or encrypted environment. SMCT is composed of two Central Processing Units, two Mass Memory (Disks), two Keyboards, four Video Display Units, and Printer.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

May 85 Implementation strategy of SMCT. Members were DA, AMC and SATCOM. Recommendation was for DA to direct SATCOM to MIPR $6.3M to DCA with AMC concurrence.
Jun 85 AMC Msg 261900ZJUN85 directed SATCOM to MIPR $6.3M to DCA for procurement of SMCT.
Jul 85 ED contract awarded by DCA.
Feb 86 ED contract awarded by DCA for additional models.
Sep 87 Production contract awarded by DCA for fifteen SMCT II.
Aug 90 Fielding Completed.

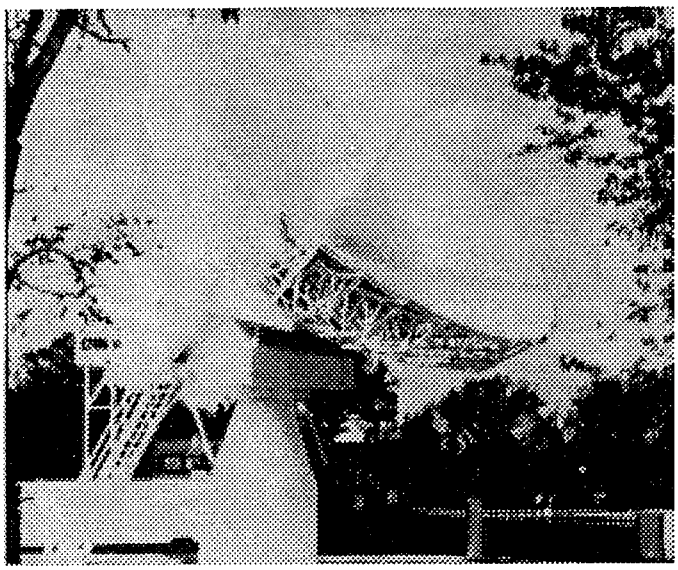
REQUIREMENTS DOCUMENT: DSCS Program Plan FY86-90.

TYPE CLASSIFICATION: 1985

SYNOPSIS: SMCT IS A MICROPROCESSOR BASED SYSTEM USED TO PROVIDE FULL DUPLEX SECURE RESERVED COMMUNICATIONS BETWEEN ALL DEFENSE SATELLITE COMMUNICATIONS SYSTEM (DSCS) CONTROL FACILITIES.

PM, SATCOM

AN/FSC-78/79, HEAVY TERMINAL and AN/GSC-39(V)2, MEDIUM TERMINAL (HT/MT) MODERNIZATION PROGRAM



PRODUCT MANAGER: COL Dennis K. Raymond.
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. William Anderson.
DSN 992-9728 x 5818 COMM 908/532-9728 x 5818

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: BB8416

DESCRIPTION: The AN/FSC-78 and AN/FSC-79 Heavy Terminals (HTs) and AN/GSC-39(V)2 Medium Terminals (MTs) have operated as part of the Defense Satellite Communications Systems (DSCS) satellite network since the mid-1970s and have surpassed their design life of 15 years. The modernization effort will provide for the upgrade of aging electronics in the HTs and MTs so that all DSCS Super High Frequency (SHF) strategic earth terminals will use common electronics and logistics support. It encompasses the equipment from the antenna interface to the communications and control subsystem interfaces. The result will extend the life of the terminals for another 15 years, increase readiness, reduce training and logistics support, conserve energy and improve maintainability.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jun 89 DSCS Program Plan FY91-95 established requirement for the HT/MT Modernization DOD Tri-Service Program.
Jan 91 Milestone III IPR approval to proceed with procurement and application of the materiel change.
Mar 92 Production contract award to procure HTs.

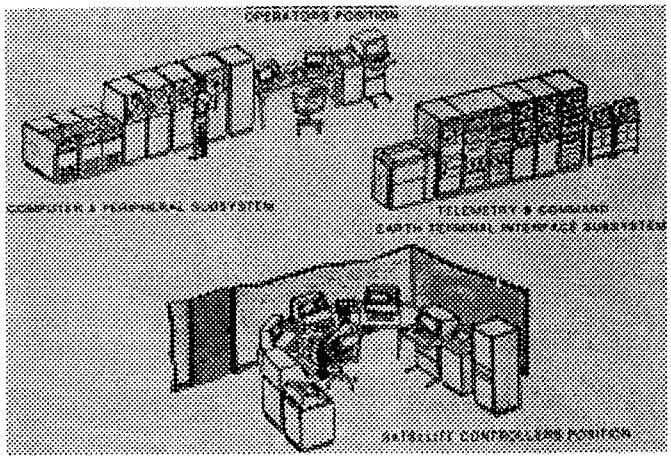
REQUIREMENTS DOCUMENT: DSCS Program Plan FY91-95.

TYPE CLASSIFICATION: Deferred per HQDA until final support package is available at 5th installation site.

SYNOPSIS: HT/MT MOD KITS WILL PROVIDE FOR THE UPGRADE OF AGING ELECTRONICS IN THE HEAVY TERMINALS/MEDIUM TERMINALS SO THAT ALL DSCS SHF STRATEGIC EARTH TERMINALS WILL USE COMMON ELECTRONICS AND LOGISTICS SUPPORT.

PM, SATCOM

AN/FSC-91, SATELLITE CONFIGURATION CONTROL ELEMENT (SCCE)



PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. Ronald F. Johnson,
DSN 992-5293 COMM 908/532-5293

ACQUISITION CATEGORY:
ACQUISITION PHASE: IV

PE & LINE #: BB8509

DESCRIPTION: The primary function of SCCE is to provide operational command and control of the Defense Satellite Communications System III (DSCS III) satellites to satisfy real-time user requirements. It is capable of jammer detection, location and mulling. Using the telemetry tracking and command channel, the SCCEs generate commands and command sequences which reconfigures DSCS III satellite channels and antenna beam allocations, and control COMSEC equipment. SCCEs will be linked with the DSCS III satellites by existing satellite earth terminals via an "SCCE - Earth Terminal interface."

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

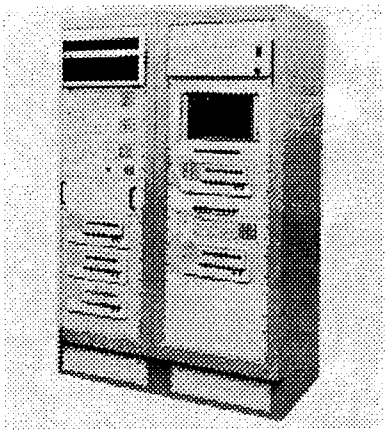
Sep 82	First Production contract awarded for Serial Number (SN) 4 and 5.
Sep 83	Production contract awarded for SN 6 and 7.
Dec 83	Option exercised for SN 8 and 9.
Dec 84-May 92	SN 4-9 were fielded. (Fielding completed)

REQUIREMENTS DOCUMENT: Defense Satellite Communications System Program Plan as approved by Assistant Secretary of Defense (C3I).

TYPE CLASSIFICATION: Limited production, Mar 82.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Award MODCOM P Upgrade Contract	2					
Install	3-4					

SYNOPSIS: SCCE PROVIDES OPERATIONAL COMMAND AND CONTROL OF DSCS III SATELLITES TO SATISFY REAL-TIME USER REQUIREMENTS.

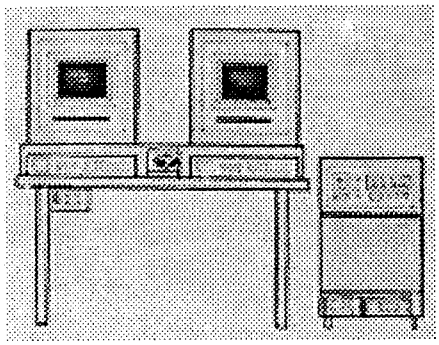


PM, SATCOM

AN/FSC-96 and AN/GSC-51, DEFENSE SATELLITE COMMUNICATIONS SYSTEM FREQUENCY DIVISION MULTIPLE ACCESS CONTROL SUBSYSTEM (DFCS)

PROJECT MANAGER: COL Dennis K. Raymond.
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. Ronald F. Johnson.
DSN 992-5293 COMM 908/532-5293



ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: E7086

DESCRIPTION: The DFCS controls transmit power of Defense Satellite Communications System (DSCS) carriers and monitors earth terminal and satellite network status and performance. The Network Terminal, AN/GSC-51 is installed in strategic satellite communications terminals. The satellite network data collected from these stations is transmitted via a Satellite Control Circuit to one of two Network Control Terminals (AN/FSC-96 or NCTs). Power Control Commands are calculated and transmitted to the Network Terminals for adjustment of Carrier Transmit Power. The Satellite Links within the DSCS are normally operated with a link margin of at least six decibels to accommodate uncontrollable signal transmission fades. The DFCS automatically detects and compensates for these transmission fades allowing the link margins to be reduced. This reduction in link margin allows channel capacity of the spacecraft to be significantly increased.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Aug 85 Production contract award.
Jul 87 DFCS deliveries began.
May 88 DFCS installations at strategic locations began.
May 93 Materiel release.

REQUIREMENTS DOCUMENT: DSCS FY85-89 Program Plan, Mar 83.

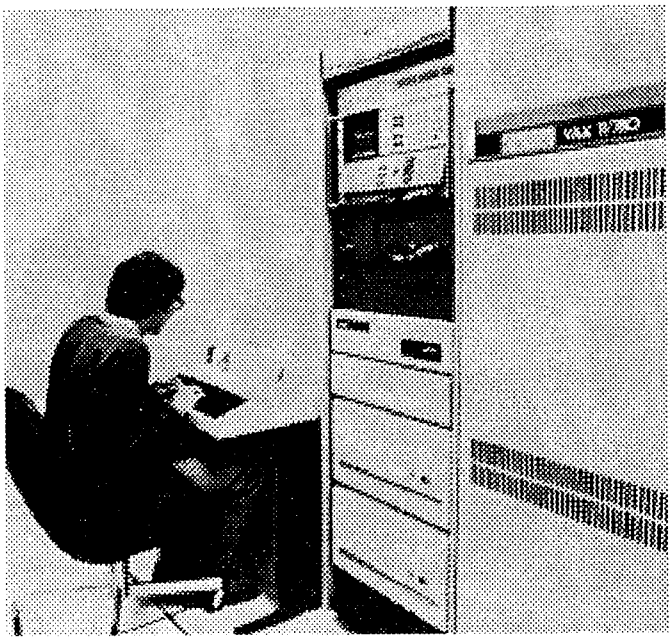
TYPE CLASSIFICATION: Standard approved Feb 84.

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Installation		----------	----4				

SYNOPSIS: DFCS IS A GROUND BASED SUBSYSTEM USED WITH EARTH TERMINAL EQUIPMENT FOR CONTROLLING TRANSMIT POWER OF DSCS CARRIERS AND FOR MONITORING EARTH STATION AND SATELLITE NETWORK STATUS AND PERFORMANCE.

PM, SATCOM

AN/FYQ-110 and AN/FSQ-142, DSCS OPERATIONAL SUPPORT SYSTEM / DSCS AUTOMATIC SPECTRUM ANALYZER (DOSS/DASA)



PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. Ronald F. Johnson,
DSN 992-5293 COMM 908/532-5293

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: BB509

DESCRIPTION: The DOSS provides computational support for the SATCOM Network Controller (and up to seven remote operators) to calculate Defense Satellite Communications System (DSCS) reconfiguration parameters in response to changing user requirements, changing network status, or changing environmental conditions. Contained within the DOSS is the Resource Allocation Software (RAS) consisting of the computer software which provides algorithms to support DOSS reconfiguration capabilities. The DASA is designed for operation connected directly to the DOSS or in a stand-alone mode, should this be required. The DASA provides control and data processing for an automatic spectrum analysis capability. DASA software accepts signal monitoring data from the Hewlett-Packard 8566B Spectrum Analyzer, computes various signal parameters based upon the current operational traffic configuration in the DOSS data base, and compares the measured values with the expected values generated by the DOSS Computer.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:
Feb 79 Award for DOSS/DASA 1 and 2.
May 84 Award for DOSS/DASA 3 and 4.
Aug 84 Award for upgrade to existing DOSS/DASA systems.
Mar 87 DOSS/DASA 5 and 6 definitized ($9M).
Sep 88 Awarded contract for DOSS/DASA 7 through 12.
Feb 92 Awarded contract to retrofit DOSS/DASA VAX 8250 computer.
May 93 Installed last 8250 upgrade.
Apr 94 Awarded DIMS Material Change Contract.

REQUIREMENTS DOCUMENT: DSCS Program Plan FY86-90 approved Mar 84.

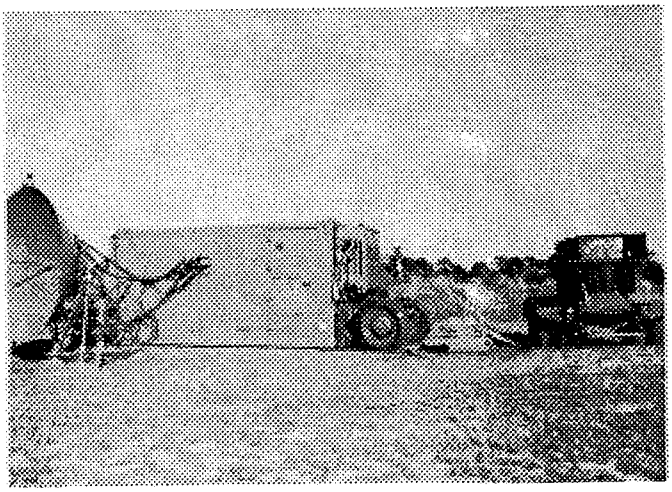
TYPE CLASSIFICATION: Standard approved Oct 87.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Test Readiness Review	2					
Hardware Acceptance Test	3					
Installations	3----	------4				

SYNOPSIS: DOSS PROVIDES COMPUTATIONAL SUPPORT FOR THE SATCOM NETWORK CONTROLLER TO CALCULATE DSCS RECONFIGURATION PARAMETERS.
DASA PROVIDES CONTROL AND DATA PROCESSING FOR AN AUTOMATIC SPECTRUM ANALYSIS CAPABILITY INTEGRATED WITHIN THE DOSS.

PM, SATCOM

AN/GSC-49(V)1, (V)2, and (V)3, JAM RESISTANT SECURE COMMUNICATIONS (JRSC) TERMINALS



PROJECT MANAGER: COL D. Raymond,
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. William Anderson,
DSN 992-9728 x 5818 COMM 908/532-9728 x 5818

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: BA8300

DESCRIPTION: JRSC is an add-on to the Defense Satellite Communications System (DSCS) resulting from the Secretary of Defense requirement to improve Worldwide Military Communication Command and Control Systems (WWMCCS) capability of jam resistant secure communications via satellite. JRSC consists of Super High Frequency (SHF) Satellite Terminals packaged to satisfy JRSC peculiar requirements.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Shelter without mobilizers: L = 244.5", W = 96", H = 96", Weight = 13,885.5 lbs; Shelter with mobilizers: L = 306", W = 96", H = 114", Weight = 18,635.5 lbs.

HISTORICAL BACKGROUND:

Sep 80 Production contract award.
Mar 84 First Unit Equipped.
Jun 84 Initial Operational Capability.
Dec 86 Last two terminals delivered.

REQUIREMENTS DOCUMENT: DSCS Program Plan - FY91-95.

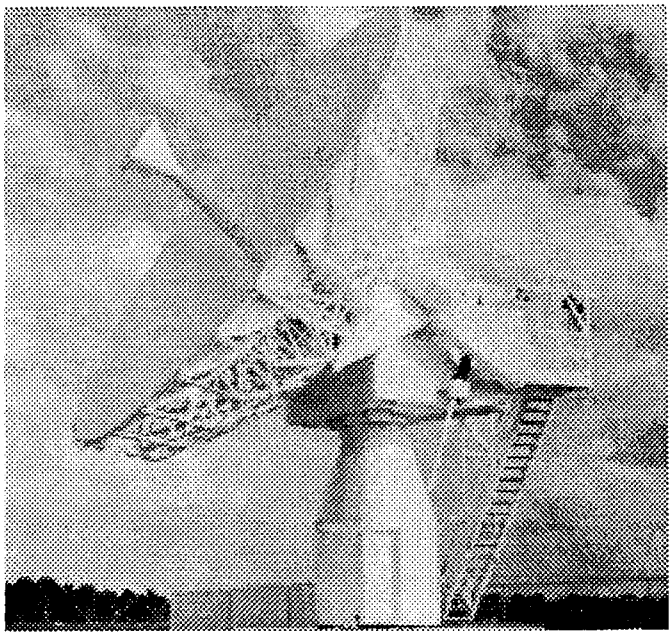
TYPE CLASSIFICATION: Standard approved Aug 80.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fiber Optics-CIR	1					
In-Plant FAT	3					
On-Site FAT	3--4					
Contractor Installations	4---	----------	------4			

SYNOPSIS: JRSC PROVIDES JAM RESISTANT, SECURE COMMUNICATIONS ADD-ON FOR WWMCCS.

PM, SATCOM

AN/GSC-52(V), STATE-OF-THE-ART MEDIUM TERMINAL (SAMT)



PROJECT MANAGER: COL Dennis K. Raymond.
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. William Anderson.
DSN 992-9728 x 5818 COMM 908/532-9728 x 5818

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: BB8416

DESCRIPTION: SAMT is a high-capacity, medium sized Super High Frequency (SHF) Satellite Communications Terminal designed to operate in the DSCS satellite network. The terminals will be operated by the various services under the operational control of Defense Satellite Communications System (DISA). This new system is characterized by computer aided fault isolation, hierarchial control (remote console and external control possible) and automatic equipment switch-over to redundant equipment with High-Altitude Electromagnetic Pulse (HEMP) protection in vans or fixed site buildings. SAMT includes a 38 foot OE-371/G antenna.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: SAMT is transportable by air, land, and sea. Weight of AN/GSC-52(V2) Vanized Operations Group is 37,174 lbs. Dimension of Van is 8' x 36'.

HISTORICAL BACKGROUND:

Jan 81 DSCS FY83-87 Program Plan approved by an Assistant Secretary of Defense (ASD) memorandum.
Sep 82 Production contract awarded.
Dec 85 First Unit Equipped.
Jul 86 MOA signed by USAISEC and USASATCOMA for installation of system numbers 10 - 39.
Dec 86 Initial Operational Capability.
Nov 88 Production phase completed; Thirty-six terminals are installed and operational, three terminals remain in storage to be deloyed at a future date.

REQUIREMENTS DOCUMENT: Defense Satellite Communications System (DSCS) 91-95 Program Plan.

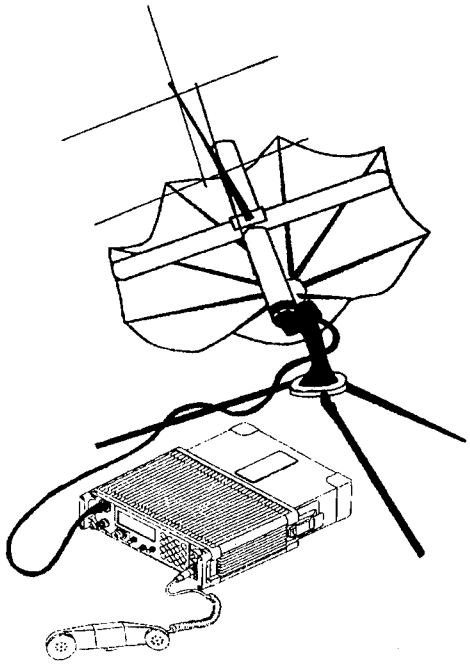
TYPE CLASSIFICATION: Standard approved Aug 82.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Product Improvements:						
Beason Tracking System	2------	--------	--2			
Cesium Standard Upgrade	2------	--------	-----3			
GSC-52 Modernization			1-------	--------	--------	--------

SYNOPSIS: SAMT IS A HIGH-CAPACITY MEDIUM SIZED SHF SATCOM TERMINAL TO OPERATE IN THE DSCS NETWORK.

PM, SATCOM

AN/PSC-5, ENHANCED MANPACK ULTRA HIGH FREQUENCY TERMINAL (EMUT)



PRODUCT MANAGER: LTC David Ludwig.
DSN 992-9728 x 5848 COMM 908/532-9728 x 5848

PROJECT LEADER: (Phase I): Mr. Robert Wilson.
DSN 992-9728 x 5807 COMM 908/532-9728 x 5807

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: K77200

DESCRIPTION: The Enhanced Manpack UHF Terminal (EMUT) Program will replace the existing inventory of radios with embedded Communications Security (COMSEC) and Demand Assigned Multiple Access (DAMA). EMUT will provide elements of the Special Operations Forces (SOF), and other designated units of the Army, Air Force, Navy, and Marine Corps with small, lightweight terminals for half-duplex, secure, data and digital voice communications through ultra high frequency (UHF) satellites. In addition to the satellite relay communications mode, the EMUT will be capable of communicating line-of-sight (LOS). EMUT will employ burst transmission to provide shared use of 5 and 25 kiloherts (kHz) channels on existing and planned satellite transponders. In addition, it will have the capability to access the satellite channels using DAMA techniques. Specifically, EMUT will use the Fleet Satellite (FLTSAT), commercial Leased Satellite (LEASAT) and UHF Follow-On satellite systems. Capabilities that the EMUT will use consist of the unprocessed 25 kHz Fleet Satellite Communications (AFSATCOM) segment. In addition, the selected NDI EMUT system features extended frequency range from 30 mhz to 400 mhz. EMUT major components consist of R/T with embedded COMSEC and DAMA, battery box, satellite antenna, LOS antenna and handset. In the DAMA mode, the terminal will comply with DAMA interoperability military standards.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Manpack.

HISTORICAL BACKGROUND:

Aug 88 AMUT O&O Plan approved by TRADOC.
Apr 89 Funding transferred to Enhanced Manpack UHF Terminal (EMUT) Program.
Apr 91 DA directed procurement signed for EMUT program.
Oct 92 Solicitation issued for AN/PSC-5 EMUT Competitive FFP contract.
Feb 93 DA directed procurement amended. Phase II was incorporated into Phase I.
Mar 93 Source selection evaluation and sample hardware testing began.
Jan 94 Production contract awarded.

REQUIREMENTS DOCUMENT: DA Directed Procurement.

TYPE CLASSIFICATION: LPU to be Type Classified Standard approximately 4Q96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
FAT	4					
Operational Test		4				
FUE		4				

SYNOPSIS: EMUT WILL PROVIDE ELEMENTS OF SOF & OTHER DESIGNATED UNITS OF THE ARMY, AF, NAVY, & MARINE CORPS WITH SMALL, LIGHTWEIGHT TERMINALS FOR HALF-DUPLEX, SECURE, DATA & DIGITAL VOICE COMMUNICATIONS THROUGH UHF SATELLITES.

PM, SATCOM

PROTOTYPE TRI-BAND TACTICAL TERMINAL (DT3) AN/TSC-143

PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727, X6807 COMM 908/532-9727, X6807

PRODUCT MANAGER: LTC David Ludwig,
DSN 992-9728, X5848 COMM 908/532-9728, X5848

NO PICTURE AVAILABLE

ACQUISITION CATEGORY: IV
ACQUISITION PHASE:

PE & LINE #: SSN: BB8417

DESCRIPTION: The AN/TSC-143, Prototype Triband Tactical Terminal (PT3) is a Commercial Off the Shelf (COTS) Non-Development Item (NDI) multichannel satellite communications terminal mounted on a HHMMWV including the Antenna and primary/alternate power source. The system was designed with the capability to operate over commmercial or military transponder based satellite systems in X (DSCS), C and Ku (commercial) SHF frequency bands utilizing one transmit carrier and three receive carriers. The PT3 has an integrated Switch Multiplex Unit (SMU) to provide local subscriber service to 35 users as well as terminate 5 Digital Trunk Group (DTG) with expanded support for 165 additional users. The PT3 interoperates with the GMF MCIS (AN/TSC-85/93/94/100) to include interface with the Mobile Subscriber Equipment (MSE), TRI-TAC digital and analog network with access into the Digital Subscriber Network (DSN).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: HMMWV Mounted with C-130 Roll-on/Roll-off capability.

HISTORICAL BACKGROUND:

Mar 94 Contract Award.

REQUIREMENTS DOCUMENT: DA Directed Procurement.

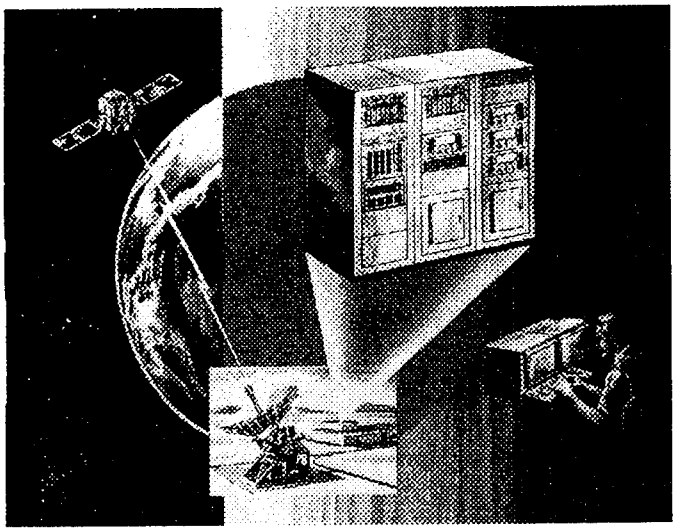
TYPE CLASSIFICATION: Limited Procurement Urgent (LPU), 7 Jan 94.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fielding		1				

SYNOPSIS: AN/TSC-143 IS INTENDED TO DEVELOP EXPERIENCE AND INFORMATION TO REDUCE THE RISK AND RESEARCH AND DEVELOPMENT COSTS OF THE STAR-T AND OTHER FUTURE TRIBAND TERMINALS ACQUISITIONS. THE AN/TSC-143 IS NOT TO BE CONSIDERED THE DIRECT LINEAGE PROTOTYPE OF THE STAR-T.

PM, SATCOM

AN/TSQ-172, CONTINGENCY SATELLITE CONFIGURATION CONTROL ELEMENT (CSCCE)



PROJECT OFFICER: COL Dennis K. Raymond.
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. Ronald F. Johnson.
DSN 992-5293 COMM 908/532-5293

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operation/Support

PE & LINE #: BB8509

DESCRIPTION: The CSCCE is the portion of the Contingency DSCS Operations Control System (CDOCS) that is responsible for Command, Control, Telemetry processing, and status monitoring for any one of three designated DSCS III Satellites during a crisis or contingency environment. The major functions of the CSCCE are to monitor and assess overall satellite performance, to detect satellite anomolies, to execute housekeeping operations, ORBIT determination and ephemeris generation, plan/execute stationkeeping, configuration control of the DSCS III Communications payload, and uplink jammer detection and location.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Dec 88	Contract Award.
Apr 90	Software Critical Design Review (CDR).
Dec 90	Hardware Critical Design Review (CDR).
Dec 91	First Article Test (FAT).
Aug 92-Sep 93	Delivery of PU# 1-6, and IF #2.

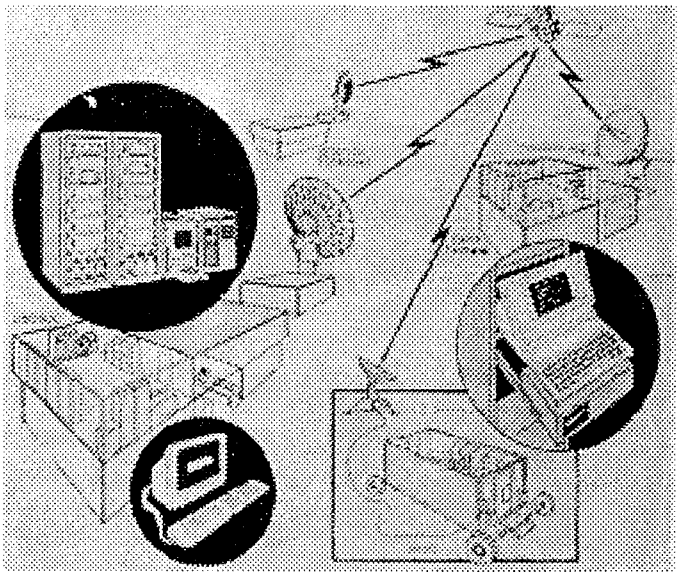
REQUIREMENTS DOCUMENT: DSCS Program Plan FY88-92.

TYPE CLASSIFICATION: Limited Production, Urgent 30 Apr 87.

SYNOPSIS: CSCCE IS THE PORTION OF THE CONTINGENCY DSCS OPERATIONS CONTROL SYSTEM (CDOCS) THAT IS RESPONSIBLE FOR COMMAND, CONTROL, TELEMETRY PROCESSING, AND STATUS MONITORING FOR ANY ONE OF THREE DESIGNATED DSCS III SATELLITES DURING A CRISIS OR CONTINGENCY ENVIRONMENT.

PM, SATCOM

DEFENSE SATELLITE COMMUNICATIONS SYSTEM ELECTRONIC COUNTER COUNTER-MEASURES CONTROL SUBSYSTEM (DECS)



PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. Ronald F. Johnson,
DSN 992-5293 COMM 908/532-5293

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: BB8509

DESCRIPTION: The Defense Satellite Communications System (DSCS) Electronic Counter Counter Measure (ECCM) Control Subsystem (DECS) will provide automated control of the AN/USC-28 ECCM network to allow the most effective and efficient communications. This will ease the workload of the already overburdened network controllers and network terminal operators by performing line power monitoring and automated polling responses at the NTs. In addition, DECS will allow the ECCM network to operate in a stressed environment by alerting the network controller to the presence of a jammer or violator, analyzing the stress, and executing the proper network reconfiguration needed to null the effects of the stress.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Apr 86 Modified NDI acquisition approved (Milestone III).
Jun 87 DCA directed specification change.
Sep 87 DECS production award.
Oct 92 Materiel release.
Nov 92 Fielding began.
Jul 94 Fielding completed.

REQUIREMENTS DOCUMENT: DSCS Program Plan.

TYPE CLASSIFICATION: Standard approved Apr 86.

SYNOPSIS: DECS PROVIDES AUTOMATED CONTROL OF THE ECCM NETWORK IN THE DSCS.

PM, SATCOM

FLYAWAY TRI-BAND SATELLITE TERMINAL (FTSAT)

PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727, X6807 COMM 908/532-9727, X6807

PRODUCT MANAGER: LTC David Ludwig,
DSN 992-9728, X5848 COMM 908/532-9728, X5848

NO PICTURE AVAILABLE

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #: Customer

DESCRIPTION: The Flyaway Triband Satellite Terminal (FTSAT) is a Commercial Off the Shelf (COTS) Non-Development Item (NDI) transit case packaged satellite communications terminal. The FTSAT are primarily used by the Defense Intelligence Agency to support their requirements for a Joint Deployable Intelligence Support Systems (JDISS). The FTSAT will operate worldwide in the X, Ku, and C band with DSCS III, NATO III/IV, INTELSAT, EUTELSAT, PANAMSAT and DOMSAT. The terminal modem will interoperate with the GMF MCIS (AN/TSC-85/93/94/100) and the DSCS Gateway modems. The transit cases/packages will be man-portable with each case not to exceed 90 lbs in total weight. The MTBCMA will be greater than 250 hours with a Mean-Time Between Critical Failure of 5000 hours to ensure a 90% confidence level during a 60 day, 24 hour operating period per day.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

FY94 PM SATCOM received request to procure FTSAT.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract Award	4					
Delivery		2				

SYNOPSIS: FTSAT WILL PROVIDE X, KU, AND C BAND SATELLITE COMMUNICATIONS IN A MAN-PORTABLE (NTE 90 LBS.) CONFIGURATION.

PM, SATCOM

LIGHTWEIGHT HIGH GAIN X-BAND ANTENNA (LHGXA)

PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727 X6807 COMM 908/532-9727 X6807

PRODUCT MANAGER: LTC David W. Ludwig,
DSN 992-9728 X5848 COMM 908/532-9728 X5848

NO PICTURE AVAILABLE

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III

PE & LINE #: BB8417

DESCRIPTION: The LHGXA is an X Band only antenna that has an 18' dish and capable of the performance of a Quick Reaction Satellite Antenna (QRSA) and designed to work with GMF terminals. Antennas are built onto a trailer configuration, not mobilizers, and will be towable by HMMWVs to 5T trucks (M939) and also can be air (C130 and rotary wing aircraft) as well as rail transportable. Basic contract is for 3 antennas with options for up to 58 more.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C130 roll on/off

HISTORICAL BACKGROUND:

Sep 95 Contract Award.

REQUIREMENTS DOCUMENT: O&O Plan, 1986.

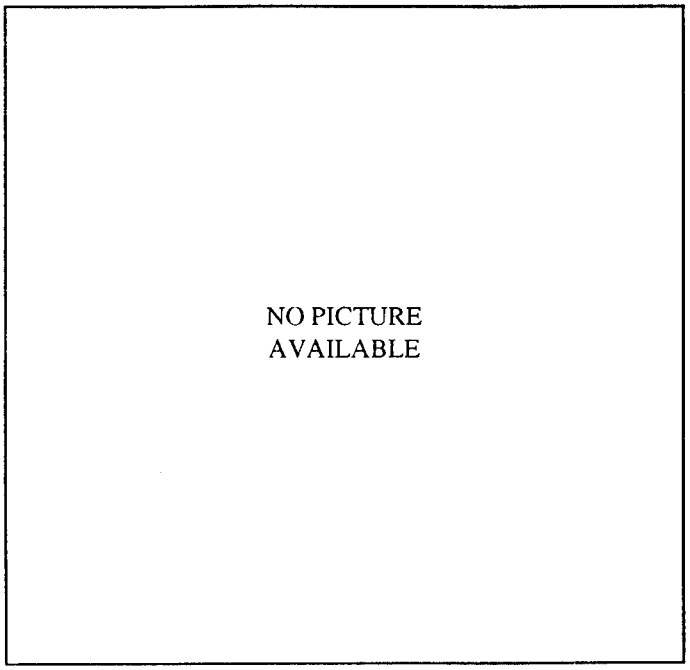
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract Award	4					
Options		3	2	4	3	

SYNOPSIS: THE LHGXA 18FT SATCOM ANTENNA, C130 ROLL ON/OFF, RAIL, SLING-LOADABLE ANTENNAS, AUGMENT THE ARMY'S GMF TACSAT TERMINALS BY PROVIDING EQUAL OR BETTER PERFORMANCE THAN THE QRSA.

PM, SATCOM

LIGHT MULTIBAND SATELLITE TERMINAL (LMST)



PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727, X6807 COMM 908/532-9727, X6807

PRODUCT MANAGER: LTC David Ludwig,
DSN 992-9728, X5848 COMM 908/532-9728, X5848

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MSIII

PE & LINE #: Customer

DESCRIPTION: The LMST is a Tri-Band Super High Frequency Terminal. The terminal is contained on a single trailer or in transit case enclosures and shall operate over C, X, and Ku-Bands. The terminal shall operate worldwide with any spacecraft of the Defense Satellite Communications System (DSCS) II, DSCS III, North Atlantic Treaty Organizations (NATO) III, NATO IV, International Telecommunications Satellite Organization (INTELSAT), European Telecommunications Satellite Organization (EUTELSAT), Pan American Satellite Organization (PANAMSAT), and Domestic Satellite Organization (DOMSAT). The NDI terminal will interoperate with Ground Mobile Forces (GMF) AN/TSC-85/93/94/100 terminals and DSCS Gateways. Each terminal shall consist of the following major groups of equipment: Receiver Group, Transmitter group, Antenna group, Baseband group, Power group, Trailer group, and Auxiliary equipment group.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: LMST will provide Roll-on/Roll-off capability for transport on C-130, C-141, C-17, and C-5 type military aircraft.

HISTORICAL BACKGROUND:

Jul 93 Contract Award - two prototypes.
Jul 95 Contract Award - production.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract Award	4					
Option Award		3				

SYNOPSIS: THE LMST PROGRAM WILL PROVIDE A TRI-BAND SUPER HIGH FREQUENCY (SHF) TERMINAL AND ASSOCIATED SUPPORT EQUIPMENT. THE TERMINAL SHALL BE CONFIGURED TO OPERATE IN THE SHF C, X, AND KU BANDS.

PM, SATCOM

LIGHTWEIGHT SATELLITE TERMINAL UPGRADE (LST8000 (V)T) (JCSE TRI-BAND TERMINAL UPGRADE)

PROJECT MANAGER: COL Dennis K. Raymond.
DSN 992-9727, X6807 COMM 908/532-9727, X6807

PRODUCT MANAGER: LTC David Ludwig.
DSN 992-9728, X5848 COMM 908/532-9728, X5848

NO PICTURE AVAILABLE

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #: Customer.

DESCRIPTION: The Titan Linkabit LST-8000(V)T is a portable/transit case (720 lbs and 27 cu. ft.) Tri-Band terminal that will give the user the capability of communicating over commercial satellites in the C and Ku bands as well as accessing the military DCSC satellites in X-band. Some major features of the LST-8000(V)T are:

o Secure SHF communications at C, Ku and X bands.
o Automatic satellite tracking.
o Data rates up to 512 Kbs in C-band, 1.544 Mbs (T-1) in X-band and -9.4 Mbs (E-2) in Ku.
o Packs into two man transit cases.
o Highly transportable.
o Remote operation.
o Compatible with multiple PBX, vocoder, faxes and analog or digital devices.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Jun 95 Contract award.
Mar 96 First system to be delivered.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract award	3					
Units		4				

SYNOPSIS: THE LST-8000(V)T IS A PORTABLE TRI-BAND SYSTEM THAT WILL GIVE THE USERS THE CAPABILITY TO ACCESS WORLD WIDE COMMERCIAL SATELLITES AS A BACK UP MODE OF COMMUNICATING IN THE EVENT THAT THE MILITARY X-BAND SATELLITES ARE OVER SUBSCRIBED.

PM, SATCOM

REPLACEMENT SATELLITE CONFIGURATION CONTROL ELEMENT (RSCCE)

PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: Mr. Ronald F. Johnson,
DSN 992-5293 COMM 908/532-5293

ACQUISITION CATEGORY III
ACQUISITION PHASE: MS I/II Demo/Val / EMD

PE & LINE: 0303142A D253

NO PICTURE AVAILABLE

DESCRIPTION: The RSCCE will replace the Satellite Configuration Control Element (SCCE), which has a limited project life remaining with components becoming increasingly difficult to procure as failures increase. The RSCCE will utilize state of the art technology to provide operational control and monitoring of telemetry data from DSCS III satellites. This permits the DSCS Operations Control System (DOCS) to control the satellite platform and communications payload. The RSCCE will be functionally similar to the Contingency Satellite Configuration Control Element (CSCCE), which is comprised of three ruggedized hardware racks configured in a mobile van. The RSCCE is not required to be ruggedized and will be installed in fixed site DSCS Operation Centers (DSCSOC's) at worldwide locations. The RSCCE will include a Computer and Peripheral Subsystem (CPS) and a Telelmetry and Command Subsystem (TCS). The RSCCE will be linked with the DSCS III satellites via existing satellite earth terminals through the Radio Frequency Interface System (RFIS).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Fixed Site.

HISTORICAL BACKGROUND:

12 May 94 Acquisition Strategy Approved.
12 Jul 94 CECOM Acquisition Board.
15 Sep 94 Acquisition Decision Memorandum Approved Milestone I/II.

REQUIREMENTS DOCUMENT: DSCS Program Plan.

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Develop RSCCE Test Bed	----4					
Basic Contract Award	2					
NDI Adaptation Phase	2------	--------	--2			
Milestone III Decision			2			
Option 1-2-3 Awards			3----	-----3-----	-1	
Installations/Fieldings					4---	------4

SYNOPSIS: THE RSCCE PROVIDES OPERATIONAL COMMAND & CONTROL OF THE DSCS III SATELLITE PLATFORM AND COMMUNICATIONS PAYLOAD.

PM, SATCOM

SPECIAL OPERATIONS FORCES TACTICAL ASSURED CONNECTIVITY SYSTEM (SOFTACS)

PROJECT MANAGER: COL Dennis K. Raymond,
DSN 992-9727, X6807 COMM 908/532-9727, X6807

PRODUCT MANAGER: LTC David Ludwig,
DSN 992-9728, X5848 COMM 908/532-9728, X5848

NO PICTURE AVAILABLE

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MSI

PE & LINE #: 116040BB

DESCRIPTION: SOFTACS provides assured connectivity between the Joint Special Operations Task Force (JSOTF) major subordinate commands, their major subordinate units, and other commands, as directed, in support of SOF missions. SOFTACS will be provided to units of the Army SOF ARSOF, and Navy SOF (NAVSOF) component organizations. SOFTACS provides communications through the means of multiband, multichannel Super High Frequency (SHF) Satellite Communications (SATCOM) terminals; tropo-satellite support radio (TSSR) systems; digital circuit switches; remote trunking systems (RTS); tactical local area network (LAN) equipment; and message gateway servers.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: HMMWV Mounted with C-130 Roll on/Roll off capability.

HISTORICAL BACKGROUND:

Mar 94 Milestone 0 Decision.
Nov 94 MOA SOCOM/PEO COMM.
May 95 Milestone I Decision.

REQUIREMENTS DOCUMENT: SOFTACS ORD, 16 Feb 95.

TYPE CLASSIFICATION: LP Standard. Oct. 97.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Milestone II		1				
Contract Award		3				
LRIP Phase		3----	-------	-1		

SYNOPSIS: SOFTACS WILL PROVIDE THE SOF COMMUNITY WITH A SHF TRI-BAND CAPABILITY WHICH WILL OPERATE OVER COMMERCIAL AND MILITARY SHF SATELLITES.

PM, SATCOM

SUPER HIGH FREQUENCY (SHF) TRI-BAND ADVANCED RANGE EXTENSION TERMINAL (STAR-T)

PROJECT MANAGER: COL Dennis K. Raymond.
DSN 992-9727, X6807 COMM 908/532-9727, X6807

PRODUCT MANAGER: LTC David Ludwig.
DSN 992-9728, X5848 COMM 908/532-9728, X5848

ACQUISITION CATEGORY: III
ACQUISITION PHASE:

PE & LINE #: SSN: BA9350

NO PICTURE AVAILABLE

DESCRIPTION: Super High Frequency (SHF) Tri-Band Advanced Range Extension Terminal (STAR-T) is a High Mobility Multi-purpose Wheeled Vehicle (HMMWV) mounted, multi-channel Tactical Satellite Terminal (TACSAT). It has a tri-band capacity in SHF and will operate over commercial and military SHF satellites. Selected terminals will also have an integrated switch that will interface with both commercial and joint military switching systems. The STAR-T has strong joint service applicability and potential for cooperative investment to replace current SHF multi-channel TACSAT terminals and some switching systems. The STAR-T program will incorporate Demand Assigned Multiple Access (DAMA) Control and Monitoring System (DACMS) features which will support Special Operations Forces and all other users.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: HMMWV Mounted with C-130 Roll-on/Roll-off capability.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT: ORD, Jan 95.

TYPE CLASSIFICATION: Standard, Aug 98.

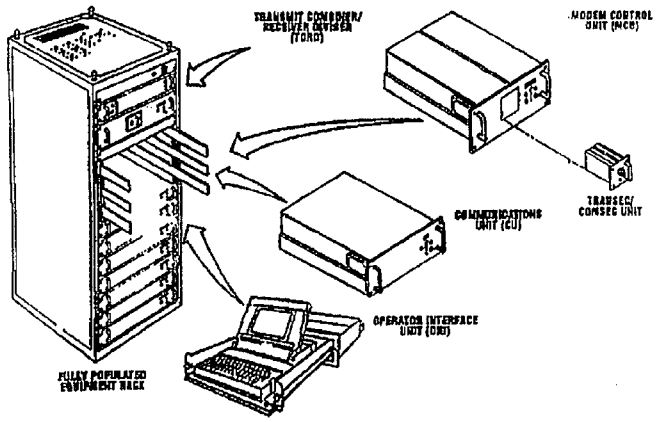
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract award			2			
Deliveries				4		

SYNOPSIS: THE STAR-T PROGRAM WHICH PROVIDES MULTI-CHANNEL CAPABLE SATELLITE COMMUNICATIONS INCORPORATES DACMS FEATURES WHICH WILL SUPPORT SPECIAL OPERATIONS FORCES AND ALL OTHER USERS.

PM SATCOM

UNIVERSAL MODEM (UM)

UNIVERSAL MODEM



PROJECT MANAGER: COL Dennis K. Raymond.
DSN 992-9727 x 6807 COMM 908/532-9727 x 6807

PRODUCT MANAGER: LTC Michael Sidwell.
DSN 992-9727 x 6828 COMM 908/532-9727 x 6828

ACQUISITION CATEGORY: III
ACQUISITION PHASE: Full Scale Development

PE & LINE: BA8300

DESCRIPTION: The Universal Modem System (UMS), which includes a family of modems and an Interim System Planning Computer (ISPC) will provide survivable, Anti-Jam (AJ), Anti-Scintillation (AS), Low Probability of Exploitation (LPE), interoperable, Super High Frequency (SHF), command and control connectivity for military forces during all phases of conflict. The UMS will provide a means for strategic and tactical forces under the commmand of the United States (US), United Kingdom (UK), France, or North Atlantic Treaty Organization (NATO) to have interoperable secure voice and digital data satellite communications under worst case jamming and nuclear scintillation while using non processing transponders of the Defense Satellite Communications System (DSCS) II and III, NATO III and IV, SKYNET 4, and TELECOM 2 satellite systems. The Universal Modem will be a replacement for the AN/USC-28(V), and OM-55(V)/USC. The Universal Modem will be configurable for installing at fixed sites, land mobile, ship based, and airborne terminals.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jun 89 Transferred from Air Force to Army.
Oct 90 IPR.
Mar 91 Contract Development Award.
Jan 94 MCEB Guidance to build to "Commercial" standards.

REQUIREMENTS DOCUMENT: Defense Satellite Communications System (DSCS) Program Plan, Multi-Service Required Operational Capability (MROC).

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
FSD Qual Testing	2---4					
Govt Tech/Initial Test		2				
Production Contract Award			2			

SYNOPSIS: THE UNIVERSAL MODEM SYSTEM HAS BEEN DESIGNED FOR USE WITH US, UK AND NATO SHF SATELLITE SYSTEMS TO PROVIDE INTEROPERABILITY.

PM, STCCS

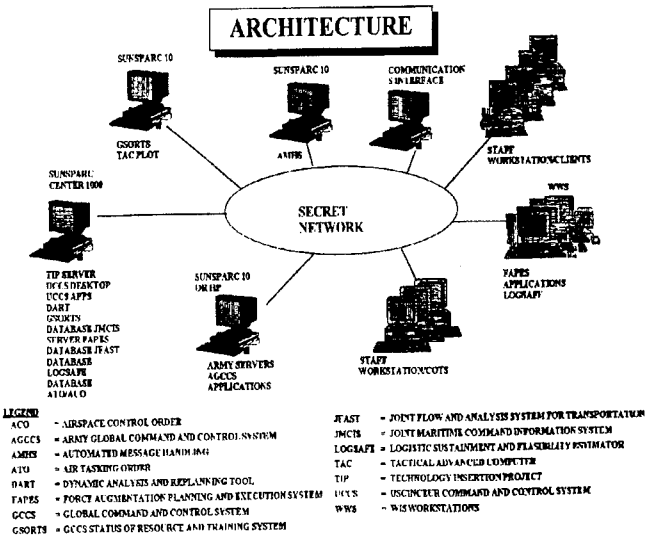
PM, STCCS

STANDARD THEATER ARMY COMMAND AND CONTROL SYSTEM (STACCS)

ACTG PROJECT MGR: Mr. Peter O. Johnson, DSN 987-2030
COMM 908/427-2030

ACQUISITION CATEGORY: II Equivalent
ACQUISITION PHASE: MS III Production/Deployment

PE & Line #: 0203740A BA8250



DESCRIPTION: The Army Global Command and Control System (AGCCS) was initiated by the Directorate of Information Systems for C4 (DISC4) in mid 1993 to consolidate the development in certain Strategic & Theater programs in the Army and to provide an implementation of the Army extensions to the Global Command and Control System (GCCS). AGCCS is a system development, integration, and maintenance effort initially consolidating existing projects: The Army WWMCCS Information System (AWIS), Standard Theatre Army Command and Control System (STACCS), and Combat Service Support Control System (CSSCS). AGCCS provides a source of technical support and services in fielding a seamless C2 structure for the echelons above corps (EAC) Army. This includes integration of the AGCCS core platform, reuse of functional capability as implemented in software modules currently existing in the AWIS, STACCS, and CSSCS, maintenance of the existing systems, and development of new functional capabilities. A key part of the AGCCS development will be migration from current system support infrastructures to the GCCS single Common Operating Environment. WWMCCS shutdown is key to AGCCS migration.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Hardware designed to be transportable in transit cases for semi-fixed operations.

HISTORICAL BACKGROUND:

Nov 93 PM AWIS tasked to provide direct support to PM GCCS and to lead the Army GCCS effort.
Jun 94 Initial AGCCS demonstration conducted.
Jun 94 AGCCS contract RFP released.
Jul 94 Merger of AWIS/STACCS.
Oct 94 MAISRC IPR.
Dec 94 Contract Award.

REQUIREMENTS DOCUMENT: The AGCCS System Specification, dated 21 April 94, consolidated requirements for the AWIS, CSSCS, and STACCS Projects.

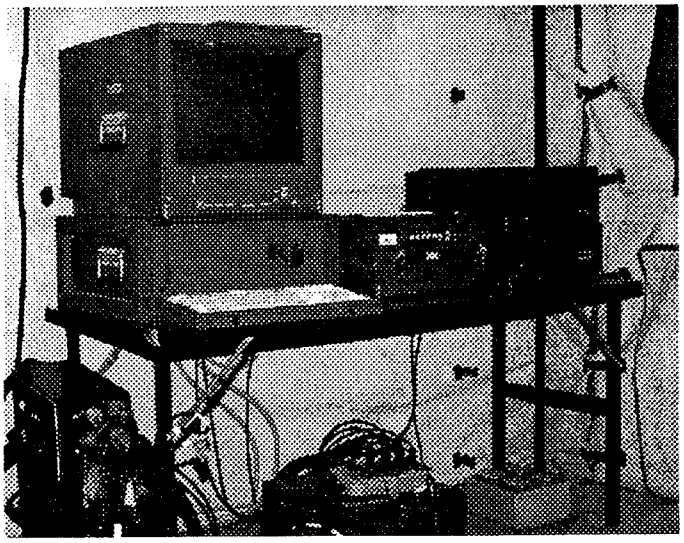
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Hardware Fielding	1-------	--------	--------	--------	--------	--------
Block 1 Build	2-------	--------	-1			
Block 2 Build			2-------	-------4		
Block 3 Build				4-	--------	--2

SYNOPSIS: AGCCS ALSO SUPPORTS THE INFORMATION COLLECTION, PROCESSING, DISTRIBUTION, DISPLAY SYSTEMS AND SOFTWARE APPLICATIONS FOR THE GCCS.

PM, STCCS

COMBAT SERVICE SUPPORT CONTROL SYSTEM (CSSCS)



PRODUCT MANAGER: LTC Stephen Broughall,
DSN 656-5312
COMM 703/806-5312

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 643805.0091

DESCRIPTION: Combat Service Support Control System (CSSCS) is one of the five Battlefield Functional Area (BFA) systems within the Army Tactical Command and Control System (ATCCS) which is transitioning to the Army Battle Command System (ABCS). The CSSCS will rapidly collect, analyze and disseminate CSS information to support the functions of command control and resource management. CSS commanders and staffs are currently participating in the force level planning and decision-making process through a manual effort of gathering, correlating, and analyzing volumes of technical data from the existing Standard Army Management Information Systems (STAMIS). CSSCS will provide timely situational awareness and force projection to determine capability to sustain current operations and support future operations. CSSCS uses evolving commercial computer technology of the ATCCS Common Hardware/Software (CHS), and software built within a Common Operating Environment (COE).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Apr 87 PM CSSCS established.
Dec 90 Milestone I/II ASARC.
Feb 91 Contract Award Version 3/4 SW; OSD C3I Committe Review.
Oct 92 Completed Early User Test and Experimentation at Fort Hood, TX.
Nov 93 Completed Limited User Test at Fort Hood, TX.
Sep 94 Completed Initial Operational Test and Evaluation at Fort Hood, TX.
Apr 95 LRIP Decision.

REQUIREMENTS DOCUMENT: ORD approved Dec 94.

TYPE CLASSIFICATION: Scheduled for Jan 97.

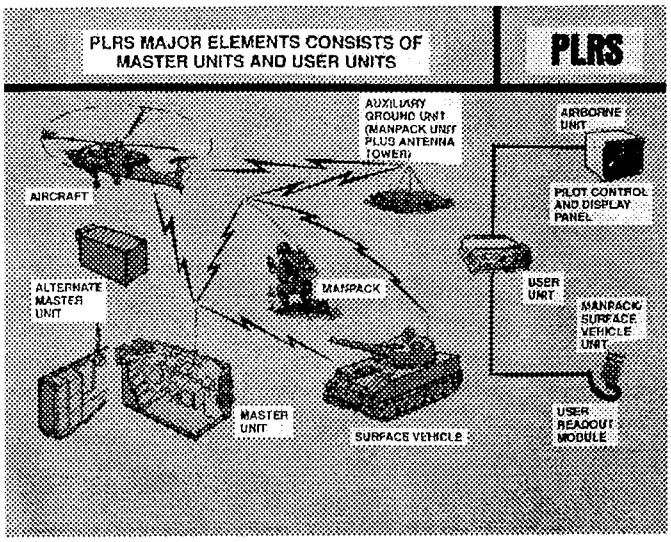
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Begin Version 4 Development	1					
ASARC III Milestone Review (LRIP)	3					
ASARC II (FSP)			2			
FUE			3			
IOC				1		
Version 4 PDR		1				
Version 4 CDR		1				
IOTE-II		4				
Begin Version 5 Development			2			

SYNOPSIS: CSSCS WILL PROVIDE TIMELY LOGISTICS, MEDICAL, FINANCIAL AND PERSONNEL PLANNING AND DECISION MAKING CAPABILITY TO THE COMMANDER.

PM, TRCS

PM, TRCS

AN/TSQ-129, POSITION LOCATION REPORTING SYSTEM (PLRS)



PRODUCT MANAGER: LTC J.J. Spegele (USMC)
DSN 987-2852
COMM 908/427-2852

ACQUISITION CATEGORY III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The PLRS is a Command and Control aide that provides automatic, real-time position reporting in a division's area of responsibility. The system employs a Master Station and an Alternate Master Station for 100% backup to insure system survivability and continuity of operations during displacements. The Air Transportable Master Station provides computer controlled network management and continuously updates the position of deployed User Units in manpack, vehicle and airborne configurations. PLRS direct support maintenance will be aided through the use of special TMDE - the PLRS Test Set. PLRS equipped units can obtain their own position, range and bearing relative to other units or locations. PLRS equipped units also can establish aircraft corridor guidance and provide an alarm when entering a pre-designated restricted area such as a minefield, and provides a free format abbreviated data message from other users. The system is crypto-secure and is highly resistant to jamming. The network, under Master Station management automatically utilizes surface airborne User Units as integral relays to achieve over-the-horizon transmission and to overcome close-in terrain obstructions to line-of-site communications.

HISTORICAL BACKGROUND: PLRS is a USMC program managed by PM, TRCS.

Aug 76-Aug 80	Full Scale Development Contract.
Jul 82	ASARC-III, Marine Corps approved PLRS for production.
Jul 83-Jul 86	Multi-year production contract award to HAC.
May 90	PLRS Follow-On Buy for USMC and Navy awarded.
May 92	PLRS/EPLRS Control Station Downsize Contract Award to Unisys Corporation.
Mar 94	PLRS Navy Buy and PCE Phase 2A Awards.

REQUIREMENTS DOCUMENT: Joint Service Operational Requirement (JSOR) approved 1976; JSOR update May 83. USMC Required Operational Capability (ROC) for PLRS improvement program, 11 Jan 91.

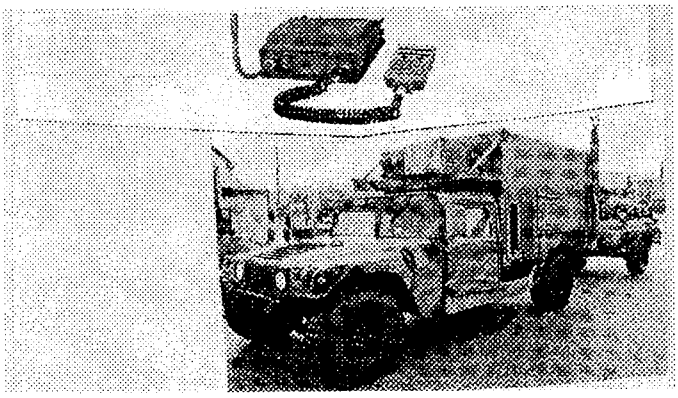
TYPE CLASSIFICATION: Standard A as of 1 Sep 82 ASARC-III. To date 98% of NSNs have been received. All development line items numbers (ZLIN) have been converted to standard line item numbers.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
GPSIU Production Award		4				

SYNOPSIS: PLRS PROVIDES TIMELY AND ACCURATE THREE DIMENSIONAL POSITIONING, LOCATION, AND REPORTING INFORMATION IN SUPPORT OF TACTICAL COMMANDERS.

PM, TRCS

ENHANCED POSITION LOCATION REPORTING SYSTEM (EPLRS)



PRODUCT MANAGER: LTC J.J. Spegele, DSN 987-2852
COMM 908/427-2852

ACQUISITION CATEGORY: II
ACQUISITION PHASE: MS IIIA LRIP/Deployment

PE & LINE #: 63713.D370 BU1400

DESCRIPTION: EPLRS provides secure, jam-resistant, near real-time data communications support for the five Battlefield Functional Areas of the Army Tactical Command and Control System (ATCCS). EPLRS is a Time Division Multiple Access System using a frequency hopping, spread spectrum waveform in the UHF band. It incorporates internal COMSEC devices of the Thorton family and has an Over The Air Rekeying (OTAR) capability. EPLRS will use both the Army Data Distribution System version of the X.25 CCITT and MILSTD-1553B protocols to interface with ATCCS and selected weapons, and command and control systems. Additionally, EPLRS provides battlefield situational awareness to both the user and to their higher headquarters. This information greatly enhances the command and control of tactical units by providing commanders with the location of friendly units, a dynamic representation of the Forward Line of Troops and abbreviated SITREPs for conditions and identification of adjacent equipped units. The major components of EPLRS are the Net Control Station-EPLRS (NCS-E), EPLRS Radio Set with its user input/output devices, and the EPLRS Grid Reference Unit (EGRU). A typical army division will have four NCS-Es, 325-400 EPLRS Radio Sets, and 12 EGRUs. EPLRS deploys as a total system with NCS-Es controlling communities of EPLRS radio sets. EGRUs help with position location function and relaying of messages. EPLRS Radio Sets originate, relay and receive messages.

TRANSPORTATION CHARACTERISTICS/LIMITATIONS: NCS-E 12' x 7.3' x 7', 6300 lbs.; UPUU 14.7" x 10.5" x 5.1", 28lbs.

HISTORICAL BACKGROUND: EPLRS concept is a Preplanned Product Improvement (P3I) to the USA/USMC PLRS program. Technology insertions will be incorporated as part of the P3I process.

Sep 78 System definition contract award to HAC.
Jan 90 P3I Phase C (LRIP) contract awarded to HAC.
Jul 90 LRIP Option 1 awarded to provide test hardware for TT/OT.
Jan 92 LRIP Option 2 awarded for corps level ATCCS testing.
May 93 LRIP Option 3 awarded for corps level ATCCS testing.
Aug 94 IOTE at Fort Hood, TX.
May 94 VHSIC Contract awarded for production for VHSIC SMP's.
Jan 95 Initial fielding to 1st Cav.
Jun 95 Initial fielding to 24 ID.

REQUIREMENT DOCUMENTS: PLRS/JTIDS Hybird (EPLRS and JTIDS) Letter of Agreement approved Jun 82; ROC approved Oct 94; O&O revised Oct 86.

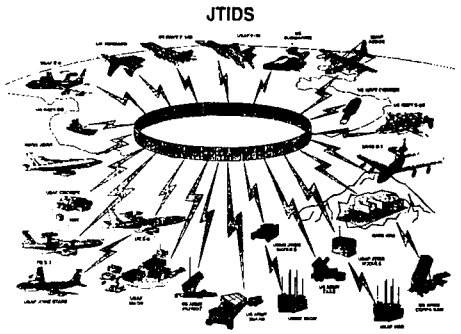
TYPE CLASSIFICATION: Currently Limited Procurement, standard anticipated for fielding.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Operational Test and Evaluation	4					
P3I First Unit Equipped (Conditional)		1				
Organic Support Capability		2				
Service Depot Support		2				
Initial Operational Capability			2			

SYNOPSIS: EPLRS PROVIDES LOCATION AND SECURE, JAM-RESISTANT COMMUNICATIONS SUPPORT FOR THE FIVE BFAs OF ATCCS.

PM, TRCS

JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)



PROJECT MANAGER: LTC Patrick Short, DSN 987-4362
COMM 908/427-4362

ACQUISITION CATEGORY: ID
ACQUISITION PHASE: LRIP MS III

PE & LINE #: 63713.D370 BU1400

DESCRIPTION: The Joint Tactical Information Distribution System (JTIDS) program is a joint program representing all services and allied force requirements with the purpose of complying with the ASD/C3I policy establishing Link-16 as the DOD primary tactical datalink for C2I and to acquire a digital information system for tactical interoperability and situation awareness. The Air Force is the lead service for this joint program and the Joint Program Office (JPO) is located at Hanscom Air Force Base, MA. Project Manager, Tactical Radio Communication Systems (PM TRCS), under PEO Command, Control and Communications System located at Fort Monmouth which is the Army's materiel developer on the program. There are three types of JTIDS terminals, Class 2 terminal, Class 2H terminal, and the Class 2M; a modified Class 2 terminal designed for Army ground use. The primary functional use of JTIDS 2M is to distribute air tracks and net Air Defense Control Centers and to control air and missile defense weapon engagement operations. The JTIDS Class 2M terminal will be acquired and integrated into six Army Air Defense platforms. Forward Area Air Defense Command Control Intelligence (FAADC2I); PATRIOT; Theater High Altitude Air Defense (THAAD); Corps Surface to Air Missile (CORPS SAM); Joint Tactical Ground Station (JTAGS) and Army Air Defense Brigade/Theater Missile Defense, Tactical Operational Center (ADA Bde/TMD TOC). The total requirement is for two hundred-ninety three (293) Class 2M terminals. The thirty five (35) Class 2M LRIP terminals will be purchased in FY96 while the remaining terminals will be procured through FY05. The Class 2M terminal interfaces with ACCS CHS and the JTIDS Terminal Controller (JTC) using the ADDS Interface (ADDSI) version of X.25 CCITT protocol. The JTC provides a quick and easy initialization and status monitoring capability of the Class 2M terminal. The JTC provides capabilities such as Over the Air Rekeying (OTAR), Over the Air Initialization (OTAI), and other net management functions.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Class 2M 21" x 13.25" x 7.86", 83 lbs, (1.25 cubic foot).

HISTORICAL BACKGROUND: PM TRCS with USAF Joint Program Office (JPO) is responsible for the management of the Class 2M terminals.

Mar 91 Technical test of the Class 2M Terminal completed.
Sep 92 System Technical Test of NCSJ/DJRU completed.
Jul 93 Complete refurbishment of Class 2M (EDM) terminals.
Sep 93 FAADC2I First Unit Equipment (FUE) with Class 2M (EDM) terminals.
Jun 94 Award of 16 Class 2M terminals with THAAD and CORPS SAM (BMDO).
Sep 94 Award of 4 Class 2M terminals with Patriot.
Dec 94 Limited User Test have been successfully completed.
Mar 95 Defense Acquisition Board (DAB) approved for 35 LRIP Class 2M terminals.
Aug 95 Award Army MIDS Variant (LVT(2)) EMD Phase.

REQUIREMENTS DOCUMENT: JOR approved 23 Jan 81; PJH ROC approved Sep 86. JTIDS ORD approved Sep 93.

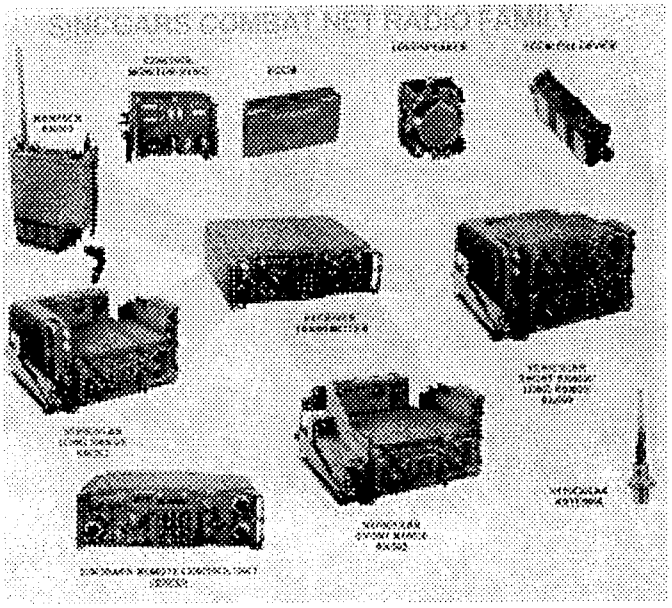
TYPE CLASSIFICATION: Class 2M LRIP DAB Decision approved Mar 95, authorizing the award of an LRIP contract for 35 terminals.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Limited User Test/Initial Operational Assessment	1					
Milestone IIIA (Class 2/2H/2M DAB)	2					
Low Rate Initial Production Award		1				
Initial Operational Test and Evaluation and Development Test		3–4				
Milestone IIIB (Class 2M)			2			
Production Award			3			
Low Rate Initial Production Delivery			4			
Production Delivery					2	

SYNOPSIS: JTIDS PROVIDES (AS A MAJOR COMPONENT OF THE ARMY DATA DISTRIBUTION SYSTEM) HIGH CAPACITY SECURE, JAM-RESISTANT DIGITAL DATA COMMUNICATION.

PM, TRCS

SINGLE CHANNEL GROUND and AIRBORNE RADIO SYSTEM (SINCGARS)



PROJECT OFFICERS:

GROUND: Dominic Satili, DSN 987-2521
COMM 908/427-2521

AIRBORNE: Doug Antisell, DSN 987-3027
COMM 908/427-3027

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 1T463746.D555; 1T464805.D282

SSN: B00500; J30500; BA9102
BS9722

DESCRIPTION: SINCGARS is a new family of VHF-FM combat net radios which provides the primary means of command and control for Infantry, Armor and Artillery Units. SINCGARS is designed on a modular basis to achieve maximum commonality among the various ground and airborne system configurations. A common Receiver Transmitter (RT) is used in the manpack and all vehicular configurations. SINCGARS family of radios has the capability to transmit and receive voice, tactical data and record traffic messages and is consistent with NATO interoperability requirements. The system operates on any of the 2320 channels between 30-88 megahertz and is designed to survive in a nuclear environment. COMSEC for the basic radio is provided by use of the VINSON device. An Integrated COMSEC (ICOM) version of the SINCGARS is currently in production. SINCGARS is operable in a hostile environment through use of Electronic Counter Countermeasure (ECCM). SINCGARS replaces the current standard manpack and vehicular radios, AN/PRC-77 and AN/VRC-12 family, respectively. An airborne version of the SINCGARS radio is in production and is replacing the currently standard aircraft radios, AN/ARC-114 and AN/ARC-131.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Dec 83 Initial Ground contract award to ITT.
May 85 Initial Airborne contract award to ITT.
Jul 88 Initial Ground contract awarded to General Dynamics.
Apr 89 Milestone IIIB (ITT); Non-ICOM full-rate production.
Dec 90 Milestone IIIB ITT full rate (ICOM)/General Dynamics low rate; IOC (1st Division Equipped).
Mar 92 Ground and Airborne ITT award (PY 6/7). (GD alignment).
Jun 92 First Article Test-General Dynamics.
Aug 93 Ground General Dynamics Full Rate Production approved.
Apr 94 ITT/GD Competitive awards - Ground Radio.
May 94 Follow-on Sole Source to ITT - Airborne Radio.
Mar 95 ITT/GD Competitive awards - Ground Radio.

REQUIREMENTS DOCUMENT: ROC approved 19 Dec 74, updated 10 Jan 75; Joint Operational Requirement approved 26 Mar 76., and updated 2 Mar 93.

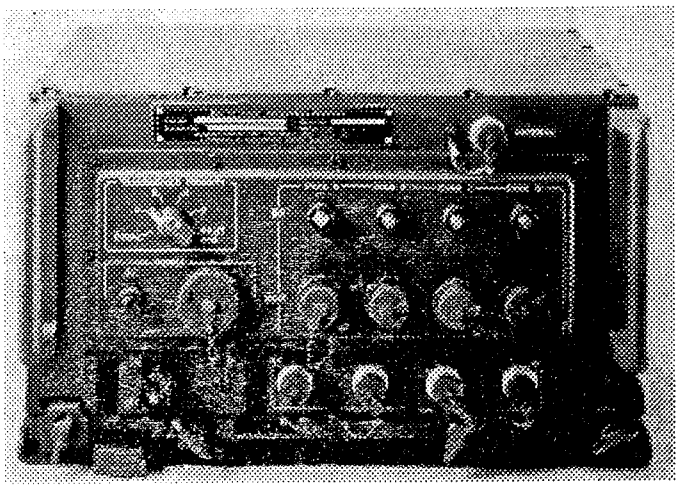
TYPE CLASSIFICATION: Non-ICOM, Standard A, 21 Sep 83; Airborne full rate production, 14 Dec 90; ITT ICOM Ground full rate production, 14 Dec 90, GD ICOM Ground Full Rate production, 18 Aug 93.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
PY 7/10 Production Award (Ground SINCGARS) SIP		2				
PY 8/11 Production Award (Ground SINCGARS) SIP			2			

SYNOPSIS: SINCGARS PROVIDES VHF-FM (30-88 MEGAHERTZ) COMBAT NET RADIO COMMUNICATION WITH ECCM CAPABILITY (FREQUENCY HOPPING) AND DIGITAL DATA CAPABILITY (DATA RATE ADAPTER).

PM, TRCS

TD-1456/VRC, FREQUENCY HOPPING MULTIPLEXER (FHMUX)



PROJECT OFFICER: Ms. Terri Younger, DSN 987-3060
COMM 908/427-3060

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production

PE & LINE #: 644805 DEV LIN: Z28333

DESCRIPTION: Tactical C3 vehicles frequently support installations of four radios and four whip antennas. The multiple antennas readily identify the vehicle as a C3 platform and invite enemy firepower. FHMUX will mask tactical C3 functions by reducing the vehicle's antenna visual signature. The FHMUX will allow up to four SINCGARS radios, in frequency hopping or fixed frequency mode of operation, to use a single high power broadband antenna. The FHMUX will replace the manually tuned, fixed-frequency TD-1289 multiplexer currently in the Army inventory. Additional benefits of the FHMUX are a reduction of antenna setup and teardown times, and a well defined radio frequency isolation between radios to control cosite interference.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 65 lbs, Two man lift.

HISTORICAL BACKGROUND:

May 84 Exploratory Development contract awarded to Xetron.
Jun 86 Two exploratory prototypes delivered.
Jul 87 O&O Plan approved.
Sep 89 FSD contract awarded to Xetron.
Aug 94 TT Completed.
Nov 94 OT Completed.
Feb 95 PPQT Contract awarded to XETRON.
Oct 95 MIII Letter IPR.

REQUIREMENTS DOCUMENT: ROC approved, May 91.

TYPE CLASSIFICATION:

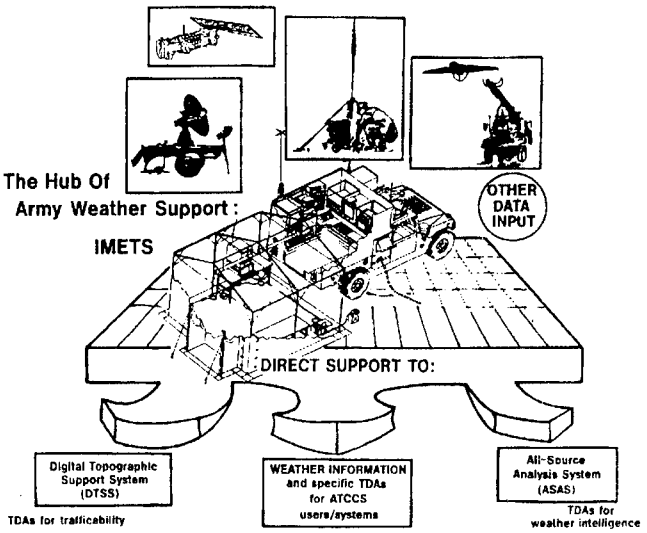
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
OT (RAM)	1					
Pre-production Contract Award	2					
Release of Production RFP		1				
Milestone III IPR		1				
Production Contract Award		3				
Initial Production Delivery				1		

SYNOPSIS: FHMUX WILL EXTEND A MULTIPLEXING CAPABILITY TO SINCGARS FREQUENCY HOPPING RADIOS AND WILL REDUCE COSITE INTERFERENCE.

PD, IMETS

PD, IMETS

AN/TMQ-40, INTEGRATED METEOROLOGICAL SYSTEM (IMETS)



PROJECT DIRECTOR: R. Northrup Jr., DSN 258-5513
COMM 505/678-5513

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 64726.DD85

DESCRIPTION: IMETS is predominantly a Non-Developmental Item (NDI) that provides automation and communications support to USAF Weather Teams assigned to Army G2/G3 sections at echelons Brigade through EAC. IMETS receives, processes, and collates forecasts, observations, and climatological data to produce weather forecasts and timely and accurate products to meet Commanders' requirements. IMETS produces, displays and disseminates, over Army ATCCS, weather forecasts and tactical decision aids that compare the impact of current, projected, or hypothesized weather conditions on friendly and enemy capabilities. IMETS workstations are ATCCS Common Hardware and are interoperable with ASAS, DTSS and other ATCCS BFAs over tactical and area communications.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Standard Integrated Command Post System (SCIPS) mounted on a Heavy Highly Mobile Multipurpose Wheeled Vehicle (H-HMMWV). Length 206.5 inches, Width 89 inches, Height 120 inches. Weight 9,054 pounds, Square Footage 120 sq. ft. Limitations: none known.

HISTORICAL BACKGROUND:

Sep/Nov 93	EUTE.
Dec 93	MSIII LRIP.
Jul/Sep 94	IOTE.
Feb 92	MS I/II approved.
Oct 94	Test unit Equipment (Ft. Hood).
Dec 94	MSIII Prod/Fielding.

REQUIREMENTS DOCUMENT: ROC approved Mar 91; Change 1 approved Jul 92, 0&0 approved Dec 86.

TYPE CLASSIFICATION: Standard, Aug 95.

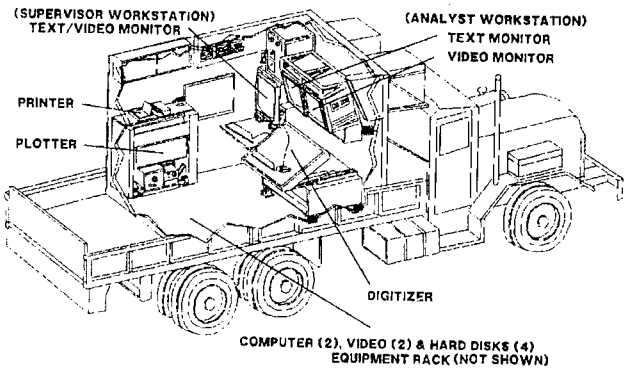
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Milestone III Production	1					
Field Systems (Block I)	2---4	1-----4				
IMETS Block II Integration			1----4			

SYNOPSIS: IMETS IS A TACTICAL AUTOMATED WEATHER DATA SYSTEM RECEIVING, PROCESSING, AND DISSEMINATING INFORMATION TO PROVIDE TIMELY WEATHER ENVIRONMENTAL EFFECTS, FORECASTS AND DECISION AIDS.

PD, CTIS

PD, CTIS

DIGITAL TOPOGRAPHIC SUPPORT SYSTEM (DTSS)



PROJECT DIRECTOR: David Thacker, DSN 345-2876
COMM 703/355-2876

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production & Deployment

PE & LINE #: 654716.D579

DESCRIPTION: The DTSS is a tactical, computer-based system which will provide automated assistance to the Army's terrain analysis function. It will have the capability to receive, reformat, create, store, retrieve, update, manipulate, and densify digital terrain data to produce terrain analysis products which contribute to the Intelligence Preparation of the Battlefield and support other tactical systems with digital terrain data and products. The DTSS consists of two terrain analysis workstations with associated equipment, housed in an S-280 shelter and mounted on an M-927 5-ton truck. The DTSS development will include a P3I program for the incorporation of technological improvements and interoperability with other PEO C3S systems. Included as a P3I is the requirement to exploit imagery. Part of imagery exploitation includes the development of a multispectral image processor (MSIP) which provides an image mapmaking capability. The DTSS program office was tasked with the mission to issue the DTSS-MSIP, as an interim measure, to Army topographic units. Delivery of the DTSS-MSIP's was completed in Jun 95.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C5/C141 Airlift Transportable.

HISTORICAL BACKGROUND:

Apr 93 Milestone III decision, for DTSS.
Jul 93 First LRIP Unit Delivered.
Jun 94 DTSS FUE.
Jun 94 Milestone III decision, for DTSS-MSIP.
Jun 95 Complete Delivery of DTSS-MSIP's.

REQUIREMENTS DOCUMENT: DTSS ROC approved Oct 86, US Army TRADOC.

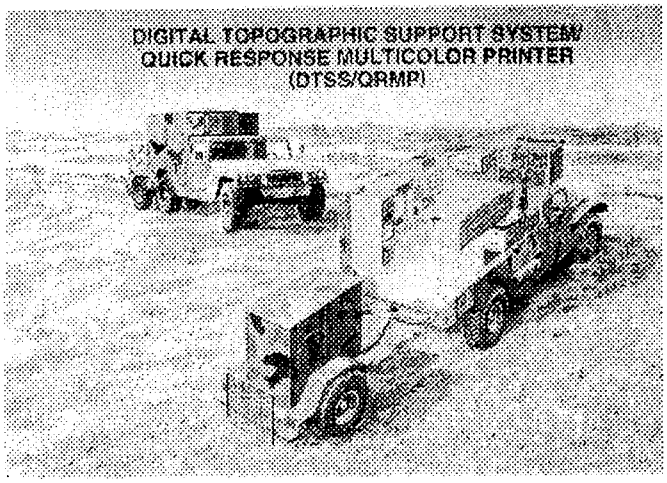
TYPE CLASSIFICATION: Standard, Apr 93.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
P3I Design/Development	1-------	------4				
DTSS Initial Operational Capability (IOC)	3					
DTSS Upgrade		4---	----------	----3		
DTSS-MSIP Development	----3					
Issue DTSS-MSIP	2--3					
DTSS-MSIP Enhancement	4	------3				

SYNOPSIS: DTSS IS A TACTICAL, COMPUTER-BASED TERRAIN ANALYSIS SYSTEM WHICH WILL ENABLE THE TERRAIN ANALYST TO SUPPORT THE BATTLEFIELD COMMANDER WITHIN THE COMMANDER'S DECISION CYCLE.

PD, CTIS

DIGITAL TOPOGRAPHIC SUPPORT SYSTEM/ QUICK RESPONSE MULTICOLOR PRINTER (DTSS/QRMP)



PROJECT DIRECTOR: David E. Thacker, DSN 345-2876
COMM 703/355-2876

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 654716.D579

DESCRIPTION: The DTSS/QRMP is a tactically mobile computer-based system which will provide automated assistance to the Army's terrain analysis function. Combining the functionalities of the DTSS and QRMP into a downsized configuration will provide the commanders an automated process for the Intelligence Preparation of the Battlefield. The DTSS/QRMP will be a standard, automated, tactical combat support system capable of receiving, (re)formatting, creating, manipulating, merging, updating, storing, and retrieving digital topographic data, then reproducing this data into hardcopy topographic products. The DTSS/QRMP will accept topographic and multispectral imagery data from the Defense Mapping Agency (DMA) standard digital data bases and from other sources. The system will be integrated into a Lightweight Multipurpose Shelter (LMS) mounted on the High Mobility Multipurpose Wheeled Vehicle (HMMWV). The DTSS/QRMP will be supported by environmental control units, generators, and communication equipment that are paart of the standard Army inventory. A heavy (5-ton, ISO20 Shelter) variant of the DTSS/QRMP will be provided as an upgrade to the original DTSS units.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Has C-130 roll-on/roll-off capability. Requires one C-130 airlift per shelter/trailer for a total of two lifts for 100% capability.

HISTORICAL BACKGROUND:

Jan 93 SE&I Contract Award (Basic).

REQUIREMENTS DOCUMENT: DTSS/QRMP ORD, approved 20 Dec 94.

TYPE CLASSIFICATION: Standard, proposed.

EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Prototype Development	----				----				-1															
Developmental Test (DT)									1-2															
Operational Test (OT)									1-2															
Milestone III												4												
Production													2-	----	----	----	----	----	----	----	----	----	----	----
Prototype Development of DTSS/QRMP-Heavy	----	----			-2																			
Combined DT/OT for DTSS/QRMP-Heavy					1-2																			

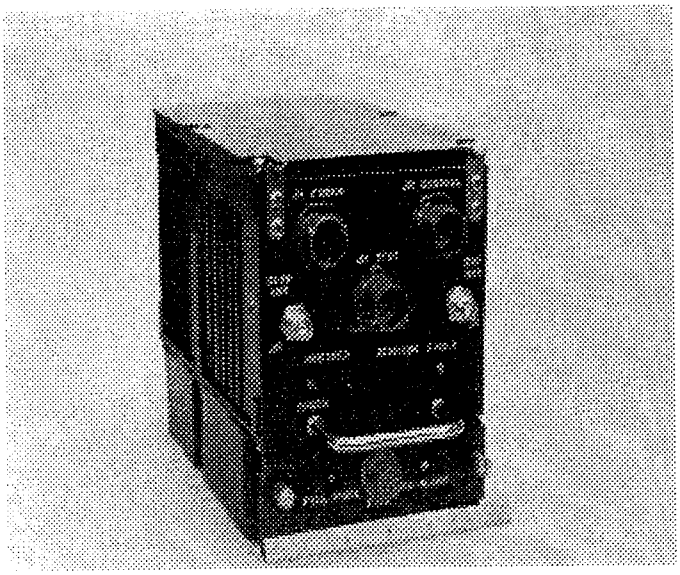
SYNOPSIS: DTSS/QRMP IS A TACTICAL, COMPUTER-BASED TERRAIN ANALYSIS AND LOW VOLUME REPRODUCTION SYSTEM WHICH WILL ENABLE THE TERRAIN ANALYST TO SUPPORT THE BATTLEFIELD COMMANDER WITHIN THE COMMANDER'S DECISION CYCLE.

PEO IEW

PM, COMBAT ID

PM, COMBAT ID

AN/TPX-56, MARK XII INTERROGATOR SET



SYSTEM MANAGER: Mr. Michael Madden, DSN 987-5016
COMM 908/427-5016

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II LRIP

PE & LINE: 64817/D356

NSN: 5895-01-392-2206

DESCRIPTION: The AN/TPX-56 will provide Mark XII Identification Friend or Foe (IFF) capability for the Forward Area Air Defense (FAAD) Ground Based Sensor (GBS) Radar system. A competitive, fixed price contract was awarded to Allied Signal, 8 Aug 95. The base acquisition is for 12 systems, with options for an additional 184 units.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 5.4" (L); 6.4" (H); 8.4" (D); 10 lbs; No Limitations.

HISTORICAL BACKGROUND:

FY92 FAAD GBS NDI Pre-Production Contract Awarded to Hughes.
FY94 AN/TPX-56 EMD Contract Awarded to Magnavox (subcontractor, Allied Signal).
FY95 AN/TPX-56 LRIP contract award to Allied Signal.

REQUIREMENTS DOCUMENT: FAAD Capstone ROC.

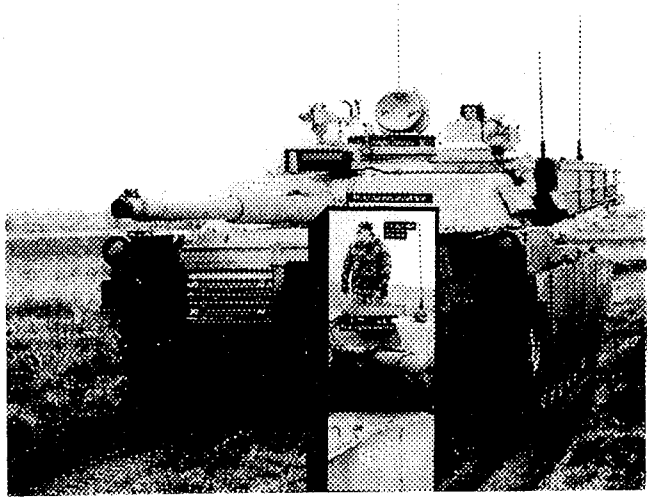
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
LRIP IPR (GBS)	1					
LRIP Contract Award	3					
First Article Test/Initial Operational Test		2				
MS III IPR (GBS)	2					
Full Rate Production Award (Option)		2				
First Unit Equipped (GBS LRIP)			3			

SYNOPSIS: THE AN/TPX-56 INTERROGATOR SET PROVIDES POSITIVE FRIEND IDENTIFICATION OF AIRBORNE TARGETS AND IT IS MOUNTED ON AND INTEGRATED INTO THE GROUND BASED SENSOR AIR DEFENSE RADAR.

PM, COMBAT ID

BATTLEFIELD COMBAT IDENTIFICATION SYSTEM (BCIS)



PRODUCT MANAGER: LTC Scott Jackson, DSN 987-5105
COMM 908/427-5105

ACQUISITION CATEGORY: II
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 64817 / D482

DESCRIPTION: BCIS is the lead Army horizontal technology initiative using the "A kit" (platform specific) and "B kit" (common to all platforms) philosophy. It is the first program to take advantage of acquisition streamlining and to direct industry to use commercial parts and practices to shorten acquisition timelines and to reduce cost. The first EMD unit was delivered on 3 Jan 95, 17 months after contract award, for integration and test as a component of the Bradley Operation Desert Storm (ODS) upgrade. In late Apr 95, BCIS was installed and tested on the Abrams tank.
The purpose of BCIS is to reduce fratricide - a problem made increasingly difficult for gunners as we participate in coalition warfare where partners operate weapon systems formerly associated with adversaries. BCIS is a millimeter wave (mmW), ground-ground (G-G), point of engagement system which provides through-the-sight, day/night, all weather positive identification of BCIS equipped US, Allied and coalition platforms. Shooters query potential targets at ranges that can extend beyond 5 km. Friendly platforms targeted by friendly shooters generate automatic electronic responses in less than one second. BCIS is resistant to electronic countermeasures, active exploitation and deception.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: BCIS is a horizontal technology integration subsystem designed for application on selected warfighting platforms. The major BCIS components are the Communications LRU/Transponder Antenna, Display Interface LRU and the Interrogator Antenna. In total these weigh 18.9 lbs and occupy 560 cubic inches.

HISTORICAL BACKGROUND:

Jan 93 RFP Release.
Jul 93 MS II Decision Review.
Aug 93 Contract Award.
Jan 95 First Unit Delivered.

REQUIREMENTS DOCUMENT: CAPSTONE O&O Plan, 15 Jan 91. Joint MNS, Mar 92. ORD 14 Apr 93.

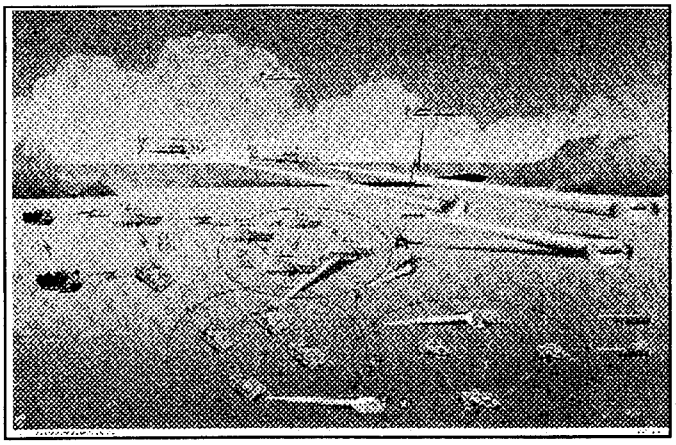
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
E&MD (1st Delivery)	----2					
PPQT-CT	2					
PPQT-GT/LUT	3-------1					
TF XXI Participation			2			
International Demo			3			

SYNOPSIS: BCIS IS AN ACTIVE MILLIMETER WAVE QUESTION AND ANSWER IDENTIFICATION SYSTEM TO REDUCE FRATRICIDE ON THE BATTLEFIELD.

PM, COMBAT ID

COMBAT IDENTIFICATION (CID) ADVANCED CONCEPT TECHNOLOGY DEMONSTRATION (ACTD)



PROJECT MANAGER: Mr. Robert Doto, DSN 987-5324
COMM 908/427-5324

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 62120/AH15
63772/D281

DESCRIPTION: No single CID system is associated with this phaase of the CID ACTD. Instead, this ACTD investigates various technology concepts that show promise of reducing fratricide and increasing combat effectiveness. The CID ACTD is a jointly sponsored effort to demonstrate technology concepts to satisfy the critical mission need for an integrated air-to-ground and ground-to-ground CID capability. The CID ACTD includes assessment of "leave behind" systems for combat capabilities, as well as the assessment of alternative technologies. An international demonstration will be used to assess CID interoperability with allied military organizations. The CID ACTD will take advantage of service programs in target identification and situational awareness; specifically, the Battlefield Combat Identification System (BCIS), Battlefield Digitization program, and the Tactical Digital Information Link - Joint (TADIL-J/Link 16). The approach also leverages Army Force XXI and the All Service Combat Identification Evaluation Team (ASCIET) exercises.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Combat ID is a Horizontal Technology Integration program which will ultimately lead to systems that will be mounted on and become an integral part of the preponderance of ground and air tactical combat platforms to include helicopters and fixed-wing aircraft.

HISTORICAL BACKGROUND:

Aug 92 Acquisition Decision Memorandum.
Dec 92 Army Science Board Study.
Apr 93 Combat Identification Operational Requirements Document.
Aug 93 TRADOC Operational Concept.
Jun 94 CID ACTD Proposal accepted by JROC.
Nov 94 Vice Chairman, JCS Request for CID ACTD.

REQUIREMENTS DOCUMENT: CID ORD 14 Apr 93.

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ASCIET 95	4					
Build and Integrate ACTDs	———	——4				
ASCIET 96		4				
Develop Alternative Technologies	———	——4				
Develop International Technologies	———	——4				
Task Force XXI at NTC			2			
ASCIET 97			4			
MS I/II				4		

SYNOPSIS: CID ACTD INVESTIGATES VARIOUS TECHNOLOGY CONCEPTS THAT SHOW PROMISE OF REDUCING FRATRICIDE AND INCREASING COMBAT EFFECTIVENESS.

PM, FIREFINDER

PM, FIREFINDER

FIREFINDER SYSTEMS/PROGRAMS

PRODUCT MANAGER: LTC Thomas M. Cole. DSN 987-5018
COMM 908/427-5018

PE & SSN #: BZ7325 - FIREFINDER, ELECTRONICS UPGRADE, ENHANCED FIREFINDER, ATG MOBILITY IMPROVEMENT, SURVIVABILITY SUITE.

654270/DL18, VA8000 SHORTSTOP
644823/DL85, BA5100 FIREFINDER P3I

DESCRIPTION: FIREFINDER is comprised of the AN/TPQ-36 and AN/TPQ-37 Mortar and Artillery Locating Radars. These radars are organic to separate infantry and armor brigades, to the Target Acquisition Battery (TAB) at Division Artillery (Div Arty), and/or Corps Target Acquisition Detachments. FIREFINDER radars are currently operational and were used in support of Operation Desert Shield/Storm.

HISTORICAL BACKGROUND: Fielding and deployment of the AN/TPQ-36 and AN/TPQ-37 Radars is complete. Operational use and sustainment of fielded FIREFINDER continues.

PRODUCT IMPROVEMENTS TO FIREFINDER SYSTEMS: Several Materiel Changes/Product Improvements are in process.

AN/TPQ-36 MATERIEL CHANGES (MC):

AN/TPQ-36(V)8 Electronics Upgrade. This MC will improve the Operations Control Group (OCG) through the installation of state-of-the-art electronics including Common Hardware/Software (CHS) Lightweight Computer Unit Version 2 (LCU V2) equipment in the Lightweight Multipurpose Shelter (LMS). The new OCG will also incorporate an Environmental Control Unit (ECU) and a Gas Particulate Filter Unit (GPFU). Major subsystems of the new OCG include an Operator Control Station (OCS), a Control/Display Terminal (CDT) and a radar processor. The OCS will serve as the man-machine interface. Using the CDT, the operator will be able to control system operations from a site up to 100 meters remote from the shelter. The radar processor will perform all systems processing functions not assigned to the OCS. It will be reprogrammable and reconfigurable to maximize system performance under varying target and operating environment conditions. The new OCG will enhance the man-machine interfaces and electronics environment by providing 50 percent more interior space and improved environmental control. A contract is currently in place for the preproduction of eight (8) LRIP systems. User testing is planned for 2QFY96 with a production decision in 2QFY96.

AN/TPQ-37 MATERIEL CHANGES (MC):

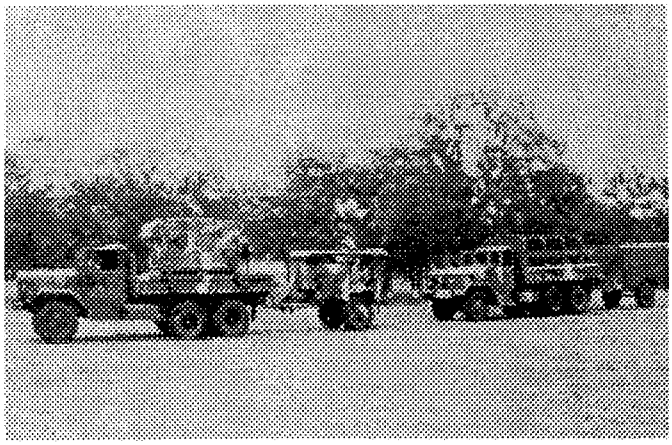
1. Antenna Transceiver Group (ATG) Mobility Improvement. This MC will improve the mobility of the AN/TPQ-37(V) ATG in sand, mud, and soft earth by applying a tracked suspension system to the M-1048 trailer. This will reduce ground contact pressure and drawbar pull force, and eliminate tire wear problems.

2. Enhanced FIREFINDER Block I. This MC upgrades mechanical deficiencies, incorporates improvements in the software, reduces the number of false locations, improves the reliability of the transmitter, increases the organic capability of C-130/C-141 transportability, and improves the survivability against ARMS. The software improvements will be provided to Ft. Sill Software Engineering Directorate for incorporation and testing in the Version 11 update to the FIREFINDER system software. Two preproduction survivability suites developed during Enhanced FIREFINDER Block I will be put into contingency storage.

3. FIREFINDER P3I. The FIREFINDER P3I program will upgrade the AN/TPQ-37 by replacing the Antenna Transceiver (ATG). This is in response to the approved MNS for the Advanced FIREFINDER System. The new ATG will double the detection ranges of all targets, increase the target throughput tenfold, increase mobility and transportability by C-130, and decrease the crew requirements from twelve (12) to six (6). The program will leverage off the funded AN/TPQ-36(V)8 Electronics Upgrade program which will provide a modern shelter and radar signal processor.

PM, FIREFINDER

AN/TPQ-36, FIREFINDER MORTAR LOCATING RADAR



PRODUCT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: BZ7325

DESCRIPTION: AN/TPQ-36 locates both enemy mortar and artillery weapons systems. It is composed of: Operations Control Group (OCG) mounted on an M-35 2-1/2 ton Truck; Antenna Transceiver Group mounted on an M-103 series Trailer; and, the AN/MJQ-25 power unit (two MEP-112s, 10 kilowatt, 400 hertz, diesel generators) mounted on an M-103 1-1/2 ton Trailer. Three AN/TPQ-36 radars are assigned to a division Target Acquisition Battery and are normally complemented by two AN/TPQ-37 Artillery Locating Radars. AN/TPQ-36 is a highly mobile phased-array radar which automatically and accurately locates mortars, artillery and short range rocket launchers. Materiel changes to increase mobility, decrease emplacement/displacement time, and incorporate electronics upgrades are in progress.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: No transportation issues exist for these systems.

HISTORICAL BACKGROUND:

Nov 71	Materiel need statement for Mortar Locating Radar by HQ DA.
Oct 73	Contract to HAC for five Engineering Development Models (EDMs).
Dec 77	Full Scale Production (FSP) approved; Materiel Needs Statement revalidated by HQ DA.
Dec 80	First Delivery; Conditional acceptance.
Jul 86	Production Complete (for U.S. Forces).
Aug 90	AN/TPQ-36 used to support Operation Desert Shield/Storm.

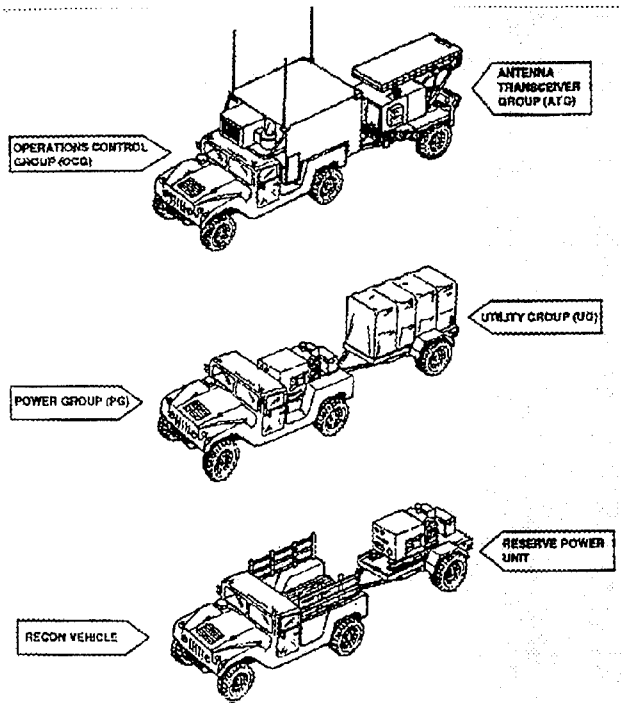
REQUIREMENTS DOCUMENT: Materiel Needs Statement with changes, 25 Oct 77.

TYPE CLASSIFICATION: Standard approved Oct 79.

SYNOPSIS: FIREFINDER AN/TPQ-36 IS A MORTAR AND ARTILLERY LOCATING RADAR.

PM, FIREFINDER

AN/TPQ-36, FIREFINDER MORTAR LOCATING RADAR, ELECTRONICS UPGRADE



PRODUCT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: BZ7325 Modification Of In-Service Equipment (TACSURV)

DESCRIPTION: The AN/TPQ-36(V)8 Electronics Upgrade will improve the Operations Control Group (OCG) through the installation of state-of-the-art electronics and Common Hardware/ Software (CHS) in the Lightweight Multipurpose Shelter (LMS). The Operations Control (OC) (previously the OCG) will be mounted on an M1097 "Heavy" HMMWV which will tow the Antenna-Transceiver Group (ATG) on a modified M116A2E1 trailer. A second M1097 HMMWV will carry a palletized MEP-112A generator and will tow an M116A2E1 cargo trailer. A HMMWV reconnaissance vehicle (M998 or M1038) will tow a second ("back up") MEP-112A generator mounted on an M116A2E1 trailer. Major subsystems of the OC include an Operator Control Station (OCS), a Control/Display Terminal (CDT), radar processor, and shelter. The OCS will serve as the man-machine interface. The CDT will allow the operator to command and control system operation from a remote site up to 100 meters from the shelter. The radar processor will perform all system processing functions not assigned to the OCS and will be programmable and reconfigurable to maximize system performance under varying target and operating environmental conditions. The LMS will enhance the man-machine interface and electronics environment by providing 50 percent more interior space.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Installed on HMMWV's, Roll-on/off C130 A/C UH-60 Transportable.

HISTORICAL BACKGROUND:

Oct 89 Block IIB configuration requirements defined by TRADOC.
Jul 90 DA authorized phasing of Block IIB.
Jan 91 Configuration Control Board concurred with AN/TPQ-36(V)8 Materiel Change package.
Apr 92 AAE approved program initiation.
Dec 92 Contract award.
Mar 94 CDR.

REQUIREMENTS DOCUMENT: Materiel Change 1-90-07-0016; Letter Requirement (TRADOC) USAFAS, ATSF-TSM-TA dated 13 Apr 92.

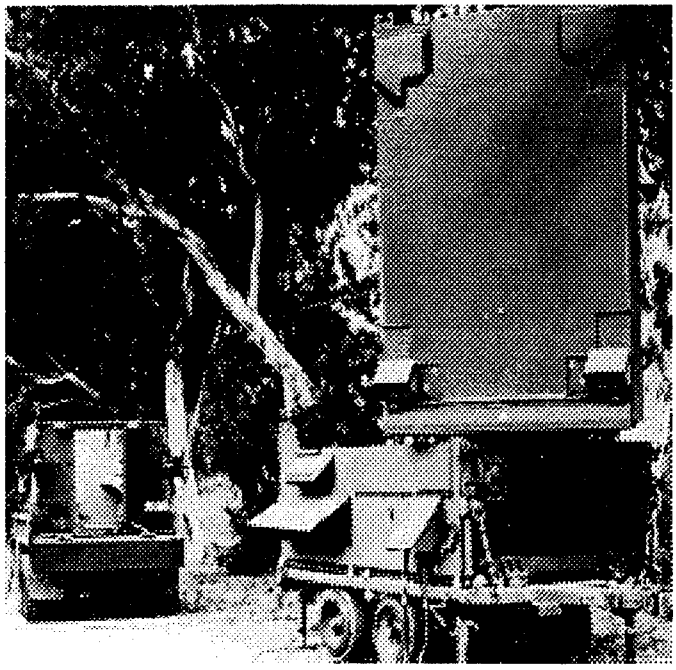
TYPE CLASSIFICATION: Standard, 2QFY96

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Option 1-Build 7 LRIP	----------	--1				
System Reliability Demo	3-------	--1				
User Test		2				
Milestone III		2				
Production		2----------	----------	------3		
Fielding				1----------	---2	

SYNOPSIS: AN/TPQ-36(V)8 FIREFINDER UPGRADE IS A MORTAR AND ARTILLERY LOCATING RADAR.

PM, FIREFINDER

AN/TPQ-37, FIREFINDER ARTILLERY LOCATING RADAR



PRODUCT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: BZ7325

DESCRIPTION: The AN/TPQ-37 is a mobile Phased Array Artillery Locating Radar System. The operations shelter is identical to that used with the AN/TPQ-36(V)5 and consists of an Operations Control Group mounted on an M-35 series Truck, and the MEP-115A, 60 kilowatt, 400 hertz Generator Set mounted on a 5-ton Truck. This truck also tows the Antenna Transceiver Group consisting of the Phased Array Antenna, Transmitter, Receiver and associated electronics mounted on the M-1048 Trailer, a 6-ton four wheel flatbed Cargo Trailer. Two AN/TPQ-37s are assigned to the Target Acquisition Battery of each division and employed with the AN/TPQ-36. The AN/TPQ-37 is larger than the AN/TPQ-36 and its target acquisition range is greater. The system uses a combination of radar techniques and computer controlled functions to detect and accurately locate enemy artillery and rocket weapons to permit rapid engagement with counterfire.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: No transportability issues exist.

HISTORICAL BACKGROUND:

Jun 72 DA approved Materiel Need Statement; contract Research and Development award.
Dec 76 Low Rate contract award.
May 81 Full Scale Production contract award.
Feb 83 Initial Operational Capability (IOC) complete, Europe.
Feb 86 Production complete for Army.
Apr 92 Last U.S. fielding.

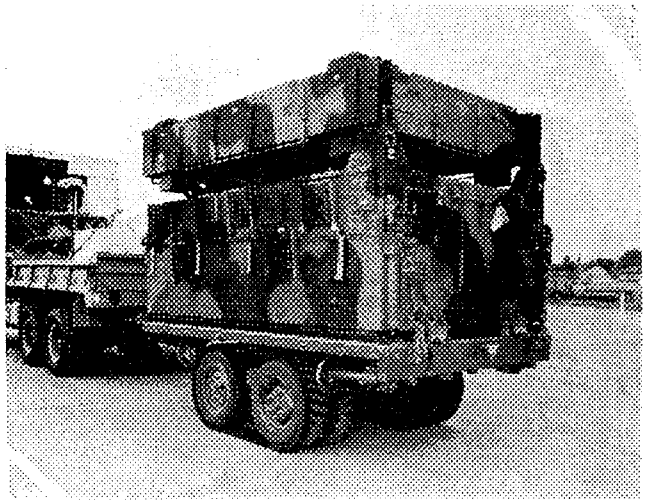
REQUIREMENTS DOCUMENT: Mission Need Statement, 1 Jun 78.

TYPE CLASSIFICATION: Standard approved 18 Feb 81.

SYNOPSIS: AN/TPQ-37 IS A MOBILE PHASED ARRAY ARTILLERY LOCATING RADAR SYSTEM.

PM, FIREFINDER

AN/TPQ-37(V), ATG MOBILITY IMPROVEMENT PROGRAM



PRODUCT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: This Mobility Improvement Program was initiated in response to mobility problems encountered in Operations Desert Shield/Storm. These problems included difficulty in moving the trailer through sand and improper tracking of the trailer behind the prime mover. This MC adapts a variant of M-200 trailer Tracked Suspension System (TSS) to the M1048 trailer which carries the Antenna Transceiver Group (ATG) of the AN/TPQ-37. In the pre-production phase two (2) TSS test kits were installed and tested on the M1048 trailer. (The primary components of the TSS modification kit are a walking beam suspension and reinforced rubber belts which wrap around the dual idler tires of the trailer.) Testing demonstrated that TSS application provided a wider foot print for the M-1048 trailer which improved trailer mobility in off-road use and did not degrade performance on paved surfaces at highway speeds. Improvements using the TSS include: increased trafficability/mobility through soft dirt, mud and sand; better side-slope capability, less horse power required by the prime mover towing the trailer and better ride stability.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The ATG Mobility Improvement will not change Transportation Characteristics of the End Item Radar.

HISTORICAL BACKGROUND:

Mar 91	After Action Report, Saudi, 16-28 Feb 93, CMDNT, USAFAS, Fort Sill, OK.
Jan-Feb 92	MOA and SOW with PM TRAILERS.
May 92	Materiel Change approved.
Oct 92	Materiel Change (Revised to include production) Approved.
Apr 94	MS III Approval.
Jul 94	Award of Production Contract.

REQUIREMENTS DOCUMENT: MC #1-92-07-0001

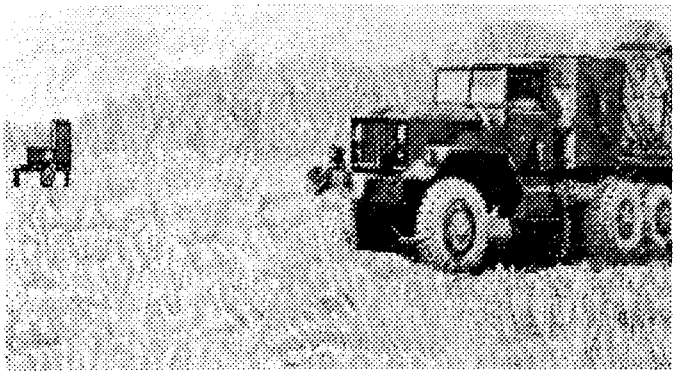
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
First Article Testing	4					
Deliveries/Application		2---4				

SYNOPSIS: AN/TPQ-37(V) ATG MOBILITY IMPROVEMENT PROGRAM IMPROVES TRAILER MOBILITY IN OFF-ROAD USE AND DOES NOT DEGRADE PERFORMANCE ON PAVED SURFACES AT HIGHWAY SPEEDS.

PM, FIREFINDER

AN/TPQ-37(V), ENHANCED FIREFINDER BLOCK I



PRODUCT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: BZ7325

DESCRIPTION: This Block I Materiel Change is a short term program with minimal technical risk. It incorporates mechanical upgrades to improve Reliability, Availability and Maintainability (RAM); it improves transportability, mobility, survivability and commonality with the AN/TPQ-36. Software improvements include reduced false locations and incorporation of a long range mode. Special features include a new, improved cooler, C-130 transportability kit, MAPS-Self survey, and a separate tape for Long Range Missile Detection Software. The system will be strategically deployable and operable at all levels of conflict.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The FIREFINDER Block I is Ground Mobile Equipment with C-130 Roll on/Roll off Transportability for Rapid Deployment.

HISTORICAL BACKGROUND:

Oct 92 Initial requirements defined.
Feb 93 Block I Materiel change approved.
Mar 93 Preproduction contract award.
Jul 93 Critical design review.
Apr 94 Testing Completed.
Jun 94 Production Decision.
Jun 94 Production Award.

REQUIREMENTS DOCUMENT: Draft O&O Plan, Mar 91; Initial Block I EFF Conference, Oct 92; Materiel Requirements Letter, 6 Aug 93.

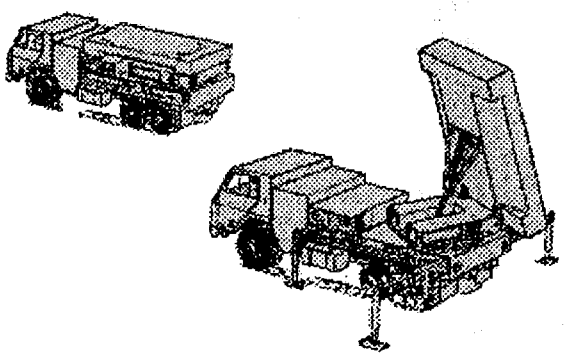
TYPE CLASSIFICATION: Standard.

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fabrication/Assembly	----4					
FAT		1				
FUE		2				
Fielding		2---4				

SYNOPSIS: NEW IMPROVED COOLING SYSTEM, LONG-RANGE SOFTWARE TAPE, MAPS SITE SURVEY, C-130 TRANSPORTABILITY KIT.

PM, FIREFINDER

FIREFINDER P3I



PROJECT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: II (Projected)
ACQUISITION PHASE: MS II
Engineering/Manufacturing Development

PE & LINE: RDTE 64823 / DL85. OPA BA5100

DESCRIPTION: The FIREFINDER P3I program will upgrade the Antenna Transmitter Group (ATG) of the AN/TPQ-37 Radar. This upgrade will double the range performance and improve the target throughput to 50 targets per minute in a highly mobile, transportable and survivable system. The FIREFINDER P3I will also be capable of missile detection at maximum ranges of 150-300KM depending on the target radar cross section. The P3I system will be capable of simultaneous transmission of target launch point location and trajectory vector cue information to theater missile defense assets such as JSTARS, UAV's, PATRIOT, ETC.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The FIREFINDER P3I system will be a ground mobile equipment with C-130 Roll on/Roll off transportability for rapid deployment.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT: 4 Aug 93 - Mission Need Statement.
17 Aug 95 - ORD Approved Hqs, TRADOC.

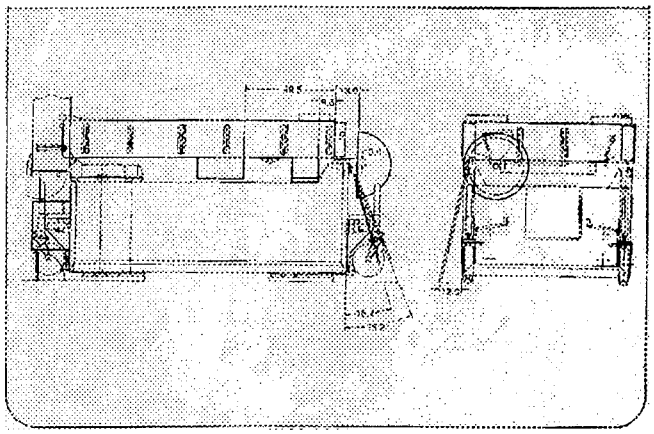
TYPE CLASSIFICATION: TBD.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00	01
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Approved ORD		1					
Release Solicitation			4				
Contract Award (EMD QM-4)				2			
Development				2----------	----------	----------	-------3

SYNOPSIS: UPGRADE THE AN/TPQ-37 ANTENNA TRANSMITTER GROUP TO INCREASE SYSTEM PERFORMANCE TO ADDRESS CURRENT THREAT IN A HIGHLY MOBILE, TRANSPORTABLE AND SURVIVABLE SYSTEM.

PM, FIREFINDER

FIREFINDER SURVIVABILITY SUITE



PROJECT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE: BZ 7325

DESCRIPTION: The Survivability Suite will provide a warning & automatic countermeasure response to anti-radiation missiles (ARMS) threats. It consists of a missile alarm system which utilizes a modified ALQ-156, a missile defense system which provides an automatic electronic countermeasure for ARMS and an executive which controls the system and provides operator warning. The Survivability Suite will be an add on system which can be applied and removed from the AN/TPQ-37 as required.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The Survivability Suite will not impact the AN/TPQ-37. Therefore, current transportation characteristics for the AN/TPQ-37 will remain unchanged.

HISTORICAL BACKGROUND:

3QFY93 Award of Delivery Order for Initial Design.
4QFY94 Award of Production Contract for FIREFINDER Survivability Suite.

REQUIREMENTS DOCUMENT: FIREFINDER ORD / MC # 1-93-07-0001.

TYPE CLASSIFICATION: TBD.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contractor Qualification Testing	2					
Integration Testing Completed	3					
Delivery of 2 Pre-Production "A" and "B" Kits	4					
Technical Evaluation		1				

SYNOPSIS: THE SURVIVABILITY SUITE WILL PROVIDE A WARNING AND AUTOMATIC COUNTERMEASURE RESPONSE TO ANTI-RADIATION MISSILE (ARM) THREATS.

PM, FIREFINDER

SHORTSTOP

PROJECT MANAGER: LTC Thomas M. Cole. DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Demo/Validation

PE & LINE #: 64270 DL18

DESCRIPTION: The AN/VLQ-9 SHORTSTOP is a mobile, electronic countermeasure system designed to protect personnel and high value targets from the most predominant of indirect fire threats without operator intervention. The AN/VLQ-9 (LPU) is a vehicular version of SHORTSTOP and is mounted on either a HMMWV (M-998, M-1037, or M-1097) or a tracked M113A2 carrier. The AN/VLQ-9 was developed and built in response to Operation Desert Storm Quick Reaction Capability (QRC). Based on USAIS requirements SHORTSTOP will be militarized and reduced in size and weight for manpacked portability. Special features of the militarized, light weight SHORTSTOP will include Autonomous Operation, Contiquous Coverage, BIT/BITE and an Omni-Directional Antenna. Ten of the AN/VLQ-9 version and fourteen AN/VLQ-10 version, modified for a multiband OMNI-Directional Capability, are currently in contingency storage.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Heavy 90 lbs. unit; Held in a contingency storage.

HISTORICAL BACKGROUND:

Nov 90 CINC CENTCOM QRC Statement of Need.
Feb 91 Limited Procurement Contract Award (LPU) for the AN/VLQ-9.
Aug 91 Limited Live Fire Test.
Aug 92 Full Live Fire Test.
May 93 Contract awarded for Risk Reduction Efforts, Multi-Band Upgrade AN/VLQ-10 and Omni-Directional coverage.

REQUIREMENTS DOCUMENT: Nov 90, CINC CENTCOM Mission Need Statement, Jun 94, ORD approved, U.S. Army Infantry School Fort Benning, Georgia.

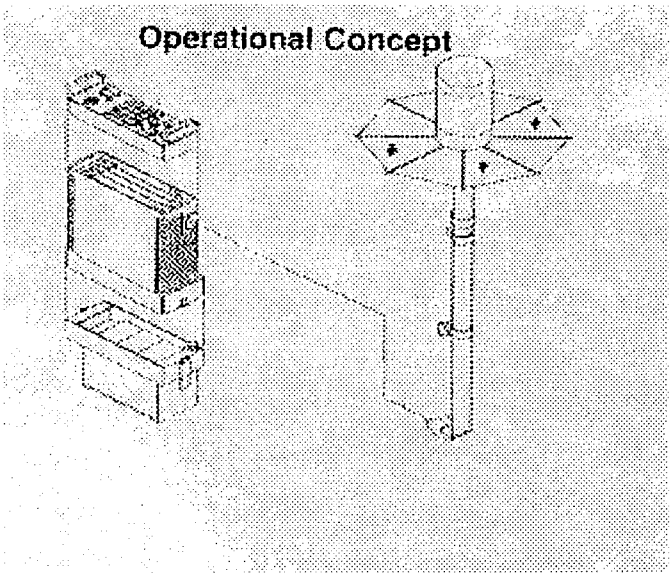
TYPE CLASSIFICATION: TBD.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
AN/VLQ-10 Units Assembly Completed	1					
AN/VLQ-10 Units Tested	1					
AN/VLQ-10 Units Held in Contingency Storage	2					

SYNOPSIS: SHORTSTOP IS A MOBILE, ELECTRONIC COUNTERMEASURE SYSTEM DESIGNED TO PROTECT PERSONNEL AND HIGH VALUE TARGETS FROM THE MOST PREDOMINANT OF INDIRECT FIRE THREATS WITHOUT OPERATOR INTERVENTION. THE AN/VLQ-9 IS THE SINGLE BAND SYSTEM AND THE AN/VLQ-10 IS THE MULTI-BAND SYSTEM.

PM, FIREFINDER

SHORTSTOP ELECTRONIC PROTECTION SYSTEM (SEPS)



PROJECT MANAGER: LTC Thomas M. Cole, DSN 987-5018
COMM 908/427-5018

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE: 64270/DL18

DESCRIPTION: The SHORTSTOP is an Electronic Protection System (SEPS) designed to counter artillery and mortar proximity fuzes. The SEPS will be an electronic countermeasures system composed of a core Receiver/Transmitter and sufficient additional components to allow it to be configured in three distinct versions: Manpack; Stand-alone; and Vehicular. The SEPS EMD will provide for increased capability with lower weight and size than the systems predecessor, the AN/VLQ-9 Countermeasures Set.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The SHORTSTOP Manpack weight shall not exceed 25 lbs. The weight of vehicle mount or standalone configuration shall not exceed 50 lbs.

HISTORICAL BACKGROUND:

Jun 94 MS II Approval.
Jul 94 EMD Contract Award.

REQUIREMENTS DOCUMENT: June 94, Approved ORD, US Army Infantry School, Fort Benning, Georgia.

TYPE CLASSIFICATION: TBD.

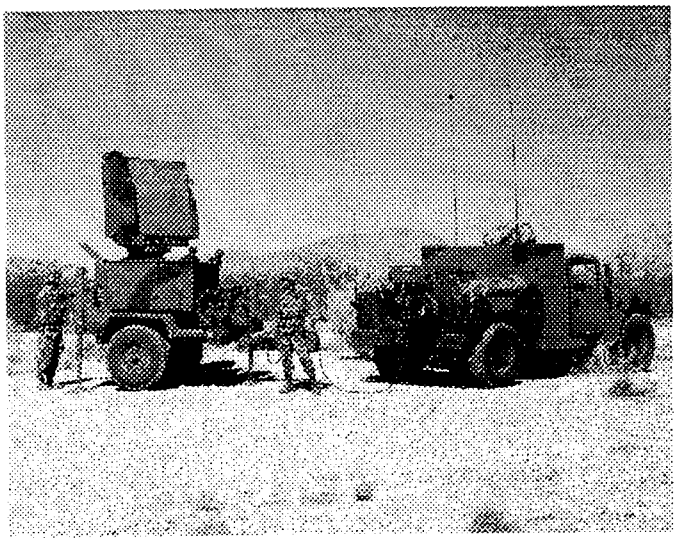
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
PPQT Contractor Test		2---4				
PPQT Government Test		4				
IOTE			4			
Milestone III				1		

SYNOPSIS: SHORTSTOP IS A MOBILE, ELECTRONIC COUNTERMEASURE SYSTEM DESIGNED TO PROTECT PERSONNEL AND HIGH VALUE TARGETS FROM THE MOST PREDOMINANT OF INDIRECT FIRE THREATS WITHOUT OPERATOR INTERVENTION. THE AN/VLQ-9 IS THE SINGLE BAND SYSTEM AND THE AN/VLQ-10 IS THE MULTI-BAND SYSTEM.

PM, FAAD SENSORS

PRODUCT MANAGER, FAAD SENSORS

GROUND BASED SENSOR (GBS)



PRODUCT MANAGER: LTC James A. Wells, DSN 788-1673
COMM 205/722-1673

ACQUISITION CATEGORY: IC
ACQUISITION PHASE: MS III Production

PE & LINE #: 64820.DE10 SSN: WK5053
NSN: 1430013699984

DESCRIPTION: The Ground Based Sensor (GBS) consists of a radar-based sensor system with its prime mover/power, IFF and FAAD Command and Control Intelligence (C2I) interfaces. The sensor is an advanced three dimensional battlefield X-band air defense phased-array radar with an instrumented range of 40 km. The GBS is capable of operating day or night, in adverse weather conditions, in the battlefield environments of dust, smoke, aerosols, and enemy countermeasures. It provides 360 degree azimuth coverage for acquisition and tracking. The GBS contributes to the digital battlefield by automatically detecting, tracking, classifying, identifying, and reporting targets (UAVs), rotary wing and fixed wing aircraft. Targets can be hovering to fast moving, as well as, from the nap of the earth to the maximum engagement altitude of FAAD weapons. Very accurate and quick reacting, GBS acquires targets sufficiently forward of the Forward Line of Own Troops (FLOT) to improve FAAD weapon reaction time and allow engagement at optimum ranges. The GBS integrated IFF reduces the potential for fratricide of Army Aviation and Air Force aircraft. Highly mobile and reliable, the GBS Anti-Radiation Missile and Electronic Counter-Measures resistant performance support Army Corps and Divisional Air Defense operations across the full spectrum of conflict.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: May be transported by UH-60, Sling loaded in Two-Sorties.

HISTORICAL BACKGROUND:

1986 JRMB approved Milestone Decision Review II/IIIA.
Feb 92 NDI contract award.
Dec 94 IOTE.
Jan 95 LRIP contract award.
Apr 95 Milestone III ADM signed.
Aug 95 JROC approval.

REQUIREMENTS DOCUMENT: FAAD GBS ORD, 26 Jun 95.

TYPE CLASSIFICATION: Standard.

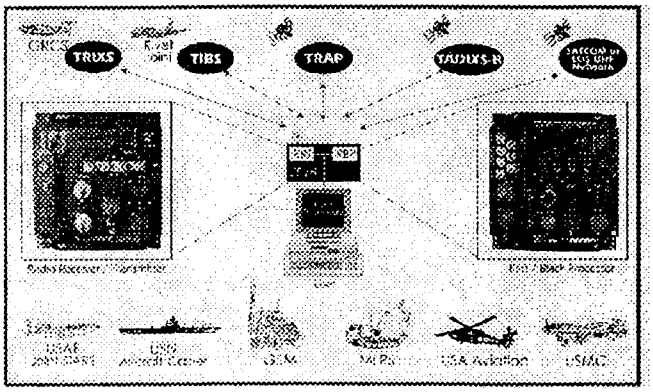
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Pre Production Testing	---2					
LRIP Production	2------	--------	----3			
Full Rate Production		2------	--------	--------	--------	--------
FUE Pre-Production Units	3					
FUE Preproduction Units			3			
Production Verification Test			1			
Task Force XXI		4-	--2			
P3I						1-------

SYNOPSIS: GBS IS AN NDI SYSTEM CAPABLE OF PROVIDING SEARCH AND TRACK FUNCTIONS AGAINST FIXED AND ROTARY WING AIRCRAFT.

PM, JSTARS

PM, JSTARS/JTT

JOINT TACTICAL TERMINAL (JTT)



PRODUCT MANAGER: COL James Mitchell, DSN 987-5165
COMM 908/427-5165

ACQUISITION CATEGORY: III
ACQUISITION PHASE: Low Rate Initial Production/Deployment

PE & LINE #: SSN: V29600
NSN: JTT Receiver only 5820-01-376-5621
NSN: JTT Full duplex 5895-01-383-1090

DESCRIPTION: The Joint Tactical Terminal is a family (three channel with one duplex (JTT/H) and three channel receive only (JTT/HR)) of special application UHF Line of Sight (LOS)/Satellite Communications (SATCOM) Secure Intelligence dissemination reporting system for deployment with tactical units. The system uses airborne and satellite relay platforms to provide three channels of robust, reliable, jam resistant targeting and intelligence data and voice connectivity throughout the battlefield. The terminals deliver critical time sensitive battlefield targeting information to tactical commanders and intelligence nodes at all echelons, in near real time (NRT) at collateral and system high security levels. The terminals provide direct, secure, and dedicated connectivity/interoperabilty for rapid targeting, threat avoidance, battle management/mission planning and sensor queing. The JTT/H and JTT/H-R are critical links in providing NRT intelligence to tactical commanders at all echelons to facilitate reaction inside the enemies decision loop.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The JTT is transportable by all means of transportation. The equipment can be mounted in fixed and rotary wing aircraft, surface, and fixed or mobile ground platforms and vehicles.

HISTORICAL BACKGROUND:

Jun 83 JSOR approved - Updated Apr 92.
May 88 Low Rate Initial Production (LRIP) Decisions.
Sep 89 Contract Management Transfer from USAF to US Army.
May 92 Production Baseline Changed from 1 Channel to 3 Channel.
Mar 93 Successful Completion of Operational Limited User Test (LUT).
Oct 93 Complete LRIP fielding to V Corps.
Mar 95 Complete CTT1 fielding to XVIII Corps.

REQUIREMENTS DOCUMENT: JSOR approved Jun 83 and revised 24 Apr 92 to include the CTT/H and CTT/H-R.

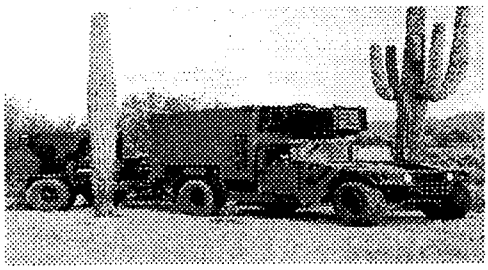
TYPE CLASSIFICATION: TC-STD 3QFY96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
CTT1 Fielding to XVIII Corps	1					
CTT 2 CH Fielding	3----	------4				
JTT CH Tech Test	1-------	----3				
JTT CH BFA Integ		1-----4				
JTT CH Fielding			1-------	--------	--------	--------

SYNOPSIS: JTT IS A SECURE INTELLIGENCE REPORTING DEVICE.

PM, JSTARS/JTT

JOINT STARS GROUND STATION MODULE/COMMON GROUND STATION



PROJECT MANAGER: COL James Mitchell, DSN 987-5165
COMM 908/427-5165

ACQUISITION CATEGORY: ID
ACQUISITION PHASE: MS II/III EMD/Prod/Deploy

PE & LINE #: 64770.D202 SSN: BA1080
NSN: MGSM 5865-01-338-0526
NSN: LGSM 5865-01-397-4213

DESCRIPTION: The Joint Surveillance Target Attack Radar System (STARS) Ground Station Module (GSM) is a Mobile Multisensor Imagery Intelligence (IMINT) Tactical Data Processing and Evaluation Center. GSM is a subcomponent of a joint Army/Air Force program whose other major component is the E-8 airborne platform. Joint STARS system is designed to detect, locate and track moving and stationary equipment ground targets located beyond the Forward Line of Troops (FLOT). The GSM processes data from the Joint STARS Aircraft Joint Tactical Terminals (JTT) and Unmanned Aerial Vehicles (UAV) and disseminates intelligence, battle management and targeting data to Army C3I nodes via wire or radio. This enables integrated battle management, surveillance, targeting and interdiction plans to be developed/executed using near real-time data. Two separate Block I GSM configurations exist. The Medium GSM (MGSM) is housed in a Standard 5280 shelter and mounted on a 5-ton truck. A lightweight, rapidly deployable variant, the Light GSM (LGSM) is housed in a Standard Integrated Command Post (SICPs) shelter and on a High Mobility Multipurpose Wheeled Vehicle (HMMWV). The MGSM and LGSM are both currently in Low Rate Initial Production (LRIP). The Follow-on GSM, also known as the Command Ground Station (CGS), is the next generation IEW system. Leveraging off the GSM open architecture and common module approach, the CGS will incorporate other sensor data providing tactical commanders a comprehensive and common view of the battlefield to aid in battle management, intelligence, and targeting operations.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: MGSM is C-17, C-141, and C5 transportable and is sling loadable via CH-47D. The LGSM/CGS is C-130 transportable and can be sling loaded by a CH-47D or CH-53E.

HISTORICAL BACKGROUND:

May 82	USDRE directed joint program combining AF's PAVE MOVER and Army's SOTAS programs.
Jul-Oct 90	Nine LPU GSMs fielded.
Nov 90	GSMs fielded to Operation Desert Storm.
May 92	LGSM EMD contract awarded.
Aug 93	MGSM LRIP Approved by Defense Acquisition Executive.
Sep 93	MGSM LRIP contract awarded.
Jul 95	LGSM LRIP contract awarded.

REQUIREMENTS DOCUMENT: ROC approved Apr 86; JSOR approved Nov 92; Revised ROC approved 18 Nov 92.

TYPE CLASSIFICATION: All GSMs currently designated Limited Procurement. TC Standard (Milestone III Scheduled 3Q98).

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
MGSM: LRIP Phase		----------	----3				
Fieldings			2-------	----3			
LGSM: EMD		----------	---2				
LRIP Phase		4----------		----3			
Fielding				3----	-1		
CGS: Production			1-------	----------	----------	----------	----------

SYNOPSIS: JSTARS GSM AND CGS ARE MOBILE, MULTISENSOR IMINT TACTICAL DATA PROCESSING AND EVALUATION CENTERS.

PM, NV/RSTA

PM, NV/RSTA

AN/AVS-6, AVIATION NIGHT VISION IMAGING SYSTEM (ANVIS)

PROJECT LEADER: Ms. Jennifer McCormick. DSN 654-3455
COMM 703/704-3455

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: K35601
NSN: 5855-01-138-4749

DESCRIPTION: The ANVIS is a lightweight, high performance passive third generation image intensifier system designed specifically for use by helicopter pilots during night flights including Nap-of-the-Earth (NOE) missions. ANVIS is designed to recognize terrain obstacles at an altitude of 200 feet and below, at a maximum speed of 150 knots, and at light levels down to overcast starlight. The system mounts on an SPH-4 helmet using a mount assembly that replaces the normal visor. When not in use, the binocular assembly can be flipped up and/or easily removed from the helmet if necessary. ANVIS consists of a binocular system with each monocular unit composed of an objective lens assembly, an 18mm (MX10160) third generation image intensifier tube assembly, and an eyepiece assembly. Fielding is two per attack helicopter (AH-1 only), three per utility helicopter, four per cargo helicopter (CH-47) and two per scout helicopter.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Shipping/storage case including contents. 15" x 15" x 8", Weight = 5 lbs. No special transportation requirements.

HISTORICAL BACKGROUND:

3QFY89	Accelerated production authorized, funding increased $7M in FY90 and FY91.
Feb 90	100% phase-in of improved fiber optics to correct distortion problem.
Mar 90	OMNIBUS II contracts awarded to ITT (6022 units) and EOS (formerly Varian, 4019 units).
Nov 92	OMNIBUS III Contracts awarded to ITT (600) and Litton (400)
Dec 93	First delivery under OMNIBUS III Contracts.

REQUIREMENTS DOCUMENT: Night Vision System for Army Aircraft - Approved 3 Jan 75.

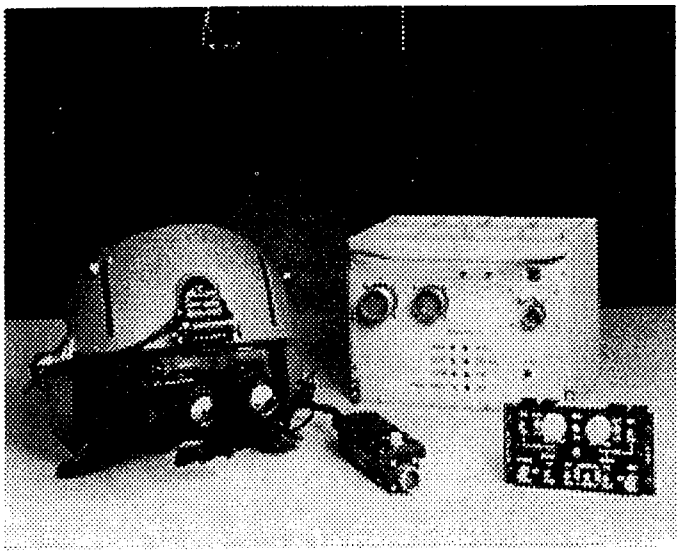
TYPE CLASSIFICATION: Standard approved Sep 82.

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Production OMNIBUS II	---2					
OMNIBUS III Deliveries	----------	----3				
OMNIBUS III Transition Date		4				
OMNIBUS IV Award (Scheduled)		2				

SYNOPSIS: ANVIS IS A LIGHTWEIGHT, HIGH PERFORMANCE PASSIVE THIRD GENERATION IMAGE INTENSIFIER SYSTEM DESIGNED SPECIFICALLY FOR HELICOPTER PILOTS DURING NIGHT FLIGHTS INCLUDING NOE MISSIONS.

PM, NV/RSTA

AN/AVS-7, AVIATION NIGHT VISION IMAGING SYSTEM/HEADS UP DISPLAY (ANVIS/HUD)



PROJECT LEADER: Mr. David Troxel, DSN 654-3452
COMM 703/704-3452

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: K35601
NSN: 5855-01-350-0349

DESCRIPTION: The Heads Up Display is a modification to the AN/AVS-6, Aviators Night Vision Imaging System. It will collect and display critical flight infomation from aircraft sensors and convert this information into visual imagery. This system will allow continuous heads-up flight by the pilot while reducing the pilots need to look inward at the flight instrument panel.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: B-Kit boxed (2 cubic ft), weight 20 lbs. A-Kit boxed (2 cubic ft), weight 20 lbs.

HISTORICAL BACKGROUND:

Sep 91 NDI Category B, contract award.
3Q94 CH-47 FOT&E Testing Completed.
3Q94 J&A approved for new aircraft type (CH53).
4Q94 Funded Program Year Three Basic and Options.

REQUIREMENTS DOCUMENT: Feb 91 update to Night Vision ROC.

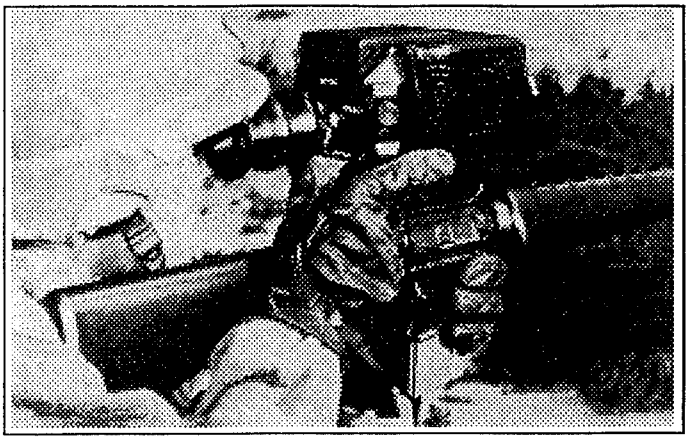
TYPE CLASSIFICATION: Standard for Blackhawk, 1QFY95.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
B Kit IPT Complete	1					
UH-60 A Kit IPT Complete	1					
FUE UH-60	1					
CH-47 A Kit IPT Complete	-------	-1				
FUE CH-47		2				
UH-60 Production/Install	1-------	-------	-------	-------	-1	
CH-47 Production/Install		1-------	-------	-----4		
Transition				4		
MH-60K A/B kit testing complete			1			
Installation			2-3			
MH-47E A/B kit testing complete			1			
Installation			2-3			

SYNOPSIS: ANVIS/HUD IS A MODIFICATION TO THE AVIATORS NIGHT VISION IMAGING SYSTEM AN/AVS-6 WHICH PROVIDES CONTINUOUS HEADS-UP FLIGHT BY THE PILOT.

PM, NV/RSTA

AN/PAS-13, THERMAL WEAPON SIGHT (TWS)



PROJECT LEADER: Mr. Paul Laster, DSN 654-3492
COMM 703/704-3492

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 64710.DL70 SSN: K22900
NSN: 5855-01-383-6558 (L)
5855-01-383-6544(H)

DESCRIPTION: The TWS is a class of low cost, light-weight, manportable infrared imaging devices of medium to high resolution to be used for surveillance fire control of individual and crew served weapons during both daylight and darkness. TWS will operate in adverse weather and battlefield scenarios containing light foliage, smoke, dust and camouflage. TWS will provide early warning, enhance the security of defensive positions, and facilitate offensive operations. The TWS System will be deployed world-wide. TWS replaces AN/PVS-4 and AN/TVS-5 weapon sights. Fielding is three per infantry squad, infantry and other select units.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

1981 Advanced Development contracts were awarded to Hughes Aircraft Company (HA) and Rockwell International (RI).
1987 Four Advanced Development units delivered (HA only); DT/OT I initiated and completed.
1989 Acquisition Plan approved; O&O Plan encompassing TWS and Short Range Thermal Sight (SRTS) capabilities approved; SRTS/TWS thermal technologies successfully demonstrated in Panama under full jungle canopy per SOUTHCOM request.
1990 Engineering and Manufacturing Development (EMD) contract awarded to Hughes Aircraft Company.
1994 Completed ARTIC DT at Fort Greely, TROPIC DT at Panama, SMOKE DT at DPG, and ARID DT at WSMR, NM.
1994 Completed Limited User Test at Fort Polk, LA.

REQUIREMENTS DOCUMENT: ORD, 1994.

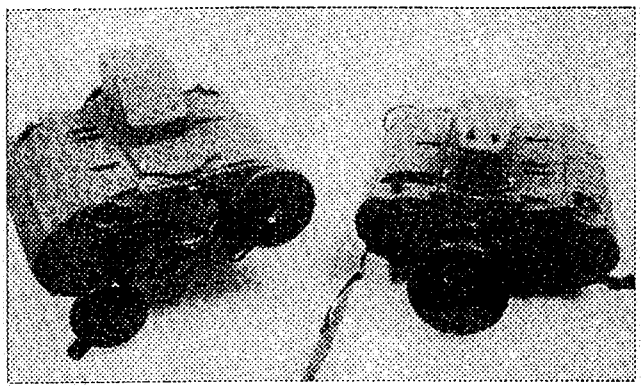
TYPE CLASSIFICATION: Low Rate Production (LRP) schedule for 2QFY95 @ LRIP IPR.

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00	01
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
SIPR/TC LRP	2						
Low Rate Production Contract Award	2						
IPT		2					
Deliveries		2------	--------	-1			
IOTE		4					
MSIII		4					
Production Contract Award			3				
Deliveries				2------	--------	--------	--------

SYNOPSIS: TWS IS A CLASS OF LOW COST, LIGHTWEIGHT, INFRARED IMAGING DEVICES OF MEDIUM TO HIGH RESOLUTION TO BE USED FOR FIRE CONTROL OF INDIVIDUAL AND CREW SERVED WEAPONS DURING BOTH DAYLIGHT AND DARKNESS.

PM, NV/RSTA

AN/PVS-6, MINI EYESAFE LASER INFRARED OBSERVATION SET (MELIOS)



PROJECT LEADER: Mr. Neal Graber, DSN 654-3491
COMM 703/704-3491

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 644710.DL70 SSN: B53800
NSN: 5860-01-350-8551

DESCRIPTION: The MELIOS will provide the individual soldier with accurate range azimuth and vertical angle determination to provide target acquisition data for direct and indirect weapons systems in eyesafe mode. MELIOS will replace the AN/GVS-5 Laser Infrared Observation Set. AN/GVS-5 is not eyesafe. MELIOS is designed for ranges out to ten kilometers with plus or minus five meter accuracy. It operates in the eyesafe wavelength region allowing maximum use by units in training and tactical exercises. A compass/vertical angle measurement (C/VAM) capability has been added to MELIOS in addition to the range capability. MELIOS will increase first round hit probabilities during battlefield engagements, expedite target acquisition and provide accurate ranges for Ground-to-Air Defense. It will enhance the effective conduct of reconnaissance, surveillance and terrain navigation. It will be carried in a small, water resistant padded pouch that is attachable to the soldier's web gear. Fielding is one per infantry squad, other distribution to combat, SOF and combat support units to be determined.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Carry Case: 6" x 12" x 14", 6 lbs. Shipping Case: 13 lbs.

HISTORICAL BACKGROUND:

Sep 83 Two Cost Plus Fixed Fee contracts awarded.
Sep 88 Development Production Prove-Out contract award.
Jul 91 OT-II successfully completed: Efforts to insert compass/vertical angle measurement restarted.
Dec 92 Milestone III approval.
Apr 94 MELIOS FUE.
Apr 95 C/VAM qualified.

REQUIREMENTS DOCUMENT: ROC, Feb 87.

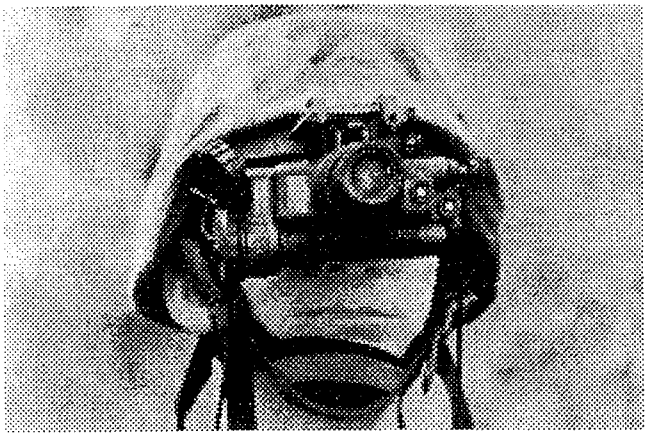
TYPE CLASSIFICATION: Standard approved 4QFY94.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00	01
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition		4					
Production/Deliveries	----------	----------	--2				

SYNOPSIS: MELIOS IS DESIGNED TO MEET ALL RANGING REQUIREMENTS OF THE INFANTRY AND SELECTED REQUIREMENTS OF OTHER BRANCHES AND SERVICES OUT TO RANGES OF 10KM WITH PLUS OR MINUS 5M ACCURACY.

PM, NV/RSTA

AN/PVS-7A and AN/PVS-7B, NIGHT VISION GOGGLES



PROJECT LEADER: Mr. John Spadafore. DSN 654-3456
COMM 703/704-3456

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: K36400
NSN: 5855-01-228-0939 (A)
5855-01-228-0937 (B)

DESCRIPTION: The AN/PVS-7A and AN/PVS-7B are lightweight, high performance passive third generation image intensifier systems. The goggle assembly is a headmounted self-contained night vision system containing one biocular unit consisting of an objective lens assembly, an image intensifier tube, a housing assembly, and a binocular eyepiece assembly. The housing is mounted to a face mask assembly which is held by head straps to the user's head. The assembly incorporates an infrared (IR) light source which provides illumination, to permit close-in-viewing. Fielding is five per infantry squad/battalion and 75 per Infantry company. AN/PVS-7A and AN/PVS-7B are single tube Image Intensifier systems which replace the earlier AN/PVS-5 binocular second generation image intensifier goggle. All AN/PVS-7B systems are presently being delivered with third generation tubes (MX-10130). The AN/PVS-7A is no longer being procured.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Weight = 680 g.

HISTORICAL BACKGROUND:

Dec 85 Five year multi-year production contracts awarded to ITT/Varo Joint Venture (AN/PVS-7B) and Litton (AN/PVS-7A).
Feb 88 Initial fielding to 7th ID Ft. Hood.
Feb 89 Life Cycle Cost Study indicated no preference for AN/PVS-7A over the AN/PVS-7B.
Mar 90 Three-year Production contract awarded to ITT and EOS.
Nov 92 Five year multi-year production contracts awarded to ITT and Litton.
Dec 93 First delivery under OMNIBUS III Contracts.

REQUIREMENTS DOCUMENT: TRADOC ACN 36829, 21 Jan 82.

TYPE CLASSIFICATION: Standard approved Feb 88.

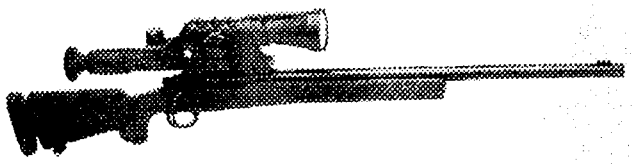
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
OMNIBUS II Production	—2					
Transition			4			
OMNIBUS III Production	———	———	———	——4		

SYNOPSIS: AN/PVS-7 IS A HEADMOUNTED SELF CONTAINED NIGHT VISION GOGGLE FOR CLOSE-UP VIEWING BY THE INDIVIDUAL SOLDIER TO PERFORM TASKS AT NIGHT.

PM, NV/RSTA

AN/PVS-10, SNIPER DAY/NIGHT SIGHT (SD/NS)

PROJECT LEADER: Ms. Jennifer McCormick, DSN 654-3455
COMM 703/704-3455



ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE: SSN: K41500
NSN: 5855-01-410-8979

DESCRIPTION: The Sniper Day/Night Sight (SD/NS) is an integrated day/night sight for the M24 Sniper Rifle. The SD/NS provides the sniper the capability to acquire and engage targets during low and high ambient light conditions. For nighttime operation, the SD/NS utilizes third generation image intensification technology. For day use, the SD/NS is a direct view system. The system mounts to the existing rail of the M24 and uses the same mil-dot reticle as the existing Leupold day scope. The magnification for day and night operation is a 8.5X. The system's maximum weight is 4.90 pounds. It also includes adjustments for output brightness, reticle illumination and a day/night selector switch.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Shipping/storage case including contents: 16" x 10" x 6", 7 lbs.
No special transportation requirements.

HISTORICAL BACKGROUND:

FY92 SEP Program Managed by PM Small Arms.
Sep 92 Production Management Transitioned to PM, NV/RSTA.
Aug 93 SNS Requirements Finalized by USAIS.
Nov 93 RFP Issued.
Apr 94 Milestone I/III (TC Generic) IPR Approved
Apr 94 Contract Award to VARO, Inc. (now Litton).

REQUIREMENTS DOCUMENT: Aug 93 - Changes to M24 SWS Letter Requirement (1986).

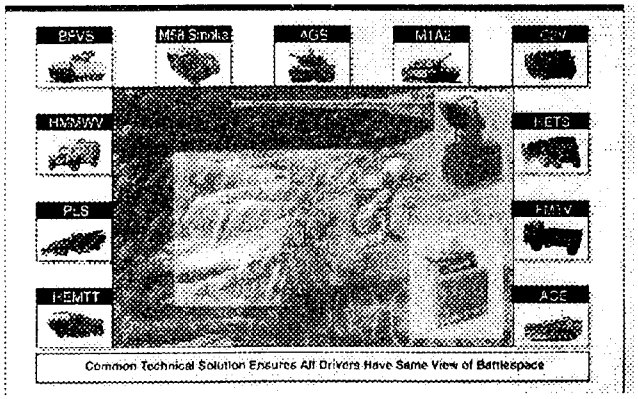
TYPE CLASSIFICATION: Generic (Apr 94), Standard (Apr 96).

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
IPT		1				
LUT		1				
Deliveries		3------	--1			
Transition Date		4				

SYNOPSIS: THE SNIPER DAY/NIGHT SIGHT (SD/NS) IS AN INTEGRATED DAY/NIGHT SIGHT FOR THE M24 SNIPER RIFLE.

PM, NV/RSTA

AN/VAS-5, DRIVER'S VISION ENHANCER (DVE)



PROJECT LEADER: Mr. Donald A. Ferrett. DSN 654-3467
COMM 703/704-3467

ACQUISITION CATEGORY: III
ACQUISITION PHASE: SIPR Limited Procurement

PE & LINE #: 64710DL70 SSN: K31300
NSN: 5855-01-394-7125 (W)

DESCRIPTION: DVE is a passive thermal imaging system designed to provide drivers of combat and wheeled vehicles with the capability to continue normal driving operations in all ambient light levels and in the presence of natural and man-made obscurants. Operations must continue in all light levels, weather, and battlefield obscurant conditions. Thermal driving devices were shown to enhance operational capabilities during Operation Desert Storm.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jul 93 Tactical Wheeled Vehicle (TWV) ORD Approval.
Jul 93 Milestone I/II.
Aug 93 NDI Contracts Awarded.
Jan 94 Combat Vehicle Configuration Contract Award.
Apr 94 USA-USMC MOU Signed.
Jun-Aug 94 Engineering Models delivered.

REQUIREMENTS DOCUMENT: Tactical Wheeled Vehicle (TWV) ORD Approved 18 Jul 93. Vehicle ORDs: M1A2, BFVS, AGS I FLIR ORD.

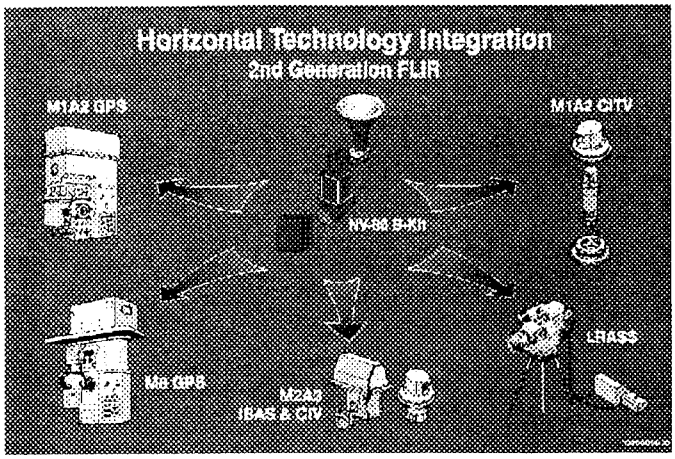
TYPE CLASSIFICATION: LP 4QFY95 (At SIPR) STD 1QFY97 (At MS III).

EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00				01			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
NDI Integration	---	2																										
PQT-1/4E	2	3																										
SIPR			4																									
LP Phase			4	-	-	-	-	-	-	-	4																	
MS III									1																			
Full Production									2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SYNOPSIS: DVE IS A PASSIVE THERMAL IMAGING SYSTEM DESIGNED TO PROVIDE DRIVERS OF COMBAT AND TACTICAL WHEELED VEHICLES WITH THE CAPABILITY TO CONTINUE OPERATIONS IN ALL AMBIENT LIGHT LEVELS AND IN THE PRESENCE OF NATURAL AND MAN-MADE OBSCURANTS.

PM, NV/RSTA

HORIZONTAL TECHNOLOGY INTEGRATION SECOND GENERATION FLIR (HTI SGF)



PRODUCT MANAGER: LTC Joseph Mackin, DSN 654-1192
COMM 703/704-1192

ACQUISITION CATEGORY: II
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE: 0604710A SSN: K30400

DESCRIPTION: The Army Horizontal Technology Integration of a Second Gen FLIR (HTI SGF) will enable the Army to insert a common second generation thermal sensor into its highest priority battlefield platforms (the M8 Armored Gun System, the M2A3 Bradley Fighting Vehicle System, the M1A2 Abrams and Long Range Advanced Scout Surveillance System (LRAS3). The HTI SGF program will concurrently develop an "A" kit, which is specific to each candidate vehicle, and includes the integration and installation, and the "B" kit, which includes the common Forward Looking Infrared (FLIR) sensor.

In the future, the HTI SGF Common FLIR may be converted for use in other platforms, including fixed and rotary wing aircraft.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

3 Feb 93 Second HTI DA Task Force Established.
3 Jul 94 EMD Contract Awarded.
7 Jul 94 ASARC Completed.
30 Jun 95 CDR completed.

REQUIREMENTS DOCUMENT: Improved FLIR ORD dtd 9 Dec 93.

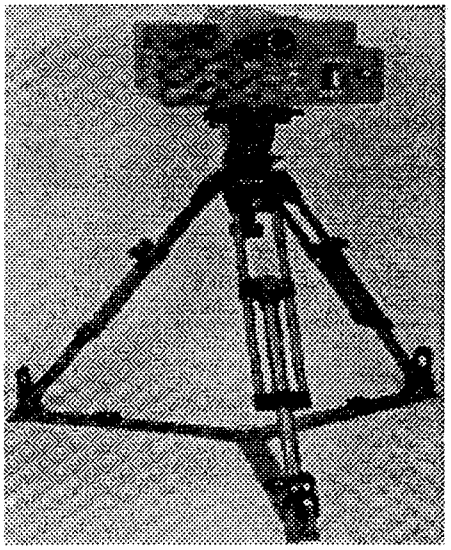
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
CDR	2					
M2A3 Testing		3				
M1A2 Testing		4				
DA IPR for "B" Kit LRIP Decision			3			
MIA2 LRIP Decision				1		
M/S III Decision				3		
FUE						4

SYNOPSIS: SECOND GEN FLIR WILL UPGRADE M1A2, M2A3, M8 TO DOUBLE THE ID RANGE AND INCREASE TARGET RECOGNITION BY 94%.

PM, NV/RSTA

LIGHTWEIGHT LASER DESIGNATOR RANGEFINDER (LLDR)



PROJECT LEADER: MAJ Byrnside, DSN 654-2915
COMM 703-704-2915

ACQUISITION CATEGORY: III
ACQUISITION PHASE: NDI

PE & LINE #: 654710.DL70

DESCRIPTION: The Lightweight Laser Designator Rangefinder (LLDR) is a man portable laser target designator for laser guided bombs and precision guided munitions. Capabilities include rangefinding, target location, self-location, day/night operations, and data export capabilities for use by Light Forces. The system is an NDI integration of a laser designator, eyesafe, laser rangefinder, electronic compass, thermal imager, CCD camera, GPS receiver, and microprocessor. The system is tripod mounted and is battery powered. The LLDR is configured such that it can be carried by two soldiers and operated by one. The total system weight is less than 30 pounds, distributed in two 15 pound loads.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Two 15 lb. Man portable Loads (not including shipping cases).

HISTORICAL BACKGROUND:

Jul 92 Market Survey.
Feb 94 ORD Approval.
Sep 95 Advanced Demonstrator system contract award.

REQUIREMENTS DOCUMENT: ORD approved Feb 94.

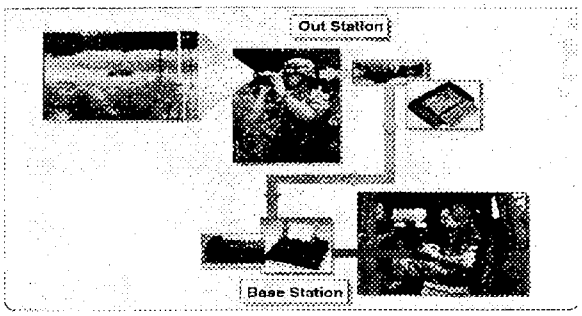
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Preliminary Design Review		1				
Critical Design Review		2				
Pre-test Review		4				
Delivery of Demonstrator			1			

SYNOPSIS: LLDR IS A MANPORTABLE LASER TARGET DESIGNATOR, RANGEFINDER AND LOCATOR WITH DAY/NIGHT CAPABILITY.

PM, NV/RSTA

LIGHTWEIGHT VIDEO RECONNAISSANCE SYSTEM (LVRS)



PROJECT LEADER: Tim McCaffrey, DSN 654-3466
COMM 703-704-3466

ACQUISITION CATEGORY: III
ACQUISITION PHASE: I/III

PE & LINE #: SSN: K30800

DESCRIPTION: The LVRS consists of a manportable Out Station and a vehicle mounted Base Station. The Out Station is used by surveillance or reconnaissance teams to capture, compress and transmit still frame images over SINCGARS military radios to the Base Station located at a higher echelon. Base Stations will have the capability to exchange still frame images with other Base Stations. The Out Station consists of the following components: high resolution video day/night camera incorporating an image intensifier tube for nighttime operations; handheld terminal unit (HTU) used to capture, annotate, and compress images. Image compression is performed using the NITFS 2.0 standard format (JPEG). The protocol is TACO2 with Forward Error Correction (FEC) to assure error free transmission. The Base Station consists of a ruggedized workstation capable of image reception, decompression, image processing, printing, compression, and re-transmission over SINCGARS.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Out Station - Transit Case 6" x 24" x 36", 25 lbs. Base Station - Transit Cases (2) 6" x 24" x 36", 25 lbs; 12" x 24" 50lbs.

HISTORICAL BACKGROUND:

Dec 92 SEP Program began.
Nov 94 Management transferred to PM-NV/RSTA from PM-Soldier.

REQUIREMENTS DOCUMENT: Simplified ORD dated 23 Dec 92.

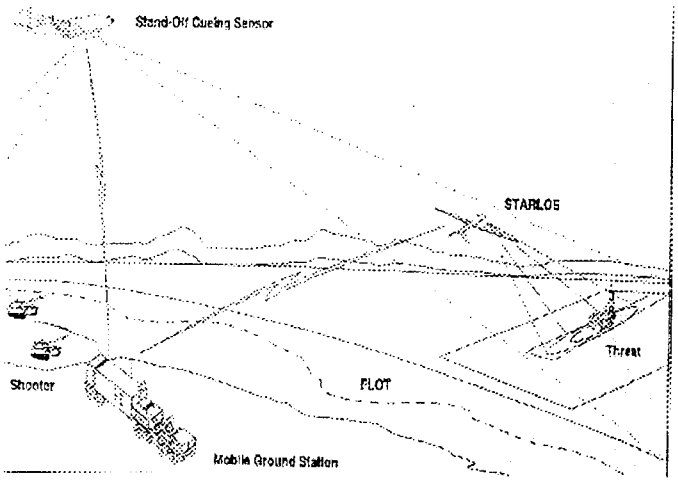
TYPE CLASSIFICATION: Generic Approved.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract award	4					
First Delivery (IPT Units)		2				
IPT Testing		2				
IOT&E Testing		2				
Milestone III - TC Standard		4				
FUE		4				

SYNOPSIS: LVRS CONSISTS OF A MANPORTABLE OUT STATION AND A VEHICLE MOUNTED BASE STATION. THE OUT STATION IS USED BY SURVEILLANCE OR RECONNAISSANCE TEAMS TO CAPTURE, COMPRESS, AND TRANSMIT STILL FRAME IMAGES OVER MILITARY RADIOS TO THE BASE STATION LOCATED AT A HIGHER ECHELON.

PM, NV/RSTA

SAR TARGET RECOGNITION AND LOCATION SYSTEM (STARLOS)



PRODUCT MANAGER: LTC Steven Horner, DSN 987-5816
COMM 908/427-5816

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 0603012.DC24, 0603238.D182/D546

DESCRIPTION: STARLOS is a technology program whose goal is to demonstrate the feasibility of identifying and locating high value targets from an aerial platform such as a UAV in support of the Deep Attack Mission. The program focus has been on Short Range, surface-to-surface Ballistic Missiles (SRBM); Transporter-Erector-Launchers (TELs), and Resupply Vehicles (RSVs). As new threats have emerged, new targets have been added; including rocket launchers and surface-to-air missile launchers. The targets are located with great precision by a Synthetic Aperture Radar (SAR), and positively identified with a high probability by a real-time Automatic Target Recognition (ATR) System. The STARLOS system has the capability to provide precision targeting information to a designated weapon for attack and destruction. The program has become a major component of the Joint Precision Strike Program.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND: STARLOS was a Special Access Program that has recently been shifted into the secret collateral world. It is an Advanced Technology Demonstration (ATD) program managed by PM TESAR.

- o Integrate/Test Hardware/Software for FY94 expanded system.
- o Demonstrated expanded capability and supported JPSD Surface-to-Surface Demo.
- o Integrate mild CC&D algorithms into enhanced hardware.
- o Support Technology Transfer of SAR subsystem for JCS UAV program.
- o Initiated ATR/MAE UAV SAR interoperability studies.

REQUIREMENTS DOCUMENT: Airborne Automatic Target Recognition System, approved USAIS, 12 Nov 93.

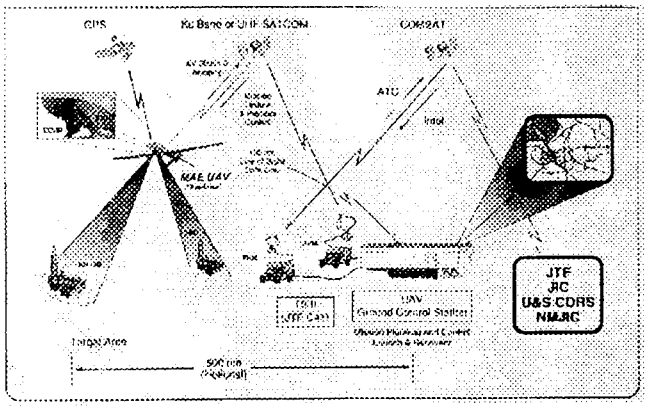
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Award Contract for COTS System		1				
Participate in TPSD Exercise		1				
Demo ATR/ATC capability w/MAE UAV		2				
Demo ATR/ATC capability w/MSTB		3				
Define HTI Architecture			2			
Procure HTI COTS Systems			2			
Participate in TF XXI			2			
COTS H/W Delivered			3			
Demo EMD ATR/ATC Prototypes				2		
Build Industry COTS systems for HTI				2		
P3I Technology Insertion				3		

SYNOPSIS: STARLOS WILL PROVIDE REAL-TIME SAR ATR/ATC CAPABILITIES. THESE CAPABILITIES WILL ASSIST/ENHANCE COLLECTION MANAGERS' EFFECTIVENESS AND WILL ALLOW TIMELY AND ACCURATE ENGAGEMENT OF HIGH PAYOFF/VALUE TARGETS.

PM, NV/RSTA

TACTICAL ENHANCED SYNTHETIC APERTURE RADAR (TESAR)



PRODUCT MANAGER: LTC Steven Horner, DSN 987-5816
COMM 908/427-5816

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE:

DESCRIPTION: TESAR was developed as a payload for the Medium Altitude Endurance (MAE) Unmanned Aerial Vehicle (UAV) Advanced Concept Technology Demonstration (ACTD).
The TESAR payload subsystem is a 0.3 meter resolution synthetic aperture radar capable of providing near real time, most weather, continuous strip map imagery. The subsystem consists of three major components: processor assembly, antenna, and receiver / transmitter assembly. The scope of this effort is to design, develop and fabricate ten synthetic aperture radar payloads to be integrated into the Predator UAV and three sets of ground control station elements to be integrated into the Predator ground control station.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

30 Nov 93 DA and PEO Cruise Missiles designated PM-TESAR with the management of the development and integration responsibility of the synthetic aperture radar sensor into a medium altitude endurance (MAE) unmanned aerial vehicle (UAV).
9 Mar 94 Contract Awarded.
30 Sep 94 Accomplished TESAR design; initiated start of test program.
9 Aug 94 Accomplished PDR & CDR within 5 months of award.
31 Jan 95 Initiated build of 1st unit SAR and GCS.

REQUIREMENTS DOCUMENT: Statement of Urgency signed by the Under Secretary of Defense for Research and Development, John M. Deutch, 12 Jul 93.

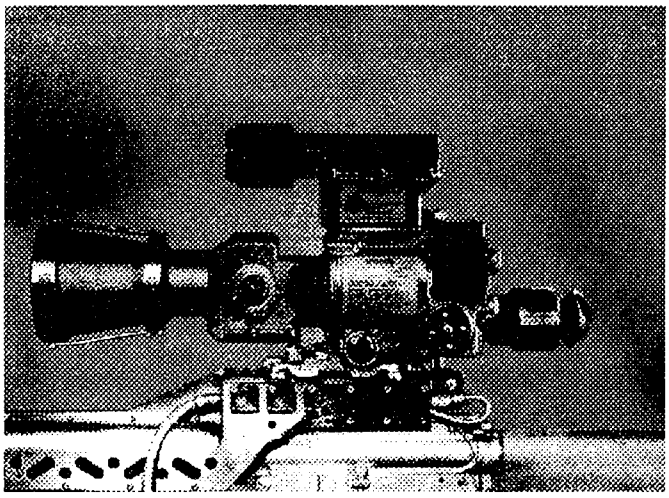
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Payload Fab, Assembly, and Testing Complete	4					
GCS Fab, Assembly, and Testing Complete	4					
System Integration		2				
Flight Testing		2				
Acceptance Testing		2				
Delivery Completed		2				

SYNOPSIS: MAE UAV ACTD IS TO QUICKLY SATISFY THE MILITARY NEED OF LONG DWELL COVERAGE AND RECONNAISSANCE OF SMALL MOBILE OR FIXED TARGETS AND SECONDLY TO DEVELOP CONCEPTS OF OPERATION FOR ENDURANCE UAV'S.

PM, NV/RSTA

AN/PXX-X TARGET ACQUISITION SYSTEM (TAS)



PROJECT LEADER: Mr. Kevin Hunt. DSN 654-1151
COMM 703/704-1151

ACQUISITION CATEGORY: III
ACQUISITION PHASE: Production

PE & LINE #: KA3500 K38400

DESCRIPTION: The TAS allows the individual soldier to find threat optical and electro-optical surveillance devices located on tanks, scouts, snipers, etc. Location of these devices will enhance the effectiveness for U.S. forces. TAS also has capability to provide covert illumination for fire direction, improved night vision sighting and landing zone marking. P3I TAS will include rangefinding, target location, video, and digital battlefield capability.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Weapon mounted, Manportable.

HISTORICAL BACKGROUND:

1991 Program initiated as part of Laser Countermeasures System.
Dec 95 TAS program approved by OSD.

REQUIREMENTS DOCUMENT: Required Operational Capability (ROC) 12 Sep 91.

TYPE CLASSIFICATION: Standard 2QFY96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Production Award	4					
SIPR, Restructure		2				
Restructure Contract		2				
IPT/FAT		4--	--1			
Production			3---	----------	----------	----------
FUE			4			

SYNOPSIS: TAS IS AN ACTIVE/PASSIVE, DAY/NIGHT SIGHT TO PROVIDE THE SOLDIER CAPABILITY TO LOCATE THREAT OPTICS.

PM, SW

PM, SW

ADVANCED QUICKFIX (AQF)

MANAGER: Mr. James Hunt. DSN 229-6768
COMM 540/349-6768

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 0604270/DL12, AB3000

DESCRIPTION: Advanced QUICKFIX (AQF) provides Division and ACR commanders with an organic capability to listen to, locate for hard-kill targeting or order-of-battle resolution, or render ineffective through jamming opposition command and control and fire control nets and identify and locate counter/mortar, counter/battery, ground surveillance and other radar emissions. Configured in a BLACKHAWK Helicopter, it provides the line of sight (LOS) extension necessary to provide for location accuracies sufficient for "Steel on Target" requirements, as well as for extension of C2 Jamming LOS.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Self Transportable.

HISTORICAL BACKGROUND:

Sep 91 AQF integration contract awarded.
Nov 92 Conducted Critical Design Review (CDR).
Sep 95 Customer test.

REQUIREMENTS DOCUMENT: AQF ORD, Oct 92.

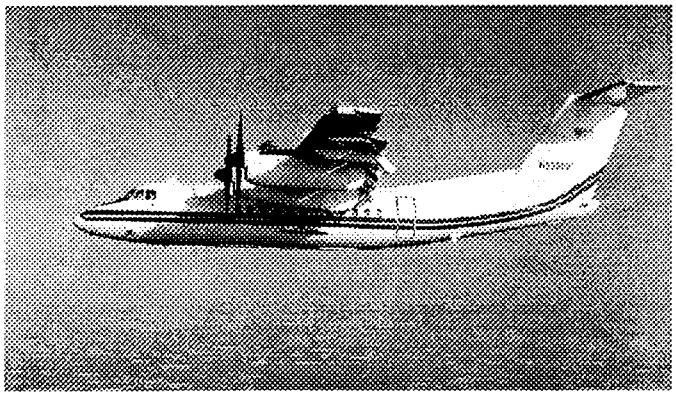
TYPE CLASSIFICATION: Low Rate Initial Production, Nov 95.

EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
OC/DT				4																				
Award Contract for Engine Upgrade	1																							
Award Low Rate Initial Production Contract					1																			
Field to Task Force XXI					2																			
IOT&E									3															
MS III												4												
Award Full Scale Production Contract													1											

SYNOPSIS: AQF IS A HELIBORNE ELECTRONIC ATTACK, SIGNALS INTELLIGENCE, AND EMITTER TARGETTING SYSTEM.

PM, SW

AIRBORNE RECONNAISSANCE LOW (ARL)



PRODUCT MANAGER: LTC S. M. Niemiec, DSN 229-5189
COMM 540/349-5189

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 35150, A11500

DESCRIPTION: ARL is a multifunction, day/night, all weather reconnaissance intelligence asset developed and fielded by the Army in support of an urgent requirement for a low profile intelligence aircraft. ARL is a modified DHC-7 fixed wing aircraft with a core SIGINT and IMINT mission payload controlled and operated via onboard open architecture, multifunction workstations. The SIGINT subsystem has a HF/VHF/UHF intercept and direction finding (DF) capable Electronic Support Measures (ESM) system. The IMINT subsystem is equipped with infrared line scanner (IRLS), forward looking infrared (FLIR), and daylight imaging system (DIS). The ARL system has been developed to accommodate diverse mission requirements through the implementation of an open architecture, modular, reconfigurable mission sensors. The core complement of sensors may be augmented with low-light level TV (LLTV), MTI cueing radar, Synthetic Aperture Radar (SAR), multi-spectral camera, acoustic range extension system, precision targeting subsystem, and remote configuration using a direct air-to-satellite datalink.

Currently, there are three interim capable ARL systems fielded with the 470th MIBN(LI), Howard AFB, Panama to support SOUTHCOM requirements. These fielded systems are in two different configurations: two for performing signals intelligence (SIGINT) missions (ARL-C) and one for performing imagery intelligence (IMINT) missions (ARL-I). Subsequently fielded systems will consist of a multiple mission configuration (ARL-M)-- each platform having the capability to perform both an IMINT and SIGINT mission.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Self Transportable/Self Sustainable.

HISTORICAL BACKGROUND:

May 90 JCS validated Grisly Hunter and ARDF Requirements.
Nov 90 Congress mandated combining of Grisly Hunter and ARDF into a single program called Airborne Reconnaissance Low.
Apr 91 ARL-C and ARL-I Contracts Awarded.
Apr 93 Delivery of first ARL production system.
Jul 93 MSIII Decision for Production of 9 ARL-M.
Sep 93 Multifunction option exercised.
Jun 94 Successful CDR/IPR.

REQUIREMENTS DOCUMENT: Grisly Hunter Revised SON approved Mar 90. ARDF SON approved Apr 90.

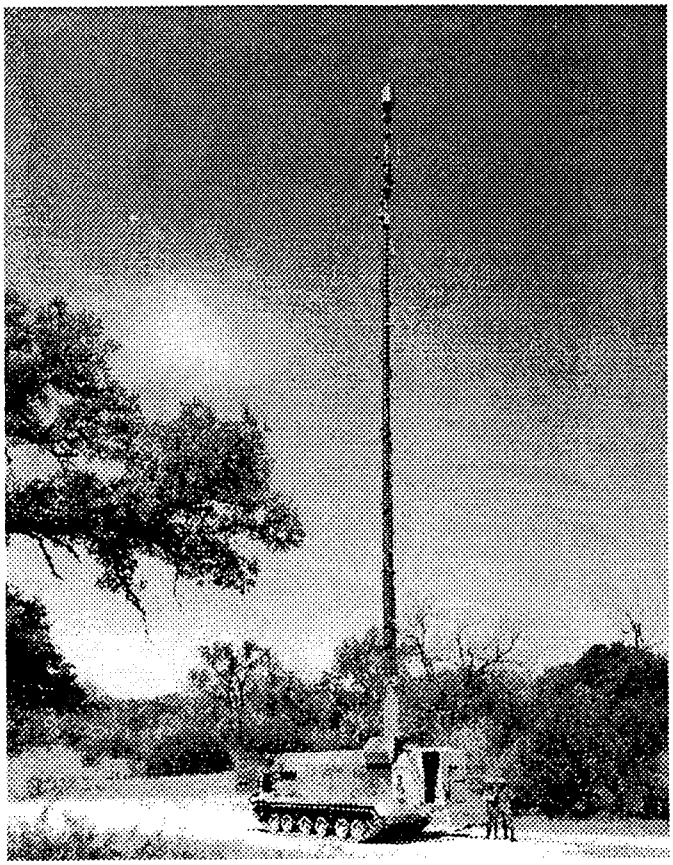
TYPE CLASSIFICATION: LPU approved May 90; TC Standard expected Jun 96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Systems 4-5 FOC	----------	------3				
System 6 FOC	1----------	----------	-1			

SYNOPSIS: ARL IS A MULTIFUNCTION, DAY/NIGHT, ALL WEATHER RECONNAISSANCE INTELLIGENCE ASSET DEVELOPED AND FIELDED BY THE ARMY IN SUPPORT OF AN URGENT REQUIREMENT FOR A LOW PROFILE INTELLIGENCE AIRCRAFT.

PM, SW

AN/MLQ-38, GROUND BASED COMMON SENSOR HEAVY (GBCS-H)



PRODUCT MANAGER: LTC F. Drummond Taylor.
DSN 229-6771
COMM 540/349-6771

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 0604270/DL12 and 0305885, BZ7326

DESCRIPTION: GBCS-H provides commanders of Armored and Mechanized Infantry Divisions with an organic capability to listen to, locate for hard-kill targeting or order-of-battle resolution, or render ineffective through jamming opposition command and control and fire control nets and identify and locate counter/mortar, counter/battery ground surveillance radar emissions. The system is specifically designed to ensure transportability, prime mover maintainability, and over terrain mobility equal to or greater than supported units, while at the same time exploiting or eliminating - at the supported Commander's discretion - the latest, most modern types of hostile modulations and transmission techniques at the key time and place on the battlefield. GBCS-H is the Army's only on-the-move, on-the-ground, all weather, all terrain, self-contained, fully integrated, 24-hour-a-day signals intelligence and electronic warfare asset.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Transportable up to 40,000 feet above sea level and by rail, highway, and water means with system degradation. Roll-on, roll-off capability for C-5.

HISTORICAL BACKGROUND:

Sep 91 GBCS-H integration contract awarded.
Nov 92 Conducted Critical Design Review (CDR).
Sep 95 Participated in AQF Customer Test.

REQUIREMENTS DOCUMENT: IEW GBCS TOC, Oct 90.

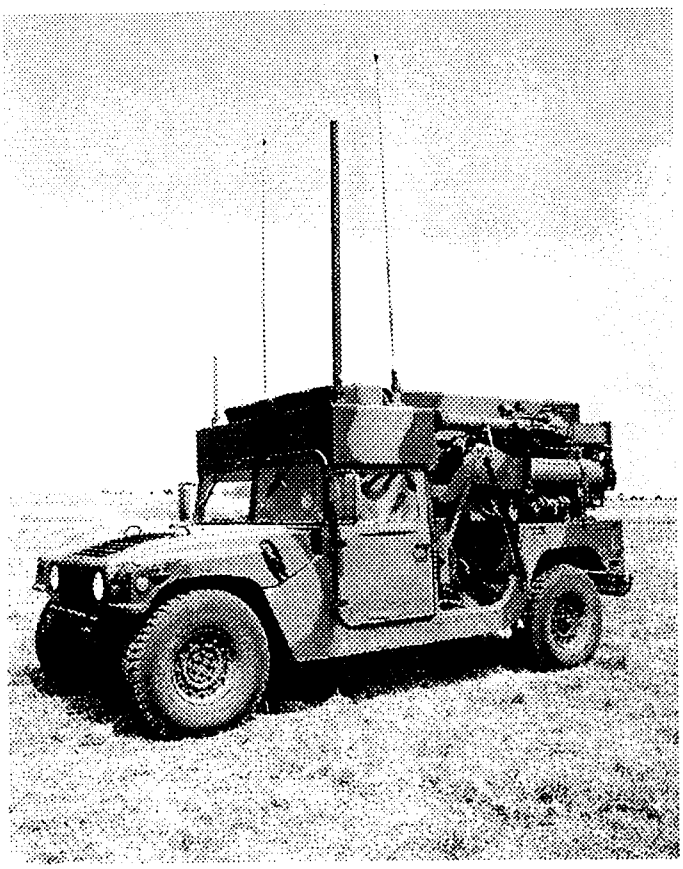
TYPE CLASSIFICATION: Standard, Sep 98.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
OC/DT				2		
LUT				3		
Award Production Contract						1

SYNOPSIS: GBCS-H IS A HIGHLY SURVIVABLE, HIGH CAPACITY, ELECTRONIC ATTACK, SIGNALS INTELLIGENCE AND EMITTER TARGETING SYSTEM.

PM, SW

AN/MLQ-39, GROUND BASED COMMON SENSOR LIGHT (GBCS-L)



PRODUCT MANAGER: LTC D. Meriwether, DSN 229-7071
COMM 540/349-7071

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE #: 0604270/DL12 and 0305885, BZ7326

DESCRIPTION: GBCS-L provides Commanders of Light, Airborne, and Air Assault Divisions with an organic capability to listen to, locate for hard-kill targeting or order-of-battle resolution, or render ineffective through jamming opposition command and control and fire control nets and identify and locate counter/mortar, counter/battery ground surveillance radar emissions. The system is specifically designed to ensure transportability, prime mover maintainability, and over terrain mobility equal to or greater than supported units, while at the same time exploiting or eliminating - at the supported Commander's discretion - The latest, most modern types of hostile modulations and transmission techniques at the key time and place on the battlefield.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Transportable up to 40,000 feet above sea level and by rail, highway, and water means with system degradation. Must have roll-on, roll-off capability for C-130. Must be transportable by sling-loading by CH-47 or large helicopters.

HISTORICAL BACKGROUND:

Sep 91 GBCS-L integration contract awarded.
Nov 92 Conducted Critical Design Review (CDR).
Jul 94 Customer Test.
Sep 95 Participated in AQF Customer Test.

REQUIREMENTS DOCUMENT: IEW GBCS ROC, Oct 90.

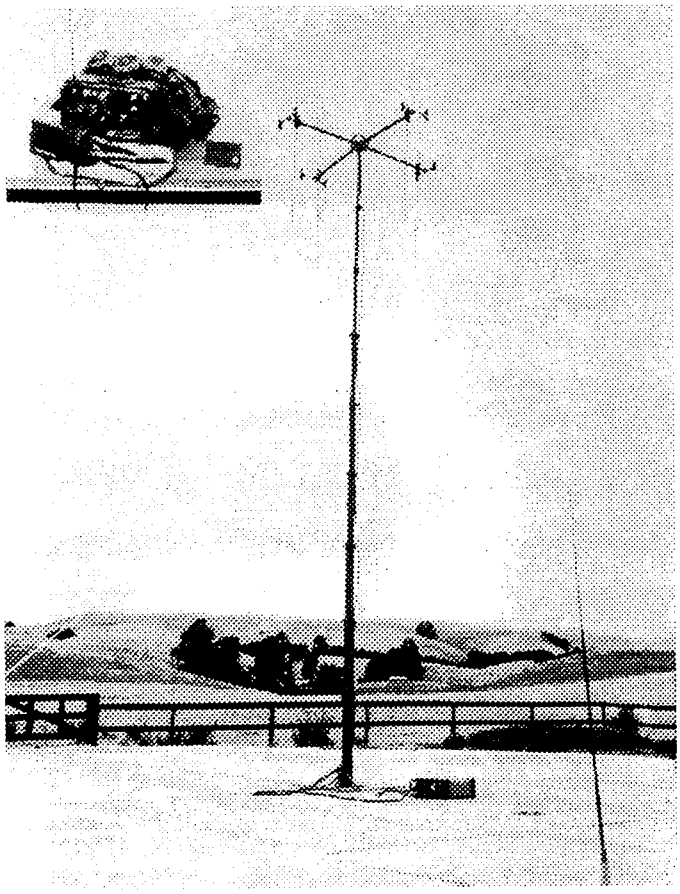
TYPE CLASSIFICATION: GBCS-L Operational Needs Statement System LPU approved Oct 90. GBCS-L Standard, Sep 96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract Award for LPU	1					
AQF Customer Test	4					
Award 2nd Year LPU		1				
IOT&E		4				

SYNOPSIS: GBCS-L IS A RAPID DEPLOYABLE ELECTRONIC ATTACK, SIGNALS INTELLIGENCE, AND EMITTER TARGETTING SYSTEM.

PM, SW

AN/PRD-12, LIGHTWEIGHT MAN-TRANSPORTABLE RADIO DIRECTION FINDER SYSTEM (LMRDFS)



MANAGER: Mr. John Holzman, DSN 229-6816
COMM 540/349-6816

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE:

DESCRIPTION: The LMRDFS is a man-transportable ground based communications intercept, processing, and direction finding system. It consists of a receiver/processor and antenna subsystems that can be deployed by two personnel. There are six AN/PRD-12 systems per Light Division and twelve systems per USASOC Special Forces. A total of 110 systems are being procured for FORSCOM/USASOC and TRADOC. Ninety- nine additional systems are being procured for the TEAMMATE HF frequency extension materiel change. The system searches for, intercepts, and provides for direction finding locations of enemy HF/VHF/UHF communications emitters. The AN/PRD-12 will interoperate with the TEAMMATE system via communications links in the direction finding mode. In addition, the PRD-12 has been procured for use in the Marine Corps Top Hunter System.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Mantransportable, No Limitations.

HISTORICAL BACKGROUND:

Dec 87 Contract awarded.
Jun 89 System Confidence Demonstration.
Aug 90 Completed testing at Fort Huachuca.
Nov 90 Contract Modifications awarded to demonstrate frequency extension.
Apr 93 Initiate Fieldings.

REQUIREMENTS DOCUMENT: QRC-59 approved by AEWIC, Jun 86 .

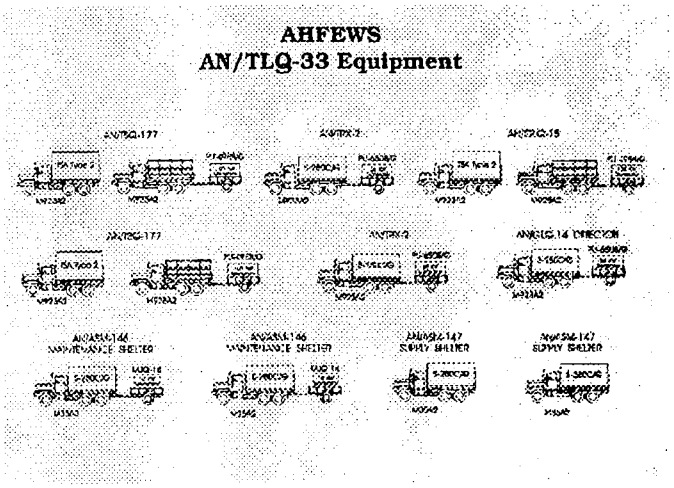
TYPE CLASSIFICATION: LPU based on QRC-59.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Field LPA	2---4					
Transition to Readiness		3				

SYNOPSIS: LMRDFS IS A MAN-TRANSPORTABLE GROUND BASED COMMUNICATIONS INTERCEPT, PROCESSING, AND DIRECTION FINDING SYSTEM.

PM, SW

AN/TLQ-33, COUNTERMEASURES SET, ARMY HIGH FREQUENCY ELECTRONIC WARFARE SYSTEM (AHFEWS)



MANAGER: Mr. Paul Germain DSN 229-7076
COMM 540/349-7076

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE:

DESCRIPTION: AHFEWS is a ground-based high frequency (HF) electronic warfare system consisting of four subsystems: the AN/TSQ-177 Countermeasures Control Set; the AN/TRX-2 Target Recognition System, Non-Cooperative; and, AN/GLQ-15 Transmitter Set, Countermeasures. AHFEWS is a one of a kind electronic warfare system to be fielded and assigned to the 201st MI Battalion of the 513th MI Brigade. The AN/TLQ-33 consists of a mix of shelter sets mounted on 5-ton trucks and tractor trailers with support equipment. AHFEWS is designed to perform electronic support for target detection and acquisition of threat HF emitters and executing electronic attack against those emitters. AHFEWS is a stand-alone electronic warfare with secure organic communications for command and control and secure voice communications to a theatre TCAE or J2/3 EW targetting cell of a CINC of U&S Commands or Joint Task Force Commander.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: AFHEWS may be transported by sealift or airlift (C-141, C-5, or C-17 aircraft). To airlift the entire system will require 4 C-5 missions; however, as few as one C-141 missions is required to transport an AN/TSQ-177 and AN/TRX-2 with all required support equipment. AHFEWS is not to be moved by rail or by helicopter. Road speed is limited to 44 MPH on improved and secondary roads.

HISTORICAL BACKGROUND: By direction of the DA DCSOPS and VCSA in May 1992, AHFEWS was to be built from the residual assets of a terminated SAP to satisfy an outstanding EAC HF electronic warfare requirements identified by the CINCs for EUCOM, CENTCOM, SOUTHCOM, SOCOM, and USFK.

REQUIREMENTS DOCUMENT: AHFEWS ORD, Oct 93.

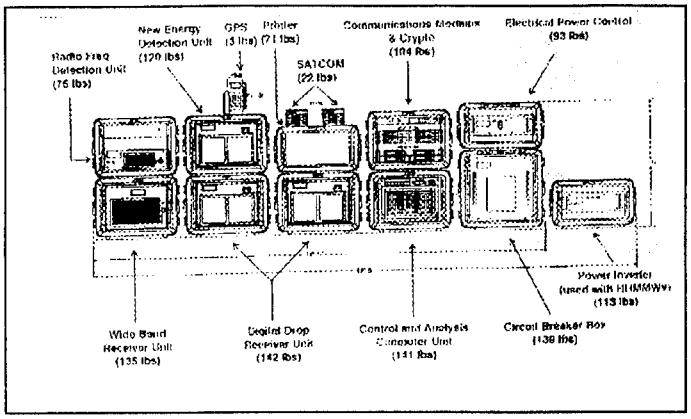
TYPE CLASSIFICATION: Limited Procurement (Urgent), in process.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
FAT	1					
Fielding		1				
FOT&E		3				

SYNOPSIS: AHFEWS IS AN EAC HF ELECTRONIC WARFARE SYSTEM CAPABLE OF PERFORMING BOTH ELECTRONIC SUPPORT AND ELECTRONIC ATTACK.

PM, SW

AN/TSQ-199, ENHANCED TRACKWOLF (ET)



PRODUCT MANAGER: LTC D. Meriwether, DSN 229-7071
COMM 540/349-7071

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: V18200

DESCRIPTION: Enhanced TRACKWOLF (ET) is an Echelon Above Corps (EAC) ground based, man-transportable transit case High Frequency direction finding and intercept system. The program was directed by Congress in FY93 as a result of Desert Shield/Desert Storm, during which the current TRACKWOLF system proved too large and cumbersome for rapid deployment. In addition to transportability advantages from the current TRACKWOLF system, ET will incorporate several capabilities that will allow intercept of the most modern modulations. The system consists of three stations, each with nine positions each configured as 1 DF, 2 Management/Analysis, and 6 Collection functions. Set-up/tear-down times are less than four hours and each site uses less than 4000 watts. The architecture is designed to be an integration of proven technologies, with extensive use of non-developmental hardware and software.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Transit Case Configuration: Man Transportable.

HISTORICAL BACKGROUND: ET is an evolutionary step from the TRACKWOLF program, with greater transportability, capability, and operational flexibility. Contract awarded March 94.

REQUIREMENTS DOCUMENT: ORD, dated 13 April 93.

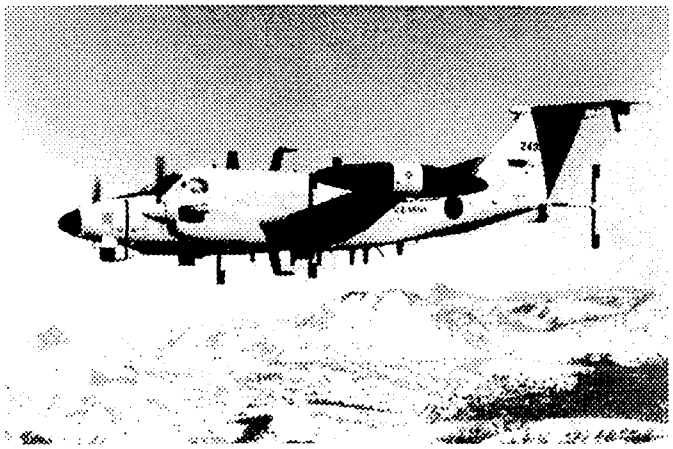
TYPE CLASSIFICATION: Limited Procurement Urgent (LPU).

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Production	----------	----2				
FAT		2				
Delivery		2				
IOT & E		3				
FUE		3				

SYNOPSIS: THE ENHANCED TRACKWOLF IS AN ECHELON ABOVE CORPS, GROUND BASED, HF DIRECTION FINDING AND INTERCEPT SYSTEM.

PM, SW

AN/USD-9C, GUARDRAIL/COMMON SENSOR (GR/CS)



PRODUCT MANAGER: Mr. George Morris, DSN 987-5574
COMM 908/427-5574

ACQUISITION CATEGORY: II
ACQUISITION PHASE: MS III/IV Prod/Deploy/Ops/Spt

PE & LINE #: A02005 & AZ2000

DESCRIPTION: The GR/CS is a Corps Level Airborne Signal Intelligence (SIGINT) collection/location system. GR/CS integrates the Improved GUARDRAIL V (IGR V), Communication High Accuracy Airborne Location System (CHAALS), and the Advanced QUICKLOOK (AQL) into the same SIGINT platform. One GR/CS system is authorized per Aerial Exploitation Battalion (AEB) in the MI Brigade at each Corps. Each system consists nominally of twelve aircraft which normally fly operational missions in sets of three. GR/CS provides near real-time SIGINT and targeting information to Tactical Commanders throughout the corps area with emphasis on Deep Battle and Follow-on Forces Attack support. The airborne elements are integrated into the RC-12K/N/P aircraft. Ground processing is conducted in the Integrated Processing Facility (IPF). Interoperable Data Links (IDL) provide microwave connectivity between the airborne elements and the IPF. Reporting is accomplished via Joint Tactical Terminals (JTT). Key features include integrated COMINT and ELINT reporting, enhanced signal classification and recognition, fast Direction Finding (DF), precision emitter location, and an advanced integrated aircraft cockpit. Preplanned product improvements include frequency extension, computer assisted on-line sensor management, upgraded data links and the capability to exploit a wider range of signals.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: The system can be transported by air, land, rail or ship.

HISTORICAL BACKGROUND:

Jun 84	Contract awarded for GR/CS Systems 3 and 4.
Dec 88	GR/CS (minus) System 3 fielded to Korea.
Jun 89	AC-12K Production award (System 1).
Aug/Sept 90	GR/CS Systems 1 and 2 IPF and ARF Production contracts awarded.
Aug 91	GR/CS System 4 fielded to USAREUR.
Apr 94	GR/CS FY94-99 Program and Acquisition Plan approved by HQDA.
Aug 94	GR/CS System 1 Fielded to FORSCOM.

REQUIREMENTS DOCUMENT: ROC, 1 Oct 84, updated Nov 85 and revised in Apr 92.

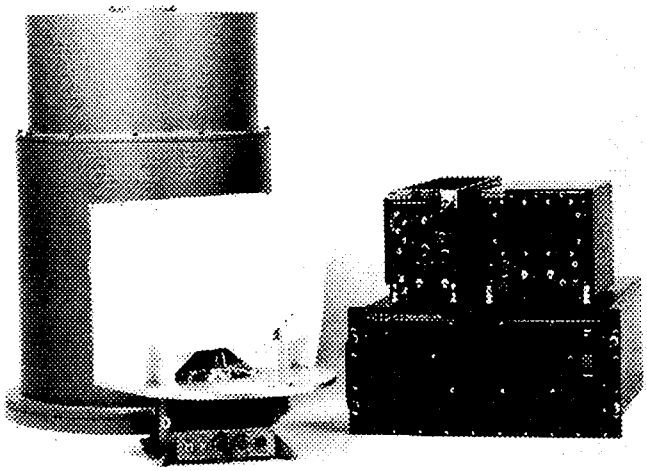
TYPE CLASSIFICATION: GR/CS System #1 type classified LP.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System 2	----------	----------	----------	---2		

SYNOPSIS: GR/CS IS A CORPS LEVEL ARIBORNE SIGINT COLLECTION/LOCATION SYSTEM.

PM, SW

COMMON MODULAR ELINT SYSTEM (CMES)



MANAGER: Mr. James Walker, DSN 229-6810
COMM 540/349-6810

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE: 0604270/DL12, 0305885, BZ7326, AB3000.

DESCRIPTION: The CMES ELINT Electronic Support Measures (ESM) sensor provides search, intercept, DF, precision location and analysis of the primary noncommunication (radar) battlefield threat emitters. While operating in a fully automatic mode it will enhance the Division Commander's ability to out maneuver and kill the enemy by specifically identifying High Value Targets (HVTs) such as enemy counter/mortar, counter/battery ground surveillance radars at critical points in the battle and will provide precise emitter locations with targeting accuracy.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Not Applicable. This is a subsystem to be transported in accordance with the transportation of the system in which they reside.

HISTORICAL BACKGROUND: CMES is composed of NDI modules that are used on other DOD platforms.

REQUIREMENTS DOCUMENT: IEW GBCS ROC dated 18 Oct 90.

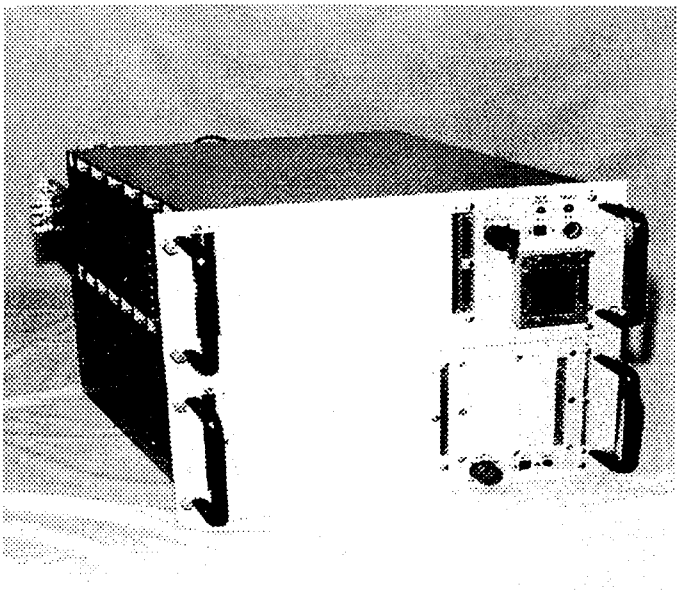
TYPE CLASSIFICATION: Standard, Sep 96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Eng and Mg Development	----2					
LPU	1----------3					
LPULRP		1----------3				
Full Scale Production			1----------	----------	----------	----------

SYNOPSIS: CMES IS AN ELINT ESM SENSOR SUBSYSTEM.

PM, SW

COMMUNICATIONS HIGH ACCURACY LOCATION SUBSYSTEM EXPLOITABLE (CHALS-X)



MANAGER: Mr. James Walker. DSN 229-6810
COMM 540/349-6810

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE: 0604270/DL12, 0305885.
BZ7326, AZ2000, AB3000.

DESCRIPTION: The CHALS-X system provides the targeting capability required to support the Division Commander's requirements to locate and kill the enemy by providing for precise location of High Value Targets (HVTs). Airborne systems mixed with ground based systems will be capable of precisely locating enemy weapon systems and units (regardless of whether the enemy uses conventional or modern radios) producing target locations sufficiently accurate for first round fire for effect by organic artillery. CHALS-X is a continuation of the project which developed the precision location subsystem (CHAALS) currenly in GUARDRAIL Common Sensor (GR/CS) systems 4 and 1. It utilizes the previously developed Time-Difference-Of-Arrival/Differential Doppler (TDOA/DD) techniques and incorporates advances in electronics state of the art and distributed processing to provide for improved capabilities; increases frequency range, adds frequency hopping radios to the target set, and decreases size/weight/power requirements of processing subsystems (3 racks of computer equipment now reduced to two boxes which fit into a standard 19 inch rack).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Not Applicable. This is a subsystem to be transported in accordance with the transportation of the system in which they reside.

HISTORICAL BACKGROUND: The continued evolution of Target Accuracy Geolocation capability using TDOA/DD is a technology advantage over any other country and has been restricted from release to foreign countries.

REQUIREMENTS DOCUMENT: JSOR GR/CS dated 23 May 84.

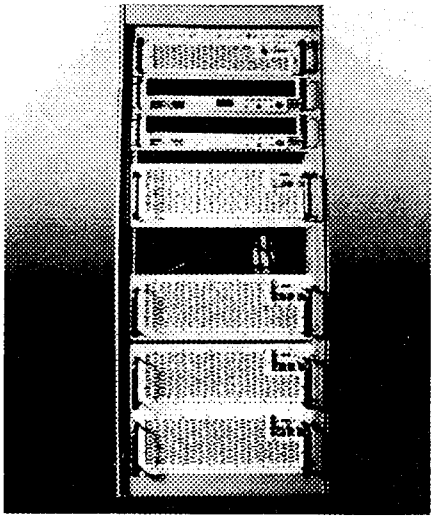
TYPE CLASSIFICATION: Standard. Sep 96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00	01
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Eng & Mg Development	----------	---------4					
Production: GRCS	----------	----2					
LPU	1----------	-------3					
LPUUT		1----------	-------3				
Full Scale Development			1----------	----------	----------	----------	----------

SYNOPSIS: CHALS-X IS A PRECISION LOCATION SYSTEM.

PM, SW

TACJAM-A



MANAGER: Mr. Thomas Robertson, DSN 229-7085
COMM 540/349-7085

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Eng/Manufacturing Dev

PE & LINE: 0604270 / DL12, BZ7326, AB3000

DESCRIPTION: The TACJAM-A system will enhance the Division Commander's ability to out maneuver and kill the enemy by isolating and suppressing enemy fire control and command and control (C2) nets at critical points in the battle; provide electromagnetic overwatch of the threat C2 communications inclusive of both conventional and modern modulations; freeze the enemy in place by jamming C2; and eliminate enemy counterfire by locating High Value Targets (HVTs) for targeting. TACJAM-A consists of state-of-the-art modular and scaleable Electronic Support Measure (ESM) and Electronic Countermeasure (ECM) subsystems configured for use on a variety of air and ground prime movers (tracked, wheeled, airborne and heliborne). As such the TACJAM-A systems are foremost examples of a horizontally integrated system that is here today and is in the right system for Electronic Support, Communications Intelligence, or Electronic Attack in the next conflict.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Not Applicable. This is a subsystem to be transported in accordance with the transportation of the system in which they reside.

HISTORICAL BACKGROUND:

Mar 87 Contract awarded for ESM.
Jan 93 Prototype Deliveries made (2 ea) (ESM).
Jul 93 Start E&MD Delivery (ESM).
Jan 94 Restart ECM effort.
Jan 95 LPU award of TACJAM-A ESM.

REQUIREMENTS DOCUMENT: GBCS-ROC 18 Oct 90. AQF-ORD Oct 92.

TYPE CLASSIFICATION: Standard. Sep 96.

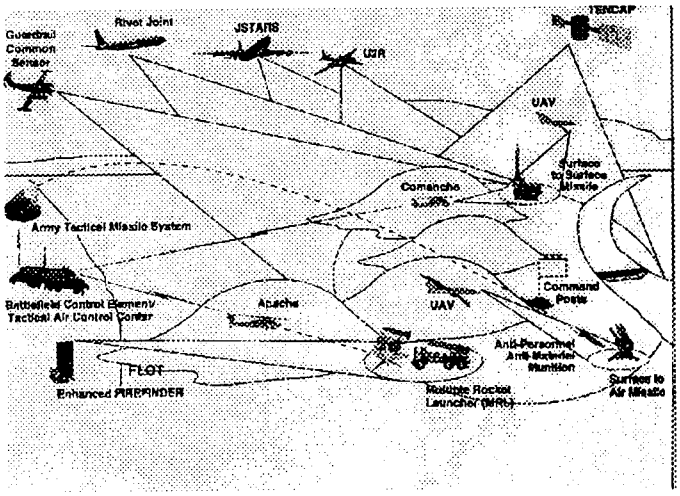
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00	01
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Eng & Mfg Development-ECM	------4						
LPU (ESM)	1-------	----3					
LPULRP (ESM)		1-------	----3				
Full Scale Production			1-------	--------	--------	--------	---2

SYNOPSIS: TACJAM-A IS AN ELECTRONIC SUPPORT MEASURES (ESM) AND ELECTRONIC COUNTERMEASURES (ECM) SUBSYSTEM PROVIDED AS GFE TO THE IEWCS SYSTEMS.

PO, JPSD

PO, JPSD

JOINT PRECISION STRIKE DEMONSTRATION (JPSD)



PROJECT MANAGER: James Pellien (Acting), DSN 761-5720
COMM (703)681-5720

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: N/A

PE & LINE #: 63238/D117

DESCRIPTION: JPSD was formed by OSD's DDR&E in 1992 to baseline and document the Army's precision strike process and capabilities. In FY93 the program successfully completed the Beyond Line of Sight UAV Demonstration. The program has activated its Integration and Evaluation Center and has successfully completed its FY94 Surface to Surface Demonstration. In FY95 and 96, the program will conduct an OSD approved ACTD against the 240mm MRL threat in support of the CINC USFK. The FY95 portion of the ACTD will be conducted at Fort Hood, TX. Simultaneously, JPSD and OSD funds will be used to improve the KCOIC connectivity, automate the Tactical Operations Center of the 2nd Infantry Division (Mech), develop a 2nd Generation FLIR/LS capability for a UAV and explore a method of delivering munitions on MLRS. In FY96, the program will conduct its ACTD in Korea and will deliver the above mentioned capabilities--8 UAVs w/2nd Gen FLIR; Improved C4I for theater/operational forces; and MLRS capability, to deliver munitions to the USFK, thus significantly enhancing the command's capability to deal with a significant real-world threat which is one of the CINC's top priorities.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

22 Jan 92	DDR&E Initiates seven key Science & Technology Thrust with Army responsible for Precision Strike.
03 Feb 92	Joint Precision Strike Demonstration (JPSD) Task Force began operation.
11 Feb 92	Army Acquisition Executive designated Program Executive Officer for Intelligence & Electronic Warfare as Army lead for Joint Air/Land/Sea Precision Strike.
12 Aug 92	First Light Demo for the CSA.
Mar 93	Let RFP for the Integration and Evaluation Center (IEC) at the Topographic Engineering Center.
27 Sep 93	Awarded IEC contract.
29 Sep 94	Activated the IEC.
Sep-Dec 94	FY94 Surface to Surface Demonstration rehearsals/completion.

REQUIREMENTS DOCUMENT: ROC Not Required; Program is ATD/ACTD.

TYPE CLASSIFICATION: N/A

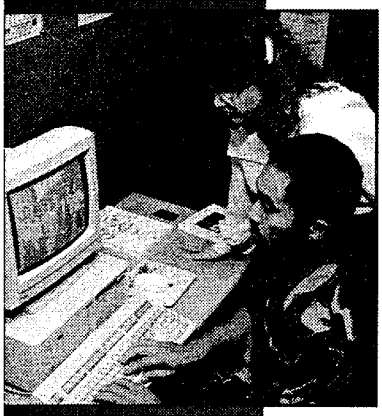
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
IEC IOC	1					
ACTD Corps Level	4					
ACTD Division Level		4				
Prototype Sensor Delivery			3			
Mod DPICM Delivery			3			

SYNOPSIS: JOINT PRECISION STRIKE, THE ARMY'S PORTION OF THE DDR&E PRECISION STRIKE THRUST, WILL LEVERAGE AND DEMONSTRATE EMERGING TECHNOLOGIES TO MEET CINC REQUIREMENTS FOR REDUCED SENSOR-TO-SHOOTER AND BATTLE DAMAGE ASSESSMENTS TIMELINES.

USAISMA

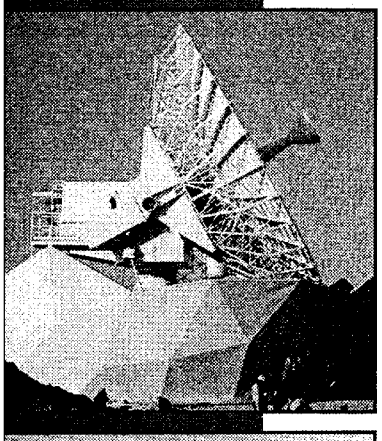
Why ISMA? ...

... because we bring over 30 years of experience in acquisition and fielding of COTS/NDI technology to our customers.



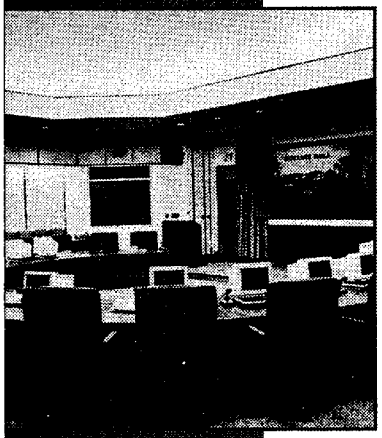
PPC41 INFRASTRUCTURE

ISMA's Project Manager for Defense Communications and Army Switched Systems (PM DCASS) provides ***information infrastructures***... from base-level nontactical voice and data switching systems... to computer systems and peripherals... to deployable communications gateways. ISMA's Project Manager, Information Management & Telecommunications, Pentagon Renovation (PM IM&T PR) is providing modern communications systems as part of the massive renovation of the Pentagon, the worlds largest office building.



TRANSMISSION SYSTEMS

ISMA's Project Managers for Defense Communications and Army Transmission Systems (PM DCATS) provides long-haul transmission systems to ***link your headquarters right to the battlefield***... regardless of the distances, terrain or other impediments... via any combination of microwave... satellite... fiberoptic or copper cable links... PM DCATS is also modernizing Ft. Belvoir, Va.'s Information Mission Area (IMA) capabilities, and is providing ID/IQ contracts for state-of-the-art videoteleconferencing systems and trunked radios.

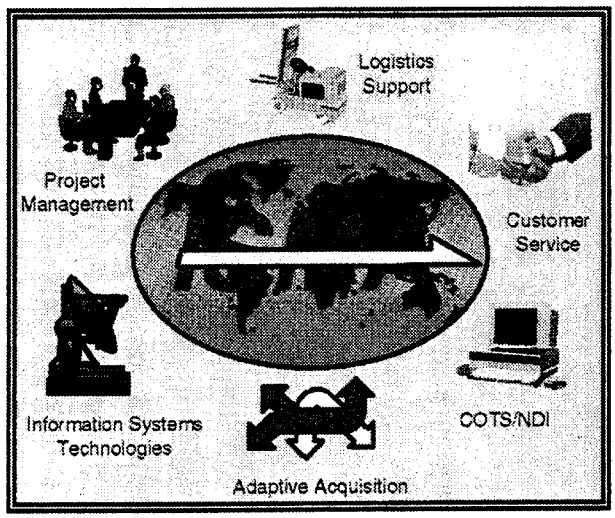


C2 INFORMATION SYSTEMS

ISMA's Command Center Upgrades/ Special Projects Office (CCU/SPO) acquires and implements systems that provide ***information for decision***... including state-of-the-art command center systems to help the CINC's to Project Power - an important capability as the Army converts to a modern, streamlined CONUS-based force. ISMA's Project Manager, Theater Automated Command and Control Information Management System (PM TACCIMS) provides a bilingual C2 system for the CINCCFC (Korea), including a world-class videoteleconferencing capability.

LOGISTICS SUPPORT

Bringing to bear the lessons learned and experience of decades of support to joint and multi-service acquisition programs, ISMA's Logistics Directorate ***ensures sustainability*** by applying innovative Integrated Logistics Support (ILS) techniques that maximize the use of Commercial-off-the-Shelf (COTS)/Non-Developmental Item (NDI) support available from contractors. Customers are frequently provided ILS "shopping list" contracts from which they can select only those elements of logistic support that they require.



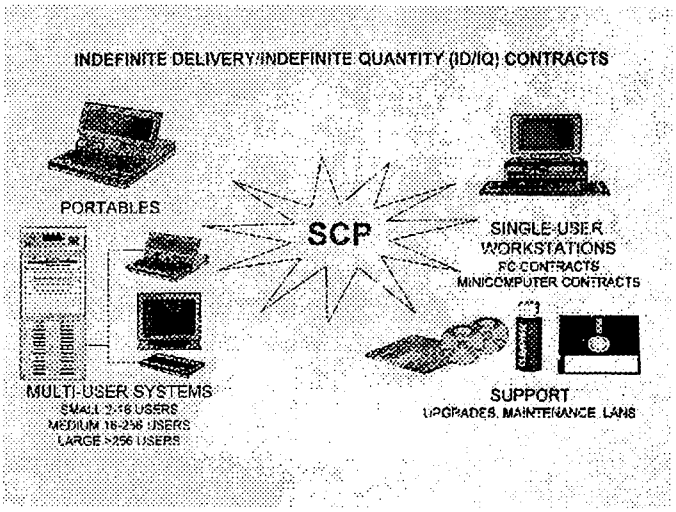
- Providers of information & telecommunications systems to the Army, DoD & other Federal agencies since 1967.
- Experts in "turnkey" systems & projects, including...
  - Requirements validation
  - Adaptive acquisition/installation
  - Customer Support
  - Integrated Logistics Support
- Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts, for...
  - Computers, peripherals and maintenance
  - Switching and cable systems
  - Life-cycle system support and maintenance
  - Trunked radio systems
  - Desktop videoteleconferencing
  - Interface Conversion Systems
- Experience with cutting-edge technologies, including ISDN, ATM and SONET.
- Board-certified Project Managers and Army Acquisition Corps-qualified project and support personnel

FORCE XXI

PM, AIS

PM, AIS/USAISMA

SMALL COMPUTER PROGRAM (SCP)



PRODUCT MANAGER: LTC Fuller, DSN 992-7917
COMM 908/532-7917

ACQUISITION CATEGORY: III / IV
ACQUISITION PHASE: Various / All

PE & LINE: N/A

DESCRIPTION: The Product Manager, Small Computer Program is responsible for the acquisition of small and medium computers to satisfy user requirements as determined by ISC Headquarters. The Product Manager leads or participates in Army and Joint Service ID/IQ contracts providing a wide range of products (hardware, software and communications) and services (installation, maintenance, engineering, and training) to support Army users, DOIMS and Program Managers for force power projection, theater/tactical and strategic information systems. The Army's Small Computer Program provides a source of quality IMA products which can be procured by any Army activity in a timely and efficient manner to support the Army's Information Systems Architecture (Baseline and Current Target) and the migration to an Open Systems Environment (Objective architecture). SCP provides customer support in the form of: Standards-based ID/IQ contract and program management, ordering assistance and management, technical assistance, configuration management, and an electronic bulletin board. The SCP operates in a 1% fee-for-service environment.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None

HISTORICAL BACKGROUND:

1986 SCP Office formed.
1986 - Present Small computer sales exceed $2.7B for Army users.

REQUIREMENTS DOCUMENT: ISMO # B95R00602

TYPE CLASSIFICATION: N/A

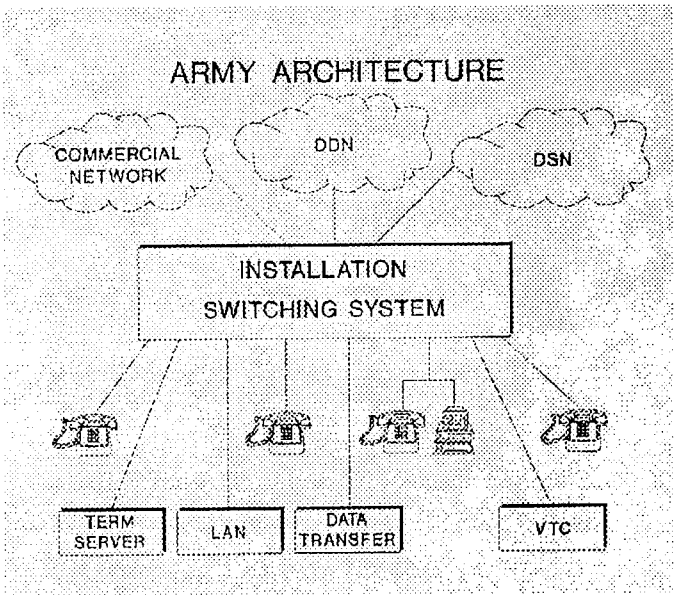
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Army Portable Computer-1 Award	2----	----	--2			
Army Personal Computer-1 Award	2----	----	--2			
Army Small Multiuser Computer-II Award	4---	----	----	----4		
Army Workstation Computer-1 Award		2----	----	----	--2	
Army Portable Computer -2 Award			1----	----	-1	
Army Personal Computer-2 Award			2----	----	--2	
Army Standard Systems Technology Support-1 Award			1----	----	-1	

SYNOPSIS: THE SCP PROVIDES A SOURCE OF QUALITY IMA PRODUCTS WHICH CAN BE PROCURED BY ANY ARMY ACTIVITY TO SUPPORT THE ARMY'S INFORMATION SYSTEMS ARCHITECTURE & THE MIGRATION TO AN OPEN SYSTEMS ENVIRONMENT.

PM, DCASS

PM, DCASS

MACOM TELEPHONE MODERNIZATION PROGRAM (MTMP)



ASSIST. PROJ. MGR: Lou Catalano. DSN 992-7911
COMM 908/532-7911

DESCRIPTION: The MTMP originated in 1982 as the CONUS Telephone Modernization Program (CTMP) with the objective of replacing nonsupportable, obsolete 1950's vintage, electro-mechanical switching systems at approximately 100 camps, posts & stations throughout CONUS. The primary objective of the MTMP is to Engineer, Furnish, Install & Test (EFIT) and cutover a Commercial Off-The-Shelf (COTS) Integrated Services Digital Network (ISDN) telecommunications system. The scope of this effort includes removing existing systems, site preparation, EF&I digital switches, Outside Plant construction, installation of Telephone Management Systems (TMS), integration of Emergency Action Consoles (EACs), ensure compatibility with existing systems, provide training, initial logistical support & follow-on logistical support. The MTMP program is a complete turn key systems approach to an installation's telecommunications needs. CEMO # B83FUS408, 4 Mar 84, tasked the Project Manager, Defense Communications and Army Switched Systems (PM, DCASS) with implementing the program. Individual contracts for 5 of the most severely degraded systems were competitvely awarded in FY83 during Phase I of the program. Subsequent analysis of the magnitude of the Army's requirements dictated that a coordinated, long range acquisition approach be utilized. MTMP was approved by the Under Secretary of the Army as a Stable Annual Investment for Renewal of Systems (STAIRS) program. As such, the program was to receive $40-50 Million annually. It was planned that Phase II of the program would contract for upgrades of the remaining MTMP Priority List sites & provide them with an initial operating capability with the funds available. After sites received their initial upgrade, they could then be revisited in the outyears during Phase III to provide system expansion/augmentation & technology insertion as evolving requirements dictate. Severe funding decrements forced an extension of the schedule. The schedule for initial upgrades has been extended 7 years & will continue through FY01. Due to changes in site priority, mission and BRAC impacts, it is anticipated that certain sites will be revisited for Phase III expansion and augmentation before some sites receive their initial Phase II upgrade.

HISTORICAL BACKGROUND: The CTMP 83, 84 & 85 sites have been upgraded to digital voice switches. CTMP 86 & 87 sites are providing integrated voice and data capability and are upgradeable to ISDN. The MTMP IDIQ/T&M ten year contract was awarded 30 Sep 91 and is providing fully capable ISDN switches.
CTMP Program Status: (CTMP 83, 84, 85, 86, 87 Contracts) 53 Sites Cutover / 53 Sites Accepted
MTMP Program Status: (MTMP IDIQ/T&M Contract)
29 Sites on contract / 24 Sites Cutover (incl. expansions) / 7 Sites are In-Progress / 11 Sites Conditionally Accepted

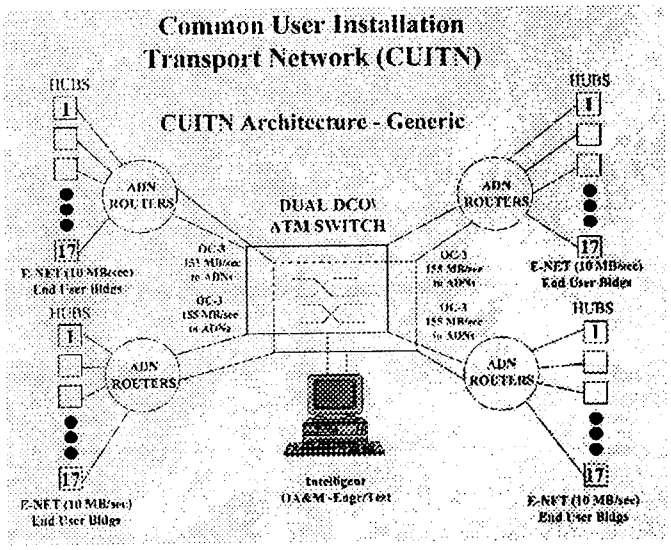
REQUIREMENTS DOCUMENT: USACC CEMO 138FWSH08 dated 4 Mar 83.

MTMP GENERIC IMPLEMENTATION SCHEDULE	MONTHS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Delivery Order	Δ
Site Survey Report	Δ Δ
Drawings: 60%	Δ
" 95%	Δ
" 100%	Δ
Site Prep	Δ——————Δ
Outside Cable Const.	Δ——————Δ
Switch Inst.	Δ——————Δ
Data Base Gathering, Verf	Δ——————Δ
Testing: Phase I	Δ—Δ
" Phase II	Δ—Δ
" Phase III	Δ—Δ
Cutover	Δ

SYNOPSIS: THE MTMP PROGRAM IS A COMPLETE TURN KEY SYSTEMS APPROACH TO AN INSTALLATION'S TELECOMMUNICATIONS NEEDS.

PM, DCASS

COMMON USER INSTALLATION TRANSPORT NETWORK (CUITN)



PROJECT MANAGER: LTC R. Heuler, DSN 992-7912
COMM 908/532-7912

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: Fielding

PE & LINE #: BU4165

DESCRIPTION: CUITN is a PM, DDN managed program that provides an intelligent information infrastructure which supports high speed data transfer for P2C4I at Army posts, camps, and stations worldwide. It includes the hardware, software, and interfaces to both site internal and external implementation of these systems. The common user information infrastructure and backbone data networks implemented under this program provide the capability for connections to DPS, mainframes, E-Mail hosts, and essential P2C4I networks while providing access to gateways on the site and the DISN wide area network (WAN) external to the site. The intelligent information infrastructure provided by CUITN is supported by an intelligent, centralized, and automated capability to effect operations, administration, and maintenance thereof. CUITN implementations are open systems standards compliant and compatible with Army and DoD policies and standards for information infrastructure.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

HISTORICAL BACKGROUND:

Dec 91	Information System Mission Order (ISMO) issued.
92-95	Fielded CUITN at Fort Bragg, NC., and Fort Hood, TX.
1995	Conducted Requirements Surveys at Forts Lewis, Campbell, Drum, Bliss and Carson.
1995	Fielded CUITN at Fort Stewart, GA.

REQUIREMENTS DOCUMENT: ISMO B91A00585, Dec. 91.

TYPE CLASSIFICATION:

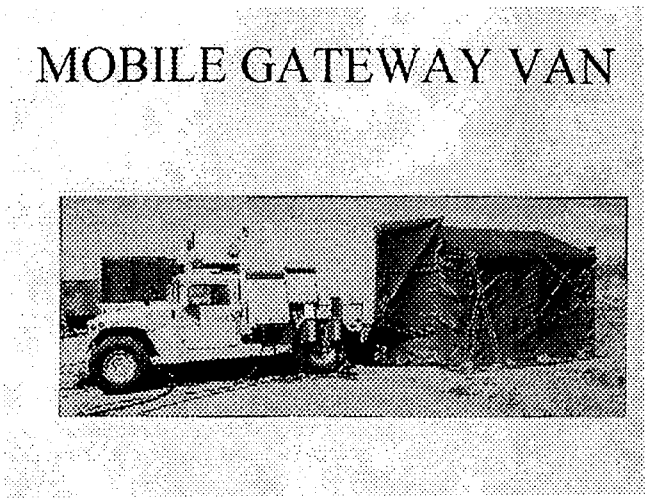
EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Surveys	4	---			--1																			
SDP Preparation	4	---			---2																			
Acquire BOM					3																			
Installation					2-3																			
Test					3																			
IOC at Stewart/Drum/Campbell									1															
IOC at Lewis										3														
New Surveys						4	---	--2																

SYNOPSIS: THE INTELLIGENT INFORMATION INFRASTRUCTURE ENGINEERED FURNISHED, INSTALLED, TESTED, AND PROVIDED TO THE WARFIGHTER UNDER THE CUITN EFFORT IS THE BEST AVAILABLE SOLUTION TO THE REQUIREMENT FOR INTEGRATED DATA TRANSPORT AND INFORMATION HANDLING AT SUSTAINING BASE POWER PROJECTION PLATFORMS IN TIMES OF PEACE AND WAR.

PM, DMS

PM, DMS

MOBILE GATEWAY VAN (MGV)
VERSION 2



PROJECT MANAGER: COL Carl L. Lambeth,
DSN 992-7913
COMM 908/532-7913

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: N/A

PE & LINE #:

DESCRIPTION: The primary function of the MGVv2 system is to provide a mobile E-mail gateway in support of Tactical field units. The MGVv2 system is a 710/M shelter mounted on a heavy High Mobility Multipurpose Wheeled Vehicle (HMMWV). The heart or nerve center of the system is the E-mail host (HP9000/755) mini computer loaded with MMDF-II and MS-Mail that accomplishes the E-mail administration tasks for the system. Essentially managing the exchange of E-Mail to and from the NIPRNET (formally MILNET) and users on the MGVv2 system. The installed terminal server is a communications server for the internal Local Area Network (LAN) linking the dial-up tactical and commercial users to the E-mail host and installed router. Sixteen Tactical Terminal Adapters (TTAs) are connected to the terminal server to provide connectivity for users calling the system over the Mobile Subscriber Equipment (MSE) or Tri-service Tactical (TRI-TAC) networks. The system connectivity (integrity) is maintained by a terminal server, router, a console and a network server all being connected to the internal LAN. By this connectivity the router and terminal server exchange the information from the connections they are maintaining with the E-mail host. The primary entry device into the NIPRNET is via satellite or other transmission media, i.e., cable, commercial phone lines. The MGVv2 can also support up to three Ethernet (802.3) LANs that extend outside the shelter and to which external users can connect to thereby gain access into the NIPRNET enabling them to send and receive E-mail messages. Essentially the MGVv2 mobile E-mail gateway allows tactical units to access the NIPRNET regardless of their geographic deployment.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

24 Mar 94	Original Tasking for 2 systems (11 SIG BDE).
31 Mar 95	Delivery to the 11th SIG BDE.
8 May 95	Tasking for 3 additional systems (2-11th SIG BDE/1-7th SIG BDE).
15 Sep 95	Started shelter fabrication (McClellan, AFB, CA).
11 Oct 95	Receipt of all components and peripheral items

REQUIREMENTS DOCUMENT: Information Systems Mission Order (ISMO) 8 Mar 95; Addendum to ISMO, 29 Sep 95.

TYPE CLASSIFICATION: N/A Prototype

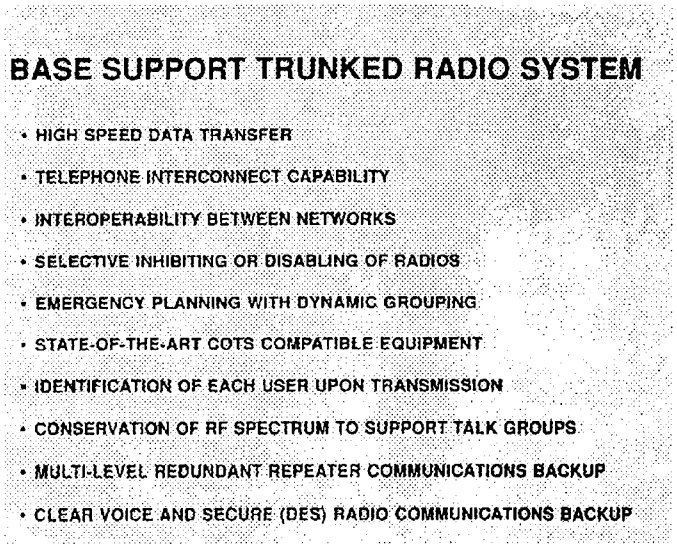
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Started Shelter Fabrication		1---3				
GFE Delivery		2				
Final Wiring		1				
Operator Training		1---3				
System Delivery		3				
IOC 11th SIG BDE		4				
IOC 7th SIG BDE		4				

SYNOPSIS: AS BENEFICIAL AS THE CAPABILITIES OF THE MGV SYSTEM ARE, IT IS STILL AN INTERIM SOLUTION UNTIL A MULTI-SECURITY LEVEL SYSTEM IS MADE AVAILABLE TO TACTICAL USERS.

PM, DCATS

PM, DCATS

BASE SUPPORT TRUNKED RADIO SYSTEM (BSTRS)



ASSIST. PROJECT MGR: Harvey Slovin. DSN 992-7924
COMM 908/532-7924

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: III Production & Deployment

PE & LINE: BU4160

DESCRIPTION: This project encompasses the actions to establish an Indefinite Delivery/Indefinite Quantity (IDIQ) contract for acquiring and installing Commercial-Off-The-Shelf (COTS) trunked radio systems throughout the Continental United States (CONUS). This acquisition will provide selected Army installations with a vehicle for upgrading existing non-tactical radio communications equipment used by "crisis action teams" with state-of-the-art COTS base support trunked radio systems. The acquisition shall include requirements for the contractor to engineer, furnish, and provide logistics support for the Base Support Trunked Radio System. Options will be included for the contractor to integrate, install, and test the equipment which will provide for a "turn key" operation for the users.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Fixed Plant Configuration.

HISTORICAL BACKGROUND:

Jul 94 Draft Solicitation.
Apr 95 Released Solicitation.
Jul 95 Began Source Selection.
Aug 95 Protest filed with GAO by Ericsson - GE.

REQUIREMENTS DOCUMENT: Draft Information Systems Mission Order (ISMO B94R00607), June 94. HQ ISC Mission Need Statement (MNS) for BSTRS, 15 April 94. HQ ISC Operational Requirements Document (ORD), 15 April 94.

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00	01
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
IDIQ Contract	———	—2					
Contract Base Year		2——	—2				
Option Year # 1			2——	—2			
Option Year # 2				2——	—2		
Option Year # 3					2——	—2	
Option Year # 4						2——	—2

SYNOPSIS: IDIQ CONTRACT FOR ACQUISITION OF LAND MOBILE TRUNKED (NON-TACTICAL) RADIO SYSTEMS FOR ARMY SELECTED POSTS, CAMPS, AND STATIONS.

PM, DCATS

FORT BELVOIR INFORMATION MISSION AREA MODERNIZATION (FB IMA Mod)

PRODUCT MANAGER: LTC David Bennett, DSN 656-6001
COMM 703/806-6001

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: Various (See Description)

PE & LINE: N/A

DESCRIPTION: Fort Belvoir Information Mission Area Modernization (FB IMA Mod) is supporting the development of Fort Belvoir IMA Infrastructure to handle a three fold increase in population required to support Army and Defense Department power projection infrastructure goals and the Base Realignment and Closure FY93 Law. Other projects include an upgrade to premises distribution throughout Fort Belvoir and development of a standard Installation Transport Network capable of integrating all tenants data and voice transport requirements throughout the post and to the outside world.
Acquisition Phases: Ft. Belvoir Installation Transport Network (ITN) - III; Ft. Belvoir Premises Distribution (PDU) - III; Ft. Belvoir BRAC - III

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

HISTORICAL BACKGROUND:

Jul - Sep 92 Fort Belvoir Projects Baseline established.
Jul 92 Product Manager selected.
Sep 92 Information Systems Management Order # B91A51588 approved.

REQUIREMENTS DOCUMENT: Fort Belvoir Information Systems Architecture Plan. Fort Belvoir Project Baseline. Information Systems Management Order # B91A51588 approved, 17 Sep 92. Authority: DMRD 918; Public Law 100-526, Base Realignment and Closure 1993.

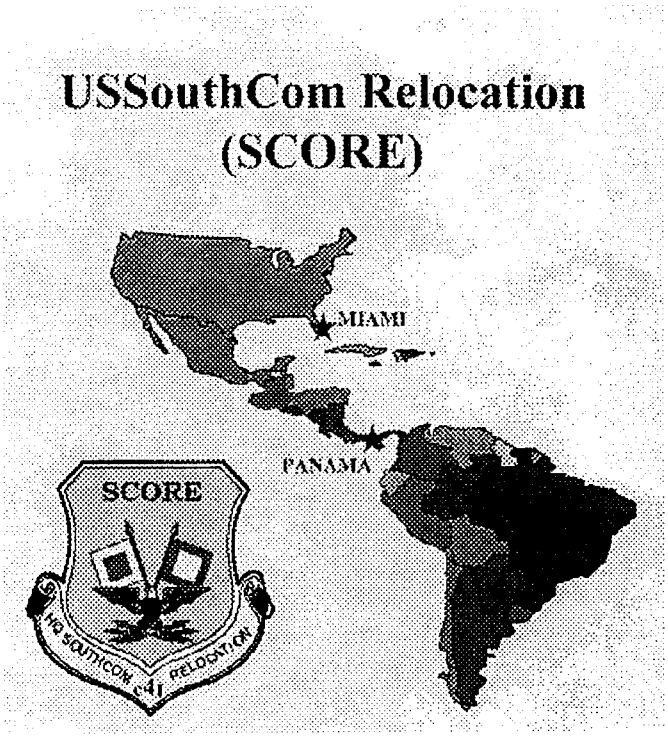
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
BRAC Headquarters Complex	------4																							
BRAC Building 1465	----3																							
Installation Transport Network (ITN)	----3																							
Premises Distribution Upgrade	------				------4																			

SYNOPSIS: FORT BELVOIR INFORMATION MISSION AREA MODERNIZATION (FB IMA MOD) IS SUPPORTING THE DEVELOPMENT OF FORT BELVOIR IMA INFRASTRUCTURE.

PM, DCATS, APM SCORE

US SOUTHERN COMMAND C4I RELOCATION (SCORE)



ASSISTANT PROJECT MANAGER: LTC Monte R. Hill, DSN 992-7922
COMM 908/532-7922

ACQUISITION CATEGORY: (Not designated)
ACQUISITION PHASE: N/A

PE & LINE #:

DESCRIPTION: The US Southern Command C4I Relocation (SCORE) project supports the relocation of Command, Control, Communications, Computer, and Intelligence (C4I) systems from the Republic of Panama to the Miami, Florida area in conjunction with the planned move of the USSouthCom headquarters under the provisions of the Panama Canal Treaty Implementation Plan. Voice, video, and data capabilities, both secure and nonsecure, will be provided with no interruption in current C4I capabilities in Panama. Present systems in Panama will be integrated to the maximum extent possible at the new location. The relocation effort consists of three phases: (1) the installation and test of the C4I infrastructure, which consists of the building wiring and cabling and the supporting structures; (2) the installation, test, and cutover of the C4I systems, including Local Area Networks; and (3) the installation and test of all end user equipment. Phase 1 will be accomplished by the building developer. Phases 2 and 3 will be accomplished by a combination of an integrating EFI&T contractor and many other contractos already established under PMs and agencies who manage and implement systems in Panama. The project schedule depends heavily on the efforts of the Corps of Engineers to competitively select the building site, renovate the building, and install the C4I infrastructure.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Mar 95 PM, DCATS tasked by ISC.
May 95 APM designation creating APM SCORE.
Sep 95 USSouthCom Systems Functional Requirements Document (SFRD) published.

REQUIREMENTS DOCUMENT: USAISC Interim Tasking ASSD-S 031406Z Mar 95; Information Systems Mission Order (ISMO) B95R50613 (Draft) dated May 95 (Final) dated Dec 95; Systems Functional Requirements Document (SFRD) Sep 95.

TYPE CLASSIFICATION:

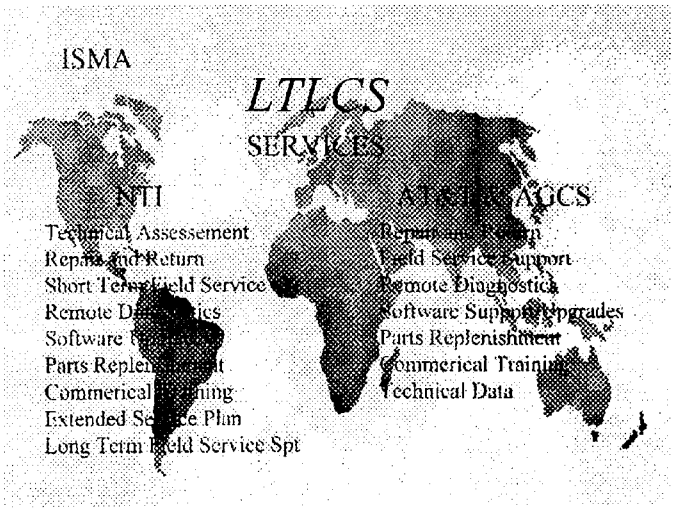
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Solicitation for offer released by Mobile COE		1				
Building lease agreement signed		3				
C4I infrastructure installation /building renovation		4----	-----3			
C4I EFI&T contract awarded		4				
Building lease executed			3			
System installation, testing and cutover			1------4			
USSouthCom Relocation IOC			4			

SYNOPSIS: APM SCORE SUPPORTS THE RELOCATION OF USSOUTHCOM C4I SYSTEMS FROM THE REPUBLIC OF PANAMA TO CONUS IAW THE PANAMA CANAL TREATY IMPLEMENTATION PLAN.

ISMA LOG

ISMA LOGISTICS DIRECTORATE

LONG TERM LIFE CYCLE SUPPORT (LTLCS) for NORTEL and AT&T/AGCS Electronic Digital Telephone Switching Systems



PROJECT MANAGER: Eric Swenson. DSN 992-7976
COMM 908/532-7976

ACQUISITION CATEGORY: III
ACQUISITION PHASE: IV Operations/Support

PE & LINE: N/A

DESCRIPTION: LTLCS provides life cycle support to its customers by providing a contract vehicle from which customers (post, camp, station, installation, MACOM) can order the support services they need to manage, maintain, operate, and/or upgrade/enhance their telephone switching and network management systems. LTLCS support includes depot level maintenance (repair/return services), field service support, emergency technical assistance, remote diagnostics, publications updates, software upgrades, hardware upgrades, spares replenishment, training, engineering support and report generation. Northern Telecom, Inc. (NORTEL), AG Communication Systems (AGCS) and American Telephone & Telegraph (AT&T) manufactured Electronic Digital Switch Systems include proprietary peripherals, Automatic Centralized Operations and Maintenance (ACOM) Systems, Telephone Management Systems (TMS), Digital Conference Switching Systems (DCSS), ISDN applications and features and Emergency Action Consoles (EAC).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

HISTORICAL BACKGROUND:

Jun 92 NORTEL contract awarded.
Nov 93 AT&T/AGCS contract awarded.

REQUIREMENTS DOCUMENT: MACOM Telephone Modernization Program, ISMO B83FUS408; Korea Telephone Upgrade, ISMO B82FKS398; Japan Telephone Upgrade, ISMO B85FJA419.

TYPE CLASSIFICATION: N/A

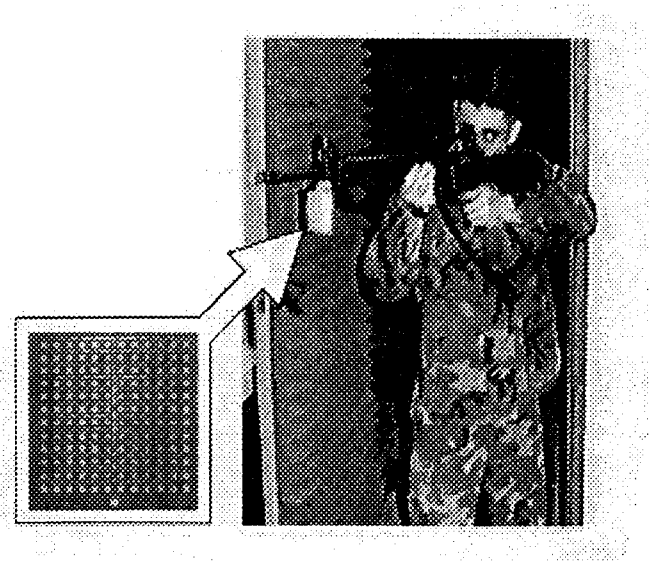
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
NORTEL LTLCS Contract - Recompete		3				
NORTEL LTLCS Contract - Award			4			
AT&T/AGCS Contract - Recompete				2		
AT&T/AGCS Contract - Award					1	

SYNOPSIS: THE LTLCS CONTRACTS PROVIDE SUPPORT AND SERVICES FOR THE INSTALLED BASE OF NORTEL, AGCS AND AT&T ELECTRONIC DIGITAL TELEPHONE SWITCHING SYSTEMS.

ARL/PSD

ARMY RESEARCH LABORATORY
PHYSICAL SCIENCE DIRECTORATE

BATTLEFIELD COMBAT IDENTIFICATION SYSTEMS (FOR NVESD)



PROJECT ENGINEER: Thomas Higgins, DSN 992-4746
COMM 908/427-4746

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #:

DESCRIPTION: A cooperative effort with CECOM (Night Vision Electronic Sensors Directorate) and ARL's Physical Sciences Directorate (members of the newly formed Chemistry and Electronic Divisions) is taking place to develop a system for the Dismounted Soldier Battlefield Combat Identification System (DSBCIS) for fratricide reduction. The Development of this system will include: a rifle mounted antenna interrogator, a helmet mounted, omni-directional responder, a visual and audible indicator, a spread spectrum communications system, GPS, power pack. PSD's Electronic Divisions's responsibilities include the development of a Ka-band interrogate antenna with an 8 degree beamwidth, less than -24 dB sidelobe levels, and guard antenna that is greater than 6 dB above the worst case sidelobe level covering +/-60 degree offboresight. Local field evaluation is scheduled for Jun 95 while Army wide evaluation is scheduled for August 95. The Ka-band array with guard antenna was developed and has been delivered for field evaluation. This antenna will be incorporated onto an M16-A2 rifle as part of a complete combat identification system. Five units were delivered for Army wide demonstrations at Fort Benning, where they had better than a 90% reliability for identifying friend or foe. Antenna specifications were achieved by using a Taylor taper power weighting and varying interelement spacing which resulted in a 3" X 3" area antenna that has sidelobes which are less than -24 dB, beamwidth of 8 degrees, and efficiency is greater than 50 %. The purpose of reduce offboresight false triggers. As a result of the high reliability in target identification, this program is being extended to include the development of a BCIS antenna for crew service weapons, (Pedestal Mounted TOW and/or Javelin). This crew weapon BCIS antenna is to be modified to have a smaller beamwidth, which will increase its range and accuracy.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Mar 95 Design of DS-BCIS Antenna
Aug 95 Field Test of DS-BCIS Antenna

REQUIREMENTS DOCUMENT:

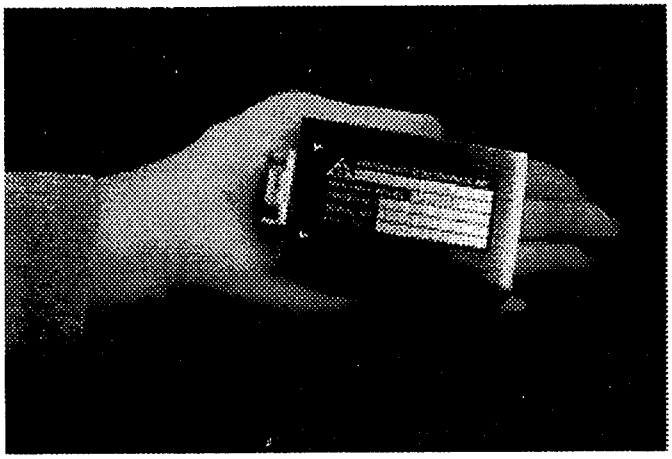
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Delivery of DS-BCIS Antenna	------4					
Field Test of DS-BCIS Antenna	4					
Development of CS-BCIS Antenna		2----4				
Delivery of CS-BCIS Antenna		4				

SYNOPSIS:

ARMY RESEARCH LABORATORY
PHYSICAL SCIENCES DIRECTORATE

LOW-POWER OSCILLATOR FOR GPS AND MILSTAR



PROJECT ENGINEER: Dr. John R. Vig (ARL), DSN 992-4275
COMM 908/427-4275
Dr. Raymond L. Filler (CECOM), DSN 992-2467
COMM 908/427-2467

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS

PE & LINE #:

DESCRIPTION: C3I systems require high-accuracy clocks to enable fast frequency hopping and pseudorandom noise modulation techniques for operation in high-jamming environments, for net security, for resistance to spoofing, and or extended radio silence. Currently available clock oscillators do not provide the required accuracy at low-power. Until recently, the only way to achieve high-accuracy clocks was to use ovenized oscillators or atomic clocks, which use too much power for battery-powered, man-portable systems. An ARL invention, the microcomputer compensated crystal oscillator, MCXO, has made it possible to produce LOW-POWER clocks of unprecedented accuracy (<5 milliseconds per day, <50 milliwatts power). ARL/PSD has been the main developer of low power clock technology in the US and is the DoD lead laboratory under Project Reliance. Seven companies have been licensed the PSD patent for the MCXO. Two have now demonstrated a capability for making MCXO's of 5 milliseconds per day accuracy: Frequency Electronics, Inc. (FEI) and Q-Tech. A French company has developed an MCXO with French government support. ARL has been working with CECOM towards the development of MCXO's for the MILSTAR SCAMP program, and for GPS receivers which are highly resistant to jamming and spoofing. The performance of GPS receivers with MCXOs will be evaluated during FY-96.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

1982 to present	ARL develops MCXO concept and shows feasibility.
1990	ARL licenses MCXO PATENT to seven companies.
1995	Commercial model of MCXO advertised by licensee, Q-Tech.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Evaluation of GPS receiver with MCXO (C/A)		4				
Evaluation of GPS receiver with MCXO (P-code)			4			

SYNOPSIS:

CECOM

ADVANCED SYSTEMS

ADVANCED SYSTEMS DIRECTORATE

SOLDIER SPEECH RECOGNIZER/SYNTHESIZER - KEYLESS ENTRY

PRODUCT MANAGER: Mr. David Ruppe, DSN 995-2589
COMM 908/544-2589

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE:

DESCRIPTION: The VRS-300 is user friendly. No training is required prior to use. The module provides a hands-free & eyes-free man machine interface as it responds to the human voice.

Mature speech recognition design has proven itself in tough environments. Tolerant to both background noise and speaker variability under stress conditions, the module achieves speaker independent word recognition. Compatible with most standard speaker input and output devices.

Computer software synthesized speech can be played by the VRS-300 without the need for a separate digital to analog converter and amplifier. Knowledge based rules of pronunciation and tailored library, converts unlimited written text into vernacular speech. Available as a single MCM-type module or as a PCMCIA card. The VRS-300 can be positioned on other miniature circuit boards or plug directly into a PDA, palmtop or laptop PCMCIA Type II Slot. The VRS-300 module and PCMCIA configurations also interface directly with the EISA/ISA bus. Tailored interfaces are available with FPGA software options or are OEM configurable.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Small PC Card. (PCMCIA TYPE II)

HISTORICAL BACKGROUND:

- o SBIR Developed and Battlelab tested.

REQUIREMENTS DOCUMENT: Lightweight Leader Computer ORD, Maneuver Control System ORD, and Army Common Hardware and Software ORD.

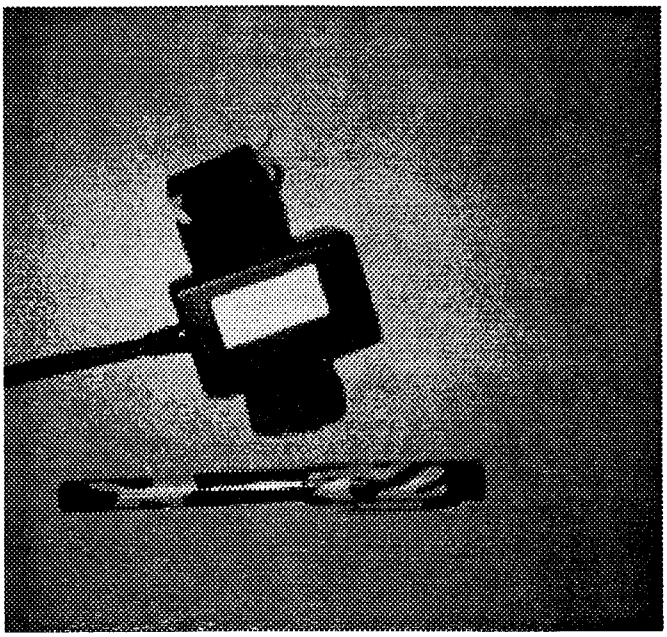
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Battle Lab Evaluation		4					
Production Contract			4				

SYNOPSIS: THE VRS-300 MODULE PROVIDES A HANDS-FREE & EYES-FREE MAN MACHINE INTERFACE AS IT RESPONDS TO THE HUMAN VOICE.

ADVANCED SYSTEMS DIRECTORATE

SOLDIER WRISTWATCH REMOTE INPUT & DISPLAY



PROJECT MANAGER: Mr. David Ruppe, DSN 987-2589
COMM 908/532-2589

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The Soldier Wristwatch is a miniaturized remote computer keying and liquid crystal display device worn on the wrist. The wristwatch is used by the soldier for remote control of command, control and communications functions when a full size display is impractical. The soldier is alerted to predetermined emergency conditions through a silent vibrator warning mechanism. Brief versions of standard message traffic (MOPP Alert, Air Alert, NBC Alert, Spot Report, Contact Report, etc.) are displayed automatically similar to a commercial paging device. The display is backlighted for night operations and IR filtered to prevent detection. The Soldier Wristwatch measures 1" x 2" and contains a 2-line character display which scrolls the message text. The wristwatch operates as a standard parallel post remote device which is connected to the soldier computer/radio. Messages received by the soldier computer/radio are automatically displayed on the wristwatch and sequenced in queue until the reset button is depressed. A command button is also provided on the wristwatch that when depressed signals the computer/radio to transmit a brief contact report containing the soldier's identity and present position. Present position of the soldier is automatically displayed on his wristwatch whenever the message queue is empty or reset.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

SBIR developed and battlelab tested having been selected after full and open competition.

REQUIREMENTS DOCUMENT: Lightweight Leader Computer and Soldier Computer ORD.

TYPE CLASSIFICATION: N/A

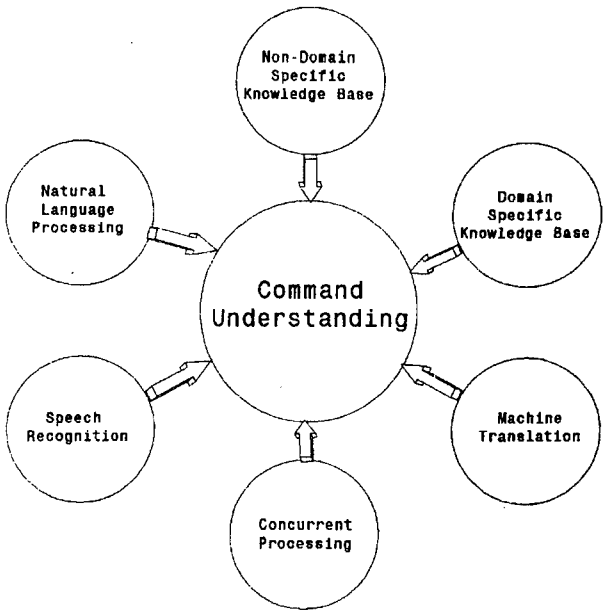
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Battlelab Evaluation		1				
Production Contract			2			

SYNOPSIS: THE SOLDIER WRISTWATCH IS A MINIATURIZED REMOTE COMPUTER KEYING AND LIQUID CRYSTAL DISPLAY DEVICE WORN ON THE WRIST.

C2SID

C2SID

ADVANCED INTERACTIVE INTERFACES



PROJECT MANAGER: Mr. Lockwood Reed, DSN 995-2559
COMM 908/544-2559

ACQUISITION CATEGORY:
ACQUISITION PHASE: I Demo/Validation

PE & LINE #: 63006 D247 WP: 2470206A

DESCRIPTION: This effort is intended to develop a multi-model command understanding capability to permit the access of battlefield information or control of subsystems via vocal or keyboard natural language requests. The system will include the capability of performing language translations to facilitate interoperability between forces. The system will exploit the technologies of neural science, domain knowledge processing, natural language processing and speech recognition. This effort will include technology evaluation, development and demonstration to support "Command-on-the-move". An objective is to provide keyless data entry capabilities for evaluation at NTC and at Battle Labs to demonstrate the capabilities to provide command and control on-the-move.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

REQUIREMENTS DOCUMENT: N/A

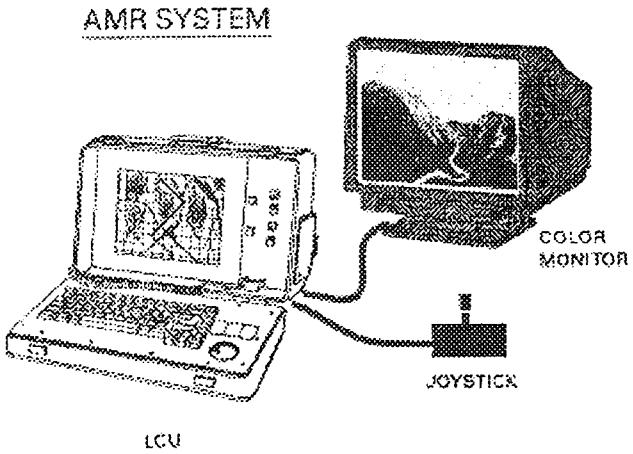
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Virtual Terminal SR	1					
Next Gen. S R - Phase I	1----4					
MT Algorithms	1--------	------4				
Next Gen. S R - Phase II		1----4				
Next Gen. S R - Phase III			1----4			

SYNOPSIS: DEVELOP MULTIMODAL COMMAND UNDERSTANDING TO FACILITATE ACCESS OF C2 BATTLEFIELD INFORMATION.

C2SID

AIRCRAFT MISSION REHEARSAL (AMR)



PROJECT MANAGER: Mr. Peter Csiky, DSN 987-4698
COMM 908/427-4698

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE: 62782 A779

DESCRIPTION: AMR provides a real-time 3D perspective view of the terrain using the Portable Mission Preview Device housed in a 486 based lightweight computer unit. The ability exists to register spot imagery or ADRG as an overlay to DTED. The image is updated at 15 Hz to provide a flicker free image. Another card, the Object/Image Generator, will be added to provide a full rehearsal capability. The OIG card will support various overlays to include GPS availability, threat situation, threat lethality and acquisition, and 3D objects such as buildings, bridges, known wire hazards & threat vehicles. Linear features, such as road networks, waterways or runways will also be able to be displayed. Upon completion of the AMR program, we will be able to provide the soldier with the ability to accurately rehearse its mission on the terrain and under the conditions expected for battle - and all in a PC environment.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Portable in a Lightweight Computer Unit (LCU).

HISTORICAL BACKGROUND:

Oct 92 Developed 2-card Portable Mission Preview Device (PMPD).
Apr 94 Ported system to UNIX environment.
Nov 94 Incorporated Standard DMA Controlled Image Base.

REQUIREMENTS DOCUMENT: N/A

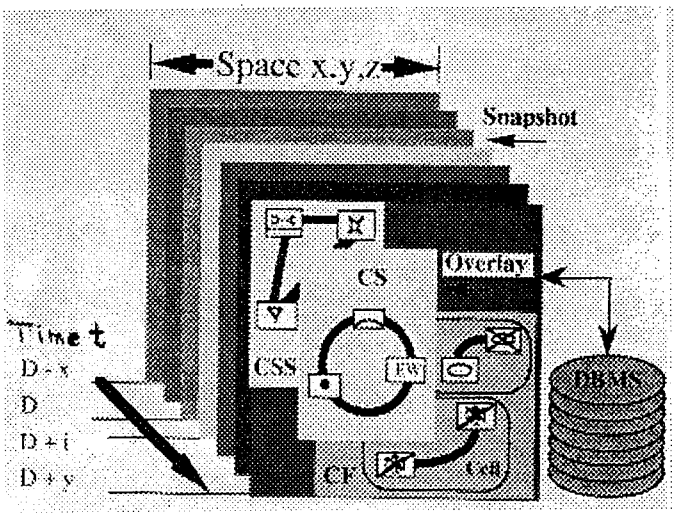
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Host in SCO/Chorus Unix	1					
Hardware Development	----	----4				
OIG CARD/Advanced Video Card		1-2				
Trafficability Demo			2			
Software Development	----	----	----	--2		
Software Documentation	----	----	----	----4		
Full Rehearsal Demo					1	

SYNOPSIS: DEVELOP REAL-TIME MISSION REHEARSAL CAPABILITY ON A PC PLATFORM TO INCREASE SITUATIONAL AWARENESS OF THE PILOT AS HE REHEARSES OVER THE 3D TERRAIN AND TACTICAL CONDITIONS ANTICIPATED DURING TIME OF BATTLE.

C2SID

BATTLESPACE C2 DECISION AIDS



PROJECT MANAGER: Dr. Israel Mayk, DSN 995-4996
COMM 908/544-4996

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE: 62782 A779 AVC2PT

DESCRIPTION: Under this effort, a scenario generator which is coupled to the operations requirements analysis (ORA) will be demonstrated. The output of the scenario generator will be coupled to the B2C2 software and the Soldier Computer. A scenario generator will also be interfaced to the WARSIM 2000. Horizontal collaborative planning between two battlefield functional areas will be demonstrated. The effectiveness of all technology demonstrations will be measured against established baselines.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Exploratory Development		——4					

SYNOPSIS: A SCENARIO GENERATOR COUPLED TO OPERATIONS REQUIREMENTS ANALYSIS (ORA) WILL PRODUCE OUTPUT, COUPLED TO B2C2 & SOLDIER COMPUTER, INTERFACED TO WARSIM 2000, DEMONSTRATING EFFECTIVENESS OF TEST DEMOS MEASURED AGAINST ESTABLISHED BASELINE.

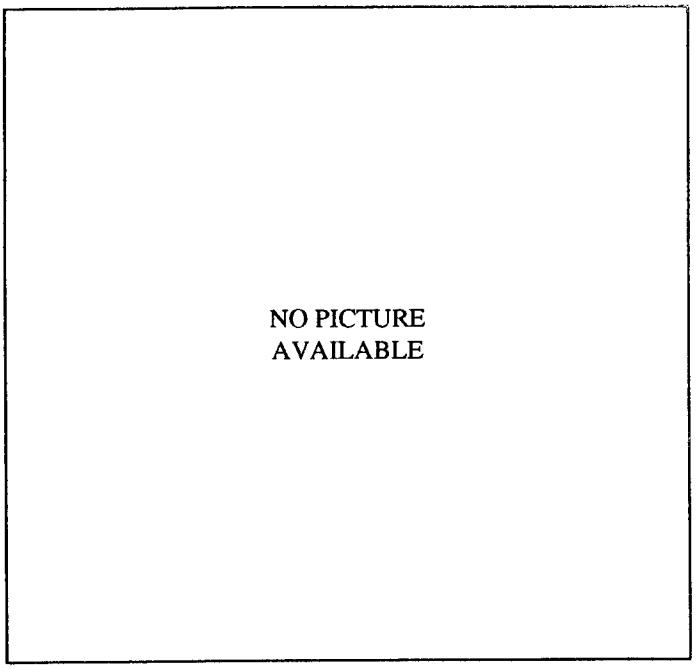
C2SID

BATTLESPACE COMMANDER'S WORK STATION

PROJECT MANAGER: Mr. Hal Gorman, DSN 987-4603
COMM 908/427-4603

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE: 62782 A779 AV2534



DESCRIPTION: The Battlespace Commander's Work Station program will develop, integrate and demonstrate emerging technologies to significantly enhance Battlespace visualization and enable collaborative planning, rehearsal, execution and monitoring on the digital battlefield. Candidate emerging technologies to be integrated include decision aids, multimodal command understanding, database technology, multimedia, advanced image compression and transmission, synthetic and real imagery, feature extraction and 2D and 3D rendering. The focus is on the commanders interface to the battlespace and the embedded software tools which allow the commander and his staff to collaborate electronically in a rapid and effective manner.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

HISTORICAL BACKGROUND: N/A

REQUIREMENTS DOCUMENT: N/A

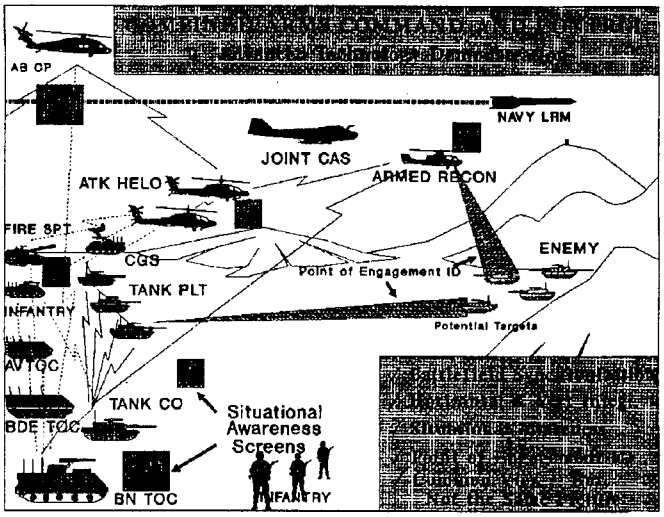
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00	01
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Exploratory Development		4---	----------	----------	----------	----------	----------	------4

SYNOPSIS: THE FOCUS IS ON THE COMMANDERS INTERFACE TO THE BATTLESPACE AND THE EMBEDDED SOFTWARE TOOLS WHICH ALLOW THE COMMANDER AND HIS STAFF TO COLLABORATE ELECTRONICALLY TO PLAN, REHEARSE, EXECUTE, AND MONITOR THE BATTLE IN A RAPID AND EFFECTIVE MANNER.

C2SID

COMBINED ARMS COMMAND AND CONTROL (CAC2)



PROJECT MANAGER: Mr. Dave Diamond, DSN 995-3869
COMM 908/544-3869

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:

DESCRIPTION: The CAC2-ATD delivers the Force XXI systems architecture to provide real time Combined Arms force synchronization and situation awareness to the Digital Commander. CAC2 provides a common tailored battlefield picture through digitization and automation of C2 and communication. In concert with the Battle Labs, the CAC2 ATD establishes and refines systems requirements, and develops a series of key Distributed Interactive Simulation products to add C3 realism to Virtual battles. This program is a top level ATD which will integrate systems and standardization requirements to digitize the battlefield.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Dec 92 Battlefield Synchronization Demonstration (BSD) man-in-the-loop simulation.
Mar 93 BSD Demonstration at Fort Knox, KY.
Jul 93 Front-End Analysis User Requirements Exercise, Fort Knox.
Mar 94 NTC 94-07.
Jun 94 Operational Requirements Analysis (ORA), Ft. Knox.
Aug 94 Completed SINCGARS and EPLRS System Performance Models.
Sep 94 Completed DIS Compliant SINCGARS Radio Model.
Dec 94 Delivered draft TF XXI Systems Architecture.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Develop Bde 96 Architecture	-1																							
CECOM Digital Integration Lab	-1																							
Op Rqmts Analysis - AVN	2																							
Simulation of Bde 96		3																						
Focus Dispatch AWE		4																						
TFXXI System Architecture					1	—	—	3																
CAC2 Database Architecture						3																		
TFXXI							4																	

SYNOPSIS: THE CAC2 IS A TOP LEVEL ATD WHICH WILL INTEGRATE SYSTEMS AND STANDARDIZATION REQUIREMENTS TO DIGITIZE THE BATTLEFIELD.

C2SID

DIFFERENTIAL GPS (DGPS) TECHNOLOGY

PROJECT MANAGER: Mr. Eddie Cornelious, DSN 995-2576
COMM 908/544-2576

ACQUISITION CATEGORY: II
ACQUISITION PHASE: I Demo/Validation

PE & LINE: 62782 A779

NO PICTURE AVAILABLE

DESCRIPTION: The Differential GPS Technology effort is being pursued to determine if Differential GPS techniques can be applied to precision approach and landings in tactical environments. A Differential GPS landing system will require both the accuracy required for a precision approach as well as the integrity of both the space based GPS signals and the ground based data link. The small size of the GPS receivers, current communication hardware and other ancillary equipment on the ground will provide a lightweight mobile system which may be deployed at Brigade and other forward/remote landing zones. The ground system has the advantage of providing the GPS correction data as well as landing zone information, approach bearing information, approach path waypoint information and minimum glideslope information. The data available via the data link allows the aircraft to make an approach to a landing zone without the need for manual entry of waypoint/approach data while the minimum glideslope information provides increased safety.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None

HISTORICAL BACKGROUND: The Army has long had a need for a precision approach capability during day/night all weather operations in a tactical environment. This need is particularly important at Brigade and other forward landing zones where other systems cannot be deployed because of their size and weight.

REQUIREMENTS DOCUMENT: Draft Joint Mission Needs Statement for Precision Approach and Landing Capability.

TYPE CLASSIFICATION: None

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Multi-sensor integration tested	2-3					
Preliminary Flight Test conducted	4					
Conduct initial Flight test		1-2				
Develop multiple Kalman Filter designs		3----	-1			
Conduct final Flight test			2-3			
Develop enhanced Integrity Algorithms			4---	-1		
Develop final Kalman filter designs and sensor matrix				2---4		
Monitor DGPS Efforts of FAA for NAS	1-------	-------	-------	------4		

SYNOPSIS: THE DIFFERENTIAL GPS TECHNOLOGY EFFORT WILL DETERMINE IF DGPS TECHNIQUES CAN BE APPLIED TO PRECISION APPROACH AND LANDINGS DURING DAY/NIGHT ALL WEATHER OPERATIONS AT REMOTE TACTICAL LANDING ZONES.

C2SID

INDIVIDUAL SOLDIER'S COMPUTER/RADIO

PROJECT MANAGER: Mr. William Yost, DSN 995-3818
COMM 908/544-3818

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS I Concept Explor./Definition

PE & LINE #: 63772.D101

NO PICTURE AVAILABLE

DESCRIPTION: The Individual Soldier's Computer/Radio (SC/R) is a small, lightweight, portable, hands-free computer system with wireless link designed for the individual soldier. This system will extend automated command and control to the soldier level. It will incorporate a small sized, standard architecture computer with modular application cards (e.g. graphics, digital radio, video capture/compression and mass memory storage), permitting easy configuration based on user's needs; a radio incorporating Personal Communications technologies, which can transmit integrated speech, data and video; a helmet and secondary display; manual, voice and video input devices and a Global Positioning System (GPS) Receiver, permitting the soldier to view a map depicting friendly, enemy and his own position on the battlefield. Individual Soldier's Computer/Radio will also integrate night vision devices and other sensors, to include medical monitoring and Combat ID. The modular architecture of Individual Soldier's Computer/Radio will allow mission configurable applications to include (but not limited to) situation awareness, message management, training, field diagnostics and maintenance.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

HISTORICAL BACKGROUND:

2QFY90	In-house development of Prototype.
4QFY90	Concept Demonstration at AMC Technology Expo, Aberdeen, Maryland.
FY91-92	Computer development for Soldier's Integrated Protective Ensemble (SIPE) Advanced Tech Transition Demo (ATTD).
FY93	Century Land Warrior/Generation II Soldier System ATD begins.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ACT II Soldier C&C Demos	3	1				
Land Warrior EMD Awd	4					
JRTC Demo		1				
BDE 96 Applique/Dismtd Soldier Sys Demo			2			
GEN II Soldier ATD Demos		4		4		

SYNOPSIS: SOLDIER'S COMPUTER WILL EXTEND AUTOMATED COMMAND, CONTROL, COMMUNICATIONS, & INTELLIGENCE TO THE INDIVIDUAL SOLDIER LEVEL VIA A SMALL, LIGHTWEIGHT, PORTABLE, MISSION-CONFIGURABLE, INTEGRATED COMPUTER SYSTEM.

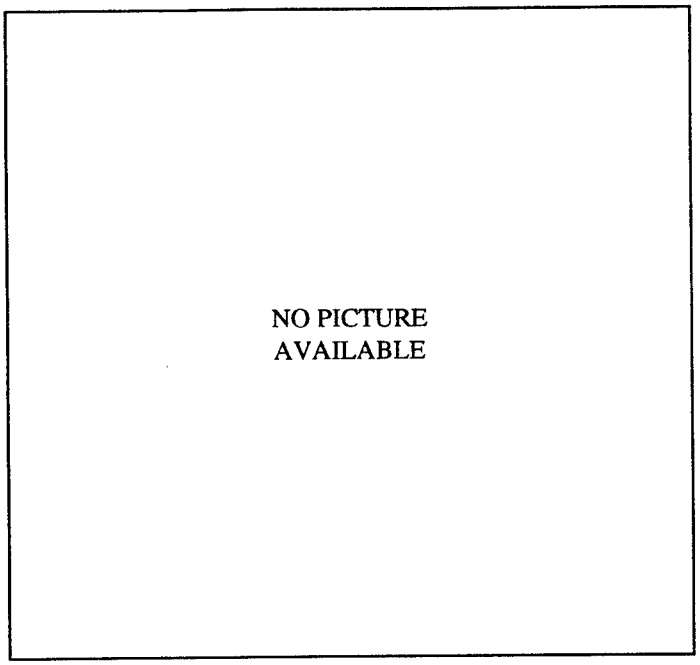
C2SID

NAVIGATION TECHNOLOGY

PROJECT LEADER: Mr. Paul M. Olson, DSN 987-3912
COMM 908/427-3912

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demonstrate/Validation

PE & LINE: PE 62782 A779 AV 2031/2031A



DESCRIPTION: Navigation Technology has one unit (Precision Navigation). Precision Navigation - Application of advanced sensor and integration technology to improve navigation system accuracy by one order of magnitude in all environments in a registered digital database. Robust precision navigation capability will be provided for aided pilotage and precision target and emitter location. Aided pilotage concepts use digital data for flight path trajectory generation and GPS as primary position sensor.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Palletized for aircraft or van.

HISTORICAL BACKGROUND: Continually evolving program striving to meet advanced aviation requirements for precision navigation and positioning.

REQUIREMENTS DOCUMENT: Precision Navigation Technology, STO III, E.08.

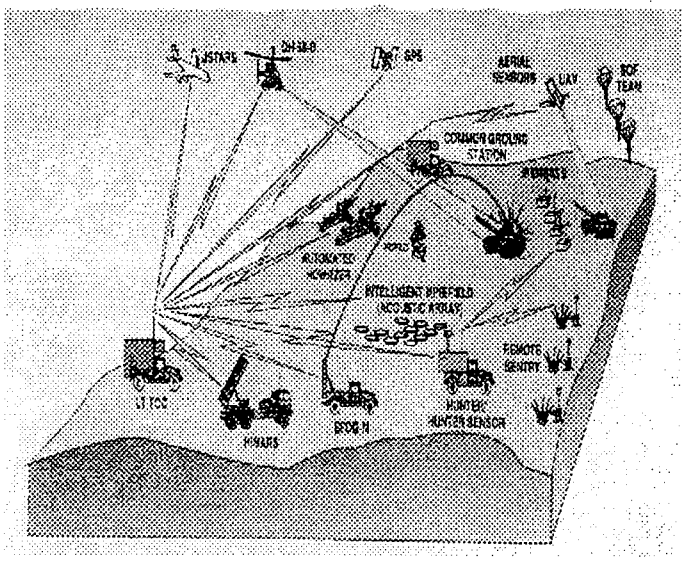
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PNS GPS REF RCVR Integ	----3																							
GPS SAT SEC Study	----3																							
DTD Suitability Study	----------				---2																			
DTD Improvement Insertion	----------				----------				----4															
Enhanced GPS for ECM Environments	4---				----------				----------				----3											

SYNOPSIS: APPLY ADVANCED SENSOR AND INTEGRATION TECHNOLOGY TO IMPROVE NAVIGATION SYSTEM ACCURACY BY ONE ORDER OF MAGNITUDE IN ALL ENVIRONMENTS, IN A PROPERLY REGISTERED DIGITAL MAP DATABASE.

C2SID

RAPID FORCE PROJECTION INITIATIVE COMMAND & CONTROL (RFPI-C2)



PROJECT MANAGER: Mr. Dominick Pondaco, DSN 992-0101
COMM 908/532-0101

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 63772 D101

DESCRIPTION: The Rapid Force Projection Initiative (RFPI) C2 will demonstrate enhanced capabilities which address the strategy of Close Combat Light with respect to the rapidly deployable force. The C2 portion of this program will demonstrate the integration of rapid force projection remote scout and sensor reconnaissance information into the Battlespace C2 concept, providing commanders with the ability to integrate data into the overall battlefield picture, set target priorities, determine target weapon parings, and perform target handover to non-line of sight, air attack, or close weapon systems. Demonstrations will encompass the data links required to transport targeting data from remote sensors to a central point, and the ability to redistribute the correlated targeting data to a decision point and to various weapon platforms which would bring fire on given targets. Various transmission technologies will be investigated: wide band data links, packet techniques, bandwidth compression, and alternate frequency bands. Two light TOC testbeds will be designed and fabricated for use in the planned FY98 technology demonstration.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: RFPI-C2 system requirement is air transportable (C141, C5A).

REQUIREMENTS DOCUMENT: STO 111.H.05 Rapid Force Projection Initiative (RFPI) C2 for thrust 5.

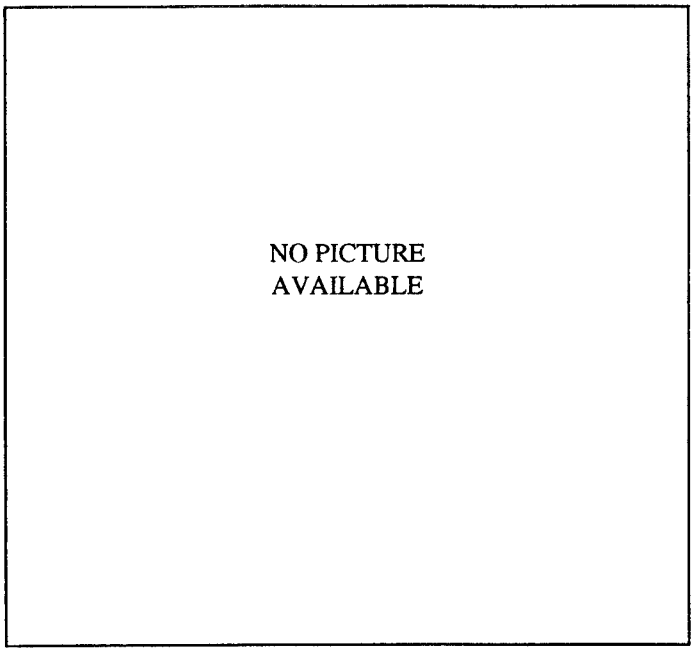
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ORA Data Reduction/Analysis	---2					
Modeling and Simulation	1-------	------4				
Light TOC Testbed Delivery			2			
Advanced Technology Demonstration				2		

SYNOPSIS: RAPIDLY DEPLOYABLE COMMAND & CONTROL SYSTEM FOR CLOSE COMBAT LIGHT FORCES DURING EARLY ENTRY AND SUSTAINED OPERATIONS.

C2SID

TACTICAL INFORMATION MANAGEMENT SYSTEM (TIMS)



PROJECT MANAGER: Mr. James H. Salton, DSN 995-2125
COMM 908/427-2125

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 633772 D101

DESCRIPTION: Improve efficiency of command and control information handling functions to minimize communications loading at lower echelons for the horizontal digital integration of the battlefield. Builds upon ongoing programs consisting of the Army Research Laboratory Information Distribution Technology, CECOM Data Distribution Technology SBIR, and CECOM A779 Battlespace Command & Control Decision Aids (BCD) program. Develops automated information management to minimize communications loading through optimal data abstraction and information refinement, data flow "optimization algorithms" at source, and "just in time" data flow management to provide "the right information at the right place at the right time". Places emphasis on planning/replanning by assuring that system only communicates in accordance with plan and requiring development of standardized, machine readable plans. The program is focused on providing software deliverables to the Combined Arms Command and Control and Battlespace Command and Control ATDs and to PEO CCS.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND: Computers are getting faster and smaller. Tactical communications bandwidth is limited. Projected communications pipelines, even with data compression, will be insufficient to meet data flow needs. Therefore we must design computationally intensive rather than communications intensive systems.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Architecture Definition		1-2				
Demonstrate Prototypes		4				
Develop Prototype Package		2———	-1			
Transition Package to BSC2 ATD			1			

SYNOPSIS: IMPROVE EFFICIENCY OF COMMAND AND CONTROL INFORMATION HANDLING FUNCTIONS TO MINIMIZE COMMUNICATIONS LOADING AT LOWER ECHELONS FOR THE HORIZONTAL DIGITAL INTEGRATION OF THE BATTLEFIELD.

IEWD

IEWD

ADVANCED DIGITAL EA DEMONSTRATION

PROJECT MANAGER: Mr. Tom Dizer, DSN 229-7296
COMM 703/349-7296

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 63270 DK15

DESCRIPTION: This demonstration will establish the effectiveness of exploitation and jamming techniques based on vulnerabilities of various modern analog and digital communication systems. A prototype system for detecting and collecting analog and digital signals will be fabricated to allow for demonstration of proof of concept countermeasures techniques. Additional information on this project is classified SECRET and can be obtained upon request.

NO PICTURE AVAILABLE

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

FY95 New start.

REQUIREMENTS DOCUMENT: N/A

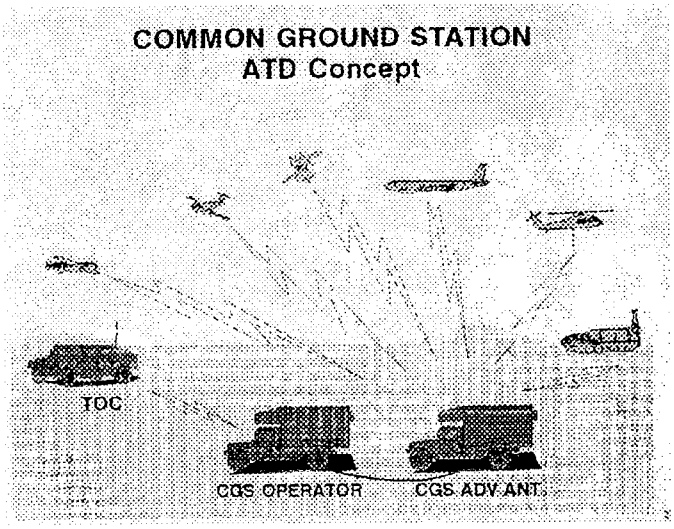
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Signal detection algorithms	1------	--------	--------	--------	--------	--------
Exploitation and jamming techniques	1------	--------	--------	--------	--------	--------
Fabricate prototype systems				1------	--------	------4

SYNOPSIS: THIS PROJECT WILL UTILIZE PROTOYPE IEW SYSTEMS TO DEMONSTRATE EA AGAINST SPECIFIED COMMUNICATIONS SYSTEMS.

IEWD

COMMON GROUND STATION - ADVANCED TECHNOLOGY DEMONSTRATOR (CGS-ATD)



PROJECT LEADER: Mr. Thomas Newsome, DSN 987-5314
COMM 908/427-5314

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE #: 63772/D243 63006/D247

DESCRIPTION: The Common Ground Station (CGS) will provide the intelligence and electronic warfare (IEW) community with an expanded modular and scaleable capability to receive, process, correlate, display and disseminate in a readily useable form, the best possible intelligence data from multiple sensors, processors, and other sources in near-real time. The types of sensor data that will be provided as input to the CGS include, but are not limited to: MTI, SAR, SIGINT, IMINT, and reports from C3I processors. The goal of the CGS Advanced Technology Demonstration is to develop a system that will enhance the intelligence capabilities in support of the maneuver brigade commander. The CGS ATD will address the technology required to process the multiple sensor and C3I processor data on a distributed multimedia database, disseminate data to the commander and address antenna technologies leading to multiple input on-the-move operation. Subsequently, its role shall be expanded to provide IEW support at all echelons through Corps as well as fire support.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A

HISTORICAL BACKGROUND:

Sep 90 PEO IEW Ltr of Support for proposed BTI new start and ATTD citing urgent need for CGS tech base program.
May 91 Letter from MG Menoher to SARDA expressing support and endorsement of CGS/intelligence dissemination BTI proposal.
May 91 Msg from MG Menoher to DA, LABCOM, PEO IEW and CECOM supporting need for a tech base CGS/intelligence dissemination program.
Feb 92 Request from MG Menoher to meet with SARD to emphasize need for CGS ATTD approval in FY93.
Oct 92 Start of CGS ATD.
Oct 93 ATO STMT.
FY94 Initial Demonstration of Multimedia Distributed Intelligence Database supporting MTI, Imagery, SIGINT, and Video with high performance data retrieval.
FY94 Integration of CGS database with Defense Simulation Internet and SIGINT simulation capability.
FY94 CECOM decision to fund On-The-Move improvements to the Advanced Antenna under the Digital Battlefield Comms ATD.

REQUIREMENTS DOCUMENT: ROC - 18 Nov 92.

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Adv Antenna Test	2					
CGS ATD Demo	3					
Spt to TMD95 Army Warfighting Experiment	2 3					

SYNOPSIS: THE CGS ATD WILL FUNCTIONALLY INTEGRATE VARIOUS SENSORS AND PROCESSORS WITH IEW HARDWARE AND SOFTWARE MODULES TO PROVIDE THE ARCHITECTURAL AND OPERATIONAL FOUNDATION FOR THE COMMON GROUND STATION.

IEWD

EW CRITICAL COMPONENTS

PROJECT MANAGER: Mr. James Mulligan. DSN 229-7305
COMM 703/349-7305

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 62270 A906

NO PICTURE AVAILABLE

DESCRIPTION: Develops essential Electronic Warfare (EW) components to guarantee ownership of the electromagnetic spectrum; enabling technologies for advanced jammers; small, low power, light weight, common modules for advanced systems to counter modern threat C_2 systems. Representative initiatives encompasses essential technology objectives such as advanced jammer antennas, efficient power utilization circuits, high temperature superconducting components, and numerical based systems to aggressively counter complex modulation emitters. Rapid transition to EW platforms will enhance systems including Integrated Jammer System, Advanced QUICKFIX, UAV EW packages. Resultant enhancements will support Joint Command and Control Warfare, "knockout punch" by denying the enemy access to essential warfighting information.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

- o Developed superconducting delay line.
- o Designed antenna system parameters for HMMWV groundplane.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Power Multiplexing	------4					
HTSC Antenna Development	----------	------4				

SYNOPSIS: DEVELOPS ESSENTIAL ELECTRONIC WARFARE (EW) COMPONENTS TO GUARANTEE OWNERSHIP OF THE ELECTROMAGNETIC SPECTRUM AND COUNTER MODERN THREAT C_2 SYSTEMS.

IEWD

IEW DATA FUSION TECHNIQUES

PROJECT MANAGER: Mr. Russel Grubb, DSN 229-7566
COMM 703/349-7566

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 62270 A906

NO PICTURE AVAILABLE

DESCRIPTION: This effort will advance battlefield EW processing capabilities by developing the mature, transferrable software products to integrate diverse IEW source inputs at a single point to provide the commander a timely, fully fused portrayal of the battlefield situation and enemy intentions. Advanced computer based data fusion techniques will be used to correlate multi-source, diverse mode sensor reports into digitally formatted intelligence products. This will involve the development and application of techniques to store and manage data derived from the entire spectrum of available sensors. The work will bring to bear advanced parallel processing techniques to speed the complex manipulation of data to provide timely outputs for command decisions which are inside of the enemy decision cycle. Data will be stored and manipulated using advanced multi-media data base architectures and displays. This laboratory effort will yield products for rapid seamless retrieval and dissemination in support of the Intelligence Preparation of the Battlefield (IPB) and all subsequent intelligence products. Sensor cueing techniques will be implemented to synchronize the fusion effort with the flow of the battle. Automated tactical data fusion is essential to the rapid, cohesive timely intelligence needs of the Force Projection Army.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

- o Initiated development of correlation & templating, automated tracking, cross-queing and situation display tools & techniques.
- o Complete spatial/map reasoning algorithms for development of automated intelligence overlays and terrain features.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
AMBISS/JOCS/HF/MI)	------4					
BDA Tools and Techniques	----------	----3				
Airborne Planning (3D)	----------	----------	----3			
Database to Database Interface (DB2I	----------	----------	------4			
SIGINT/MTI Correlation/Fusion	2----------	----------	----------	---2		

SYNOPSIS: DEVELOP THE TECHNOLOGY TO AUTOMATE MANPOWER INTENSIVE MANAGEMENT, CORRELATION AND INTEGRATION OF MULTIPLE SOURCE TACTICAL INTELLIGENCE DATA.

IEWD

IEW SIMULATION AND MODELING

PROJECT MANAGER: Mr. Vincent Simpson, DSN 987-5294
COMM 908/427-5294

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: N/A

PE & LINE: 62270 A906

NO PICTURE AVAILABLE

DESCRIPTION: Develops uniquely focused basic capability for IEW oriented computer models and simulations that represent the basic Army Intelligence Functions. Supports equipment and force development, mission planning, operational employments, and training. The basic capability will include the integration of advanced models with comprehensive communications propagation predictors tied to dynamic communications net simulators. Results provide analysis of optimal asset employment zones, and effectiveness of information distribution networks. Facilitates force planning, and hardware/software interoperability planning. Facilitates force and material development process through testbed simulation and advanced technology demonstrations. Supports the development of training to provide a dynamic environment and increase the realism of the emulation of IEW systems. Interacts with Battle Labs through the Defense Simulation Internet.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

- Installed Defense Simulation Internet node to conduct distributed interactive simulations.
- Participated in Distributed Interactive Simulation Demo '93.
- Supported Joint Precision Strike Demonstration.
- Developed and executed Common Ground Station simulations.
- Provided Simulation Support for Techbase and PM Programs.

REQUIREMENTS DOCUMENT: N/A

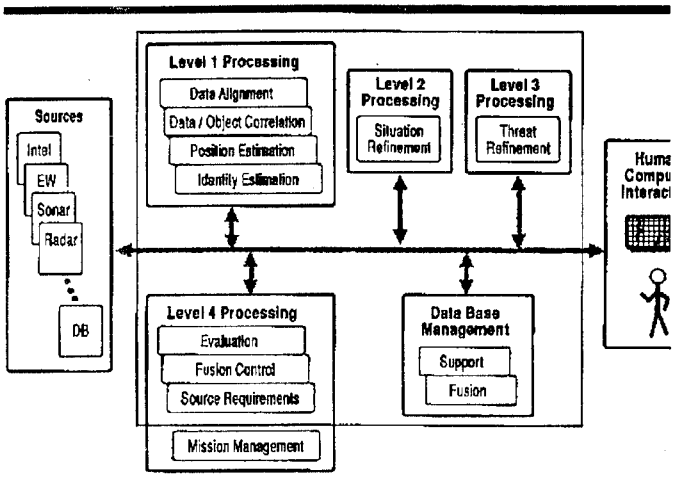
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ORION S&M Effort	1----4					
CGS to CAC2 DIS entity and PDU development	----4					
Common Ground Station Support	----	----4				
Integration to RDEC Integrated Lab	----	---3----	----	----	----	----
ADTS Follow On	1----	----	----	----	----	----

SYNOPSIS: PROVIDE A SERVICE ORIENTED UTILITY TO ARMY WARFIGHTER, MATERIAL DEVELOPERS AND IEWD DIVISIONS THAT WILL INSURE THE SUCCESS OF EXISTING AND DEVELOPMENTAL INTELLIGENCE AND ELECTRONIC WARFARE SYSTEMS.

IEWD

INTELLIGENCE FUSION DEMO (IFD-TD)



PROJECT LEADER: Mr. Russell Grubb, DSN 229-7566
COMM 540/349-7566

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE #: 63270 DK15

DESCRIPTION: This effort will test, validate and demonstrate automated tactical data fusion concepts and technology. Using currently available data fusion modules combined with digital battlefield representations, the effectiveness of automated data fusion as an intelligence force multiplier for the commander will be proven through a series of ongoing demonstrations. Field users will assess and validate fusion operations. Integrating software and common interfaces will be developed to coalesce and implement the fusion modules. Through a series of advancing capabilities demonstrations, software and hardware modules will be brought to a usable level of maturity. Modules will be converted into usable products and integrated into tactical intelligence systems such as ASAS and the Common Ground Station. Tactical data fusion will allow the commander to receive timely, correlated information allowing operation within the enemy's decision cycle.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

FY92 Refine prototype and add cabilities.
FY92 Convert Tactical SIGINT Support System (TSSS) to SUN Workstation.
FY92 Participate in Collateral Enclave ASAS IOT&E.
4Q92 Field Demo at V Corps.

REQUIREMENTS DOCUMENT: N/A

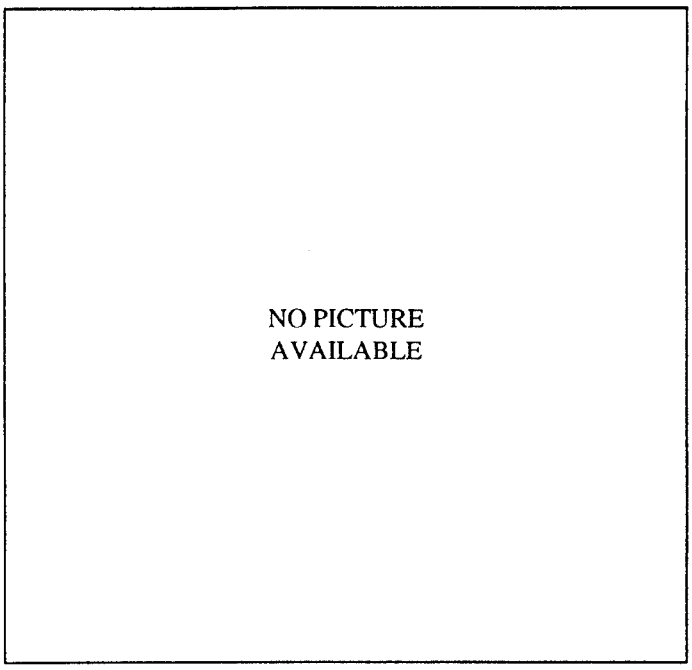
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
SIGINT/MTI for CGS ATD	1					
Asset Mgmt/AMBISS demonstration	-------	------4				
DB2I	2-------	------4				
ORM/TEM	3------	1				

SYNOPSIS: TEST, VALIDATION & DEMONSTRATION OF AUTOMATED TACTICAL DATA FUSION CONCEPTS & TECHNOLOGY

IEWD

MINI-RES SYSTEM



PROJECT OFFICER: Mr. Ron Valliant, DSN 229-7420
COMM 540/349-7420

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 612270 906R

DESCRIPTION: The Mini-Res system is a HP workstation with a FRIAR IV signal analysis capability. The mini-res system is tailorable to a variety of missions/customers. The system provides intercept, line of bearing indication, and signal analysis, spanning the HF, VHF, and low UHF bands. The system fits inside two transit cases, and comprises a portable computer with associated antennas. The system is intended for low-profile surveillance and signal capturing scenarios. This system will exhibit analytical capability of signals captured between 0.5 and 1000 MHz. This system will allow the operator to scan, view, and hear a user-selected portion of the detected RF spectrum for signals of interest from 0.5 MHz to 1000 MHz. The system will provide a form of remote control capability via Ethernet. This system will also provide connectivity to the Army's All-Source Analysis System (ASAS) via Net Radio Protocol (NRP).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Man-Transportable.

HISTORICAL BACKGROUND:

Sep 92 Contract award.
Sep 94 Prototype system delivered.
Dec 95 Final Delivery to 201st MI BD.

REQUIREMENTS DOCUMENT: HQ INSCOM Msg DTG 111600Z, Nov 1992.

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System Design	1					
System Testing	3					
SUN-RES Integration	2–3					
HP-RES Deployment		1				
Documentation/Delivery		1				

SYNOPSIS: MINI-RES SYSTEM IS A PC BASED SIGNAL ANALYSIS WORKSTATION WITH INTERCEPT/DF THAT IS TAILORABLE TO A VARIETY OF MISSIONS/CUSTOMERS.

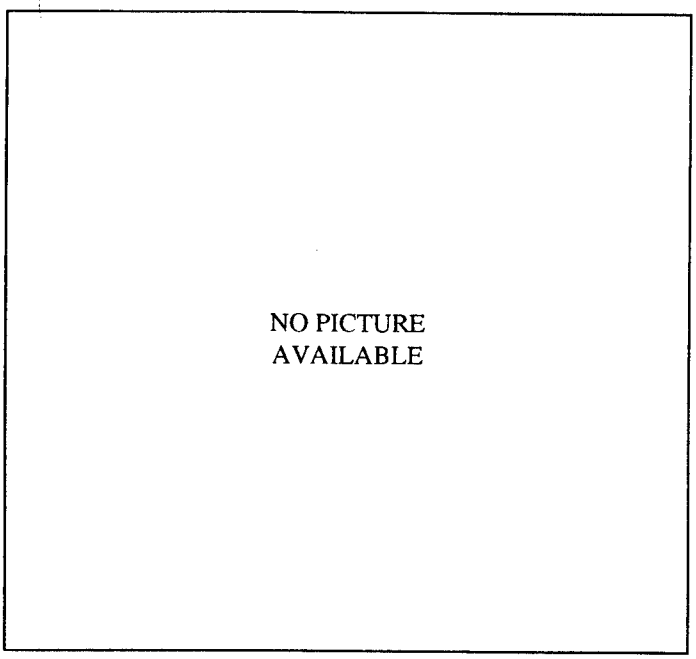
IEWD

MULTIPLE SOURCE CORRELATED INTELLIGENCE FUSION DEMO

PROJECT MANAGER: Mr. Russel Grubb, DSN 229-7566
COMM 540/349-7566

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 63270 DK15



DESCRIPTION: A fully integrated tactical intelligence data fusion module will be demonstrated. The module will be stimulated with diverse inputs and perform various fusing functions to provide the commander with a comprehensive visualization of the battlefield using advanced, multi-media display techniques to provide complete status of the situation in an easily viewed and understandable format - status at a glance. Inputs to the module will be from the entire suite of battlefield sensors and both tactical and strategic intelligence sources. Sensors will be queued, and remote resources queried to synchronize the fusion effort with the supported tactical operation. Data will be correlated using advanced fusion techniques such as automated terrain reasoning for location and movement analysis, and amalgamated into unambiguous intelligence products. The module is a combat multiplier in the information war. It will support functions from the initial IPB to final battle damage assessments (BDA), and can even be in support of fratricide prevention.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

FY96 New start.

REQUIREMENTS DOCUMENT: N/A

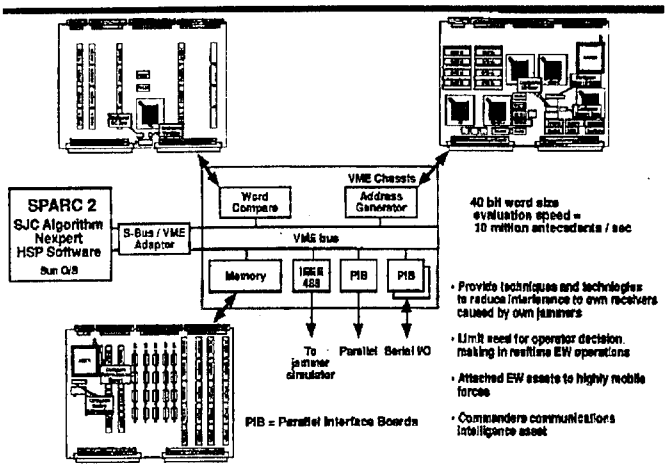
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
SIGINT/MTI		1-------	--------	--------	-----4	
BDA		1-------	-----3			
AMBISS/MI/AIRBORNE		3----	--------	--------	-----4	
DB2I		3----	--------	-1		

SYNOPSIS: PROVIDE COMMANDERS IN THE FIELD WITH AN AUTOMATED SYSTEM WHICH PROVIDES A TIMELY AND ROBUST DATA FUSION CAPABILITY.

IEWD

NEW SIGNALS EW (NEWSIG EW-TD)



PROJECT LEADER: Mr. Tom Dizer, DSN 229-7324
COMM 703/349-7324

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE #: 62270 A906

DESCRIPTION: The objectives of this project are to develop both generic and specific Electronic Attack (EA) techniques and subsystems for jamming modern forms of communications signals. EA techniques are being developed against predicted communication threats that appear in the commercial communications arena. The development of techniques for jamming communications systems with minimum knowledge of signal parameters, with minimum ES receiver sophistication are included in this effort.

Techniques usable by stand-in UAV and SOJs will be developed through the use of mathmatics and computer science for applications into EA processing/control/decision functions. Direction includes neural net approaches and investigation into genetic algorithms and fuzzy logic for the generation of large intermodulation interference free sets of communications frequencies. New logical frameworks for computer science are being researched on the concern with the logical consistency of an AI rule set and the investigation of the Boolean Ring as the basis of a new foundation for AI.

Investigations and demonstrations will also focus on developing techniques for prevention of EA fratricide through smart jammer control (SJC). The SJC fratricide reduction concept being developed emphasizes the smart control of the jammer. This smart control is accomplished by a software algorithm which has two essential functions. First, the battlefield communications environment is evaluated and the fratricide level is quantified. Second, smart control of the jammer is then based upon the blue (friendly) and red (threat) net priorities, the predetermined rules of engagement and the acceptable fratricide level. The first function evaluates and quantifies battlefield communications while the second function implements command direction. This approach allows the jammer to be used as an integrated, coordinated battlefield resource. The key attribute of this approach is that while it will not eliminate all fratricide all of the time, it will insure that the fratricide level is always contained within the established, acceptable limits. The SJC can be used as a real time jammer controller or as an effective, thorough asset planning and analysis tool.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

FY90 Fratricide Avoidance contract awarded.
FY91 SBIR High Speed Processor technology transitioned into program.
FY92 Expert Rule development initiated.
FY93 IEWTAC Project Assessment.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
SINCGARS apriori frequency info system (SAFIS)	------4					
QRNS Based FFT Channelizer	-------	------4				
Math & Logic Concepts for EA	-------	------4				

SYNOPSIS: NEW SIGNALS EW IS A DEMONSTRATION OF AUTOMATED CONTROL OF JAMMING SYSTEMS.

IEWD

WARLOCK-X

PROJECT MANAGER: Mr. Michael Caprario,DSN 987-5527/9
COMM 908/427-5527/9

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

NO PICTURE AVAILABLE

PE & LINE: 62270 / A442

DESCRIPTION: Sensitive Information.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:
Under 10,000 ft.

HISTORICAL BACKGROUND:

- o Conducted system hearability test.
- o Conducted successful technical/operational test against surrogate threats showing operational utility.

REQUIREMENTS DOCUMENT: Operational Capabilities Regs (OCRs), Battlefield Development Plan, Joint Mission Needs Statement (SOCOM).

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System 1 size, weight, cost reduction	----------	-1				
System 2 lab demonstration/field test	----------	----------	-1			
System 3 - Implement Imaging Radar Efforts			1----------	----------	----------	-1

SYNOPSIS: PROVIDES THE ABILITY TO DETECT AND IDENTIFY THREAT RADAR AND PROVIDES THE TECHNIQUES FOR THE DECEPTION OF ENEMY COMMAND AND CONTROL SYSTEMS (EARLY WARNING/GCI, GROUND SURVEILLANCE).

IEWD

NON-COMMUNICATIONS / ELECTRONIC SUPPORT TECHNOLOGY

PROJECT MANAGER: Dr. Frank Elmer, DSN 987-5956
COMM 908/427-5956

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 62270 A442/TST

NO PICTURE AVAILABLE

DESCRIPTION: Radars are used on the modern battlefield to locate, track, and design targets for engagement by highly lethal modern weapon systems. The systems that detect, geolocate, identify and report the radars to the battlefield commander are: Guardrail Common Sensor, Advanced Quickfix, Airborne Reconnaissance Low and Ground Based Common Sensor. These will be augmented in the early 2000's with the Airborne Common Sensor.

These systems do well against the early 1980's vintage radars that they were designed for, but need enhancements to deal adequately with the modern (1990+) and emerging (early 2000's) radars that they will face during the respective system's service life. Efforts in this area provide the technology base for developing the product improvements that will permit existing systems to deal with the serious threat posed by high technology military/civilian modern radars through the early 2000's.

The primary technical focus is on exploring/developing/demonstrating the technology needed to address modern radars that use low probability of intercept techniques (e.g., spread spectrum which trades increased bandwidth and pulse duration to achieve significantly lower effective radiated power) not only to avoid detection, but also for improved radar performance. This need is addressed by the following areas of investigation: improved direction finding and emitter geolocation techniques, improved bandwidth and sensitivity of receivers, improved capability to handle multiple simultaneous signals, improved antennas, improved ability to sort out highly parameter agile emitters (e.g., frequency hoppers), improved emitter tracking/identification techniques, and improvements in more effectively utilizing the data available from other ELINT/ES systems that see the same radar.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

- o Fabricated prototype ceramic antenna.
- o Demonstrated high band sensitivity improvement antenna.
- o SAW channelizer compressive interferometer delivered.
- o Demonstrated Neural Net DF technique in the laboratory.
- o Conducted triservice international multipath test.
- o Demonstrated Ceramic Antenna Prototype.

REQUIREMENTS DOCUMENT: N/A

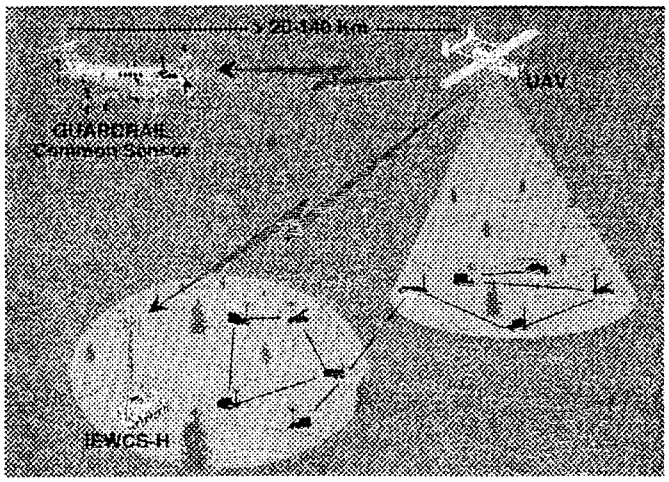
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Antenna devel/demo (sensitivity, materials, geodesic cone)	———	———	---3---	---3		
Receiver devel/demo (SCCI, WB, VWB, Hybrid IFM)	———	--2---	--2---	---3		
Processor dev/demo (VMASS/VTAM, virtual prototype, adv processor)	———	———	———	--2		

SYNOPSIS: DEVELOP THE ADVANCED TECHNIQUES NECESSARY TO INTERCEPT, IDENTIFY AND GEOLOCATE MODERN LPI NON-COMMUNICATIONS EMITTERS.

IEWD

ORION STO # III.F.04



PROJECT MANAGER: Ms. Gail Heyner, DSN 229-7530
COMM 703/349-7530

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: 62270 A906 / 63270 DK15

DESCRIPTION: This Science and Technology Objective (STO) focuses on the use of an Unmanned Aerial Vehicle to extend the range of the intelligence and electronic warfare common sensors systems so as to intercept communications and non-communications signals located deep within enemy territory and beyond safe operational range of manned systems. By virtue of the UAV platform, the IEWCS capabilities will be vastly increased. Signals from high value targets utilizing low probability of intercept, multichannel, terrain masking, low power and other protective techniques can be intercepted and immediately relayed to an IEWCS system for processing and cuing. Line-of-sight restrictions, mobility restrictions, sensor placement problems and interference problems from our own close-in relatively high power signals are eliminated.
This STO will demonstrate a wideband Electronic Support (ES) remote sensor onboard a short range UAV to aid in the acquisition and location of high value targets or act as a relay for deep friendly forces. The ORION Remote Sensor will seek target emitters located beyond the capabilities of the manned IEWCS systems, approximately 20-140 km (further ranges can be achieved using airborne relays), gather instantaneous raw RF data, and immediately retransmit that data back to an IEWCS asset for processing and cuing. In addition, angle of arrival capability can be added and signals can be sent to TDOA assets for target location.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Apr 94 Approved as a STO.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Payload engineering/integration	----------	------4				
UAV Demo			----3			

SYNOPSIS: DEVELOP AND DEMONSTRATE A PROOF-OF-CONCEPT SYSTEM EXTENDING THE IEWCS RANGE UTILIZING A UAV PLATFORM TO LOCATE HIGH VALUE TARGETS FOR DESTRUCTION OR ELECTRONIC ATTACK.

IEWD

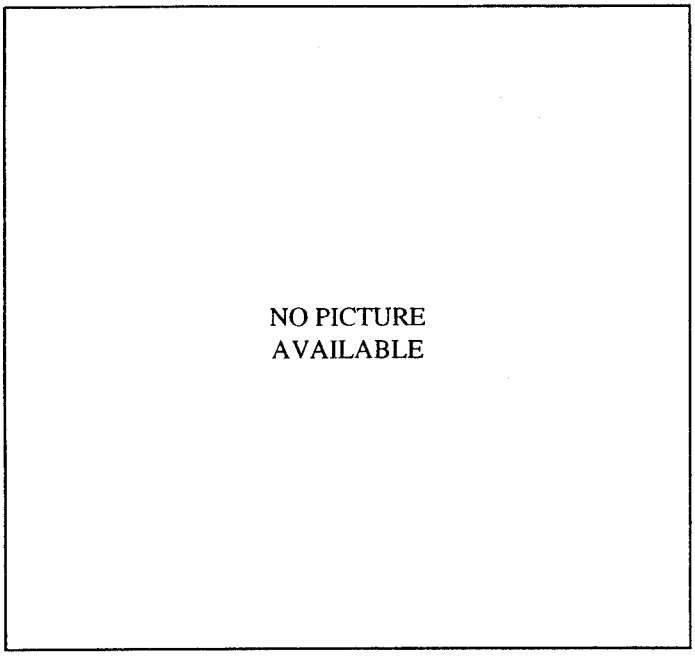
SIGNAL PROCESSING *

PROJECT MANAGER: Mr. Calvin Eanes. DSN 229-7319
COMM 703/349-7319

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE: TST

DESCRIPTION: The technology developed under this project will provide the Army with a tactical capability to exploit the new digitally modulated signals which have recently become prevalent. It will develop algorithms to be used with open system. VME architecture and will demonstrate improved intercept and copy against digital signals.



TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND: Classified.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

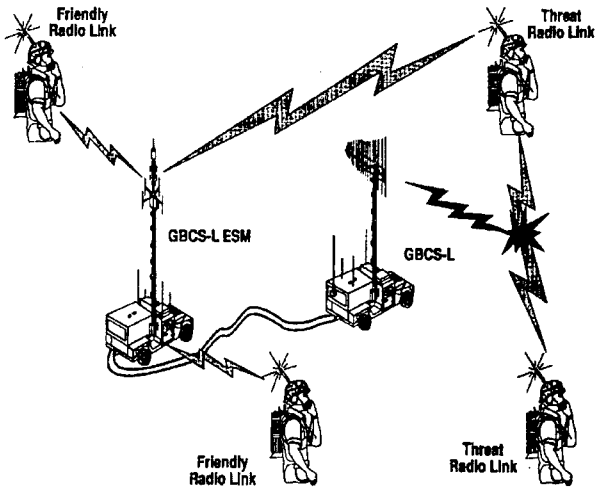
EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Classified							

* IEWD SUBMITS PROPOSALS FOR THIS TACTICAL SIGINT TECHNOLOGY PROGRAM TOPIC AREA.

SYNOPSIS: PROVIDES A TACTICAL CAPABILITY TO EXPLOIT NEW DIGITALLY MODULATED SIGNALS BY DEMONSTRATING IMPROVED INTERCEPT AND COPY ALGORITHMS.

IEWD

STAND-OFF COMMUNICATIONS COUNTER-MEASURE DEMONSTRATION (SOCCM-TD)



PROJECT OFFICER: Mr. Robert Sowers, DSN 229-6909
COMM 703/349-6909

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE #: 63270 DK15

DESCRIPTION: Standoff Communications Countermeasures. The objective of this task is to conduct a series of demonstrations of advanced EA appliques that will enhance jammer system effectiveness against modern communications signals. A major goal of this demonstration will be to demonstrate jammer capabilities which will be transitioned into the Intelligence Electronic Warfare Common Sensor (IEWCS) ES system. Demonstrations will be breadboard appliques integrated into existing inhouse available systems for proof of concept demonstrations. Technology demonstrations will include: effectiveness investigations into "brilliant jamming" strategies, investigations into and demonstrations of "smart jamming" techniques against potential threat tactical radio systems, demonstration and testing of techniques which provide capability for continuous lookthrough outside the bandwidth of the jammer signal, and demonstration and testing of a digital signal jammer. An Own Jamming Excision (OJE) system, which employs the continuous listen-while jam technique, is being developed. The system will detect communication signals in the background of its own collocated high power jamming signal (i.e., without shutting off the jammer transmitter).

A final technology demonstration will evaluate and test the TACJAM-A prototype in support of GBCS EDM and Block II upgrade programs.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

FY90 Digital Jammer program initiated.
FY92 OJE transitioned from SBIR into P6 Phase III program.
FY92 Smart jamming initial concept demonstrated.
FY92 Hybrid jammer Brassboard hardware completed.
FY93 Frequency superresolution program completed.

REQUIREMENTS DOCUMENT: N/A

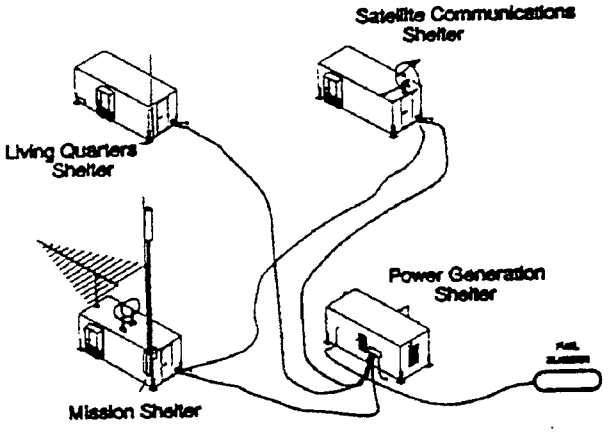
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Digital Jammer	---2					
Own Jamming Excision	----------	-1				
Smart Jamming	----------	---2				
Brilliant Jamming	----------	-----3				
OJE Testbed Evaluation	1----------	---2				

SYNOPSIS: SOCCM-TD IS A DEMONSTRATION OF COMMUNICATIONS JAMMER TECHNIQUES.

IEWD

TROJAN AIR TRANSPORTABLE ELECTRONIC RECONNAISSANCE SYSTEM (TATERS)



PROJECT MANAGER: Leonard Schalburg, DSN 229-5271
COMM 540/349-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: BA0326

DESCRIPTION: The TROJAN Air Transportable Electronic Reconnaissance System (TATERS) program draws heavily on the technology previously fielded in the TROJAN program and as such relies on Non-Developmental Items (NDI) equipment for integration into its subsystems. The equipment used in the TATERS system is commercial off-the-shelf and build to print. TATERS has a modular design consisting of four subsystems, and each subsystem resides in a separate shelter. The four subsystems are:

a. Common Hardware Intelligence Processing Subsystem (CHIPS); Receiver Group, OR-366/TSQ-191(V).
b. Satellite Communications INTELSAT/DSCS Nodal Subsystem (SCINS); Communications Subsystem, OZ-73/TSQ-191(V).
c. Primary Electrical Equipment Life Support (PEELS); Power Plant, Electric, PU-812/TSQ-191(V).
d. Temporary Occupancy Troop Shelter (TOTS); Shelter, Non-expandable, S-792/TSQ-191(V).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Air Trans C130 / CH-47 slingload.

HISTORICAL BACKGROUND: In June 1990, HQDA tasked the SIFO to develop the TATERS system, nomenclatured AN/TSQ-191(V), Acquisition System, Signal Data, which would provide a worldwide, forward-deployed configuration capable of a quick-reaction response to low-to-high intensity conflicts and counternarcotics applications. To minimize training requirements, TATERS would utilize the monitoring and detection technology already proven in the TROJAN system, and be compatible with the present TROJAN communications architecture. Mission requirements may dictate TATERS deployment to remote locations such as mountain tops in order to achieve line-of-sight positioning. Consequently, TATERS must operate in harsh environments and must be self-sufficient for extended periods of time.

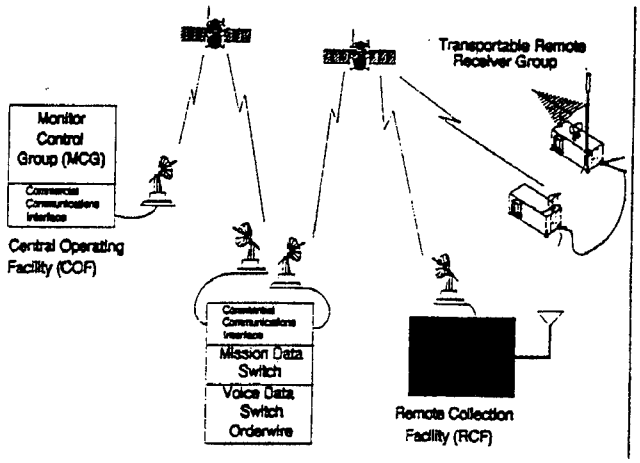
REQUIREMENTS DOCUMENT: Annex to TROJAN Requirements Document.

TYPE CLASSIFICATION: N/A

SYNOPSIS: TATERS IS A SELF CONTAINED TROJAN REMOTE RECEIVER GROUP, WHICH IS SUPPLIED WITH THREE SUPPORT MODULES WHICH ARE USED AS REQUIRED: A POWER UNIT, SATELLITE COMMUNICATIONS, AND A LIVING AREA.

IEWD

TROJAN, CLASSIC



PROJECT MANAGER: Leonard Schalburg, DSN 229-5271
COMM 540/349-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: BA0331

DESCRIPTION: The TROJAN architecture consists primarily of three subsystems, i.e., Remote Receiver Group (RRGs), Monitor Control Group (MCGs) and a supporting communications architecture. RRGs consist of multiple sensor and antenna subsystems strategically located at various Remote Collection Facilities (RCFs). MCGs are located at a Central Operating Facility (COF) at garrison locations of MI units. The communications system is a dedicated full-duplex communications network which links the RCFs and the COFs via the TROJAN Switching Center (TSC), Fort Belvoir, VA. The TSC provides switched connectivity of any MCG to any RRG and also enables secure voice and data communications among all sites within the system. Initiatives within the TROJAN program include operational upgrades with the requisite software and hardware configuration changes and an enhanced communications connectivity to allow for access into national level data bases, and to enhance dissemination of intelligence products to tactical MI units in support of battlefield commanders.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Fixed-station.

HISTORICAL BACKGROUND: The TROJAN program was instituted in 1982 to correct three deficiencies concerning 98 CMF personnel related functions: low technical productivity in-garrison, lack of equipment on which to train, and lack of command emphasis on the need for MOS related proficiency.

REQUIREMENTS DOCUMENT: Nov 87

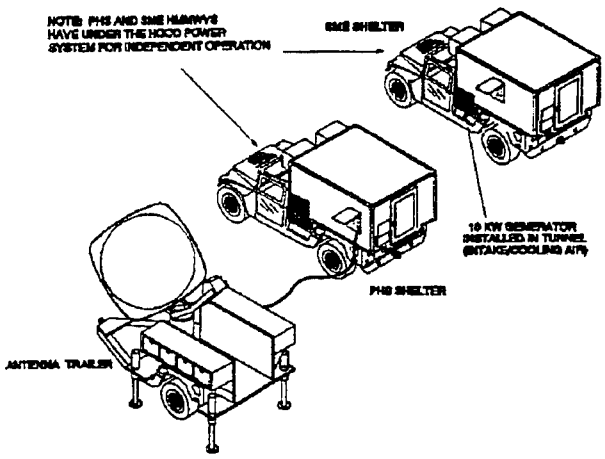
TYPE CLASSIFICATION: AN/FSQ-144, Jun 82

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Collection Mgmt S/W	————	—2				
TROJAN Switch Center Upgrade	1————	——3				

SYNOPSIS: THE TROJAN MONITOR CONTROL GROUPS AND REMOTE RECEIVER GROUPS, COUPLED WITH THE TROJAN SWITCHING CENTER, PROVIDE THE INTELLIGENCE COLLECTOR THE CAPABILITY OF ACCESSING HOSTILE FORCES COMMUNICATIONS FROM ALMOST EVERYWHERE IN THE WORLD.

IEWD

TROJAN SPECIAL PURPOSE INTEGRATED REMOTE INTELLIGENCE TERMINAL (SPIRIT II)



PROJECT MANAGER: Leonard Schalburg, DSN 229-5271
COMM 540/349-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: BA03320 / BA03330

DESCRIPTION: TROJAN SPIRIT II systems are an integration of data processing, multiplexing, encryption, modulation, and Radio Frequency (RF) Satellite Communications (SATCOM) equipment configured into a single mobile platform (C/Ku-Band), or two mobile platforms (C/Ku and X-band). The system consists of a Primary High Mobility Multipurpose Wheeled Vehicle (HMMWV) Shelter (PHS) subsystem with an on-board 10 kW power generator, a quick-erect Mobile Antenna Platform (MAP), and a Spare Equipment and Maintenance (SEM) HMMWV Shelter subsystem, also with an on-board 10 kW generator. The TROJAN SPIRIT II system is capable of operating over commercial and military satellite systems, and can transmit and receive voice, data, and imagery between CONUS and OCONUS bases and deployed forces at data rates nominally up to 512 kbps, or up to 1.544 Mbps for the EAC TROJAN SPIRIT II system. The TROJAN SPIRIT II system interfaces with the Defense Secure Networks 1 and 3, as well as with joint and service intelligence systems at all levels.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C130 / C141 / C5 / CH47 or Slingload BLACKHAWK.

HISTORICAL BACKGROUND: The TROJAN SPIRIT I systems were developed and fielded to the Kuwaiti Theater of Operation (KTO) as a quick reaction capability to support the Military Intelligence force structure from Echelons Corps and Below (ECB) to strategic EAC commands. At the conclusion of combat operations in the KTO, the TROJAN SPIRIT systems have continued to support ongoing CENTCOM operational requirements, including Somalia, as well as supporting major training exercises of the XVIIIth Airborne Corps, III Corps, V Corps, and I Corps. The MI Relook Task Force (3QFY91) determined the TROJAN SPIRIT II should be included in the TO&E for MI Battallions. ORD approved Dec 92.

REQUIREMENTS DOCUMENT: Operational Requirements Document for the TROJAN SPIRIT dated 15 Dec 92.

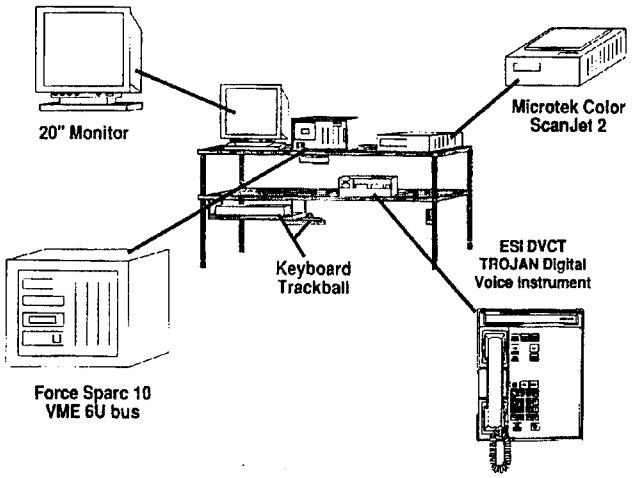
TYPE CLASSIFICATION: Generic, Standard - Mar 94 AN/TSQ-190, Jun 93

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
JCS/UAV option 3 systems	———	—1				
TTMS option 3 systems	———	——3				

SYNOPSIS: THE TROJAN SPIRIT II PROVIDES DEPLOYED GROUND FORCES INTELLIGENCE PROCESSING CAPABILITIES AND A COMMUNICATIONS BACKBONE FROM THE DIVISION TO NATIONAL LEVEL INTELLIGENCE PRODUCERS.

IEWD

TROJAN ENHANCED SWITCH EXTENSIONS



PROJECT MANAGER: Mr. Leonard Schalburg, DSN 229-5271
COMM 504/349-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: BA0326

DESCRIPTION: TROJAN Switch Extensions occupy a key position in the history of the TROJAN Program. TROJAN began in 1985 as a SIGINT training system, consisting of a remote collection site with antennas and receivers, with a garrison monitoring site for remote control of the distant antennas and receivers over a leased commercial satellite communications circuit. After initial success, many more TROJAN "front ends" (Remote Receiver Groups) were put in place worldwide, and TROJAN "back ends" (Monitor Control Groups) were installed at Military Intelligence (MI) units throughout the Army Force Structure. A switching capability was established at the TROJAN network hub at Fort Belvoir, so that different Monitor Control Groups (MCG) could be connected to any of the various Remote Receiver Groups. "Switch Extensions", consisting of workstations, digital phones, printers, facsimiles, and suite of TROJAN communications equipment, were emplaced at key higher echelon headquarters, operational, and logistics sites to facilitate flexible, real-time information exchange between those higher echelon elements and the worldwide TROJAN installations. By this time TROJAN had grown into becoming an intelligence producing system, in addition to its training function. The Switch Extensions enabled elements such as HQS INSCOM, the Army Technical Control and Analysis Element (TCAE), the three Echelon Above Corps (EAC) TCAEs, and the TROJAN Intermediate Support Activities (TRISA) to rapidly exchange mission tasking and intelligence data with TROJAN sites worldwide, as well as conduct logistics and troubleshooting actions.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Fixed-station

HISTORICAL BACKGROUND: In 1994, concurrent with the development and initial fielding of TROJAN SPIRIT II systems, the TROJAN Systems Integration and Fielding Office (SIFO) began fielding Enhanced TROJAN Switch Extensions, which incorporate exactly the same Force Sparc10 UNIX workstations, CISCO 4000 routers, and TROJAN Digital Voice Instruments (TDVI) as are provided in the TROJAN SPIRIT II. This close matching of equipment and operational architecture between the TROJAN SPIRIT II system and the Enhanced TROJAN Switch Extension promotes maximum efficiency of intelligence dissemination and exchange during split based operations. Enhanced FWD, Special Operations Intelligence Center, FORSCOM Intelligence Center, I Marine Expeditionary Force, II Marine Expeditionary Force, and Medina Regional SIGINT Operations Center, and more fieldings are curently being planned. In addition, all of the other 17 TROJAN Switch Extensions have been configured with CISCO 4000 routers for commonality of data network access, and all are retrofitted with the TDVI digital phones.

REQUIREMENTS DOCUMENT: Annex to TROJAN Requirements Document.

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System Fielding - Daharan, SA	1					
System Fielding - IMEF	2					
System Fielding - Medina (Kelly AFB)	3					
System Fielding - INSCOM LIWA	4					

SYNOPSIS: TROJAN ENHANCED SWITCH EXTENSIONS ARE DEPLOYED AT KEY HIGHER ECHELON HEADQUARTERS, OPERATIONAL AND LOGISTICS SITES TO FACILITATE FLEXIBLE, REAL-TIME INFORMATION EXCHANGE THROUGH THE TROJAN FAMILY OF SYSTEMS.

IEWD

WHITE SANDS MISSILE RANGE FREQUENCY SURVEILLANCE SYSTEM (WSMR-FSS)

PROJECT MANAGER: Mr. Delbert Simmons, DSN 229-7348
COMM 540/349-7348

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE: 3627515

NO PICTURE AVAILABLE

DESCRIPTION: The White Sands Missile Range Frequency Surveillance System (WSMR-FSS) is an automated means of monitoring selected frequencies in conjunction with WSMR range tests. The new WSMR-FSS will upgrade antiquated WSMR-FSS equipment, expand the frequency coverage of the existing FSS assets, provide a means to remotely control the FSS remote site's surveillance equipment, perform geolocation of detected emitters, and perform general Radio Frequency (RF) spectrum surveillance from 20 MHz to 40 GHz with future expansion from 2 MHz to 100 GHz. The WSMR-FSS uses a modular VME-based processor architecture which allows for future enhancements to the system. For example, additional DSP cards may be added to the system to test the system's capability to detect various types of signals. The system has the capability to detect and geolocate various types of signals based upon modulation type, signal strength, antenna beam pattern, etc. The WSMR-FSS also utilizes state-of-the-art COMINT and ELINT detection systems.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Fixed sites.

HISTORICAL BACKGROUND:

Mar 93 Contract Award.
Mar 94 Prototype Installed.
Nov 94 Contract Extension Awarded.

REQUIREMENTS DOCUMENT: Operational Requirements Document dated 19 May 92.

TYPE CLASSIFICATION:

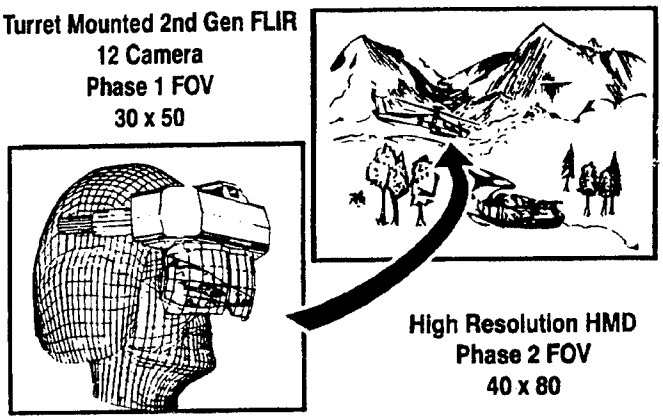
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Equipment Re-installed	2 & 4					
Equipment Transfer to WSMR hand receipt	2 4					
Final Acceptance Testing	1					

SYNOPSIS: AN AUTOMATED FREQUENCY SURVEILLANCE & DIRECTION FINDING SYSTEM RANGING FROM 20 MHZ TO 40 GHZ.

NVESD

NVESD

ADVANCED HELICOPTER PILOTAGE (AHP) TD



PROJECT MANAGER: Mr. Phil Perconti. DSN 654-1369
COMM 703/704-1369

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63710 / DK86

DESCRIPTION: AHP will develop and demonstrate advanced night vision pilotage sensors and Helmet Mounted Display (HMD) technology for night/adverse weather helicopter pilotage. AHP Phase I will develop second Generation FIIR, and a HDTV Image Intensified Camera with a wide field of view, and improves signal processing. Phase II will demonstrate robust night vision technology to provide a significant reduction in pilot cognitive and physical work load.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT: N/A

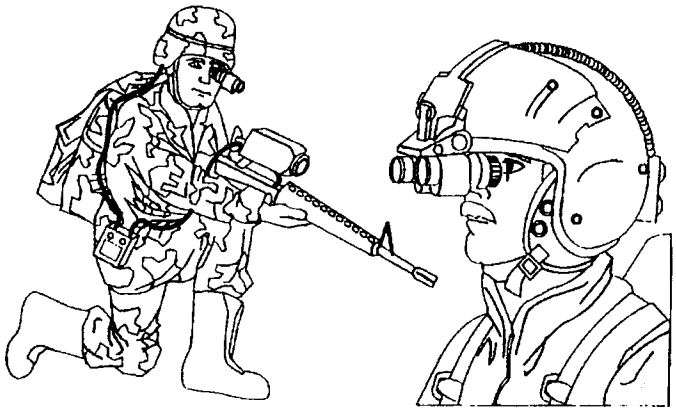
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
AHP Phase I		2				
AHP Phase II		1-------	----------	--2		
Phase II HMD		2------	-------4			
Flight Demo		4--	-----3			

SYNOPSIS: NIGHT PIOLTAGE SENSORS AND HELMET MOUNTED DISPLAYS WHICH INCREASE BATTLEFIELD COMPREHENSION DURING THE DAY, NIGHT, AND IN ADVERSE WEATHER HELICOPTER TERRAIN FLIGHT.

NVESD

ADVANCED IMAGE INTENSIFICATION (AI2) ATD



PROJECT OFFICER: Mr. Robert Branigan, DSN 654-1373
COMM 703/704-1373

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE #: PE 63710 / DK86

DESCRIPTION: The AI2 ATD is the next generation Night Vision goggle directed toward satisfying expressed user needs for increased field-of-view (FOV) and improved visual acuity in an image intensified, direct view system. These performance improvements will be achieved through the utilization of novel optical technologies and advanced technologies for intensifier tube fabrication. AI2 ATD will additionally address expressed user needs for integrated symbology and will utilize experience gained from currently fielded intensifier systems to improve human factors. These advancements will significantly improve operational effectiveness and reduce workload. AI2 ATD will demonstrate technologies applicable to a follow-on to the AN/AVS-6 and AN/PVS-7. It is intended for use by the dismounted soldier as well as in the Army's cargo, utility, and current scout aircraft.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jan 92 Technical feeder contracts awarded.
Apr 94 AI2 ATD approved by Senior Advisory Group.

REQUIREMENTS DOCUMENT: It is intended to modify ANVIS ROC for added performance capabilities provided by APA.

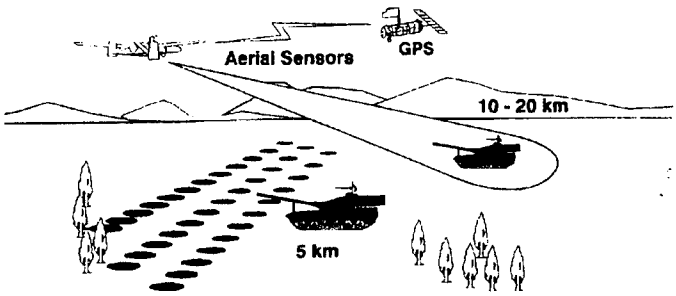
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Enhanced Integrated Display	----------	---2				
ATD Demonstrators	----------	-----3				
AWE's/User Tests	3-----	---1				
AI2 Component Technology Feeds	4----	- -2				

SYNOPSIS: AI2 IS AN ADVANCED INTENSIFIER SYSTEM PROVIDING KEY FOV, VISUAL ACUITY, SYMBOLOGY, AND HUMAN FACTORS TO ENHANCE OPERATIONAL EFFECTIVENESS AND REDUCE WORKLOAD FOR GROUND SOLDIERS AND AVIATORS.

NVESD

AERIAL SCOUT SENSORS INTEGRATION (ASSI)



PROJECT MANAGER: Mr. Jim Matheny DSN 654-1193
COMM 703/704-1193

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63710 / DK86

DESCRIPTION: ASSI will demonstrate utility of using airborne sensors to augment ground-based scouts by application of advanced over-the-hill battlefield reconnaissance, surveillance, targeting, and battle damage assessment techniques. Optimal data compression, automatic target detection/location procession, data link and work station interface techniques will be investigated.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND: With the recent shift in US defense posture away from the threat of a once-dominant superpower entity toward multi-faceted threats scattered throughout the globe, the focus of future combat operation must change accordingly. The new emphasis on lighter, but more vulnerable, combat vehicles with greater tactical mobility has created the necessity of being able to engage the enemy's heavy armor before the opposition can engage our lighter forces.

REQUIREMENTS DOCUMENT: N/A

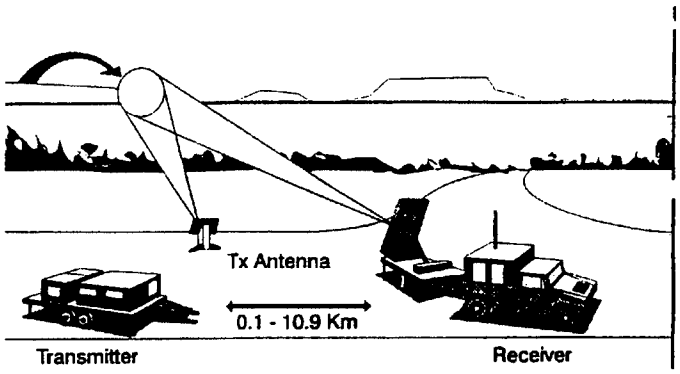
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Image Collection	2----------	----------	--1			
Sensor/Support Equip Acquisition	4---	----------	---2			
Equipment Integration			1----------	--1		
ASSI Demo				1--2		
RFPI ACTD				3--4		

SYNOPSIS: PROVIDES TOP-DOWN AND EXTENDED LONG-RANGE TARGET DETECTION, IDENTIFICATION, AND LOCATION.

NVESD

BISTATIC RADAR FOR WEAPONS LOCATION (BRWL) ATD



PROJECT MANAGER: Mr. Larry Bovino, DSN 995-4226
COMM 908/544-4226

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63772 / D243

DESCRIPTION: BRWL will demonstrate survivable, affordable, 3-D bistatic radar to detect and track small targets with range and accuracy consistent with current and further requirements.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System Integration	2------	----3				
Tests/Demos/Data Analysis	3-----	-------4				
Final Report		4				

SYNOPSIS: WILL DEMONSTRATE THE NEED FOR SURVIVABLE RADAR IN THE FACE OF INCREASING ANTI-RADIATION MISSILE (ARM) AND OTHER INDIRECT FIRE THREATS.

NVESD

CLOSE IN MAN PORTABLE MINE DETECTOR (CIMMD) ATD

PROJECT MANAGER: Mr. Mark Locke, DSN 654-2418
COMM 703/704-2418

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63606 / D608

DESCRIPTION: CIMMD will demonstrate mine detection technology to detect buried metallic and non-metallic anti-personnel and anti-tank mines at a rate commensurate with dismounted mobility on the battlefield to enhance the dismounted soldiers operational capability and survivability. CIMMD will demonstrate > 80% probability of detection against non-metallic anti-tank mines and > 50% probability of detection against non-metallic anti-personnel mines.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

REQUIREMENTS DOCUMENT: N/A

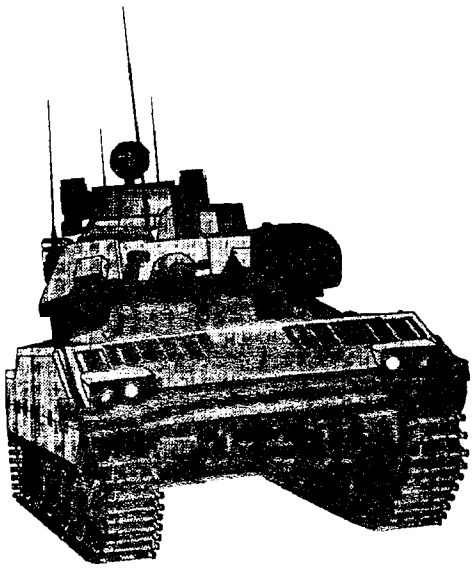
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ORD Approval	3					
Milestone I IPR	4					
AWE		3				

SYNOPSIS: CIMMD WILL DEMONSTRATE THE ABILITY TO DETECT NON-METALLIC MINES.

NVESD

ELECTRONIC INTEGRATED SENSOR SUITE (EISS) FOR AIR DEFENSE



PROJECT MANAGER: Mr. Todd Carr. DSN 654-3016
COMM 703/704-3016

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63710 / DK87

DESCRIPTION: EISS will provide on-the-move capabilities for passive, automated wide area search, acquisition, identification, ranging, and hand-off of air defense targets to weapons platforms. EISS will provide improved survivability against helicopter, cruise missile, and fixed wing threats.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

REQUIREMENTS DOCUMENT: N/A

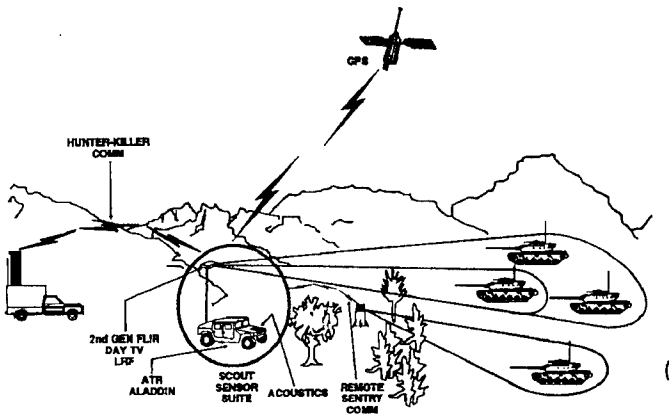
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Data collection and Algorithm enhancements	1———	———4				
On-The-Move Demo		4				
Acquisition/Integration	1———	—1				
Algorithm/SW Dev/Processor Integration	1———	———4				
Static Demo (M2A2)	4					
Algorithm Demo	4					
EISS/Bradley Weapon Demo			2—4			

SYNOPSIS: EISS WILL PROVIDE DETECTION AND TARGETING INFORMATION FOR STANDOFF AIR DEFENSE WEAPONS.

NVESD

HUNTER SENSOR SUITE ATD



PROJECT MANAGER: Mr. Tom Smith, DSN 654-1219
COMM 703/704-1219

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63710 / DK70 / D440

DESCRIPTION: Hunter Sensor Suite ATD will demonstrate a law observable advanced Long range Sensor Suite with ATR, image compression, and secure communications to provide multiple target acquisition and precision targeting hand-off integrated on stealthy hunter vehicles operating both stationary and on-the-move. This ATD will combine 2nd generation thermal imaging, day TV, eye safe laser rangefinder and embedded aided target recognition technology coupled with the capability of performing image compression/transfer operations.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

REQUIREMENTS DOCUMENT: N/A

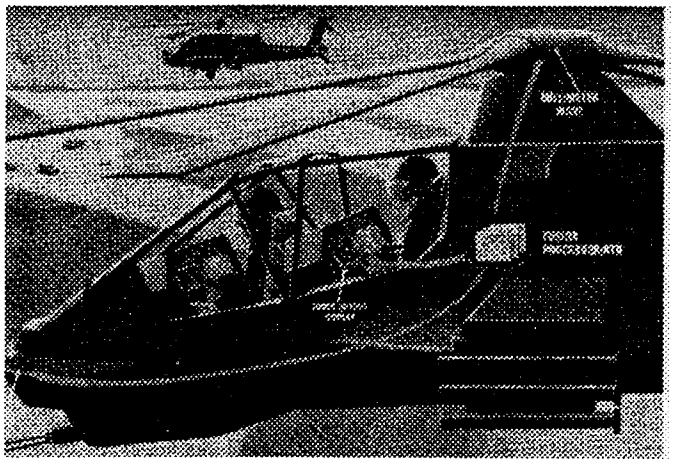
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Modeling and Simulation	———	———	—1			
Algorithm Modification / Processor Integration	———	———	—2			
Sensor Pkg Integration	———	—2				
Signature Management	———	———4				
Helo-HMMWV Design/Demo	———	———	———4			
AWE's		2		1		
Develop, Validate & Demo Hunter VPS	———	———	———	———4		
Final Report				1		

SYNOPSIS: PROVIDES LONG RANGE TARGET ACQUISITION AS WELL AS INCREASE SEE-FIRST/SHOOT-FIRST CAPABILITIES.

NVESD

MULTI-SENSOR AIDED TARGETING (MSAT) - AIR



PROJECT OFFICER: Dr. Donald Reago, DSN 654-1301
COMM 703/704-1301

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE #: 63710 DK70

DESCRIPTION: The MSAT-AIR demonstrates multi-sensor fusion in an operational environment against tactical targets utilizing second generation Forward Looking Infrared (FLIR) and Millimeter Wave (MMW) radar sensors. This demonstration will result in a Technical Data Package for an operations effectiveness of multi-sensor target acquisition for the Comanche and Apache programs. This effort is directed toward satisfying Comanche needs to transition from Aided Target Detection and Classification (ATD/C) to Aided Target Recognition (ATR) at longer ranges, over larger search sectors, and within shorter time lines. The potential also exists to explore the application of the technology demonstrated from MSAT-AIR fusion processing to ground combat vehicles.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

1986-89 Multi-sensor Fusion Demonstration.
1988-90 Multi-sensor Feature Level Fusion Program.
1990-91 Longbow and Infrared Data Evaluation Program.

REQUIREMENTS DOCUMENT: Generic Technology Prototype. Future Army requirements are addressed in LH ROC.

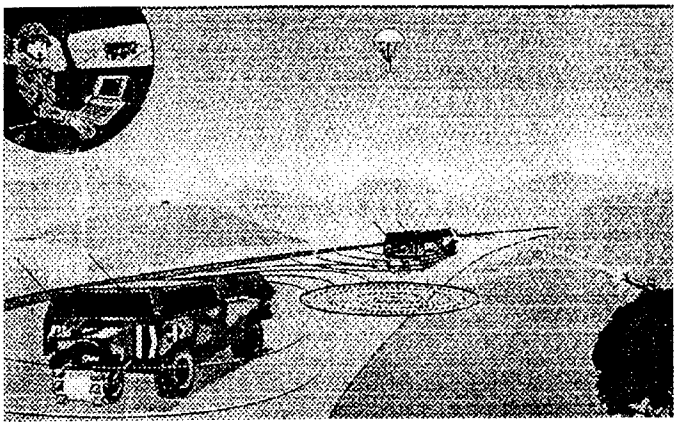
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Demonstration	--2					
Technical Data Package	2					
Interface Control Working Group (ICWG)	1 4					

SYNOPSIS: MSAT-AIR PROVIDES MULTI-SENSOR AIDED TARGET RECOGNITION WITH FEWER FALSE ALARMS AT LONGER RANGES, OVER LARGER SEARCH SECTORS, AND WITHIN SHORTER TIME LINES.

NVESD

OFF ROUTE SMART MINE CLEARANCE (ORSMC) ATD



PROJECT MANAGER: Mr. Gene Klagler, DSN 654-2578
COMM 703/704-2578

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: 62786A / AH20 63606A / D608 63604M

DESCRIPTION: ORSMC ATD will demonstrate the ability to protect combat and support vehicles from off-route smart mines, which are not vulnerable to conventional breaching and clearance means. ORSMC will exploit acoustic, seismic, and other signatures projection techniques to neutralize 90% of off-route smart mines within a 100m radius. ORSMC is a joint CERDEC NVESD/USMC program.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

2Q93 ATD approval.

REQUIREMENTS DOCUMENT: N/A

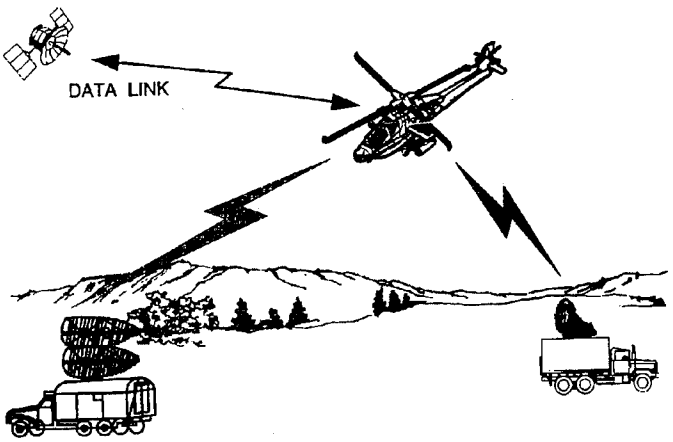
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Develop Acoustic/Seismic CM	---2					
Develop Terminal Sensor CM	-----3					
Enhance Threat Emulator	----------	---2				
Encounter Model	2-------	---2				
System Integration	2-------	---2				
Demonstration		2				
ETL/OOTW BLWE		3--4				
IF Brigade XXI AWE			1---3			
ICM ATD Demo I			3--4			

SYNOPSIS: DEVELOP TECHNOLOGIES AND CONCEPTS TO NEUTRALIZE ADVANCED OFF-ROUTE SMART MINES SYSTEMS.

NVESD

RADAR DECEPTION AND JAMMING (RD&J) ATD



PROJECT OFFICER: Mr. Steve Oshel. DSN 995-3936
COMM 908/544-3936

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63270 / DK16

DESCRIPTION: RD&J will demonstrate airborne multifunctional system to detect, identify, and locate ground and airborne emitters; and provide real-time threat awareness and optimization of countermeasure selection. Improvements in current capabilities include a 30% increase in the types of threats covered and a 10% increase in frequency coverage. New capabilities to be demonstrated include own ship to threat range that is less than 10% of detected range, friendly emitter identification/correlation, the capability to reprogram more than 90% of the user/threat data module during mission planning, and the capability for inflight threat updated. These capabilities will significantly enhance protection of attack and special operations aircraft.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None (software).

REQUIREMENTS DOCUMENT: N/A

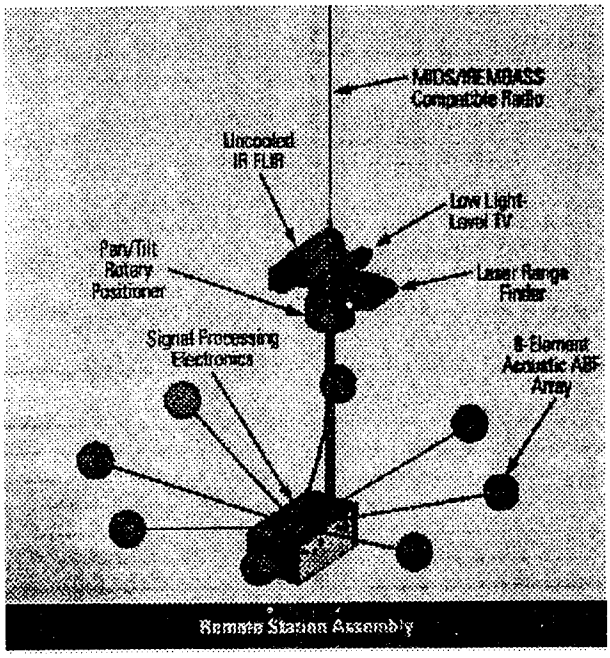
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition Decision	2					

SYNOPSIS: RD&J IS AN AIRBORNE MULTIFUNCTIONAL SYSTEM USED TO DETECT, IDENTIFY & LOCATE GROUND & AIRBORNE EMITTERS; AND PROVIDE REAL-TIME THREAT AWARENESS AND OPTIMIZATION OF COUNTERMEASURE SELECTION.

NVESD

REMOTE SENTRY ADVANCED TECHNOLOGY DEMONSTRATION (RS ATD)



PROJECT MANAGER: Mr. Joe Brooks, DSN 654-1251
COMM 703/704-1251

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE #: 63710 DK70

DESCRIPTION: The RS ATD is a program that will demonstrate multi-sensor fusion techniques which can be applied toward developing affordable and lightweight modular systems for use in remote area surveillance and reconnaissance. With the need for reduced manpower, a low-cost autonomous sensor capability is critical to fill the gap to provide remote surveillance. RS will fuse existing low-cost portable sensors and will demonstrate the capability to provide area surveillance during limited visibility day-night operation. RS ATD will lead to a Technical Data Package for the Engineering and Manufacturing Development of a lightweight fully automated RS system.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Apr 93 Remote Sentry approved as an ATD by the Senior Advisory Group.

REQUIREMENTS DOCUMENT: Technical Development Plan, HQ TRADOC.

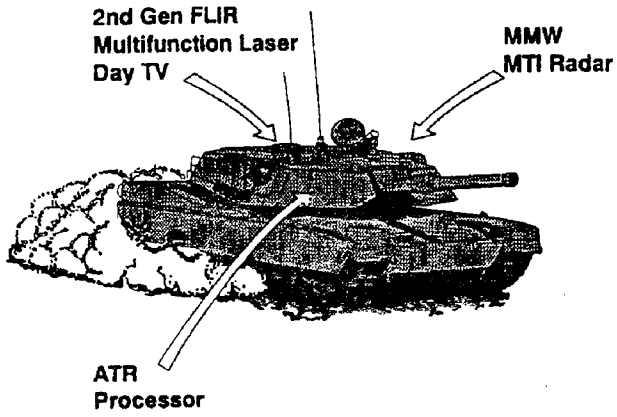
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Delivery		1				
RS ATD Demo		2---4				
Demo w/HSS ATD		4---	------3			
Delivery to RFPI ACTD			3			

SYNOPSIS: RS ATD IS DIRECTED TOWARDS SATISFYING THE USER NEED TO AUTONOMOUSLY ACQUIRE TARGETS IN REMOTE AREAS.

NVESD

TARGET ACQUISITION ATD



PROJECT OFFICER: Mr. Tim Watts, DSN 654-1356
COMM 908/704-1356

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 63710 / DK87

DESCRIPTION: Target Acquisition ATD will provide combat vehicles with improved long range target acquisition through the synergistic utilization of second generation FLIR, millimeter wave radar, and advanced aided target acquisition processing. These enhanced target acquisition capabilities will be coupled with combat identification technologies to significantly improve the Light Armored Combat vehicles lethality and survivability.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

REQUIREMENTS DOCUMENT: N/A

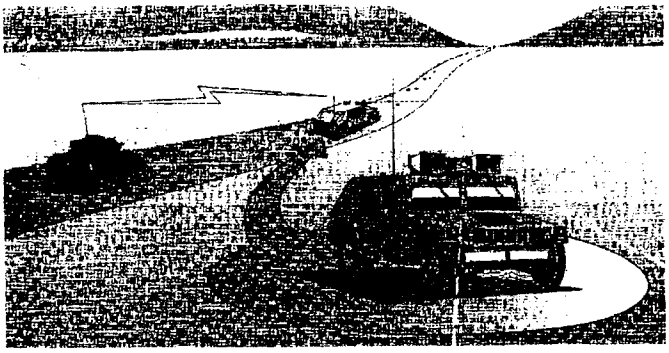
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Modeling and Simulation	———	———	-1			
Award	4					
Sensors FAB/PKG/Integration	1———	---2				
Algorithm Modification/Processor integration	1———	------4				
Integ on Surrogate Vehicle			1 4			

SYNOPSIS: AN EXTENDED RANGE, MULTISENSOR TARGET ACQUISITION SUITE FOR FUTURE TANK, CAVALRY, AND SCOUT VEHICLES.

NVESD

VEHICULAR MOUNTED MINE DETECTOR ATD



PROJECT MANAGER: Mr. Tom Broach, DSN 654-1035
COMM 703/704-1035

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor./Definition

PE & LINE: PE 62786 / AH20 PE 63606 / D608

DESCRIPTION: The Vehicular Mounted Mine Detector ATD will develop mine detection technology to detect metallic and non-metallic mines both on and off roads at moderate speeds as well as enhance overall mobility and survivability for heavy and light forces. Detection performance improvement of 100 percent is expected when compared to the current metallic mine detector.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

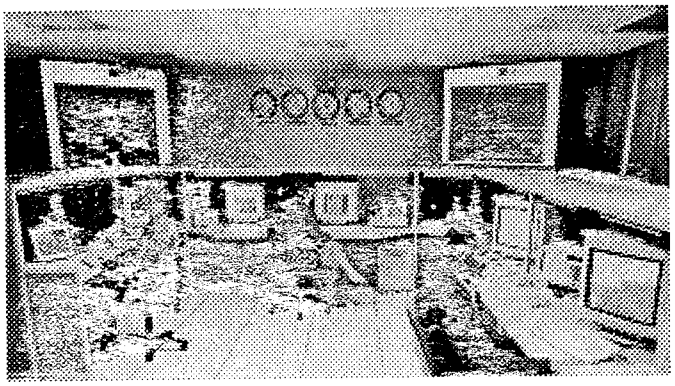
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Data Analysis/ATD system spec	4---	---2				
Sensor Temperate Field Test		1–2				
Award ATD Contract		3				
Systems Modifications		1 4				
Demos			2			
Milestone I			4			

SYNOPSIS: VMMD WILL DETECT METALLIC AND NON-METALLIC MINES AT TACTICAL SPEEDS.

SED

SED

ARMY INTEROPERABILITY NETWORK (AIN) / C4I INTEROPERABILITY NETWORK ACTIVITY



PROJECT OFFICER: Mr. Ted Dzik, DSN 992-1780
COMM 908/532-1780

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 64805 097

DESCRIPTION: The AIN is a unique nationwide distributed network and suite of communications, remote sites, and capabilities/services to support interoperability and software requirements for Army systems throughout their life-cycle. AIN provides the Army infrastructure for C4I system interoperability development, integration, testing, software support, and a continuous life-cycle evaluation/certification process, to achieve the objectives of C4I for the Warrior, Army Enterprise Strategy, Battlefield Digitization, Louisiana Maneuvers, Life-Cycle Software Engineering initiatives, and to provide wide-area access to the CECOM/RDEC Digital Integrated Lab. The AIN provides the broad support to affordable continuous sustainment and modernization of our equipment/systems. AIN's ability to rapidly engineer support solutions that replicate battlefield configurations by networking dispersed actual fielded systems C4I systems is instrumental in creating the environments needed to identify, recreate and resolve interoperability problems. The AIN is operational and successfully serving a growing customer base.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Apr 91 AIN Central Control operations began; First customer test support using T1 (1.544Mbps) communications.
Jul 91 MSE X.25 Protocol testing capability established.
Sep 91 Transportable Remote Site System developed.
Nov 91 Block 0 Remote Sites installations completed; TACSAT interface capability established.
FY93 Supported 50 tests over 200 test-days. Installed 4 new sites. Established LAN, MSRT and dial-in capabilities.
FY94 Supported 72 tests over 800 test-days. Installed 3 new sites. Established remote SINCGARS interface.
FY95 Supported 125 tests over 2000 test-days. Installed 13 new sites.

REQUIREMENTS DOCUMENT: HQ AMC approved ACCS CMIT Plan, Jun 86; System Engineering Implementation Plan, Feb 84; JINTACCS Army Management Plan (JAMP), Mar 86. ATCCS Test an Evaluation Master Plan (Revision 1), Jan 88. O&O Plan, Apr 90; Statement of Requirement, Dec 90.

TYPE CLASSIFICATION:

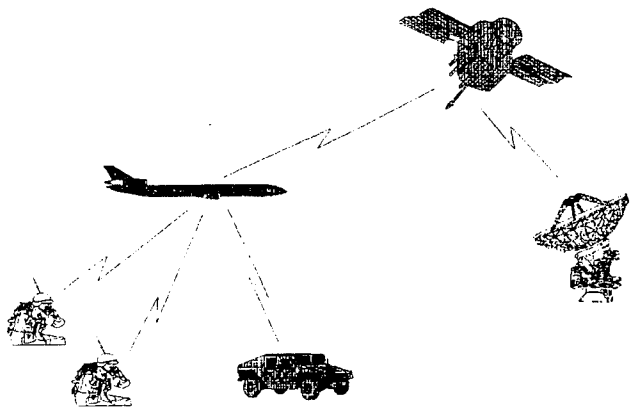
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Ft Knox (Mounted Btl Lab) node	1					
AIN ATM Switch Deployment	1					
Ft. Benning (Dismounted Btl Lab) node; WSMR node	2					
MITRE; SRI; Ft. Hood (AWE site) node	3					
Ft. Rucker(Avtn Tstbd) node; Ft. Belvoir(RDEC NVESD) node	4					
Ft. Drum node	4					
TRW(Applique); Pentagon (LAM TF) node		1				
MICOM, Redstone Arsenal (joint testing)		2				
AIN EPLRS remote interface capability		2				
JADE backbone networking		3				
Customer/DIL/TFXXI demonstrations/tests		1-------	--------	--------	-------4	
New AIN sites as requested		1-------	---TBD---	--------	-------4	

SYNOPSIS: AIN PROVIDES THE TOOLS TO EFFECTIVELY CLOSE THE GAP BETWEEN THE DEVELOPER, TESTER, TRAINER, AND IMPLEMENTOR OF ARMY C4I SYSTEMS AND THE METHODOLOGY FOR CREATING AND MAINTAINING INTEROPERABILITY AMONG THEM.

S&TCD

S&TCD

AIRBORNE RELAY



PROJECT MANAGER: MAJ Frank Pinkney. DSN 992-2134
COMM 908/532-2134

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE:

DESCRIPTION: The Airborne Relay program consists of two efforts, a study followed by a developmental effort.

The study effort focuses on conducting surveys and analysis of architecture's, hardware and networking associated with the deployment of airborne (UAV, aerosat, rotary wing, kite, etc.) transponders required to complete a path for non line of sight communications without recourse to orbiting satellites. Included in this study will be a significant activity in the modeling and simulation (using SATLAB) of prototype configurations such as airborne UHF relay for SINCGARS Combat Net Radio traffic.

The results of the study efforts will lead to the development of UHF, SHF (X-Band), Ka-Band, and EHF transponders. These transponders will be integrated onto an airborne platform to demonstrate their range extension capabilities. This effort will include the antenna to provide a wide beamwidth to allow all terminals within the field of view of the airborne platform to access the airborne relay. The development of a high data rate modem will be used to demonstrate this high data rate capability. On-The-Move capabilities will also be demonstrated across all the frequency bands.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Ground segment consists of existing and modified manpackable and vehicle mounted terminals.

REQUIREMENTS DOCUMENT:

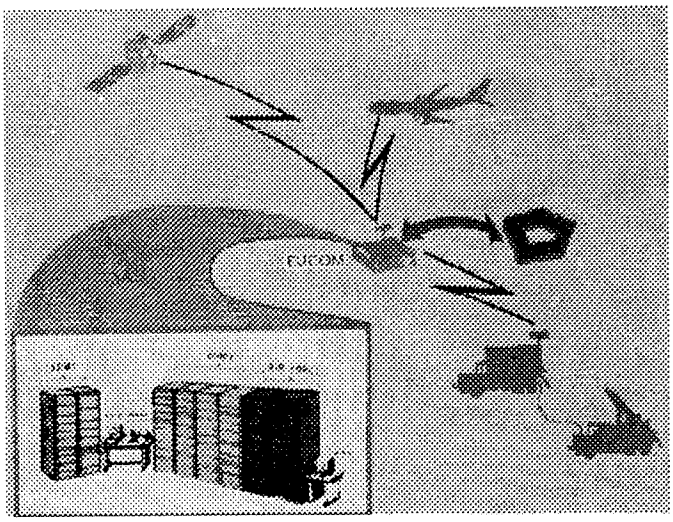
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Study Complete	4					
Platform Selection		3				
UHF Transponder Development Complete		3				
UHF Airborne Relay Demonstration		4				
SHF Transponder Development Complete		4				
50 Mbps Modem Development			1			
SHF Terminal Integration and SOTM Antenna Completion			3			
SHF Demonstration			4			
Ka Transponder Development Complete				3		
Ka OTM Terminal Development				4		
Ka Demonstration					3	
EHF Transponder Development Complete						4

SYNOPSIS: DEVELOP AIRBORNE RELAY'S AT VARIOUS FREQUENCY BANDS AND DEMONSTRATE THEIR UTILITY TO AUGMENT SATELLITE COMMUNICATION FOR SURGE REQUIREMENTS.

S&TCD

AN/GSC-40, COMBINED GROUND COMMAND POST TERMINAL



PROJECT LEADER: Mr. Nathan Smith, DSN 992-9783 x5426
COMM 908/532-9783 x5426

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 738017Q2

DESCRIPTION: The Ultra High Frequency (UHF) Special Communication System (SCS) ground segment consists of two satellite communications terminals: AN/GSC-40 Combined Ground Command Post Terminal: and AN/MSC-64 Force Terminal. AN/GSC-40 is a non-transportable rack config-uration designed for installation into fixed command centers. It operates the SCS Force Terminal nets using from one to three kilohertz AFSATCOM channels depending on the number of AN/MSC-64s in the net. The system has limited antijam (AJ) capability and on-line encryption.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Sep 80	Production MOU signed with Naval Ocean Systems Center (NOSC).
Mar 81	Army directed to provide for two terminals to communicate simultaneously through two satellites (dual satellite access).
Apr 81	First Article Test completed.
Apr 83	First Unit Equipped (Europe).
May 87	Initial Operational Capability (IOC) for first seven terminals.
Sep 89	Firm requirements received to install SCTR in AN/GSC-40.
1Q94	USN, AN/GSC-40 time taken out of operation. Location: London, England.
3Q94	US Army, AN/GSC-40 time taken out of operation. Location: Heidelberg, Germany.

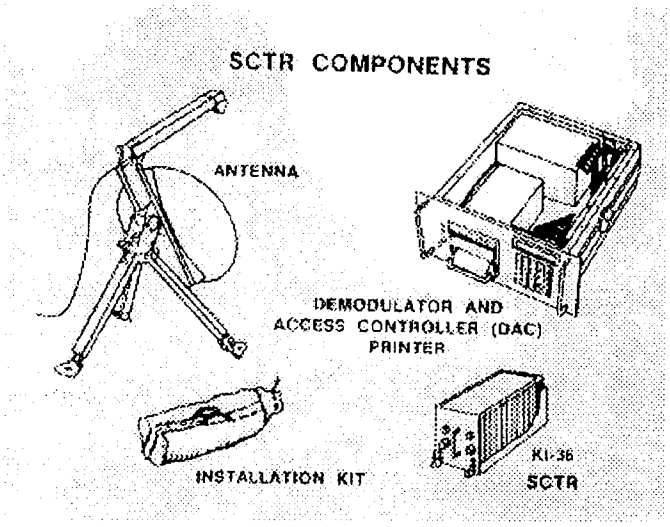
REQUIREMENTS DOCUMENT: ROC, Jan 77.

TYPE CLASSIFICATION: Standard approved May 83.

SYNOPSIS: AN/GSC-40 IS A SATELLITE COMMUNICATIONS CONTROL TERMINAL FOR THE UHF SPECIAL COMMUNICATION SYSTEM WHICH HAS LIMITED ANTI-JAM CAPABILITY AND ON-LINE ENCRYPTION. THE AN/GSC-40 IS THE COMMAND POST TERMINAL FOR NETWORKS MADE UP OF AN/MSC-64s AND AN/GSC-40s.

S&TCD

AN/GSR-42, SINGLE CHANNEL TRANSPONDER RECEIVING SET (SCTRS)



PROJECT LEADER: Mr. Nathan Smith, DSN 992-9783 x5426
COMM 908/532-9783 x5426

ACQUISITION CATEGORY: IV
ACQUISITION PHASE:

PE & LINE #: MC

DESCRIPTION: The SCTRS is a Product Improvement to the AN/MSC-64 and AN/GSC-40 Ultra High Frequency (UHF) Satellite Communications Terminals that will permit reception of Emergency Action Messages (EAMs) in the Super High Frequency (SHF) Band. The SCTRS consists of a 3-foot parabolic antenna, demodulator and printer. It is a special purpose receiver. The SCTRS receives from the Single Channel Transponder on DSCS III Satellites. The SCTRS electronics shall be incorporated into transit cases for stand alone operation and mobility. This terminal is referred to as the Transportable Single Channel Transponder Receiver (TSCTR). The TSCTR will be used with a manpack UHF radio.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Feb 87	NDI contract award to MA/COM Government Systems, Incorporated.
Mar 89	Awarded printer Engineering Change Proposal.
Nov 90	Transitioned to Level II Management.
Sep 91	First Article Test complete.
Jul 92	Fielding commenced.
Jul 92-May 95	Fielded 27 SCTRS terminals to Europe and 2 terminals to Ft. Monmouth and 7 terminals to Ft. Gordon.
1Q94	Award ECP to modify SCTRS firmware to receiver Joint Staff formatted messages.
4Q94	Perform First Article Test on message format firmware modification.
3Q94	Joint Staff requests support from DA for TSCTR program.
4Q94	US Secretary of Defense offers TSCTR to NATO for rationalizations.

REQUIREMENTS DOCUMENT: ROC, Aug 74.

TYPE CLASSIFICATION: Standard approved Jun 77.

SYNOPSIS: SCTRS RECEIVE EAMs FROM THE SINGLE CHANNEL TRANSPONDER ON DSCS III SATELLITES.

S&TCD

AN/MSC-64, SINGLE CHANNEL UHF SPECIAL COMMUNICATIONS SYSTEM - FORCE TERMINAL

PROJECT LEADER: Mr. Nathan Smith, DSN 992-9783 x5426
COMM 908/532-9783 x5426

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 331.42 & E7090

DESCRIPTION: The AN/MSC-64 is an Ultra High Frequency (UHF) Satellite Communication System which receives Emergency Action Messages (EAMs) transmitted from the AN/GSC-40. There are three versions: AN/MSC-64(V)1 (Mobile Command Post); AN/MSC-64(V)2; and AN/MSC-64(V)3 (devanized). Secure record traffic communication is provided by all terminal types. The system makes use of satellites under AFSATCOM and Navy Fleet Satellite programs.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Jan 74 NDI decision.
Sep 78 Production contract awarded for AN/MSC-64 (all deliveries).
Feb 81 Initial Operational Capacity/First Unit Equipped (IOC/FUE).
Jan 86 Last operational terminals released to users.
Feb 87 Production contract for SCTR PIP was awarded to MA/COM Government Systems, Incorporated.
Sep 89 Firm requirement received to install SCTR in AN/MSC-64(V).
4Q94 Ft. Gordon discontinued training for AN/MSC-64(V).
4Q94 USAFE began training for AN/MSC-64(V).

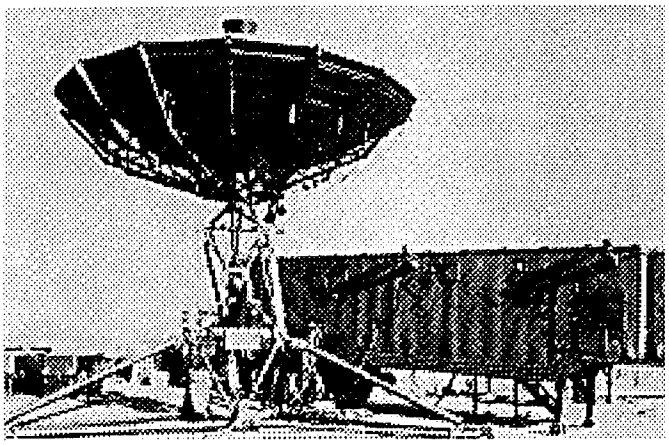
REQUIREMENTS DOCUMENT: Original ROC 8-74.

TYPE CLASSIFICATION: Standard approved Jun 77.

SYNOPSIS: AN/MSC-64 IS A UHF SATELLITE COMMUNICATIONS SYSTEM WHICH RECEIVES EAMs TRANSMITTED FROM THE AN/GSC-40.

S&TCD

AN/MSQ-114, SATELLITE COMMUNICATIONS CONTROL TERMINAL



PROJECT LEADER: Mr. Don Von Ohlen, DSN 992-4902
COMM 908/532-4902

ACQUISITION CATEGORY:
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: K49500

DESCRIPTION: The AN/MSQ-114 is part of the Ground Mobile Forces (GMF) Satellite Communications Control System which is used to manage the satellite communication capability assigned to the satellite terminals operating within the tactical network. The primary function of the AN/MSQ-114 is to continuously monitor satellite communications transmissions for the purpose of assuring that all network terminals are operating within the proper limits of frequency, power output and channel capacity. AN/MSQ-114 will also reconfigure the network in the event of jamming, satellite degradation or other disruptions of the satellite links. AN/MSQ-114 can control up to 50 GMF Satellite Communications terminals. The Satellite Automatic Monitoring System (SAMS) is a computer based system used for the management of a GMF Satellite Communications Network (SCN). The network is being "upgraded" to use Spread Spectrum Multiple Access (SSMA) carriers in addition to the frequency division multiple access. The Anti-Jam (AJ) modem has been retrofitted into the AN/MSQ-114 Van #4 at Tobyhanna. Van #1 was exchanged for Van #4. The AJ modem provides the SSMA carrier capability to the network.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 34 ft trailer.

HISTORICAL BACKGROUND:

Sep 78 Production contract for four control terminals awarded to RCA Corporation.
Sep 79 Production contract for Satellite Automatic Monitoring Systems (SAMS) awarded to Ford Aerospace Communications Corporation (FACC).
Feb 80 First delivery of terminals.
Jun 82 Last delivery of terminals.
Dec 82 Follow-On Evaluation.
Jun 94 AJCM Modification cancelled.

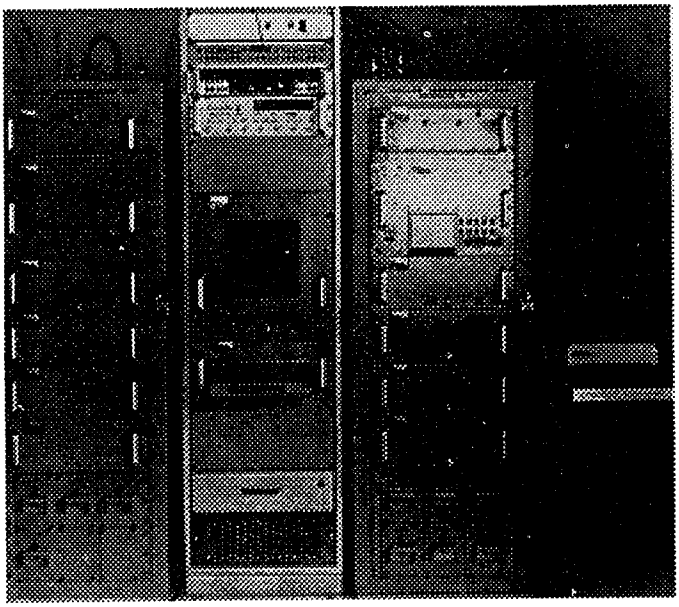
REQUIREMENTS DOCUMENT: TACSATCOM Qualitative Materiel Requirement (QMR), 12 Nov 71.

TYPE CLASSIFICATION: Standard approved Apr 77.

SYNOPSIS: AN/MSQ-114 SATELLITE COMMUNICATIONS MONITORING AND CONTROL CENTRAL PROVIDES REALTIME COMMAND & CONTROL FOR UP TO 50 GMF SUPER HIGH FREQUENCY SATELLITE COMMUNICATIONS TERMINALS.

S&TCD

AN/USC-28(V), SATELLITE COMMUNICATIONS SET



PROJECT LEADER: Mr. Robert Yee, DSN 992-9783 x5437
COMM 908/532-9783 x5437

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: BA8300

DESCRIPTION: The AN/USC-28(V) (Ground) is an advanced spread spectrum modulation system which operates with Defense Satellite Communications System (DSCS) satellite communications terminals to provide jamming resistant SATCOM network control and digital user communications. AN/USC-28(V) can be configured to accommodate up to 15 user data channels. The equipment interfaces with the Digital Communications Satellite Subsystem (DCSS) in fixed terminals and is also installed in the transportable AN/GSC-49(V) terminals. A special airborne version of the AN/USC-28(V) is installed in the Super High Frequency (SHF) terminal aboard the National Airborne Operations Center, the E-4B. The equipment interoperates with the Navy shipboard OM-55 Spread Spectrum equipment. The AN/USC-28(V), by virtue of the jamming protection it affords, insures the military utility of the DSCS. The AN/USC-28(V) modem was modified to mitigate the scintillation effects which would be caused by high altitude nuclear blast. The modification has backward capability so that the AN/USC-28(V) can operate in the normal mode or in the mitigated mode.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Jun 78 IPR/Type Classification approval.
Sep 78 First Production contract award.
Nov 81 First Unit Equipped.
Apr 82 Initial Operational Capability.
Feb 87 Mitigation modification contract award.
Nov 90 Transitioned to Level II Management.

REQUIREMENTS DOCUMENT: DSCS Program Plan as approved by Assistant Secretary of Defense.

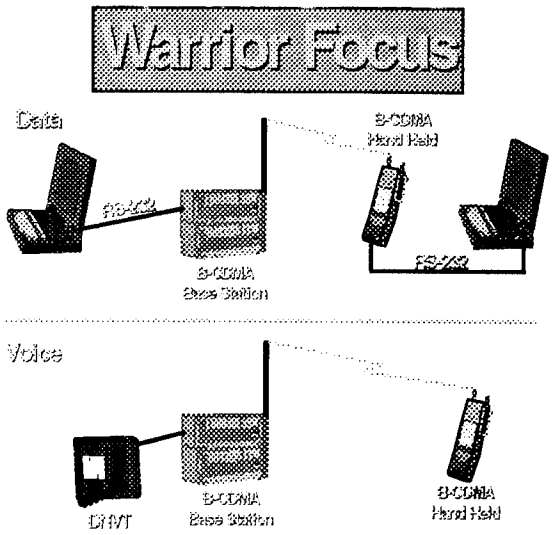
TYPE CLASSIFICATION: Standard approved Jun 78.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Product Contract	----------	-1				
Mitigation Conferencing Modification	----------	-1				
Computer Modification	3----	----------	----------	----------	-1	

SYNOPSIS: AN/USC-28(V) PROVIDES AN ELECTRONIC COUNTER COUNTER MEASURE (ECCM) CAPABILITY FOR STRATEGIC SATCOM SYSTEMS.

S&TCD

COMMERCIAL COMMUNICATIONS TECHNOLOGY TESTBED (C2T2)



PROJECT MANAGER: Mr. Vasilios Kalomiris.
DSN 987-2069
COMM 908/427-2069

PRODUCT MANAGER: Mr. Jay Staba. DSN 987-3988
COMM 908/427-3988

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE #:

DESCRIPTION: This program is sponsored by ARRA. C2T2 is a distributed test bed for commercial communications technology such as PCS. The purpose of the program is to test commercial products to determine suitability for military use. The initial focus is on the requirements of the dismounted soldier. Testing will include: modeling and simulation, bench testing and user testing. The program is divided into two phases. The first phase concerns the actual design of the test bed. The test and evaluation of commercial equipment is done in the second phase. The first system being explored is based on Trunked Land Mobile Radio technology and will be tested in the Warrior Focus AWE. A second refinement will be developed in FY96 and utilized in TFXXI.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Feb 93 C2T2 Planning Meeting.
May 93 SRT Contract awarded.
Jun 93 Mitre contract awarded.
Jun 93 C2T2 Kickoff.
3Q94 Selection and Acquisition of Trunked LMR.
3Q94 Selection and Acquisition of BB CDMA.
4Q94 Delivery of Trunked LMR.
FY95 System testing and refinement with 10th Mtn Div.
Nov 96 Participation in Warrior Focus.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR / QTR	95				96				97				98				99				00			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Phase I	——3																							
BB CDMA Award	—————				—2																			
HW/SW for JRTC 96-2	—————				—2																			
Hybrid System Developed					2																			
LMR Upgraded for TFXXI	4—				——3																			
Evaluation in DIL					1—3																			
Delivery to USMC					3																			

SYNOPSIS: A DISTRIBUTED TEST BED FOR COMMERCIAL COMM TECHNOLOGY WITH FOCUS ON THE DISMOUNTED SOLDIER.

S&TCD

CX-13295/G, TACTICAL FIBER OPTIC CABLE ASSEMBLY (TFOCA) and ANCILLARY ITEMS

PROJECT OFFICER: Mr. Nick Karalekas, DSN 995-4784
COMM 908/544-4784

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: CUSTOMER

DESCRIPTION: The TFOCA is used as a component of ground tactical fiber optic communications systems. These cable assemblies and ancillary items can be effectively utilized in deploying ground tactical field communications systems which are lightweight, small in size, and support dispersed operations due to extended non-repeatable transmission lengths. A completed cable assembly on a lightweight RC-453/G type reel consists of a specified length (up to 1 kilometer) of 6mm outer diameter cable containing two tightly-buffered, radiation hard, 50/125 micrometers multimode fibers terminated with duplex hermaphroditic biconic connectors. The connector is rugged, field installable, waterproof, and resistant to the stringent environment typical of tactical military applications. The cable assembly is rated and tested for operation at temperatures ranging from -55°C to +85°C. Cable assemblies are made in several lengths to meet various deployment configurations. They are easy to install, use no adhesives, and have excellent stability with temperature variations. The TFOCA has been designated as the Tactical Standard by the Joint Commanders Group for Communications-Electronics. Companion connector components were developed as part of the ancillary items. Cable assembly adaptors and repair kits are available as are cables and connectors for shelter modem installations.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Aug 84	TFOCA R&D contract awarded to AT&T.
Jan 86	TFOCA adopted by DOD as the standard for all ground tactical applications.
Mar 89	Production contract awarded to AT&T by PM, MSCS.
May 90	First Article Test successfully completed.
Oct 90	Proposal for requirements contract received.
Mar 92	TFOCA requirements contract award to AT&T Technologies.
Mar 95	TFOCA requirements contract extension award to AT&T Technologies.

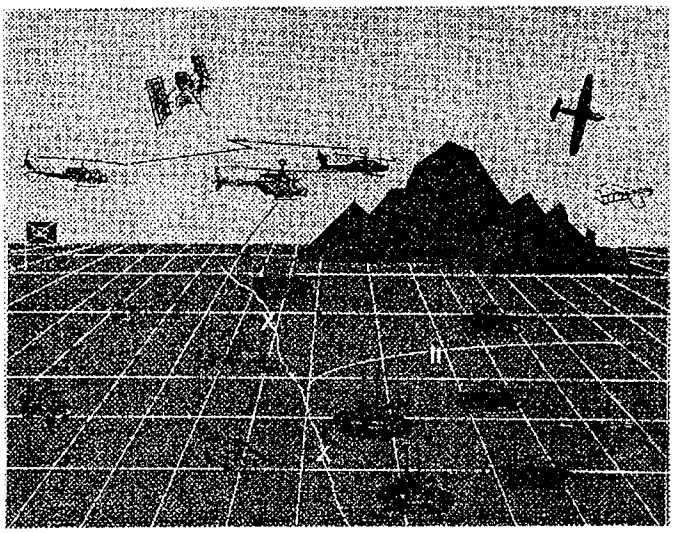
REQUIREMENTS DOCUMENT: Not applicable as TFOCA is a component.

TYPE CLASSIFICATION: Standard approved 1989.

SYNOPSIS: TFOCA IS UTILIZED AS A COMPONENT OF GROUND TACTICAL FIBER OPTIC COMMUNICATIONS SYSTEMS.

S&TCD

DIGITAL BATTLEFIELD COMMUNICATIONS
ATD



PROJECT MANAGER: Mr. Paul Sass, DSN 987-2306
COMM 908/427-2306

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 63006 / D257
63006 / D247
62782 / AH92

DESCRIPTION: This ATD will exploit emerging commercial communications technologies to supplement and, in some cases replace, "legacy" military communications systems which are unable to keep pace with the rapidly increasing demand for communications bandwidth and global coverage in support of the Digitized Battlefield and split-based operations. It will evolve an integrated communications infrastructure which utilizes commercial protocols and standards to achieve global interoperability. In FY95, NDI wideband data radios will be evaluated and procured for warfighter demonstrations prior to selection for procurement in support of Task Force XXI experiments. Commercial ATM technology will be integrated into tactical communications networks to provide "bandwidth on demand" to support multimedia information requirements of the warfighter. In order to extend ATM services to forward tactical units, a Radio Access Point (RAP) will be prototyped and tested. The RAP utilizes a high capacity on-the-move trunk radio to feed a variety of mobile subscriber services. During FY95, Systems Performance Models developed under the CAC2 ATD will be extended to evaluate the effectiveness of candidate NDI wideband data radio technology for eliminating capacity "hot spots" and bottlenecks in the lower echelon tactical Internet. Both manned and unmanned aerial platforms will be fitted with wideband relay packages to support OTM tactical operations. This effort will be coordinated with, and executed in conjunction with, DARO. Low profile SATCOM antenna technology products from supporting 6.2 technology base programs will be supplemented where needed to support integrated warfighter demonstration of both military (UHF and SHF) and commercial (C, KU, X) SATCOM OTM from tactical vehicles. Terrestrial and satellite-based PCS and Direct Broadcast Satellite (DBS) will be evaluated in Warfighter demonstrations to determine tactical utility. Commercial communications technologies identified under the ARPA/CECOM Commercial Communications Technology Testbed (C2T2) program will be evaluated in conjunction with TRADOC Battle Labs for military utility.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Apr 94 ATD Briefed to ASTWG.
Sep 94 ATD TDP issued.
Sep 95 ATD TDP Approved.

REQUIREMENTS DOCUMENT: N/A

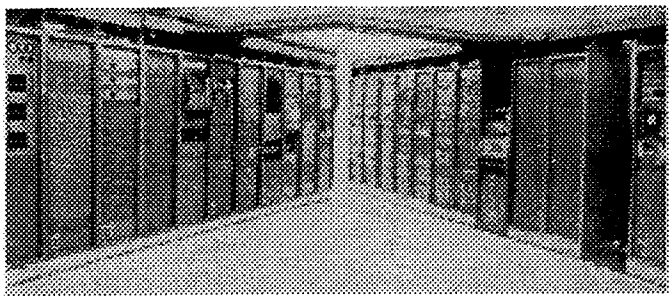
TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Phase I	1-------	------4				
Phase II		4---	--------	------4		
Phase III				4---	--------	------4

SYNOPSIS: ATD TO DEMONSTRATE CAPABILITY FOR SECURE, ROBUST, SEAMLESS, DIGITAL, MULTIMEDIA, INFORMATION TRANSPORT CAPABILITY FOR ARMY TACTICAL USER.

S&TCD

DIGITAL COMMUNICATIONS SATELLITE SUBSYSTEM (DCSS)



PROJECT LEADER: Ms. Cathy Young, DSN 992-3116
COMM 908/532-3116

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: BB8501

DESCRIPTION: The DCSS encompasses the modulation, multiplex, coding and processing equipment necessary to assemble various types of user data into a digital form suitable for transmission over a Satellite Link, in both the protected and unprotected modes. The protected mode employs spread spectrum multiple access techniques utilizing the AN/USC-28 Modem. The unprotected mode employs frequency division multiple access techniques utilizing the OM-73 Modem. In the unprotected mode, the DCSS can feed the AN/FSC-78, AN/GSC-52, or AN/GSC-39 Terminal with up to 90 megabits of user data. DCSS is deployed as part of the Defense Satellite Communications System (DSCS) and essentially provides a unique wide band digital transmission capability. DCSS is required at each Earth Terminal Complex with the DSCS Network in either a building or a van configuration, and its modular design permits unique configurations to meet each DSCS site's specific communication requirement.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

1977 U.S. Army Satellite Communication agency (USASATCOMA), as the Executive Agent for the Defense Communication Agency, ships the first DCSS consisting of 15 unique racks and equipment to Sunnyvale, (Onizuka), CA.
1985 DCSS becomes all digital.
1989 USASATCOMA reorganized into PM SATCOM and Space Systems Directorate (SSD).
1989 DCSS Program Management transitions to Space Systems Directorate.
1993 SSD joins with C3 Systems Directorate to form Space & Terrestrial Communications Directorate.
1995 Total investment to date: $358M.

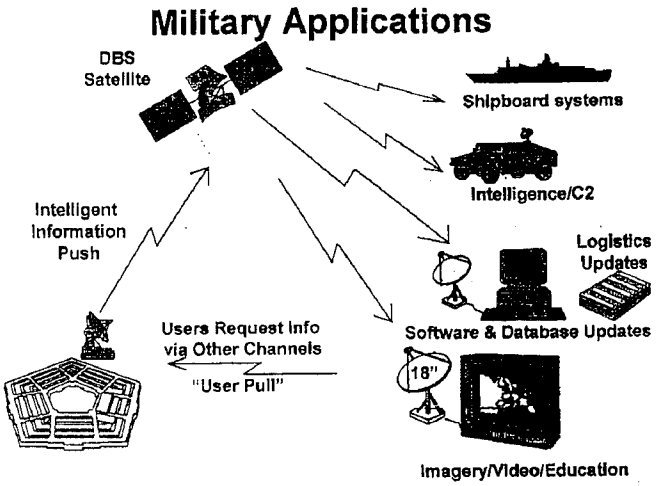
REQUIREMENTS DOCUMENT: DISA DSCS FY96-01 Program Plan.

TYPE CLASSIFICATION: N/A

SYNOPSIS: DCSS PROVIDES DIGITAL EQUIPMENT CAPABILITIES FOR DSCS TERMINAL SITES.

S&TCD

DIRECT BROADCAST SATELLITE (DBS)



PROJECT MANAGER: Gary Blohm, DSN 992-6273
COMM 908/532-6273

ACQUISITION CATEGORY: II
ACQUISITION PHASE: MS II Demo/Validation

PE & LINE: D247 Development
D257

DESCRIPTION: Develop and demonstrate military applications of commercially available technology in the broadcasting of imagery, data, and other information via Direct Broadcast Satellite (DBS) system. DBS is a new commercial technology utilizing high power satellites to transmit digital signals to small (18 inch), inexpensive receivers. Compression techniques enable data rates sufficient to transmit motion video, databases, and other digital information. Program evolves to provide an in-theater capability using airborne relays to reduce dependence on commercial satellites, as well as development of a mobile uplink system.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

REQUIREMENTS DOCUMENT: CONOPS, ORD.

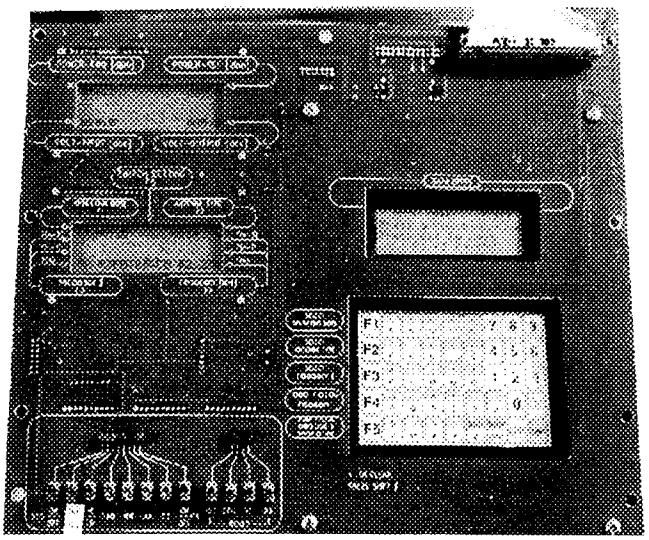
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
TFXXI preparation		2------	-1			
TFXXI			1			
JWID 96		3				

SYNOPSIS: DBS IS A NEW COMMERCIAL TECHNOLOGY UTILIZING HIGH POWER SATELLITES TO TRANSMIT DIGITAL SIGNALS TO SMALL (18 INCH), INEXPENSIVE RECEIVERS.

S&TCD

FREQUENCY AGILE HF COMMUNICATION SYSTEM (MODIFIED ACTFAST)



PROJECT OFFICER: Mr. Wilbur Guertin, DSN 992-0464
COMM 908/532-0464

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS I Demo/Validation

PE & LINE #: 62782 AH92 / D246

DESCRIPTION: ACTFAST is a frequency-hopping antenna coupler used to match HF power amplifiers into whip, shorted loop, and long-wire antennas for ground and aircraft applications. Hopping can occur over the entire 2-30 megahertz high freqency band at full power 400 watt (USA) and 2 kilowatt (USAF), contrasted with present day hoppers restricted to a narrow frequency range and long tuning times. Integrated into complete two-way communication system, it permits full-duplex, multi-channel and diversity operation with real-time sounding. Innovative cooling techniques and solid-state switches assure high reliability, fast speed and quiet operation, all contributing to maximum security against hostile jammers and increased transmission efficiency. Ability to tune in 50 microseconds enhances interoperability with Automatic Link Establishment (ALE) systems mandated by MIL-STD-188-141A, and at hopping rates up to 10,000 hops per second, greatly increases the ability to evade jammers. Development efforts are being considered for immediate insertion into the Improved High Frequency Radio (IHFR) Program as a form, fit and function replacement for the Short Term Anti-Jam (STAJ) AN/GRC-193 radio antenna coupler, for use by USAF on C-130 aircraft, and for anticipated insertion into future Product Improvements of the IHFR and the Multiband/Multimode Radio Program. Additionally, the coupler will be considered for its ability to perform as a high power jammer component.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: TBD.

HISTORICAL BACKGROUND:

Nov 88 The ACTFAST concept was originally submitted in response to FSHPAC solicitation but was not accepted.
Nov 89 The ACTFAST concept was resubmitted in response to Broad Agency Announcement from Advanced Concepts and Technology (ACT) Committee (LABCOM).
May 90 Accepted by ACT for FY91 funding; Additional funds MIPRs from USAF for joint participation and earlier start.
Sep 90 Contract awarded to AEL.
Jan 92 Contract extended to produce deliverable prototype.
Mar 94 Began integration into complete two-way communication system test-bed.

REQUIREMENTS DOCUMENT: IHFR ROC.

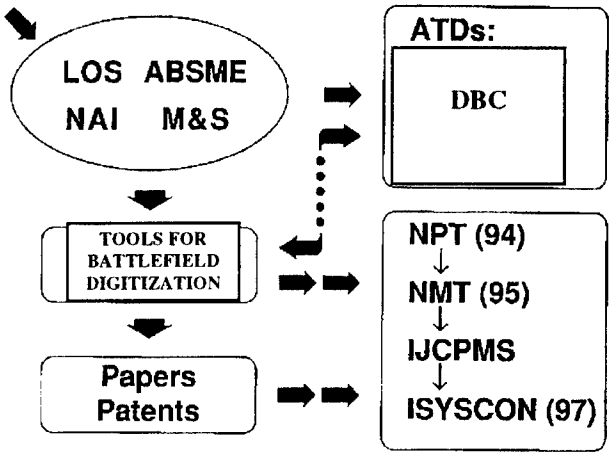
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Completion of System	3					
Testing, Installation, Training		3				

SYNOPSIS: ACTFAST WILL DEVELOP ECM & ECCM EQUIPMENT EMPLOYING VERY FAST HOPPING RATES TO ENSURE EFFECTIVE ANTI-JAM COMMUNICATIONS FOR ARMY & AIR FORCE APPLICATIONS, PERMIT REAL-TIME SOUNDING & FULL-DUPLEX OPERATION, REDUCE LINK ESTABLISHMENT TIMES IN ALE & INCREASE DATA RELIABILITY WITHOUT DECREASING THROUGHPUT, & CONVERSELY, TO INCREASE THE EFFECTIVENESS OF JAMMING SYSTEMS.

S&TCD

ISE/M&S ROADMAP



IMPROVED SPECTRUM EFFICIENCY MODELING & SIMULATION (ISEMS)

PROJECT MANAGER: Mr. Ken Brockel, DSN 987-3479
COMM 908/427-3479

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: H92CONS / H92LINMS

DESCRIPTION: The STO will focus efforts in support of the Army enterprise vision of winning the information war and digitization of the battlefield. Key to this challenge will be the development of an enhanced communication modeling and simulation environment that provide real time, flexible, DIS compatible and cost effective capabilities for resolving complex operational problems while ensuring that the synthetic environments reflect the same communications effects that are realized in the live environment. The emphasis will be on real time descriptions of environment phenomena for applications to modeling of dynamic network and communications system performance management, communication equipment characteristics, communications realism and propagation reliability algorithms, spectrum use efficiency, and frequency management techniques. Taguchi design of experiment techniques will be used to reduce the simulation times and improve confidence in results. In FY95 the goal will be to complete development of algorithms used in burst propagation models to support comm realism for M&S products. In FY96, the goal is to demonstrate the validity of the modeling effort as it supports wide band data radios and high capacity trunk radio systems (for ATM applications) design planning. By FY97, provide software capable of modeling communications system capacity and performance and dynamic battlefield environments in support of future global deployment of communication technology. ISEMS will transition key technologies to DBC and other ATDs, including definitions of the dynamic tactical environment and techniques for optimizing large scale simulations.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

FY91/93 Completed LOS propagation models (UHF thru SHF COMM Systems).
FY92 Developed Propogation climate factor process with worldwide data base.
FY92/93 Developed net deployment & optimization algorithms & improved EW algoritnms.
FY93 Developed approach for 24hr net management system for area communications.
FY93 Developed E3 Data Base.
FY93 Complete several concept & studies to improve efficient use of Spectrum.
FY94 C3 OTM Prototype Planning Tool Developed.

REQUIREMENTS DOCUMENT: Several (IJCPMS / ISYSCON/ACUS SIP)

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Real-time simulation description	2					
Low-data rate comm effects modules	2					
24 hour perf planning algorithms (ntw/traffic forecasting)	4					
Dispersive fading algorithms	4					
High-data rate comm effects modules		2				
High-capacity trunk radio description			1			
Objective environment			4			
Conceptual environment				4		

SYNOPSIS: ISEMS IS FOCUSED ON THE MODELING OF COMMUNICATIONS SYSTEMS CAPACITY AND DYNAMIC BATTLEFIELD ENVIORNMENTS REQUIREMENTS TO SUPPORT FUTURE GOBAL DEPLOYMENT OF NEW COMM TECHNOLOGIES.

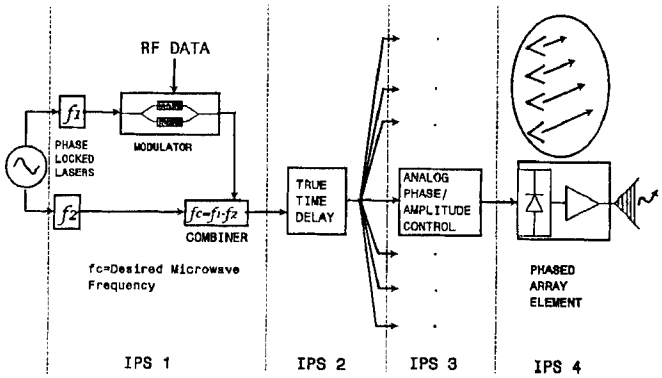
S&TCD

INTEGRATED PHOTONIC SUBSYSTEMS (IPS)

PROJECT MANAGER: Mr. James Wright, DSN 987-2819
COMM/908-427-2819

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS 0 Concept Explor/Definition

PE & LINE #: 62782.AH92



INTEGRATED PHOTONIC SUBSYSTEMS

DESCRIPTION: This effort will develop Integrated Photonic Subsystems (IPS) for the carrier generation, modulation, signal distribution and beamforming for control of phased array antennas which will be a required part of future tactical on-the-move communication and radar systems. A frequency independent approach is being followed. This will allow IPS use in a number of on-the-move applications both SATCOM and terrestrial communications (6-58 Ghz). Multiple beams and adaptive arrays will be supported.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A (Not a system).

HISTORICAL BACKGROUND:

Jun 93 Revised STO briefed to Battle Lab representatives.
Mar 94 Contract awarded to GEC-Marconi Materials Corporation.
Sep 94 Contract awarded to Boeing Defense & Space Group.
Aug 95 Contract awarded to GEC-Marconi Materials Corporation.

REQUIREMENTS DOCUMENT: Science and Technology Objective (STO) IV.G.01; Integrated Photonic Subsystems.

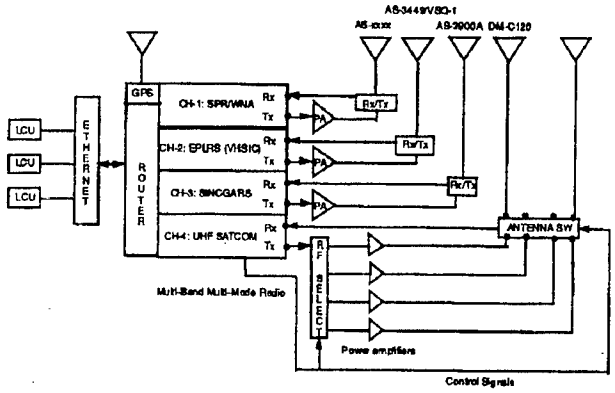
TYPE CLASSIFICATION: N/A; Effort will result in subsytem which will be incorporated into a number of systems.

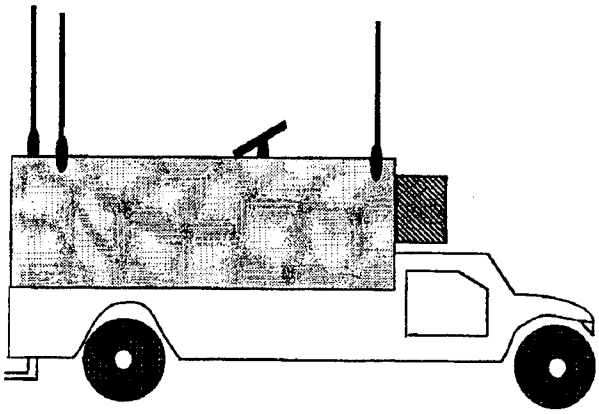
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Integrated Photonic Tech. Dev.	----------	-1				
Sys. Arch. & Demonstrator	3-----	----3				
Beam Former Development	4---	---2				
Transition to System Prototypes	----------	----------	------4			
Optical Phased Locked Loop Development	4---	----------	------4			

SYNOPSIS: INTEGRATED PHOTONIC SUBSYSTEMS WILL CONTROL THE BEAMFORMING / SHAPING NETWORKS FOR FUTURE TACTICAL COMM-ON-THE-MOVE SYSTEMS.

S&TCD

JOINT SPEAKEASY MULTIBAND MULTIMODE RADIO





PROJECT LEADER: Mr. Don Upmal, DSN 992-0440
COMM 908/532-0440

PROJECT ENGINEER: Mr. Adam Gerner, DSN 987-3953
COMM 908/427-3953

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 63006/D247
33140/D491

DESCRIPTION: Joint service R&D program to develop the baseline architecture and technology for the objective Multiband Multimode Radio (MBMMR), meeting the requirements of the Future Digital Radio (FDR) Mission Needs Statement (MNS). Phase 2 ADM's available in FY98/99 will demonstrate a highly flexible radio architecture, allowing rapid waveform re-programmability / re-configurability to support the rapidly changing mission requirements of EW threat, interoperability, networking, traffic load, frequency assignment and general modes of operation. State-of-the-art design will provide the ability to enhance existing waveforms or emulate new waveforms simply by software or common module exchange. Technology insertion includes the use of advanced digital signal processors (DSPs) programmable four channel INFOSEC modules, and multiband / wideband RF modules and antenna studies. The MBMMR will utilize an "open" (industry standard) system architecture, be highly software re-programmable (waveform & INFOSEC), provide four simultaneous multiband (2-2000 MHz) multimode radio channels, provide networking functions and minimize the required number of antennas. Waveforms to be implemented include legacy waveforms such as SINCGARS and SINCGARS (SIP), UHF SATCOM DAMA, EPLRS, HQI&II, GPS, cellular phone, and IHFR, as well as high data rate packet waveform such as WNA. Management of the Speakeasy follow-on phase is planned to be transitioned to PEO C3S in the FY99/00 time frame. The Speakeasy MBMMR will support all emerging C3 architectures for "Digitizing the Battlefield" and ADM's will support DBC/RAP ATD.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Sep 90 Phase I Contract award.
Aug 94 Phase I Prototype Demonstrations.
Nov 95 Phase I complete.
Jun 95 Phase II Contract Award.

REQUIREMENTS DOCUMENT: Army Signal School. Mission Needs Statement for Future Digital Radio, 16 May 94.

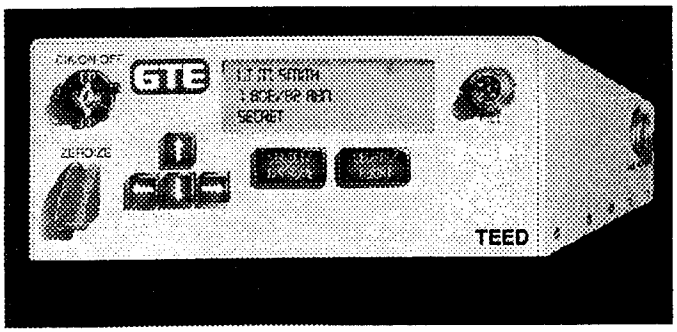
TYPE CLASSIFICATION: Speakeasy is a 4 channel radio with each channel operating independently in multiple bands and performing multiple modes.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Phase I - Equipment Delivery	3					
Phase II - Contract Award	4					
Limited Capability Demos				3----	----3	
Equipment Delivery (yearly demos)		4	4	4	4	
DBC / RAP ATD Demo				4---	----------	----4

SYNOPSIS: THE MBMMR PROGRAM IS A MULTI-PHASED PROGRAM TO DEVELOP A RADIO SYSTEM WHICH IS SOFTWARE REPROGRAMMABLE.

S&TCD

NETWORK SECURITY



PROJECT OFFICER: Mr. Bill Kamenel, DSN 987-4163
COMM 908/427-4163

ACQUISITION CATEGORY: IV
ACQUISITION PHASE:

PE & LINE #: 39800 D21A

DESCRIPTION: The long term objective of network security is to secure all voice and data within every Army network system that communicates and/or processes any information of intelligence value. The goal is to develop small, user friendly low power equipment tailored to meet the Army system requirements in a cost effective manner. This effort will apply NSA generic hardware modules and software cryptographic algorithms to work with Army host equipment. This will meet unique Army requirements to include the development of techniques to increase the physical protection of COMSEC equipment and keying material and will result in Army communication systems that are robust, automated and secure. This will be accomplished through the use of black gateways and investigation of technologies to assure authentication and access control for multi-level secure networks and multi-user terminals. Secure gateways will permit the soldier in the field to cross communication boundaries without the need to decrypt information within a red gateway.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORIC BACKGROUND:
Aug 93 Award Tactical End-to-End Encryption Device (TEED) contract.
Jan 94 TEED contract efforts begins (government successfully defends against protest).
Aug 94 TEED contract modified to develop NSA certified models.
Aug-Sep 95 Early TEED prototypes successfully demonstrated at JWID 95.

TECHNICAL:
- o Army Regulations require securing all classified information.
- o Modules developed for the Commercial CONSEC Endorsement Products (CCEP) program have been incorporated within network encryption equipment.
- o Investigation of NSA's developed software for embedding into host equipment.
- o Army Secure Tactical Initiative (ASTI) program to develop security approaches to Army internet (tactical as well as sustaining base) requirements.

PROGRAMMATIC:
- o To date, internal effort has been expended for the above work. Contractual effort is programmed through FY97 time frame.
- o ASTI-TEED funded FY95.
- o ASTI, TISM (TEED Internet Security Manager) funded FY95, FY96, FY97.

REQUIREMENTS DOCUMENT: The Signal Center has generated, staffed and has gotten approval on O&O and ORD.

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR / QTR	95	96	97	98	99	00
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
TEED Brass Board Demo	1					
TISM Award	3					
TEED Demo at JWID 95	4					

SYNOPSIS: NETWORK SECURITY'S GOAL IS TO SECURE ALL NETWORKS WITHIN EVERY ARMY WEAPON SYSTEM THAT COMMUNICATES AND/OR PROCESSES ANY INFORMATION OF INTELLIGENCE VALUE.

S&TCD

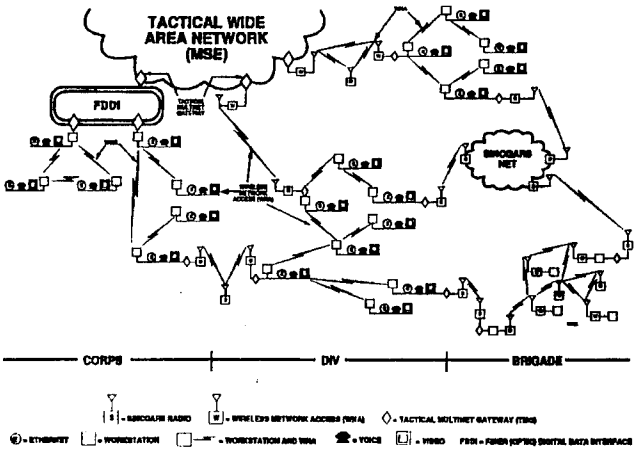
SURVIVABLE ADAPTIVE SYSTEMS - ATD (SAS-ATD)

PROJECT MANAGER: Mr. Paul Sass, DSN 987-2306
COMM 908/427-2306

ACQUISITION CATEGORY:
ACQUISITION PHASE: RDTE 6.3A

PE & LINE #: 63006 D247

SURVIVABLE ADAPTIVE SYSTEMS ATD
DEPLOYMENT CONCEPT



DESCRIPTION: This ATD will demonstrate advanced internetworked communications technology to provide enhanced capacity and seamless communications in support of requirements for emerging tactical C2 and Intelligence systems. The specific products resulting from this ATD include tactical multinet gateways to interconnect legacy communications networks using commercial standard protocols and products; wideband packet data networks using commercial standard protocols and products; wideband packet data networks in several frequency bands of operation to provide high capacity data communications on the move; automated network management tools based on commercial standards and protocols which are used to manage and configure complex tactical internetworks; and fiber optic LANs using commercial standard protocols over tactical fiber optic cables to support voice, data, and video services in corps command post applications. Demonstrations in FY94 will utilize commercial standard TCP/IP networking products to seamlessly interconnect tactical C2 systems running on Army CHS hardware with increased capacity for lower echelon C2 systems. The demonstrations will utilize UHF wideband packet radio networks operating at burst rates of up to 400 KBps over ranges of up to tens of kilometers using integral multihop relaying, as well as tactical UHF SATCOM with airborne platforms to extend communications range, SINCGARS packet data networks, and EPLRS networks providing lower echelon connectivity into the MSE Packet Network. The final Warfighter demonstration (JWID) in FY95 will introduce a Wireless Network Access (WNA) radio which integrates DSP technology developed under the joint Speakeasy program and operates at UHF or EHF to provide multihop connectivity at burst rates of up to 5 MBps over distances of several kilometers. The WNA will also support mobile command post requirements for secure wideband packet data and circuit switched telephone access into MSE. The ATD demonstrations will emphasize wideband communications "on-the-move" through all phases of tactical operations.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: N/A.

HISTORICAL BACKGROUND:

Mar 92	Technical Development Plan approved by DA.
Nov 92-Dec 93	Phase 1 Demo successfully completed at Ft. Lewis, WA & Ft. Gordon STDN-3.
Dec 93	Phase 1 Exit Criteria successfully accomplished.
Mar 93	Phase 1 "Lessons Learned" incorporated into Phase 2 of SAS development.
May 94	TDP update release to target Bde 96.
	Revised TDP approved by DA.
Sep 95	Final Exit Criteria Demo completed at JWID 95.

REQUIREMENTS DOCUMENT: The SAS-ATD supports Thrust Areas 2 and 5, ATCCS, Digitization of the Battlefield and Science and Technology Objective (STO) #II.G.04 for C3 entitled Survivable Adaptive Systems ATD.

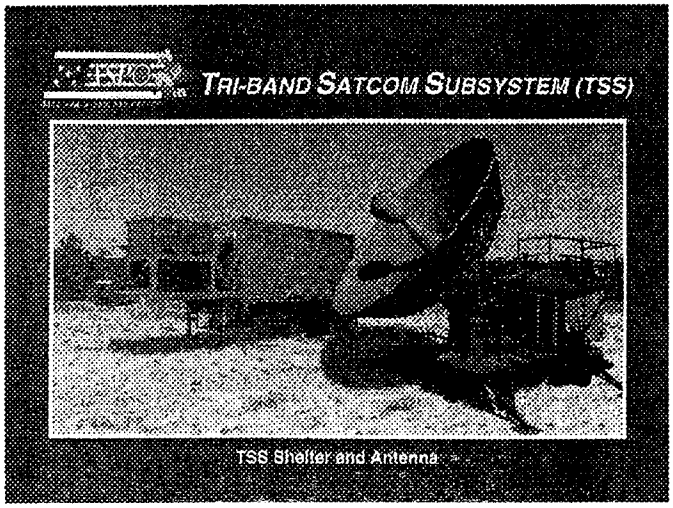
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Theatre Missile Defense (TMD) 95 AWE	3					
JWID 95	4					
Transition to TFXXI	1——4					

SYNOPSIS: SAS-ATD WILL DEMONSTRATE A SET OF ADVANCED TECHNOLOGIES IN SUPPORT OF ABCS WITH A TRANSITION INTO TFXXI IN 1Q96.

S&TCD

TRI-BAND SATCOM SUBSYSTEM (TSS)



TSS Shelter and Antenna

PROJECT MANAGER: Mr. Fred Kobylarz,
DSN 992-9783 x5465 COMM 908/532-9783 x5465

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: N/A

PE & LINE #:

DESCRIPTION: The TSS is a triband SATCOM subsystem designed for use with the Army TENCAP MIES System. This terminal permits operation on military or commercial satellites in the C, X and Ku bands utlizing a single tri-band feed. The TSS consists of a 20 foot ISO shelter and a trailer mounted 20 foot diameter antenna subsystem which are transportable by C-130, C-141, or C-5 aircraft. The TSS provides a full duplex circuit capable of operating up to 256 KBPS and a receive-only circuit up to 6.2 Mbps.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C-130, C-141 or C-5.

HISTORICAL BACKGROUND:

May 91	MOA between CECOM S&TCD and customer.
May 92	SPEC and SOW developed.
Aug 93	RFP released.
3QFY94	Contract award.
4Q94	PDR First System.
1Q95	CDR.
4Q95	Second System Ordered.
1Q96	System Deployed.
	Certification Testing First System.
1Q96	Delivery/Acceptance First System.

REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: N/A

EVENT SCHEDULE - Sytem #1 FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Critical Design Review	1					
In-Plant Test	4					
Certification Testing	4	1				
Delivery / Acceptance		1				

EVENT SCHEDULE - System #2 FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Option Exercised	4					
PDR		1				
CDR		2				
Certification - If Required		4				
Delivery		4				

SYNOPSIS: TSS IS A MULTI-BAND SATCOM TERMINAL BUILT TO PROVIDE ASSURED ACCESS TO SUPPORT INTEL DISSEMINATION.

S&TCD

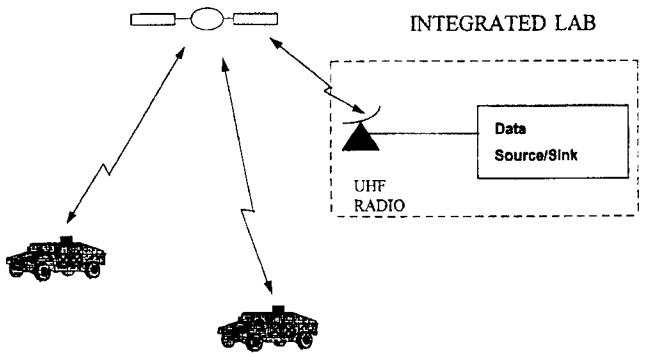
UHF SATCOM-ON-THE-MOVE ANTENNA

PROJECT MANAGER: Mr. Thom Nelson, DSN 992-1461
COMM 908/532-1461

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE:

UHF SATCOM-ON-THE-MOVE



DESCRIPTION: This program will design and develop prototype UHF antennas to support SATCOM-On-The-Move (SOTM). The antenna will be robust and low profile in order to survive the operational scenario encountered by military vehicles while on-the-move and to minimize target identification by the enemy. Antenna gain will be chosen to optimally trade-off user communications capabilities and the antenna size. The antenna will support satellite tracking while mounted on a moving vehicle.

Following prototype procurement, system integration, experiments and demonstrations will follow.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Vehicle mounted (e.g. HMMWV).

HISTORICAL BACKGROUND:

FY93 Mechanically steered yagi antenna (3' profile) used to demonstrate UHF SOTM capability. Although this antenna was fielded in small quantities, its high profile is not well suited for typical operational environments.

REQUIREMENTS DOCUMENT: N/A

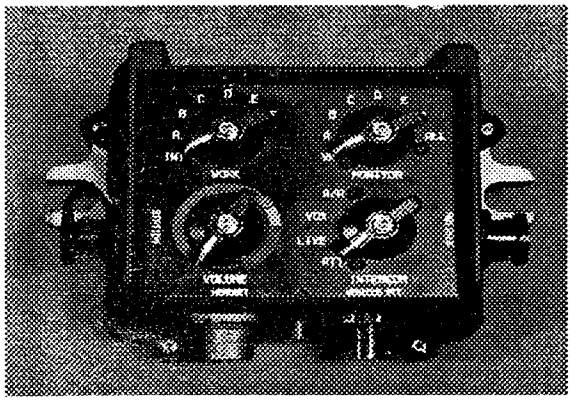
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System Feasibility / Link Budget Analysis	1					
Procurement of Prototype Antennas	1----4					
System Integration (Installation Kit, Integrated Lab)		1-2				
Experiments / Demonstrations		3-4				

SYNOPSIS: THIS PROGRAM WILL DEVELOP PROTOTYPE, LOW PROFILE, HIGH GAIN UHF ANTENNAS TO SUPPORT SATCOM-ON-THE-MOVE.

S&TCD

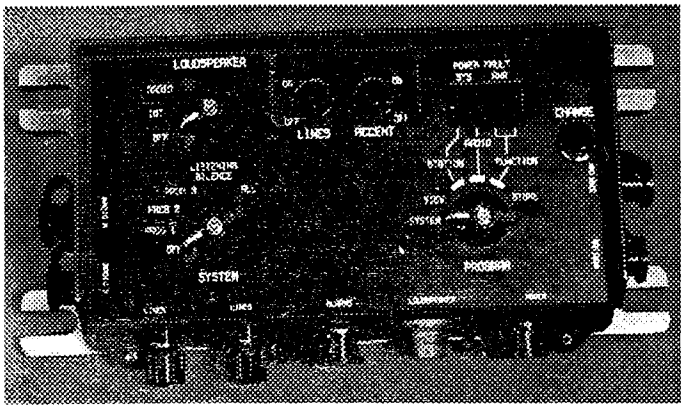
VEHICULAR INTERCOMMUNICATIONS SYSTEM (VIS)



PROJECT MANAGER: Christopher Wantuck, DSN 987-2421
COMM 908/427-2421

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:



DESCRIPTION: The VIS is an intercom and radio access communications system, primarily for crew members of armored track vehicles. It consists of a Master Control Station (MCS), Full Function Crew Stations (FFCS), Monitor Only Stations (MOS), Radio Interface Terminal (RIT), Active Noise Reduction (ANR) headsets, and power signal cables. The MCS allows for 1) programming of radios to crew members; 2) radio listening silence; 3) connection to field phone or other vehicle; and, 4) connection to two combat radios. An FFCS provides volume adjustment and radio selection whereas an MOS only provides volume adjustment. The RIT is used for applications where three or four radio capability is required. The ANR headsets are provided in a helmet liner with a noise cancelling microphone. The ANR earcups will phase cancel noise that penetrates the earcups seal, thereby providing improved sound reduction. Initial VIS fielding will be front line vehicles (force package I) such as Abrams tanks (M1A1/M1A2), Bradley Fighting Vehicles (M2, M3), M577s, M109A6 Paladins, and Standardized Integrated Command Post System (SICPS). Other vehicles will be considered as their requirements deem necessary. VIS is procured as a Non-Developmental Item.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Aug 88	VIS transferred from PEO COMM to CECOM.
Oct 88	$10M OPA-2 appropriated for VIS.
Jan 91	SPR decision - procure VIS.
Sep 92	Contract award.
Mar 93	Contract resumes after protests.
Sep 93	Option awarded for 950 VIS kits.
Nov 94	Commence First Article Test.
Jun 95	Option Awarded for 2,333 VIS Kits.

REQUIREMENTS DOCUMENT: Required Operational Capability, Jul 86.

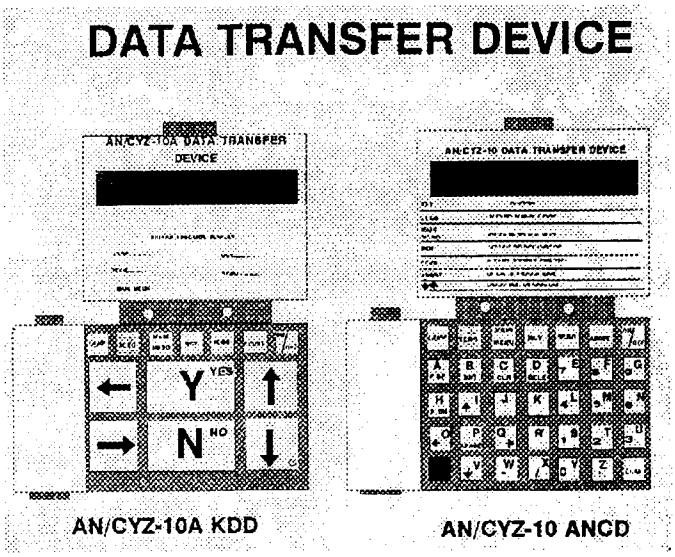
TYPE CLASSIFICATION: Generic approved Sep 91; Standard scheduled for Nov 95.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
First Article Test (FAT)	1-2					
User Test	3					
Approve FAT		1				
Receive First Deliveries		1				

SYNOPSIS: VIS IS AN INTERCOM AND RADIO ACCESS COMMUNICATIONS FOR CREW MEMBERS OF ARMORED TRACK AND COMMAND POST VEHICLES.

CCSLA

AN/CYZ-10 and AN/CYZ-10A, DATA TRANSFER DEVICE (DTD)



PROJECT MANAGER: Mr. Gerald Zelazny, DSN 879-6408
COMM 520/538-6408

PRODUCT MANAGER: Mr. Pete Stebelski, DSN 879-8176
COMM 520/538-8176

ACQUISITION CATEGORY: II
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: Z21128 - AN/CYZ-10
Z31590 - AN/CYZ-10A

DESCRIPTION: The AN/CYZ-10 and the AN/CYZ-10A Data Transfer Device, hereafter referred to generically as the DTD will replace the existing family of common fill devices, including the KYK-13 Electronic Transfer Device, the KYX-15/15A Net Control Device, and phase out the need for the KOI-18 Electronic Tape Reader for some equipments. A programmable, and handheld device, the DTD will store data, securely transport and transfer COMSEC and TRANSEC keys, Communications Electronic Operating Instructions (CEOIs), frequency hopping parameters, and network control operating directions. The DTD meets Single Point Keying (SPK) requirements. A Crypto-Ignition Key (CIK) allows users to securely store and transport key and other required communications data. Its other interface is a six pin DS 101/102 (RS-232 and MIL-STD 188-114) connector. The DTD has a 48 character, night or low level ambient vision capable liquid crystal virtual display (LCD).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Height: 1.7" Width: 3.5" Length: 6" Weight: 24 oz.

HISTORICAL BACKGROUND:

Mar 88	Operational and Organizational Plan (O&OP).
Jun 90	Required Operational Capability (ROC).
Aug 91	First Article Testing.
Oct 91	Test and Evaluation Master Plan (TEMP) Update.
Jul 93	Initial Fielding First Unit Equipped (FUE).
Jul 93	Materiel Fielding Plan (MFP) for Phase I.
Jan 95	Beta Fielding with ANCD Software for MSC Units.
Oct 95	18,000 Fielded to date: 98% to SINCGARS Users.

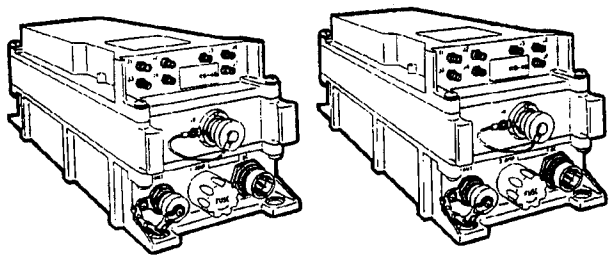
REQUIREMENTS DOCUMENT: NSA developed.

TYPE CLASSIFICATION: Limited TC approved Apr 93. Final TC pending BOIP approval.

SYNOPSIS: THE DTD WILL STORE DATA, SECURELY TRANSPORT AND TRANSFER COMSEC AND TRANSEC KEYS, CEOIs, FREQUENCY HOPPING PARAMETERS, AND NETWORK CONTROL OPERATING DIRECTIONS.

CCSLA

KG-45 (SANCHEZ)



KG-45 AC Assembly

KG-45 DC Assembly

PROJECT LEADER: Ms. Tammy Lee McGee, DSN: 879-8455
COMM: 520/538-8455

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: KG-45-1-AC (E02060)
KG-45-2-DC (E02128)
NSN: KG-45-1-AC - 5810-01-092-5877
KG-45-2-DC - 5810-01-087-9930

DESCRIPTION: The KG-45 is a high speed, full-duplex key generator designed to encrypt and decrypt serial digital data for communications systems in high-risk environments at data rates from 2Kbps to 20 Mbps. Encipher and decipher functions are independent allowing simultaneous operation at independent data rates in the two modes. A common crypto variable is used for both encryption and decryption. It secures radio range, intelligibility, and encrypted signal characteristics. The KG-45 was designed for use in SIGINT/EW systems which have remotely controlled intercept collection receivers for which all intercept-related communications (mission equipment controls, data links, voice links, and telemetry) must be secured. The KG-45 is unclassified CCI when unkeyed. When keyed, it carries a classification equal to that of the key installed. The KG-45 is used in AN/ALQ-151(V)2 QUICKFIX and AN/TSQ-114B TRAILBLAZER. The KG-45 is no longer in production and is being displaced by the KGV-68/68B modules.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 5.0" Width: 5.5" Depth: 11.8" Weight: KG-45-1-C-AC (11.8lbs), KG-45-2-DC (9.2lbs).

HISTORICAL BACKGROUND:

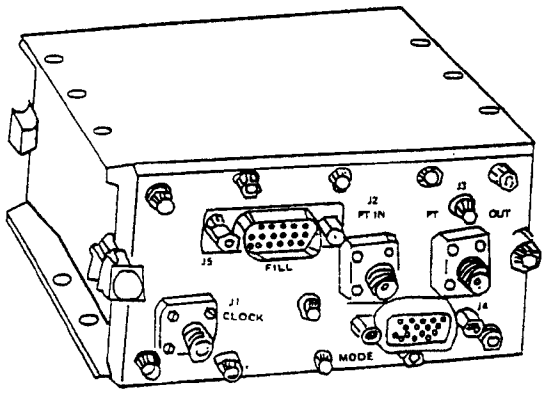
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Standard, Full material release.

SYNOPSIS: THE SANCHEZ IS A HIGH-SPEED, FULL-DUPLEX KEY GENERATOR DESIGNED TO SECURE SERIAL DIGITAL DATA FOR COMMUNICATIONS SYSTEMS.

CCSLA

KG-66/66A (KUTA)



PROJECT LEADER: Ms. Tammy Lee McGee, DSN 879-8455
COMM 520/538-8455

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: M93318
NSN: KG-66 5810-01-114-1165
KG-66A 5810-01-231-6828

DESCRIPTION: The KG-66/66A is a half-duplex, binary digital key generator used to encrypt or decrypt telemetry or digital data in air-to-ground digital communication links. The KG-66A has the same form and fit as the KG-66. While cryptographically identical to the KG-66, the DG-66A has a built-in reset circuit, improved KYK-13 compatibility, and lower power consumption. The KG-66/66A is used to secure missile and aircraft telemetry and data links, and is suitable for many aircraft and missile encryption applications. The KG-66/66A is certified to encrypt up to SECRET. The KG-66/66A is unclassified CCI when unkeyed. When keyed, it carries a classification equal to that of the key installed.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 1.5" Width: 3.0" Depth: 3.0" Cube: 12" Weight: 11.6 oz.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT:

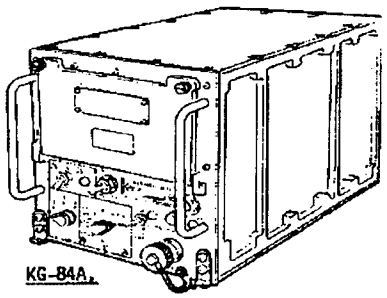
TYPE CLASSIFICATION: None - used within AMC only.

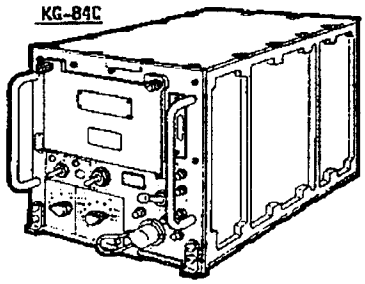
SYNOPSIS: THE KG-66/66A IS A HALF-DUPLEX, BINARY DIGITAL KEY GENERATOR USED TO SECURE MISSILE/AIRCRAFT TELEMETRY AND COMMUNICATION LINKS.

CCSLA

KG-84A, DEDICATED LOOP ENCRYPTION DEVICE

KG-84C, GENERAL PURPOSE TELEGRAPHY ENCRYPTION DEVICE





PROJECT LEADER: Mr. Art Chavira. DSN 879-7477
COMM 602/538-7477

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: KG-84A - E03028
KG-84C - E03028
NSN: KG-84A 5810-01-146-3260
KG-84C 5810-01-250-6618

DESCRIPTION: The KG-84A/84C are lightweight, low power equipment that provide encryption/decryption of teletypewriters of input/output devices, including PC-type computers and facsimiles. KG-84A/84C are designed to be used in tactical, strategic, vehicle, ship, aircraft and fixed plant environments. A special feature of the KG-84C is the enhanced High Frequency (HF) capability designed for interoperability with the North Atlantic Treaty Organization Communications Equipment and with other services.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 7.7" Width: 7.5" Depth: 12.7" Weight: 20 lbs.

HISTORICAL BACKGROUND:

KG-84A	KG-84C	
Sep 82	Sep 85	First Production contract award.
Oct 83	Jun 86	Final Qualitative and Quantitative Personnel Requirements Information.
Feb 84	Sep 87	First Article Testing.
Feb 84	Apr 88	Initial Deliveries.
Jun 84	Jul 88	Material Release.
Jul 84	Aug 88	First Unit Equipped.

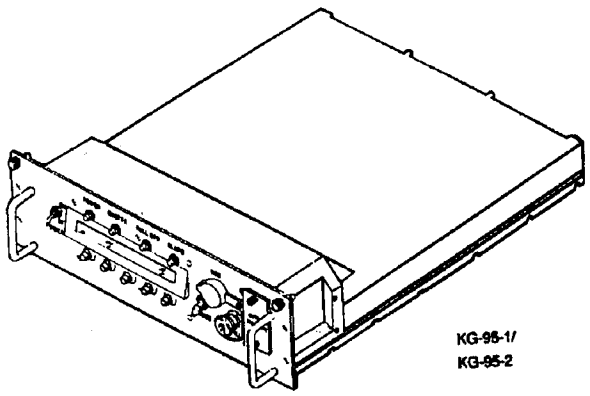
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: KG-84A - Standard approved Dec 83; KG-84C - Standard approved Jun 86.

SYNOPSIS: KG-84A/84C ARE GENERAL PURPOSE ENCRYPTION/DECRYPTION DEVICE FOR THE PROTECTION OF RECORD AND LOW DATA RATE TRANSMISSION LINKS IN TACTICAL, STRATEGIC, SHIP/AIR AND FIXED PLANT ENVIRONMENTS.

CCSLA

KG-95 TRUNK ENCRYPTION DEVICE



PROJECT LEADER: Mr. Al Arakaki. DSN: 879-7524
COMM: 520/538-7524

ACQUISITION CATEGORY:
ACQUISITION PHASE: IV

PE & LINE #: G77697
NSN: KG-95-1 5810-01-263-8240
KG-95-2 5810-01-263-8241

DESCRIPTION: The KG-95 is a Family of full duplex, fixed plant. bulk encryption/decryption key generators which are approved for processing all classifications of traffic. Three different equipment configurations are available. The KG-95-1 is the general purpose version of the KG-95, capable of operating at any data rate between 10 and 50 Mb/s. The KG-95-2 operates only at the fixed DS-3 data rate of 44.736 Mb/s and is fully compliant with AT&T specifications for DS-3 transmission and reception. The DS-3 Redundant System consists of two KG-95-2 and a redundant frame which provides for 99.999% system availability. The KG-95-1 in traditional mode of operation is cryptographically compatible and interoperable with KG-81/94/94A/194/194A.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 5.07" Width: 17.21" Depth: 20.60" Weight: 25lbs.

HISTORICAL BACKGROUND:

Aug 88 Contract award to Motorola Inc.
Feb 91 Second production contract award.
2Q91 First Unit Delivery.

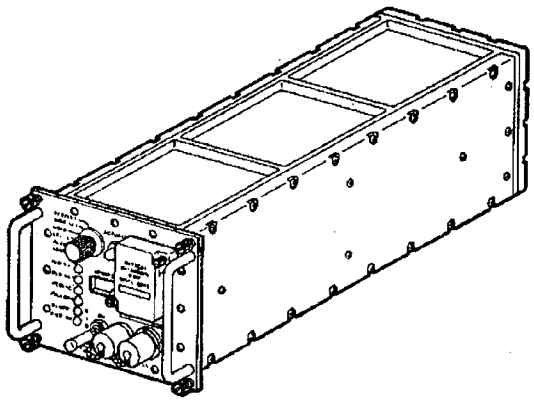
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Standard.

SYNOPSIS: FIXED PLANT KEY GENERATOR OPERTING AT 10-50 MHZ & DS3 DATA RATE OF 44.736 MHZ.

CCSLA

KG-194, TRUNK ENCRYPTION DEVICE



PROJECT LEADER: Mr. Herman Hewitt. DSN 879-8160
COMM 520/538-8160

ACQUISITION CATEGORY:
ACQUISITION PHASE: IV

PE & LINE #: T64771
NSN: 5810-01-283-1395

DESCRIPTION: The KG-194 is used for high speed digital encryption in strategic and sheltered environments. KG-194 is capable of digital data encryption/decryption at rates from 9.6 Kps to 13 Mbps. KG-194 is simply a KG-94 with remote rekey capability (FIREFLY). KG-194 is FIREFLY compatible with only other KG-194/194A equipment. However, in the traditional mode of operation, the KG-194 is cryptographically compatible with the KG-81/94/94A/95-1 family of equipment. KG-194 is designed for installation in the HNF-81-1/2, HGF-91, or HGF-94 rack adapters and may be used in tactical mobile, sheltered or fixed plant environments.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 5.7" Width: 6.1" Depth: 18.5" Weight: 15.9lbs.

HISTORICAL BACKGROUND:

Sep 87 Contract award to Group Technologies Corporation, Tampa, FL.
Jun 89 Contract award to Allied-Signal Aerospace Company, Bendix Communications Division, Baltimore, MD.
4QFY89 First Unit Delivery.

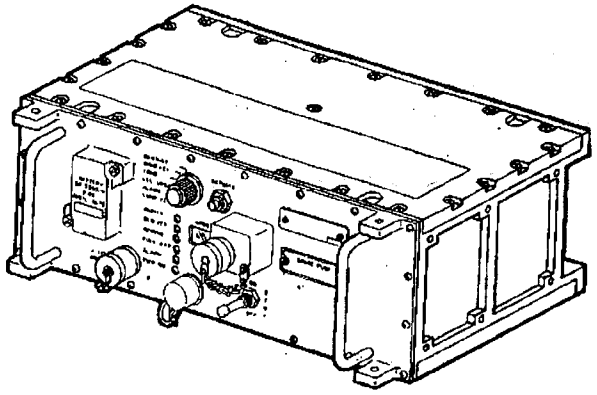
REQUIREMENTS DOCUMENT: O&O, 18 Oct 85.

TYPE CLASSIFICATION: Standard approved 30 Jan 86.

SYNOPSIS: KG-194 IS USED FOR HIGH SPEED DIGITAL ENCRYPTION IN STRATEGIC AND SHELTERED ENVIRONMENTS.

CCSLA

KG-194A, TRUNK ENCRYPTION DEVICES



PROJECT LEADER: Mr. Heman Hewitt, DSN 879-8160
COMM 520/538-8160

ACQUISITION CATEGORY:
ACQUISITION PHASE: IV

PE & LINE #: T08971
NSN: 5810-01-283-1394

DESCRIPTION: The KG-194A is simply a KG-94A with remote, rekey capability (FIREFLY) added. The difference is in the transmit and power converter Printed Circuit Boards, innerconnect parentboard, and the front panel assembly. The FIREFLY feature provides the user with enhanced keying capability and increases the security of the equipment. The IAU (NSN: 5810-01-280-4746) is designed to mechanically and electrically adapt the KG-94A/194A to be used to replace the KG-27 electronic key generator in pulse-code-modulated (PCM) applications. KG-94A/194A with or without a IAU assembly mounts into a 19-inch rack. KG-194A is ruggedized and designed for use in tactical, mobile, sheltered, or fixed plant environments.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 5.2" Width: 14.0" Depth: 9.9" Weight: 16.7lbs.

HISTORICAL BACKGROUND:

1985	Production contract awarded to Motorola Scottsdale, AZ, for the KG-94 and KG-94A.
1987	Production contract awarded Group Technologies Corporation, Tampa, FL, for the KG-194 and KG-194A.
1988	Joint Service test conducted on the KG-94A installed with the IAU.
1989	First Unit Equipped, KG-94A.
1990	Production contract awarded to Allied-Signal Aerospace Company, Bendix Communications Division, Baltimore, MD for the KG-194 and KG-194A.
2QFY92	First Unit Equipped, KG-194A.

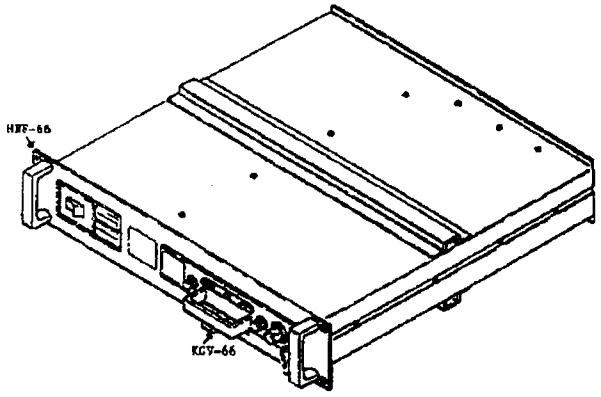
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Standard.

SYNOPSIS: KG-194A IS USED FOR TACTICAL AND SHELTERED HIGH SPEED ENCRYPTION.

CCSLA

KGR-66 (KUTA RECEIVER)



KGR-66 EQUIPMENT

PROJECT LEADER: Ms. Tammy Lee McGee, DSN: 879-8455
COMM: 520/538-8455

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: M93386
NSN: 5810-01-141-3481

DESCRIPTION: The KGR-66 is a fixed-plant, rack-mounted receiver for the KG-66/66A and KGV-68/68B. The KGR-66 is used for air-to-ground decryption of the KUTA and NOBLEMAN family of equipment. The KGR-66 is certified to decrypt data of any classification. The KGR-66 consists of two major assemblies: HNF-66 (power supply, relay assembly, and mounting frame) and the KGV-66 (an easily removabale module that houses all the CCI components). The KGR-66 is unclassified CCI when unkeyed and carries a classification equal to that of the key installed. The HNF-66 is unclassified.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 3.5" Width: 19.0" Depth: 18.0" Weight: 25lbs.

HISTORICAL BACKGROUND:

Oct 80 Initial Operational Capability (IOC).

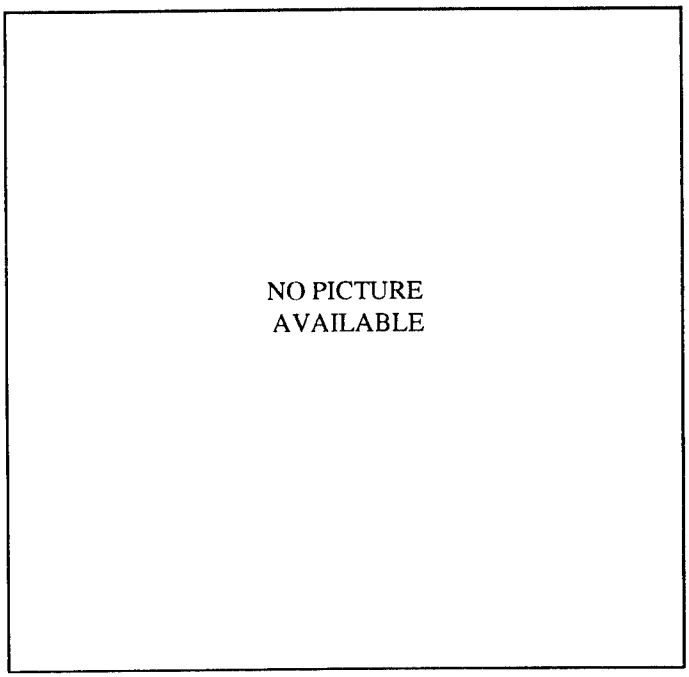
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: None - used within AMC only.

SYNOPSIS: THE KGR-66 IS A FIXED-PLANT, RACK-MOUNTED RECEIVER USED TO DECRYPT MISSILE/AIRCRAFT TELEMETRY.

CCSLA

KGR-68 (TELEMETRY DECRYPTOR)



PROJECT LEADER: Ms. Tammy Lee McGee, DSN: 879-8455
COMM: 520/538-8455

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: III

PE & LINE #:
NSN: 5810-01-357-9999

DESCRIPTION: The KGR-68 is a fixed-plant, rack-mounted receiver for the KG-66 (mode B), KG-66A (mode B), and the KGV-68 equipments. The KGR-68 is designed as a direct replacement for systems currently using the KGR-66 which is no longer in production. The KGR-68 is certified to decrypt data up to the SECRET level. The KGR-68 is unclassified CCI when unkeyed and carries a classification equal to that of the key installed when keyed.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 3.5" Width: 19.0" Depth: 9.0"

HISTORICAL BACKGROUND:

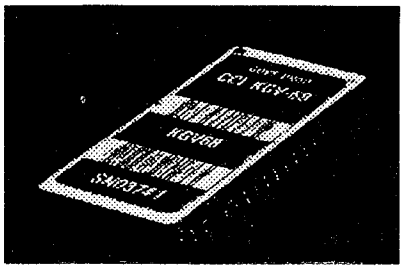
REQUIREMENTS DOCUMENT:

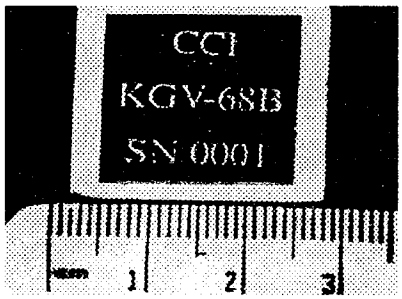
TYPE CLASSIFICATION: None - used within AMC only.

SYNOPSIS: THE KGR-68 IS A FIXED-PLANT, RACK-MOUNTED RECEIVER DESIGNED TO DECRYPT MISSILE/AIRCRAFT TELEMETRY.

CCSLA

KGV-68 (NOBLEMAN TELEMETRY ENCRYPTOR/DECRYPTOR)





PROJECT LEADER: Ms. Tammy Lee McGee, DSN: 879-8455
COMM: 520/538-8455

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: M61961
NSN: 5810-01-231-6827

DESCRIPTION: The KGV-68 was the first embedded COMSEC module developed for encrypting and decrypting serial PCM data (50 bps to 10 Mbps) for airborne communication systems. It is a small lightweight, low power, and low cost embeddable cryptologic 36-pin hybrid device. The KGV-68 is used to secure missile and aircraft telemetry and wideband data link encryption applications. The KGV-68 is certified to encrypt up to SECRET level data; however, by using two devices in an upgraded configuration, higher grade data can be secured. The KGV-68 is unclassified CCI when unkeyed. When keyed, it carries a classification equal to that of the key installed. KGV-68 is used in Guardrail Common Sensor Program.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: .22" Width: 1.925" Depth: 1.036" Cube: .46" Weight: 1oz.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT:

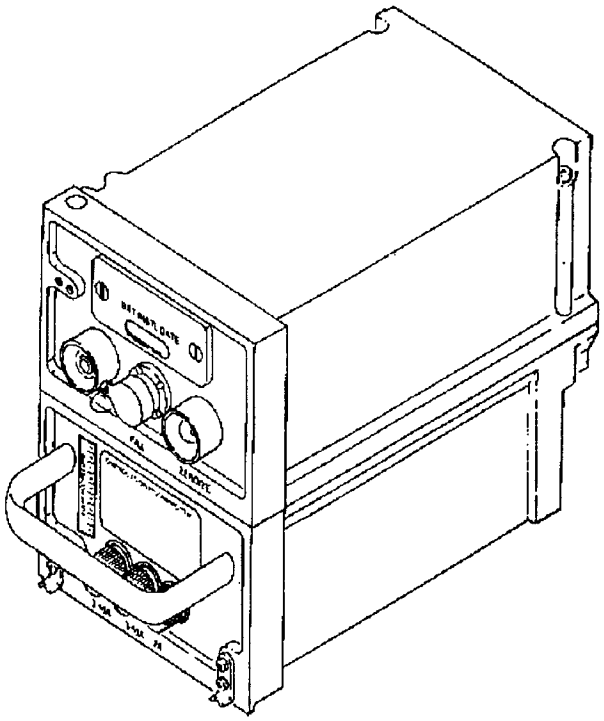
TYPE CLASSIFICATION: None - used within AMC only.

SYNOPSIS: THE KGV-68 IS A 36 PIN HYBRID DEVICE USED TO SECURE SERIAL PCM DATA FOR MISSILE/AIRCRAFT TELEMETRY AND WIDEBAND DATA LINKS.

CCSLA

KIR-1C, IDENTIFICATION, FRIEND OR FOE INTERROGATOR COMPUTER

KIT-1C, IDENTIFICATION, FRIEND OR FOE TRANSPONDER COMPUTER



Externally, both the KIR-1C and KIT-1C are identical. Together they make up the KI-1C Cryptographic Computer.

PROJECT LEADER: Mr. Art Chavira. DSN 879-7477
COMM 520/538-7477

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: KIR-1C K98250
KIT-1C X22266
NSN: KIR-1C 5810-01-273-7819
KIT-1C 5810-01-273-7820

DESCRIPTION: The KIR-1C is used to encrypt and decrypt the Mode 4 Identification, Friend or Foe (IFF) signal generated by ground, airborne, or shipborne IFF interrogator systems. KIT-1C is used to encrypt and decrypt the Mode 4 IFF signal received by ground, airborne, or shipborne, IFF transponder systems. They both provide facilities for electronic fill of the COMSEC key, versus the mechanical fill used in the KIR-1A and the KIT-1A.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 6.75" Width: 5.0" Depth: 8.2" Weight: KIR-1C 7.5lbs; KIT-1C 7.4lbs.

HISTORICAL BACKGROUND:

1986 Development contract let by NSA for the KIR-1B/1C and KIT-1B/1C.
1987 Contract modified to delete requirement for KIR-1B and KIT-1B.
1988 Production contract award to Allied Signal-Bendix Communications Division, Baltimore, MD.
1989 Joint service test conducted on KIR-1C and KIT-1C.
1991 Air Worthiness Certification by AVSCOM; First Unit Equipped KIR-1C and KIT-1C; Initial Operational Capability KIR-1C and KIT-1C.

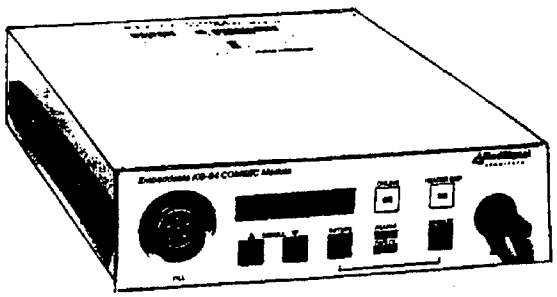
REQUIREMENTS DOCUMENT: ROC, 5 Oct 88 for the KIR-1C and KIT-1C.

TYPE CLASSIFICATION: Separate Type Classifications were not required as KIR-1C is an F3 modification of KIR-1A and KIT-1C is an F3 modification of KIT-1A.

SYNOPSIS: KIR-1C PROVIDES SECURE IFF MODE FACILITIES FOR IFF INTERROGATOR EQUIPMENT. KIT-1C PROVIDES SECURE IFF MODE FACILITIES FOR IFF TRANSPONDER EQUIPMENT.

CCSLA

KIV-7



KIV-7

PROJECT LEADER: Mr. Art Chavira, DSN: 879-7477
COMM: 520/538-7477

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:
NSN: 5810-01-414-6656

DESCRIPTION: The KIV-7 is a Type I, NSA endorsed data encryption embeddable KG-84 COMSEC module device. The KIV-7 is unclassified CCI which protects classified and sensitive digital data transmissions at data rates of up to 512kbps. It was designed to specifically address the growing requirement to secure data communication links among users of personal computers, workstations, faxes and related electronic equipment. The KIV-7 uses the WINDSTER key generator and is interoperable with the standard KG-84A and KG-84C equipment in most secure data and OTAR modes. It provides security for point-to-point, netted, and broadcast data links. The KIV-7 has an integrated remote control interface which permits the management of up to 30 remote units by a single KIV-7. Its interface is compatible with both DS-101 and DS-102, KYK-13, KYX-15/15A, and KOI-18 electronic keying devices and storage for up to ten traffic encryption keys. A removable CIK prevents unauthorized access and protects all of the internally stored keys. The KIV-7HS has a data rate of 1.544Mbps, standard RS-422 Digital Interface EIA-530, and is capable of supporting full motion video. Both the basic KIV-7 and KIV-7HS can be embedded or stand-alone or be rack mounted.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 1.68" Width: 5.88" Depth: 8.0" Weight: 3lbs.

HISTORICAL BACKGROUND:

Aug 92 Endorsed by NSA (KIV-7).
Sep 95 Endorsed by NSA (KIV-7HS).

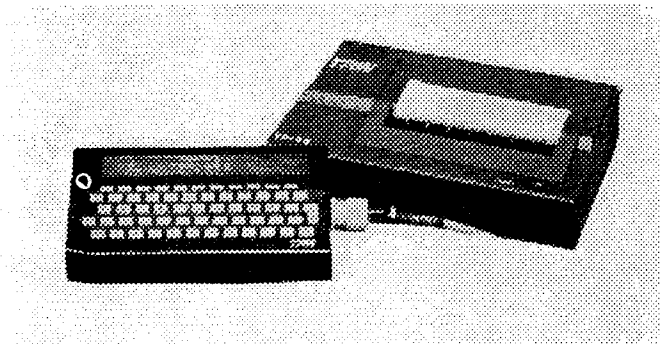
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

SYNOPSIS: THE KIV-7 IS A COMPACT COMSEC DEVICE THAT PROTECTS CLASSIFIED INFORMATION AT ALL LEVELS AND SENSITIVE NATIONAL-SECURITY RELATED DIGITAL DATA TRANSMISSIONS AT DATA RATES UP TO 512 KBPS.

CCSLA

KL-43C/F, AUTOMANUAL SYSTEM



PROJECT LEADER: Ms. Lydia Tillman, DSN 879-8480
COMM 520/538-8480

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: Z11411 (Temporary)
NSN: KL-43C 5810-01-318-0414
KL-43F 5810-01-376-7375

DESCRIPTION: The KL-43C/F is a portable, general purpose, off-line text encryption terminal specifically designed to transmit and receive classified messages over unprotected telephone lines and radio links under rugged field conditions. The device fits conveniently in the palm of the hand, yet provides word processing features as word-wrap, text insertion, and string search. The keyboard is standard "QWERTY" layout including fifteen specially added keys that require no shifted functions. Information is viewed on a 2-line-by-40-character Liquid Crystal Display (LCD). It uses a Dual Message Buffer (Each message buffer has a capacity 2600 character storage) that allows for the receipt of a transmitted message without the loss of a message in process. The device has 16 Key location/storage and Key Update function.

The KL-43C/F adapts to almost any field communications equipment. It is compatible with most tactical radios through a standard audio connector, while the built-in modem allows telephone connections through the acoustic coupler mounted inside the case.

KL-43C is the English version and KL-43F is the English and French version. Both are ruggedized terminals for field operation.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 1.7" Width: 6.6" Depth: 3.7" Weight: 2.0lbs.

HISTORICAL BACKGROUND:

1989 First Unit Equipped (KL-43C).
FY95 First Unit Equipped (KL-43F).

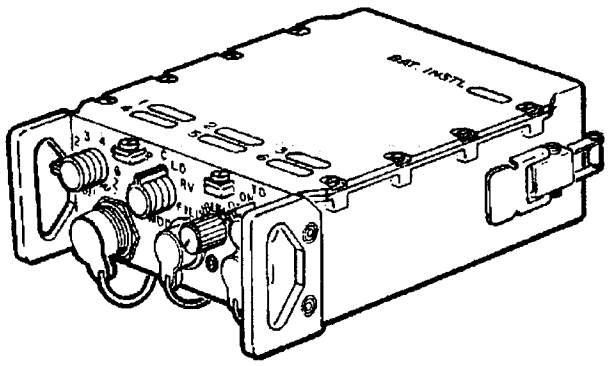
REQUIREMENTS DOCUMENTS: KL-43C was originally classifed as keying materiel, not equipment. We are in the type classification process now.

TYPE CLASSIFICATION: In process now on type classification.

SYNOPSIS: KL-43C IS A PORTABLE, GENERAL PURPOSE, OFF-LINE ELECTRONIC CRYPTO DEVICE THAT PERFORMS ENCRYPTION/DECRYPTION.

CCSLA

KY-57, VINSON



PROJECT LEADER: Mr. Sam Fisher. DSN 879-6603
COMM 520/538-6603

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: S01373
NSN: 5810-00-434-3644

DESCRIPTION: The KY-57, Communications Security Equipment is a lightweight, direct current (DC) powered Controlled Cryptographic Item (CCI) used to provide secured voice or data communications equipment, including the non-ICOM SINCGARS, the AN/VRC-112, and the AN/PRC-70. KY-57 can be operated in manpack, shelterized, and vehicular configurations using CECOM (B16) developed/managed installation kits.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 3" Width: 6.750" Length: 7.875" Weight: 5lbs.

HISTORICAL BACKGROUND: KY-57 has been in the field as the Army's primary tactical ration encryption device since 1979.

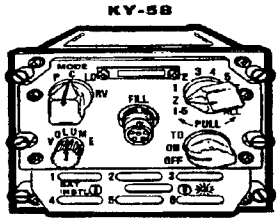
REQUIREMENTS DOCUMENT: ROC, 1972.

TYPE CLASSIFICATION: Standard approved 1975.

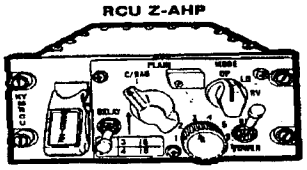
SYNOPSIS: KY-57 IS A LIGHT-WEIGHT, DIRECT CURRENT POWERED CONTROLLED CRYPTOGRAPHIC ITEM.

CCSLA

KY-58 VINSON

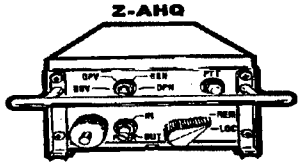


PROJECT LEADER: Mr. Sam Fisher, DSN 879-6603
COMM 520/538-6603



ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: S01441
NSN: KY-58 5810-00-449-0154
X-AHP(RCU) 5810-01-026-9623



DESCRIPTION: Provides secure voice communications for a wide variety of airborne and shipborne radios. Operates in a half-duplex (simplex) mode. Can secure amplitude-modulated (AM) very high frequency (VHF) and frequency modulated (FM) ultra-high frequency (UHF) radios. Will secure all classifications of radio traffic in tactical situations. Has a plain-voice override feature. Has six storage registers to hold six different COMSEC keys. Has a remote control capability. Can generate key of any classification. Can be used for Net Control Operations with the Net Control Device KYX-15. There are two related pieces of equipment which you must have in order to operate the KY-58 in most aircraft installations. They are the Z-AHQ Power Interface Adaptor and the Z-AHP Remote Control Unit (RCU).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 4.86" Width: 5.74" Length: 6.45" Weight: 4.5lbs.

HISTORICAL BACKGROUND:

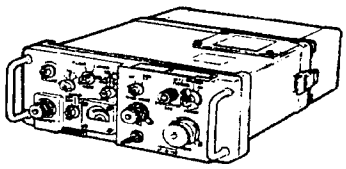
REQUIREMENTS DOCUMENT: ROC 1972.

TYPE CLASSIFICATION: Standard.

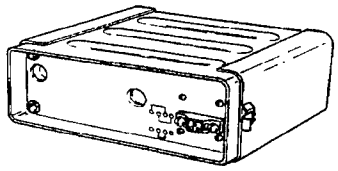
SYNOPSIS: THE KY-58 IS USED TO PROVIDE WIDEBAND SECURE VOICE CAPABILITY FOR BOTH AIRCRAFT AND SHIPS.

CCSLA

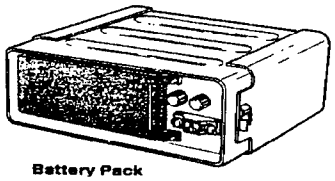
KY-65A (PARKHILL)



KY-65A Processor



AC/DC Power Supply



Battery Pack

PROJECT LEADER: Mr. Paul Avallone, DSN: 879-6127
COMM: 520/538-6127

ACQUISITION CATEGORY: IV
ACQUISITION PHASE:

PE & LINE #: C52382
NSN: 5810-01-236-5245

DESCRIPTION: The KY-65A is the ground version of the PARKHILL. It is a NSA developed COMSEC device used to provide encryption/decryption for half-duplex, tactical, narrowband voice communications when used with compatible radio systems, or tactical/commercial wireline systems. KY-65A is installed into vehicle/shelters by means of an installation kit consisting of mounts, cables, brackets, filters, etc. The KY-99/99A MINTERM is currently being fielded to replace the KY-65A. Existing requirements for KY-65A are being transferred to KY-99/99A.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 4.85" Width: 11.3" Depth: 15.3" Weight: 16 lbs.

HISTORICAL BACKGROUND:

Sep 81 First Article Testing.
Apr 82 Operational and Organizational Plan (O&OP).
Apr 82 Material Fielding Plan Phase I.
Sep 83 Initial Fielding First Unit Equipped.
May 85 Contract Awarded to Allied for Modification Components for PARKHILL.

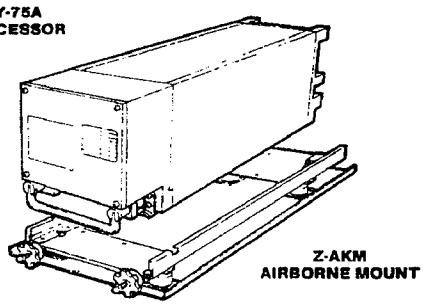
REQUIREMENTS DOCUMENT: Required Operational Capability (ROC) Nov 83.

TYPE CLASSIFICATION: Standard.

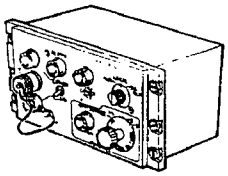
SYNOPSIS: THE KY-65A PARKHILL PROVIDES SECURE VOICE COMMUNICATIONS OVER VARIOUS TACTICAL HF, VHF, AND UHF NARROWBAND RADIO AND WIRELINE CIRCUITS.

CCSLA

KY-75A (PARKHILL)


KY-75A PROCESSOR

Z-AKM AIRBORNE MOUNT


Z-AKR REMOTE CONTROL UNIT

PROJECT LEADER: Mr. Paul Avallone, DSN: 879-6127
COMM: 520/538-6127

ACQUISITION CATEGORY: IV
ACQUISITION PHASE:

PE & LINE #: C52450
NSN: KY-75A 5810-01-236-5246
Z-AKR(RCU) 5810-01-050-2500

DESCRIPTION: The KY-75A is the airborne version of the PARKHILL. It is an NSA developed COMSEC device used to provide encryption/decryption for half-duplex, tactical, narrowband voice communications when used with compatible radio systems, or tactical/commercial wireline systems. The aircraft device is installed by using NSA procured mounts, and cables. The KY-100 AIRTERM is scheduled to be fielded in 1996 to replace the KY-75A. Existing requirements for KY-75A will be transferred to KY-100.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 7.7" Width: 4.9" Depth: 15.6" Weight: 24 lbs.

HISTORICAL BACKGROUND:

Sep 81 First Article Testing.
Apr 82 Operational and Organizational Plan (O&OP).
Apr 82 Material Fielding Plan Phase I.
Sep 83 Initial Fielding First Unit Equipped.
May 85 Contract Awarded to Allied for Modification Components for PARKHILL.

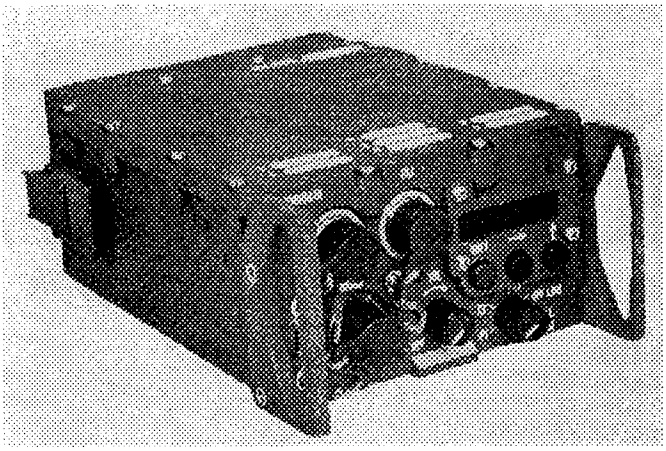
REQUIREMENTS DOCUMENT: Required Operational Capability (ROC) Nov 83.

TYPE CLASSIFICATION: Standard.

SYNOPSIS: THE KY-75A PARKHILL PROVIDES SECURE RADIO COMMUNICATIONS OVER VARIOUS HF, VHF, AND UHF NARROWBAND RADIO CIRCUITS USED IN TACTICAL AIRCRAFT COMMUNICATIONS SYSTEMS.

CCSLA

KY-99/99A MINTERM



PROJECT LEADER: Mr. Roosevelt Watson, DSN: 879-8234
COMM: 520/538/8234

ACQUISITION CATEGORY: III
ACQUISITION PHASE: III

PE & LINE #: K47623
NSN: KY-99 5810-01-307-5414
KY-99A 5810-01-391-0187

DESCRIPTION: The KY-99/99A MINTERM is a tactical, light-weight, low power ruggedized manpack/vehicular COMSEC terminal intended to replace the KY-65A (PARKHILL). It is contained in a die cast aluminum housing and will provide security for HF, IHF, VHF, UHF, and SATCOM communications systems. The KY-99A also contains the additional capability of allowing simultaneous connection of a handset to the AUD connector and a data set to the FILL/DATA connector. The MINTERM provides secure voice and data with ANDVT TACTERM and wideband SATCOM. The MINTERM is an integral part of the Joint Services System, and provides half-duplex, narrowband secure voice and data for a variety of military applications. The MINTERM will be interoperable with AIRTERM KY-100 (the airborne version of the MINTERM).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 3" Width: 5.5" Depth: 6.725" Weight: 4.5 lbs (KY-99) 4.25 lbs (KY-99A)

HISTORICAL BACKGROUND:

1987 Development contract let by NSA.
1990 Production contract awarded.
1991 MINTERM Installation Kit Contract awarded.
1993 First Unit Equipped with KY-99.
1994 Totally funded Army KY-99 Upgrade Kit requirements.

REQUIREMENTS DOCUMENT: JROC Approved Oct 76, Amended JROC Approved Nov 87.

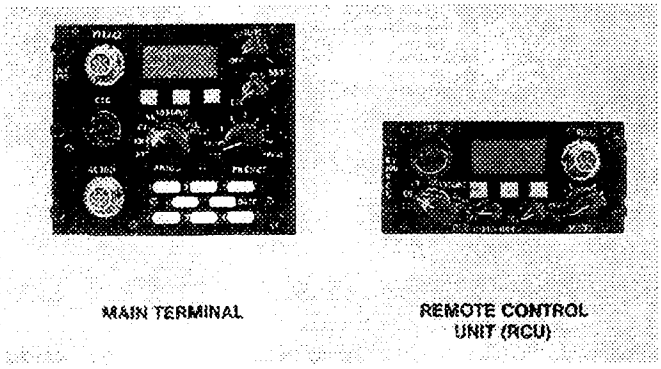
TYPE CLASSIFICATION: Standard.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Production Issues KY-99A	4					
KY-99 Upgrade Kit Production		1				

SYNOPSIS: THE MINTERM IS A HIGHLY RELIABLE PIECE OF COMSEC EQUIPMENT USED TO PROVIDE SECURE VOICE AND DATA FOR A VARIETY OF TACTICAL COMMUNICATIONS SYSTEMS.

CCSLA

KY-100 AIRTERM



PROJECT LEADER: Mr. Roosevelt Watson, DSN: 879-8234
COMM: 520/538-8234

ACQUISITION CATEGORY: III
ACQUISITION PHASE: III

PE & LINE #: Terminal: Z30869 RCU: Z94416
NSN: KY-100 5810-01-376-1380
Z-AVH(RCU) 5810-01-376-1381

DESCRIPTION: The AIRTERM consists of the KY-100 Main Terminal and the Z-AVH Remote Control Unit (RCU). The KY-100 is compatible and interoperable with the ANDVT systems and also provides an additional capability to secure transmissions over wideband radio systems in an airborne environment. The AIRTERM is a direct replacement for the KY-75A PARKHILL and is interoperable with the KY-99/99A MINTERM (the ground version of the AIRTERM). The AIRTERM will provide secure transmission of voice or data over narrowband and wideband HF, VHF radios in an airborne environment. The KY-100's dimensions are backward compatible with the airborne KY-58 VINSON. The KY-100 will also be used to secure tactical satellite systems. The AIRTERM will be used in military rotary-wing and fixed-wing aircraft by the Joint Services. When unkeyed, the AIRTERM is CCI. When keyed, the AIRTERM assumes the highest classification of the key in the equipment and must be protected accordingly. AIRTERM features include a separately removable Cryptographic Ignition Key, however, this feature is prohibited for amy users.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: Main Terminal 4.86" RCU 2.61" Width: Main Terminal 5.73" RCU 5.73" Depth: Main Terminal 5.14" RCU 3.58"
Weight: Main Terminal 6 lbs. RCU 2 lbs.

HISTORICAL BACKGROUND:

Dec 93 Engineering Design Phase Completed.
Aug 94 BOIP/QQPRI submitted.
Nov 94 Qualification Testing Began.

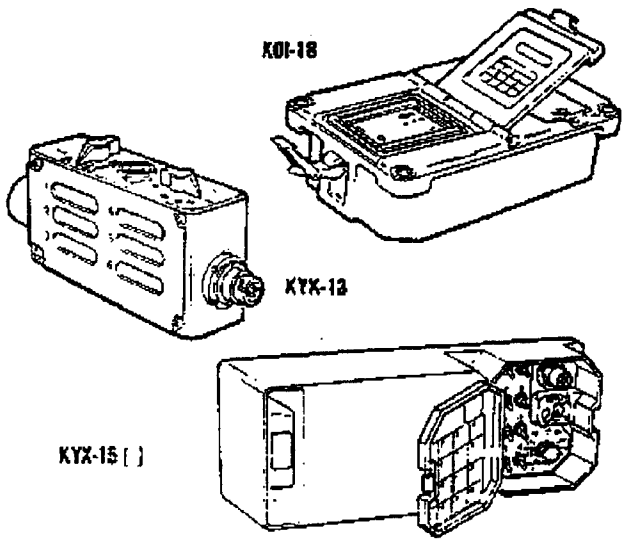
REQUIREMENTS DOCUMENT: JROC Approved Oct 76, amended JROC Approved Nov 87.

TYPE CLASSIFICATION: HQDA Waiver, Final TC Standard expected 1QFY96.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Competitive Contract		2				
Initial Delivery		3----	----3			

SYNOPSIS: THE KY-100 AIRTERM IS USED TO SECURE COMMUNICATIONS NETS EMPLOYING HF, VHF, UHF RADIOS AND TACTICAL SATELLITE SYSTEMS IN ROTARY-WING AND FIXED-WING AIRCRAFT BY THE JOINT SERVICES.

KYK-13, KYX-15/15A, KOI-18 (COMMON FILL DEVICES)



PROJECT LEADER: Ms. Tammy Lee McGee, DSN: 879-8455
COMM: 520/538-8455

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: KYK-13 (E98103), KYX-15/15A (N02758), KOI-18 (T40405)

NSN: KYK-13 5810-01-026-9618
KYX-15 5810-01-026-9619
KYX-15A 5810-01-095-1312
KOI-18 5810-01-026-9620

DESCRIPTION: The KYK-13 is a light weight, hand-held, battery operated device that provides digital data storage for six 128 bit serial SAVILLE keys and will transfer keys to other equipment. It can also check the parity and selectively zeroize stored keys. The KYX-15/15A is a light weight, battery operated net control device which has 16 addressable storage positions for 128 bit serial SAVILLE keys. In addition to performing all functions of a KYK-13, the KYX-15/15A can provide remote keying distribution, key generation, and key updating when connected to external equipment. The KOI-18 is a light weight, battery operated general purpose tape reader that accepts a standard one-inch wide eight level punched tape and converts the data to a serial data stream for loading compatible equipment. The KOI-18 will serially output whatever length key is punched on the tape it is reading. Common fill devices are compatible with over 30 families of COMSEC equipment which accepts electronic key. The common fill devices are unclassified CCI when unkeyed, however, when keyed, carries a classification equal to that of the key installed. Common fill devices are no longer being produced.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

	Height	Width	Depth	Weight
KYK-13	1.38"	3.75"	2.12"	9.6 oz.
KYX-15/15A	1.57"	4.50"	11.59"	3.2 lbs.
KOI-18	1.63"	2.88"	4.88"	1.01 lbs.

HISTORICAL BACKGROUND:

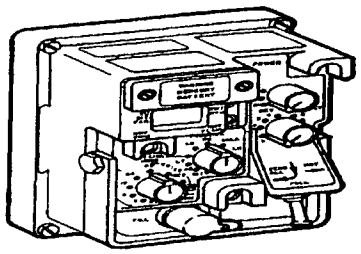
REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: Standard, Full material release.

SYNOPSIS: THE COMMON FILL DEVICES ARE USED TO LOAD AND TRANSFER CRYPTOGRAPHIC KEYS TO COMPATIBLE COMSEC EQUIPMENT OR FROM ONE FILL DEVICE TO ANOTHER.

CCSLA

KYV-5 COMSEC MODULE

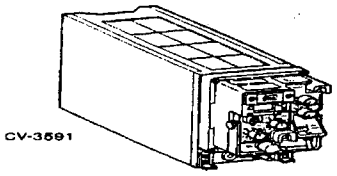


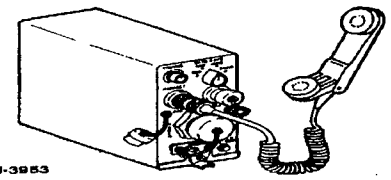
KYV-5 COMSEC MODULE

PROJECT LEADER: Mr. Robert Carlos, DSN: 879-8377
COMM: 520/538-8377

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: Z08399
NSN: 5810-01-224-0202





DESCRIPTION: The KYV-5 is part of the Advanced Narrowband Digital Voice Terminal (ANDVT) Tactical Terminal (TACTERM) system. The KYV-5 encrypts and decrypts digital voice and data in half duplex operation. It is designed for use in a variety of environments, including fixed plant, aircraft, vehicles, and tactical shelters. The ANVDT-TACTERM system in its standard configuration consists of two equipments; the CV-3591 Basic Terminal Unit and the KYV-5 COMSEC Module. The unkeyed KYV-5 is a Controlled Cryptographic Item (CCI). When the KYV-5 is unkeyed it is unclassified, but must be controlled. When keyed, the KYV-5 must be protected the same as the highest classification of the key installed. The KYV-5 consists of a housing assembly designed for a tactical environment, connectors for input/output at the rear of the housing, and a front panel assembly, including controls, indicator lights, battery compartment, and fill connector. The KYV-5 is also used with the J-3953 Interface Unit which provides a compatible interface for radio handsets and data devices. The J-3953 Interface Unit is designed for use in vehicles. The KYV-5 is no longer in production.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Height: 6.20" Width: 4.91" Depth: 2.97" Weight: 5 lbs.

HISTORICAL BACKGROUND:

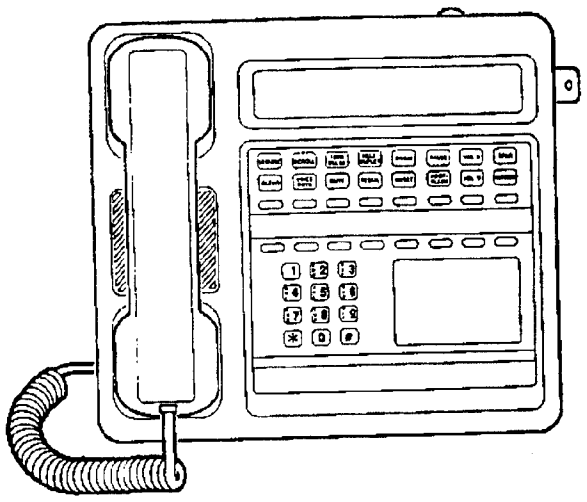
REQUIREMENTS DOCUMENT: N/A

TYPE CLASSIFICATION: Standard.

SYNOPSIS: THE KYV-5 IS PART OF THE ANDVT-TACTERM SYSTEM USED TO ENCRYPT AND DECRYPT DIGITAL VOICE AND DATA IN HALF-DUPLEX OPERATIONS.

CCSLA

SECURE TELEPHONE UNIT-III LOW COST TERMINAL (STU-III LCT)



PROJECT OFFICER: Ms. Nancy Calderon, DSN 879-8338
COMM 520 538-8338

ACQUISITION CATEGORY: IV
ACQUISITION PHASE III/IV Prod&Deploy/Ops&Spt

PE & LINE #: S40645

DESCRIPTION: The STU-III LCT is a self-contained modern business telephone which incorporated many modern telephone conveniences. The STU-III LCT provides secure voice, nonsecure (clear) voice and secure data communications in one easy to use telephone. Features include repertory dialing, automatic redial of last number dialed, and one-key dialing of memory-stored numbers. STU-III LCT is a wideband, two-wire, secure telephone. Its physical and security design include tamper resistance, TEMPEST compliance, and optional HEMP protection. The STU-III operates full or half duplex over a single telephone line using echo cancelling modem technology. The baseline operation (voice and data) is 2,400 bits per second (bps), with enhanced models capable of 4,800 bps and 9,600 bps operation. It uses FIREFLY public cryptology and is interoperable with a variety of other secure communications requirements. STU-III LCT operates on any worldwide telephone system, replacing the Secure Telephone Unit-II (STU-II). The STU-II was deemed too costly, bulky, and complicated to use, and had poor voice quality.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

1985	The Secretary of Defense (memorandum NSDD-45) ordered replacement of STU-II with the STU-III. A significant feature of the STU-III program was parallel development and production by 3 companies with direct marketing and delivery to the user community; 3 vendors [AT&T, Motorola, and GE (formerly RCA)] were selected for full scale development.
1986	Production contracts award.
1988	Risk analysis study to determine requirements for installation in Army facilities.
1992	Approximately 60,000 STU-IIIs have been fielded at a cost of just over $210 million.
1QFY92	STU-II equipment replacement completed.

REQUIREMENTS DOCUMENT: ISLP published Mar 92.

TYPE CLASSIFICATION: Standard approved 28 Oct 85.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
STE (Digital) Initial Fielding *			1-------	--------	--------	------4

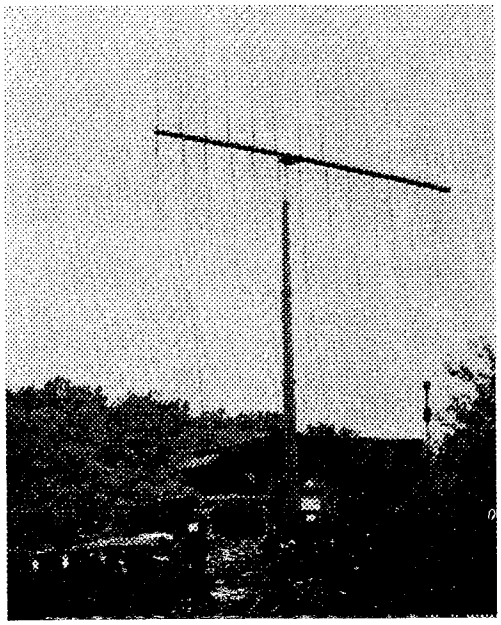
* This version will replace current STU III. STE = Secure Telephone Equipment.

SYNOPSIS: STU-III LCT PROVIDES SECURE AND NONSECURE (CLEAR) VOICE/DATA TELEPHONE COMMUNICATIONS.

IMMC

IMMC

AN/TLQ-17A(V), TRAFFICJAM



PROJECT LEADER: Mr. John D. Zedo, DSN 229-6492
COMM 703/349-6492

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: BA6101

DESCRIPTION: TRAFFICJAM is a tactical communications jammer. The original system (AN/TLQ-17A(V)1) was configured using two M151 Jeeps and two M416 Towed Trailers. When the Jeeps became obsolete, the AN/TLQ-17A(V)1 was re-configured to a (V)3 which housed the electronics in an S-250 shelter, and used a commercial utility cargo vehicle (CUCV). When the Highly Mobile Multipurpose Wheeled Vehicle (HMMWV) was approved for use by the Army, the CUCV was replaced by the HMMWV. The AN/TLQ-17A(V)2 is the configuration of TRAFFICJAM that is used on the AN/ALQ-151(V)2 (QUICKFIX). The AN/TLQ-17A(V)4 (SANDCRAB) is the designation for the long range COMMINT and Jamming System. SANDCRAB employs the AN/TLQ-17A(V)3 and an OE-317 Antenna System.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Mar 85	PIP 1-85-07-0491 approved.
Apr 85	AR 70-15 waived.
Oct 88	First AN/TLQ-17A(V)3 (Commerical Utility Cargo Vehicle (CUCV) Version) fielding.
May 89	CUCV Version fielding completed.
FY90-92	HMMWV fielding completed. System was deployed to Operation Desert Storm.
Jun 92	Management transition from PM SW to IMMC.
Sep 95	Full Materiel Release.

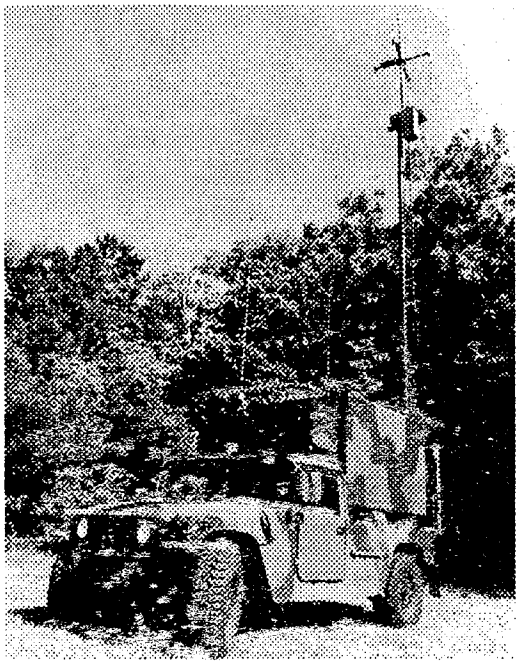
REQUIREMENTS DOCUMENT: PIP 1-85-07-0491.

TYPE CLASSIFICATION: Standard approved Jul 88.

SYNOPSIS: TRAFFICJAM IS A TACTICAL GROUND BASED AND AIRBORNE COMMUNICATIONS JAMMER.

IMMC

AN/TRQ-32A(V)2 TEAMMATE



PROJECT MANAGER: Mr. Dave Andreoni. DSN 229-6453
COMM 540/349-6453

ACQUISITION CATEGORY: III
ACQUISITION PHASE: Fielding & Post Deployment III

PE & LINE #: 112119

DESCRIPTION: The AN/TRQ-32A(V)2 is a High Frequency/Very High Frequency/Ultra High Frequency signal collection and direction-finding system. The system prime mover will be the M1097 Heavy High Mobility Multipurpose Wheeled Vehicle (Heavy HMMWV). The system will be housed in a 250 type shelter mounted on the M1097. The AN/TRQ-32A(V)2 is comprised of seven (7) subsystems: Electrical Environmental System (EES), Antenna Subsystem, Receiving Subsystem, Direction Finding (DF) Subsystem, Communication Subsystem, Datalink Subsystem, and the Audio/Record Subsystem.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Shelter: H 70.5 in., L 129.0 in., W 79.4 in., Volume 356 cu ft.
HHMMWV: H 69.0 in., L 180.0 in.

HISTORICAL BACKGROUND:

1988 Initial fieldings of "Production" Version AN/TRQ-32(V)2 worldwide.
1994 Follow-on fieldings of upgraded "Production" Version AN/TRQ-32A(V)2.

REQUIREMENTS DOCUMENT:

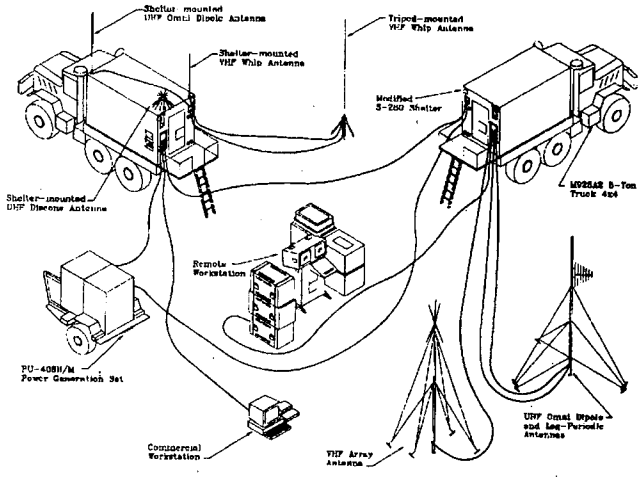
TYPE CLASSIFICATION: LP June 1994 extended 10 years.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
LP Extended to FY04	3					
Acceptance of TPT Fielding Function	4		2			
Swapout of GRID "OT" Terminal		4		4		
Replacement of SWA Design		2	3			

SYNOPSIS: HIGH FREQUENCY/VERY HIGH FREQUENCY/ULTRA HIGH FREQUENCY SIGNAL COLLECTION AND DIRECTION FINDING SYSTEM.

IMMC

AN/TSQ-130(V) TECHNICAL CONTROL and ANALYSIS CENTER (TCAC)



PRODUCT MANAGER: Mr. Steven Foeller. DSN 229-6992
COMM 703/349-6992

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: P202091 SSN: K7230000GWD

DESCRIPTION: TCAC is a mobile, semi-automated, tactical system. It is designed to manage and control SIGINT/EW and ECM subsystems organic to the Combat Divisions as well as to process data developed by Corps assets. The TCAC provides analysts the means to accept, analyze and integrate data from these subsystems and to generate reports and control/management information in support of intelligence and EW operations.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Sep 78 AEWIC Directive QRC-51.
Dec 79 Production of 20 shelters began.
May 83 Delivered to USAREUR, FORSCOM Units, USAISD.
May 85 Communications Upgrade PIP installed.
Sep 87 5 shelters procured for USMC.
Sep 90 Deployed to Desert Shield/Desert Storm.
Apr 91 Redistribution of VII Corps assets to FORSCOM Units.

REQUIREMENTS DOCUMENT: Operational and Organizational Concept 31 Mar 80.

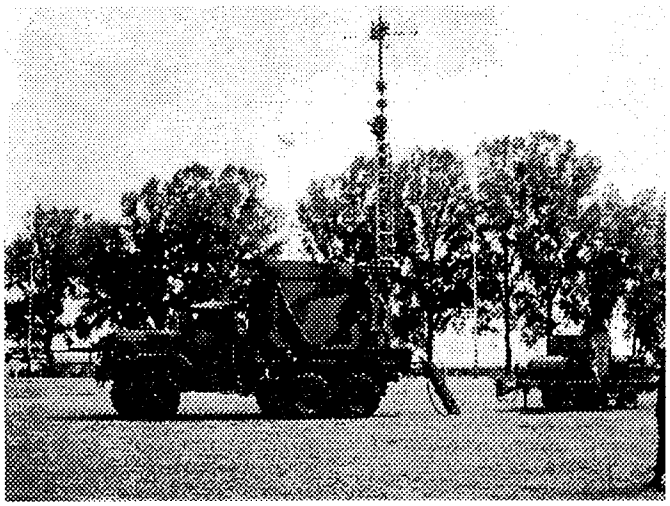
TYPE CLASSIFICATION: I.P; July 83.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Defielding Process	------4					

SYNOPSIS: TCAC IS A COMPUTER-BASED U.S. ARMY C3I SYSTEM THAT SUPPORTS CORPS AND DIVISION TCAEs.

IMMC

AN/TSQ-138, TRAILBLAZER



PROJECT LEADER: Mr. Bob Longtain, DSN 229-6475
COMM 540/349-6475

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS II Demo/Validation
(Applies to Materiel Change)

PE & LINE #: 3.58.85 (TCP) SSN: BZ9751

DESCRIPTION: TRAILBLAZER is a high capacity ground based communications intercept, processing, and direction finding system. It is mounted in a shelter carried on a M923A2 5-Ton Vehicle which tows a 30 Kw generator. AAO is for five TRAILBLAZER systems assigned to each Heavy Division. A total of 68 systems were procured. The system is used to search for, intercept, record, identify, locate (VHF/UHF 20-90 Mhz Range) and report on radio signals in the HF/VHF/UHF frequency ranges. The system operates in a netted configuration and interoperates with the airborne QUICKFIX system and the AN/TRQ-32A TEAMMATE system for direction finding. Recently completed materiel changes include addition of: an enhanced self location capability; a digital temporary storage recorder; and network radio protocol upgrade providing improved connectivity with TCAC, ASAS, and other Intelligence and Electronic Warfare Systems. The current materiel change program is designed to maintain operational capability pending the fielding of the Ground Based Common Sensor Heavy (GBCS-H).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS C130 / C141 / C5 Transportable (Shelter removed from carrier).

HISTORICAL BACKGROUND:

Jul 85 AN/TSQ-138 Production contract awarded.
Apr 88 TRAILBLAZER/QUICKFIX interoperability demonstration.
Aug 88 FUE AN/TSQ-138.
Sep 90 Fielding completed; Materiel Change Program Inititated.
Mar 93 Transition to IMMC.
Aug 94 Fielding completed of materiel change program.
May 95 Transition to IMMC.

REQUIREMENTS DOCUMENT: TRAILBLAZER ROC, Jun 84.

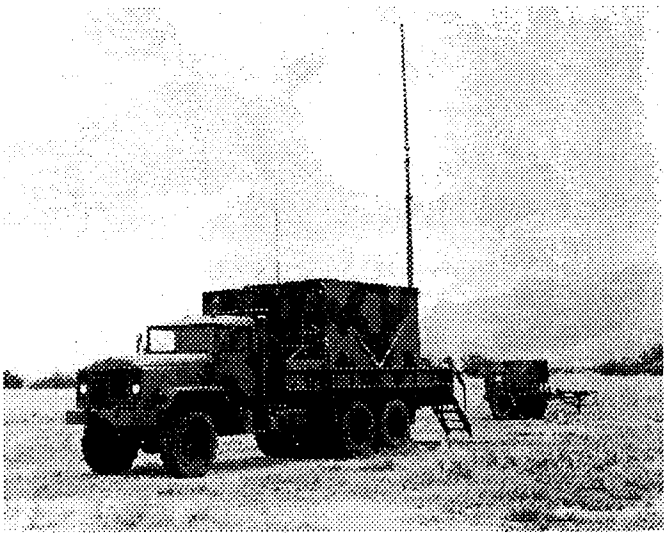
TYPE CLASSIFICATION: TRAILBLAZER, Standard, Sep 90.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Technical Insertion Development	-------	----3				
Technical Insertion Fielding			4---	-------4		
TSU//Mast/DC Master Switch/ECPS/Upgrade		1-------	--------	-----3		

SYNOPSIS: TRAILBLAZER IS A HIGH CAPACITY GROUND BASED COMMUNICATIONS INTERCEPT, PROCESSING, AND DIRECTION FINDING SYSTEM.

IMMC

AN/TSQ-152, TRACKWOLF



PRODUCT MANAGER: Mr. Roy Weaver, DSN 992-3097
COMM 908/532-3097

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations & Support

PE & LINE #: SSN: BZ9750

DESCRIPTION: TRACKWOLF is a mobile, ground based High Frequency (HF) skywave communications intercept and direction finding system. It consists of a Direction Finding Subsystem (DFS) and a Collection and Processing Subsystem (CPS). TRACKWOLF is an Echelons Above Corps asset assigned to MI Battalions. To meet original SIGINT requirements, a contract was awarded for one TRACKWOLF system with four additional systems identified as options. Because the first system was not delivered until FY92, two options were never exercised. Due to "Revised" Congressional direction in FY92/93 concerning the need for a rapidly deployable system, the remaining contract was canceled and a new procurement action started. This "New" system required a design that could be either mounted on Heavy High Mobility Multipurpose Wheeled Vehicles (HMMWVs) or mounted in man-portable transit cases (the later requirements is presently designed as Enhanced TRACKWOLF (AN/TSQ-199)). The system capabilities include automated direction finding using single station location technology coupled with collection, processing, analysis and reporting functions. TRACKWOLF replaces the obsolete Operational Unit Transportable Systems (OUTS) which utilizes tube technology and does not possess the necessary mobility to be deployed on today's battlefield. TRACKWOLF DFS consists of AN/TRD-27 Direction Finding/Single Station Location Shelters and AN/TRQ-41 HF Sounder/Communications Shelters each carried on standard 5-ton trucks and 3 outstations, each consisting of one AN/TRD-27 and one AN/TRQ-41. The CPS consists of eight (8) AN/TRR-36 Communications/Signal Search Shelters, two (2) AN/TSY-1 Collection/Processing Shelters, and two (2) AN/TSX-1 Analysis Shelters also mounted on standard Army 5-ton trucks. The system will interoperate with EAC Intelligence/Electronic Warfare Analysis systems including TOPGALLANT/SSP-S/ASAS. A large portion of the mission equipment procured was Non-Developmental Item modules controlled by software developed by NSA for strategic sites.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: System prime mover is 2 and one-half ton truck. Can be transported by air, land, rail or ship.

HISTORICAL BACKGROUND:

Sep 88 Contract Award.
May 89 Critical Design Review conducted.
4QFY91 IOT&E.
1QFY93 FUE.
3QFY95 Transition to Level II.

REQUIREMENTS DOCUMENT: QRC-60, Nov 86.

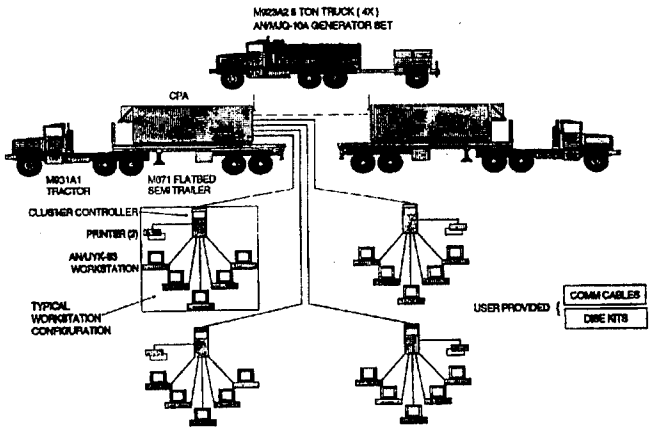
TYPE CLASSIFICATION: Limited Procurement Urgent approved Nov 86.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System Upgrades (ECP's)	--------	----3				
Level II Management	3					

SYNOPSIS: TRACKWOLF IS A MOBILE GROUND BASED HF SKYWAVE COMMUNICATIONS INTERCEPT AND DFS EMPLOYED AT ECHELONS ABOVE CORPS.

IMMC

AN/TSQ-156/163, SINGLE SOURCE PROCESSOR-SIGINT (SSP-S)



PRODUCT MANAGER: Mr. Don Shockey, DSN 229-6818
COMM 540/349-6818

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 202091 W3120200PVR

DESCRIPTION: SSP-S is a tactically deployed automatic data processing system which provides automated support for the Technical Control and Analysis Element (TCAE) signals intelligence mission at Echelon Above Corps (EAC). The AN/TSQ-156 is comprised of two identical sets of sub-systems, each housed in a modified S-250 shelter mounted on M925 5-ton truck. Within each processing system are two separate data processing components, the Front End Processor (FEP) and Host Processor (VAX 4000). There can be up to twenty remote workstations (AN/UYK-83) connected. The AN/TSQ-163 is basically the same except it is configured in two ISO-20 shelters mounted on M871A2 semi-trailers. Applications software is functionally equivalent but configured to meet theater EAC TCAE requirements.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:
AN/TSQ-156: L = 14', W = 7.3', H = 7.1', Weight = 8,575 lbs; AN/TSQ-163: L = 23.3', W = 8', H = 8.19', Weight = 11,683 lbs.

HISTORICAL BACKGROUND:

Oct 88 Top Gallant delivered.
Mar 90 Top Graphic delivered.
Jul 90 Top Gable delivered.
Oct 93 Level II Transition from PM CAC to IMMC.
Nov 94 Rel. 1.6 Software.
Aug 95 Completed Operational Test of System Upgrade.

REQUIREMENTS DOCUMENT: QRC 56 (86).

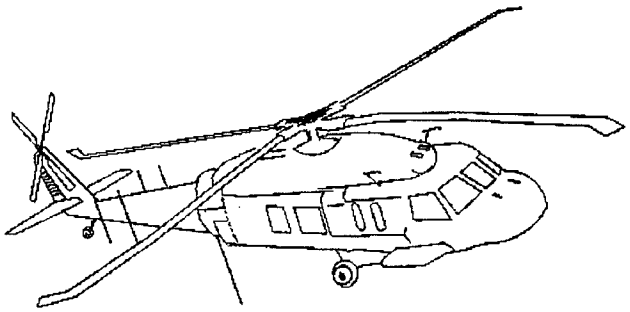
TYPE CLASSIFICATION: LP-U.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
System Upgrade MWO Delivery		1				
System Upgrade Material Release		1				
Install System Upgrade - Ft. Gordon, GA		1				
Install System Upgrade - USAREUR		2				
Install System Upgrade - EUSA		3				

SYNOPSIS: AUTOMATED COMMUNICATION AND SIGINT ANALYST FUNCTION IN THE TECHNICAL CONTROL AND ANALYSIS CENTERS (TCAE) AT ECHELON ABOVE CORPS (EAC).

IMMC

EH-60A, QUICKFIX



PROJECT LEADER: Mr. Greg Bullock, DSN 229-6497
COMM 703/349-6497

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV

PE & LINE #: 6.47.20.DK12 SSN: AB3000

DESCRIPTION: The AN/ALQ-151 (V)2 Special Purpose Electronic Countermeasure System, QUICKFIX, is a Heliborne Electronic Warfare system. The AN/ALQ-151 (V)2 Special Purpose Electronic Countermeasure System incorporates the EH-60A Helicopter, AN/TLQ-17A (V)2 Jammer, Electronic Countermeasure (ECM) group, Electronic Support Measure (ESM) equipment for active ECM, Airborne Radio Direction Finder (ARDF) data processing and a suite of Aircraft Survivability Equipment (ASE). Voice and data link communications between other airborne QUICKFIX systems and select ground systems are provided via secure communications. A total of 66 systems were procured. QUICKFIX Systems NET with each other and interop with TRAILBLAZER in a NETTED configuration for DF purposes. Current material changes include fielding of software to permit QUICKFIX to interop with TEAMMATE which has connectivity with Technical Control and Analysis Center (TCAC) and ASAS. This will dramatically improve performance in Light Divisions and Armored Cavalry Regiments. Further system improvements will evolve select AN/ALQ-151 (V)2 QUICKFIX Systems into the Advanced QUICKFIX (AQF).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Ferry flight when practicable. A maximum of six QUICKFIX systems can be transported by C-5A with minimum disassembly requirements. A maximum of two QUICKFIX systems can be transported by C-141B with relatively extensive disassembly and adjustments.

HISTORICAL BACKGROUND:

Apr 83 EH-60A Prototype delivered.
Sep 84 Production contract award.
Feb 88 First Unit Equipped.
Apr 88 TRAILBLAZER/QUICKFIX Interoperability Demonstration.
Mar 90 Product completed.
Mar 93 Transition to Level II Management.

REQUIREMENTS DOCUMENT: ROC, May 84.

TYPE CLASSIFICATION: Standard approved Nov 77.

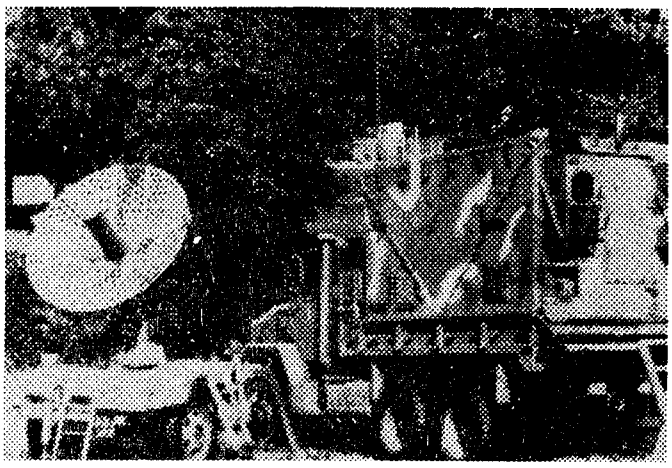
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Software Materiel Change	4---|	---2				
AN/UNH-19 Recorder/Reproducer Materiel Change		3----	----3			

SYNOPSIS: QUICKFIX IS A TACTICAL HELIBORNE COMMUNICATIONS, INTERCEPT, DIRECTION FINDING, & JAMMING SYSTEM.

PROTOTYPE TEAMS

PROTOTYPE TEAM

AN/TMQ-31, METEOROLOGICAL DATA SYSTEM (MDS)



PROJECT OFFICER: Mr. Tony Anania. DSN 992-6816
COMM 908/532-6816

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: M04941 SSN: K27800

DESCRIPTION: The MDS is a mobile, automated meteorological data acquisition and processing system. This is a stand-alone system that collects meteorological data for artillery fire support. Two MDS's are used to support each Division Artillery Headquarters Battery and one MDS supports each separate Brigade. MDS automatically tracks a balloon-borne meteorological radiosonde as it ascends the atmosphere; receives the telemetered signals of temperature, relative humidity, pressure, and navigation data; measures elevation and azimuth angles to the radiosondes; automatically converts and processes the data; and computes meteorological data for immediate transmission to the user via wire or radio. Two modes of operation are provided: Radio Direction Finding (RDF) mode at 1680 megahertz and NAVAID mode at 400 megahertz.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: No Transportability Restraints; Approx. 10,000 lbs Mission Equipment, 1750 cubic ft, (L x W x H) 160 x 87 x 83".

HISTORICAL BACKGROUND:

Aug 84 Production contract award (55 units).
May 88 Full Release.
May 93 VECP Kits installation completed.
Jan 92 Completed fieldings to Army and Marine Corps.
Oct 92 Transition management from PEO IEW, PM EW/RSTA to CECOM, SMD.
Jun 95 Management by LRC Sensors Team.

REQUIREMENTS DOCUMENT: ROC Jun 79, CARDS 0449.

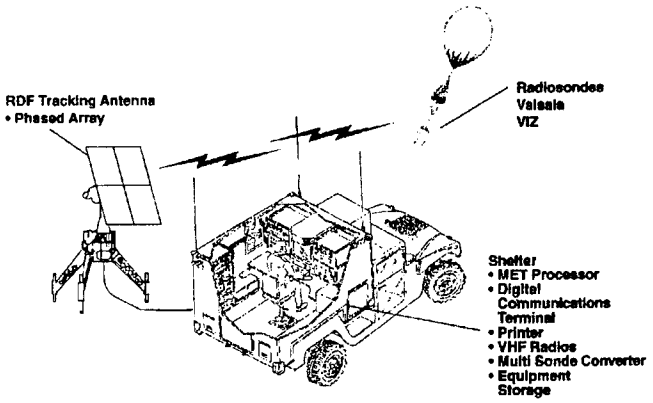
TYPE CLASSIFICATION: Standard approved Sep 83.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Field to MS ARNG and OK ARNG	1					
Transition	4					

SYNOPSIS: AN/TMQ-31 IS A MOBILE, VERSATILE, AUTOMATED METEOROLOGICAL DATA ACQUISITION AND PROCESSING SYSTEM.

PROTOTYPE TEAM

AN/TMQ-38, METEOROLOGICAL MEASURING SET (MMS)



PRODUCT LEADER: Mr. Tony Anania, DSN 992-6816
COMM 908/532-6816

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: M36293

DESCRIPTION: The AN/TMQ-38 Meterological Measuring Set (MMS) is a transportable group of components for tracking meteorological balloon observations, measuring the atmospheric parameters of temperature, barometric presssure, relative humidity, wind velocity and direction from the earth's surface to extended altitudes.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Shelter mounted and transported on HMMWV.

HISTORICAL BACKGROUND:

2QFY90 Contract Award.
FY91 Build FAT Systems.
2QFY92 Test Systems.
1QFY93 Field Systems.

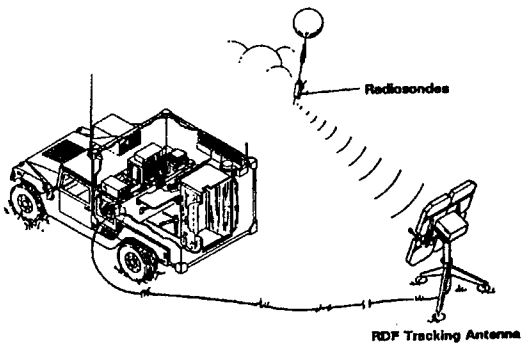
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Standard.

SYNOPSIS: THE MMS IS A TRANSPORTABLE GROUP OF COMPONENTS FOR TRACKING METEOROLOGICAL BALLOON OBSERVATIONS.

PROTOTYPE TEAM

AN/TMQ-41, METEOROLOGICAL MEASURING SET (MMS)



PRODUCT LEADER: Mr. Tony Anania, DSN 992-6816
COMM 908/532-6816

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: K27800

DESCRIPTION: The MMS is an upper air meteorological data collection, processing and dissemination system. The system consists of a radiosonde carried aloft by a balloon and a ground terminal. The system is shelter mounted and transported on a HMMWV. Additional capabilities include multiple radiosonde capability and a Lightweight Computer Unit for future expansion capability. One MMS will be deployed per light division, and two per heavy division. The MMS will provide meteorological data to field artillery units. The system provides pressure, relative humidity, temperature, wind speed and direction measurements to an altitiude of 30 kilometers above the earth's surface. The ground terminal automatically acquires and tracks the radiosonde using NAVAID and Radio Direction Finding (RDF) techniques. In the NAVAID mode, the system is capable of using LORAN or any combination of VLF/OMEGA transmissions to determine the radiosonde's position. The ground system will receive telemetered temperature, pressure, humidity, and NAVAID or azimuth and elevation data from the radiosonde depending on the mode of operation. The system reports in standard formats for automated processing at the using units. The system is a replacement for the Meteorological Data System, AN/TMQ-31 which is fielded to the heavy divisions.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Mounted and transported on Heavy HMMWV. No transportability restraints. Weight 3,048 lbs. Mission Equipment: 423 cubic ft, (L x W x H) 130 x 84 x 67".

HISTORICAL BACKGROUND:

Aug 88 ROC Approved.
Nov 92 Contract Award for 6 FAT Systems.
Feb 93 Contract Award for 16 Option Systems.
Dec 93 Contract Award for 18 Option Systems.
May 94 FAT Completed.
Jul 94 IOT&E Completed.

REQUIREMENTS DOCUMENT: ROC Approved Aug 88.

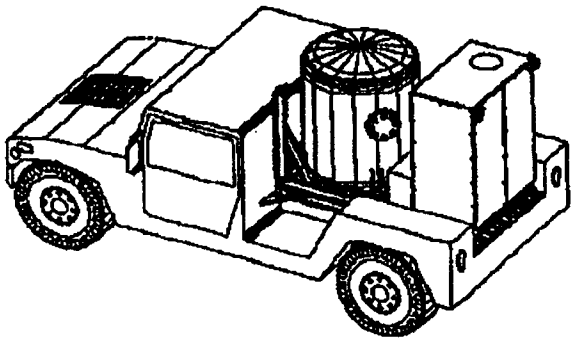
TYPE CLASSIFICATION: Generic Approved Sep 88; Standard Aug 95.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Build Prod. Systems	1-------	-1				
Field Systems	4---	-------	-------	-1		

SYNOPSIS: THE MMS IS AN UPPER AIR METEOROLOGICAL DATA COLLECTION, PROCESSING AND DISSEMINATION SYSTEM.

PROTOTYPE TEAM

AN/TMQ-42, HYDROGEN GENERATOR (HG)



PROJECT OFFICER: Mr. Tony Anania, DSN 992-6816
COMM 908/532-6816

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE: SSN: K27800

DESCRIPTION: The HG is a mobile tactical Hydrogen Generating system used to rapidly inflate meteorological balloons in support of the Field Artillery. The HG is transported on a High Mobility Multipurpose Wheeled Vehicle (HMMWV). Hydrogen is produced by decomposing a mixture of methanol and distilled water in the presence of a catalyst and heat. It is a replacement for the AN/TMQ-3 Hydrogen Generator.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: No limitations when system purged of hydrogen gas. Weight approx. 1,800 lbs. Mission Equipment. 125 cubic ft. (L x W x H) 84 x 60 x 44".

HISTORICAL BACKGROUND:

Nov 86 O&O Plan Approved.
May 90 ROC Approved.
Mar 94 IPR III TC Generic.
Apr 94 Contract Award.

REQUIREMENTS DOCUMENT: ROC Approved May 1990.

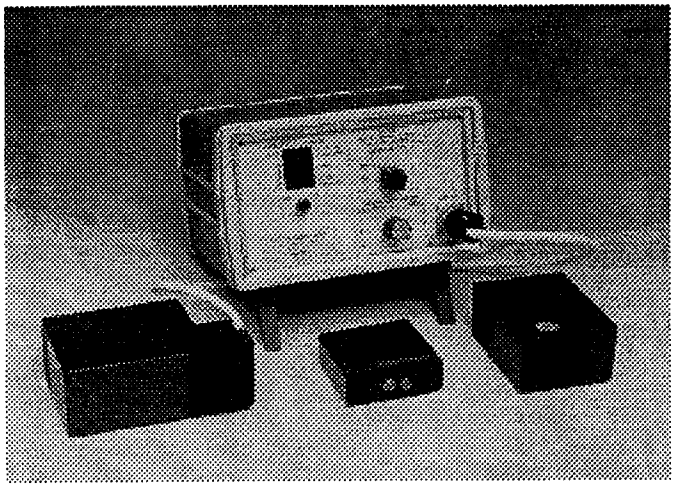
TYPE CLASSIFICATION: Generic Approved Mar 1994.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Build FAT Systems	---2					
Test Systems	3--4					
Option Systems Award	3					
Build Option Systems	3----	--------	--2			
TC STD			2			
Field Systems		3----	------4			

SYNOPSIS: THE HG IS A MOBILE TACTICAL HYDROGEN GENERATING SYSTEM USED TO RAPIDLY INFLATE METEOROLOGICAL BALLOONS IN SUPPORT OF THE FIELD ARTILLERY

PROTOTYPE TEAM

TS-4403A/U, TEST SET, BATTERY



PROJECT MANAGER: William Schlosser, DSN 992-5271
COMM 908/532-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The TS-4403A/U Test Set is a device that measures charge remaining in Lithium/Sulfur dioxide batteries, specifically the BA-5588/U, BA-5590/U, and BA-5598/U high cost, highly consumed batteries. TS-4403/U is a non-developmental item being procured from Chemtronics Limited, Yehuda, Israel. Due to the extensive use of lithium batteries, the test set is able to reduce operating costs and battery requirements of its users. This is a Common Table of Allowance (CTA) item, not Table of Organization and Equipment (TO&E).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Dec 91 Requirements contract awarded for 400 units with initial delivery order of 51.
May 92 Contract modified to incorporate test capability for BA-5588/U.
Dec 92 Delivery Order placed for additional 51 testers.
Mar 93 Delivery Order placed for 201 testers for PM SINCGARS.
Sep 94 Delivery Order placed for 101 additional testers for PM SINCGARS.

REQUIREMENTS DOCUMENT: FORSCOM Operational Needs Statement, Nov 89.

TYPE CLASSIFICATION: Standard approved 4QFY92.

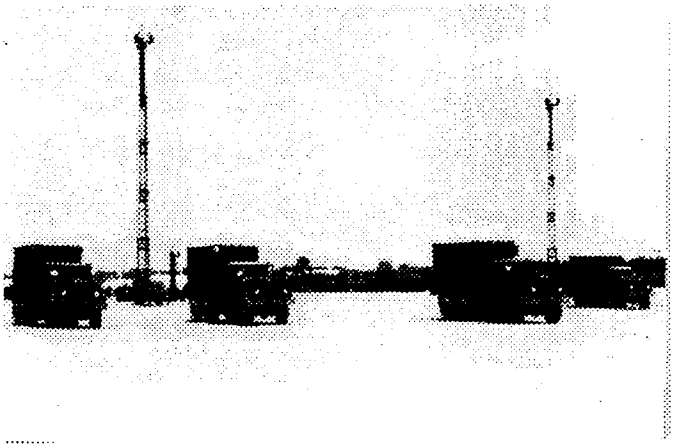
EVENT SCHEDULE / FISCAL YEAR	94	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Delivery of FY94 Order		1——4					
Transition		2					

SYNOPSIS: TS-4403A/U TEST SET IS A DEVICE THAT MEASURES CHARGE REMAINING IN LITHIUM/SULFUR DIOXIDE BATTERIES, SPECIFICALLY BA-5590/U, BA-5598/U, AND BA-5588/U.

DMM

DMM

AB-1309/TRC MAST



PROJECT OFFICER: Mr. Philip Sapienza. DSN 992-3403
COMM 908/532-3403

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV Operations/Support

PE & LINE #:

DESCRIPTION: The AB-1309/TRC Mast is a highly mobile, 120-foot collapsible tower which can support up to 3 AS-1425 antennas. The mast telescopes down to a height of 23 feet and is lowered to the horizontal position for transit. It is mounted on a tandem axle trailer which also carries two MEP-003A ten kilowatt diesel generators. AB-1309/TRC and ancillary hard-ware are towed by a 5-ton truck that transports a Digital Group Multiplexer (DGM) Shelter Assembly. This mobile configuration unit is eight feet wide, eight feet high and 30 feet long. AB-1309/TRC has aircraft transportability certification.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

1981 Testing (DT/OT) of Digital Transmission Assemblages identified the need for: rapid antenna deployment and recovery; a height of 34 meters; C-130 transportability; and Modular Collective Protection Equipment (MCPE).

- o AB-1309 was designed to satisfy these requirements.

1986 The user community determined that the AB-1309 was not suitable as the primary antenna mast system for DGM assemblages and was replaced by the DAMP.

- o The AB-1309 was designated an ancillary antenna system to be deployed with each signal battalion at echelons above corps.

REQUIREMENTS DOCUMENT: MSG, HQDA, SAIS-PPS, 2019172 Aug 87, subject: AB-1309 requirement.

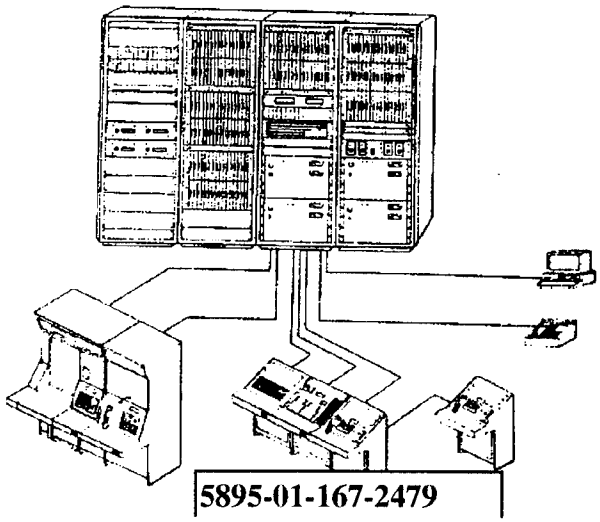
TYPE CLASSIFICATION: Limited Production, Urgent.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ICS Contract Award	1					
Transition to Level III Management	4					

SYNOPSIS: AB-1309/TRC MAST IS A HIGHLY MOBILE, COLLAPSIBLE TOWER WHICH CAN SUPPORT UP TO THREE AS-1425 ANTENNAS AND PROVIDES DGM SYSTEM POWER AND ANCILLARY ITEM TRANSPORT.

DMM

AN/FSC-92, AIR TRAFFIC CONTROL COMMUNICATIONS SWITCHING SYSTEM (ATCCSS)



PROJECT MANAGER: Mr. Norman Horstman, DSN 992-4175 COMM 908/532-4175

PRODUCT MANAGER: PM ATC, DSN 693-2003

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #:

DESCRIPTION: The Air Traffic Control Communications Switching System AN/FSC-92(V) is a distributed micro-processor controlled system which integrates radio, intercom, and landline (telephone) communications. The primary purpose of the system is to establish air traffic control communications in those facilities where it is installed. The system consists of a select number of operator consoles and rackmounted central (switching/line termination) equipment.

The radiophone feature provides the required interfaces to establish radio communications between the operators and pilots in aircraft. The intercom provides indirect access two-way audio communications between the operator consoles. The landline communications enable local operators to talk to operators at remote locations via the telephone. The system also features point-to-point access buttons which provide immediate operator-to-operator communications.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: LTSA 31.14 x 80" Consoles 24 x 40.

HISTORICAL BACKGROUND:

Dec 81 Contract award, Denro Labs, Inc., Qty 45.
Feb 85 First Installation at Libby Army Airfield, Fort Huachuca, AZ.
Sep 92 AN/FSC-92 transitioned to SMD for Program Management.
Feb 94 Installation began at Illesheim Army Airfield, Germany.
Sep 94 Quality Assurance and Testing completed at Illesheim Army Airfield, Germany.
FY95 EPROM Support for the AN/FSC-92 will be provided through Denro.

REQUIREMENTS DOCUMENT:

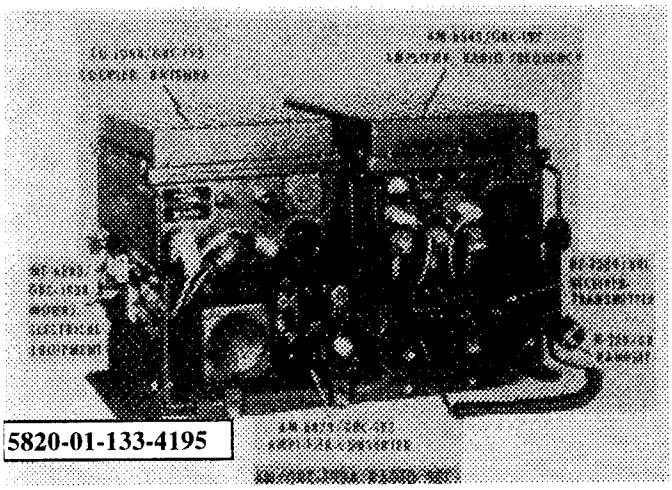
TYPE CLASSIFICATION: STDLCC-A, LIN A27874, dated May 85.

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition to Level III		3					

SYNOPSIS: THE AN/FSC-92 PROVIDES RADIO, INTERCOM AND FLIGHT FOLLOWING CAPABILITIES BETWEEN OPERATORS AND PILOTS IN AIRCRAFT.

DMM

AN/GRC-193, IMPROVED HIGH FREQUENCY RADIO SET



PROJECT OFFICER: Ms. Gloria Richardson, DSN 992-4331
COMM 908/532-4331

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: BB1600

DESCRIPTION: The AN/GRC-193 vehicular radio set pro-vides secure voice and data C3 capability for tactical units in compatible AM, SSB, CW, and DATA modes at medium-to-high power (100-400 watts). AN/GRC-193 was produced in three configurations: AN/GRC-193; AN/GRC-193A; and AN/GRC-193B. The radios are secured with the KY-65 (voice) or KG-84 (data) and feature automatic antenna tuning. Frequency range is 2-30 megahertz providing 280,000 channels in 100 hertz increments. Other features include build-in-test capabilities, reflect power protection, and remote operation by wireline up to two kilometers. The radio interfaces with the AN/VIC-1 Vehicle Intercom System & is compatible with the AN/UGC-74 at 300 words per minute operated for voice and MOS 31K for teletype. AN/GRC-193B has all the above features with the addition of the short term anti-jam (STAJ) frequency hopping capability.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: No Limitations; Approx. 175 lbs to include installation kit, 16 x 24 x 16" (L x W x H).

HISTORICAL BACKGROUND:

Jul 81 USA Program Objective Memorandum established.
Dec 81 Non-Developmental Item decision approved.
May 85 Follow-On Evaluation.
Sep 85 FY85 Production contract award.
Nov 85 Official transfer of program responsibility to PM, SINCGARS.
Dec 86 First Unit Equipped.
Aug 94 Fielding of STAJ AN/GRC-193 B completed.

REQUIREMENTS DOCUMENT: ROC DA approved 30 Nov 81.

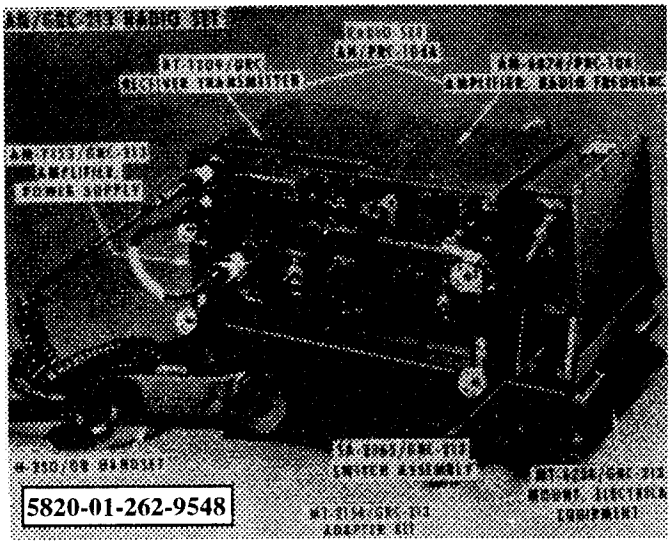
TYPE CLASSIFICATION: Standard A approved Jun 83; BOIP approved 22 Oct 86.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition	2					

SYNOPSIS: AN/GRC-193 IS A MEDIUM TO HIGH POWER VEHICULAR RADIO SET TO PROVIDE SECURE VOICE (KY-65) DATA C3 IN THE COMPATIBLE AM, SSB, CW, AND DATA MODES WITH AUTOMATIC ANTENNA TUNING AND 280,000 CHANNELS IN 100 HERTZ INCREMENTS.

DMM

AN/GRC-213, IMPROVED HIGH FREQUENCY RADIO SET



PROJECT OFFICER: Ms. Gloria Richardson, DSN 992-4331
COMM 908/532-4331

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: BB1802

DESCRIPTION: The AN/GRC-213, Improved High Frequency Radio Set (IHFR) provides a vehicular mounting capability as well as rapid removal for manpack only operations. It is a Low Power (20 watt) Manpack/Vehicular radio set composed of an AN/PRC-104A Manpack radio with all the necessary ancillary items. AN/GRC-213 will provide secure voice and data communications when used with the KY-65 voice, KY-84 data or future COMSEC equipments, in the SSB, compatible AM, CW and DATA modes. AN/GRC-213 is user operated and about as complex to use as the current family of VHF/FM radios. The radio features include automatic antenna tuning, 2-30 megahertz frequency range with 280,000 channels in 100 hertz increments, built in test features and receive squelch. The radio interfaces with the vehicular intercom system AN/VIC-1 and provides FM retransmission capability. All IHFR radios will provide secure voice communications with KY-65 or future COMSEC equipment.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: No Limitations; Approx. 140 lbs to include installation kit, 10 x 22 x 15" (L x W x H).

HISTORICAL BACKGROUND:

Jul 81 USA Program Objective Memorandum established.
Dec 81 Non-Developmental Item decision approved.
May 85 Follow-On-Evaluation.
Nov 85 Official transfer of program responsibility to PM, SINCGARS.
Dec 86 First Unit Equipped.
Aug 94 Fielding of STAJ AN/GRC-213A completed.

REQUIREMENTS DOCUMENT: ROC DA approved, 30 Nov 81.

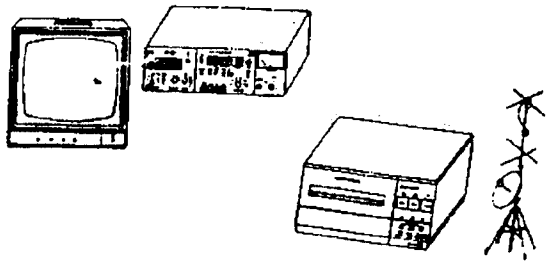
TYPE CLASSIFICATION: BOIP approved, 22 Oct 86, Standard A.

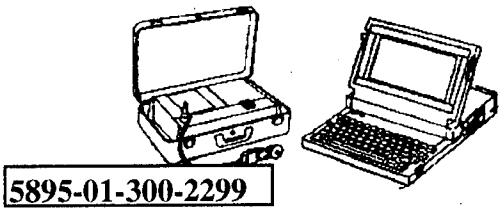
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition	2					

SYNOPSIS: AN/GRC-213, IHFR SET IS A LOW POWER MANPACK/VEHICULAR MOUNTED RADIO SET TO PROVIDE SECURE VOICE (KY-65) AND DATA C3 (KY-84). IT HAS AUTOMATIC ANTENNA TUNING, 280,000 CHANNELS IN 100 HERTZ INCREMENTS AND RETRANSMISSION CAPABILITY.

DMM

AN/GRQ-27 and AN/GRQ-27(V)2, GOLDWING





5895-01-300-2299

PROJECT OFFICER: Ms. Barbara Haggerty, DSN 992-3032
COMM 908/532-3032

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: (V1) C60433 / (V2) C90651
SSN: W5990000GCH

DESCRIPTION: GOLDWING provides dedicated IEW communications capability required by Air Force weather teams supporting tactical Army operations. GOLDWING is a low density, secure data communications system employing HF FSK packet radio in the 1.6 to 30 megahertz frequency band. It operates at speeds up to 1200 baud and is designed to support meteorological operations. GOLDWING is a FORSCOM NDI procurement.

GOLDWING SYSTEM II AN/GRQ-27(V)2 augments the capabilities of the current (V)1 system to include support for automatic weather bulletin processing, automatic weather watch, reception of weather data.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Truck Mounted-Shelter.

HISTORIC BACKGROUND:

FY87	Purchase of initial GOLDWING IEW communication system.
FY88	Interface of GOLDWING and UAWS; Purchase of WRAASE Satellite Receiver Systems.
Sep 88	Issued 50 systems to the First Weather Squadron, Fort Gillem with spare and communications technical manuals.
FY89	Merger of Air Force Quick Reaction and Army GOLDWING Programs.
Sep 94	System Transitioned from FORSCOM (Level I) to CECOM (Level III).

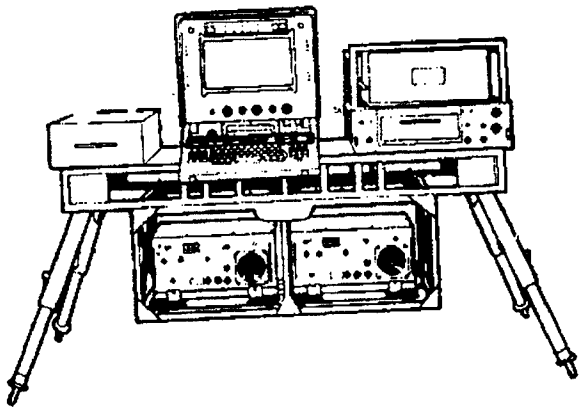
REQUIREMENTS DOCUMENT: Awaiting O&O approval.

TYPE CLASSIFICATION: Standard B planned.

SYNOPSIS: GOLDWING PROVIDES DEDICATED COMMUNICATIONS CAPABILITY REQUIRED BY AIR FORCE WEATHER TEAMS SUPPORTING TACTICAL ARMY OPERATIONS.

DMM

AN/GYK-29, BATTERY COMPUTER SYSTEM (BCS)



ITEM MANGER: Mr. Robert Saia, DSN 992-4080
COMM 908/532-4080

ACQUISITION CATEGORY: IV
ACQUISITION PHASE:

PE & LINE #: C40499, D31557, D31625, D31693

DESCRIPTION: The BCS is a small, on-line, militarized computer system used by the Army's cannon batteries, Multiple Launch Rocket System (MLRS) and LANCE. BCS increases field artillery mission effectiveness by providing two-way digital communications between TACFIRE and the battery, and by enabling accurate and rapid individual piece firing data computations. BCS consists of two main components; the OL-200A Battery Computer Unit (BCU) LIN C40499 and the OD-144(V)1,2,3 Gun Direction Unit (GDU) LINs D31557, D31625, D31693. To begin displacement of OL-200 portion of the BCS by IFSAS (Interim Fire Support Automated System) AN/GYK-37(V)1. All versions of the OD-144 to remain in the field.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

1QFY88 Transition to Systems Management Directorate.
2QFY93 Transition to DMM.

REQUIREMENTS DOCUMENT: ROC, Oct 75.

TYPE CLASSIFICATION: Standard approved Sep 79.

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Displacement of OL-200		1-------	--------	--------	--------	--------	--------

SYNOPSIS: BCS IS A SMALL, ON-LINE, MILITARIZED COMPUTER SYSTEM USED BY THE ARMY'S CANNON BATTERIES, MULTIPLE LAUNCH ROCKET SYSTEM AND LANCE.

DMM

AN/MYQ-4A, DECENTRALIZED AUTOMATED SERVICE SUPPORT SYSTEM (DIVISION/CORPS) DAS-3 (D/C)

PROJECT OFFICER: Mr. Robert Cressey. DSN 992-4907
COMM 908/532-4907

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: D 78325

DESCRIPTION: The DAS-3 (D/C) was designed to enhance the DAS-3 (AN/MYQ-4). The systems are similar, but the AN/MYQ-4A has the following distinguishing changes: additional ADP devices, communications interface section, and provisions for a modular collective protection equipment unit. DAS-3 (D/C) is composed of a data processing center housed in a 35 foot, 10-ton semi-trailer van (XM971), an administrative center housed in a 5-ton expansible van, and a dual generator mobile power plant. DAS-3 (D/C) is composed of the following subsystems: ADP Subsystem, AC Power Subsystem, Environmental Subsystem, Communications Subsystem, Remote Subsystem, semi-trailer van unit, expansible van, and power plant. Majority of DAS-3's have been displaced by the DS4 Desktop computer. Only remaining STAMIS supported by the DAS3 is SAAS.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: System housed in 35 10-ton semi-trailer plus 15-ton van plus mobile generator.

HISTORICAL BACKGROUND:

Apr 84 Initial Operational Capability.
Oct 84 Honeywell "BOA" under investigation due to suspected overpricing for spare parts.
Oct 87 Transition of DAS-3(D/C) from TACMIS to Logistics Support Center, ISEC (renamed ISMA), Ft Monmouth.
Sep 90 Service and Maintenance contract awarded to ICT.
Dec 91 Transition of DAS-3 from ISMA to CECOM.
Mar 93 DAS-3 displacement by DS4 Desktop computer.

REQUIREMENTS DOCUMENT: ROC, Sep 82; ROC revised DAS-3 ROC, 22 Sep 83.

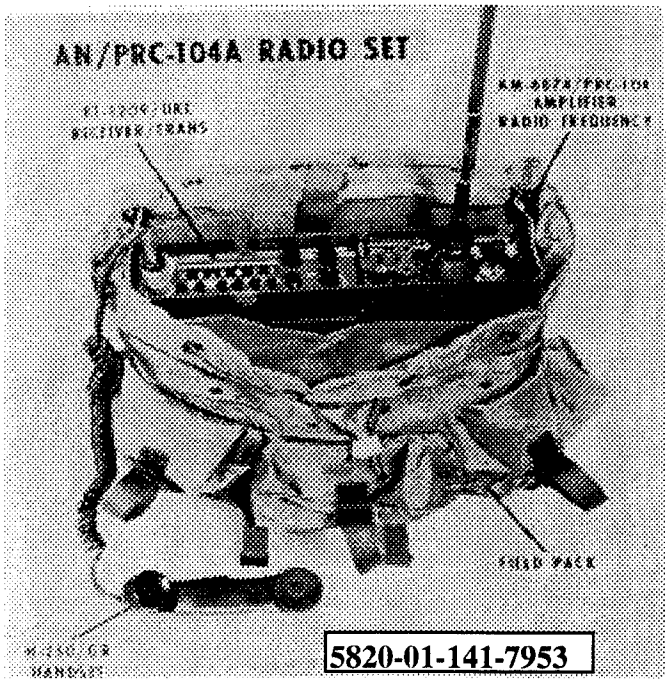
TYPE CLASSIFICATION: Standard approved 27 Aug 84.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Award of new Maint contract	2					
Displacement of SAAS Stamis by SAAS-MOD		3				

SYNOPSIS: DAS-3 (D/C), AN/MYQ-4A ENHANCES THE DAS-3, AN/MYQ-4 BY PROVIDING ADDITIONAL ADP DEVICES.

DMM

AN/PRC-104, IMPROVED HIGH FREQUENCY RADIO SET



PROJECT OFFICER: Ms. Gloria Richardson, DSN 992-4331
COMM 908/544-4331

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: BG1801

DESCRIPTION: The low power (20 watt) Improved High Frequency Radio Set (IHFR), AN/PRC-104 provides single sideband command and control communications for tactical units in the compatible AM, SSB, CW and Data modes. AN/PRC-104 is user operated and is about as complex to use as the current family of VHF FM radios. The radio utilizes either a non-rechargeable BA-5590 Lithium battery or a rechargeable BB-590 NICAD battery. The radio features automatic antenna tuning, operates in the 2-30 MHz frequency range, maximum bandwidth 3 KHz, 280,000 channels in 100 Hz increments, and built-in test features. All IHFR radios will provide secure voice communications with KY-65 or future COMSEC equipment. AN/PRC-104B has all above features with addition of STAJ frequency hopping capability.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Approx. 28 lbs, 8 x 13 x 3" (L x W x H).

HISTORICAL BACKGROUND:

Jul 81 USA Program Objective Memorandum established.
Dec 81 Non-Developmental Item decision approved.
Mar 82 BOIP/QQPRI approved.
Jun 85 Follow-On Evaluation.
Nov 85 Official transfer of program responsibility to PM, SINCGARS; Materiel Release.
Mar 87 First Unit Equipped.
Aug 94 Fielding of STAJ AN/PRC-104B completed.

REQUIREMENTS DOCUMENT: ROC, 30 Nov 81.

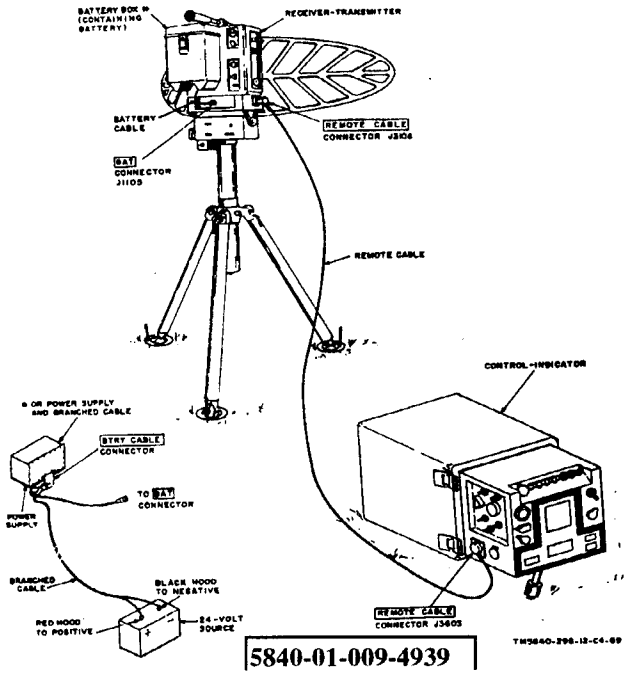
TYPE CLASSIFICATION: Standard A approved Jun 83.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition	2					

SYNOPSIS: AN/PRC-104 IS A LOW POWER, IMPROVED HIGH FREQUENCY RADIO SET TO PROVIDE SINGLE SIDEBAND COMMAND AND CONTROL COMMUNICATIONS FOR TACTICAL UNITS IN THE COMPATIBLE AM, SSB, CW AND DATA MODES.

DMM

AN/PPS-5B, RADAR SET



5840-01-009-4939

PROJECT MANAGER: Ms. Charlene Brown, DSN 992-5781
COMM 908/532-5781

PRODUCT ENGINEER: Ms. Nicole Cantave, DSN 996-5379
COMM 908/544-5379

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: C40499, D31557, D31625, D31693

DESCRIPTION: A lightweight, man-portable, ground-to-ground surveillance radar set for use by units such as infantry and tank battalions. The radar is capable of detecting and locating moving personnel and vehicles, day or night under virtually all weather conditions. The radar has a maximum display range of 10,000 meters and targets can be displayed both aurally and visually. Built for durability, the AN/PPS-5B Radar is rugged enough to withstand rough field handling. When packed in its watertight container, it can be parachute dropped and undergo repeated submersion. Increased operational flexibility is afforded when the unit is mounted in a jeep. The system includes everything necessary for operation including 24 VDE external power converter, carrying harnesses, tripod, an adapter for vehicle mounting, four (4) rechargeable batteries (BB-622) and a fifty (50) foot cable for remote operations.

NOTE: The CECOM Supply and Maintenance Bulletin Vol 20, no. 2 Summer 94 provides information for swapping unserviceable AN/PPS-5(A,B) Radars for serviceable ones. Repair is the only source of supply. As soon as one is down, order one through swap out. In order to swap out a radar, the serial number and turn-in document number must be funrnished to the Item Manager, Ms. C. Brown DSN 992-5781/2.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Mar 75 Sole Source to Eaton Corp. - AN/PPS-5A Radar.
May 78 Sole Source to Eaton Corp. - AN/PPS-5B Radar FMS Customer.
Sep 78 Sole Source to Eaton Corp. - AN/PPS-5B Radar.
Oct 89 Sole Source to Telephonics Corp. - AN/PPS-5B Radar FMS Customer.

REQUIREMENTS DOCUMENT:

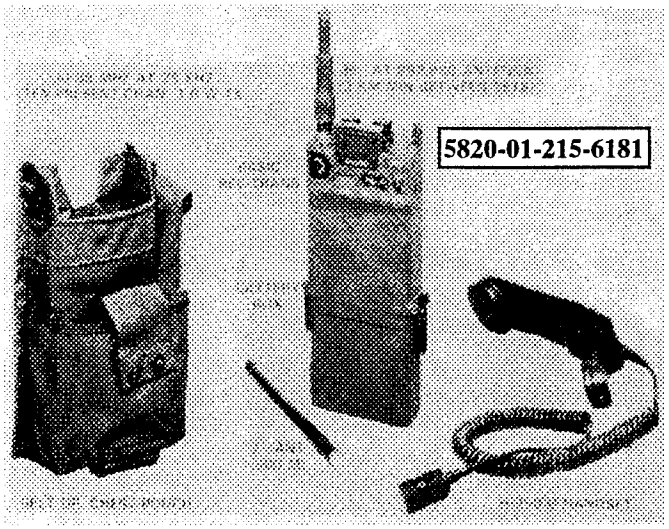
TYPE CLASSIFICATION: Type classified Standard "A" on 3 Jun 78.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Repair of 50 Radars	4---	----4---	----4---	----4---	----4---	----4---

SYNOPSIS: A LIGHTWEIGHT, MAN-PORTABLE SURVEILLANCE RADAR SET FOR USE BY UNITS SUCH AS INFANTRY AND TANK BATTALIONS.

DMM

AN/PRC-126, RADIO SET



ITEM LEADER: Ms. Lynda MacDonald
DSN 992-3576 COMM 908/532-3576/1865

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: R55336

DESCRIPTION: The AN/PRC-126 is a short range, handheld tactical radio for use primarily at the squad/platoon level. AN/PRC-126 is a lightweight, militarized transceiver providing two-way, voice-communications. The radio covers the frequency range of 30-87.975 megahertz. Its nominal range for reliable communications over rolling, slightly wooded terrain is 3,000 meters. The radio is capable of interoperating with the AN/VRC-12, AN/PRC-77, and SINCGARS families of radios in the fixed frequency mode. AN/PRC-126 enables small unit leaders to adequately control the activities of subordinate elements in carrying out the unit's mission. AN/PRC-126 is required for the Infantry, Rangers and Special Forces.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Size (including battery case) 10" L x 3.8" W x 1.5" D; Weight (including battery) 2.6 lbs.

HISTORICAL BACKGROUND:

May 85	VCSA decision to take NDI approach to replace the AN/PRC-68.
Jul 86	First Production contract awarded to Magnavox.
Sep 89	Phase I fielding completed.
May 93	Phase II fielding completed.

REQUIREMENTS DOCUMENT: ROC, 3 Oct 85; Card Reference Number 0851.

TYPE CLASSIFICATION: Standard A approved 30 Jul 86.

SYNOPSIS: AN/PRC-126 RADIO SET IS A HAND-HELD RECEIVER TRANSMITTER THAT PROVIDES SHORT-RANGE, GROUND-TO-GROUND VOICE COMMUNICATION IN THE 30 MEGAHERTZ to 80 MEGAHERTZ BAND.

DMM

AN/PRC-127, RADIO SET

PROJECT OFFICER: Mr. Reginald Norwood, DSN 992-4935
COMM 908/532-4935

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: Engineering and Manufacturing Development

PE & LINE #: N17818

DESCRIPTION: The AN/PRC-127 is a short range, hand-held, non-militarized radio for use primarily by support troops. AN/PRC-127 is a small, lightweight, Very High Frequency (VHF) radio capable of providing two-way voice communica-tions at ranges up to three kilometers. It covers at minimum, the frequency range of 136-160 megahertz. AN/PRC-127 will be employed at the lowest echelon of command to control squad and teamsized elements of Combat Service and Combat Service Support units whose mission requires the use of a radio for control of supply areas, construction areas, convoys, base defense and dismounted rear battle operations. Radio set includes Receiver/Transmitter, Antenna, Speaker/Microphone, Nickel Cadmium Battery Packs, Battery Charger, Non-Rechargeable Battery Cell Holder, and nylon case holders.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Size: 2.5" x 1.5" x 7.8": Weight: 25 oz.

HISTORICAL BACKGROUND:

May 85 VCSA decision on NDI approach to replace AN/PRC-68 radio.
Feb 88 Sole Source Contract awarded to Bendix/King.
Nov 92 Bendix/King repair contract for RT-1594/PRC-127.

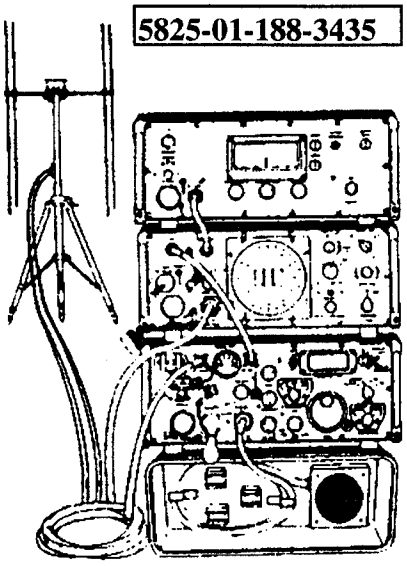
REQUIREMENTS DOCUMENT: ROC, 7 Jan 87.

TYPE CLASSIFICATION: Standard approved 29 Jan 88.

SYNOPSIS: AN/PRC-127 NON-HARDENED SMALL UNIT RADIO IS A COMPACT, LIGHTWEIGHT, HAND-HELD TRANSCEIVER. IT IS CAPABLE OF PROVIDING SMALL UNIT LEVEL COMMUNICATIONS OVER DIVERSE TERRAIN UNDER A WIDE RANGE OF CLIMATIC CONDITIONS.

DMM

AN/PRD-11, MINI-FIX



5825-01-188-3435

ITEM MANAGER: Ms. Barbara Haggerty, DSN 992-3032
COMM 908/532-3032

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: R36561 SSN: W2340000GWD

DESCRIPTION: The MINI-FIX is a man-portable direction finding system. It is composed of a man-portable vehicular radio receiver and direction finder (DF) processor system, signal monitor, DF processor (the controlling unit in the DF system), and DF antenna. MINI-FIX can be easily transported and maintained in the field, while providing highly accurate intercept and Line-of-Bearing (LOB) information. This system was initially provided to Communications Electronics Warfare Intelligence (CEWI) units via the Intelligence and Security Command (INSCOM) program as an NDI training system.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORIC BACKGROUND:

Dec 79 Purchased by FORSCOM for readiness training. A total of 75 original systems were purchased without ILS.
Jul 84 CECOM tasked by DA to support FORSCOM in developing ILS.
Aug 86 Fielding of all ILS by on-site delivery team commenced to Korea Nov 86 and Panama Dec 86.
Aug 87 Full organic support to all FORSCOM and OCONUS activities.
Mar 89 System upgraded to include battery charger, high frequency capability, up-converter CV4090.
Aug 93 Transitioned from FORSCOM (Level I) to CECOM, DMM (Level III).

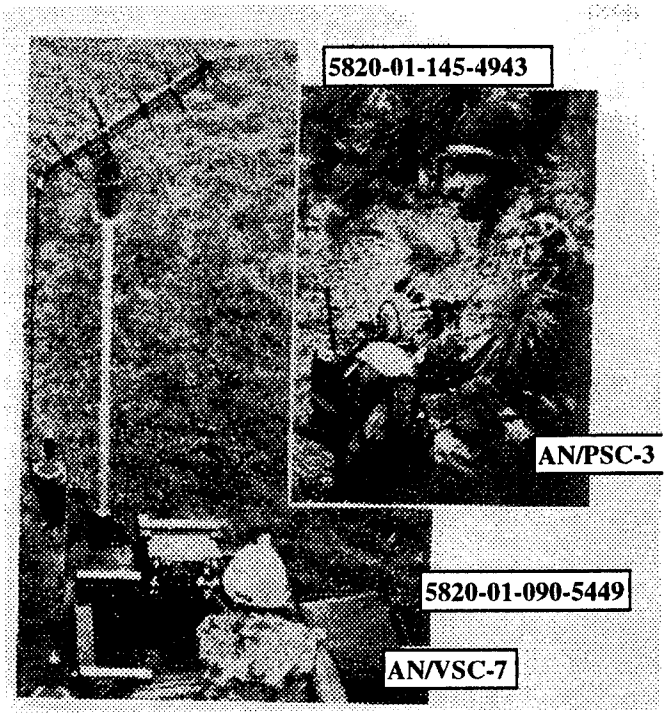
REQUIREMENTS DOCUMENT: HQDA message authorized procurement, 231742Z Nov 83.

TYPE CLASSIFICATION: Limited Procurement-Urgent approved Jan 89.

SYNOPSIS: MINI-FIX IS A MAN-PORTABLE DIRECTION FINDING SYSTEM.

DMM

AN/PSC-3 and AN/VSC-7, SINGLE CHANNEL ULTRA HIGH FREQUENCY (UHF) SATELLITE COMMUNICATIONS TACTICAL TERMINALS



PRODUCT MANAGER: Mr. Gordon Lyon, DSN 992-4902
COMM 908/532-4902

PROJECT LEADER: Mr. George Grob, DSN 992-4906
COMM 908/532-4906

ACQUISITION CATEGORY: ACAT IV
ACQUISITION PHASE: IV

PE & LINE #: SSN: K77200

DESCRIPTION: The AN/PSC-3 is a man-portable Satellite Communications Tactical Terminal. The AN/VSC-7 is a vehicular mounted version of the AN/PSC-3 with the following additional hardware: Applique, Shock Mount/Rack Mount Trays, High Gain Antenna, Antenna Mast, and Hand Set. These terminals provide a satellite communications capability primarily for Special Operations Forces and Army Ranger Units for use in forward areas or behind enemy lines. AN/PSC-3 is a rugged, lightweight portable device capable of being paged while in motion, providing positive visual and audible indications to the operator. It weighs less than 35 pounds including the RT-1402A/G, the medium gain antenna, low gain (whip) antenna, the handset H-250/U, and battery box with batteries. AN/VSC-7 will serve as the Net Control Station for up to 15 AN/PSC-3 Terminals.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

PSC-3: L-24", H-10", W-16", Wt 21 pounds.

HISTORICAL BACKGROUND:

May 79 DEVA IPR.
Sep 81 First Production contract award.
Aug 86 Final Production contract award.
Dec 90 New power amplifier approved by PM, SATCOM; All fieldings halted due to Operation Desert Shield.
Apr 91 Last unit AN/PSC-3 delivered.
Apr 94 Transitioned to Level III Management - DMM.

REQUIREMENTS DOCUMENT: TACSATCOM QMR approved Nov 71.

TYPE CLASSIFICATION: Standard approved Aug 86.

SYNOPSIS: AN/PSC-3 AND AN/VSC-7 ARE SINGLE CHANNEL UHF SATELLITE COMMUNICATIONS TACTICAL TERMINALS.

DMM

AN/PVS-4, INDIVIDUAL SERVED WEAPON SIGHT

PROJECT LEADER: Mr. Mauro Pappagall. DSN 992-4795
COMM 908-532-4795

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: K41500

DESCRIPTION: The AN/PVS-4 provides passive sighting and viewing of targets using second generation image intensifier techniques. When mounted on individual weapons, the scope will provide the capability for delivery of accurately aimed fire during hours of darkness. The system is easily installed and removed from the weapon using suitably designed brackets which require no modification to the weapon. A protective objective daylight cover provides the capability for daylight boresighting of the weapon. AN/PVS-4 is primarily designed for use with the M14 and M16 Rifles. M60 Machine Gun, M249 Squad Automatic Weapon, M72A1 Rocket Launcher and M203 Grenade Launcher. The system is supplied with a suitable shipping case which protects the system. The sight can be used in the hand-held mode for night surveillance. Fielding is two per infantry squad.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

1976	First Production contract awarded for 47,074 units.
1978	First Unit Equipped.
1985-89	Total of 16,927 devices produced and deployed to Army units.
1990-92	OMNIBUS II award of 24,046 devices for deployment to Army units.
4QFY92	Transition management from PEO IEW, PM NVEO to CECOM, SMD.
Aug 95	Transition management from CECOM SMD to CECOM DMM Level III.

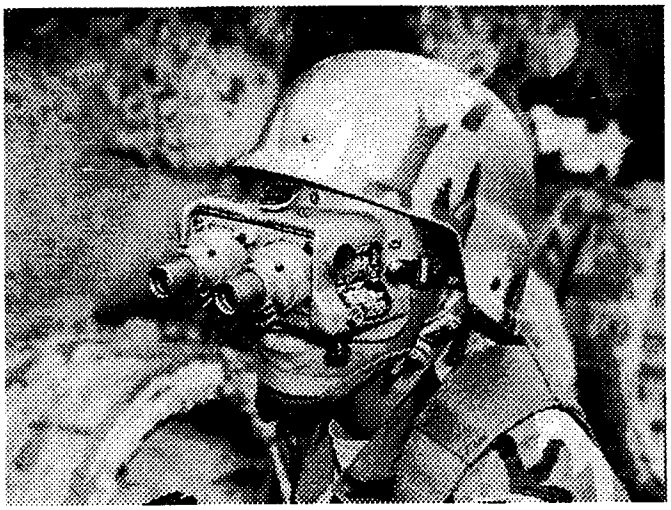
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Standard approved FY77.

SYNOPSIS: AN/PVS-4 PROVIDES PASSIVE SIGHTING AND VIEWING OF TARGETS DURING HOURS OF DARKNESS USING SECOND GENERATION IMAGE INTENSIFIER TECHNIQUES.

DMM

AN/PVS-5A, 5B, 5C, NIGHT VISION GOGGLES



PROJECT MANAGER: Barbara Skinner, DSN 992-3119/3918
COMM 908/532-3119/3918

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: K35101

DESCRIPTION: The AN/PVS-5(), Night Vision Goggles is a second generation head mounted image intensification device which permits the individual soldier to perform a wide variety of tasks at night. These tasks include walking, operating vehicles, surveillance, map reading, maintenance, first aid operations, and engaging enemy targets with direct rifle fire when used in conjunction with the AN/PAQ-4 aiming light. The AN/PVS-5() is binocular and thus utilizes two MX-9916, 18mm image intensifying tubes.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Prior 85 Total of 33,138 devices produced and deployed to Army Units.
1985 Total of 17,489 devices produced and deployed to Army Units and other services.
4Q92 Transition management from PEO IEW, PM NVEO to CECOM, SMD.
4Q95 Transition management from CECOM, SMD to CECOM, DMM.

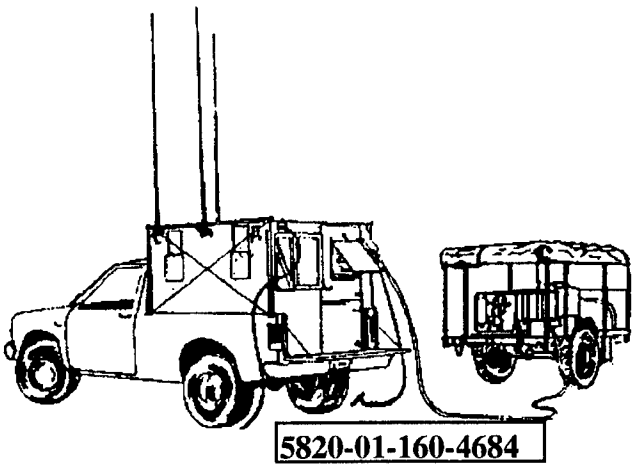
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Standard approved 1975.

SYNOPSIS: AN/PVS-5 () PROVIDES THE INDIVIDUAL SOLDIER TO PERFORM A WIDE VARIETY OF TASKS AT NIGHT USING SECOND GENERATION IMAGE INTENSIFIER TECHNIQUES.

DMM

AN/TRQ-37, TACFIX



PROJECT OFFICER: Ms. Barbara Haggerty, DSN 992-3032
COMM 908/532-3032

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: LIN R38883

DESCRIPTION: TACFIX is a shelter mounted direction finder system. It is used by Communications Electronics Warfare Intelligence (CEWI) units. This equipment is designed with two direction finder (DF) receivers, a quick erecting DF antenna/mast assembly, and a DF processor. TACFIX provides Line-of-Bearing data only and must be manually controlled to provide true DF.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Truck Mounted-Shelter.

HISTORICAL BACKGROUND:

Sep 79 Purchased by FORSCOM for readiness training. A total of 35 original systems were purchased without life-cycle ILS.
Jan 84 CECOM tasked by DA to support FORSCOM by developing ILS.
Jun 86 Spare and repair parts in place.
Sep 87 Antenna design change to install in shelter.
Apr 89 Procurement data package submitted to upgrade system capabilities.
Jun 89 Full depot support established at TOAD.
Feb 94 System transitioned from FORSCOM (Level I) to CECOM (Level II).

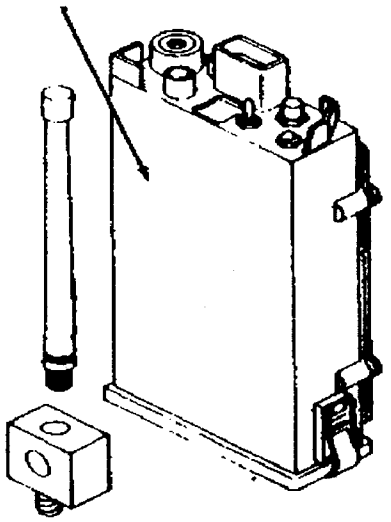
REQUIREMENTS DOCUMENT: HQDA message authorized procurement 231742Z Nov 83.

TYPE CLASSIFICATION: Standard approved Dec 89.

SYNOPSIS: TACFIX IS A SHELTER MOUNTED DIRECTION FINDER SYSTEM.

DMM

AN/TRS-2(V), PLATOON EARLY WARNING SYSTEM (PEWS)



PROJECT OFFICER: Mr. Joe Sims, DSN 992-6030
COMM 908/532-6030

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: P06148

DESCRIPTION: An operational AN/TRS-2(V) consists of ten detector anti-intrusion devices, two radio receivers, two interface wire links and other accessories packaged in two carrying bags. The system will operate in a variety of different types of terrain and under extreme temperature and climatic conditions with a very low false alarm rate.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: System packed in two bags. Each bag - Length 18", Width 6", Height 6.6", Weight 11 lbs.

HISTORICAL BACKGROUND:

Apr 76 Milestone Decision Review.
Jul 78 Contract award.
Sep 80 Test.
Dec 80 First Unit Equipped.
Mar 81 Initial Operational Capability.
Sep 92 Transition.

REQUIREMENTS DOCUMENT: Initial ROC approved, 26 Nov 62; Final ROC approved, 19 Oct 72.

TYPE CLASSIFICATION: Standard A approved Apr 78.

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition to Level III		3					

SYNOPSIS: AN/TRS-2(V) IS AN OPERATIONAL SYSTEM CONSISTING OF TEN DETECTORS, TWO RADIO RECEIVERS, TWO INTERFACE WIRE LINKS AND OTHER ACCESSORIES PACKAGED IN TWO CARRYING BAGS.

DMM

AN/TSC-85B and AN/TSC-93B, TACTICAL SATELLITE COMMUNICATIONS TERMINALS

PROJECT LEADER: Mr. Edward Harris, DSN 992-4902
COMM 908/532-4902

PRODUCT MANAGER: Mr. George Grob, DSN 992-4906
COMM 908/532-4906

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: SSN: BB8417

DESCRIPTION: The AN/TSC-85B and AN/TSC-93B are Super High Frequency (SHF) systems which provide reliable multichannel capacity satellite communications with an anti-jam capability. Both terminals operate with an eight foot diameter antenna through the Defense Satellite Communications System (DSCS) satellite network. AN/TSC-93B provides a capacity of 24 channels that can operate in a point to point mode or as a non-nodal terminal in a nodal network. AN/TSC-85B provides a capacity of 48 channels that can also operate in a point to point mode or as a nodal terminal in a nodal network. The Baseband Improvement Modification (BIM) is a directed program change by Joint Chiefs of Staff (JCS) to the Army Ground Mobile Forces (GMF) SHF program. This change increases and improves satellite efficiency and interoperability modes between Army (AN/TSC-85B, AN/TSC-93B) and Air Force (AN/TSC-100A, AN/TSC-94A) terminals. The terminals use spacecraft resources more efficiently while improving network management and control.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Jun 76	LRIP contract awarded to RCA Corporation (AN/TSC-85, AN/TSC-93).
Feb 79	Full Scale Production approved.
Sep 79	Production contract awarded to Harris Corporation.
Apr-Nov 85	First production unit delivered; First Article Test; First Unit Equipped; Initial Operational Capability.
Sep 86	BIM awarded (AN/TSC-85B, AN/TSC-93B).
Jul 92	BIM Complete.
May 94	HQDA Decision not to field AJCM.
Aug 94	Transition to Level III Management.

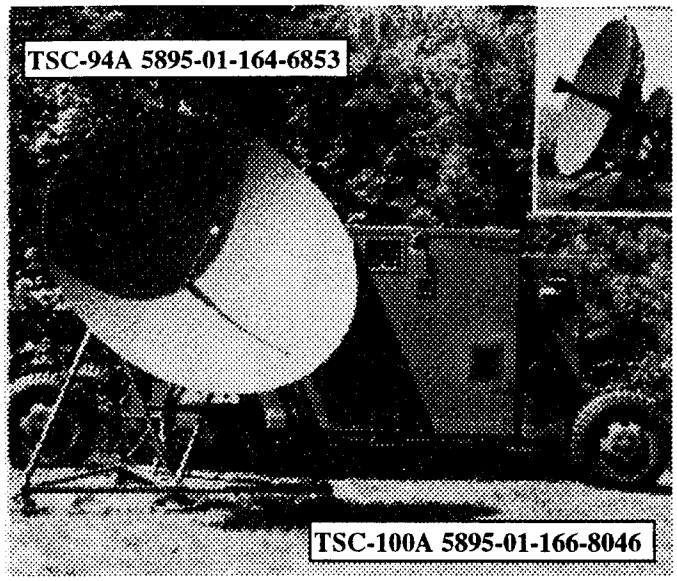
REQUIREMENTS DOCUMENT: TACSATCOM Qualitative Materiel Requirement approved 12 Nov 71.

TYPE CLASSIFICATION: LRIP terminals approved Apr 77; Standard approved Jul 85.

SYNOPSIS: AN/TSC-85B AND AN/TSC-93B ARE SHF SYSTEM WHICH PROVIDES MULTICHANNEL CAPACITY SATELLITE COMMUNICATION WITH AN ANTI-JAM CAPABILITY.

DMM

AN/TSC-94A and AN/TSC-100A, MULTICHANNEL SUPER HIGH FREQUENCY SATELLITE COMMUNICATIONS TERMINALS



PROJECT LEADER: Mr. Edward Harris, DSN 992-4902
COMM 908/532-4902

PRODUCT MANAGER: Mr. George Grob, DSN 992-4906
COMM 908/532-4906

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 739017Q2 (Air Force Equipment)

DESCRIPTION: The AN/TSC-94A and AN/TSC-100A, Ground Mobile Forces (GMF) multichannel Super High Frequency (SHF) Satellite Communications Terminals are shelter mounted. The terminals are full duplex trunking, and are utilized by the Air Force to provide subscriber voice channels or TRI-TAC groups. Both terminals provide a high order of component commonality, redundancy, and Built-In-Test-Equipment (BITE). In a stressed environment, both have the capability to operate with an Anti-Jam Control Modem (AJCM). AN/TSC-100A is capable of operating simultaneously with up to four AN/TSC-94A nodal terminals in a mesh or hub spoke mode. Both terminals use an 8 foot antenna or a 20 foot Quick Reaction Satellite Antenna (QRSA). Both terminals interoperate with the GMF AN/TSC-85B and AN/TSC-93B terminals.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: AN/TSC-94A transported by two M-35 (two and one-half ton) trucks. AN/TSC-100A transported by two M-923 trucks.

HISTORICAL BACKGROUND:

Apr 82 Production contract award.
Feb 86 First Article Test completed; First production deliveries.
May 86 Air Force Follow-on Operational Test and Evaluation (FOT&E) completed; Deliveries stopped due to FOT&E findings.
Oct 86 Deliveries resumed, problem corrected.
Dec 89 Last terminal delivered.
Sep 91 Engineering Change Proposal (ECP) awarded to General Electric Corporation (GE) to fabricate AJCM installation kits.
Jan 95 Transitioned to Level III Management - DMM.

REQUIREMENTS DOCUMENT:

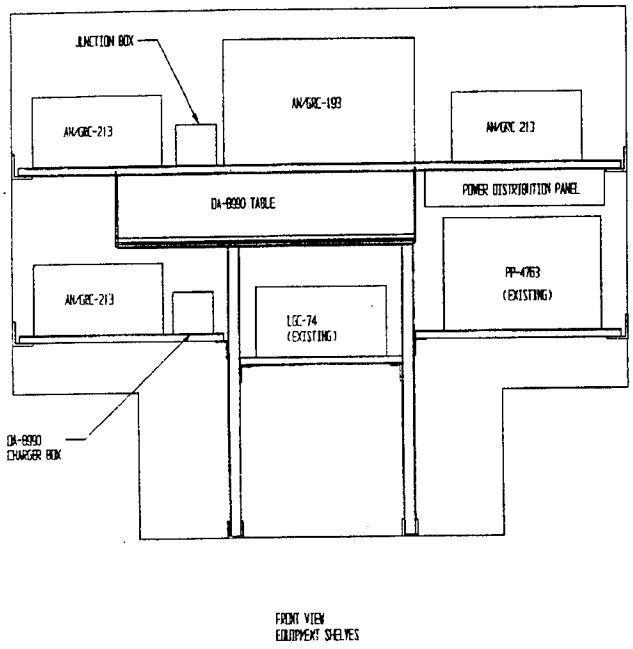
TYPE CLASSIFICATION: Not applicable as the Air Force is the only user.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition	2					

SYNOPSIS: AN/TSC-94A AND AN/TSC-100A ARE MULTICHANNEL SHF SATELLITE TERMINALS USED BY THE AIR FORCE TO PROVIDE SUBSCRIBER VOICE CHANNELS OR TRI-TAC GROUPS.

DMM

AN/TSC-128, LONG RANGE SURVEILLANCE UNIT - BASE RADIO STATION (LRSU-BRS)



PROJECT MANAGER: Ms. Gloria Richardson,
DSN 992-4331 COMM 908/532-4331

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #:

DESCRIPTION: The AN/TSC-128 Long Range Surveillance Unit Base Radio Station (LRSU-BRS) is a communications system providing LRSU's the ability to pass Human Intelligence (HUMINT) and Command and Control (C2) information between LRSU teams and their headquarters. Current documentation on the system is being updated/corrected to allow the sytem to be designated as a major item for accounting purposes. However, the system will only be procurable as an Installation Kit (IK) from CECOM along with additional equipment (shelters, radios, teletypes) already in the possession of the gaining units.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Aug 89	Start of iterim program under SOF Control.
Oct 89	HQDA authorizes AN/TSC-128 interim use.
Mar 90	First prototype installed at Fort Benning, GA.
Jan 91	First production kits fielded to USAREUR.
Apr 91	Program control transferred to RDEC.
Apr 93	Program control transferred to SMD.
Jun 94	Program control transferred to DMM.

REQUIREMENTS DOCUMENT: Limited Procurement - Urgent.

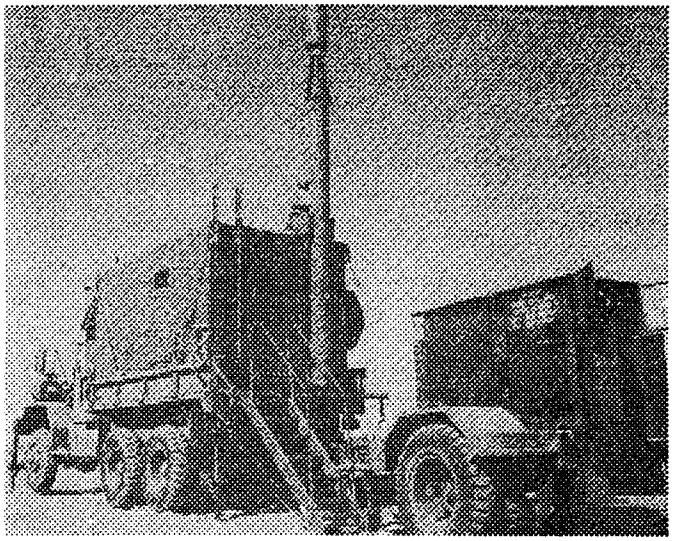
TYPE CLASSIFICATION: Limited Procurement - Approved Jan 90 HQDA.

SYNOPSIS: AN/TSC-128 IS A COMMUNICATIONS SYSTEM WITH THE ABILITY TO PASS HUMMAN INTELLIGENCE AND COMMAND AND CONTROL INFORMATION BETWEEN LRSU TEAMS AND HQ.

DMM

AN/TSQ-132(V)1, INTERIM GROUND STATION MODULE (IGSM)

AN/TSQ-132(V)2, LIMITED PROCUREMENT URGENT (LPU) GROUND STATION MODULE



ITEM MANAGER: Ms. Marjorie O'Neil,
COMM 908/532-1560

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV Operations/Support

PE & LINE #: 64770.D202 SSN: BA1080

DESCRIPTION: The Joint Star (JS) Radar Ground Station Module (GSM) is a Mobile Multisensor Imagery Intelligence (IMINT) Tactical Data Processing and Evaluation Center. GSM is a subcomponent of a joint Army/Air Force program whose other major component is the E-8 airborne platform. JS system is designed to detect, locate and track moving and stationary equipment ground targets located beyond the FLOT. GSM disseminates intelligence and target data to Army C3I nodes via wire or radio enabling integrated battle management, surveillance, targeting and interdiction plans to be developed/executed using near real-time data.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Housed in S-280 like shelters.

HISTORICAL BACKGROUND:

May 82 USDRE directed joint program combining AF PAVE MOVER & Army's SOTAS programs.
Dec 88 GSM program restructured into Block Approach.
Jul-Oct 90 LPU GSMs fielded.
Nov 90 GSMs fielded to Operation Desert Shield.

REQUIREMENTS DOCUMENT: ROC approved Apr 86; JSOR approved Nov 92; Revised ROC approved 18 Nov 92.

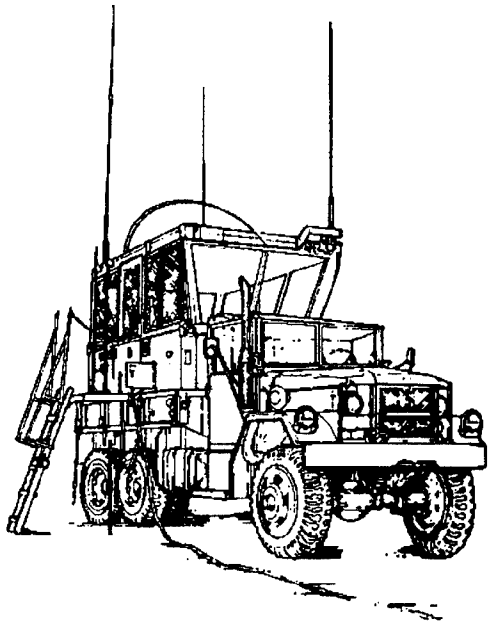
TYPE CLASSIFICATION: LPU approved Dec 86; IGSM-LPU 3QFY92.

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
IGSM Fielded		3					
LPU Fielded		4					

SYNOPSIS: JS RADAR GSM IS A MOBILE MULTISENSOR IMINT TACTICAL DATA PROCESSING AND EVALUATION CENTER.

DMM

AN/TSW-7A, AIR TRAFFIC CONTROL CENTRAL (ATCC)



PROJECT MANAGER: Mr. Tim Messer. DSN 992-1216
COMM 908/532-1216

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: A27624 SSN: P454010

DESCRIPTION: The AN/TSW-7A is a mobile Air Traffic Control facility that can be deployed to tactical air fields for visual control of airborne and ground flight operations. This facility consists of a communications shelter and an ancillary equipment pallet. The communications shelter contains HF/UHF/VHF communications equipment and can accommodate up to three air traffic controllers at one time. Ancillary environmental control and power generating equipment contained on the pallet assembly provides the self-contained capability for operation of this system. Transport of the communications shelter and pallet assembly is accomplished via two each 2-1/2 ton trucks which permits tactical deployment of this facility.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Sep 79 Production contract award for 22 systems.
Jun 82 First Unit Equipped.
Nov 84 System transition from AVRADA to CECOM.
Jun 86 Six additional systems procured by active Army.
May 88 ECPs approved for communications equipment upgrade.
Dec 89 Initial fielding of upgraded communications equipment.
Dec 95 Transitioned to Level III.

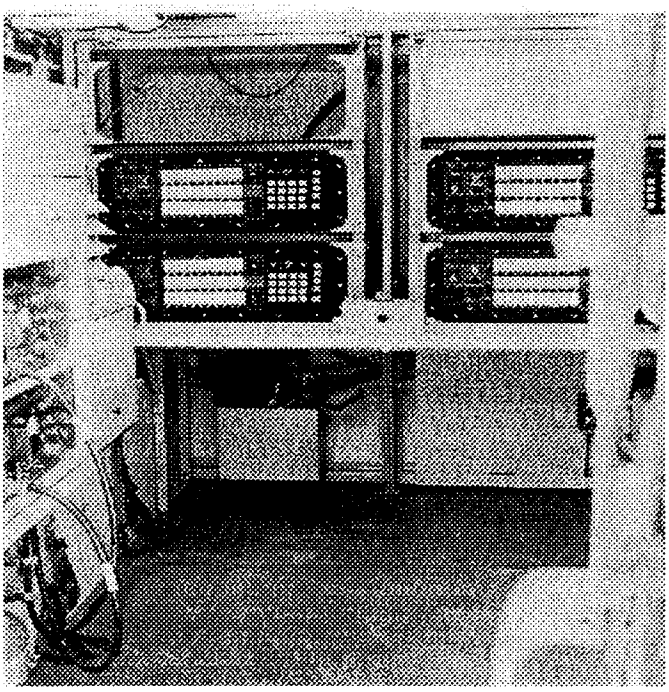
REQUIREMENTS DOCUMENT: Statement of Need prepared by USAISC in Nov 78 to modify an existing Air Force system for Army use.

TYPE CLASSIFICATION: Standard approved Oct 80.

SYNOPSIS: AN/TSW-7A AIR TRAFFIC CONTROL CENTRAL IS A TRANSPORTABLE FACILITY THAT CAN BE DEPLOYED AT TACTICAL AIR STRIPS FOR AIRBORNE AND GROUND CONTROL OF AIRCRAFT.

DMM

AN/TTC-41(V), CENTRAL OFFICE, TELEPHONE, AUTOMATIC



ITEM MANAGER: Ms. Debbie Ivey, DSN 992-3338
COMM 908/532-3338

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 738017-P1

DESCRIPTION: The AN/TTC-41(V) is an air or vehicular transportable system used to provide rapid automatic switching to tactical units in area-type communications system. It provides cordless service to 2-wire common battery signaling (CBS) lines; 20 hertz ringdown (RD) lines or trunks; common battery dial pulse or dual tone multi-frequency (DTMF) lines; 4-wire tone signaling trunks; 4-wire DTMF confirmation, tone burst, and converter trunks; 4-wire single frequency signaling AUTOVON access; automatic tandem, and five levels of precedence and preemption. Depending on the number of SB-3614(V)A/TT Switchboards in the AN/TTC-41(V) shelter, the system can provide from 30 to 120 lines of service. AN/TTC-41(V) replaces the AN/MTC-3, AN/MTC-7, and AN/TTC-23. Materiel Change program (MC 1-90-07-0015) provides an arctic heater to the AN/TTC-41(V) shelter for those systems operating in arctic weather.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Sep 76	Production contract awarded to SAAD.
Jul 77	Prototype Testing.
Jun 90	Arctic heater Materiel Change approved by CCB/SLRB.
Aug 90	Arctic heater Materiel Change applied to units fielded in arctic weather.
May 90-Sep 93	Systems being fielded under the Battlefield Communication Review Program (BCR).

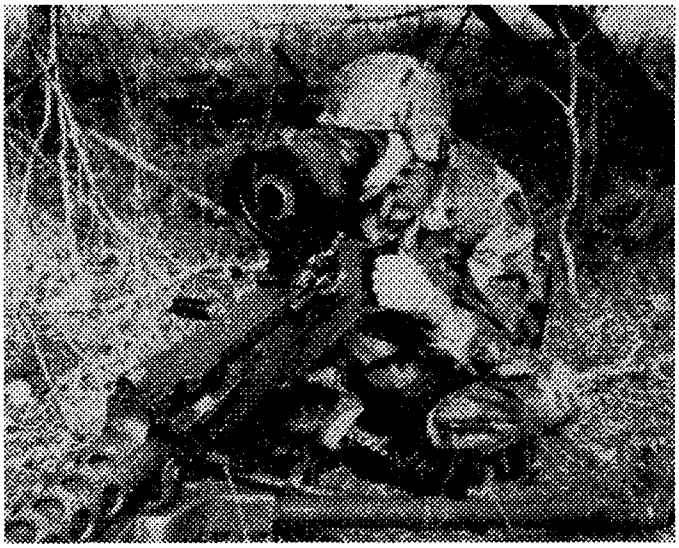
REQUIREMENTS DOCUMENT: Qualitative Materiel Requirement approved Feb 72, amended Jan 73.

TYPE CLASSIFICATION: AN/TTC-41(V)1 to (V)4, Standard, Jul 77. AN/TTC-41(V)5 to (V)7, Limited Production, Mar 78.

SYNOPSIS: AN/TTC-41(V) PROVIDES RAPID AUTOMATIC SWITCHING TO TACTICAL UNITS IN AN AREA-TYPE COMMUNICATION SYSTEM.

DMM

AN/TVS-5, CREW SERVED WEAPON SIGHT



PROJECT OFFICER: Mr. Mauro Pappagall DSN 992-4795
COMM 908/532-4795

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: SSN: K3850

DESCRIPTION: The AN/TVS-5 provides sighting and viewing of targets using a second generation image intensifier tube. When mounted on crew served weapons, the scope will provide the capability for delivery of accurately aimed fire during hours of darkness. AN/TVS-5 is primarily designed for use with the M2 and M60 Machine Gun and the 106mm Recoilless Rifle. The system is supplied with a suitable shipping case which protects the system. The sight can be used in the handheld mode for night surveillance by individual soldiers, commanders and reconnaissance elements. Fielding to Army units is complete. The Army is no longer procuring the second generation AN/TVS-5 weapon sight. Supplement/replacement system is the AN/PAS-13, Thermal Weapon Sight (TWS). However, we will continue to procure this device in support of other requirements, predominantly the Marine Corps and FMS.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

1976	First Production contract award.
1978	First Unit Equipped.
1985-89	OMNIBUS Multi-year contract in effect for Marine Corps requirements (856 units).
1987-90	MINIBUS Multi-year contract in effect for other DOD requirements.
Feb 1991	Contract award for Operation Desert Storm requirements (2138 units).
Sep 92	Transition from PM, NVEO to CECOM Level II Management.
Dec 95	Transition from CECOM SMD Level II to CECOM DMM Level III.

REQUIREMENTS DOCUMENT:

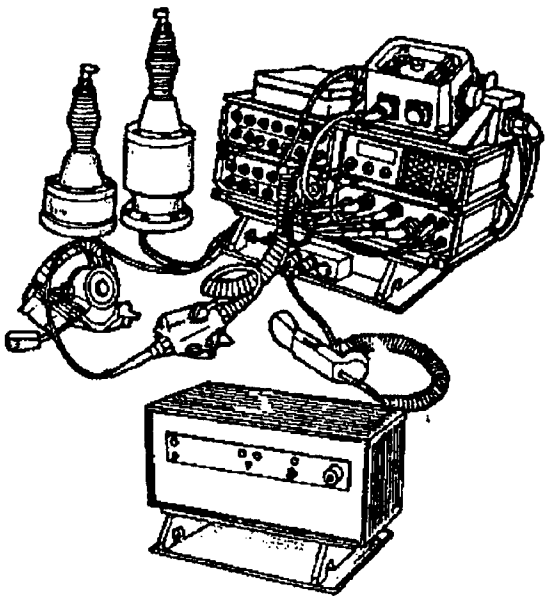
TYPE CLASSIFICATION: Standard approved FY77.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract DAAB07-94-C-J505 Delivery (FMS)		1-----4				

SYNOPSIS: AN/TVS-5 PROVIDES SIGHTING AND VIEWING USING SECOND GENERATION IMAGE INTENSIFIER TECHNIQUES AND PROVIDES THE CAPABILITY OF ACCURATELY AIMED FIRE DURING HOURS OF DARKNESS.

DMM

AN/ULQ-19(V), SIGNAL JAMMER RACJAM



PROJECT OFFICER: Ms. Barbara Haggerty, DSN 992-3032
COMM 908/532-3032

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: LIN Z63802 (RACJAM)
LIN H43290 (HACJ)

DESCRIPTION: AN/ULQ-19(V) RACJAM is a fully automatic, mobile, responsive Very High Frequency (VHF) jammer capable of automatically detecting and jamming signal activity on any one of 16 pre-selected target channels. The system can be programmed to scan several frequencies while disrupting non-friendly transmissions. AN/ULQ-19(V)3 HAC-J is the helicopter borne version of the jammer.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: V3-Helicopter Mounted, V1/V2-Truck Mounted-Shelter.

HISTORICAL BACKGROUND:

Dec 83 Purchased by FORSCOM for readiness training, total of 20 original systems purchased without life cycle support.
Jan 84 CECOM tasked by DA to support FORSCOM by developing ILS.
Sep 84 ILS management team established.
Mar 86 Spare and repair parts list submitted to contractor for price quotes.
Mar 90 Contract for Heliborne Applique Communications-Jammer (HAC-J) established.
Aug 94 System Transitioned from FORSCOM (Level I) to CECOM (Level III).

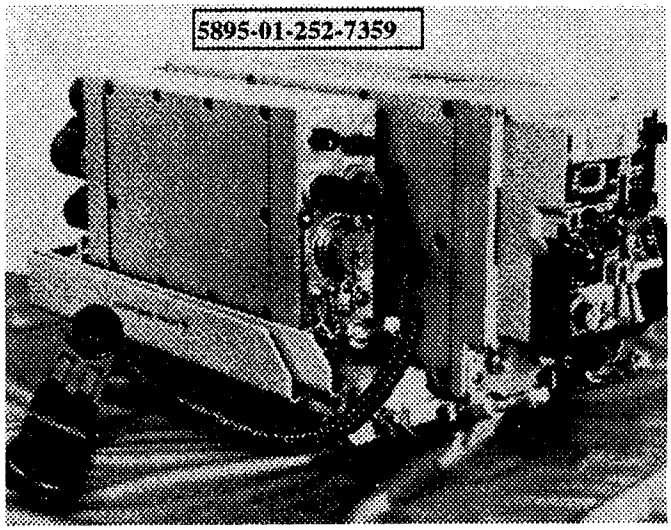
REQUIREMENTS DOCUMENT: DA message 032045Z Jan 84.

TYPE CLASSIFICATION: LCC Standard B.

SYNOPSIS: AN/ULQ-19 RACJAM IS A FULLY AUTOMATIC, MOBILE, RESONSIVE VHF JAMMER CAPABLE OF AUTOMATICALLY DETECTING AND JAMMING SIGNAL ACTIVITY ON ANY 1 OF 16 PRE-SELECTED TARGET CHANNELS.

DMM

AN/USC-43(V)2, ADVANCED NARROWBAND DIGITAL VOICE TERMINAL (ANDVT) TACTICAL TERMINAL



ITEM MANGER: Mr. Ralph Handy. DSN 992-3403
COMM 908/532-3403

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 5211.605042

DESCRIPTION: The ANDVT provides a narrowband, secure voice capability for tactical and strategic echelons. It is used in a variety of locations ranging from fixed plant to vehicles. ANDVT Tactical Terminal (TACTERM) provides fixed and mobile forces with the capability of secure voice or data transmission via High Frequency (HF), Very High Frequency (VHF), Ultra High Frequency (UHF) radio satellite systems, wireline, or Net Radio Interfaces (NRI). ANDVT is a TRI-TAC item of equipment and meets the interoperability requirements of STANAGs 4197, 4198 and 4291. ANDVT TACTERM in its standard configuration consists of two equipments: A Basic Terminal Unit, CV-3591, (P)/U, and a COMSEC Module, KYV-5/TSEC, hereafter referred to as the BTU and CM respectively. A third equipment, the Interface Unit, J-3953 (includes cables and field mount) is used only when the ANDVT TACTERM directly replaces a KY-65 or for wireline applications. In other configurations, the BTU/CM assembly will directly replace a KY-75.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Dec 85	Letter contract award.
Feb 87	MIPR to Navy - 1987 funds.
Apr 88	FAT completed.
May 90	Materiel Fielding Plan (MFP).
Aug 90	Interim conditional/fielding release approved by AMC.
Jul 92	HQDA authorization for units to retain units.

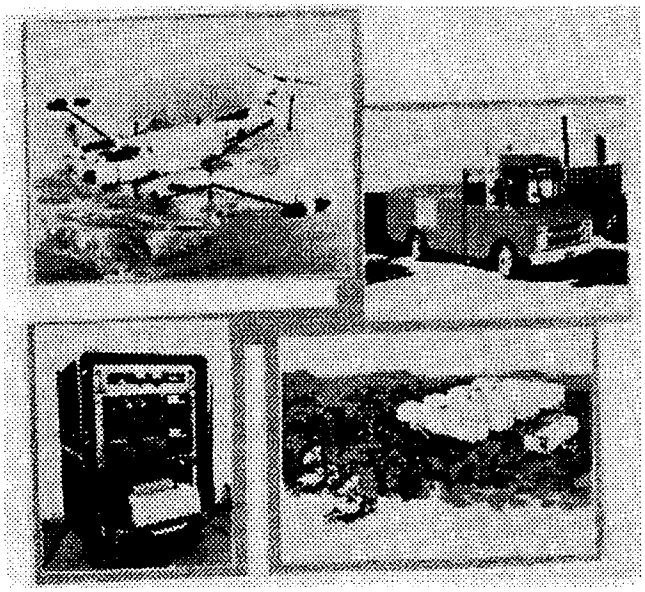
REQUIREMENTS DOCUMENT: JOR SM-869-76 validated, Oct 76.

TYPE CLASSIFICATION: Correspondence IPR, 17 Oct 85; Standard.

SYNOPSIS: ANDVT TACTICAL TERMINAL WILL PROVIDE FIXED AND MOBILE FORCES WITH THE CAPABILITY OF SECURE VOICE OR DATA TRANSMISSION VIA HIGH FREQUENCY, VERY HIGH FREQUENCY (VHF) ULTRA HIGH FREQUENCY (UHF) RADIO SATELLITE SYSTEMS, WIRELINE, OR NET RADIO INTERFACES.

DMM

AN/USD-9A, IMPROVED GUARDRAIL V (IGR V)



PRODUCT MANAGER: Mr. Montclair Ivey, DSN 992-3032
COMM 908/532-3032

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: AZ2100

DESCRIPTION: The IGR V is an airborne Communications Intelligence (COMINT) collection/location system. AN/USD-9A consists of airborne collection platforms (RC-12D), AN/TSQ-105(V)4 Information Processing Facility (IPF), AN/TSC-116 Improved Commanders Tactical Terminal (ICTT), AN/ARW-83(V)5 Airborne Relay Facility (ARF), AN/AMR-163(V)4 Auxiliary Ground Equipment (AGE) and an Interoperable Data Link (IDL). Current major upgrade is to provide satellite remote capability for both IGRV and insertion into GUARDRAIL/Common Sensor.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Sep 81 Contract award.
Dec 84 Materiel Release: System 1 fielded to V Corps.
Dec 85 System 2 fielded to VII Corps.
Jul 93 System 1 fielded to III Corps.

REQUIREMENTS DOCUMENT: Materiel change to GUARDRAIL; ROC approved, 1979.

TYPE CLASSIFICATION: Standard A, Aug 94.

SYNOPSIS: IGR V IS AN AIRBORNE COMINT COLLECTION/LOCATION SYSTEM.

DMM

AN/UXC-7, LIGHTWEIGHT DIGITAL FACSIMILE (LDF)

ITEM MANAGER: Mr. Danny Carter DSN 992-3403
COMM 908/532-3403

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: L67964

DESCRIPTION: The AN/UXC-7 is a non-developmental program and provides facsimile graphic/narrative traffic capability over digital switched voice and data networks, combat net radios, and supplements the Single Subscriber Terminal and/ or communications centers at maneuver elements from battalion through echelons above corps. LDF is capable of operating over voice bandwidth channels having error rates up to 1 in 1000. It is also capable of operating over tactical cable/wire systems through direct wireline interface and tactical switching systems. LDF is capable of operating both with and without approved COMSEC appliques in all of the above configurations. NATO interoperability conforming to STANAG 5000 is provided. The 55 pound LDF is capable of transmitting/receiving handwritten/typewritten copy, sketches, and overlays up to 8 1/2" by 14" in black and white format. The required on-the-air time is less than 15 seconds at 16 kilobytes per second for an average 8 1/2" by 11" typewritten page.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Mar 85 Protest resolved; Production contract awarded to Magnavox Advanced Products and System Company.
May 86 First Article Test completed/secure lighting modification implemented.
Jul 89 Army deliveries completed.
Jun 91 Contract Modification for out-of-warranty depot level repair.
Jul 91 Full Materiel Release.
Jun 92 Management Transistion to Level III Management for PM MSCS.

REQUIREMENTS DOCUMENT: Joint Operational Requirement MJCS-26-84, 17 Feb 84.

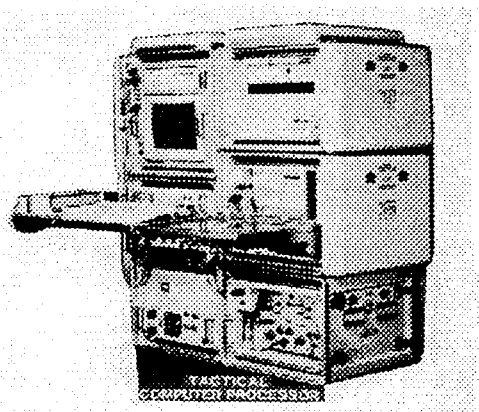
TYPE CLASSIFICATION: Standard approved 12 Sep 84.

SYNOPSIS: AN/UXC-7 IS A TERMINAL FOR TRANSMISSION/RECEPTION OF FACSIMILE GRAPHIC/NARRATE TRAFFIC OVER DIGITAL SWITCHED VOICE AND DATA NETWORKS, AND COMBAT NET RADIOS, AND SUPPLEMENTS THE SINGLE SUBSCRIBER TERMINAL AND/OR COMMUNCIATIONS CENTERS.

DMM

AN/UYQ-43(V)1, TACTICAL COMPUTER PROCESSOR (TCP) - NDI
AN/UYQ-43(V)2, ANALYST CONSOLE (AC)

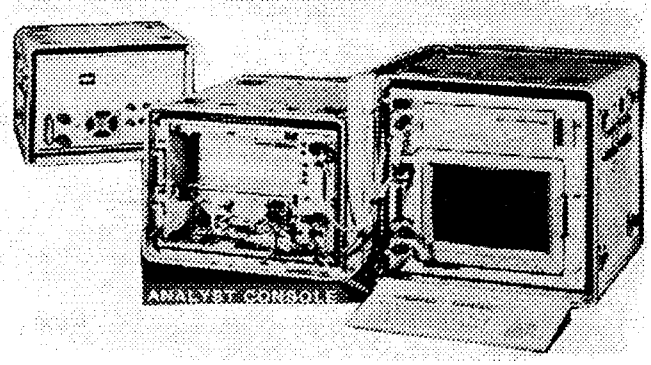
MANEUVER CONTROL SYSTEM (MCS)



PROJECT OFFICER: Ms. Helen Roche DSN 992-4907
COMM 908/532-4907
FAX DSN 992-4909

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: BA-9300



DESCRIPTION: The MCS is a collection of computer equipment which supports operations planning and control at one of the five nodal points (Maneuver Control) of the Army Tactical Command and Control System (ATCCS). It is designed to assist the commander and his staff by providing information on his own forces, enemy forces and the battlefield characteristics. MCS provides this battlefield information by collecting, processing, and displaying data generated within the air/land combat environment. Using the features of this system the commander can improve the timeliness of his decisions and allocation of his resources.

The MCS currently consists of Tactical Computer Processors and Analyst Consoles. The Tactical Computer Processor, AN/UYQ-43(V)1, is a micro-processor based portable system which provides automated assistance to the maneuver commanders. The Analyst Console, AN/UYQ-43(V)2, is a micro-processor based intelligent terminal, connected to the TCP via Local Network, which provides multiple workstations within a nodal configuration. MCS takes advantage of commercial state-of-the-art technology by more readily fielding the commercial hardware NDI.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jun 87 Awarded NDI contract.
Jul 87 Awarded system engineering and integration contract (MCS); Full production (TCT).
Oct 87 Awarded MCS software contract.
Jul 90 Last unit produced.
Oct 92 Last unit fielded.
Jan 95 Transitioned to Level III Management - DMM.

REQUIREMENTS DOCUMENT: O&O Plan (TCT & NDI) and ROC approved (TCT & NDI) Jul 82; ROC update Jun 88.

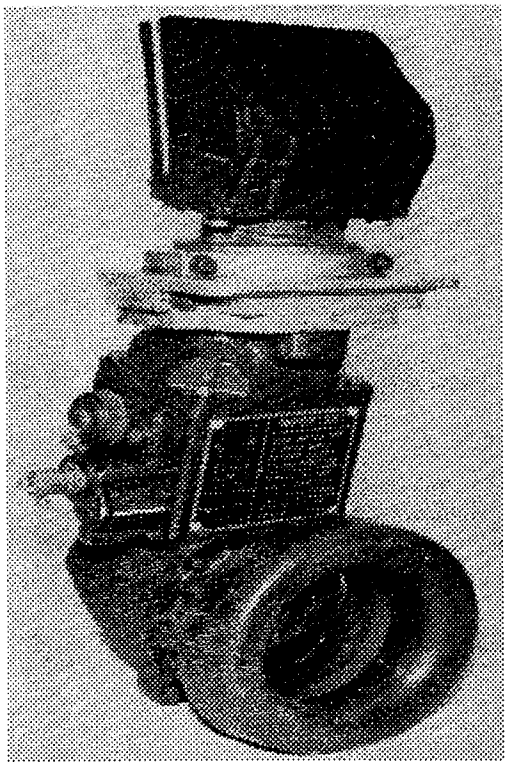
TYPE CLASSIFICATION: TCP, AN/UYQ-43(V)1 and AC, AN/UYQ-43(V)2 Type Classified Standard, at IPR, Jun 86.

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition to DMM		2					

SYNOPSIS: MCS IS AN AUTOMATED COMMAND AND CONTROL SYSTEM.

DMM

AN/VVS-2, DRIVERS VIEWER



PROJECT OFFICER: Mr. Joseph Hussey, DSN 992-4795
COMM 908/532-4795

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: (Stock Funded)

DESCRIPTION: The Drivers Viewer enables a closed hatched vehicle to be driven under night conditions without active illumination. The area viewed is presented as a green image display. It is lightweight enough to be installed from within the vehicle and can be manually rotated from between 30° to 45° depending on the vehicle in which it is to be mounted. Drivers Viewer is presently being installed in the Bradley, M1 and M60 Tanks. Future plans also include purchase of AN/VVS-2 for M113 and M109 vehicles. Fielding is one per tracked vehicle. This system will be replaced or supplemented in the M1A2 and M2/M3 vehicles by the Drivers Thermal Viewer.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

1976 NVEOC first Production contract award.
1978 First Unit Equipped.
1985-89 Five-year OMNIBUS I contract awarded ITT/VARO.
1990-92 Three-year OMNIBUS II contract awarded to IMO/VARO.
Aug 92 Transistion from PM, NVEO to CECOM Level II Management.
Aug 95 Transitioned from CECOM SMD to CECOM DMM Level III.

REQUIREMENTS DOCUMENT:

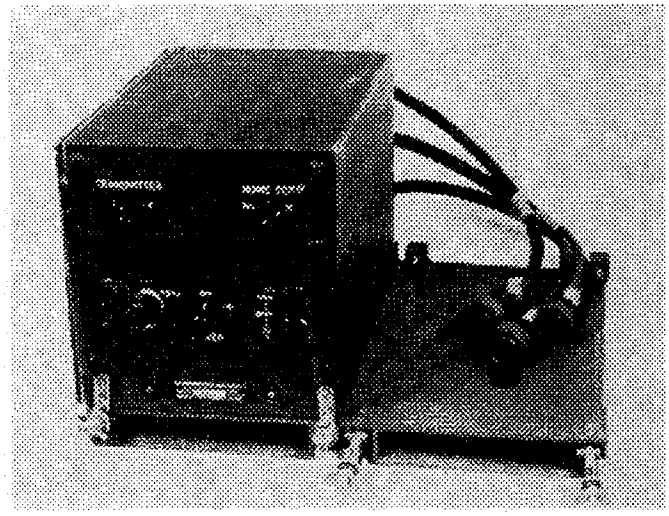
TYPE CLASSIFICATION: Standard approved FY77.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Contract DAAB07-94-C-J502 (Spares)	-2					
Contract DAAB07-94-C-J510 (V)4	----3					

SYNOPSIS: AN/VVS-2 ENABLES A CLOSED HATCHED VEHICLE TO BE DRIVEN UNDER DARK NIGHT AND STARLIGHT CONDITIONS WITHOUT ACTIVE ILLUMINATION.

DMM

MK-2488/G, INSTALLATION KIT



PROJECT LEADER: Ms. Gloria Richardson, DSN992-4331
COMM 908/532-4331

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: A1-6E50621G04; A1-7E50671G02

DESCRIPTION: The MK-2488/G Installation Kit is used to maintain electrical capability between older, high-level segral Teletypewritters (TTYs)/modems and newer, low-level signal security equipment. The Installation Kit consists of an inter-connecting box, cables and mounts installed in various Army TTY-Radio Communication Assemblages. Kit permits replacement of Telecommunications Security (TSEC)/KW-7 by the KG-84 in assemblages with high level signal TTY and modems (TH-5/22, MD-522, TT-4/76/98).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

1986 Competitive contract award to Sechan Electronics for 2,412 Production Units; Contract Option exercised for 1,001 additional Production Units from Sechan Electronics.
1987 110 Medley Kits installed at Signal Center Ft. Gordon, GA.
1988 Sechan production deliveries begin; 82nd and 101st AB issued kits; Korea issued kits.
1989 Kit installation began in USAREUR, FORSCOM, Korea.
1990 All delivered completed.

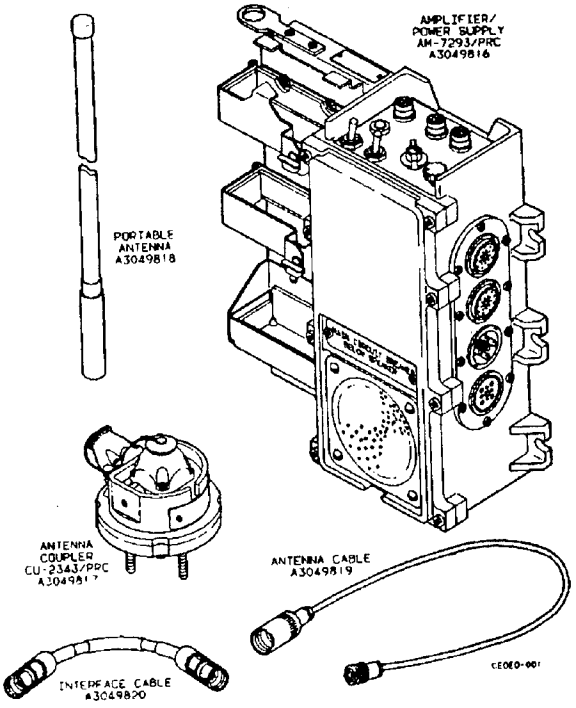
REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION: Not applicable as units become part of assemblage after kit installation.

SYNOPSIS: MK-2488/G INSTALLATION KIT IS USED TO MAINTAIN ELECTRICAL COMPATIBILITY BETWEEN OLDER, HIGH-LEVEL SEGRAL TTY/MODEMS AND NEWER, LOW-LEVEL SIGNAL SECURITY EQUIPMENT.

DMM

OG-174/VRC, AMPLIFIER POWER SUPPLY



PROJECT MANAGER: Ms. Deborah Bradwell. DSN 992-3576
COMM 908/532-3576

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: A53491

DESCRIPTION: The OG-174/VRC Amplifier Power Supply Group is a vehicle applique that permits the installation of an AN/PRC-68A into Self-Propelled Howitzers (M109 and M110) & M577 Command Tracked Vehicles. When the AN/PRC-68A Radio is mounted in this manner, it will provide short range (less than 3KM) vehicle communications. OG-174/VRC also provides an interface for operation with the AM-1780/VRC Amplifier for intercommunication within the vehicle and the AN/GYK-29 Battery Computer System for communication between firing batteries. OG-174/VRC consists of: Amplifier/ Power Supply (vehicle applique); Antenna Coupler; Portable Antenna; Antenna Cable Assembly; and Interface Cable Assembly.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Size: 12.4" L x 11.3" W x 3.9" D; Weight: 13 lbs.

HISTORICAL BACKGROUND:

Sep 84 Contract Award.
Nov 86 Production Qualification Test/First Article Test.
Apr 90 First Unit Equipped.
May 90 Initial Operational Capability.

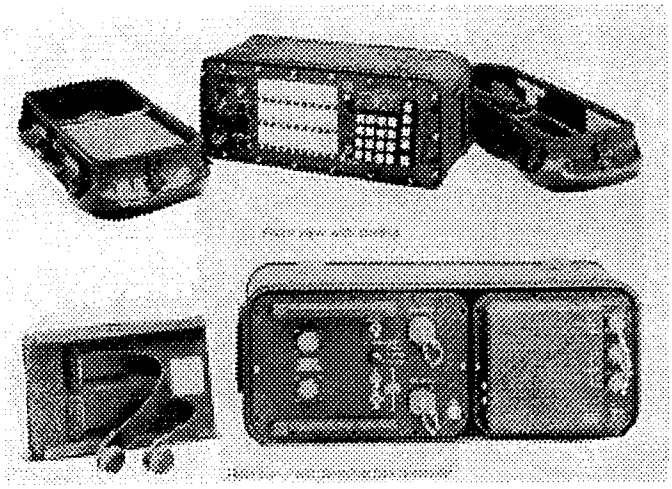
REQUIREMENTS DOCUMENT: ROC, Apr 79.

TYPE CLASSIFICATION: Limited Procurement approved Dec 82; Extension approved Dec 86; Standard approved Jul 89.

SYNOPSIS: OG-174/VRC CONSISTS OF AN AMPLIFIER/POWER SUPPLY (VEHICLED APPLIQUE), ANTENNA COUPLER, PORTABLE ANTENNA, ANTENNA AMPLIFIER ASSEMBLY AND INTERFACE CABLE ASSEMBLY.

DMM

SB-3614(V)A/TT, SWITCHBOARD



ITEM MANAGER: Ms. Debbie Ivey, DSN 992-3338
COMM 908/532-3338

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: 738017.P1

DESCRIPTION: Two Product Improvement Programs (PIPs) were applied to the SB-3614 following its last production in Apr 79. The first PIP (1-81-07-0021) incorporated Dual Central Office Interface and Software Changes adding the capability to interface with civilian dial central offices and included software changes to correct/modify some functional features of the switchboard. These changes were made through the addition of a DCO card and a Programmable Read Only Memory card for each switchboard. The second PIP (1-83-07-0084) was to add a Tandem AUTOVON Capability (changing the system nomenclature to SB-3614A). The Tandem feature allows the SB-3614A subscriber to reach a destination caller by merely dialing the destination subscriber's appropriate seven to ten digit number. The other user services being provided by this PIP are: automatic primary/alternate trunk routing; TRI-TAC numbering plan capability; five levels of precedence; subscriber initiated conferencing; manual/automatic data base entry and dial central office interface. The Marine Corps are the Primary Inventory Control Activity for the SB-3614A switchboard.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Sep 83	DCO contract award.
Mar 84	Tandem AUTOVON Development contract award.
Sep 85	Tandem AUTOVON Production contract award.
Sep 86	DCO kits distributed and applied.
Jun 87-Apr 90	Tandem AUTOVON Modification Work Order (MWO) applied to units in Germany, CONUS and Korea.
May 90-Sep 93	System fielded as part of the AN/TTC-41(V) under the Battlefield Communication Review (BCR).

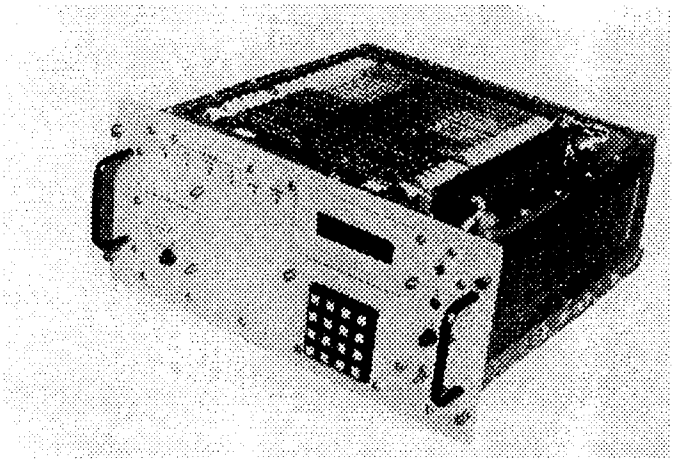
REQUIREMENTS DOCUMENT: Qualitative Materiel Requirement, 1972; amended, 31 January 1973.

TYPE CLASSIFICATION: Standard A approved.

SYNOPSIS: SB-3614(V)A/TT IS A 30-TERMINAL AUTOMATIC SWITCHBOARD WHICH PROVIDES RAPID CORDLESS SERVICE.

DMM

TD-1389(V), LOW RATE MULTIPLEXER (LRM)



PROJECT LEADER: Mr. Edward Harris. DSN 992-4902
COMM 908/532-4902

PRODUCT MANAGER: Mr. George Grob. DSN 992-4906
COMM 908/532-4906

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: SSN: BB8417

DESCRIPTION: The Ground Mobile Forces Satellite Communications (GMFSC) SHF multichannel initial system terminals require an anti-jam capability which will be provided by the Anti-Jam Control Modem (AJCM). AJCM requires an all-variable data input rate which will be provided by the LRM. LRM provides the multiplexing/demultiplexing of digital subscribers for multichannel operation of the AJCM. LRM allows for a composite output rate which is adaptive, permitting graceful degradation of service under stressed conditions. Thus, LRM allows maximum utilization of satellite capacity in a hostile environment. LRM is deployed as a replacement for the TD-660 as part of the BIM program to permit interoperability with the GMF community on a subscriber level under unstressed conditions.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

Apr 82 Production contract award.
May 83 Type Classification.
Apr 86 First production deliveries began.
Sep 89 Production contract award.
Mar 91 Deliveries started.
Oct 91 Deliveries completed.

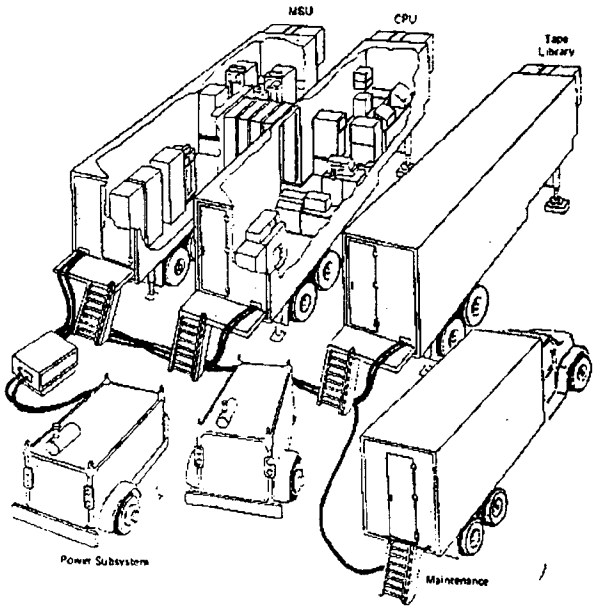
REQUIREMENTS DOCUMENT: ROC approved, Jul 83.

TYPE CLASSIFICATION: May 83, Standard.

SYNOPSIS: TD-1389(V) PROVIDES MULTIPLEXING/DEMULTIPLEXING OF DIGITAL SUBSCRIBERS FOR MULTICHANNEL OPERATION FOR BOTH STRESSED AND UNSTRESSED CONDITIONS.

DMM

CORPS/THEATER ADP SERVICE CENTER I (CTASC-I)



PROJECT MANAGER: Mr. Robert J. Cressey, DSN 992-4907
COMM 908/532-4907

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: Z25526, Z62937, Z38296, Z41595, Z50481

DESCRIPTION: The CTASC-I is a mobile Automatic Data Processing (ADP) system supporting Combat Service Support applications at Corps and Theater levels. CTASC I supports Standard Army Management Information systems automating personnel, financial and logistics management functions. CTASC-I is composed of a self-contained complex of three semi-trailer vans housing the central processing unit, mass storage units and tape library facilities. The system is also fielded with a maintenance van and two 100 kilowatt generators.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

Vehicle Physical Data	Length	Width	Height	Weight (lbs)
CPU Van	466.0"	98.0"	141.0"	(est) 25,850
MSU Van	466.0"	98.0"	141.0"	25,254
Tape Library Van	466.0"	98.0"	141.0"	20,990
M109 Van	263.0"	99.0"	130.0"	22,930
PU 495P/G Engine Generator	188.0"	96.0"	82.0"	10,470

HISTORICAL BACKGROUND:

Feb 80 O&O Approved.
May 80 HQDA Procurement Decision Memorandum.
Nov 82 Contract awarded to IBM for seven systems.
Sep 83 First Unit Equiped.

REQUIREMENTS DOCUMENT: DA directed Procurement.

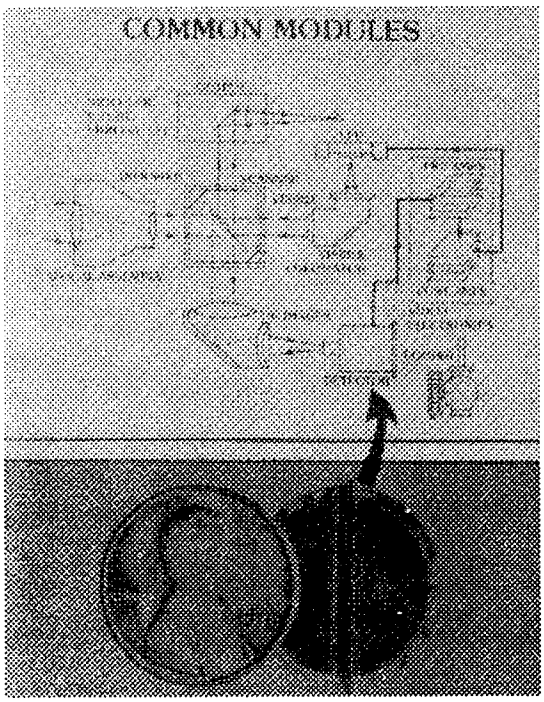
TYPE CLASSIFICATION: Limited Procurement-Urgent approved Jun 82.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
First Option to be Exercised by CCL	1					

SYNOPSIS: CTASC-I IS A MOBILE ADP SYSTEM SUPPORTING COMBAT SERVICE SUPPORT APPLICATIONS AT CORPS AND THEATER LEVELS.

DMM

NIGHT VISION INFRARED COMMON MODULES



SUBJECT OFFICER: Ms. Deborah Williams, DSN 992-3918
COMM 908/532-3918

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: Stock Funded

DESCRIPTION: The Night Vision Common Modules form the basic building blocks for many of the Army's Far Infrared Night Vision Systems such as the AH-64 Apache: Target Acquisition Designation Sight/Pilots Night Vision Sensor (TADS/PNVS); MI Abrams, Thermal Imaging System (TIS); M60A3, Tank Thermal Sight (TTS); Bradley Fighting Vehicle, Integrated Sight Unit (ISU); and the Manportable Common Thermal Night Sights (MCTNS). There are currently close to 40 different Common Modules fielded which fall into one of the following four major categories: Mechanical, Optical, Signal Conversion, and Electrical. The common modules are procured with Stock Funds Depot Reparable and are removed/replaced at Direct Support level. Configuration management is maintained by CECOM Night Vision/Electronic Sensors Directorate. Most of the technical data packages are fully competitive with some prequalification requirements for certain modules due to the state of the art technology.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

1974 Joint Logistics Commanders agree upon a Tri-Service policy of using Common Modules for Forward Looking Infrared (FLIR) development.
1976 DT-591/UA Detector/Dewar accepted as a Common Module.
1978 First Unit Equipped DT-591, DT-617, DT-594.
1984 Initiation of Optical Improvement Program by CECOM Night Vision and Electro-Optics Directorate.
1989 Night Vision and Electro-Optics Directorate approves First Article Test for Optically Improved Detector/Dewars.

REQUIREMENTS DOCUMENT: Required Operational Capability established at End Item Application/System.

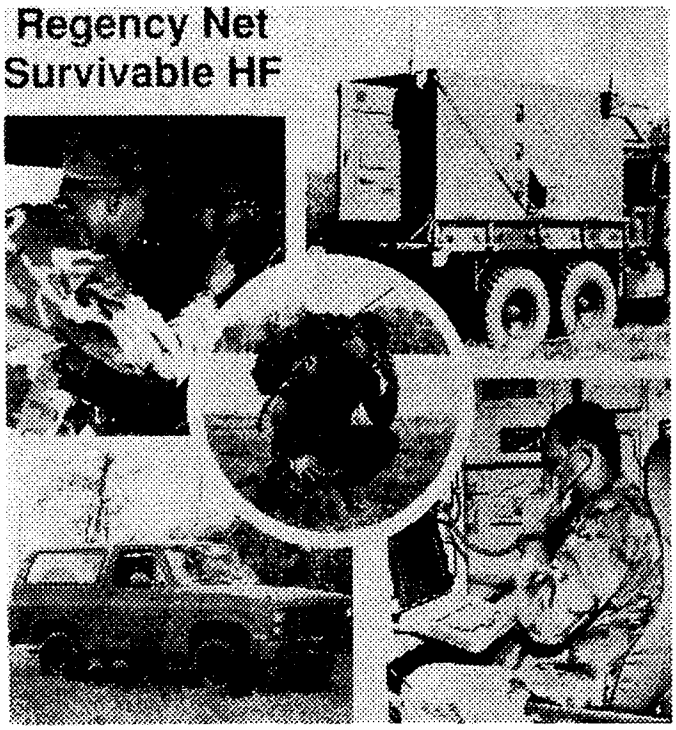
TYPE CLASSIFICATION: Each Common Module has been Type Classified Standard.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
TADS/PNVS Cooler DEWAR 480 EA DAAB07-94-C-J773, J774	----------	-1				
Option DT-635B, 1087 EA, DAAB07-92-C-M225	----------	----3				

SYNOPSIS: NIGHT VISION COMMON MODULES FORM THE BASIC BUILDING BLOCKS FOR MANY OF THE ARMY'S FAR INFRARED NIGHT VISION SYSTEMS.

DMM

REGENCY NET (RN) SYSTEM



PROJECT LEADER Mr. Don Matthews, DSN 992-4489
COMM 908/532-4489

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: BB-8422

DESCRIPTION: The RN System is a Tri-Service program. An NDI acquisition to provide USCINCEUR with an independent, agile, survivable, fully supportable HF C3 system with secure data and voice communications, capable of operating in a wartime environment. The AN/TRC-179(V)1 Force Terminal is the primary element of the RN architecture, housed in an S-711 [TRC-179(V)] shelter. Additional major items include the AN/TRC-179(V)3, Split-Site; the AN/GRC-215 Team Terminal; and the PU-794(G) Generator Set.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: L = 181, W = 96, H = 87 (inches), Weight = 8,200 lbs.

HISTORICAL BACKGROUND:

May 79 ASDC3I assigned Army as lead service.
May 87 Competitive solicitation awarded to Magnavox Corp.
Dec 91 Decision from DISC4 to PEO COMM.
Apr 92 Conditional Materiel Release approved.
Jun 92 Deployment of RN to CINCEUR initiated.
Sep 92 RN project transitioned to USACECOM.
Aug 95 RN transition from Level II to Level III management.

REQUIREMENTS DOCUMENT: Baseline Requirements Document Validated by JCS - Apr 83.

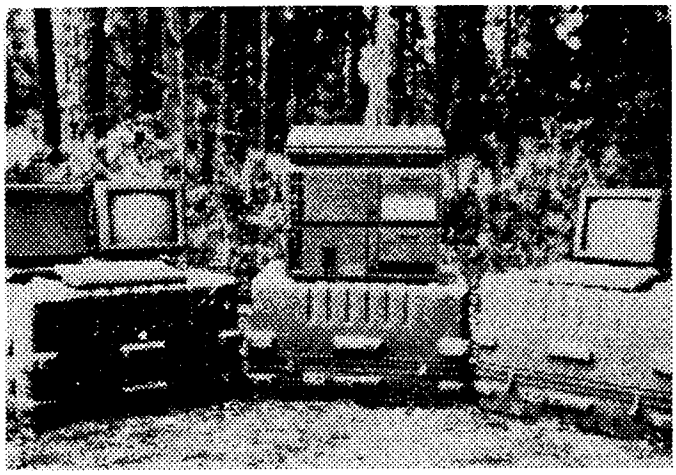
TYPE CLASSIFICATION: Standard approved 13 Apr 93.

EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Enhance Network MGT EQPT		------4					

SYNOPSIS: REGENCY NET HAS REPLACED THE CEMETARY NET SYSTEMS IN EUROPE.

DMM

TACTICAL ARMY COMBAT SERVICE SUPPORT COMPUTER SYSTEM (TACCS)



PROJECT LEADER Mr. David E. Mount, DSN 992-4850
COMM 908/532-4850

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: C72396, C72626, C08565, C72876

DESCRIPTION: The TACCS is an off-the-shelf ruggedized, two-man transportable computer and software system to be used on the battlefield at Company level and above. The basic TACCS will include a central processing unit, random access mass storage, printer, visual display, keyboard entry device, communications interface, and the capability to both archive the mass storage and electronically transfer data between work stations. The system is operated by military personnel of various grades and ADP skill levels and by functional people with no computer programmer training. It provides support to personnel, supply, maintenance, medical, ammunition, and transportation functional areas. TACCS will interface with DAS-3, TCS, and TCT.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: H 22" x W 36" x D 28"; 130 lbs.

HISTORICAL BACKGROUND:

Sep 84 Production contract award.
May 85 First Unit Equipped; First Article Test began.
Jul 90 ECP approved by DA to upgrade the system processor and software (TACCS-E).
Jan 91 Completed delivery of basic TACCS Box under existing contract.
Mar 91 Full Materiel Release granted to TACCS Program; Fielding of TACCS-E retrofit began.
Oct 92 TACCS program transitioned from PM TACMIS to CECOM.

REQUIREMENTS DOCUMENT: USA TRADOC ACN ROC, 82.

TYPE CLASSIFICATION: Limited Production, with full production decision by MAISRC approved Oct 86. Standard approved Nov 90.

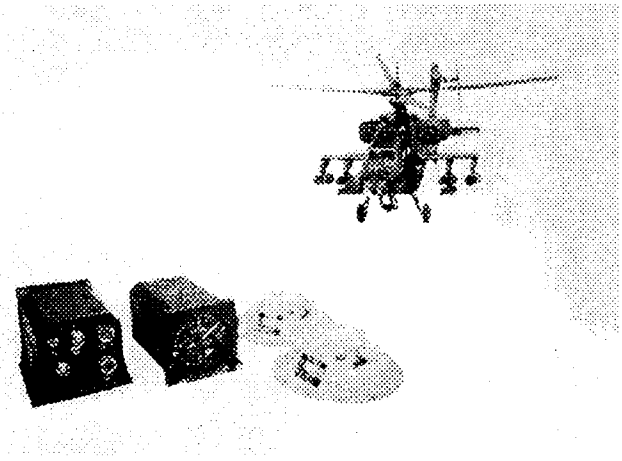
EVENT SCHEDULE	FISCAL YEAR	95	96	97	98	99	00
	QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition Maint-Contract to Depot		——3					

SYNOPSIS: TACCS IS A TRANSPORTABLE COMPUTER AND SOFTWARE SYSTEM PROVIDING SUPPORT TO THE PERSONNEL, SUPPLY, MAINTENANCE, MEDICAL, AMMUNITION AND TRANSPORTATION FUNCTIONAL AREAS. TACCS-E IS A MODIFIED/UPDATED VERSION OF THE TACCS WHICH UTILIZES THE INTEL 80386 PROCESSOR AND BTOS 2 FOR AN OPERATING SYSTEM.

SMD

SMD

AN/APN-209(V), RADAR ALTIMETER SET



PROJECT MANAGER: Mrs. Christa Artest. DSN 992-4481
COMM 908/532-4481

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #:

DESCRIPTION: The AN/APN-209(V) Radar Altimeter Set provides a continuous indication of altitude of an aircraft 0 to 1500 feet above the surface of the earth and the features upon it by transmitting a radar signal to the ground, receiving the reflected signal and indicates the altitude of the aircraft on the Receiver-Transmitter (RT) unit and a remote indicator. The Altimeter Set operates from an aircraft supply having a nominal voltage of 28 volts DC. In addition, the RT Height Indicator displays analog altitude, digital altitude warnings. There is no planned replacement of the AN/APN-209(V). Production quantities are identified through FY95 to support helicopter platforms. A helicopter flying at night is classified as nonmission capable if there is no working Radar Altimeter on board.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 151 cubic inches; 81 lbs.

HISTORICAL BACKGROUND:

Nov 73 Competitive contracts awarded to Honeywell.
Jun 78 Release of AN/APN-209.
Apr 79 Transition from AVRADA to CECOM.
Jul 85 Reliability improvement, reducing number of components.
Jul 89 Transition from DMM Level III to SMD Level II.
Nov 90 Antenna first competitive Production award.
Sep 93 Awarded first competetive buy for Indicator ID-1917.

REQUIREMENTS DOCUMENT: Materiel Needs Statement, DA approved 21 Mar 73.

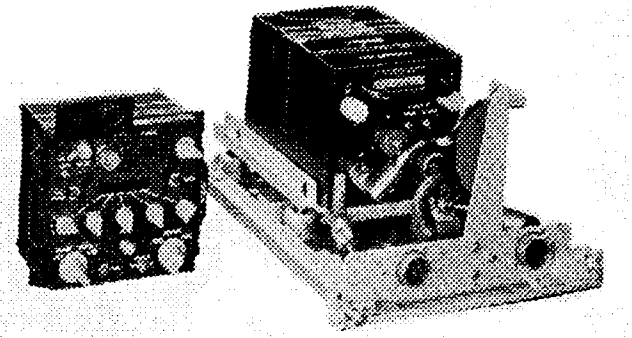
TYPE CLASSIFICATION: Standard approved Jun 76.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Production	----------	----------	-1			
Repair	----------	----------	----------	----------	----------	----4

SYNOPSIS: AN/APN-209(V) PROVIDES AN ACCURATE INDICATION OF ALTITUDE OF AN AIRCRAFT OVER AN ALTITUDE OF 0 TO 1500 FEET. THE ALTIMETER IS REQUIRED IF THE AIRCRAFT IS FLYING AT NIGHT OR OVER FEATURELESS TERRAIN.

SMD

AN/ARC-164(V), HAVE QUICK II (HQ II)



PROJECT OFFICER: Mr. Chris Cardinale, DSN 992-2969
COMM 908/532-2969

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: R13541

DESCRIPTION: The HAVE QUICK II radio set provides a 7,000 channel UHF tunable receiver; an auxiliary guard receiver (nominally 243.000 megahertz) and 10-watt carrier transmitter for normal AM voice and Anti-Jam (AJ) Frequency Hopping communication mode. HAVE QUICK II radio set provides additional AJ improvements and features from the original HAVE QUICK radio.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 345 cubic inches: 12.82 lbs.

HISTORICAL BACKGROUND:

Mar 82 JCS directs all services to use HQ II for Electronic Counter-Countermeasure (ECCM) for UHF band.
Apr 89 SMD directed to take HQ II lead.
Feb 90 Materiel Change for HQ II implementation approved by CG, CECOM.
Jun 92 First HQ I to HQ II modification kit applied.

REQUIREMENTS DOCUMENT: O&O Plan for Army Aviation UHF Radios, Nov 91. CARDS # 0522P.

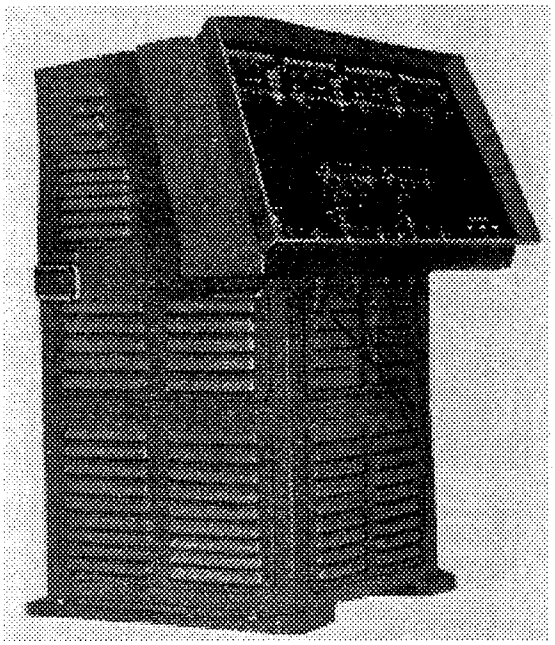
TYPE CLASSIFICATION: Standard A approved 1987.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Manuals	----3					
Training	----3					
Documentation (IATS, MICD)	----3					
Modification Kits (upgrade)	----3----	------4				

SYNOPSIS: HQ II PROVIDES THE ARMY THE ABILITY TO COMMUNICATE WITH THE AIR FORCE, NAVY, AND NATO IN UHF-AM MODE, THE COMMUNICATIONS BAND FOR TACTICAL AIR OPERATIONS.

SMD

AN/ASC-15B/C, COMMUNICATIONS CENTRAL - CONSOLE



PROJECT OFFICER: Mr. Anthony Noyalis, DSN 992-4605
COMM 908/532-4605

ACQUISITION CATEGORY: N/A
ACQUISITION PHASE: MS III Production/Deployment

LIN & BLIN #: C59313 AA0710

DESCRIPTION: The AN/ASC-15B/C console functions as an airborne or ground command post providing tactical voice/data communications in both secure and nonsecure modes. AN/ASC-15B/C is interfaced with the aircraft or ground auxiliary equipment to function as a secure/nonsecure automatic retransmission station and satellite communications command post and to provide channel scanning, intercommunication facilities for up to ten users and communication management for up to four operators. AN/ASC-15B/C provides AM and FM communications in the applicable HF, VHF, and UHF frequency ranges and provides NATO and Tri-Service interoperability during all types of military operations.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Total Volume - 178 = cubic ft, Weight = 1658 lbs.

HISTORICAL BACKGROUND:

Jul 87	Air Worthiness Qualification.
Jul 87-Sep 87	User Testing.
Aug 87-Sep 88	Contract Modifications for an additional 26 systems (total 34 systems).
Sep 90-Jan 91	Unpriced contract awards for 10 systems to support Desert Storm.
Jun 92	Contract award - four systems.
Sep 92	Contract award - seven systems.

REQUIREMENTS DOCUMENT: ROC, March 1991.

TYPE CLASSIFICATION: Limited Production - Urgent approved.

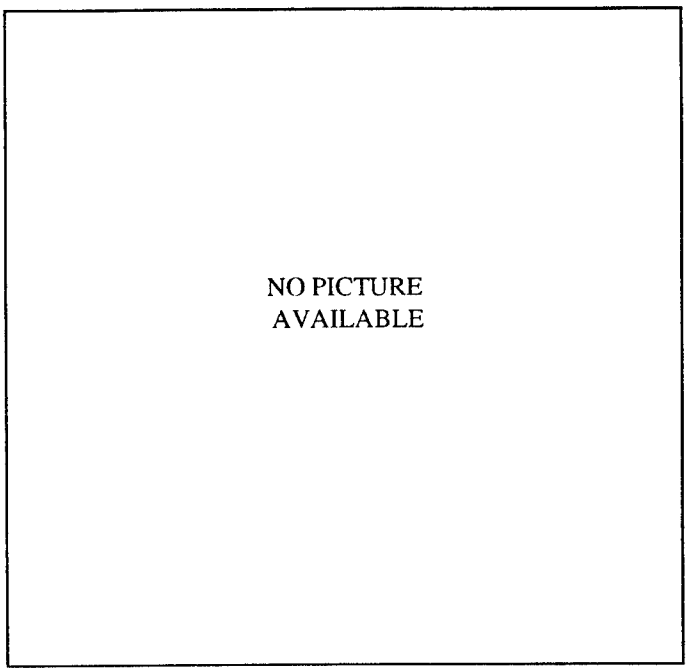
EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fieldings	←2					
10th Mountain Division	←2					
First CAV Division	-1					
4th MECH Division	-1					
101st AASLT Division	2					
2D AR Division	1					
82nd ABN Division	1					
24th MECH Division	2					

SYNOPSIS: AN/ASC-15B/C PROVIDES BATTEFIELD COMMANDERS WITH THE C2 CAPABILITY FOR JOINT SERVICE OPERATIONS TO DIRECTLY CONTROL AND INFLUENCE THE BATTLE.

SMD

AN/AYD-1 PERSONNEL LOCATOR SYSTEM

PROJECT MANAGER: Mr. James MacElderry. DSN 992-4605
COMM 908/532-4605



ACQUISITION CATEGORY: IV
ACQUISITION PHASE: IV - Operations and Support

PE & LINE #:

DESCRIPTION: The AN/AYD-1 Personnel Locator System (PLS) consists of the PRC-112 Radio (Motorola), ARS-6 Personnel Locator (Cubic Corp.) and KY-913 Program Loader (Motorola). The ARS-6 sends out interrogation bursts during combat search and rescue missions looking for PRC-112 radios. If the frequency and ID code of the ARS-6 burst is correct, the PRC-112 sends back a 0.4 second reply to the ARS-6 that provides range and steering information to the pilot. The PRC-112 uses unencrypted voice, beacon and transponder modes but there is also a PRC-112A used by the black world that has built-in COMSEC.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Receiver/Transmitter - L: 12.48" W: 7.59" H: 7.8" Wgt: 21.75 lbs. Control Display unit - L: 4.0" W: 5.75" H: 3.0" W: 2.87 lbs. Remote Display Unit - L: 1.5" w: 3.0" H: 1.87" W: .57 lbs. Mounting Base - L: 15.75" W: 7.92" H: 1.73" W: 2.1 lbs. Antenna Switching Unit - L: 7.6" W: 1.28" H: 5.6" W: 1.38 lbs.

HISTORICAL BACKGROUND:

REQUIREMENTS DOCUMENT: USAF ROC for PRC-112 dated 1969. US Army ROC for ARS-6 dated 1981.

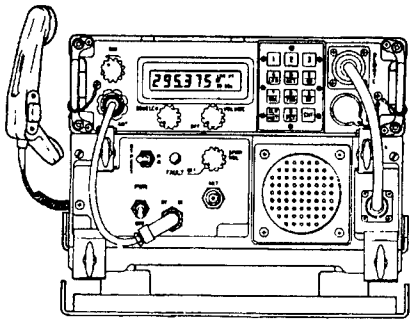
TYPE CLASSIFICATION: AN/PRC-112 and AN/ARS-6 T/C STD in 1989.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
AN/AYD-1 Transition to CECOM Level II Mgt.	3					
NGB fielding	4					

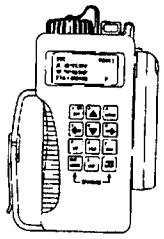
SYNOPSIS: DOWNED PILOT RESCUE RADIO SYSTEM.

SMD

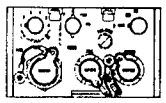
AN/GRC-240, HAVE QUICK II (HQ II) GROUND RADIO



AN/VRC-83 (V)



AN/PSN-11



TSEC/KY-57 & HYP-57/TEC

PROJECT OFFICER: Mr. Chris Cardinale, DSN 992-1349
COMM 908/532-1349

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE: TBD

DESCRIPTION: The HAVE QUICK II radio set provides a 7,000 channel UHF tunable receiver: an auxiliary guard receiver (243.000 megahertz) and 2, 10 and 30 watt carrier transmitter for normal AM voice and Anti-Jam (AJ) Frequency Hopping communication mode. The ground radio function will be to support air-to-ground and ground-to-air UHF-AM communications in the Secure/Anti-Jam mode. The AN/ GRC-240 will replace the AN/VRC-24 on a three for one basis at the Aviation Brigade Headquarters level, on a two for one basis at the Aviation Battalion Headquarters, and a one to one basis at separate Company Headquarters/Flight Operation Level. The mission will be to replace the above two ground radios and support Aviation units that require UHF-AM communications. The missions identified for HQII for this Aviation Command Post (ACP) are as follows: Close, Rear & Deep Operations; Air Assault/Security; Counter-Mobility Command & Control; Medical Evacuation: Attack Armored Force and Offensive Air Combat.

ITEM	P/N	CAGE	NSN
AN/VRC-83	7078123-805	37695	5820-01-291-5415
AS-3588	626489	37695	5985-01-110-1051
AS-3588/MOUNT	PPL-10348	80063	5985-01-258-0037
MT-4626/URC/KY-57	SC-D-884714	80063	5975-01-057-6524
KY-57 CABLE PWD, CX-13421/U, 20 ft	A3157544-3	80063	5955-01-340-9692
AN/PSN-11	822-077-002	13499	5825-01-374-6643
PLGR MOUNT	985-0645-001	13499	5975-01-375-1302
PLGR CABLE PWD	462-0144-010	82389	6150-01-375-8661
AS-4333/V	013-1925-030	79329	5985-01-375-4660
HAVE QUICK CABLE	426-0141-040	13499	6150-01-375-8665
AS-4333/V CABLE	426-0141-050	82389	6150-01-375-8662
CASE	021-0706-010	13499	5895-01-375-7528
TSEC/KY-57			5810-00-434-3644
HYP-57/TSEC			5810-01-026-9622

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 20" L x 17" H x 13" D; 78 lbs.

HISTORICAL BACKGROUND:

Mar 82 JCS directs all services to use HQII for Electronic Counter-Countermeasure (ECCM) for UHF band.
Apr 89 SMD directed to take HQII lead.
Feb 90 Material Change for HQII implementation approved by CG, CECOM.
Oct 94 PROTO-TYPE Ground System available for test.

REQUIREMENTS DOCUMENT: O&O Plan for Army Aviation UHF Radios, Nov 91.

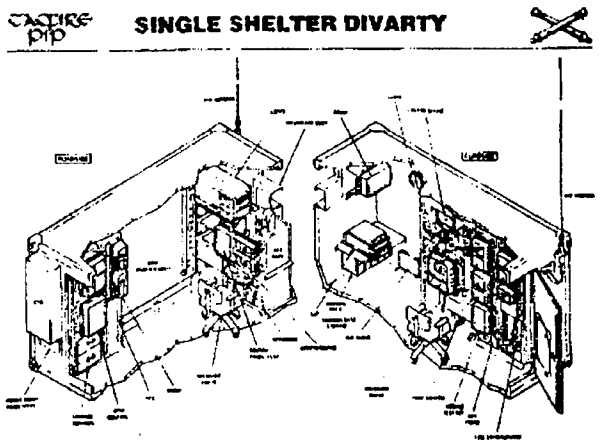
TYPE CLASSIFICATION: Standard A approved 1989 by Air Force. NDI to the Army.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Technical Manuals	----3					
Training	----3					
Documentation	----3					
Hardware (NDI)	3----	--------	--2			
Spares	3----	--------	--2			

SYNOPSIS: HQ II PROVIDES THE ARMY THE ABILITY TO COMMUNICATE WITH THE AIR FORCE, NAVY, AND NATO IN UHF-AM MODE, THE COMMUNICATIONS BAND FOR TACTICAL AIR OPERATIONS.

SMD

AN/GSG-10, TACFIRE



PROJECT OFFICER: Mr. Tom McGrath, DSN 992-6052
COMM 908/532-6052

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: F55750 (CORPS DIVARTY)
F55818 (DIVISION DIVARTY)
F83626 (BATTALION)

DESCRIPTION: TACFIRE is composed of computers and remote devices linked by digital communications using existing radio and wire communications equipment. TACFIRE automates selected field artillery command and control functions to provide efficient management of fire support resources.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Can be transported by regular modes of motor and rail service. Compatible for loading by air in C130, C141, C124, C133, and C5A aircraft.

HISTORICAL BACKGROUND: The last TACFIRE fielding was completed in 1987. Installations of the two major modifications (Upgraded Counterfire Equipment and CP-1822) were completed in 1990. The TACFIRE/MSE interface device is currently being fielded. Replacement of TACFIRE by IFSAS began 2Q94.

REQUIREMENTS DOCUMENT: QMR, Mar 66.

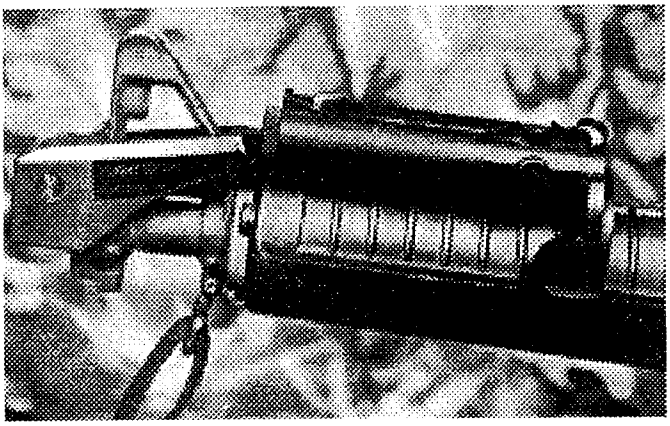
TYPE CLASSIFICATION: Standard approved Oct 78.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
TACFIRE MSE INTFC Device Fielding	———	—2				
IFSAS Begin Replacing TACFIRE	———	———	—2			

SYNOPSIS: TACFIRE AUTOMATES SELECTED FIELD ARTILLERY COMMAND AND CONTROL FUNCTIONS TO PROVIDE EFFICIENT MANAGEMENT OF FIRE SUPPORT RESOURCES.

SMD

AN/PAQ-4B, INFRARED AIMING LIGHT



PROJECT LEADER: Ms. Kathleen A. Sporer. DSN 992-5271
COMM 908/532-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: SSN: K35000

DESCRIPTION: The AN/PAQ-4B is an infrared aiming light which is attached to the M16 (A1, A2) Rifle, M60 Machine Gun, M2 Machine Gun, M249 SAW, M4 Rifle. AN/PAQ-4B sends out an invisible light beam along the Line-of-Sight. Visible only with night vision goggles, the projected spot of light appears at the exact point where the weapon is aimed. The fired round impacts in the center of the spot of light on the target when properly boresighted. Fielding is two per infantry squad.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 5.5" x 2.5" x 1.2", 8" x 12" x 10" (Transit Case).

HISTORICAL BACKGROUND:

1979	First Production contract award awarded to Ni-Tech for 1156 units ($625 each). (AN/PAQ-4).
1982	First Unit Equipped; Units sent to SOF.
Feb 89	SOUTHCOM requested units for mission req'mts; Prod'n contract awarded to Insight Tech. for 10,800 units (AN/PAQ-4A).
Mar 92	Production awarded to Insight Technology (multi-year buy out). (AN/PAQ-4B)
Dec 94	Fielding started on the AN/PAQ-4B.
Jan 95	Fielding started on the AN/PAQ-4C.

REQUIREMENTS DOCUMENT:

Letter Requirement (TRADOC).

TYPE CLASSIFICATION:

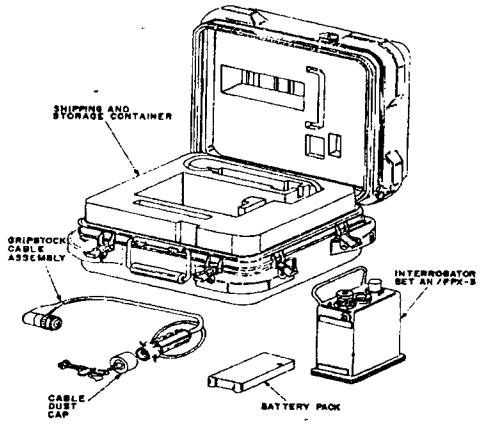
Standard (1992)

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fielding	1------	------4				

SYNOPSIS: THE AN/PAQ-4B IS AN INFRARED AIMING LIGHT ATTACHED TO THE M16 (A1 & A2) RIFLE, M60 MACHINE GUN, M2 MACHINE GUN, M249 SAW AND M4 RIFLE THAT SENDS AN INVISIBLE PULSING LIGHT BEAM ALONG THE LINE-OF-SIGHT.

SMD

AN/PPX-3, INTERROGATOR SET



PRODUCT MANAGER: Mr. Rene Acosta, DSN 992-5105
COMM 908/532-5105

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: J98501 SSN: C1960000LST

DESCRIPTION: Man portable, ground to air IFF interrogator. Transmits a coded interrogation and receives and processes coded replies. Capable of mode 4 operation compatible with transponders in Mark X and Mark XII systems. It is worn as a belt pack connected to weapon by plug in cable.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jan 93 Transitioned from Level III to Level II.

REQUIREMENTS DOCUMENT:

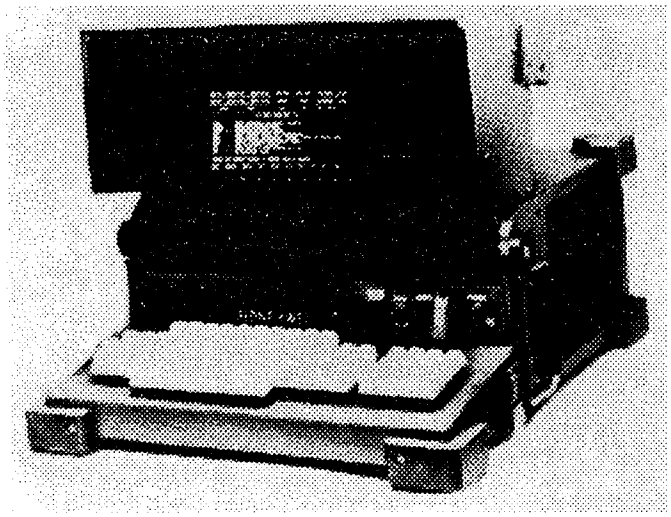
TYPE CLASSIFICATION: Standard A approved Sep 82.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Initiate Screen and Repair Program with Teledyne		1				

SYNOPSIS: AN/PPX-3 IS AN INTERROGATOR FRIEND OR FOE (IFF) SYSTEM.

SMD

AN/UGC-144, COMMUNICATIONS TERMINAL



PROJECT OFFICER: Mr. George Ambrosia, DSN 992-5271
COMM 908/532-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 1X428010.A1905028

DESCRIPTION: The AN/UGC-144 is a formal record traffic communications terminal capable of storing, editing, display-ing, transmitting, receiving and printing record traffic in the R (General Service) and Y (Intelligence) communities at all echelons of a tactical communications system. The equipment is user owned and operated.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Two Man Lift. 69 lbs (32 KG)

HISTORICAL BACKGROUND:

Jun 90 1st fielding.
Jul 90 Materiel Release.
Oct 90 VECP Auxiliary Storage Cassette approved.
Apr 92 Final Logistics Support Concept (FLSC) on contract.
May 93 Transitioned to Level II Management.
Oct 93 Software Version 2.2 Released.
Dec 93 Organic depot level maintenance began at Tobyhanna Army Depot.

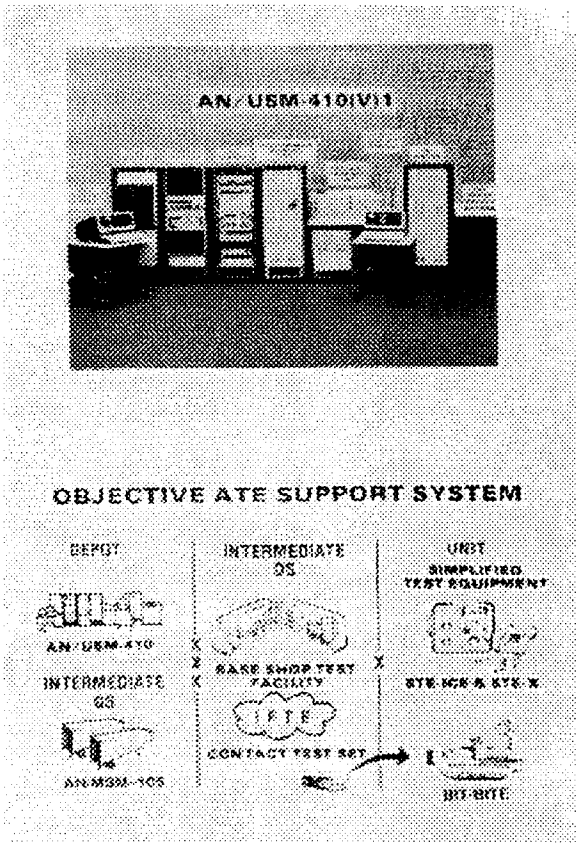
REQUIREMENTS DOCUMENT: NDI ROC approved by HQDA Jul 86.

TYPE CLASSIFICATION: Standard approved Oct 86.

SYNOPSIS: AN/UGC-144 COMMUNICATIONS TERMINAL IS A MODERN COMMUNICATIONS TERMINAL EMPLOYING SOLID STATE ELECTRONICS AND MICROPROCESSOR CONTROL OF FUNCTIONS.

SMD

AN/USM-410, ELECTRONIC QUALITY ASSURANCE TEST EQUIPMENT (EQUATE)



PROJECT MANAGER: Mr. Ed Leary, DSN 992-6052
COMM 908/532-6052

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: T61973, R09696

DESCRIPTION: The AN/USM-410 is a stand-alone, computer controlled Automatic Test system capable of providing diagnostic, analog, digital and hybrid test and repair capability at GS and depot levels to numerous weapons systems (e.g., MI, BFVS, IEW systems, FIREFINDER). AN/USM-410(V)2 is the primary testing resource in the AN/MSM-105(V)1 field, transportable, electronic test and repair system. AN/USM-410(V)4 was developed for use within the Electronic Equipment Test Facility (EETF), providing Aviation Intermediate Maintenance (AVIM) support to the APACHE Attack Helicopter. Non-tactical versions of the AN/USM-410 are used in depot and contractor facilities for production and repair.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: C-5 Transportable only; 2 Each 35' SEMITRLRS. W = VAN 8', H = 12', Cu 3,636 23,000 lbs x 2 = 46,000 lbs.

HISTORICAL BACKGROUND:

Aug 78 Type Classified Limited Procurement authorization for 41 MSM-105s by Special IPR (SIPR).
Dec 79 AN/MSM-105 designated by DARCOM to fulfill GS/Depot Automatic Test Equipment (ATE) requirement.
Mar 80 Letter IPR authorized 17 more AN/MSM-105s.
Jun 83 Initial Operational Capability (USAREUR).
Jul 91 EETF Type Classified.
Jul 92 ECP-185 Materiel Release Approved.
Jan 93 ECP 185 Field Retrofit for EETF Complete.
Sep 94 Delivery of APACHE AN/USM-410A(V)4 Systems to Foreign Military Sales Complete (Israel, Egypt, Saudia Arabia, UAE and Greece).

REQUIREMENTS DOCUMENT: Required Operational Capability, 22 Feb 80.

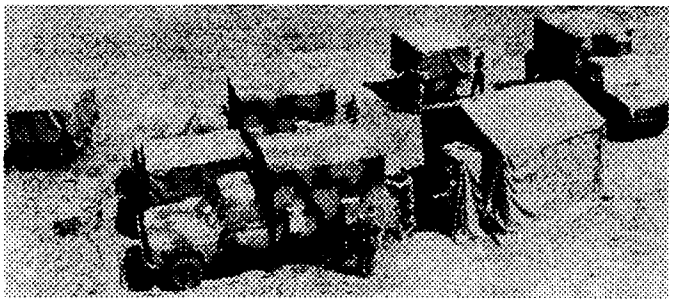
TYPE CLASSIFICATION: Standard approved May 82 for the AN/USM-410(V)1 and AN/USM-410(V)3; Limited Procurement for the AN/USM-410(V)2, OQ-290(V)1/MSM, and OA-8991/MSM approved May 82. The AN/USM-465A Digital Card Tester Type Classified Standard Jan 93.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Eng'g to award for Printer Interface Adapter & Obsolescence Issues	4					
Fielding of overhauled EETF to Korea		3				
Fielding of printer interface adapter		4				
Organic Overhaul program initiated at TOAD for EETF	4---	---2				

SYNOPSIS: AN/USM-410 IS A GENERAL PURPOSE FAMILY OF COMPUTER CONTROLLED ATE USED FOR TEST, DIAGNOSIS AND REPAIR OF ELECTRONIC LINE REPLACEABLE UNIT, SHOP REPLACEABLE UNIT, AND PRINTED CIRCUIT BOARDS CONTAINED IN NUMEROUS WEAPONS SYSTEMS.

SMD

CORPS/THEATER ADP SERVICE CENTER-II (CTASC-II)



PROJECT OFFICER: Ms. R. LaMacchia, DSN 992-6052
COMM 908/532-6052

ACQUISITION CATEGORY:
ACQUISITION PHASE:

PE & LINE #: Z81820

DESCRIPTION: The CTASC-II system provides the Army with transportable ADP information systems employed by major subordinate commands at corps and theater levels. CTASC-II Block I provides and processes medical Standard Army Management Information System (STAMIS) software at corps and echelons above corps (EAC). It is organic to the Materiel Management Center (MMC); Theater Medical Materiel Management Center in the Medical Command (MEDCOM); and the Medical Supply Optical and Maintenance Battalion (MEDSOM). It also exchanges information with other information systems. CTASC-II consists of commercial off-the-shelf computers and communications equipment housed in rigid-wall shelters transported by three Commercial Utility Cargo Vehicles (CUCVs).

TRANSPORTATION CHARACTERISTICS / LIMITATIONS:

HISTORICAL BACKGROUND:

PHASE I - PROOF OF PRINCIPLE:

3QFY87	DA Milestone 0.
2-4QFY87	Prototype Development - mock-up.
1-3QFY88	Prototype Development - sheltered system.
3QFY88	Technical Feasibility Test 1.
4QFY88	Early User Test & Evaluation; DA Major Army Information System Review Council (MAISRC) Milestone I/II.

PHASE II - PRE-PRODUCTION PROVE-OUT:

4Q88-2Q89	Technical Feasibility Test 2.
1QFY90	Pre-Production Prove-Out Testing.
3QFY90	First Unit Equipped - Block I Hardware.
4QFY90	Maintainability Demonstration; TAMMIS Milestone III; Limited Production TAMMIS/ODS.
4QFY91	Exec. Software Acceptance Test; Physical Config. Audit on Tech. Data.
1-2QFY92	SARSS Software Acceptance Test (post-ODS).

REQUIREMENTS DOCUMENT: O&O, 19 Dec 89; ROC, 6 Feb 91.

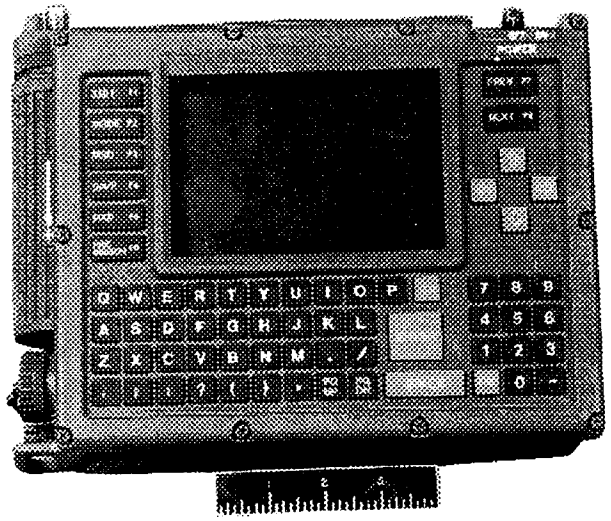
TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition	2					

SYNOPSIS: CTASC-II SYSTEM PROVIDES THE ARMY WITH TRANSPORTABLE ADP INFORMATION SYSTEMS TO BE EMPLOYED BY MAJOR SUBORDINATE COMMANDS AT CORPS AND THEATER LEVELS.

SMD

FORWARD ENTRY DEVICE (FED)



PROJECT OFFICER: Ms. Linda Johnston, DSN 992-6052
COMM 908/532-6052

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 5213

DESCRIPTION: The Forward Entry Device (FED) is a battlefield automation system with specific application in fire support within the Army Tactical Command and Control System (ATCCS). The FED is a remote data-entry device that provides digital message processing and data storage in the conduct and planning of fire support operations at maneuver platoon, company, battalion and brigade levels. The FED uses the Simplified Handheld Terminal Unit (SHTU), a CHS nondevelopmental item, and special fire support software applications. The FED has evolved into a mature system through three software versions: Forward Observer/Fire Support Team (FO/FIST), Forward Observer Command and Control (FOCC) and Meteorological Survey (MSR). FED FUE was in Jun 92. Fielding to all Light Infantry Divisions has been completed, however, due to size and weight considerations the FED was not fielded to the Forward Observer and the Aerial Observer. The availability of a lightweight FED (LFED) to meet this requirement is being explored. FED fielding is ongoing. A requirement to comply with MIL-STD-188-220 requires additional (version 2) software development and an upgrade to the current FED configuration. A Materiel Change program plan has been submitted for funding consideration to support this effort.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Dimensions are 10.75" x 7.75" x 2.5". Weight: 6.84 lbs. System is transportable within the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV), Fire Support Team Vehicle (FISTV), SUSV and by foot soldiers in its carrying case.

HISTORICAL BACKGROUND:

Mar 91 Milestone III approval; Production buy awarded.
Jun 92 FUE FED with FO/FIST software.
Aug 92 FOCC IOT&E; Full Materiel Release Approval.
May 93 FOCC Full Materiel Release.
Jun 93 FOCC FUE.
Mar 94 MSR Material Release; MSR FUE.
Jul 94 Materiel Change Approval.

REQUIREMENTS DOCUMENT: Quantitative Materiel Requirement - TACFIRE, 1966; Army Tactical Command and Control Systems Annex (H/W), 1986; Draft Annex E to ATCCS Fire Support ORD for AFATDS, 1993.

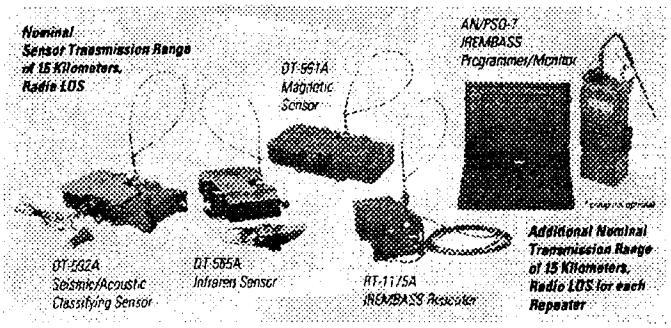
TYPE CLASSIFICATION: Standard, Mar 91.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Fieldings to Active, Reserve, National Guard Complete	1					
Non Recurring Engineering/Prototype Acquisition	4---	----3				
Procure and Field Upgrade Kits			4-	-------	-------	-------
Version 2 FED (Pkg 11) SW Development, Testing & Release	-------	-------	-------	-1		

SYNOPSIS: FED WILL BE EMPLOYED TO COMPOSE, EDIT, TRANSMIT, RECEIVE, STORE AND DISPLAY MESSAGES USED IN THE EXECUTION AND PLANNING OF FIRE SUPPORT OPERATIONS AT MANEUVER PLATOON, COMPANY, BATTALION AND BRIGADE LEVELS.

SMD

IMPROVED-REMOTELY MONITORED BATTLE-FIELD SENSOR SYSTEM (I-REMBASS)



PROJECT LEADER: CPT Hyon Choe, DSN 992-5271
COMM 908/532-5271

ACQUISITION CATEGORY: III
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #: 23751.D475 SSN: BP1002

DESCRIPTION: The I-REMBASS is an all weather, day/night, passive, ground-based unattended sensor system. It is a downsized derivative of the fielded REMBASS systems. I-REMBASS consists of three types of sensors (passive IR, magnetic, and seismic-acoustic), the hand-held Monitor Programmer (AN/PSQ-7) and a small, lightweight radio repeater, RT-1175A/GSQ. I-REMBASS is fielded to the Special Operations Forces (SOF) for ground surveillance in deep penetration/denied area operations, in Low Intensity Conflict (LIC), and for surveillance of hostile activity behind enemy lines. Also, it is fielded to the RTSI for counterdrug operations. It detects moving targets and classifies them as personnel, wheeled vehicles or tracked vehicles. The system transmits real time reports on activity within the sensor's detection radius. The I-REMBASS utilizes either lithium or alkaline batteries and has a graphics software package in Ada for graphics display on an MS-DOS based lap top computer.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 6' L x 6' W x 6' H (1 Set).

HISTORICAL BACKGROUND:

May 92 Type Classified - Standard.
Jun 92 Production Contract Award.
Feb 93 Emergency Fielding.
Aug 93 Final Buy-Out Award.
Apr 95 Fielding to SOF completed.

REQUIREMENTS DOCUMENT: ROC approved Nov 86.

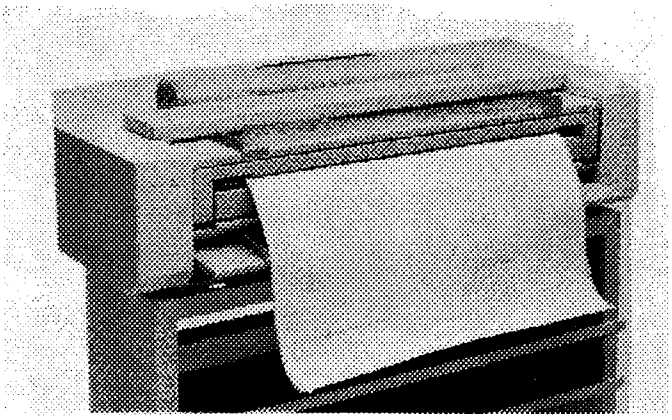
TYPE CLASSIFICATION: Standard approved 3QFY92.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Transition to SMD	1					
Fielding Completion	3					
FMS Fielding (Kuwait)	3					
Competitive Production Award		1				

SYNOPSIS: I-REMBASS IS AN ALL WEATHER, DAY/NIGHT, PASSIVE, GROUND-BASED UNATTENDED SENSOR SYSTEM.

SMD

LARGE-SCALE TACTICAL DOCUMENT COPIER



PROJECT MANAGER: Mr. Mario Ambrosio, DSN 992-8943
COMM 908/532-8943

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #:

DESCRIPTION: The Large-Scale Tactical Document Copier program was initiated as a result of direction from the Battle Command Integration Program General Officer Steering Committee to field a non-developmental item (NDI) copier capable of reproducing large documents up to 36 inches in width. This copier reproduces large documents such as battle maps and mission overlays which are required to coordinate battlefield activities. A ruggedized case is provided to transport the copier and associated support items for field deployment. This item has been approved for Common Table of Allowance (CTA) distribution.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: 55 x 19 x 13.5 (in.), Weight = 180 lbs.

HISTORICAL BACKGROUND:

Jan 88	III Corps identified a need for a tactical large-scale copier.
Apr 88	CACDA tasked SIGCEN to identify NDI copier to meet mission needs.
Aug 90	General Officer Steering Committee directs expeditious completion of copier testing and fielding activities.
Mar 91	CECOM TAC completes testing on Xerox copier.
Feb 92	Program management responsibilities transferred to SMD to direct copier acquisition and fielding activities.
Jun 92	Contracts awarded for copier and associated support components.

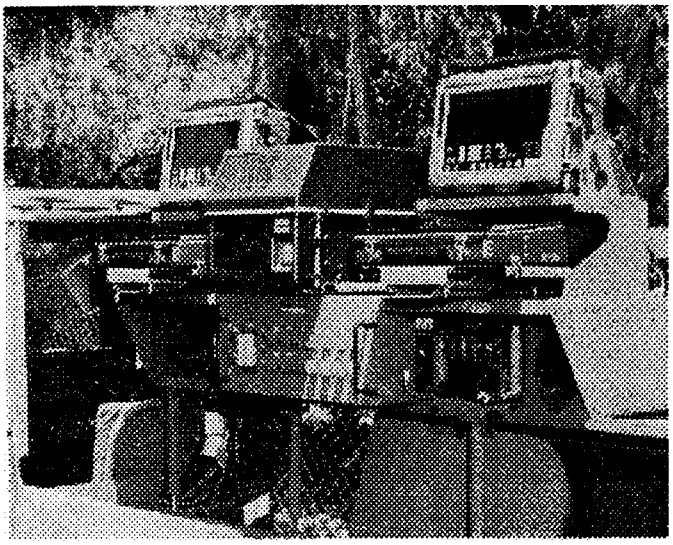
REQUIREMENTS DOCUMENT: General Office Steering Committee Directs 2510 copier for fielding Aug 90.

TYPE CLASSIFICATION:

SYNOPSIS: THE LARGE-SCALE TACTICAL DOCUMENT COPIER IS A COMMERCIAL COPIER CAPABLE OF BEING DEPLOYED TO REPRODUCE BATTLE MAPS AND MISSION OVERLAYS.

SMD

LIGHTWEIGHT TACTICAL FIRE DIRECTION SYSTEM (LTACFIRE)



PROJECT OFFICER: Mr. Tom McGrath, DSN 992-6052
COMM 908/532-6052

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS IV Operations/Support

PE & LINE #: 5212

DESCRIPTION: The LTACFIRE is designed to provide a light-weight transportable and user friendly automated fire support system, for use within the light infantry divisions (LID). A prototype system was fielded to the 9th Infantry Division at Ft Lewis, WA in 1985 under the experimental test bed concept. Fielding to the seven LIDs began in Sep 90 and was completed Jan 92.

LTACFIRE provides the Division Artillery (DIVARTY) of the light division a fully automated means to plan, control and execute fires of field artillery and mortars. Computer terminals are located at artillery battalion, DIVARTY, and Division Fire Support Element and Brigade FSE nodes. Communications between nodes and with a variety of interfacing devices is accomplished via communications means already available to the light infantry division. LTACFIRE functions are used to automate the manual techniques that were used in the light infantry's artillery battalions and DIVARTY. These include non-nuclear fire planning; tactical fire control; ammunition and fire unit data; meteorological data, artillery target intelligence and support/geometry information.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: Capable of Worldwide Transport by Air, Ship, Rail, Ground and Military Transport to Include LVAD and EAT.

HISTORICAL BACKGROUND:

Oct 82 Quick Reaction Program, QRP-2-32.
Dec 87 Congress mandated obligation of FY86 OPA funds for procurement of LTACFIRE for the Light Divisions.
Mar 88 Letter contract awarded to Litton Data Systems.
Sep 90 FUE.
Feb 92 Last unit equipped.

REQUIREMENTS DOCUMENT: QRP-2-32, Dec 87, HQDA directed that FY86 funds be used to procure LTACFIRE for seven light divisions.

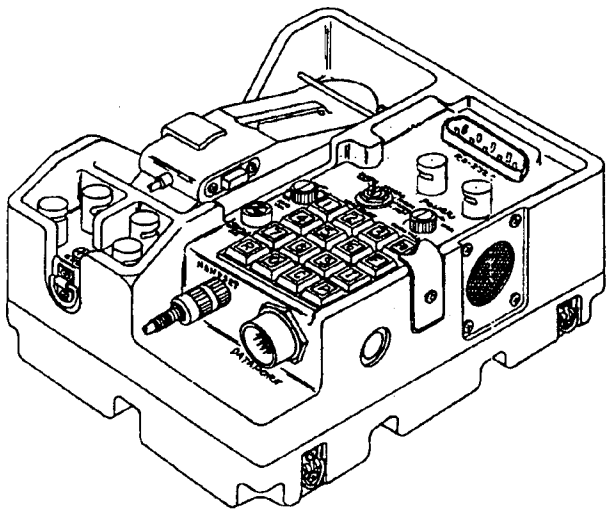
TYPE CLASSIFICATION: Type Classification requirement waived.

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
LTACFIRE MSE INTFC Device Fielding	1-------	--2				
BCT Memory upgrade (TCIMS)	1-------	----3				
New PDSS/Hardware Support Contract Award		4				

SYNOPSIS: LTACFIRE IS DESIGNED TO PROVIDE A LIGHTWEIGHT TRANSPORTABLE AND USER FRIENDLY AUTOMATED FIRE SUPPORT SYSTEM FOR USE WITHIN THE LIGHT INFANTRY DIVISION.

SMD

TACTICAL TERMINAL ADAPTER (TTA)



PROJECT MANAGER: Mr. W. Schlosser, DSN 992-5271
COMM 908/532-5271

ACQUISITION CATEGORY: IV
ACQUISITION PHASE: MS III Production/Deployment

PE & LINE #:

DESCRIPTION: The TTA is an interface device which enables any Personal Computer (PC) with the DOS operating system and an RS-232C port to transmit/receive data over the Mobile Subscriber Equipment (MSE) circuit-switch (voice) or packet switching (data) networks. The TTA emulates the functionality of a Digital Non-Secure Voice Terminal (DNVT) in order to transmit/receive data over the MSE circuit switch network. The ability of the TTA to transmit/receive data over the MSE packet network is achieved through the incorporation of X.25 communications protocol software. The TTA is available in both a ruggedized & non-ruggedized version and is authorized for Army-wide distribution via Common Table of Allowance (CTA) 50-909.

TRANSPORTATION CHARACTERISTICS / LIMITATIONS: None.

HISTORICAL BACKGROUND:

Jun 92 Sole Source Procurement of 1100 TTAs from Star Dynamic Corporation.
Jan 93 SMD assumes Program Management from PM, TACMIS.
Feb 93 SMD issues user survey for identification of TTA requirements.
Apr 93 HQDA approves TTA for inclusion into Common Table of Allowances (CTA) 50-909.
May 94 Contract awarded for ruggedized TTA.
Mar 95 FA test report accepted.
Jul 95 Production deliveries begin.

REQUIREMENTS DOCUMENT:

TYPE CLASSIFICATION:

EVENT SCHEDULE / FISCAL YEAR	95	96	97	98	99	00
QTR	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
FA Test on Ruggedized Version	2					
Production Delivery	3----	-1				

SYNOPSIS: THE TTA PROVIDES THE CAPABILITY TO INTERFACE PERSONAL COMPUTERS TO THE MOBILE SUBSCRIBER EQUIPMENT IN ORDER TO TRANSMIT/RECEIVE DATA.

APPENDICES

ALPHABETICAL INDEX BY ACRONYM

ALPHABETICAL INDEX BY ACRONYM

SYSTEM/EQUIPMENT INDEX BY NOMENCLATURE

SYSTEM/EQUIPMENT INDEX BY NOMENCLATURE

ALPHABETICAL INDEX BY SYSTEM/EQUIPMENT NAME

ALPHABETICAL INDEX BY SYSTEM/EQUIPMENT NAME

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