BRINGING THE NETWORK TO THE BATTLEFIELD
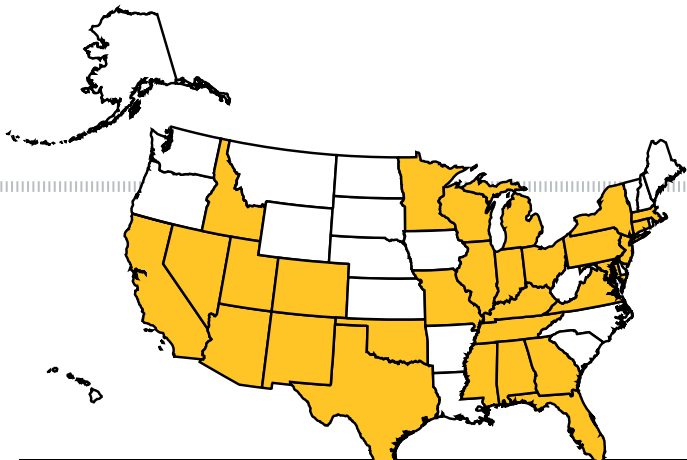
2011 PORTFOLIO

PEO★C3T

PROGRAM EXECUTIVE OFFICE COMMAND CONTROL COMMUNICATIONS-TACTICAL

PEO C3T
MISSION

The mission of Program Executive Office Command, Control and Communications-Tactical (PEO C3T) is to develop, field, and support fully capable solutions to enhance mission command. ★ PEO C3T's vision is to remain the Army's premier team providing proven, innovative networked battle command solutions for the Soldiers of today and tomorrow.
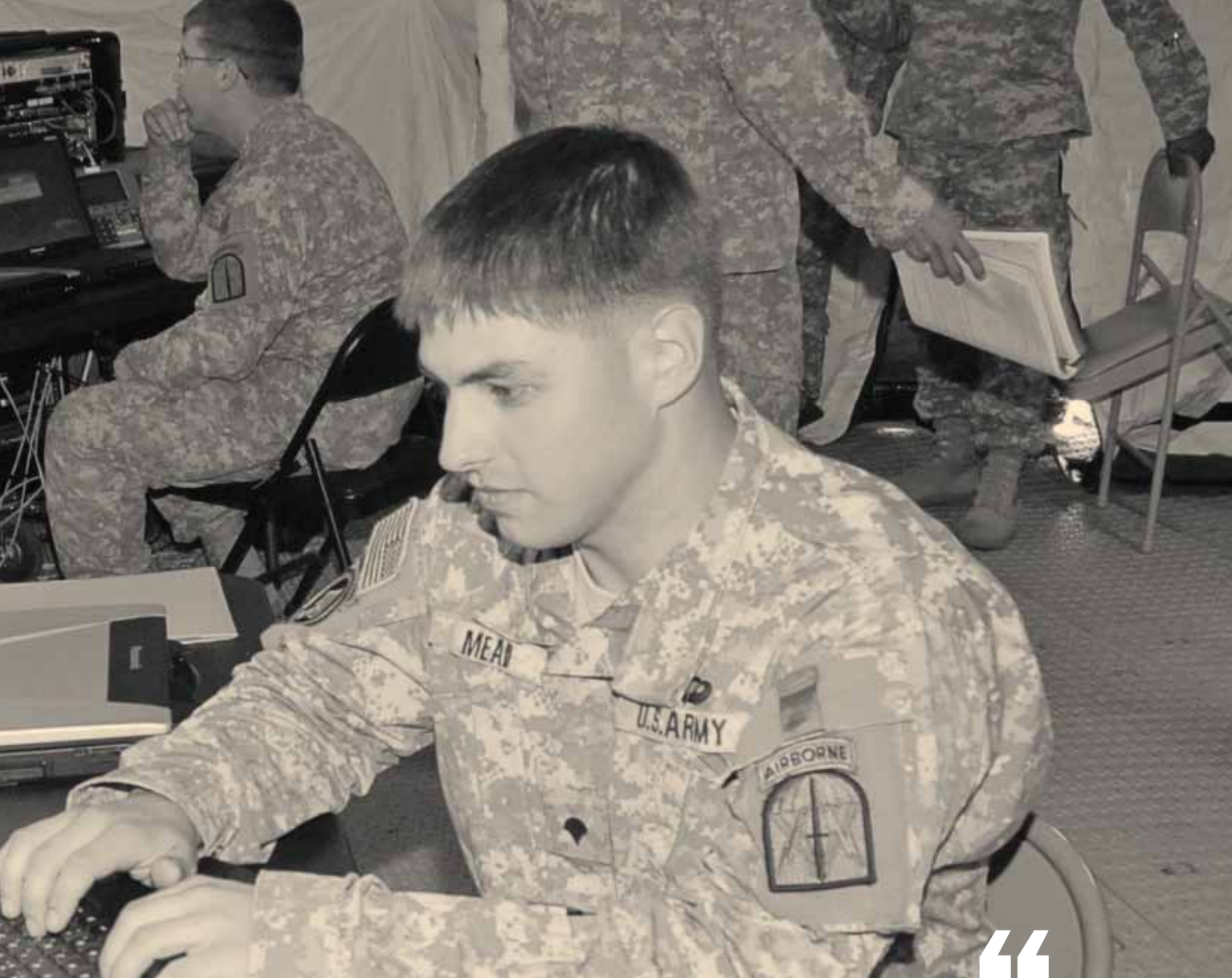
The reach of government and contractors of PEO C3T extends to more than half the United States.

PEO★C3T
PROGRAM EXECUTIVE OFFICE COMMAND CONTROL COMMUNICATIONS-TACTICAL

CONGRESSIONAL LOCATIONS

Headquartered in Md., the Army's Program Executive Office for Command, Control and Communications-Tactical (PEO C3T) and its subordinate organizations provide Soldiers with the networked battle command solutions they require to dominate now and in the future. Our primary objective is equipping and supporting forces deployed to theater. We are constantly adapting our technologies to meet the ongoing needs of these units. We provide 24/7 support for the systems we field.

In the present wars in Afghanistan and Iraq, the PEO C3T team has reduced fratricide through celestial and terrestrial systems that allow users to view icons on their maps showing the location of enemy, friendly and neutral people, objects or events. We have brought an unprecedented level of collaboration to commanders who plan operations and experience shared intelligence on a computer screen. We field the satellite communications pipe on which Soldiers utilize those systems and others, such as those for fires and logistics planning and capabilities that sense, locate and respond to indirect fire.

Our staff supports 43 key acquisition programs with expertise in the areas of computer science, program management, engineering, information technology, security, logistics, contracting and procurement and accounting and budget. We develop, acquire and field a diverse range of products including software command and control applications, power generators, radios, computers, servers and the integrators that allow all the systems and components to function seamlessly.

At any given moment, you can find us at the Soldier's side, whether in combat training centers and remote locations within the continental United States or outside the U.S. PEO C3T sustains the force with over-the-shoulder training and system troubleshooting, so Soldiers can focus on their prime objective, which is engaging the enemy. We have supported 118 active component units in the five-phased Army process, known as Unit Set Fielding, where we train, equip, ready and Reset the force with the networked battle command solutions the Soldier needs.

> **"**
> *PEO C3T will vigorously pursue our goals, from delivering the network to austere regions around the globe to empowering the company Commander and dismounted Soldier with the right information to execute their mission.*
>
> **BG N. Lee S. Price,**
> *Brigadier General, US Army*
> *PEO C3T*
> **"**

TABLE OF CONTENTS

The information contained herein is current as of May 2011.

AFATDS
MISSION

The Advanced Field Artillery Tactical Data System (AFATDS) provides Army, Navy, and Marine Corps with automated fire support command, control and communications. AFATDS pairs targets to weapons to provide optimum use of fire support assets and timely execution of fire missions. AFATDS automates the planning, coordinating and controlling of all fire support assets.

CONGRESSIONAL LOCATIONS
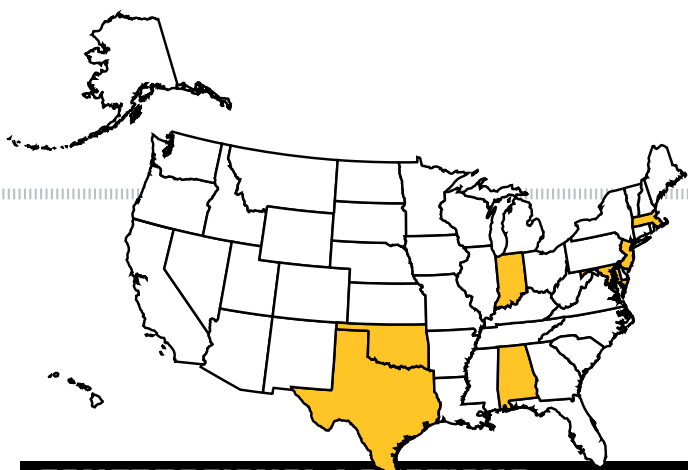
KEY CONTRACTORS

- General Dynamics
- Northrop Grumman
- Raytheon
- CSC
- CACI

DESCRIPTION

As the primary fire support system for Army Battle Command, AFATDS provides expert operators and commanders with situational awareness, battle management, target analysis, and target engagement tools. It provides fully automated support for planning, coordinating, and controlling mortars, field artillery cannons, rockets, guided missiles, close air support, attack helicopters and naval gunfire for close support, counter-fire, interdiction, suppression of enemy air defenses and deep operations. Integrated within the fires components of joint command centers for the U.S. Air Force and U.S. Navy, as well as the Army, AFATDS is known as a "multi-service" system. AFATDS will perform the fire support command, control and coordination requirements at all echelons of field artillery and maneuver, from Echelons Above Corps to Battery or Platoon in support of all levels of conflict. AFATDS will interoperate with the other Army Battle Command Systems, current and future Navy and Air Force Command and Control systems and some Coalition fire support systems. AFATDS is the key fire support system in the current force and is positioned to provide net-centric and web-based functionality for the future force.

CAPABILITIES

- Tactical Air Support Capability/ Technical Fire Control
- Expanded Target Coordination & Trigger Events
- Capable of processing 200 fire missions per hour
- Air Force/Navy Command and Control Interface
- Improved Attack Analysis and Target List
- Deployment orders to fire support radars
- Web services to distribute fire support units, targets, and fire support geometries
- Support for 3D Common Operating Picture (COP)
- Robust communications and tactical messaging capabilities

PROGRAM STATUS

- 4QFY10-1QFY12: Development CS 13-14
- 1QFY11: Materiel Release CS 11-12
- 1QFY11-3QFY11: Fielding CS 11-12

PROJECTED ACTIVITY

- FY12-FY13: Development CS 15-16
- 1QFY13: Materiel Release CS 13-14
- 2QFY13-4QFY13: Fielding CS 13-14

A ı **Soldier using AFATDS**
B ı **AFATDS Components**
C ı **1st Battalion, 321st Airborne Field Artillery Regiment, 18th Fires Brigade (Airborne), fires a M777A 155mm howitzer**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

BCS3
MISSION

Battle Command Sustainment Support System (BCS3) serves as the United States land forces' fusion center for logistics Command and Control (C2) information, providing better situational awareness and decision-making capability to U.S. Land Component Forces at tactical, operational and strategic echelons.

CONGRESSIONAL LOCATIONS

KEY CONTRACTORS
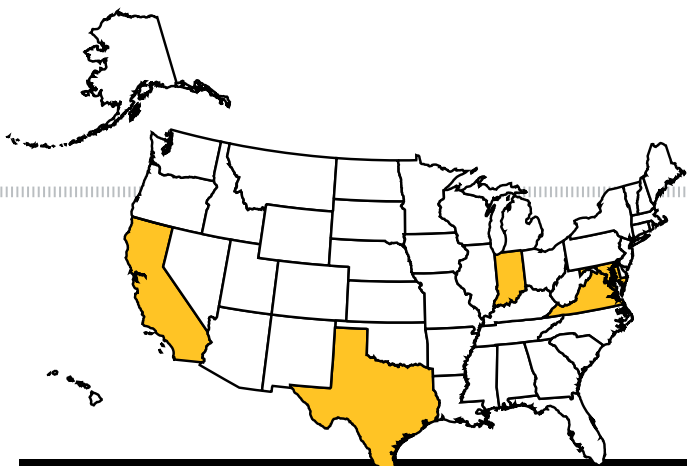
- Raytheon
- Northrop Grumman
- Dell
- CACI

DESCRIPTION

BCS3 provides a Microsoft Windows-like Common Operational Picture (COP) for logistics that is modular and customizable to meet the full spectrum of battlefield Log C2 requirements. The system supports training, mission planning, rehearsal and execution, all in a single software application. BCS3 is the logistics piece of the Army Battle Command System (ABCS). It operates over the Non-secure Internet Protocol Router (NIPR) and Secret Internet Protocol Router (SIPR) networks. It is the logistics portal for Battle Command Architecture.

CAPABILITIES

- The Common Operating Picture (COP) creates a user-defined, customizable, map-centric view of the Area of Operation Responsibility (AOR)
- In-Transit Visibility shows unit supplies and equipment moving through a user-defined AOR through Convoy Tracking and Radio Frequency Identification Device (RFID) Location Reports
- Logistics Reporting provides a roll-up reporting tool that depicts on-hand balances and forecasts requirements

PROGRAM STATUS

- 1QFY11: CA
- 2QFY11: LUT
- 3QFY11: DIACAP
- 1QFY11-4QFY11: BC 11 Collapse

PROJECTED ACTIVITY

- FY12: Development BC 12 Collapse
- 3QFY12: Field BC 11 Collapse

A ǀ **Soldiers training on BCS3**
B ǀ **BCS3 Domestic Operations**
C ǀ **Screen capture of BCS3**
D ǀ **BCS3 Operations**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

CHS
MISSION

Common Hardware Systems (CHS) provides state-of-the-art, fully qualified, interoperable, compatible, deployable, and survivable hardware for Command, Control and Communications at all echelons of command for the United States Army and other DoD services with world-wide repair, maintenance and logistics support through CHS Regional Support Centers and a comprehensive warranty program.
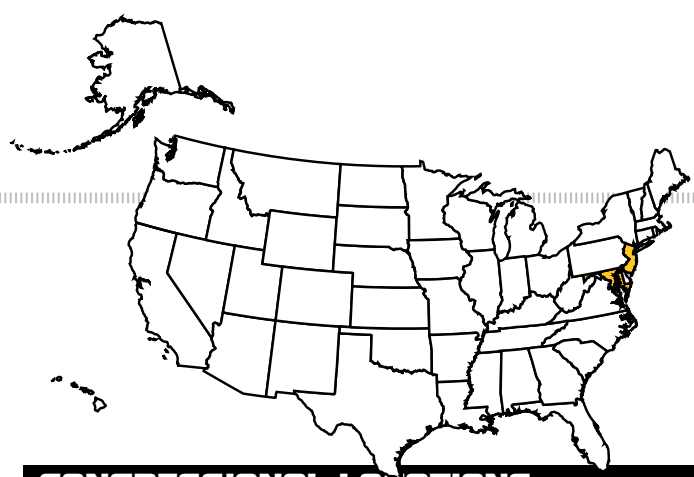
- CACI
- Northrop Grumman
- General Dynamics

CONGRESSIONAL LOCATIONS   KEY CONTRACTORS

DESCRIPTION

CHS provides the Soldier with a suite of standardized state-of-the-art ruggedized automation and network devices that meet tactical requirements of multiple C4ISR, ABCS, and other weapon systems. The CHS program benefits the Soldier by enabling Commanders, staff and Soldiers to incorporate emerging technologies into command and control and other systems. CHS consolidates procurement quantities from individual users and DOD components and Federal Agencies to leverage cost efficiencies. In addition, CHS manages world-wide repair, maintenance and logistics support through CHS Repair Centers (CRCs) and a comprehensive warranty program.

CAPABILITIES

- CHS is the Command and Control enabler for Army Transformation providing modularity, interoperability and compatibility to support implementation of net-centricity
- Migration strategy for Army systems through controlled technology insertion, to include management of obsolescence and end of life ensuring continued operational readiness
- Connects a network bridge from current force to the net-centric battlefield

PROGRAM STATUS

- FY06-FY13: CHS-3 Production and Deployment
- 4QFY11: Projected CHS-4 Contract Award

PROJECTED ACTIVITY

- FY12: IPV6 Implementation

A ǀ **Various products/components offered by CHS**
B ǀ **Soldiers setting up CHS equipment within a Tactical Operation Center (TOC)**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1	2	3	4

A

FED
MISSION

Forward Entry Devices (FED) provide a vital sensor-to-shooter link in a handheld device for forward observers and fire support teams to transmit and receive fire support messages over standard military radios. They provide a digitized connection between the forward observers and the Advanced Field Artillery Tactical Data System (AFATDS).

- General Dynamics
- CSC
- Booz Allen Hamilton
- CACI

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

The Lightweight Forward Entry Device (LFED)/Forward Entry Device (FED) is a programmable input/output device used for composing, editing, transmitting, receiving and displaying alphanumeric and graphic messages for transmission over standard military radios. Forward Observer System (FOS) software enables users to plan, control and execute fire support operations at maneuver platoon, company battalion and brigade levels.

CAPABILITIES

- Provides critical situational awareness for forward deployed field artillery
- PFED has Bluetooth capability for laser range finders and GPS receivers
- Compatible with Standard DoD Radios and communications security devices
- Hosts precision engagement software
- Interoperable with AFATDS and Current Force Fire Support Systems
- Provides the vital sensor-to-shooter link required for effective fires

.

PROGRAM STATUS

- 4QFY10-1QFY12: Development CS 13-14
- 1QFY11: Materiel Release CS 11-12
- 1QFY11: Fielding CS 11-12

PROJECTED ACTIVITY

- FY12-FY13: Development CS 15-16
- 1QFY13: Materiel Release CS 13-14
- 2QFY13-3QFY13: Fielding CS 13-14

A ı **Ruggedized Handheld Computer (RHC) in Stryker**
B ı **Pocket-sized Forward Entry Device (PFED)**
C ı **Soldiers using a PFED**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

GCCS-A

MISSION

Global Command and Control System - Army (GCCS-A) provides critical automated command and control tools for Army Combatant Commanders to enhance Warfighters capabilities throughout spectrum of conflict during joint & combined operations.

CONGRESSIONAL LOCATIONS
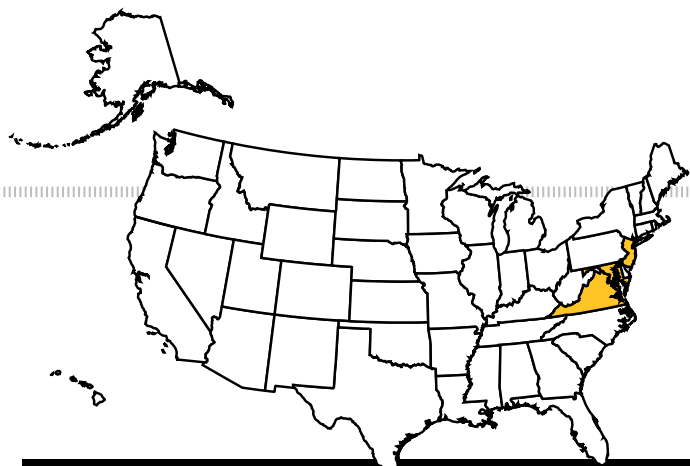
KEY CONTRACTORS

- Lockheed Martin
- CACI
- GTSI
- Lockheed Martin
- Systek

DESCRIPTION

GCCS-A is the Army's strategic and operational C2 system, providing readiness, planning, mobilization, and deployment capability information for strategic Commanders.

For theater Commanders, GCCS-A provides the following:

- Common operational picture and associated friendly and enemy status information
- Force-employment planning and execution tools (receipt of forces, intra-theater planning, readiness, force tracking, onward movement, and execution status)
- Overall interoperability with Joint, Coalition, and the tactical Army Battle Command System (ABCS)

GCCS-A supports Army units from the strategic commanders and regional combatant commanders in theater, down through the joint task force commander. As part of ABCS, GCCS-A provides a seamless Army extension from the Joint GCCS system to echelons corps and below. Compatibility and interoperability are achieved by building the GCCS-A applications to function on the common operating environment and through interfaces with other C2 systems within the Army and other services. Force Readiness and Force Projection are provided by Defense Readiness Reporting System–Army (DRRS-A).

DRRS-A is a secure, Web-enabled set of capabilities that provides Commanders with an accurate representation of unit readiness to make critical C2 decisions. Capabilities include force readiness, force registration, and force projection. DRRS-A reports mission critical information including personnel levels, training status, equipment availability, and equipment serviceability. In addition, DRRS-A fuses Army training, readiness and equipment data to track detailed information on unit capabilities under high operational tempo conditions that are inherent during wartime.

To ensure mission success, DRRS-A follows the DoD net-centric strategy by incorporating use of Web services as well as making Army readiness data visible, accessible and understandable. DRRS-A bridges the knowledge gap between readiness status, war plans and courses of action. DRRS-A supports the implementation of emerging Army Force Generation concepts and processes for manning, equipping, training and readiness.

A ı **Soldiers using GCCS-A**
B ı **A Soldier using DRRS-A**

CAPABILITIES

- Force Planning
- Situational Awareness
- Interoperability with GCCS-J
- Interoperability with ABCS
- Operates at Secret/High over Defense Information Systems Agency (DISA) Secure Internet Protocol Router (SIPR) Network

PROGRAM STATUS

- 4QFY10-4QFY12: Development Block 4 V4.2

PROJECTED ACTIVITY

- Modernization to Joint C2 Capability
- FY13-FY16: Future Block Development

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

JADOCS
MISSION

Joint Automated Deep Operations Coordination System (JADOCS) provides synergy between multiple Command and Control (C2) systems of the uniformed services, and joint and combined elements involved in the targeting process. JADOCS provides target management, horizontal and vertical coordination, and deconfliction services for the Army and other service components from the lowest to the highest echelons. It is a Joint, Interagency, and Multinational (JIM) targeting, mission management, and Common Operational Picture (COP) Windows-based software suite.

- Raytheon VTC
- Chenega Technology Services Corp.

CONGRESSIONAL LOCATIONS   KEY CONTRACTORS

DESCRIPTION

JADOCS is a service, Joint and combined warfighting application developed to provide Joint and service precision strike and C2 capabilities.

JADOCS provides Warfighters with a combination of tools, services and mission managers to bridge capability gaps identified by Combatant Commands (COCOMs) and Service Components. JADOCS is a joint mission management software application in operational use with more than 3000+ systems deployed worldwide.

CAPABILITIES

- Provides service unique tools and services for multiple warfighting functions
- Provides the necessary data for multi-function coordination and deconfliction
- Provides target management, horizontal/ vertical coordination, and deconfliction services for the Army and other service components

- Runs on any existing Windows-based computer
- Interfaces with numerous service C2 systems, including Advanced Field Artillery Tactical Data System (AFATDS), Global Command and Control System (GCCS), and Theater Battle Management Core System (TBMCS)

PROGRAM STATUS

- 4QFY10-1QFY12: Development CS 13-14
- 1QFY11: Materiel Release CS 11-12
- 1QFY11-3QFY11: Fielding CS 11-12

PROJECTED ACTIVITY

- FY12-FY13: Development CS 15-16
- 1QFY13: Materiel Release CS 13-14
- 2QFY13-4QFY13: Fielding CS 13-14

A I **Soldiers using a JADOCS system**
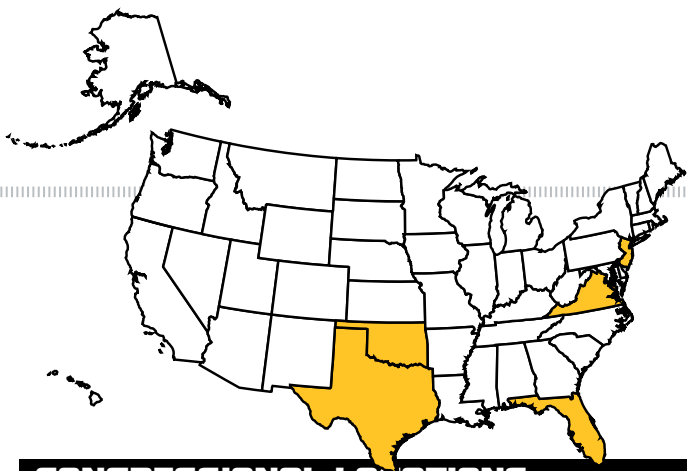**B** I **JADOCS**

✷The acquisition phase for this product is TBD.

ACQ PHASE✷

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

LWTFDS
MISSION

Lightweight Technical Fire Direction System (LWTFDS) provides early entry automated fire support capabilities for Army and Marine Corps and the critical data link between a gun and the Fire Direction Center (FDC). LWTFDS consists of two efforts: Centaur and Gun Display Unit Replacement (GDU-R).
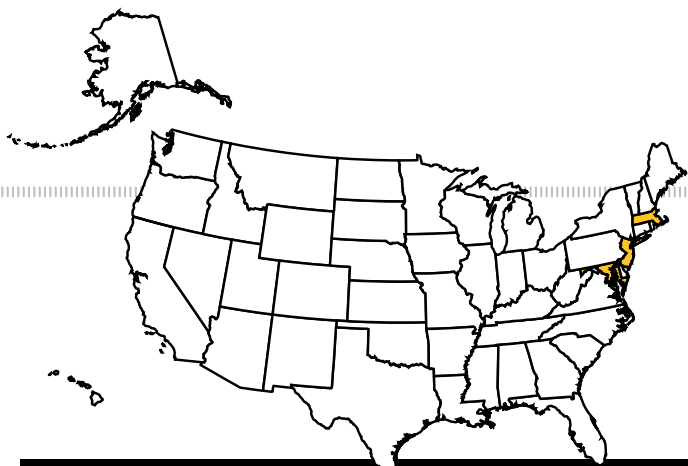
- General Dynamics
- CACI
- CSC
- VIATECH

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

LWTFDS is made up of a family of products that support precision fire and effects on the battlefield.

- The Centaur system calculates weapon and munitions-specific aiming information. This allows fire missions to rapidly and safely fire prior to the arrival and set-up of the primary tactical/technical fire control system for multi-service, joint, and combined forces. This provides technical solution information to the FDCs in cannon field artillery units for field artillery fire missions.

- The GDU-R system is a rugged Personal Digital Assistant with two remote gunner displays which digitally receive firing commands from the FDC. Those commands are then forwarded to the crews of non-digitized howitzers, thereby allowing quicker crew actions with significantly less intervention than when voice commands are used.
The Centaur and GDU-R are located in every non-digitized Howitzer in the Army and Marines.

CAPABILITIES

- Light and easy set up
- GDU-R capable of using Single Channel Ground Airborne Radio System (SINCGARS) and Bluetooth to minimize cables
- Centaur uses NATO Armament Ballistic Kernel (NABK) algorithm -- same as AFATDS

PROGRAM STATUS

- 4QFY10-1QFY12: Development CS 13-14
- 1QFY11: Materiel Release CS 11-12
- 1QFY11-3QFY11: Fielding CS 11-12

PROJECTED ACTIVITY

- FY12-FY13: Development CS 15-16
- 1QFY13: Materiel Release CS 13-14
- 2QFY13-4QFY13: Fielding CS 13-14

A | Soldiers registering targets on a Howitzer for more accurate and faster response time when providing fire support
B | GDU-R
C | Soldier using a Centaur
D | Centaur

## ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

TBC
MISSION

Tactical Battle Command (TBC) provides the tactical core environment and common services infrastructure of Army Battle Command and the Battle Command Collapse Migration Strategy. It is the baseline for executive decision making capabilities, maneuver functional and battle staff tools, and enterprise services. TBC provides a mission-critical suite of Command and Control (C2) products deployed into today's fight, while evolving to meet the needs of tomorrow's mission.
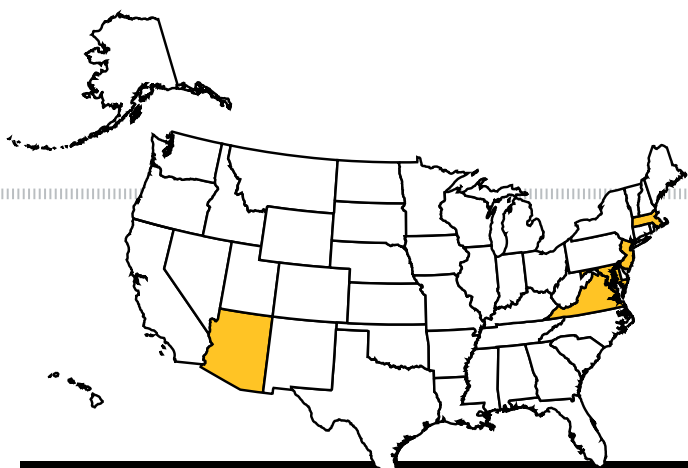
- General Dynamics
- Sensor Technologies
- General Dynamics
- Lockheed Martin
- CACI

CONGRESSIONAL LOCATIONS   KEY CONTRACTORS

DESCRIPTION

TBC is a suite of products and services that provide commanders and staffs with executive decision making capabilities in a collaborative environment. It includes planning tools, Common Operational Picture (COP) management, and other maneuver functional tools to support Battle Staff functions. The overarching capability includes a user-defined COP with integrated Command and Control (C2) and Situational Awareness (SA), for map-centric collaboration. TBC is a critical element of Army Battle Command System (ABCS) and provides interoperability, data management, and enterprise services that include e-mail, Active Directory, security, data backup and failover capabilities.

Command Post of the Future (CPOF) is providing the maneuver foundation for the Battle Command Workstation, a central piece of PM MC Collapse strategy, which seeks to consolidate BC systems. CPOF was chosen as the best platform to increase commanders and their staffs' effectiveness since it represents the Army's gold standard for human-centered collaboration.

Battle Command Common Services (BCCS) provides the consolidated server and services infrastructure for systems supporting Army Battle Command from Battalion to Army Component Command.

CAPABILITIES

Provides tactical core environment and common services baseline for Tactical Battle Command:

- Command Post of the Future (CPOF)
- Battle Command Common Services (BCCS)
- MCS capabilities now delivered as part of TBC products
- COP/ Integrated C2 and SA with Engineer, Chemical Biological Radiological & Nuclear (CBRN)

PROGRAM STATUS

- FY10: Development BC CS 11-12
- FY11-FY12: Development BC CS 13-14

PROJECTED ACTIVITY

- 2QFY10-2QFY16: Software Enhancements
- FY13-FY14: Development BC CS 15-16

**A** ⎮ **Soldier using Command Post of the Future (CPOF)**
B ⎮ **Soldiers using CPOF**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

KEY MANAGEMENT

MISSION

Under Project Director, Communications Security (PD COMSEC), Key Management automates the functions of Communications Security (COMSEC) key management, control, and distribution; Electronic Protection generation and distribution; and Signal Operating Instruction (SOI) management. Key Management provides planners and operators with the capability to provide secure communications at both the theater/tactical and strategic/sustaining base levels.
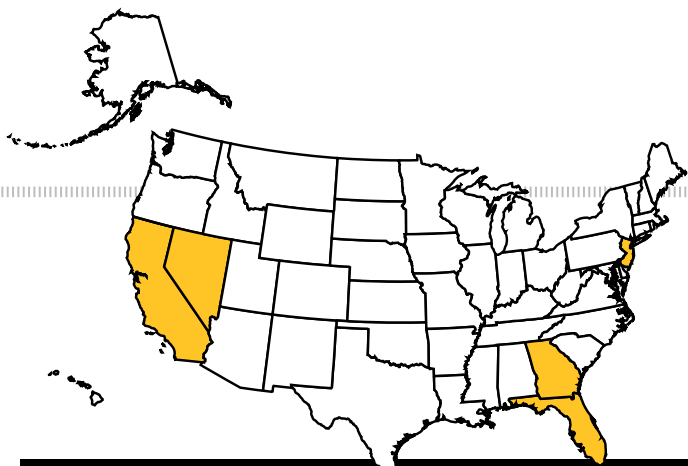
KEY CONTRACTORS

- Sierra Nevada Corp
- Sypris
- CSS
- CACI
- SAIC

CONGRESSIONAL LOCATIONS

DESCRIPTION

Key Management consists of three subcomponent platforms: Local COMSEC Management Software (LCMS), Automated Communications Engineering Software (ACES) and Simple Key Loader (SKL). Under the umbrella of the objective National Security Agency (NSA), Electronic Key Management System (EKMS), Key Management provides tactical units and sustaining bases with an organic key generation capability and an efficient secure electronic key distribution means. Key Management provides a system for distribution of COMSEC, electronic protection, and SOI information from the planning level to the point of use in support of current, interim and objective force at division and brigade levels. Key Management supports the Army transition to NSA's Key Management Infrastructure (KMI), which will replace EKMS. PD COMSEC also supports interoperability with Warfighter Information Network-Tactical (WIN-T), Joint Tactical Radio System (JTRS), & Brigade Combat Team (BCT) Modernization programs. In addition,

- LCMS: Automates COMSEC management/accounting; electronically generates/ distributes Keys; and reduces hardcopy file use. The Common User Application Software (CUAS) provides today's COMSEC Account Managers (CAMs) with

an advanced state-of-the-art capability to generate, manage and distribute encrypted or "black" key to soldiers in near real time. To facilitate the use of CUAS, a CUAS Training Simulator has been fielded to enable CAMs to train on the CUAS software from their own desktop without interrupting day-to-day COMSEC operations. To ensure that COMSEC key is electronically distributed across the modern battlefield, a Tier 3 Download Utility allows soldiers at lower echelons to rapidly receive COMSEC key via the Secure Internet Protocol Router Network (SIPRNET), greatly minimizing the chance for compromise.

- ACES/JACS (Joint Automated CEOI System): Provides Crypto Network planning, generation/ distribution of Signal Operating Instruction (SOI) and Electronic Protection data and has been designated as the Joint CEOI Generation Workstation by the Military Communications-Electronics Board (MCEB). ACES/ JACS supports COMSEC and black key planning and its modular architecture allows for cost-efficient planning for integration of new emerging systems.

- SKL: Loads keys into End Crypto Units (ECUs). Small design allows easy key transfers and interface

between LCMS/ACES/ ECUs; Real time Control, Transfer and Manipulation of COMSEC Key; Ruggedized SKL Personal Digital Assistant (PDA).

- KMI: an NSA program to develop a replacement for the current EKMS infrastructure with added capabilities and increased security.

CAPABILITIES

- Full implementation of Electronic Key Strategy
- Real time Control, Transfer, and Manipulation of COMSEC Key
- Ruggedized Hand-Held SKL that meets MIL-STD 810-F requirement
- Generation of SOI
- Encrypted Key Distribution over SIPRNET

PROGRAM STATUS

- 3QFY10-3QFY11: Fielding SKL s/w v 7.0
- 1QFY11-1QFY12: ACES v 3.1
- 2QFY11-4QFY11: LCMS v 5.2
- 3QFY11-3QFY12: SKL v 8.0

PROJECTED ACTIVITY

- FY12-FY14: KMI Full Rate Production (FRP) and Fielding
- 1QFY12: KMI IOC
- 2QFY12-2QFY13: ACES v 3.2
- 3QFY12-3QFY13: SKL v 9.0

A I **Soldiers programing a simple key loader to allow their radios to communicate securely between vehicles**
B I **Key Management components**

KEY MANAGEMENT

Automated Communications Engineering Software (ACES)

Local COMSEC Management Software (LCMS)

Simple Key Loader (SKL)

Key Management Infrastructure (KMI)

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |
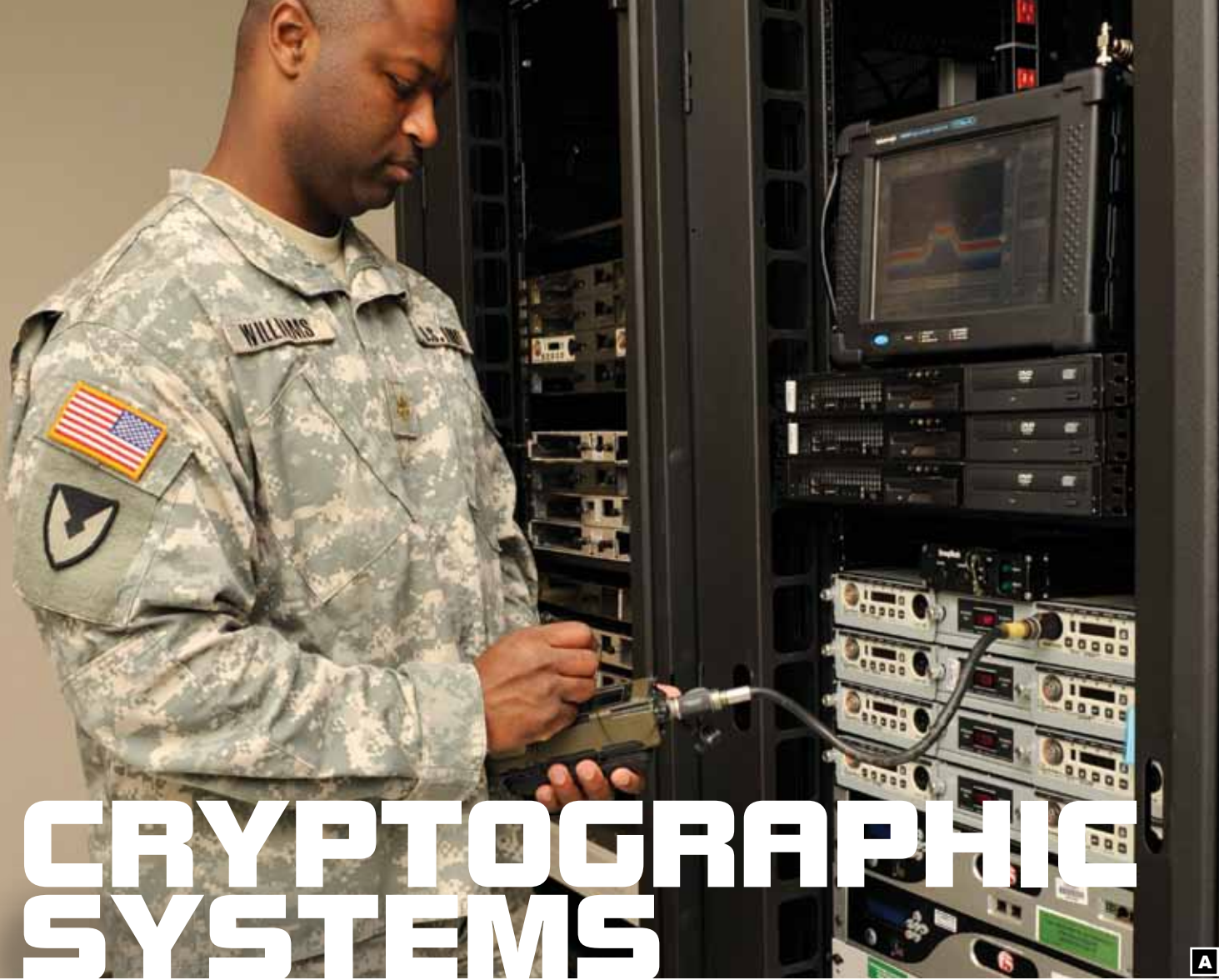
CRYPTOGRAPHIC SYSTEMS

MISSION

Cryptographic Systems will effectively and efficiently develop, acquire, test, field and sustain families of Communications Security (COMSEC) equipment and solutions to support the Soldier by protecting against cyber threats, increasing battlefield survivability/lethality, and enabling critical Mission Command activities. Cryptographic Systems leads the effort to continually modernize the Army's COMSEC equipment in order to provide the users strategic and tactical advantages through information superiority.
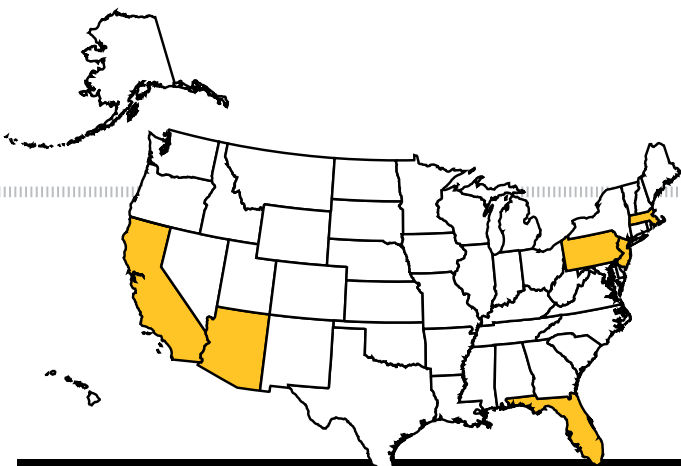
KEY CONTRACTORS

- VIA SAT
- General Dynamics
- L3 Communications
- Harris Corp
- Communications Security Logistics Activity

CONGRESSIONAL LOCATIONS

DESCRIPTION

Cryptographic Systems procures and fields COMSEC solutions, key management capabilities and information assurance (IA) tools to secure the Global information Grid (GIG). New and emerging architectures are driving the need to replace current inventory of stove piped systems with technologically advanced devices that incorporate Chairman of the Joint Chiefs of Staff and Joint Requirements Oversight Council directed cryptographic modernization, advanced key management and network centric performance capabilities. Cryptographic Systems consists of three product families: In-Line network Encryptors (INE), Link/Trunk Encryptors (LEF), and Secure Terminal/Enhanced Cryptographic Cards (ST/ECC).

CAPABILITIES

- LEF - These modern communication systems multiplex and encrypt many signals into wideband data streams that are transmitted over fiber, cable, and satellites.
- INE - A family of network encryption devices that provide network communications security on Internet Protocol (IP) and Asynchronous Transfer Mode (ATM) networks for users.

- ST/ECC - Secure Terminals such as the STU I/II/III, STE, and KY 68 provide the user with secure communications through the use of security tokens and/or public key encryption.

PROGRAM STATUS

- Coordinating and validating existing and future requirements
- Evaluating equipment obsolescence
- Solidify processes to minimize fielding wait time

A ı Soldier using Cryptographic Systems
B ı Examples of the INE Family of Cryptographic Systems
C ı Examples of the ECC Family of Cryptographic Systems
D ı Examples of the LEF Family of Cryptographic Systems

❋The acquisition phase for this product is TBD.

KG-175A/B/D
KG-250
KIV-54
Talon

SME PED
Sectera IP vIPer
KOV-14/26

KIV-7M/HS/HSB
KIV-19A/M

## ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

FBCB2

A

MISSION

Force XXI Battle Command Brigade and Below (FBCB2)-Blue Force Tracker (BFT) is a digital battle command information system providing integrated, on-the-move, timely, relevant battle command information and Situational Awareness (SA) to tactical combat leaders and Soldiers from brigade to platform, and across platforms within the brigade task force and other Joint forces.

KEY CONTRACTORS

- General Dynamics
- CACI

CONGRESSIONAL LOCATIONS

DESCRIPTION

Force XXI Battle Command Brigade and Below (FBCB2)-Blue Force Tracker (BFT) enables Warfighters to share a common operating picture of the battlefield using Global Positioning System technology. FBCB2 allows the Warfighter to exchange voice, video and other data securely. They are able to access terrain maps, logistics information and a shared Situational Awareness (SA) display which indicates the location of friendly and enemy units. FBCB2 provides the capability to pass orders and graphics allowing the Warfighter to visualize a complete map of the battlefield.

FBCB2 is a key component of the Army Battle Command System (ABCS).

CAPABILITIES

- Enables synchronization of maneuver and fires through shared SA
- Provides leaders the capability to navigate confidently in unknown terrain and during reduced visibility
- Joint Capabilities Release (JCR) addresses joint requirements and provides Type 1 encryption which enables the transition to BFT II (increase in data throughput)

- Automatic Blue SA and Red/Battlefield Hazard SA; disseminated vertically and horizontally
- Improved direct/indirect fire control; integration of Forward Observer System (FOS) into FBCB2
- Orders and graphical overlays: free text message/email; audio/ visual warnings/alerts
- System Tools - Line-Of-Sight (LOS)/Circular LOS; digital map/ navigation functions; Far Target Locate; sensor integration
- Battle Damage Assessment (BDA) and Combat Power status
- Assists in fratricide reduction and clearance of fires

PROGRAM STATUS

- FY10: JCR VER 1.1 Risk Reduction Test
- FY10: JCR v1.3 SSAT
- FY11: JCR VER 1.3 Field Test
- FY11: JCR Limited User's Test (LUT)
- FBCB2/BFT Production and Fielding

PROJECTED ACTIVITY

- Hardware/Software Enhancements

A ‖ **A Soldier using Force XXI Battle Command and Below (FBCB2)-Blue Force Tracker (BFT), which enables Warfighters to share a common operating picture of the battlefield using Global Positioning System technology**
B ‖ **A Soldier performs a continuity check on the encryption device used with FBCB2 Joint Capabilities Release during a logistics demonstration at Fort Hood**
C ‖ **Soldier using FBCB2**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

JBC-P
MISSION

Joint Battle Command - Platform (JBC-P) provides accurate on-the-move, digital command and control and situational awareness (SA) to tactical leaders at all echelons to the platform and dismounted domains. JBC-P is the primary provider and user of digital SA across the spectrum of operations.
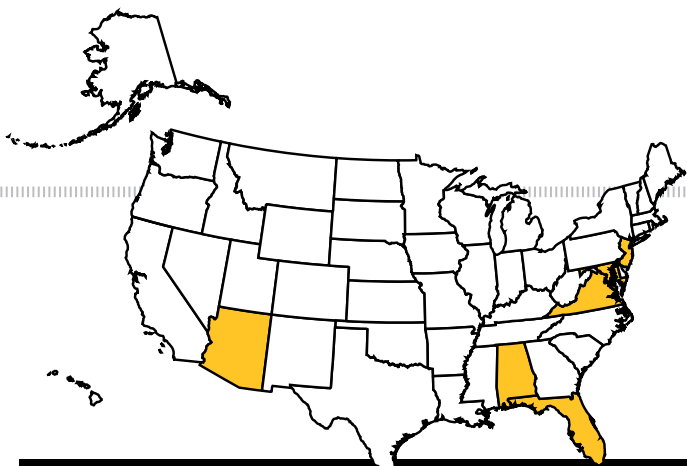
KEY CONTRACTORS

- CACI
- MITRE
- General Dynamics
- DRS

CONGRESSIONAL LOCATIONS

DESCRIPTION

JBC-P is the primary platform level digital Battle Command for the Army, Marine Corps, and the Special Operations Forces. It consists of computer hardware and software integrated into tactical vehicles and aircraft, which is provided to dismounted forces. JBC-P distributes Situational Awareness (SA) data and Battle Command messages within and between platforms, to dismounted leaders, and to command posts using BFT-2 and other government provided networks.

CAPABILITIES

Builds upon FBCB2 capabilities to include:

- Increased accuracy and density of SA to further mitigate risk of fratricide
- Dismounted forces integrated into digital common operational picture (domain most at risk of fratricide)
- Integrated Tactical Ground Reporting (TIGR)
- Orders, graphical overlays, Friendly, Hostile, Neutral, Unknown, non-combatant SA.
- Free Draw, Free Text and combat messages
- Sensor integration to enable capability to pinpoint location

PROGRAM STATUS

- FY09-FY17: JBC-P Development
- 3QFY10: System Requirements Review

PROJECTED ACTIVITY

- 2QFY10-2QFY14: Stand-Alone Dismounted Handheld Development
- 2QFY11: Remote Vehicle Hardware (GOTS Tablet) Customer Test
- 3QFY11-4QFY11: Handheld Customer Test
- 4QFY11: Build 3 Design Review
- 3QFY12: Milestone C Review
- 3QFY12: FRP Software Fielding Decision

A ι **In the future a Soldier will be using JBC-P to visualize the battlefield**
B ι **Joint Platform Tablet (JPT) w/JCR 1.3**
C ι **Paratroopers from the 3rd Brigade Combat Team of the 82nd Airborne Division use radios and smartphones to communicate during a recent field exercise at Fort Bragg, N.C.**

## ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4
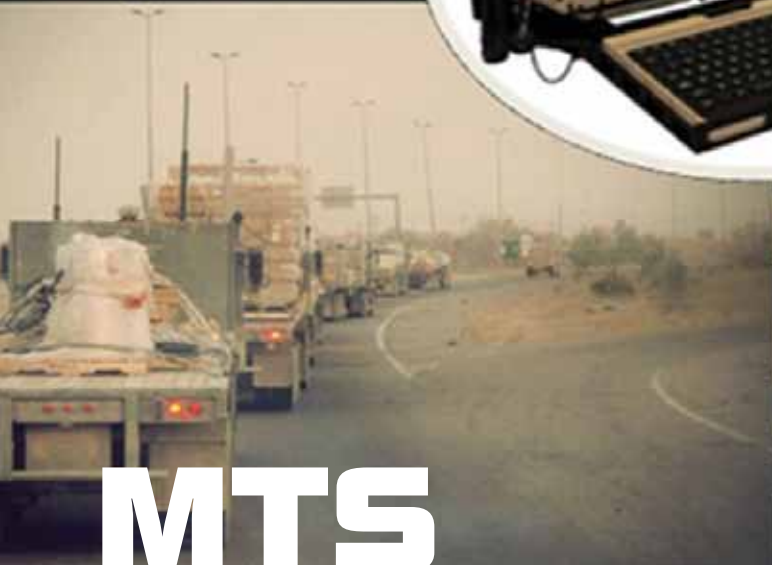
MTS
MISSION

The Movement Tracking System (MTS) provides the technology necessary to communicate with and track tactical wheeled vehicles (TWV) and other select Combat Service (CS)/Combat Service Support (CSS) assets and cargo in near real time, enabling safe and timely completion of distribution missions. MTS is used to support missions through the full spectrum of military operations from peacetime to war.

A

CONGRESSIONAL LOCATIONS

KEY CONTRACTORS

• COMTECH
• MPRI

DESCRIPTION

Through the use of positioning technology and commercial communication satellites, MTS provides the logistics, transportation movement control, and CS/CSS operations to commanders anywhere in the world. MTS is designed for the Army and its logistics vehicle operators to identify position and track progress of vehicles, personnel and cargo, and communicate with the operators of TWV while on and off the road during war or peacetime.

MTS is a mobile satellite two-way messaging system that is wireless from the MTS-equipped vehicles to the control station. The mobile configuration of the system is mounted on a unit's vehicles, and the control station configuration, in a fixed location, monitors vehicle locations. Communication between the two is provided via commercial satellite that enables units to send and receive traffic over the horizon, anytime, anywhere.

CAPABILITIES

- Tracks vehicle progress on digital map in near-real time
- Text messaging communication with the operator
- Redirects in-transit log activities to support warfighter's mission

- Interfaces with Standard Army Management Information System (STAMIS) & Force XXI Battle Command Brigade (FBCB2)
- Fills communications void for Corps/Theater logistics units
- World-wide satellite based communications coverage
- Capability to use multiple satellites

PROGRAM STATUS

- FY10-FY16: Sustainment
- FY10-FY14: Fielding

PROJECTED ACTIVITY

- FY13: MTS Block Improvements
- 4QTFY13: FOC

A ı MTS
B ı 1st Sustainment Brigade operationally fielded the newest version as a combined effort to continuously improve overall communication with forces and personnel during all phases of the mission

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

IECU
MISSION

Improved Environmental Control Units (IECU) provide cooling, heating and dehumidification to Soldiers and materiel systems in Combat, Combat Support, and Combat Service Support units throughout the military services. The ability to operate in every environmental condition provides a reliable and efficient power to the Warfighter.

- DRS Technologies
- CECOM
- Mainstream Engineering

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

The family of IECUs provides cooling, heating and dehumidification for Soldiers, field facilities and electronics equipment in Combat, Combat Support (CS) and Combat Service Support (CSS) systems. These systems include, but are not limited to, tactical electronics shelters, maintenance shelters and Tactical Operations Centers (TOCs). IECUs will have a greatly reduced logistics footprint due to their lighter weight, increased reliability and supportability, and increased efficiency. ECUs/IECUs function in extreme operational and environmental conditions.

CAPABILITIES

- Fully operable up to 125 degrees Fahrenheit
- Soft start, limited in rush current
- Nuclear, Biological, and Chemical (NBC) compatible and Electromagnetic Interference (EMI) protected
- Embedded diagnostics
- Automatic safety controls
- Remote control capability

PROGRAM STATUS

- 3QFY10-3QFY15: 60k IECU Full Rate Production
- 3QFY10: 60k IECU Type Classification Standard
- 3QFY10: 60k IECU Full Materiel Release
- FY11-FY13: 9/18/36k IECU RDTE
- 3QFY11: 60k IECU FUE

PROJECTED ACTIVITY

- 4QFY13: 120k Milestone B Decision
- FY14-FY16: 120k RDTE
- 1QFY14: 9/18/36k IECU LRIP MDR
- FY14-16: 9/18/36k IECU LRIP

A ǀ **Soldiers training on 60K IECU**
B ǀ **60K IECU**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
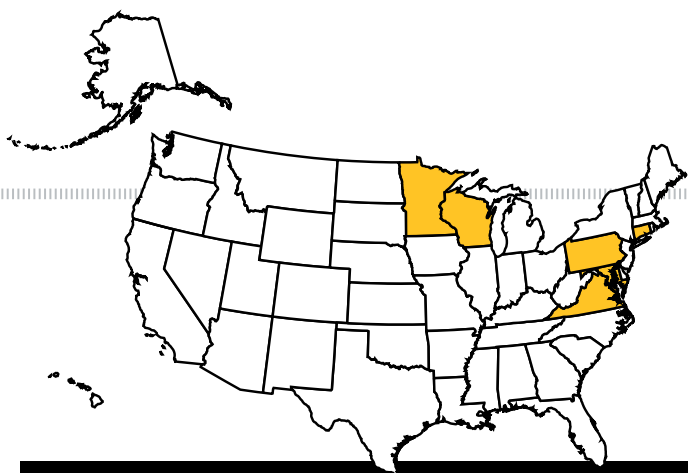4. Operations & Support

| 1 | 2 | 3 | 4 |

TEP
MISSION

Tactical Electric Power (TEP) provides modern, tactical, standardized mobile electric power sources for all of the Armed Services in the Department of Defense. Project Manager Mobile Electric Power (MEP) also provides research and development for alternative, renewable energy sources.

- Cummins Power
- DRS Technologies
- Schutt Industries
- Fidelity Tech Corp
- CECOM

DESCRIPTION

TEP is a family of ruggedized power generators and power distribution equipment:

- Military Tactical Generator (MTG) (2kW)
- Tactical Quiet Generator (TQG) (3, 5, 10, 15, 30, 60, 100 and 200kW)
- Power Units and Power Plants (PU/PP) (trailer mounted)
- Advanced Medium Mobile Power Sources (AMMPS) (5-60kW)
- Deployable Power Generation and Distribution System (DPGDS) (840kW)
- Power Distribution Illumination System Electric (PDISE) (cabling and circuit protection distribution components)

CAPABILITIES

- TQG is fully operable at up to 120 degrees Fahrenheit
- AMMPS is fully operable at up to 135 degrees Fahrenheit
- Standardized, rugged trailers
- 15% less fuel consumption
- EPA certified engines
- 10% weight reduction
- 50% better reliability

PROGRAM STATUS

- 2QFY11: LAMPS Milestone B
- 3QFY11: AMMPS Milestone C
- 3QFY11-4QFY14: LAMPS RDTE
- 2QFY11- 3QFY16: 2kW & 3kW Reprocurement
- 2QFY11-4Q14: AMMPS FRP

PROJECTED ACTIVITY

- 2QFY12: Intelligent Power Management Milestone B Decision
- 3QFY12: Hybrid Intelligent Power Milestone B Decision
- 2QFY12-4QFY15: Intelligent Power Management RDTE
- 3QFY12-4QFY15: Hybrid Intelligent Power RDTE
- 2QFY15: STEP Milestone B Decision
- 4QFY15: Intelligent Power Management Milestone C

A ı **15kW AMMPS**
B ı **3kW TQG**
C ı **PDISE**
D ı **Soldier setting up generator**
E ı **5kW TQG**
F ı **100kW TQG PU807A**
G ı **MEP Large 840kW DPGDS**
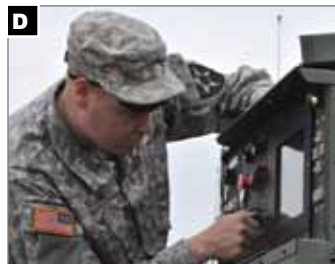
ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

CSEL
MISSION

Combat Survivor Evader Locator (CSEL) will provide Joint Services rescue/recovery forces with the capability to pinpoint locations and establish communication with downed air crew members or isolated personnel in need of extraction from hostile territories.

A

- Navigator Development
- Engineering Solution

CONGRESSIONAL LOCATIONS   KEY CONTRACTORS

DESCRIPTION

CSEL is a handheld survival radio in use by Army Aviation Units and Special Operations Forces to assist in recovering isolated crews in the event of a downed aircraft. CSEL allows rescue execution orders to be delivered within minutes, increasing probability of rescue and reducing risks to rescue forces.

CAPABILITIES

- Four channels plus GPS in a hand held radio
- Supports one handed operation
- Survives pilot ejection and parachute landing
- Three Satellite Data Waveforms; One Line-of-Sight
- 30 Meter Salt Water Immersion (5 minutes); -25 degrees C Operating Temperature; 910 hour mean time before critical failure (MTBCF)
- Battery supports 4-day mission
- Weight: With rechargeable battery, 34.5 oz; Without rechargeable battery, 30.5 oz

PROGRAM STATUS

- FY04: Milestone C
- FY05: Full Rate Production
- Air Force Executive Agent
- Production and Fielding

PROJECTED ACTIVITY

- Continuing to procure, field, and train CSEL to Army Aviation and Special Ops units

A | **An early iteration of the Combat Survivor Evader Locator Radio is tested**
B | **Air Force non-commissioned officer in charge of aircrew flight equipment, performs an operations check on a CSEL radio**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

COTS RADIOS

MISSION

Commercial-Off-The-Shelf (COTS) Radios are tactical radios provided to Warfighters, Battle Command for Corps and Division Warfighter Networks, Special Operations Forces, and Operations other than War. COTS Radios also support Army transformation requirements.

- Harris Corp
- Thales
- Engineering Solution
- Navigator Development

CONGRESSIONAL LOCATIONS   KEY CONTRACTORS

DESCRIPTION

The COTS Tactical Radios are a family of radio systems designed to fulfill various roles. The COTS Vehicular Adaptor Amplifier (VAA) systems provide vehicular Single Channel Ground and Airborne Radio System (SINCGARS)-like capability with the Handheld Radios (HHRs) and installs into an existing SINCGARS mounting tray. The Tier 2 Combat Land Mobile Radios (LMR) provide intra-squad/team communications.

CAPABILITIES

- AN/PSC-5D & AN/PRC-117F/G: UHF TACSAT Radios and AN/PRC-150(C): HF/VHF-AM/FM: Provides tactical and homeland defense forces and emergency operations elements with stand alone, terrain independent, robust communications for Line Of Sight / Beyond Line Of Sight (LOS/ BLOS) secure voice and data communications. Provides long distance, wide area, gap free, fixed or on-the-move, ground, maritime and ground-to-air communications.
- AN/PRC-148 & AN/PRC-152: Type 1 HHR: Provides unprecedented interoperability with the current military system and commercial radios, while ensuring future operations with next generation Combat Communications Equipment.

- COTS VAA: SINCGARS-Like Vehicular Adaptor Amplifier (Two HHRs)
- LMR: Land Mobile Radios intra-squad/team communications

PROGRAM STATUS

- 4QFY11-3QFY13: Fielding TACSAT

PROJECTED ACTIVITY

- 1QFY12-1QFY13: Fielding Handhelds

A ׀ Soldier using COTS TACSAT Radio
B ׀ EF Johnson 5100 LMR
C ׀ AN/PRC-152
D ׀ Motorola XTS 5000 LMR
E ׀ AN/PRC-148
F ׀ AN/PRC-150
G ׀ AN/PRC-117G
H ׀ AN/VRC-110
I ׀ AN/VRC-111
J ׀ AN/PRC-117F
K ׀ AN/PSC-5D

## ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

A

EPLRS
MISSION

Enhanced Position Location Reporting System (EPLRS) provides a mobile wireless data communications backbone for the Army's Tactical Internet and embedded Situational Awareness/Positioning Navigation. EPLRS is a common system for Army, Air Force, Navy, and Marine Corps Warfighters and a key enabler for network centric warfare.
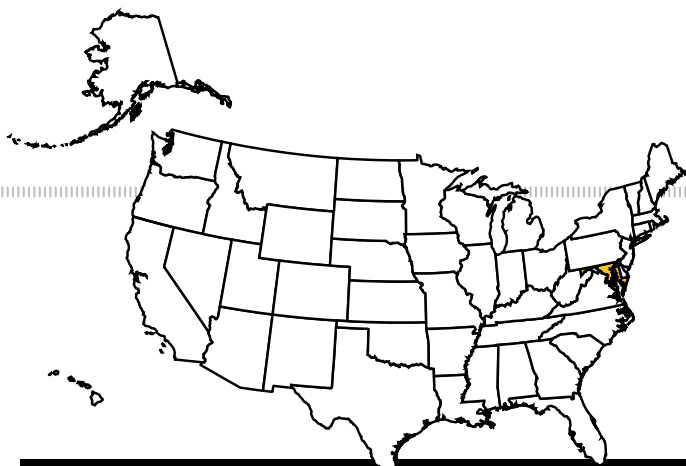
• Aberdeen Proving Ground, MD

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

EPLRS provides jam-resistant data communications over the modern battle space. Utilizing Direct Sequence Spread Spectrum, Time Division Multiple Access, Frequency Hopping and Forward Error Correction technologies, EPLRS provides the means for high speed information distribution. The network provides automatic and dynamic relaying for networking in complex terrain and beyond line-of-sight coverage. Additionally, EPLRS provides GPS-independent position determination and dissemination for blue force tracking in GPS denied environments.

CAPABILITIES

- Interoperable POS/NAV with USAF SA
- Situation Awareness Data Link (SADL)
- Geolocation independent of GPS signals
- Automatic relaying provides increased mobility and range extension, frequency hopping, integrated security and jam resistance
- Over-the-Air (OTAR) COMSEC re-keying
- Configuration for manpack, vehicular and airborne

PROGRAM STATUS

- FY10-FY12: Fielding to Air Defense Artillery Battalions
- 2QFY10-2QFY12: Crypto Mod Upgrades

PROJECTED ACTIVITY

- 2QFY11-FY15: Transition to Sustainment

A ı **Airspace Coordination Center Bison provides situational awareness utilizing EPLRS and Link 16**
B ı **EPLRS radio**
C ı **Marine Regiment data network specialist, types on an EPLRS chat workstation**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

MIDS
MISSION

Multifunction Information Distribution System Low Volume Terminal 2 (MIDS LVT2) provides high capacity, secure, jam-resistant digital data communication. It provides Multiservice North Atlantic Treaty Organization (NATO) interoperability and situational awareness. The primary use of the Army's MIDS LVT(2) terminal is to provide an interoperable joint and allied Link-16 tactical digital data link with air, ground, surface and subsurface platforms.
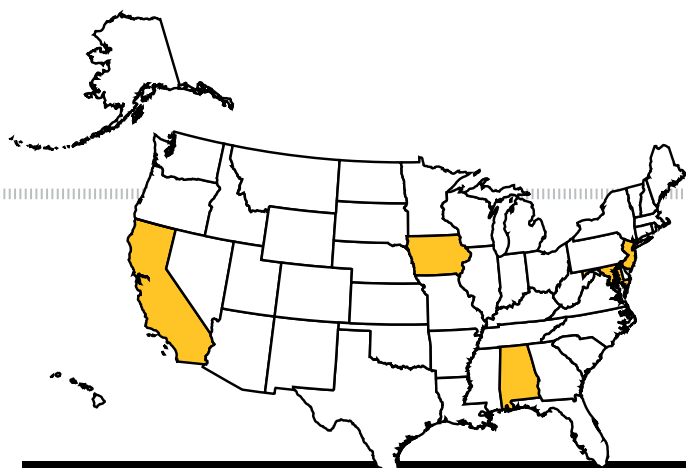
- DLS LLC
- VIA SAT
- Lockheed Martin
- SAIC
- SPAWAR

CONGRESSIONAL LOCATIONS   KEY CONTRACTORS

DESCRIPTION

MIDS is a communications device that provides situational awareness information exchange between aircraft, airborne command and control, Ground Air Defense and shipboard platforms in the Tactical Data Link-16 Network.

With Link 16, military aircraft as well as ships and ground forces may exchange their tactical picture in near-real time. Link 16 also supports the exchange of text messages, imagery data and provides two channels of digital voice.

CAPABILITIES

- Near Real Time Distribution of Air & Missile Tracks
- Secure/Jam Resistant Communications
- Time Division Multiple Access (TDMA)
- Frequency Hopping & Forward Error Detection
- More affordable Link-16 terminal vice Joint Tactical Information Distribution System (JTIDS)

PROGRAM STATUS

- FY10-FY16: MIDS Production and Fielding

PROJECTED ACTIVITY

- FY12-FY19: SLAMRAAM Fielding
- FY12-FY19: JLENS Fielding
- FY13: IAMD Milestone C
- FY12: MEADS Milestone C

A ၊ **Close-up of a MIDS**
B ၊ **MIDS**
C ၊ **An engineer installs the MIDS during a test**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

A

SINCGARS

MISSION

Single Channel Ground and Airborne Radio System (SINCGARS) provides Joint commanders with a highly reliable, low cost, secure, and easily maintained Combat NET Radio (CNR) that has both voice and data handling capability in support of tactical command and control operations.

- ITT Corporation
- EPS Corporation
- ManTech
- Engineering Solution

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

SINCGARS is a tactical radio for data and voice designed on a modular basis to achieve maximum commonality among the various ground and airborne system configurations. SINCGARS, with the Internet Controller, provides the communications link for the digitized force. SINCGARS configurations include manpack, vehicular (both low and high power), and airborne models. Communications Security (COMSEC) is integrated in currently produced versions of the ground and airborne radios. The System Improvement Program (SIP) models provide upgrades to enhance operational capability in the Tactical Internet (TI) environment. The Advanced System Improvement Program (ASIP) models-of a reduced size and weight-provide further enhancements to operational capability in the TI environment.

CAPABILITIES

- Frequency hopping
- Anti-jam
- Integrated communications security (COMSEC)
- Data capability
- New secure operating mode
- Embedded GPS

PROGRAM STATUS

- FY00-FY13: Production and Fielding
- 2QFY11-FY14: Transition to Sustainment
- 4QFY10-4QFY11: NSA Crypto Certification

PROJECTED ACTIVITY

- FY13-FY16: SINCGARS Services Contract

A I **Soldier uses the SINCGARS radio**
B I **Soldiers training on the SINCGARS**
C I **A Soldier operates SINCGARS equipment**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support
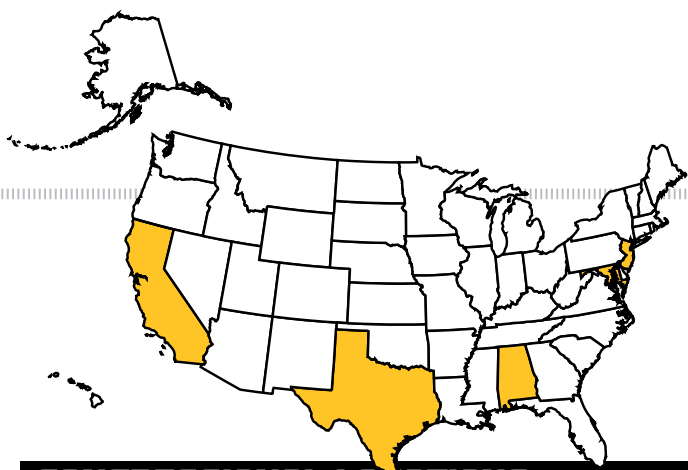
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DATA PRODUCTS

A

MISSION

Data Products provide Force XXI Battle Command Brigade and Below (FBCB2)/Blue Force Tracking (BFT), Army Battle Command Systems (ABCS) and other C4ISR Systems the ability to share Situational Awareness, Collaboration and Command and Control with each other.

CONGRESSIONAL LOCATIONS

KEY CONTRACTORS

- CACI
- Northrop Grumman
- Computer Sciences Corporation
- SAIC

PROJECT DIRECTOR
TACTICAL NETWORK INITIALIZATION

DESCRIPTION

Data Products are a collection of mission-related data delivered to units to initialize Battle Command and other Army Command, Control, Communications, Computers (C4) systems. Currently Data Products are delivered to the Warfighter on a CD which contains systems architecture that depicts information exchanges via hardware, software and network diagrams. The key component is the address book that enables the Warfighter to send and receive digital information. Data Products contain a Warfighting system's unit/role/name and IP address - much like a phone book. These critical pieces of information allow the Warfighter to communicate digitally increasing situational awareness.

CAPABILITIES

- Revised Database to provide faster more accurate data and manipulation
- Produce required data products to support future C4ISR systems, i.e., Warfighter Information Network - Tactical (WIN-T) , Battle Command, and FBCB2

PROGRAM STATUS

- Production and Deployment

PROJECTED ACTIVITY

- Software Enhancement and Fielding

A ǀ Data Products allow Soldiers to connect to vital mission data
B ǀ Signal Support System Specialist reviews data during a recent FBCB2 Joint Capabilities Release-Vehicle demo. Data products allow accurate transmission of the kinds of messages used for the test and on the battle field.
C ǀ Graphic illustrating Data Products connections
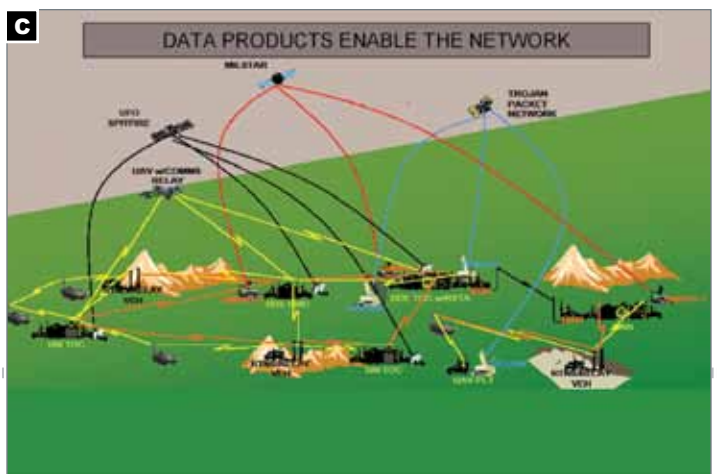
DATA PRODUCTS ENABLE THE NETWORK

✳The acquisition phase for this product is TBD.

## ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

ACUS MOD
MISSION

Area Common User System Modernization (ACUS MOD) provides planned network upgrades to support the Army's transformation through technology insertion into the Current Force and Stryker Brigade Combat Teams. It includes increased network services and management, information assurance, enhanced reach-back, and increased transport speed and bandwidth required to support the Warfighter's increasing need for high-speed data, voice, video, and imagery by the recapitalization of current force systems.
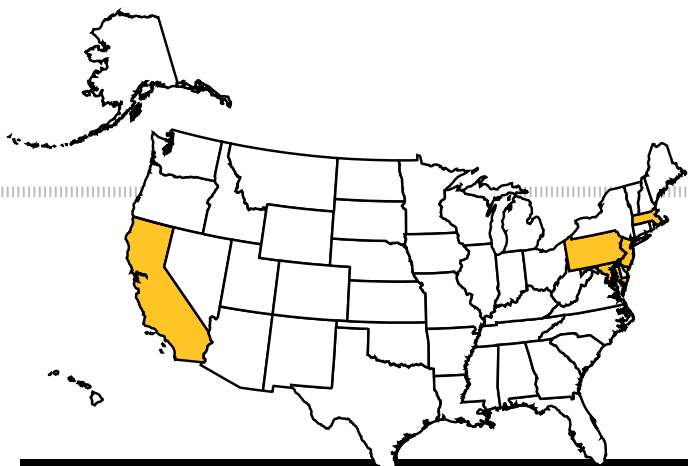
KEY CONTRACTORS

- General Dynamics
- CACI
- ManTech
- COMTECH
- Northrop Grumman

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

WIN-T

DESCRIPTION

ACUS MOD supports network upgrades for the Army's transformation to the current force, including secure wireless communications between Soldiers' vehicles. It provides Internet network management capabilities, as well as integrated voice, video and data services. It also allows for Beyond Line-Of-Sight (BLOS) transmission capability, which enables Soldiers to communicate with one another from separate physical locations.

CAPABILITIES

- Increased situational awareness to unit commanders
- Improved throughput and Joint interoperability
- Implements commercial-based technology insertions into the Current Force
- Deployable first-in capability
- High Capacity Line of Sight (HCLOS) radio upgrades to Warfighter Information Network-Tactical (WIN-T) Increment 1 units
- Extends selected network capabilities to the battalion level
- Secure wireless connections both between and within tactical operations centers and command posts
- S6 functionality into a single vehicle shelter

- Supports migration from legacy systems to WIN-T
- Enhances voice/video data communications at all echelons

PROGRAM STATUS

- 2QFY05-4QFY12: ESB Modernization Fielding
- 2QFY05-4QFY12: Modularity Units Fielding
- 1QFY09-2QFY18: TNMS Production/Fielding

PROJECTED ACTIVITY

- FY13-FY16: Fielding and Production of LAN Capability
- FY11-FY14: HCLOS TRC-90D,E (V1) Backfill

A I **Soldier assembling a TROPO**
B I **High Capacity Line of Sight (HCLOS) radio**
C I **Battlefield Video-Teleconferencing Center (BVTC)**
D I **Single Shelter Switch (SSS)**
E I **Tactical Network Operation Management System (TNMS)**
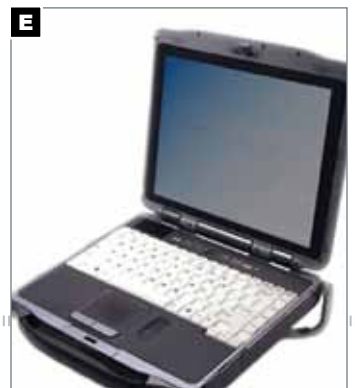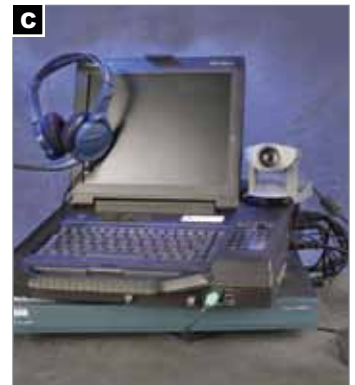
ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support
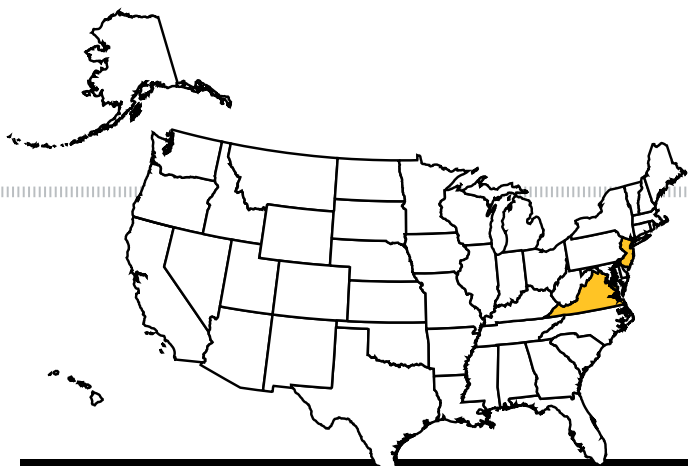
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GBS
MISSION

Global Broadcast Service (GBS) provides high-speed broadcasts of large-volume data and multimedia products including video, imagery, terrain/map, intelligence, weather, and biometric data to deployed Soldiers and garrisoned forces worldwide.

CONGRESSIONAL LOCATIONS

KEY CONTRACTORS

- JANUS Research
- US Falcon
- Booz Allen Hamilton
- Northrop Grumman
- Femme Comp Incorporated

WIN-T

DESCRIPTION

GBS provides a high-speed, one way flow of video and data products that include NTSC video, large data files, map files, and web products. GBS operates as a system of broadcast sites with multiple receive suite types under military Ka band satellites and commercial Ku band satellites. GBS is an Internet Protocol (IP) based integrated communications system consisting of both fixed and transportable uplink injection sites, broadcast satellites, receive terminals and information management processing.

CAPABILITIES

- Transportable Ground Receive Suites (TGRS) allows deployed forces to directly receive large information products without burdening the traditional Command & Control communications network
- Theater Injection Point (TIP) provides a deployable injection capability for theater commanders to transmit information directly from within theater to deployed forces in real time delivery
- Transitioning to Joint IP Modem (JIPM) to provide transmission security to enhance information assurance posture

PROGRAM STATUS

- FY05-FY11: TGRS Fielding

PROJECTED ACTIVITY

- 2QFY12-1QFY14: TSBM JIPM Upgrade
- 4QFY12-4QFY14: JIPM-TGRS Production
- FY13-FY15: JIPM upgrade for previously fielded TGRS and fielding new JIPM capable TGRS

A | Soldier on GBS
**B | Transportable Ground Receive Suites (TGRS)**
C | GBS

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

A

HCCC
MISSION

The Harbormaster Command and Control Centers (HCCC) provide logisticians the information management tools to see, assess, prioritize, synchronize and control Army watercraft distribution assets. The HCCC equips Commanders with the capability to maintain battlespace awareness and execute Command and Control (C2) of these littoral distribution assets to ensure sustainment is precise, flexible and responsive to tailored forces operating across the Range of Military Operations.
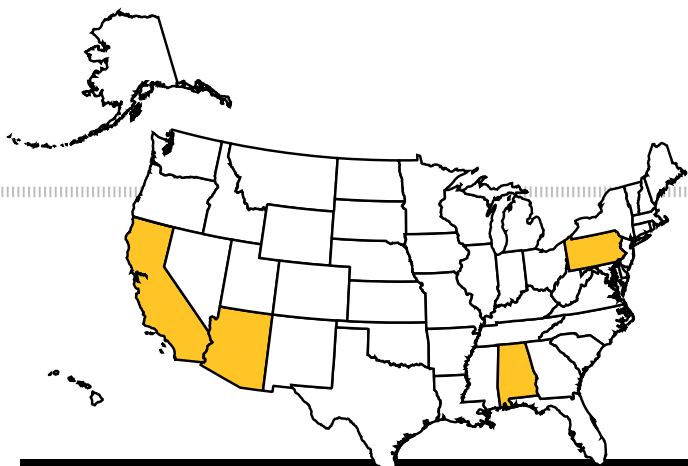
- Northrop Grumman
- SPAWAR
- Sigmatech, Inc.
- GDC4S
- DLA

WIN-T

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

The HCCC provides synchronization and control of Army watercraft distribution assets to ensure that water delivered sustainment is precise, flexible and responsive for tailored forces operating in a dynamic environment. HCCC program provides the US Army Harbormaster Detachments with a deployable Command and Control system. This new capability with sensors and knowledge management tools allows Battlespace Awareness of the littoral environment and maintains real-time tracking of Army watercraft distribution assets and their cargos.

CAPABILITIES

- Enables Commanders to maintain visibility, exercise authority and direction over Army Watercraft operations
- Enables collaboration between logistics and maneuver forces
- Provides the ability to collect information on the local operational environment
- Enables Army Watercraft to collaborate with and support Joint, Coalition, and non-DoD mission partners
- Enables mobile, deployable, networked, multi-site C2 throughout the littoral operational environment

PROGRAM STATUS

- 1QFY11: LRIP
- 3QFY11: DIACAP
- 4QFY11: IOT&E
- 4QFY11: First Unit Equipped

PROJECTED ACTIVITY

- 1QFY12: FMR
- 1QFY13: Last Unit Equipped

A ▎ Space, weight and rapid mobility are key in the Harbormaster System
B ▎ Harbormaster Trailor Sensor Platform (HTSP)
C ▎ Ku/Ka SATCOM
D ▎ HP-6G Dual GenSet (18kw)
E ▎ M1085 5-ton with Tricons
F ▎ HCCC CPP & TMSS-M

*The acquisition phase for this product is 1QFY11

ACQ PHASE*

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

A

PHOENIX
MISSION

Phoenix provides multi-band capability in the Super High Frequency (SHF) range that operates over commercial and military SHF satellites for Army Expeditionary Signal Battalions. It provides high-capacity, Inter- and Intra-Theater range extension for networked mission command information to include operational, logistical and intelligence data. Phoenix is the Soldier's primary means of reachback communications.

• L3 Communications
• Booz Allen Hamilton
• JANUS Research
• Lear Siegler Services

CONGRESSIONAL LOCATIONS　　　　**KEY CONTRACTORS**

DESCRIPTION

Phoenix is a tactical satellite terminal that operates using various military and commercial frequencies. It allows Soldiers to transmit and receive high bandwidth voice, video and data. It is designed to operate 24 hours per day, seven days per week and provides assured and reliable communications throughout the world. It displaces AN/TSC-85 terminals and selected AN/TSC-93 terminals at Expeditionary Signal Battalions (ESBs) and complements the AN/TSC-93 Service Life Extension Program (SLEP).

CAPABILITIES

- The terminal provides highly mobile, strategically transportable, wide band communications capability
- Interfaces with other strategic networks via Standardized Tactical Entry Points (STEP) or Teleports
- Operates in Military X and Ka Band and Commercial C and Ku Bands Qualified for the military environment: Temperature, Shock, and Vibration
- Voice and Data Interfaces with legacy and future joint communications and networking systems

- More than doubles the terminal's maximum aggregate date rate to support growing Soldier capacity demands

PROGRAM STATUS

- 2QFY11: Conditional D Model MWO Release
- FY11-FY15: Fielding of D Model Upgrade Kits

PROJECTED ACTIVITY

- 3QFY12-2QFY13: Production of 18 AN/TSC-156D Terminals
- 4QFY12-FY15: Fielding AN/TSC-156D Terminals for CENTCOM

A ǀ **The Phoenix operates in a world-wide military tactical environment and provides baseband satellite communication signals**
**B** ǀ **Pheonix**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

A

SMART-T
MISSION

Secure, Mobile, Anti-Jam, Reliable, Tactical -Terminal (SMART-T) provides the Army's only worldwide, anti-jam, secure voice and data capability. It provides range extension to the Army's current and future tactical communications networks. SMART-T processes data and voice communications at both low and medium data rates. The Advanced Extremely High Frequency (AEHF) upgrades provide a fourfold increase in the data rates.
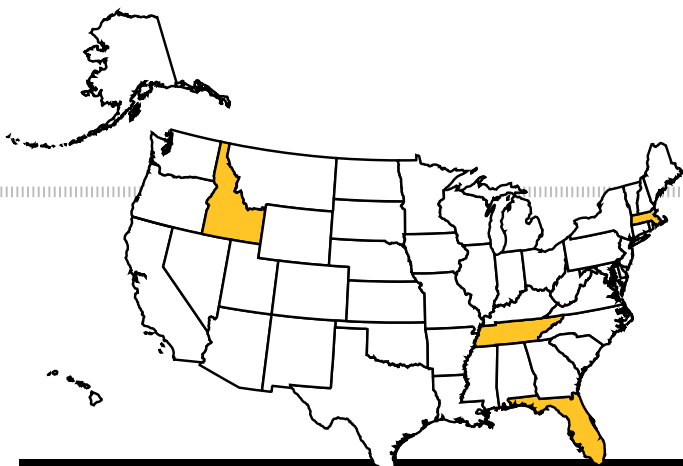
KEY CONTRACTORS

- Raytheon
- EPS
- JANUS Research
- Lincoln Labs

CONGRESSIONAL LOCATIONS　　　　**KEY CONTRACTORS**

DESCRIPTION

The SMART-T makes it possible for Soldiers to extend the range of their network in such a manner that communications cannot be jammed, detected, or intercepted. Soldiers can send text, data, voice and video communications beyond their area of operations without worrying that the information will fall into the hands of enemy forces. SMART-T is fielded at the brigade, division, and corps levels.

CAPABILITIES

- Interoperable with future AEHF constellation
- New access control protocols support the higher Extended Data Rate (XDR) modes of the AEHF system
- Provides Low and Medium Data Rate (LDR/MDR) capability for voice and data transmission
- Interoperable with Milstar, UHF Follow-On, EHF MIL-STD 1582D and MIL-STD 188-136 compatible payloads
- Provides Anti-Jam and anti-scintillation (nuclear environment) communications
- Set-up/tear-down in safe environments takes 30 minutes
- Capable of unmanned operation after set-up

PROGRAM STATUS

- FY07-FY12: AEHF Kit Production
- FY09-FY16: AEHF Kit Installation
- FY11-FY16: AEHF Fielding

PROJECTED ACTIVITY

- FY12-FY16: AEHF Terminal Production
- 2QFY12: Communications Planning Tool Inc 5 Operational Utility Evaluation
- 2QFY13-4QFY13: Multi-Service Operational Test & Evaluation

A | **SMART-T allows Soldiers to communicate beyond their area of operations**
**B |** **SMART-T**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

A

SICPS

MISSION

Standardized Integrated Command Post System (SICPS) provides fully integrated, digitized, and interoperable Tactical Operations Centers (TOCs) for use by joint, interagency and multinational warfighters and civilian crisis management teams to include legacy Command Posts (CP), SICPS Command Post Platforms (CPPs), tents, common shelters, and fixed CP facilities.
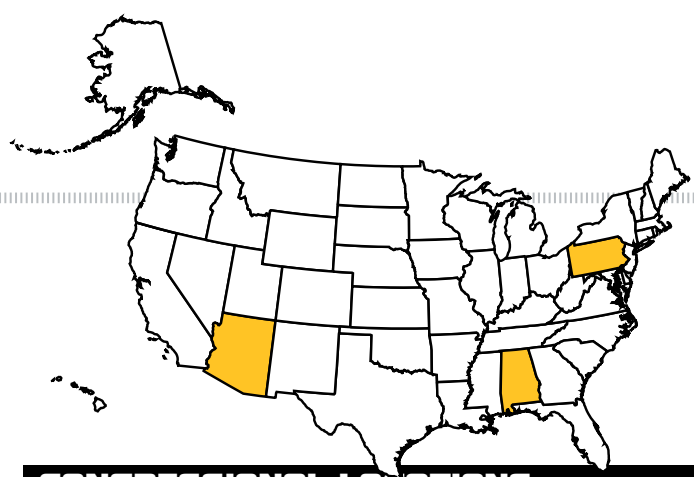
- Northrop Grumman
- Sigmatech, Inc.
- GDC4S
- SCI

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

From the SICPS-based command post, commanders and their staffs collaborate, plan, and execute Networked-enabled Mission Command (NeMC), maintain situational awareness using the Common Operational Picture (COP) and make decisions based on available information.

SICPS consists of five systems, specifically the SICPS Command Post Platform (CPP), which provides the Command Post Local Area Network (CP LAN); the Command Post Communications System (CPCS); the Command Center System (CCS); and the Trailer Mounted Support System (TMSS) medium and large.

CAPABILITIES

- Standard, mobile, interoperable, and net-centric
- Fully integrated Army Battle Command Systems (ABCS), communications equipment, local area networks (LAN), and intercom systems into a standard Army platform
- Trailer Mounted Support System (TMSS) includes standardized family of shelters, Environmental Control Unit (ECU) and power generation
- Connectivity to Tactical Internet
- Displays COP to combined and Joint/coalition C2 nodes

- Integrates Satellite Communications (SATCOM) and Secure Wireless LAN capabilities

PROGRAM STATUS

- 3QFY07: TC Standard/Full Material Release
- FY10-FY16: Full Rate Production(FRP)/Fielding

PROJECTED ACTIVITY

- Continue FRP and Fielding

A ⏐ **TOC setup at National Training Center (NTC)**
B ⏐ **Soldier using CPCS systems**
C ⏐ **Command Center System**
D ⏐ **Large Screen Display**
E ⏐ **Soldiers PMCS TMSS-Medium at NTC**
F ⏐ **TMSS Large**
G ⏐ **Command Post Platform-Internal**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

1	2	3	4

WIN-T INCREMENT 1

A

MISSION

Warfighter Information Network-Tactical (WIN-T) is the Army's current and future tactical network that will provide seamless, assured, mobile communications for the Warfighter along with advanced network management tools to support implementation of a commander's intent and priorities – incrementally. Increment 1 provides "Networking At-The-Halt" capability down to battalion level (1a) with a follow-on "Enhanced Networking At-The-Halt" (1b) to improve efficiency and encryption. WIN-T Increment 1 components reside at the theater, corps, division, brigade and battalion levels.
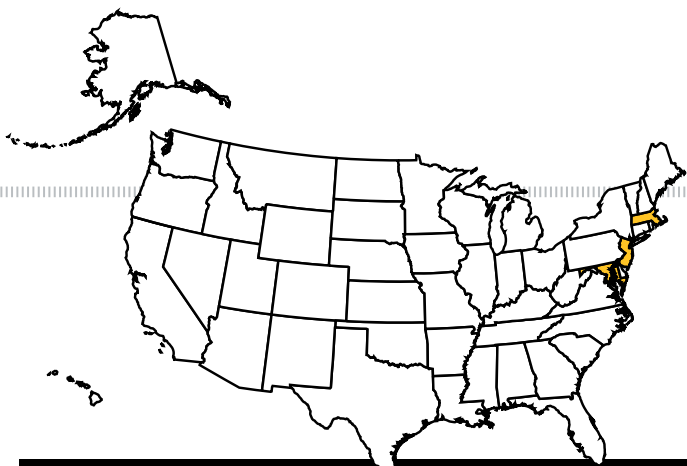
KEY CONTRACTORS

- General Dynamics
- Engineering Solution
- SRC

CONGRESSIONAL LOCATIONS

DESCRIPTION

WIN-T Increment 1 provides "networking at-the-quick-halt". It is a Joint compatible communications package that allows the Warfighter to use advanced networking capabilities and to retain interoperability with current force systems and future increments of WIN-T. WIN-T Increment 1a upgrades the former Joint Network Node (JNN) satellite capability to access the Ka-band defense Wideband Global SATCOM (WGS), reducing reliance on commercial Ku-band satellite. WIN-T Increment 1b introduces the Network Centric Waveform (NCW), a dynamic waveform that optimizes bandwidth and satellite utilization and Colorless Core technology, which further enhances security.

CAPABILITIES

- Enhanced displacement and communications at-the-quick-halt
- Provides interface to legacy and future increments
- Encrypts classified traffic over Department of Defense unclassified network
- Supports modularity by allowing a Brigade Combat Team to have self-sustaining reach back communications

- Provides Internet infrastructure connectivity directly to the battalion level
- Allows independent deployment of command posts and centers unconstrained by line-of-sight radio ranges
- Connects the Warfighter to the Global Information Grid / Defense Information Systems Network
- Transitions Army networks from proprietary protocols to "Everything Over Internet Protocol"

PROGRAM STATUS

- FY07 - FY12: Increment 1a, Production/Fielding
- 3QFY11: Full Rate Production
- 4QFY10-FY16: Increment 1b, Production/Fielding

PROJECTED ACTIVITY

- 3QFY12: Increment 1b Validation
- 4QFY12: FOC

A ı **A Soldier works with a Warfighter Information Network-Tactical (WIN-T) Increment 1 Satellite Transportable Terminal**
B ı **Tactical Hub Node (THN)**
C ı **Soldier conducts a maintenance check on the Joint Network Node dish at a Forward Operating Base in theater**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

WIN-T INCREMENT 2

A

MISSION

Warfighter Information Network – Tactical (WIN-T) Increment 2 provides initial commercial and military band networking on-the-move (OTM) capability and a mobile infrastructure to Division, Brigade, Batallion, and Company. Increment 2 also supports limited collaboration and mission planning. WIN-T Increment 2 is key to the Army's Network Modernization program.
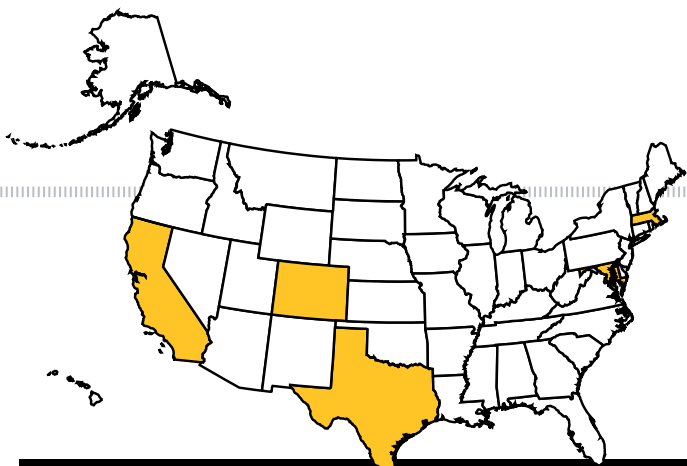
- General Dynamics
- Lockheed Martin
- L3 Communications

CONGRESSIONAL LOCATIONS   KEY CONTRACTORS

DESCRIPTION

WIN-T Increment 2 allows initial collaboration, mission planning and rehearsal on-the-move (OTM). It enables the distribution of information via voice, data and real-time video from ground-to-ground and ground-to-satellite communications. WIN-T Increment 2 enables an initial Planning, Monitoring, Controlling, and Prioritizing (PMCP) capability to the Division Headquarters and/or the Brigade network. It extends wide area/Global Information Grid (GIG) network connectivity to the lower tactical subnets at the company level. Network survivability is enhanced by automatically reconfiguring the network due to node or link loss. Spectrum efficiency and reuse is accomplished with the Highband Networking Waveform (HNW) and NetCentric Waveform (NCW). The Quality of Service (QoS) capability enables message traffic prioritization by level of importance to the Warfighter. Mature technologies from WIN-T Increment 3 will be inserted into Increment 2.

CAPABILITIES

• Supports initial collaboration, mission planning and rehearsal, and for the first time introduces mobility to the network

• Brings a mobile network infrastructure, which means the network stays connected while moving
• Extends the network down to the company level

PROGRAM STATUS

• 2QFY10: Milestone C
• 2QFY10: Low Rate Initial Production (LRIP) contract awarded
• 2QFY11 for LRIP 1B/Lot 2
• 2QFY11: PQT-C
• 4QFY11: PQT-G
• 4QFY11: Logistics Demonstration

PROJECTED ACTIVITY

• 2QFY12: Cold Region Test
• 2QFY12: New Equipment Training
• 3QFY12: Force Development Test and Experimentation (FDT&E)
• 3QFY12: Initial Operational Test & Evaluation (IOT&E)
• 4QFY12: Full-Rate Production (FRP) Decision Review
• 4QFY12- FY18: FRP
• 3QFY13: Initial Operational Capability (IOC)
• 2QFY16 PQT-C of JC4ISR Radio

A ∣ **Convoy of WIN-T Increment Two vehicles**
B ∣ **Tactical Communication Node (TCN)**
**C** ∣ **Soldier inspecting a Point of Presence (PoP)**

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

WIN-T INCREMENT 3
MISSION

Warfighter Information Network-Tactical (WIN-T) Increment 3 will provide the fully mobile, flexible, dynamic tactical networking capability needed to support a highly dispersed force over a noncontiguous area. Building on previous Increments, it will support full network planning and execution while On-The-Move for maneuver, fires, and aviation brigades. WIN-T Increment 3 introduces the aerial tier to enhance reliability.
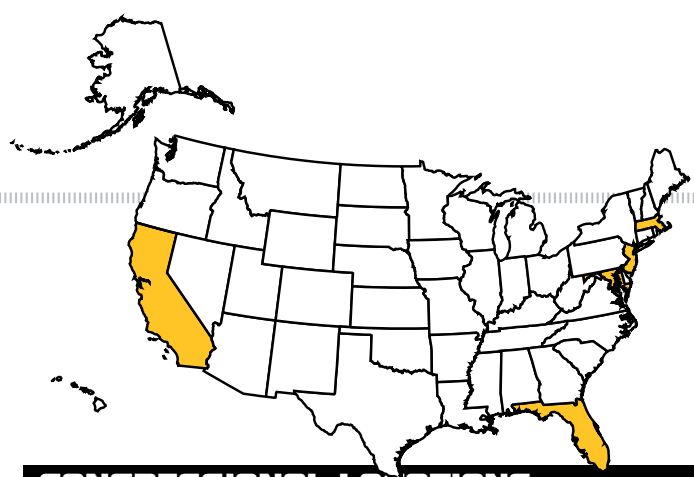
KEY CONTRACTORS

- Harris Corp
- General Dynamics
- BAE Systems
- Lockheed Martin

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

WIN-T Increment 3 is the Army's communication system for reliable, secure, and seamless video, data, imagery, and voice services that enables decisive combat actions. Increment 3 is key to the Army's Network Modernization program. It will be focused on moving information in a manner that supports commanders, staffs, functional units, and capabilities-based formations – all mobile, agile, lethal, sustainable, and deployable. It will be optimized for offensive and Joint operations so that the theater combatant commander will have the capability to perform multiple missions simultaneously. WIN-T Increment 3 will provide the commander/user within the tactical area of responsibility a mobile infrastructure that passes relevant information effectively and efficiently for combined arms capabilities in all required terrain and environmental conditions. WIN-T is implementing the Global Information Grid (GIG) Net-Centric Vision including Information Assurance and Network Centric Enterprise Services. WIN-T is a key component of the tactical GIG.

WIN-T provides dynamic bandwidth and enabling formations On-The-Move (OTM). Increment 3 develops the mature technologies which will be inserted into Increment 2. Increment 3 introduces the aerial tier to complete the three-tier objective architecture.

CAPABILITIES

- Enables the full objective WIN-T distribution of Intelligence, Surveillance and Reconnaissance information via voice, data, and real time video
- Manages, prioritizes, and protects information through network operations (Network Management and Information Assurance)
- Ensures interoperability with Joint, Allied, Coalition, Current Force, and Commercial voice and data networks
- Uninterrupted flow of timely, relevant, and actionable information

PROGRAM STATUS

- FY10-FY15: Systems Engineering Management Design (SEMD)
- 1QFY11: Revised Acquisition Program Baseline (APB)

PROJECTED ACTIVITY

- 3QFY12: Transmission Subsytem Critical Design Review (TSS CDR)
- 4QFY13: Full CDR
- 2QFY14-3QFY14: TSS Development Test/Limited User Test (DT/LUT)
- 2QFY15 – 3QFY15: Full Limited User Test (LUT)
- 3QFY15: Production Readiness Review (PRR)
- 4QFY15: Milestone C

A ǀ Soldier Network Extension (SNE), Tactical Communication Node (TCN) and Point of Presence (PoP) On-The-Move
B ǀ TCN
C ǀ PoP and SNE platforms

ACQ PHASE

1. Technology Development
2. Engineering & Manufacturing Development
3. Production & Deployment
4. Operations & Support

| 1 | 2 | 3 | 4 |

CUSTOMER FUNDED ORGANIZATIONS

Customer or user-funded organizations play an integral role in the Department of Defense. PEO C3T organizations like the Special Projects Office, Single Interface to the Field and Miltech Solutions provide DoD-wide support. What differentiates these organizations from the others within PEO C3T is their need for self-sustainment. There must be a continual demand for the product or services they provide in order for their operations to pay for themselves. They are endorsed by the Department of Defense and follow policies, procedures and standards, but their funding relies on the customers and users who are in need of their relevant and competitive solutions.
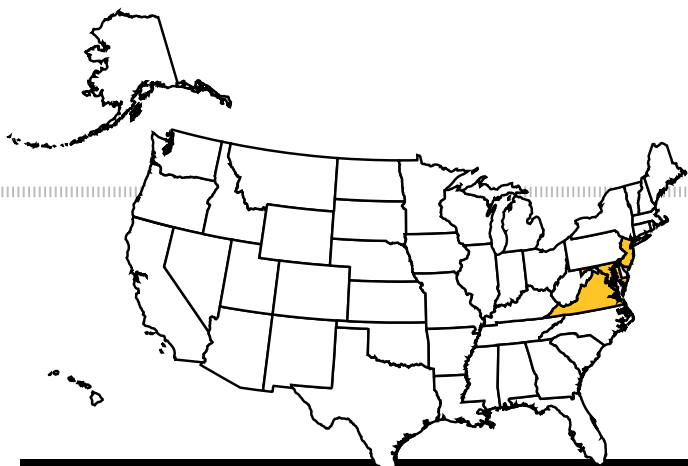
MILTECH SOLUTIONS

MISSION

MilTech Solutions supports the Department of Defense's initiatives with integrated, collaborative solutions to inspire actions across a synchronized workforce. They develop, adapt and implement dynamic tools to optimize the human and technological potential of the Department of Defense.

- DSA
- Symbolic Systems
- PKMM
- Lockheed Martin

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

MilTech Solutions is a Forward Operating Agency of PEO C3T founded to provide Information Technology (IT) solutions that improve how the organizations of the DoD and enterprise manage, operate and support the life cycle acquisition of weapon systems and defense initiatives. What PEO C3T does on the tactical side, MilTech does on the business side.

MilTech Solutions is a consulting and solutions provider that combines government experience, strategic partnerships and comprehensive information management capabilities. MilTech Solutions collaborates with clients to help them solve process, IT and knowledge/content management problems, delivering a full range of solutions to meet customer needs.

MilTech created and fielded milSuite, a collection of four networking tools offered DoD-wide as the secure solution to social media "behind the firewall." The four components of milSuite are: milBook, milWiki, milBlog and milTube. These integrated tools mirror what users are familiar with at home: wikis, blogs and social networking sites such as Facebook, Wikipedia and YouTube. With firewall protection, nearly 200,000 users from all service branches are sharing official unclassified internal information and engaging in dialogue.

MilTech Solutions provides support to the entire Army Team C4ISR community, as well as other organizations including Research, Development and Engineering Command (RDECOM) and PEO Soldier. The consortium approach allows all members to take advantage of the best ideas, process efficiencies and lessons-learned throughout the community.

MilTech also provides both tactical and enterprise Information Assurance management for PEO C3T systems and networks. It provides an unparalleled operations network based out of Product Director Acquisition, Logistics and Technology Enterprise Systems and Services (PD ALTESS). MilTech hosts all PEO C3T data and systems, including Single Interface to the Field (SIF), Team C4ISR Knowledge Center, Unit Set Fielding (USF) portal, Weapon Systems Portfolio, Green Force Tracker, tthe milSuite applications and one of the largest SharePoint collections in the Army.

CAPABILITIES

- SharePoint, MS Project
- milSuite
- Active Risk Management (ARM)
- Instant Messaging
- Remedy (incident reporting)
- Fortify (security assurance)
- Business Objects (business intelligence reporting tool)
- Manpower Information Reporting and Retrieval System (MIRARS) and Emergency Notification System (ENS)
- Repair Data (virtual data management)
- Inquisite (survey tool)
- COLTS (Military supply chain management)
- DOORS (requirements system)

A ı A Marine uses milBook
B ı The C4ISR weekly newsletter
C ı MilTech publishes a monthly report to customers
D ı The "Roll Call" workforce dashboard includes an emergency notification system capability
E ı The PEO C3T SharePoint portal allows secure sharing of documents

A

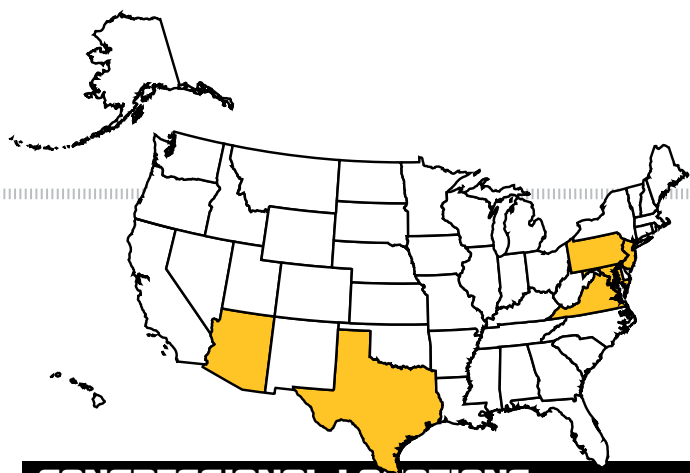# SIF
MISSION
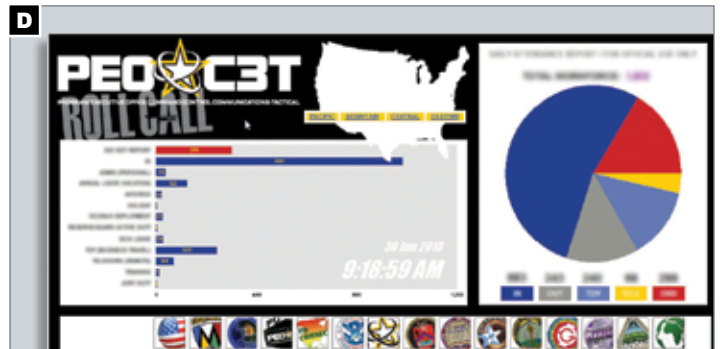
Single Interface to the Field (SIF) provides a synchronized baseline Web portal with common applications, tools, and modules for Army-wide and other Department of Defense (DoD) enterprise support solutions.

- Symbolic Systems
- DSA, Inc

CONGRESSIONAL LOCATIONS   **KEY CONTRACTORS**

DESCRIPTION

The SIF Portal provides a single, web-based location that supports the Assistant Secretary of the Army for Acquisition, Logistics and Technology ASA(ALT) and Army Materiel Command (AMC) communities at all levels in fielding, training, and sustaining operations. It synchronizes the military and civilian support community with data from multiple sources, provides Common Operational Pictures (COP) via Dashboards and Reports, and interfaces with external tools databases in support of PEO/PM information management.

The SIF contributes to field operations by:

- Supporting fielding process alignment with Army Force Generation (ARFORGEN)
- Enabling tracking and accountability of field support personnel
- Providing tools for visibility and analysis of fielding and sustaining operations
- Supporting units in test, exercise, or deployment / mobilization environments

CAPABILITIES

- Portal & Enterprise Capabilities
- Weapon Systems Management
- Fielding Management
- IT Service Management (ITSM)
- Field Personnel Management
- Software Management
- Logistics Management

A I **Soldiers using SIF**
B I **SIF Web portal (https://sif.kc.us.army.mil) with common applications, tools, modules and functional support databases**

A

SPO
MISSION

The Special Projects Office (SPO) provides expeditious resolution of unique and complex Systems Integration in support of the Warfighter and civilian agencies.

- Fort Dix
- Aberdeen Proving Ground

CONGRESSIONAL LOCATIONS

KEY CONTRACTORS

DESCRIPTION

The SPO plans, implements and manages temporary, special and/ or extraordinary communications, networks and applications in support of DoD and non-DoD organizations and Foreign Military Sales programs.

SPO fosters C4ISR modernization for international customers and develops/executes an integrated strategy for technology management and capability evolution into PEO C3T programs.

CAPABILITIES

- Worldwide commercial-to-DoD secure satellite communications and interfaces for Joint CONUS/ OCONUS DoD units
- Secure network management and technical assistance for deployed communications systems
- Emergency response and support for homeland defense and catastrophic missions
- Develops and executes an integrated strategy for technology management and capability evolution into C3T programs

A । The communications Control Set AN/PSC-15 aka, Global Rapid Response Information Package (GRRIP), allows the Warfighter to communicate with a single world-wide Internet Protocol (IP) address in desolate areas not supported by a network infrastructure.

B । During natural disasters and terrorist threats SPO bridges the networks and communications between military and civilian first responders.

C । SPO's Futures teams with other Army, DoD and commercial science and technology resources to fulfill the near-term and long-term requirements of the joint Warfighter to integrate technology.
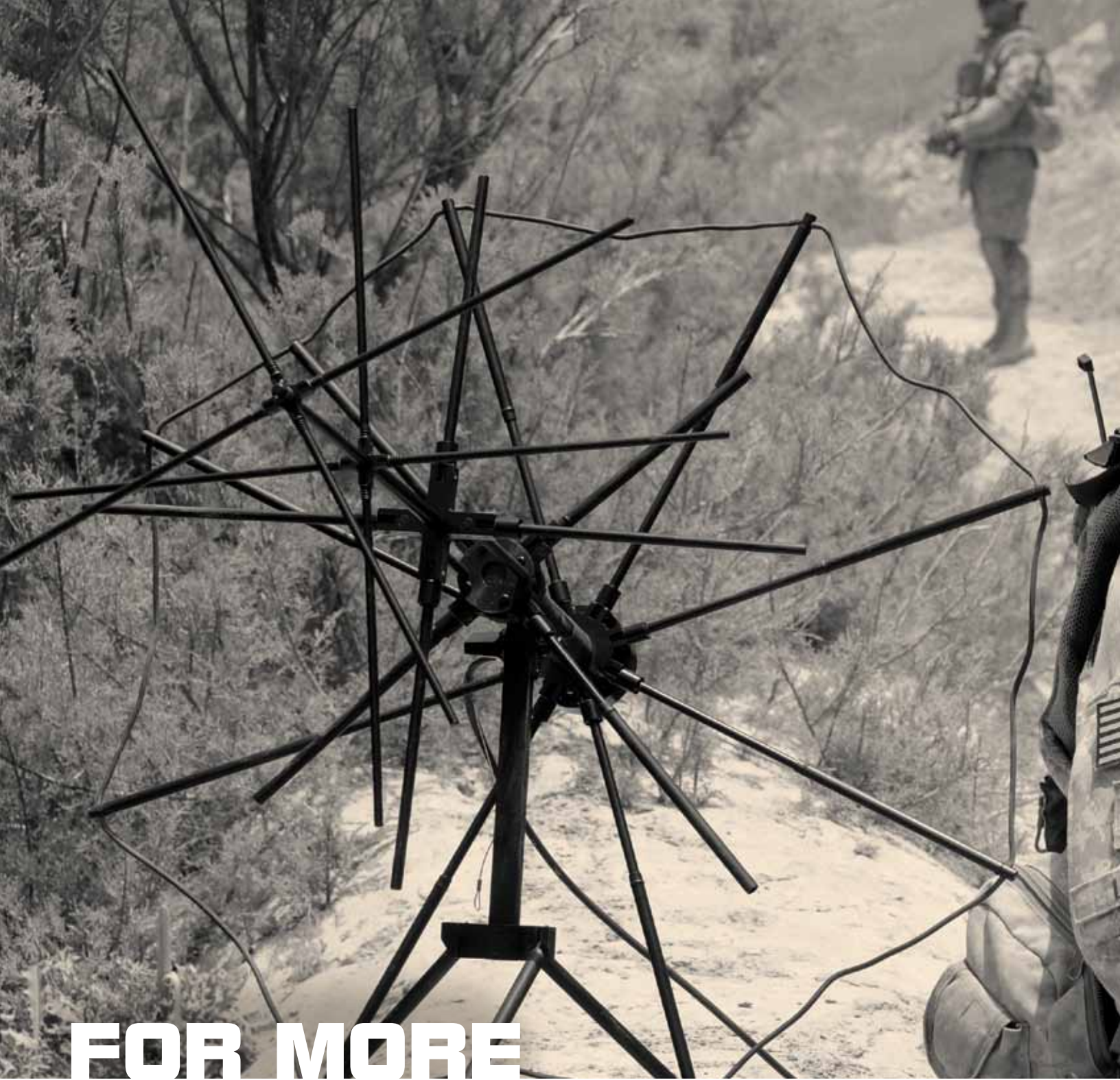
Notional Integrated Vehicle Electronics Architecture
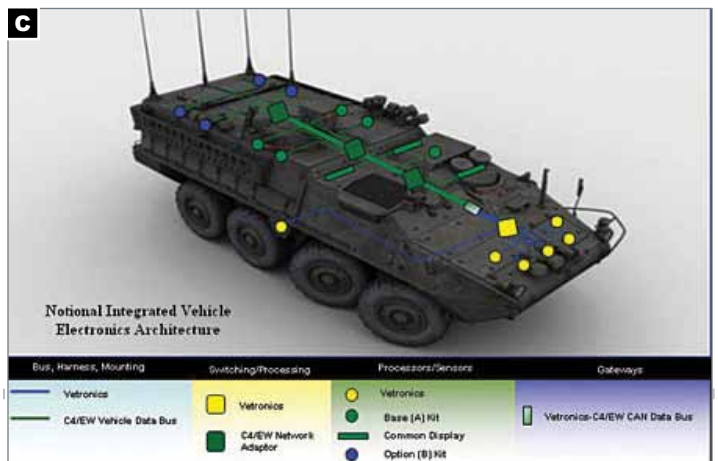
ACRONYMS

A
Advanced EHF (AEHF)
Advanced Field Artillery Tactical Data System (AFATDS)
Advanced Medium Mobile Power Sources (AMMPS)
Air and Missile Defense (AMD)
Air and Missile Defense Workstation (AMDWS)
Air and Missile Defense Planning and Control System (AMDPCS)
Air Defense Airspace Management (ADAM)
Air Defense Artillery (ADA)
Air Defense System Integrator (ADSI)
Area Common User System Modernization (ACUS MOD)
Area of Operation Responsibility (AOR)
Armed Robotic Vehicle-Assault-Light (ARV-A-L)
Army Air and Missile Defense Commands (AAMDCs)
Army Battle Command System (ABCS)
Army Force Generation (AFORGEN)
Army Key Management System (AKMS)
Association of Public Safety Communication Officials (APCO)
Automated Communications Engineering Software (ACES)

B
Battle Command (BC)
Battle Command Common Services (BCCS)
Battle Command Sustainment Support System (BCS3)
Battlespace Awareness (BA)
Brigade Combat Team (BCT)
Beyond Line Of Sight (BLOS)
Blue Force Tracker (BFT)

C
Capabilities Development Document (CDD)
Capability Production Document (CPD)
Coalition Joint Spectrum Management and Planning Tool (CJSMPT)
Combat Net Radio (CNR)
Combat Service Support (CSS)
Combat Support (CS)
Combat Survivor Evader Locator (CSEL)
Combatant Commands (COCOMs)
Command and Control (C2)
Command Center System (CCS)
Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)
Command Post Local Area Network (CP LAN)
Command Post Communications System (CPCS)
Command Posts (CP)
Command Post of the Future (CPOF)
Command Post Platforms (CPPs)
Commercial-Off-The-Shelf (COTS)
Common Controller (CC)
Common Hardware Systems (CHS)
Common Operating Picture (COP)
Communications Security (COMSEC)
Counter-Rocket, Artillery, and Mortar (C-RAM)

D
Defense Information Systems Agency (DISA)
Defense Information Systems Network (DISN)
Defense Readiness Reporting System-Army (DRRS-A)
Demand Assigned Multiple Access (DAMA)
Department of Defense (DoD)
DISA Enterprise Computing Center (DECC)
Distributed Common Ground System - Army (DCGS-A)

E
Early Infantry Brigade Combat Team (E-IBCT)
Electronic Key Management System (EKMS)
Electromagnetic Interference (EMI)
Enhanced Position Location Reporting System (EPLRS)
Expeditionary Signal Battalions (ESBs)
Extremely High Frequency (EHF)

F
Forward Area Air Defense Command and Control (FAAD C2)
Fire Direction Center (FDC)
Forward Entry Devices (FED)
Forward Observer System (FOS)

G
Global Broadcast Service (GBS)
Global Command and Control System - Army (GCCS-A)
Global Command and Control System – Joint (GCCS-J)
Ground Platform Communication System (GPCS)
Gun Display Unit - Replacement (GDU-R)

H
Hand Held (HH)
Handheld Radios (HHRs)
Harbormaster Command and Control Centers (HCCC)
High Capacity Line of Sight (HCLOS)
High Frequency (HF)

I
Improved Environmental Control Units (IECU)
In-direct fire (IDF)
Independent Initial Operational Test & Evaluation (IOT&E)
Initial Operational Capability (IOC)
Integrated Computer System (ICS)
Integrated Waveform (IW)

J
Joint Automated Deep Operations Coordination System (JADOCS)
Joint Battle Command-Platform (JBC-P)
Joint Capabilities Release (JCR)
Joint Command and Control Capability (JC2C)
Joint Convergence/Multilateral Interoperability Programme (MIP)
Joint Data Network (JDN)
Joint Force Command (JFCOM)
Joint, Interagency, Intergovernmental and Multinational (JIIM)
Joint IP Modem (JIPM)
Joint Network Node (JNN)
Joint Platform Tablet (JPT)
Joint Tactical Radio System (JTRS)

K Key Management Infrastructure (KMI)
Kilowatt (kw)

L Land-based Phalanx Weapon System (LPWS)
Lightweight Counter Mortar Radar (LCMR)
Lightweight Forward Entry Device (LFED)
Lightweight Technical Fire Direction System (LWTFDS)
Line Of Sight (LOS)
Limited User's Test (LUT)
Local Area Networks (LANs)
Local COMSEC Management Software (LCMS)
Logistics Common Operating Picture (LCOP)
Low Rate Initial Production (LRIP)
Low Volume Terminal 2 (LVT2)

M Maneuver Control System (MCS)
Military Tactical Generator (MTG)
Multifunction Information Distribution System (MIDS)

N National Security Agency's (NSA)
North Atlantic Treaty Organization (NATO)
Net Centric Waveform (NCW)
Nuclear, Biological, and Chemical (NBC)

O On-The-Move (OTM)
Over-the Air (OTAR)
Over-the-Horizon (OTH)

P Permanent Magnet Alternator (PMA)
Personal Digital Assistants (PDAs)
Pocket-Sized Forward Entry Device (PFED)
Positioning/Navigation (POS/NAV)
Point of Impact (POI)
Point of Origin (POO)
Point of Presence (POP)
Power Distribution Illumination System Electric (PDISE)
Power Units and Power Plants (PU/PP)
Production Readiness Review (PRR)
Program Director Communication Security (PD COMSEC)
Program Director Counter-Rocket, Artillery and Mortar (C-RAM)
Program Director Crypto and Networking Initialization (PD CNI)
Program Executive Office Command, Control and Communication-Tactical (PEO C3T)
Project Manager Mission Command (PM BC)
Project Manager Force XXI Battle Command Brigade and Below (PM FBCB2)
Project Manager Mobile Electric Power (PM MEP)

R Radio Based Combat ID (RBCI)
Radio Based Situational Awareness (RBSA)
Radio Frequency Identification Device (RFID)
Range of Military Operations (ROMO)

Rapid Aerostat Initial Deployment (RAID)
Regional Support Centers (RSCs)
Ruggedized Handheld Computer (RHC)

S Satellite Communications (SATCOM)
SATCOM-On-The-Move (SOTM)
Service Life Extension Program (SLEP)
Secure Internet Protocol Router (SIPR)
Secure, Mobile, Anti-Jam, Reliable, Tactical - Terminal (SMART-T)
Signal Operating Instruction (SOI)
Single Channel Ground Airborne Radio System (SINCGARS)
Simple Key Loader (SKL)
Situational Awareness (SA)
Situation Awareness Data Link (SADL)
Software Development Kit (SDK)
Soldier Network Extension (SNE)
Standard automated information systems (STAMIS)
Standardized Integrated Command Post System (SICPS)
Standardized Tactical Entry Points (STEP)
Strategic Battle Command (SBC)
Stryker Brigade Combat Team (SBCT)
Super High Frequency (SHF)
System Development and Demonstration (SDD)
Systems of Systems Common Operating Environment (SOSCOE)

T Tactical Electric Power (TEP)
Tactical Ground Reporting (TIGR)
Tactical Hub Node (THN)
Tactical Internet (TI)
Tactical Quiet Generator (TQG)
Tactical Operation Center (TOC)
Tactical Battle Command's (TBC)
Technical Fire Direction (TFD)
Technical Assistance and Support Services (TASS)
Time Division Multiple Access (TDMA)
Trailer Mounted Support System (TMSS)
Transportable Ground Receive Suites (TGRS)

W Warfighter Information Network-Tactical (WIN-T)
Wide Area Surveillance Thermal Imager (WSTI)
Wireless Audio Visual Emergency System (WAVES)

U Ultra High Frequency (UHF)
Unmanned Aerial System (UAS)
Unmanned Aerial Vehicles (UAVs)
Urban Unattended Ground Sensors (U-UGS)

V Vehicular Adaptor Amplifier (VAA)

FOR MORE
INFORMATION

PEO★C3T
PROGRAM EXECUTIVE OFFICE COMMAND CONTROL COMMUNICATIONS-TACTICAL