



2016 PEO STRI

WEAPON SYSTEMS

HANDBOOK

DEAR READER,

Thank you for taking an interest in the *Weapon Systems Handbook* for the Program Executive Office Simulation, Training and Instrumentation, or PEO STRI.

Located in Orlando, FL, PEO STRI has the important mission of acquiring and sustaining simulation, training, testing and modeling solutions to achieve Army readiness, today and while setting the conditions for tomorrow with the Future Holistic Training Environment – Live/Synthetic.

Because we at PEO STRI offer high-fidelity training devices and systems, we help to make the U.S. Army the most lethal force on the battlefield.

As you look through the Handbook, you will discover the vast array of training and testing systems that are available to our Soldiers to fine-tune their operational readiness. They range from the Close Combat Tactical Trainer that provides a virtual, collective training capability for ground forces to stressing Army systems under test with cyber red teams.

To ensure we are meeting the training needs of our Soldiers, PEO STRI works closely with our triad partners, Combined Arms Center-Training (CAC-T) and the Department of the Army Military Operations-Training (DAMO-TR). Together with these partners and other strategic stakeholders (namely the Director, Operational Test & Evaluation (DOT&E), Army Materiel Systems Analysis Activity (AMSAA) and U.S. Army Test and Evaluation Command (ATEC)), we are strategically focused on developing a near-term, mid-term and 30-year plan for our portfolio of programs.

We're proud to have ongoing, open dialogue with our industry stakeholders to ensure we continue to provide modernized and affordable capabilities to enhance our Soldiers' training experience and test environment in an era of fiscal restraint.

At PEO STRI we keep one thing at the top of our minds as we strive to complete our mission — **“We work for our Soldiers! It’s the best job we’ve ever had.”**



Jonathan A. Maddux
Jonathan A. Maddux
Major General, USA
Program Executive Officer





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HOW TO USE THIS BOOK

Training or Testing System name

Mission Statement: How the system benefits warfighters, combatant commanders, and support personnel

Highlighted tab indicates Investment Component

Bold indicates Acquisition Phase

INVESTMENT COMPONENT

PdM MCTS

FLIGHT SCHOOL (FS) XXI



MAINTENANCE

MODERNIZATION

MISSION

To meet the needs of student loads, training schedules and individual/crew and collective training requirements prescribed by the U.S. Army Aviation Center of Excellence at Fort Rucker, AL.

DESCRIPTION

Flight School (FS) XXI Simulation Services provides high-fidelity, virtual aircraft simulators in support of Army and Air Force Initial Entry Rotary Wing training, graduate pilot training, collective training, and Professional Military Education at the United States Army Aviation Center of Excellence, Fort Rucker, AL. The FS XXI simulation capability is a long-term, contractor-provided simulation service that was competitively awarded as a Firm Fixed Price contract with award term provision in March 2004. The services are provided in three parts consisting of Training Helicopter virtual simulators (TH-67, TH-1H, and UH-72A), Advanced Aircraft Virtual Simulators (AAVS) (UH-60A/L, UH-60M, AH-64A/D, CH-47D and CH-47F), Reconfigurable Collective Training Devices and a training support/management oversight capability. The Virtual Simulator Systems are owned, operated and maintained by the contractor with government oversight and approval.

RECAPITALIZATION

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Synthetic Environment Core (SE Core)
- One Semi-Automated Forces (OneSAF)

PROGRAM STATUS

Significant FY15 activities:

- 2QFY15: SE Core and OneSAF integration completed Reconfigurable Collective Training Devices (RCTD)
- 4Q FY15: UH-72A Training Helicopter Virtual Simulator Upgrade contract modification award
- 4Q FY15: UH-60M, CH-47F, AH-64D, and AH-64E concurrency upgrade contract modification award

PROJECTED ACTIVITIES

Significant FY16&17 activities:

- 1Q FY16: Additional CH-47F AAVS capabilities delivery (2x CH-47F)
- 1Q FY16: UH-60A/L ASE upgrade (RCTD)
- 4Q FY16: Initial Delivery UH-72A capabilities
- 1Q FY17: Additional UH-60M AAVS capabilities delivery (1x UH-60M)
- 2Q FY17: Additional UH-60M AAVS capabilities delivery (2x UH-60M)

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Computer Sciences Corporation (CSC) (Falls Church, VA)
- Subcontractor: Flight Safety International (Broken Arrow, OK)
- Subcontractor: L3 Communications (Arlington, TX)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

●

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

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System Interdependencies

Foreign Military Sales

Contractor information

Contractor locations are highlighted

WHAT ARE INVESTMENT COMPONENTS?

MODERNIZATION programs develop and/or procure new systems with improved warfighting capabilities.

RECAPITALIZATION programs rebuild or provide selected upgrades to currently fielded systems to ensure operational readiness and a zero-time, zero-mile system.

MAINTENANCE programs include the repair or replacement of end items, parts, assemblies, and subassemblies that wear out or break.

WHAT ARE ACQUISITION PHASES?

TECHNOLOGY DEVELOPMENT refers to the development of a materiel solution to an identified, validated need. During this phase, the Mission Needs Statement is approved, technology issues are considered, and possible alternatives are identified. This phase includes:

- Component advanced development
- Concept exploration
- Decision review

ENGINEERING AND MANUFACTURING DEVELOPMENT is the phase in which a system is developed, program risk is reduced and operational supportability are demonstrated. This is also the phase in which system integration, interoperability, and utility are demonstrated. It includes:

- System integration
- System demonstration
- Interim progress review

PRODUCTION AND DEPLOYMENT achieves an operational capability that satisfies mission needs. Components of this phase are:

- Low-rate initial production
- Full-rate production criteria
- Full-rate production and deployment
- Military equipment valuation

OPERATIONS AND SUPPORT ensures that operational support performance requirements and life cycle sustainment of systems are met in the most cost-effective manner. Support varies but generally includes:

- Supply
- Maintenance
- Transportation
- Sustaining engineering
- Data management
- Configuration management
- Human factors engineering
- Personnel
- Manpower
- Training
- Habitability
- Survivability
- Safety and occupational health
- Information technology supportability
- Environmental management functions
- Anti-tamper provisions
- Interoperability
- Disposal/demilitarization

Because the Army is spiraling technology to the troops as soon as it is feasible, some programs and systems may be in all four phases at the same time. Mature programs are often only in one phase, such as operations and support, while newer systems are only in technology development.

WHAT ARE SYSTEM INTERDEPENDENCIES?

The purpose of the System Interdependencies section is to identify which other weapon systems or components (if any) the main system works in concert with or relies upon for its operation. We categorize the interdependencies in two ways:

- 1) Under the “With Other Products Listed in this Publication,” which is a listing of systems in this 2016 edition
- 2) “Other Major Interdependencies,” which is a listing of systems that are not included in this publication



WE WORK FOR OUR SOLDIERS.

IT'S THE BEST JOB
WE'VE EVER HAD.

MISSION: Develop, Acquire and Sustain Simulation, Training, Testing and Modeling Solutions to Achieve Army Readiness.

Vision: Provider of Choice for Adaptive Training and Testing Environments to Optimize Soldier Performance.

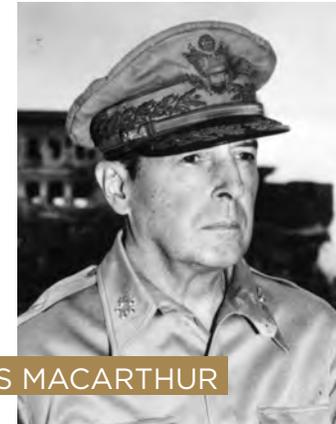
PEO STRI

PROGRAM EXECUTIVE OFFICE SIMULATION,
TRAINING AND INSTRUMENTATION

PEO STRI OVERVIEW AND HISTORY



“In no other profession are the penalties for employing untrained personnel so appalling or so irrevocable as in the military.”



GENERAL DOUGLAS MACARTHUR

The Program Executive Office Simulation, Training and Instrumentation (PEO STRI) takes General MacArthur’s words to heart, understanding that in no other discipline are the consequences as profound as those of ill-prepared Soldiers. PEO STRI is laser focused on providing the world’s most realistic training and testing solutions to the world’s finest military force.

ARMY-NAVY PACT

PEO STRI’s mission dates back to March 20, 1950, when the secretaries of the Army and the Navy agreed to work together in the area of training devices. The pact, now recognized as the longest-standing agreement among U.S. military services, established the Army Training Device Agency, and co-located it with the Navy Special Devices Agency on Long Island, NY.



PROJECT MANAGER FOR TRAINING DEVICES (PM TRADE)

During the midst of the Vietnam War, the agencies moved to Orlando, FL in 1966 and changed their names to the Army Participation Group and the Naval Training Device Center.

With air superiority being a major key to succeeding in the war, and the Army having more helicopters in their inventory than the other services combined, a critical need arose for a flight simulator.

To meet that need, in the early 1970s the Army Participation Group fielded the Synthetic Flight Training System that simulated the UH-1 Huey helicopter, the workhorse of the air cavalry.

About the same time, the Naval Training Device Center developed the Multiple Integrated Laser Engagement System or MILES. This training system was later purchased by the Army and dramatically enhanced the realism of combat training. An updated version of MILES is still in use by the Army today.

When the Vietnam War came to an end and Cold War tensions rose, the Army recognized the need for new training technologies and, in 1974, the Army stood up the Project Manager for Training Devices (PM TRADE), at Fort Benning, GA, under the leadership of Colonel Leland Wilson.

Realizing the advantages of a unified effort in fielding training devices, in 1976 the Army relocated PM TRADE to Orlando, consolidated the organization with the Army Participation Group, and retained the PM TRADE name.

Through the mid-eighties, several project managers led PM TRADE during a time that saw great advancements in computing and networking.



SIMULATION, TRAINING AND INSTRUMENTATION COMMAND (STRICOM)

On October 12, 1985, construction began on the \$21.3 million Naval Training Systems Center in the Central Florida Research Park in east Orange County. Subsequently, in 1988 PM TRADE, together with their Navy comrades, moved from the Orlando Naval Training Center to the new Research Park facilities.

In 1990, Colonel John Gravois became PM TRADE's leader, and during his tenure the U.S. Army activated the Simulation, Training and Instrumentation Command, or STRICOM, on August 1, 1992. The Project Manager for Instrumentation, Targets and Threat Simulators (PM ITTS), moved to Orlando from Aberdeen Proving Ground, Maryland, and joined PM TRADE, forming the new command. The merge of PM ITTS and PM TRADE was followed by the establishment of STRICOM's PM for Combined Arms Tactical Trainers (PM CATT).

In 1993, STRICOM's first brigadier general, John Michitsch, took charge of the organization. During his tenure, STRICOM established the PM for Warfighter Simulation, which became Project Manager for Constructive Simulation (PM ConSim).

Brigadier General Pete Franklin took command of STRICOM in 1995, followed by Brigadier General John Geis who assumed command the next year.

Brigadier General Bill Bond became STRICOM's leader in 1998. During his command, more change was on the horizon as the Army established a contract with the University of Southern California, creating a university-affiliated research center called the Institute for Creative Technologies in Los Angeles, CA. The world-class institution infused a new kind of realism into Army simulations by taking advantage of technologies used by the entertainment industry.



PROGRAM EXECUTIVE OFFICE SIMULATION, TRAINING AND INSTRUMENTATION (PEO STRI)

Brigadier General Steve Seay arrived in the fall of 2000. In his first year as STRICOM's commanding general, the nation was attacked by terrorists on 9/11 and the Army found itself at war.

During this challenging time, General Seay orchestrated the changeover of the organization in 2003 from STRICOM to the Program Executive Office Simulation, Training and Instrumentation. PEO STRI greatly expanded fielded systems to deployed troops, making the "train as you fight" paradigm possible, by bringing training devices to Soldiers deployed in Iraq and Afghanistan in support of Operations Iraqi Freedom and Enduring Freedom.

In June 2005, Dr. James T. Blake, SES, became the organization's first civilian leader. Under Blake's tenure, PEO STRI's mission expanded, its geographical footprint widened, and the impact of its fielded systems reached a worldwide customer base.

CHARTER BROADENED

In December 2006, to meet the urgent demands of a nation at war, the Army's Acquisition Executive, the Honorable Claude M. Bolton Jr., broadened the PEO STRI charter to support the Joint force.



TEAM ORLANDO

In 2007, a formal partnership began between the U.S. military branches and their academic and industry associates within the central Florida area. Called Team Orlando, the community created an efficient work environment, reducing redundancy, cutting costs and promoting a more robust training experience for the U.S. military. Team Orlando, anchored by the Army and Navy's training and simulation agencies, grew to represent a \$4.8 billion industry.



PARTNERSHIP BUILDINGS

Facing an increased need for workspace, PEO STRI was one of the driving forces behind the construction of the Partnership Buildings.

Recognizing the importance of the high-tech defense sector in central Florida, state legislators allocated funding to build shared facilities for the University of Central Florida's Institute for Simulation and Training, other UCF departments and components of the U.S. military, including PEO STRI. The three Partnership buildings opened in September 2001, November 2004 and October 2010, further promoting collaboration between the modeling and simulation community.



MEDICAL SIMULATION

In 2011, the Army and the Department of Veterans Affairs signed an interagency agreement establishing PEO STRI as the acquisition agency for procuring cutting-edge simulation-based training technologies for medical personnel, thus enhancing the quality of patient care at VA medical facilities across the nation. From this partnership, PEO STRI took on a key role in enriching the full continuum of patient care for members of the armed services, past and present.



FOREIGN MILITARY SALES

In addition to sharpening the skills of its own military personnel, PEO STRI provides training assets to foreign defense forces, helping partner nations to defend themselves. PEO STRI's robust Foreign Military Sales program represents an annual value nearing \$400 million per year.



ACQUISITION LEADERSHIP

When "doing more with less" became the Department of Defense's mantra, PEO STRI's products and services became ever more important. While sustaining 335,000 training devices worldwide, PEO STRI demonstrated tremendous resource stewardship by yielding over \$600 million in cost savings. The significant amount of training devices, coupled with the organization's fiscal responsibility, still results in an operational availability above 90% for all fielded training systems.



THE NEXT GENERATION OF ARMY TRAINING AND TESTING

On May 13, 2014, the Army's Acquisition Executive, Ms. Heidi Shyu, passed the PEO STRI charter to Major General Jonathan Maddux who continues the long tradition of providing Soldiers with the most relevant and realistic training and testing devices to ensure the U.S. Army remains second to none. The Live-Synthetic Integrated Training Environment will take Army training to the next level by incorporating human factors with synthetic environments. With this focus, on May 27, 2015, the charters of PM CATT and PM ConSim were retired and Project Manager Integrated Training Environment (PM ITE) was stood up.

Throughout the organization's storied legacy of superior leadership, PEO STRI continues to be the world's premier provider of military training and testing solutions.

EMERGING PROGRAMS TO MEET TOMORROW'S CHALLENGES

PEO STRI is diligently advancing simulation, training and test programs to meet the training challenges our Soldiers will face in the future. Three of the emerging initiatives are the Synthetic Training Environment, cyber defense training and a multi-service effort to enhance medical simulation training technology.

SYNTHETIC TRAINING ENVIRONMENT (STE)

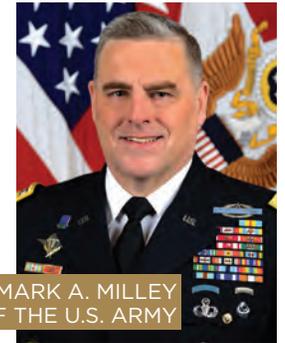
PEO STRI recently stood up the Project Manager Integrated Training Environment (PM ITE) to work in concert with our triad partners — the Training and Doctrine Command and the Department of the Army Military Operations-Training — to chart the Army's future synthetic training domain. The STE is a collaborative environment that will explore and use technologies from industry, academia and the government's science and technology labs.

The STE aims to harness new technology to prepare units and develop leaders at home stations. It combines action from live, virtual and constructive training to populate mission command systems with data, allowing for a more realistic common operating picture for the commander. The STE uses the Live, Virtual, Constructive-Integrating Architecture (LVC-IA) program to facilitate the creation of the complex conditions found in any operational environment... conditions that the Army cannot afford to replicate solely in live training. The STE will enable commanders to develop agile, adaptive leaders and versatile units, capable of operating in complex situations.

CYBER DEFENSE

As stated in FM 3-12, "All Army operations, missions, activities, and functions use cyberspace. Cyberspace superiority enables, supports, provides and facilitates warfighting capabilities that affects, supports and enables every warfighting function and daily activity."

"We will do what it takes to build an agile, adaptive Army of the future. Developing a lethal, professional and technically competent force requires an openness to new ideas and new ways of doing things in an increasingly complex world. We will change and adapt."



GENERAL MARK A. MILLEY
CHIEF OF STAFF OF THE U.S. ARMY

To meet the sophisticated and expanding cyber threat, PEO STRI has organized a consortium of cyber stakeholders to understand the requirements and identify the science and technology needs for collective cyber training. PEO STRI's cyber director works with the Communications-Electronics Research, Development and Engineering Center, the Cyber Center of Excellence and other subject matter experts to shape and address the future Army needs for threat cyber test and evaluation.

MEDICAL MODELING AND SIMULATION

Combat medical training conducted in a realistic and stressful simulated battlefield environment has proven to save thousands of lives.

To meet the future training needs in this critical area, PEO STRI will collaborate with the Defense Health Agency on the Joint Program Office for Medical Modeling and Simulation (JPO MM&S).

The JPO MM&S, a multi-service organization, will link medical simulation, science and technology to fielded medical training systems to optimize education, reduce costs and ultimately improve Department of Defense health beneficiary clinical care.



LIVE TRAINING. IT'S NO GAME.

REAL SOLDIERS, REAL ACTION,
REAL SWEAT.

MISSION: To improve Soldier readiness, in peace and war, by leading the life-cycle management of live and virtual training capabilities that enhance the Integrated Training Environment at home stations, Combat Training Centers and deployed locations.

Project Manager Training Devices (PM TRADE) is the Army's solution provider for training systems - collective instrumented live systems, medical trainers, and virtual solutions. PM TRADE provides U.S. Army Soldiers with realistic training environments and equipment to ensure they are the best trained force in the world.

PM TRADE

PROJECT MANAGER TRAINING DEVICES

ASSISTANT PRODUCT MANAGER TRAINING DEVICES (APM TRADE)



To provide standards and common solutions for live training, with focus on reducing total ownership costs while improving quality, interoperability and reusability across live, virtual, constructive and joint training/test domains for Soldiers and the nation.



APM TRADE

COMMON TRAINING INSTRUMENTATION ARCHITECTURE (CTIA)

MISSION

To provide a product line architecture that supports the development and evolution of Army live training instrumentation systems. CTIA provides integration and interoperability with legacy and emerging Army and joint architectures such as the Live, Virtual and Constructive-Integrated Training Environment (LVC-ITE).

DESCRIPTION

PM TRADE provides training capabilities with products composed of reusable and

interoperable software components and services standardized by CTIA, the software architecture defined by the Army's Live Training Transformation (LT2) product line. For more than a decade, CTIA has enabled the LT2 product line to achieve more than \$700 million in cost avoidance. CTIA and its assets are Army-owned. CTIA-based systems are fielded at the Army's Combat Training Centers (CTC), home stations and over 200 live training ranges.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- LT2-Family of Training Systems (FTS) Initial Capabilities Document programs
- LVC-ITE programs

PROGRAM STATUS

- November 2014: Release CTIA 4.2 to the CTC Range Control System program; first version incorporating Service Oriented Architecture (SOA) methodology
- February 2015: Awarded Consolidated Product-line Management Next contract
- 2006 – 2015: Achieved over \$700M in cost avoidance across LT2-FTS products by reuse of software assets
- November 2015: Release next major version of CTIA 4.X SOA architecture

PROJECTED ACTIVITIES

- 2018 – 2019: Evolve CTIA architecture services to SOA technology; cloud ready

FOREIGN MILITARY SALES

None

CONTRACTORS

- General Dynamics Mission Systems (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



APM TRADE EMBEDDED TRAINING

MISSION

To create an embedded training technical framework for mounted platforms and dismounts that support the Army's Integrated Training Environment, provide training at the point of need and enable Soldiers to "Train as they Fight."

DESCRIPTION

Embedded training is the Army's preferred solution per Army regulations, including AR 70-1, AR 350-1, AR 350-38 and TRADOC Reg 350-70. PM TRADE is creating and managing an embedded training technical framework that will enable mounted platforms and dismounted programs to develop and field embedded training solutions. The framework leverages the Live Training Transformation (LT2) Product Line and Common Training Instrumentation Architecture (CTIA) to develop, leverage and manage standards and common, re-usable software services that enable embedded training solutions.

Embedded training is not a Program of Record, but a series of initiatives that support Programs of Record that are developing and/or fielding embedded training solutions. Current key initiatives include:

- Multifunction Vehicle Port (MFVP) Interface Standard. The MFVP Interface Standard defines a common interface for interfacing Training Aids, Devices, Simulators, and Simulations and test instrumentation with Army ground combat vehicle systems. PM TRADE is working closely with PM Stryker and PdM Abrams Main Battle Tank as they develop and integrate MFVP's into their respective platforms.
- Live Training Engagement Composition (LTEC). LTEC is an initiative that provides a set of reusable core capabilities for live force-on-force training (mounted and dismounted). LTEC is based on open interfaces and standards, and provides government-owned software that can be used for embedded, appended and hybrid applications. LTEC is a key enabler for embedded training, allowing for a component-based architecture that enables the dual use of tactical equipment for training.

- Vehicular Integration for Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance/Electronic Warfare (C4ISR/EW) Interoperability (VICTORY). PEO STRI is working closely with PEO Ground Combat Systems (GCS) to ensure test and training requirements are addressed by the VICTORY architecture and specification. As VICTORY enabled vehicles are fielded, training systems will be able to utilize vehicle shared resources, reducing the life cycle costs for training systems in the future.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- LT2 CTIA
- LT2 Product Line Components
- Instrumentable-Multiple Integrated Laser Engagement System

Other Major Interdependencies

- Ground vehicle implementation of VICTORY
- Ground vehicle implementation of MFVP

PROGRAM STATUS

- 29 August 2012: Published MFVP Interface Standard
- November 2012: Demonstrated LTEC software for live training solutions
- 23 May 2014: Test and training addressed in VICTORY architecture
- Summer 2015: Updating MFVP Interface Standard

PROJECTED ACTIVITIES

- FY16: Working with PM Stryker to embed LTEC capability
- FY16: Working with PEO GCS to update VICTORY specification

FOREIGN MILITARY SALES

None

CONTRACTORS

- General Dynamics Mission Systems (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



APM TRADE

LIVE TRAINING TRANSFORMATION (LT2) PRODUCT LINE

MISSION

To provide PM TRADE a product line strategy to efficiently and effectively address future live collective training system acquisitions by focusing on the shared requirements of all live domain training systems. The strategic objectives are to maximize commonality and systematic component reuse and to ensure interoperability across the live, virtual and constructive (LVC) domains.

DESCRIPTION

The Live Training Transformation (LT2) Product Line reduces fielding time, minimizes acquisition costs and

enables total ownership cost reductions across the live training domain, including the LVC Integrated Training Environment (ITE). It focuses on live training domain requirements and LVC and joint interoperability to maximize component reuse, reduce fielding time, minimize programmatic costs and enhance training benefits afforded to the Soldier.

The LT2 Product Line includes live training systems in support of home station training, deployed training, military operations on urban terrain training, Combat Training Center (CTC) training and instrumented live fire range training.

Through successful execution of the product line strategy, LT2 will deliver a set of assets that provide integrated and interoperable training solutions for live collective training across the home stations, CTCs and deployed and joint training domains. The LT2 Product Line vision is captured in the following program objectives:

- Produce a product line architecture that completely supports live instrumentation, the tactical engagement simulation system, targetry, domain-specific services and associated equipment for live training within the Army's doctrine-based training process.

- Engineer a product line process and associated standards, tools, rules and guidelines that foster development of both components and products that are compliant with the product line architecture.
- Produce a set of common applications that plug-and-play in the product line architecture and are applicable across a wide range of programs within the LT2 domain.
- Encourage development of common applications and products and capture convincing evidence of the benefits of a product line approach.
- Provide a flexible architectural environment that will support evolution of the architecture to support all Army live training simulation systems, as well as integration with emerging Army and joint architectures such as the LVC-ITE.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Common Training Instrumentation Architecture
- LT2-Family of Training Systems programs
- LVC-ITE programs

PROGRAM STATUS

- February 2015: Awarded Consolidated Product-line Management next contract
- 2006 – 2015: Achieved over \$700M in cost avoidance utilizing the LT2 product line approach

PROJECTED ACTIVITIES

- April 2016: Providing PM TRADE programs with LT2 Information Enterprise, a data-driven approach for the development and sustainment of technical data packages and logistics documentation
- May 2016: Providing PM TRADE programs an automated software testing framework

FOREIGN MILITARY SALES

None

CONTRACTORS

- General Dynamics Mission Systems (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PRODUCT MANAGER COMBAT TRAINING INSTRUMENTATION SYSTEMS (PdM CTIS)



To develop, test and field instrumentation systems for the Army that provide effective training feedback to rotational units conducting force-on-force, live fire and combined arms training in a Decisive Action Training Environment (DATE).



PdM CTIS

COMBAT TRAINING CENTER AVIATION (CTC AVIATION)

MISSION

To instrument the Observer Coach/Trainer (OC/T) and Opposing Forces (OPFOR) Lakota UH-72A aircraft at the three Maneuver Combat Training Centers (MCTCs) with Tactical Engagement Simulation System

(TESS), provide a synthetic weapons capability for the OPFOR aircraft and to collect and relay position location and TESS event data from the OPFOR aircraft to the Maneuver Combat Training Centers Instrumentation System (MCTC-IS).

DESCRIPTION

CTC Aviation is a two-phased program where the first phase fielded basic TESS instrumentation kits for the OC/T and the OPFOR aircraft. The second phase is the assimilation of an offensive weapons capability for the OPFOR aircraft. This is commonly known as “shoot-back” capability and will provide simulated missiles, cannon and rockets on the OPFOR aircraft.

Additionally, the phase 1 and 2 capabilities are integrated into the Instrumentation Systems at all three MCTCs so the Training Analysis and Feedback (TAF) analysts can monitor the near-real-time position location and Multiple Integrated Laser Engagement System events that occur between the OPFOR aircraft and other

ground vehicles and in-flight aircraft, and use the data to prepare After Action Reviews (AARs) to provide feedback to the units in training.

SYSTEM INTERDEPENDENCIES

Other Major Interdependencies

- MCTC-IS at all three MCTCs, along with the aviation communications network and the Observer Controller Communications System

PROGRAM STATUS

- December 2010: Phase 1 Fielded

PROJECTED ACTIVITIES

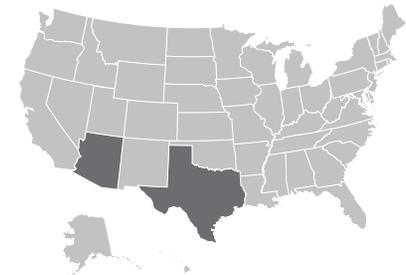
- 2Q-4Q FY16: Phase 2 - Fielding
- February – September 2016: First article aircraft fielding and 11 aircraft retrofits

FOREIGN MILITARY SALES

None

CONTRACTORS

- Inter-Coastal Electronics (Mesa, AZ)
- Airbus Group (Grand Prairie, TX)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM CTIS

COMBAT TRAINING CENTER-INSTRUMENTATION SYSTEM (CTC-IS)

MISSION

To enhance the ability of the Combat Training Centers (CTCs) to provide effective training feedback to rotation units conducting force-on-force, live fire and combined arms training by allowing the collection of engagement data for analysis and After Action Review (AAR) production.

DESCRIPTION

Combat Training Center-Instrumentation System (CTC-IS) is an information technology based communications, analysis and feedback system at the Maneuver Combat Training Centers (MCTCs) that provides a realistic operational environment for training the brigade combat team and below in preparation for deployment to conduct Decisive Actions. It is comprised of voice, video and data instrumentation subsystem networks that include software, hardware, work stations, base-station equipment, communications infrastructure, voice radios, data devices and interfaces. CTC-IS is scalable to collect, report, store, manage, process and display event data for 10,000 instrumented players and 100,000 constructive entities. The Instrumentation System (IS) provides the Combat Trainers (CT) critical situational awareness for training safety, analysis and feedback capabilities to conduct AAR.

CTC-IS is a key part of the Live Training Transformation–Family of Training Systems (LT2-FTS) and is based on the Common Training Instrumentation Architecture (CTIA). It leverages advanced technology in a modular and component-based manner and provides the foundation for common components across the live training product line. Common components such as exercise planning, exercise preparation, exercise control, AAR preparation and presentation, in concert with CTIA services, processes, rules and standards, support the full spectrum of training. CTC-IS is interoperable with other external systems through Distributed Interactive Simulation, High Level Architecture or Test and Training Enabling Architecture protocols. The CTC-IS program also gives the Joint Multinational Training Center a mobile instrumentation system that provides a movable training capability to support Army Force Generation and Unified Land Operations.

ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Instrumentation System (IS) Dependencies
- Core Instrumentation System (CIS): Generates data for and receives data from the Range Communication System (RCS) data link
- IS Cross Domain Solution (CDS): Provides data filtering for movement of data across the classified/unclassified boundary of the IS
- Tactical Engagement Simulation System (TESS): Generates data for and receives data from the RCS data link
- Live Fire – Command and control targets over the RCS

Other Major Interdependencies

- AT&T commercial cellular network: Provides processing of data for transmission over the RCS network

PROGRAM STATUS

- As of 3Q FY15: Program is in subsystems and systems level testing at the National Training Center (NTC) at Fort Irwin, CA. Installation of the system network infrastructure is underway at the Joint Readiness Training Center (JRTC) at Fort Polk, LA.

PROJECTED ACTIVITIES

- 1Q FY17: NTC Initial Operational Capability (IOC)
- 3Q FY18: JRTC IOC

FOREIGN MILITARY SALES

None

CONTRACTORS

- Northrop Grumman (Orlando, FL)
- General Dynamics Mission Systems (Orlando, FL)
- Primary subcontractor: AT&T (Orlando, FL)



PdM CTIS

JOINT PACIFIC MULTINATIONAL READINESS CAPABILITY-INSTRUMENTATION SYSTEM (JPMRC-IS)



MISSION

To enable realistic Army, Joint and Multinational Home Station Training across the full spectrum of conflict at fixed and exportable training sites within the Pacific Theater, in order to increase BTC readiness and ready Soldiers, leaders and units to meet Combatant Commander requirements.

DESCRIPTION

Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS) is an Army Battle Command System centric “system of systems” that includes integrated computer software and hardware, work stations, databases, voice and video recording, production and presentation equipment and interfaces capable of providing CTC-like training. The JPMRC-IS supports exercise planning, exercise management, training performance feedback and collection of Tactical Engagement Simulation data and includes an observer controller communication system. JPMRC-IS is a key part of the Live Training Transformation-Family of Training Systems (LT2-FTS) leveraging advanced technology in a modular and component-based manner.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Instrumentation System (IS) Dependencies
- Core Instrumentation System (CIS) – Generates data for and receives data from the communication system data link
- IS Cross Domain Solution (CDS) – Provides data filtering for movement of data across the Classified/Unclassified boundary of the IS
- Tactical Engagement Simulation System (TESS) - Generates data for and receives data from the communications system data link

PROGRAM STATUS

- 2013: System located at Schofield Barracks, HI
- 2015: CPD approved

PROJECTED ACTIVITIES

- FY16: Continuous Technical Refresh and Post Deployment Software Support
- FY16: Official Program of Record establishment

FOREIGN MILITARY SALES

None

CONTRACTORS

- General Dynamics Mission Systems (Orlando, FL)



ACQUISITION PHASE



PRODUCT MANAGER DIGITIZED TRAINING (PdM DT)



The preferred provider of Live Range Instrumentation Systems; develop, acquire, field and provide life cycle management of affordable and operationally effective solutions that meet the Warfighter's needs.



PdM DT

COMBAT TRAINING CENTER LIVE FIRE MODERNIZATION (CTC LFM)

MISSION

To provide targets and range effects devices to the NTC, JRTC and the JMRC in support of live fire maneuver training. To simulate the flash/bang of a weapon's discharge and impact in Force-On-Target (FoT) and to simulate opposing forces during realistic combined arms live fire training.

The BES provides real-time feedback to units conducting FoT tactical training and realistic battlefield effects at both CTC's and the Digital Range Training System ranges deployed throughout the U.S. Army.

BES is designed to produce flash/bang and smoke signature cartridges which simulates weapon fire of a hostile threat and/or an impact round on an armored target.

SYSTEM INTERDEPENDENCIES

- Other Major Interdependencies
- Live Fire Range Control System

PROGRAM STATUS

- Since August 2013: Active
- August 2015: Fielding JRTC/NTC

PROJECTED ACTIVITIES

To Be Determined (TBD)

FOREIGN MILITARY SALES

- Romania

CONTRACTORS

- ZelTech (Winter Park, FL)

DESCRIPTION

CTC LFM uses FASIT targets to provide an integrated target system to each of the CTCs. Combined with the CTC instrumentation system, real-time scoring and assessment can be achieved providing an eye on the training battlefield and a realistic after action review that enables unit leaders and Soldiers to learn from a detailed assessment of each training exercise.

FASIT targets can be used in night training environments if properly equipped with thermal signature blankets. Targets are equipped with MILES detectors to accommodate non-live fire type training. MILES shoot-back capability and battle effects are provided with properly equipped targets and using the Battlefield Effects Simulator (BES) I/II devices.

ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM DT

DIGITAL RANGE TRAINING SYSTEM (DRTS)



MISSION

To provide new/modern digital technology for gunnery ranges capable of training, evaluating, and stressing today's Soldiers and their equipment in a realistic train-as-you-fight environment. To support Active, Guard, and Reserve units in individual, collective live-fire training and qualification.

DESCRIPTION

The Digital Range Training System (DRTS) program is the enabler of range modernization for tactical vehicle training. DRTS provides the infrastructure and instrumentation for Abrams, Bradley, Stryker, and Aviation platform live-fire gunnery training and qualifications and the ability to conduct Combined Arms Live Fire Exercises (CALFEX). DRTS facilitates individual, collective live-fire training and qualification per Training Circular 25-8 with enhanced training data collection and After Action Review (AAR) capabilities. DRTS addresses emerging doctrinal requirements and enables new training techniques. DRTS addresses the need to replace aging live-fire training infrastructures with a modern suite of digital capabilities. These training systems replace obsolete, inadequate training methods and equipment in order to simulate new weapon systems, stress Soldiers, incorporate the Digitized Force, and provide enhanced training data collection and AAR capabilities. The instrumented ranges utilize all available combat system's capabilities and digitally integrate them to manage forces undergoing individual and collective live-fire training and qualification exercises.

ACQUISITION PHASE



SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Battlefield Effects Simulator (BES)
- Common Training Instrumentation Architecture (CTIA)
- LT2 product Line Components
- Multiple Integrated Laser Engagement System (MILES)
- Aviation Weapons Scoring System (AWSS)

PROGRAM STATUS

- Since September 1999: Active
- November 2015: Fielding Fort Carson Digital Multi-Purpose Training Range (DMPTR)

PROJECTED ACTIVITIES

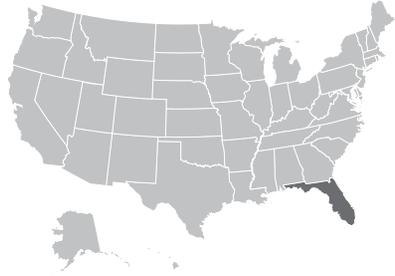
- January 2016: Fort Stewart DMPTR
- March 2016: Upgrade Range 201/301

FOREIGN MILITARY SALES

None

CONTRACTORS

- Lockheed Martin Mission Systems and Training (Orlando, FL)
- General Dynamics Mission Systems (Orlando, FL)
- Tactical Micro (Orlando, FL)





PdM DT

INTEGRATED-MILITARY OPERATIONS ON URBAN TERRAIN (MOUT) TRAINING SYSTEM (I-MTS)

MISSION

To provide state-of-the-art urban training facilities capable of training today's Soldiers while using their modern equipment in a realistic urban

environment at home stations and CTCs. To conduct individual to combined arms collective training within the context of the proponent Combined Arms Training Strategies and for Joint/Combined forces training.

DESCRIPTION

Integrated-Military Operations on Urban Terrain (MOUT) Training System (I-MTS) consists of four training facilities/systems:

- Urban Assault Course (UAC)
- Shoot House (SH)
- Combined Arms Collective Training Facility (CACTF)
- Collective Training Facility (CTF)

The systems are designed to provide individual Soldier-through-battalion-level training in urban operations at home stations. These training facilities allow units to train Soldiers on building entry/egress and room-clearing techniques under lethal and non-lethal operational conditions. These systems monitor, control and document the training exercise. They also analyze collected exercise data, prepare and present standardized training performance feedback, and archive training performance information for take-home packages and other external uses.

UACs, SHs, and CACTFs are located across Army, Army Reserve, and National Guard installations to ensure Soldiers are prepared to conduct full-spectrum operations in any urban environment. The CTF system is fielded exclusively to National Guard and Army Reserve installations that are designated as pre-mobilization sites.

By providing state-of-the-art urban training facilities, the Army ensures the highest level of fidelity in war fighting readiness for Soldiers preparing for battle, so Soldiers' lessons are learned on the training ground and not on the battleground.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Battlefield Effects Simulator (BES)
- Live Training Transformation (LT2) Common Training Instrumentation Architecture (CTIA)
- LT2 product Line Components
- Multiple Integrated Laser Engagement System (MILES)

Other Major Interdependencies

- Targetry Range Automated Control and Recording (TRACR)

PROGRAM STATUS

- Since August 2004: Active
- April 2015: SH to Camp Gruber, OK
- April 2015: UAC to Camp Dodge, IA
- May 2015: CTF to Camp Gruber, OK
- October 2015: CTF to Camp Blanding, FL
- November 2015: SH to Fort McClellan, AL

PROJECTED ACTIVITIES

- February 2016: Fielding CTF to Fort Pickett, VA
- March 2016: Continuous Technical Refresh (CTR) SH to Fort Carson, CO
- May 2016: CTR CACTF to Fort Carson, CO
- July 2016: CTR CACTF to Camp Bullis, TX
- August 2016: CTR SH to Fort A.P. Hill, VA
- September 2016: CTR SH to Grafenwoer, Germany

FOREIGN MILITARY SALES

- Jordan

CONTRACTORS

- Lockheed Martin Mission Systems and Training (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM DT
TARGET MODERNIZATION

MISSION

To provide and maintain a set of standard requirements, capabilities, and software solutions for live fire range device capabilities and communication protocols that are synchronized with Live Training Transformation (LT2), allow “plug and play” for differing hardware solutions across live training ranges, and provide a mechanism for developing and implementing capabilities in support of emerging technologies and requirements.

DESCRIPTION

The Target Modernization effort is the overarching means to generate and provide a standard solution set for range devices. This includes a single common target controller for all Army targets identified in Training

Circular 25-8 Ranges, with a common look and feel and an integrated graphical user interface in accordance with the LT2 style guide, and in compliance with the Common Training Instrumentation Architecture (CTIA). The single target controller manages legacy targets (Remote Equipment Target Systems (RETS)/ Enhanced Remote Equipment Target Systems (ERETS)) and Future Army System of Integrated Targets (FASIT). It allows for Commercial-Off-The-Shelf (COTS) system integration (via standard interface documentation to allow industry to create their own interfaces and/or adapters). It also includes a standard performance specification (FASIT), a standard set of interfaces (FASIT Interface Control Documents), and target technology development and insertion.

The Target Modernization effort is also developing the protocols and technology for the next generation of non-contact hit sensors, overseeing the definition and development of the next generation of common target silhouettes in support of

Recognition of Combat Vehicles and Combat Identification, and developing and integrating solutions to modernize existing legacy ranges via new technology to align to the FASIT and Corps of Engineering requirements.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Battlefield Effects Simulator (BES)
- Live Training Transformation (LT2) Common Training Instrumentation Architecture (CTIA)
- LT2 Product Line Components

PROGRAM STATUS

- Since March 1996: Active
- August 2015: Targetry Range Automated Control and Recording (TRACR) Upgrade to Fort Bliss Ranges 65/70
- November 2015: Fort A.P. Hill, VA
- December 2015: Fort Dix, NJ

PROJECTED ACTIVITIES

- January 2016: Fort Polk Digital Multi-Purpose Battle Area Course (DMPBAC) Conversion

FOREIGN MILITARY SALES

- Serbia

CONTRACTORS

- Riptide Software (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PRODUCT MANAGER GROUND COMBAT TACTICAL TRAINERS (PdM GCTT)



Develop, field and sustain premier virtual training systems to train Soldiers to fight effectively on the ever evolving battlefield.

PdM GCTT

ABRAMS MAINTENANCE TRAINING SYSTEMS (MTS)



MISSION

To provide skill-level development for system operation, fault diagnosis, troubleshooting, adjustments, remove/replace and repair tasks for armament and vehicle maintenance specialty Soldiers who support the Abrams family of combat tanks.

DESCRIPTION

The product line for the Abrams Maintenance Training System (MTS) simulate the Abrams Main Battle Tank to train maintenance

personnel. The system consists of Hands-On Trainers (HOTs), Diagnostics and Troubleshooting (D/T) desktop trainers and Instructional Visual Aids (IVAs). The devices support instructional skill development in system operation, fault diagnostics, remove/replace and repair tasks.

SYSTEM INTERDEPENDENCIES

Other Major Interdependencies

- Abrams Common Software Library (ACSL); Abrams Embedded Diagnostics (ED) software; Tactical System Hardware – Government Furnished Equipment
- Maintenance Support Device–Version 3 (MSD–V3) (for development efforts)

PROGRAM STATUS

- As of 3Q 2015: 19 SEpv2 HOTs; 4 SA HOTs; 2 AIM ED HOTs; 80 D/Ts; 4 IVAs

PROJECTED ACTIVITIES

- 4Q 2016: Field 40 D/Ts to Fort Benning, GA; Field ED 7.0 and SCWS D/T Software Baseline upgrade to Fort Lee, VA; Gowen Field, ID; Fort Benning, GA

FOREIGN MILITARY SALES

None

CONTRACTOR

- Prime: CAE USA (Tampa, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT

PdM GCTT

BOOM OPERATOR SIMULATOR SYSTEM (BOSS)



MISSION

To produce, field and maintain 17 BOSS devices for the Air National Guard (ANG) and establish and support a Training Systems Support Center (TSSC). The program will also provide configuration management of the BOSS software, thus ensuring that all BOSS and MicroBOSS systems have the current version.

DESCRIPTION

The BOSS is a high-fidelity, immersive, continuation trainer for the ANG that replicates the inflight refueling KC-135R, Block 40 boom pod. The program will procure 17 units baselined on an existing prototype BOSS built by the United States Air Force (USAF). The BOSS units will be fielded to ANG sites in both CONUS and OCONUS (Hawaii and Alaska) locations.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- Fieldings scheduled in Alaska and Arizona:
- September 2015 - Eielson AFB, AK
 - September 2015 - Phoenix, AZ

PROJECTED ACTIVITIES

- FY16: Sustainment of fielded devices

FOREIGN MILITARY SALES

None

CONTRACTORS

- FAAC, Inc. (Ann Arbor, MI)



ACQUISITION PHASE





PdM GCTT

COMMON DRIVER TRAINER (CDT)

MISSION

To provide an initial and sustainment vehicle driver training simulation to the Soldier at both operational unit and institutional training levels. The primary training audience can operate from an individual and/or from the commander's station to accomplish their collective training tasks.

DESCRIPTION

Available in both fixed and mobile training facility (MTF) configurations, the vehicle cab variants are interchangeable and reconfigurable providing multiple variants to train on a single common equipment training platform. The common equipment (CE) makes up 80 percent of the CDT system. CE includes a six degree of freedom (DOF) motion system, Image Generation/Display System (IGDS), Instructor/Operator Station (IOS) and an After Action Review (AAR)/Ancillary Station.

The CDT software recognizes the current vehicle variant installed on the system and simulates that vehicle's operational performance and handling characteristics. The CDT also utilizes geo-typical and geo-specific training databases for a variety of real world driving conditions/locations. Via the instructor/operator station, the instructor can select a visual scene, introduce malfunctions and emergency control situations, monitor each Soldier's performance and provide recorded AAR feedback. The CDT is capable of controlling one system or multiple CDTs if co-located and configured for networking.

The reconfigurable common platform provides driver training for multiple U.S. Army tactical vehicles consisting of:

- The Stryker Variant (CDT SV) trains 10 different Stryker vehicles.
- The Tank Variant (CDT TV) trains the M1A1 SA and M1A2 SEP V2 with the ability to add plow/roller. The MRAP Variant (CDT MV) trains the RG33, RG31, Caiman, Maxxpro and MATV.

- The Tank Engineering Variant (CDT TEV) trains the Assault Breacher Vehicle and Joint Assault Bridge. The CDT TEV adds the commander's station for collective task training and incorporates moveable and detachable/attachable objects.
- The Tactical Wheeled Variant (CDT TWV) trains the M1083A1, M915A3, M915A5 and M1120A4 with or without trailers. The CDT TWV incorporates the use of an assistant driver's station to train Joint Capabilities Release-Logistics (JCR-Log) related tasks.

SYSTEM INTERDEPENDENCIES

Other Major Interdependencies

- Abrams Common Software Library (ACSL)

PROGRAM STATUS

- As of 3Q 2015: Providing technical support to 53 legacy systems fielded at 19 locations
- As of 3Q 2015: Developing 56 Tactical Wheeled Variant (TWV) for the Army Transportation School in order to enable training the 88M course

PROJECTED ACTIVITIES

- FY16: Testing
- FY17 – FY21: Fielding

FOREIGN MILITARY SALES

None

CONTRACTORS

- Raydon Corporation (Port Orange, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM GCTT

**COMPUTER-BASED INSTRUCTIONAL DEVELOPMENT (CBID)/
INTERACTIVE MULTIMEDIA INSTRUCTION (IMI)**

MISSION

To ensure rapid, cost-effective and streamlined contracting for delivery of high-quality training products to meet the immediate needs of the Soldier. To provide quality Interactive Courseware and a wide array of other training products to all areas of the Army, Department of Defense and other government agencies. To provide cradle to grave support in developing quality training to support

the Warfighter to defeat constant worldwide threats. PdM GCTT provides the most current training development tools to be able to train maintenance/operation of new equipment and training in the field.

DESCRIPTION

The Computer-Based Instructional Development (CBID) contract provides access to an array of innovative and creative providers of interactive multimedia products that can be used by the Soldier at home station or when deployed. The PdM GCTT CBID contract provides for analyses and studies, training program structure development, course conduct support information development, and training conduct support specific to training systems, and human performance to include job task analyses. Additionally, it allows for cost benefit analysis, various technology infusion studies, training system analyses, performance improvement analyses, gap analyses, effectiveness studies and other studies and analyses that lead to effective human performance solutions.

The contract also provides specialists in design, development and implementation of multimedia products utilizing accepted Instructional System Design principles. The design, installation and implementation of Automated Electronic Classrooms, incorporating Advanced Learning Technologies designed to meet learning objective and performance requirements to maximize student engagement, may also be procured. Specific products include: interactive courseware, computer-aided instruction, electronic guides, interactive electronic

technical publications, learning management systems, electronic job aids (e.g., templates, macros, etc.) and Advanced Distributed Learning Products Online.

CBID is an Indefinite Delivery/Indefinite Quantity (ID/IQ) Contract and is Task/Delivery Order driven. No one specific product. All are support mission/customer based requirements.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- As of 3Q 2015: CBID ID/IQ contract is currently executing Delivery Orders based on a Justification and Approval. CBID Delivery Orders are dependent on customer requirements as needed.

PROJECTED ACTIVITIES

- FY16 – FY20: CBID II is a Total Small Business Set Aside ID/IQ contract. CBID II is currently in a competitive environment and is in the Evaluation Phase.

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Akima Infrastructure Services, LLC (Hampton, VA)
- Subcontractor: Intelligent Decision Systems Inc. (Centreville, VA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM GCTT

MINE RESISTANT AMBUSH PROTECTED (MRAP) AUTOMATIC FIRE SUPPRESSION SYSTEM (AFSS) UPGRADE

MISSION

To provide skill level development for automatic fire suppression system operation, fault diagnosis, troubleshooting, adjustments, removal/replacement and repair tasks for maintenance specialty Soldiers for the MRAP tactical vehicles.

DESCRIPTION

The MRAP AFSS is an institutional Maintenance Training System (MTS) that supports the instruction of 91B mechanic Skill Based Training (SBT) on the MRAP Automatic Fire Suppression System (AFSS). The upgrade development will leverage all existing Instructor Operators Station (IOS) controls, interface functionality, technical documentation and will allow one instructor to simultaneously monitor and control up to seven student trainers (21 student stations) through a wireless interface; incorporate automatic student tracking and

scoring; and expand instructor controls. Additionally, the undercarriage components will be changed from the nitrogen pressure sensor to the linear detection wire system.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 4Q 2015: Awarded Upgrade Contract

PROJECTED ACTIVITIES

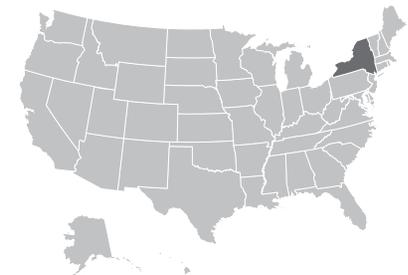
- FY16 – FY17: Fielding

FOREIGN MILITARY SALES

None

CONTRACTORS

- Rockwell Collins (Binghamton, NY)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PdM GCTT

MRAP EGRESS TRAINERS (MET)



MISSION

To expose Soldiers to the effects of vehicle rollover and to develop the skills necessary to react properly during a rollover and/or egress situation from the Mine Resistant Ambush Protected (MRAP) tactical vehicle.

DESCRIPTION

The MET increases the situational awareness of vehicle rollover by permitting the instructor to observe crew performance and reaction to emergency conditions without requiring the use of an actual vehicle. The device reinforces the importance of seat positioning, wearing seatbelts, demonstrating the feeling of being disoriented, and the actual effort required to execute egress procedures. The trainer allows individuals and crews to rehearse and physically execute the necessary steps required to survive a vehicle rollover.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- July 2014: Supported under Warfighter Focus
- 21-29 July 2015: Install of Final MATV cab at Rodriquez Live Fire Complex in Korea Completed

PROJECTED ACTIVITIES

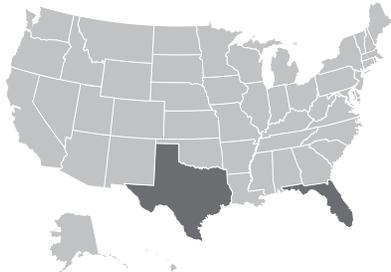
- FY16: Determine disposition of excess material at Red River Army Depot in coordination with Program Manager Mine Resistant Ambush Protected (PM MRAP)

FOREIGN MILITARY SALES

- Denmark and Croatia

CONTRACTORS

- Trainers made by Red River Army Depot and supported by AHTNA (Texarkana, TX)
- Sustained under Warfighter FOCUS by: Raytheon Intelligence, Information and Services (Orlando, FL)



ACQUISITION PHASE





PdM GCTT

VIRTUAL CLEARANCE TRAINING SUITES (VCTS)

MISSION

To provide clearance operations training on the latest tactics, techniques, and procedures (TTPs), and practice employing clearance vehicles and subsystems, including the Mine Protected Clearance Vehicle (MPCV) (“Buffalo”), Vehicular Mounted Mine Detector (VMMD) (“Husky”) with the Husky Mounted Detection System (HMDS), Medium Mine Protected Vehicle (MMPV) (RG31 and/or Panther), and the Man Transportable Robotic Systems (MTRS) (“Talon”). VCTS is the U.S. Army’s program of record for training clearance operations.

DESCRIPTION

The VCTS uses five self-contained, mobile trailers containing four MPCV virtual simulators that can be reconfigured to MMPV (RG31 only), four VMMD virtual simulators with HMDS and Metal Detection Panels, four reconfigurable MMPV stations, two MTRS (Talon IIIB) virtual simulators and four Instructor

Operator Stations (IOS) with four shared After Action Review areas. Each vehicle station is designed to match the layout and function of each system and enabler utilized in the clearance formation, including four mounted gunner stations. The vehicle simulators can be networked for collective clearance mission training or provide individual skill training. The VCTS includes over 125 pre-programmed scenarios. The system can run multiple scenarios from the same IOS and incorporates communication between vehicles and with the IOS.

The instructor can modify scenario conditions and events such as Improvised Explosive Devices (IED) explosions, weather conditions and malfunctions in real time, allowing flexibility in training.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Synthetic Environment Core (SE Core)
- One Semi-Automated Forces (OneSAF)

Other Major Interdependencies

- Edgewater Chemical Biological Center
- Night Vision and Electronics Sensors Directorate (NVESD)

PROGRAM STATUS

- As of 3Q FY15: 27 VCTS fielded: CONUS – 23 & OCONUS – four
- 3/4Q FY15: Fielding of VCTS 5th Trailer Reconfiguration
- 4Q FY15: Testing and fielding VCTS Software Upgrade Released 2.1
- 4Q FY15: Vehicle Optic Sensor System integration upgrade

PROJECTED ACTIVITIES

- 1Q – 4Q FY16: Continue fielding VCTS 5th Trailer Reconfiguration
- 1Q FY16: In Plant Acceptance Test for the VOSS integration phase upgrade
- 2Q FY16: Award Follow-on contract for VCTS, including additional upgrades efforts

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: FAAC Inc. (Ann Arbor, MI)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PRODUCT MANAGER LIVE TRAINING SYSTEMS (PdM LTS)



To develop, acquire, field and sustain an integrated suite of live Training Aids, Devices, Simulators and Simulations (TADSS) to support Warfighter training at home stations, Combat Training Centers (CTCs), and deployed sites.

PdM LTS

AERIAL WEAPONS SCORING SYSTEM INTEGRATION WITH LONGBOW APACHE TACTICAL ENGAGEMENT SIMULATION SYSTEM (AWSS LBA TESS)



MISSION

To provide force-on-target gunnery training for Longbow Apache aircrews.

DESCRIPTION

AWSS LBA TESS provides the LBA pilots the ability to conduct force-on-target engagements using live ammunition for 30mm, rocket and simulated Hellfire missile engagements. The SMart Onboard Data Interface Module (SMODIM) transmits aviation data from the Apache to the AWSS ground station to support gunnery scoring. Trainers and commanders use AWSS to score the pilot's live-fire gunnery performance and provide constructive AAR feedback.

ACQUISITION PHASE



SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Combat Training Center-Instrumentation System (CTC-IS)
- Digital Range Training System (DRTS)

PROGRAM STATUS

- FY11 – FY13: Seven systems fielded
 - 4 – Continental United States (CONUS)
 - 2 – Outside Continental United States (OCONUS)
 - 1 – Digital Range Training System (DRTS)

PROJECTED ACTIVITIES

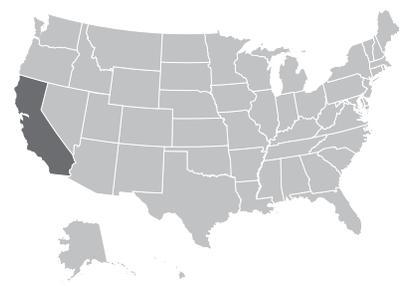
- FY16: None currently planned

FOREIGN MILITARY SALES

None

CONTRACTORS

- Meggitt Defense Systems (Irvine, CA)





PdM LTS

AVIATION TACTICAL ENGAGEMENT SIMULATION SYSTEM (AV TESS)

- » CH-47 (LIFT)
- » UH-60 (UTILITY)

MISSION

To provide a collective training capability for the CH-47D/F (Chinook) and the UH60A/L/M (Blackhawk) airframes at the Combat Training Centers (CTCs), aviation home stations, ranges and deployed locations.

DESCRIPTION

The Aviation Tactical Engagement Simulation System (AV TESS) is an advanced training system developed for the CH-47/UH-60 aircraft to support force-on-force and

force-on-target live training at the CTCs, aviation home stations and ranges. AV TESS consists of components provisioned on the aircraft (A-kit) and components appended to the aircraft (B-kit) that interface with an Instrumentation System (IS). Digitization of the UH-60 and CH-47 series aircraft require modifications of AV TESS B-Kit components, specifically installation brackets, cable lengths, and connection interfaces between the existing Modular SMart Onboard Digital Interface Device (MSMODIM) and the aircraft. Like the LBA TESS, the CH-47/UH-60 TESS is tracked using a telemetry network, repeaters and ground station. AV TESS displays live training events in real time and enables trainers to capture live training exercises for after action review. AV TESS simulates Chinook and Blackhawk situational awareness, location and the ability to be acquired by weaponry to be shot and/or shot down during a weapons engagement.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Combat Training Center-Instrumentation System (CTC-IS)
- Digital Range Training System (DRTS)

PROGRAM STATUS

- 2Q FY15: Completed fielding of 40 UH60M TESS kits

PROJECTED ACTIVITIES

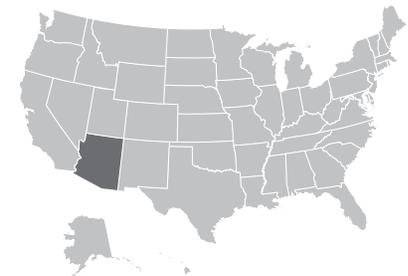
- FY17: Upgrade to the Advanced SMart Onboard Data Interface Module (ASMODIM) to enhance capability
- FY18 – FY19: Procurement and fielding of an additional 108 TESS Kits to support UH-60 A/L/M and 48 TESS Kits to support CH-47D/F for Home Station Training

FOREIGN MILITARY SALES

None

CONTRACTORS

- Inter-Coastal Electronics (Mesa, AZ)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM LTS

HOME STATION INSTRUMENTATION TRAINING SYSTEM (HITS)

MISSION

To enhance training at home stations by instrumenting force-on-force live training exercises for battalion and below units.

DESCRIPTION

Home Station Instrumentation Training System (HITS) provides the capability for instrumented live training at home stations. It provides the training unit automated tools to establish medium fidelity cause and effect analysis of battalion and below collective training performance. It is an integrated system of computer software and hardware, work stations, databases, voice, video, and data recording, production, and presentation equipment, interface devices and communication networks. It provides the tools for the Observer-Controller/Trainer (OC/T) and Operators to collect, analyze,

and present training performance feedback to the training unit in the AAR and a unit Take Home Package. HITS is a transportable system that can be rapidly deployed to support field training exercises, operates at Mission Assurance Category III Sensitive, and produces Controlled Unclassified Information (CU). HITS provides the live domain for Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE) established by the LVC-IA program. HITS is part of the Live Training Transformation—Family of Training Systems (LT2-FTS) and is based on the Common Training Instrumentation Architecture (CTIA).

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Live Training Transformation (LT2) Common Training Instrumentation Architecture (CTIA)
- LT2 Product Line Components
- Instrumentable-Multiple Integrated Laser Engagement System (I-MILES)
- Live, Virtual, Constructive - Integrating Architecture (LVC-IA)

PROGRAM STATUS

- FY12 - FY15: Fielded 12 systems to various home stations

PROJECTED ACTIVITIES

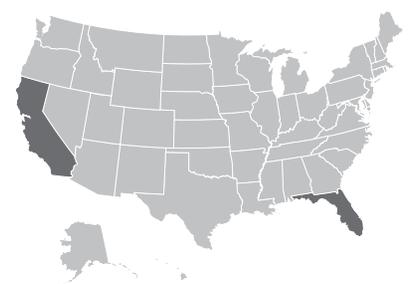
- September 2016: Fielding the final 4 systems
- 3Q FY16: Complete basis of issue fielding (3 systems)

FOREIGN MILITARY SALES

None

CONTRACTORS

- Cubic Global Defense (San Diego, CA)
- General Dynamics Mission Systems (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

HUSKY MOUNTED DETECTION SYSTEM VERSION 1-TRAINER (HMDS V1-T)



MISSION

To provide a live training capability to emulate the form, fit and function of the HMDS tactical system. The HMDS V1-T will detect a spectrum of surface-laid and buried explosive hazards.

DESCRIPTION

The HMDS Version 1-Trainer is a kit that is mounted onto a Husky MKII or MKIII to simulate the operation of the HMDS Tactical System. The HMDS V1-Trainer is nearly identical in operation to the live HMDS with simulated Ground Penetrating Radar (GPR) cause and effect interface. It provides the Warfighter the same level of valuable training and experience as the tactical HMDS by using radio frequency to detect targets developed to simulate real improvised explosive devices.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- FY15: Upgrade and Development

PROJECTED ACTIVITIES

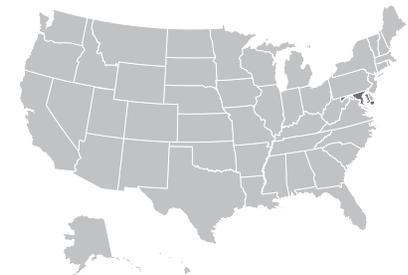
- FY16: Design enhancements/integration/testing/prototype fabrication
- 3Q FY17: Testing
- 4Q FY17 - 3Q FY18: Production
- 4Q FY18: Fielding

FOREIGN MILITARY SALES

None

CONTRACTORS

- U.S. Army Research Development and Engineering Command (RDECOM) Advanced Design and Manufacturing Division (Edgewood, MD)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM LTS

IMPROVED TARGET ACQUISITION SYSTEM-TACTICAL ENGAGEMENT SIMULATION SYSTEM FIELD TRAINING SYSTEM (ITAS-TESS FTS)

MISSION

To provide the capability for Warfighters to train with the Tube-launched, Optically-tracked, Wire-guided (TOW) anti-tank weapon system in an instrumented environment at Combat Training Centers (CTC), home stations and deployed locations.

DESCRIPTION

ITAS-TESS FTS is an operationally transparent integrated training system providing crew and combined arms training as either a stand-alone system or as an integrated component at U.S. Army CTCs and home stations. The ITAS-TESS is a fully deployable mobile Multiple Integrated Laser Engagement System (MILES)-based training capability and does not infringe upon crew, dismounted Soldier or ground observer safety. The wireless ITAS-TESS consists

of equipment used to instrument and configure the TOW ITAS (mounted or dismounted configuration) as a shooter and as a MILES target. It also includes communications equipment to support home station training, including remote relays to bridge long distances between the ITAS-TESS in an exercise box and the Mobile Command and Control (C2) station.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Combat Training Center-Instrumentation System (CTC-IS)

PROGRAM STATUS

- As of 3Q FY15: Fielded 150 systems Army wide

PROJECTED ACTIVITIES

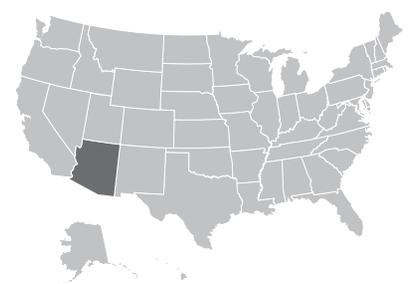
- FY16: Sustainment

FOREIGN MILITARY SALES

None

CONTRACTORS

- Inter-Coastal Electronics (Mesa, AZ)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

INSTRUMENTABLE-MULTIPLE INTEGRATED LASER ENGAGEMENT SYSTEM COMBAT VEHICLE TACTICAL ENGAGEMENT SIMULATION SYSTEM (I-MILES CVTESS)



MISSION

To simulate both the firing capabilities and the vulnerability of the vehicle as well as to serve as a means to objectively assess weapon effects during training. To provide unit commanders an integrated training system for use at home station local training areas and instrumented training areas. To replace Basic MILES, M2000 and MXXI target systems and field in accordance with the Army-wide distribution plan.

DESCRIPTION

Instrumentable-Multiple Integrated Laser Engagement System Combat Vehicle Tactical Engagement Simulation System (I-MILES CVTESS) is a laser-based training device to be used on Abrams, Bradley, and Opposing Forces (OPFOR) tanks and fighting vehicles to provide real time casualty effects. It is an evolutionary approach for replacing older CVS systems equipment currently used in force-on-force training exercises with devices that provide better training fidelity for combat vehicle systems. It will reinforce crew duties, reward proper engagement techniques and develop tactical maneuver skills of armor and mechanized infantry combined arms teams up to brigade level. It provides unit commanders an integrated training system in force-on-force and force-on-target training events at home station training areas through

instrumented training. The system interfaces with instrumentation systems at Combat Training Centers (CTC). The I-MILES CVTESS modular design will accommodate new weapons, ammunition and vehicle types. The U.S. Army will use and field I-MILES CVTESS worldwide in all geographical areas.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Home Station/Army Mobile Instrumentation Training System (HITS)
- Combat Training Center-Instrumentation System (CTC-IS)
- LT2 Product Line Components

PROGRAM STATUS

- By end of FY15: approximately 2068 kits will have been fielded; Abrams/Bradley and OPFOR

PROJECTED ACTIVITIES

- FY16: Procure and field remaining BOI 6.15.2 quantities (891)

FOREIGN MILITARY SALES

None

CONTRACTORS

- Saab Training USA, LLC (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PdM LTS

INSTRUMENTABLE-MULTIPLE INTEGRATED LASER ENGAGEMENT SYSTEM INDIVIDUAL WEAPON SYSTEM 2 (I-MILES IWS 2)



MISSION

To replace Legacy Multiple Integrated Laser Engagement Systems (Basic/MILES 2000) Individual Weapons System at home stations and Combat Training Centers (CTCs) according to the Army-wide distribution plan.

DESCRIPTION

Instrumentable-Multiple Integrated Laser Engagement System Individual Weapons System 2 (I-MILES IWS 2) is a man-worn system, providing real time casualty effects necessary for tactical engagement training in direct fire force-on-force and instrumented training scenarios (Home Station Instrumentation Training System – HITS and Maneuver Combat Training Centers – MCTCs). Use of the system, from squad thru brigade level exercises, reinforces good tactical maneuver skills by training Soldiers how to avoid being shot, as well as rewarding good target engagement ability.

The IWS 2 kit is comprised of an individual body harness and helmet halo for target vulnerability on Soldiers and an unobtrusive Small Arms Transmitter (SAT) that mounts on a Soldier’s weapon to replicate weapon range and effects. Event data can be downloaded for use in a stand-alone or instrumented after action review and training assessment. The IWS 2 replaces Basic and MILES 2000 man-worn systems at home stations and instrumented sites Army-wide in accordance with the I-MILES Basis of Issue (BOI).

ACQUISITION PHASE



SYSTEM INTERDEPENDENCIES

- With Other Products Listed in this Publication
- Home Station/Army Mobile Instrumentation Training System (HITS)
 - Combat Training Center-Instrumentation System (CTC-IS)
 - LT2 Product Line Components

PROGRAM STATUS

- As of 4Q FY15: Fielded 88,681 kits to over 26 locations
- As of 4Q FY15: In Option 3 of base year plus 4 options contract

PROJECTED ACTIVITIES

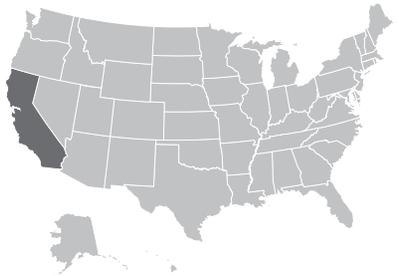
- 2Q FY16: Final option expected to be awarded
- FY16: Fielding, deployment, support and sustainment

FOREIGN MILITARY SALES

None

CONTRACTORS

- Cubic Global Defense (San Diego, CA)



INSTRUMENTABLE-MULTIPLE INTEGRATED LASER ENGAGEMENT SYSTEM TACTICAL VEHICLE SYSTEM (I-MILES TVS)



MISSION

To replace basic Multiple Integrated Laser Engagement System (MILES) target systems at home stations and maneuver Combat Training Centers (CTCs) Army-wide in accordance with the distribution plan as next generation to Wireless Independent Target System (WITS).

DESCRIPTION

Instrumentable-Multiple Integrated Laser Engagement System Tactical Vehicle System (I-MILES TVS) provides real time casualty effects necessary for tactical engagement training in direct fire, force-on-force training scenarios and instrumented training scenarios. It replaces all basic MILES systems currently fielded on non-turreted military vehicles, from commercial vehicles through the Mine Resistant Ambush Protected (MRAP) and Stryker families of vehicles, and can be used independently on fixed structures, i.e. bridges. The TVS improves on the “wireless” function of the Wireless Independent Target System (WITS), permitting a “weapons link” between the system’s target detectors and the Small Arms Transmitter (SAT) used by personnel on the tactical vehicle; adding

the capability of killing both the vehicle and the onboard small arms weapon system. Instrumentation interface is provided for CTC use and includes Global Positioning System (GPS), crew-served weapons interface and battery eliminator functionality. I-MILES TVS is fielded Army-wide in accordance with the MILES Basis of Issue Plan (BOIP).

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Home Station/Army Mobile Instrumentation Training System (HITS)
- Combat Training Center-Instrumentation System (CTC-IS)
- LT2 Product Line Components

PROGRAM STATUS

- As of 3Q FY15: Fielded 5,847 kits to over 29 locations

PROJECTED ACTIVITIES

- By end of 1Q FY16: approximately 7,194 BOI and 870 Customer (PM SBCT) kits will have been fielded
- FY16: Contract Close Out

FOREIGN MILITARY SALES

None

CONTRACTORS

- Cubic Global Defense (San Diego, CA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PdM LTS

LONGBOW APACHE TACTICAL ENGAGEMENT SIMULATION SYSTEM (LBA TESS)



MISSION

To provide a collective training capability at the Combat Training Centers (CTCs), aviation home stations, ranges and deployed locations.

DESCRIPTION

LBA TESS is an advanced training system developed for the LBA to support force-on-force and force-on-target live training at the CTCs, aviation home stations and ranges. The system includes aircraft and target hardware, a telemetry network, repeaters and ground station. LBA TESS displays live training events in real time and enables trainers to capture live training exercises for after action review. LBA TESS simulates Apache weapons engagements to include Semi-Active Laser (SAL) and Radio Frequency (RF) Hellfire, rocket and gun.

SYSTEM INTERDEPENDENCIES

- With Other Products Listed in this Publication
- Combat Training Center-Instrumentation System (CTC-IS)
 - Digital Range Training System (DRTS)

PROGRAM STATUS

- As of 4Q FY15: Fielded seven battalion suites (168 total kits). Fort Hood, TX (2 each), Fort Bragg, NC, Fort Campbell, KY, Fort Stewart, GA, Germany and Korea

PROJECTED ACTIVITIES

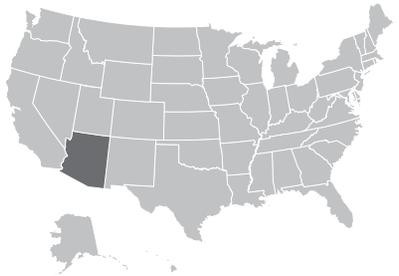
- FY16 – FY17: Upgrade to the Advanced Smart On-board Data Interface Module (ASMODIM) to enhance capability
- FY16 – FY17: Procurement and fielding of an additional five battalion suites (120 kits) to support PM Apache mission

FOREIGN MILITARY SALES

- Netherlands, Kuwait, Taiwan, Qatar and UAE

CONTRACTORS

- Inter-Coastal Electronics (Mesa, AZ)



ACQUISITION PHASE



MAN-PORTABLE AIRCRAFT SURVIVABILITY TRAINER (MAST)



MISSION

To provide opposing forces (OPFOR) a Man-Portable Aircraft Defense System (MANPADS) simulator that targets air platforms while training aircrews to respond to Missile Warning Systems (MWS).

DESCRIPTION

Man-Portable Aircraft Survivability Trainer (MAST) system is a Man-portable Air Defense System (MANPADS) training device primarily used by ground Soldiers acting as Opposing Forces (OPFOR) to train aircrews to react to Surface-to-Air Missile (SAM) threats during training exercises. The system includes the MAST and the Weapons Effects Signature Simulator (WESS). The MAST stimulates the Common Missile Warning System (CMWS) resulting in a threat declaration in the aircraft cockpit. The MAST can be equipped with a Multiple Integrated Laser Engagement System (MILES) to interact with the onboard aviation Tactical Engagement Simulation System (TESS) during force-on-force training. Additionally, the MAST has the capability to record SAM engagements during the live training exercises. The recorded engagements are used for debriefing aircrews and support the preparation of after action reviews. The WESS is a pyrotechnic device designed to simulate the visual and audio signature of a MANPADS to accompany the electronic signature simulation created by the MAST.

ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

SYSTEM INTERDEPENDENCIES

Other Major Interdependencies

- Common Missile Warning System (CMWS)

PROGRAM STATUS

- As of 4Q FY15: 77 fielded to the Army
- As of 4Q FY15: 15 fielded to Joint Sites
- As of 4Q FY15: 14 fielded to the Air National Guard
- As of 4Q FY15: 1 fielded to Joint Base McGuire-Dix-Lakehurst, NJ

PROJECTED ACTIVITIES

- 1Q FY16: Finishing testing on added capabilities (beam rider)
- 2Q FY16: Update all Army systems and conduct training

FOREIGN MILITARY SALES

None

CONTRACTORS

- Textron Systems (Hunt Valley, MD)





PdM LTS

OPPOSING FORCES SURROGATE WHEEL VEHICLE (OSWV)

MISSION

To support the Combat Training Centers (CTCs) Opposing Forces (OPFOR) Surrogate Wheeled Vehicles, technical vehicles, unique visual modifications and Civilian on the Battlefield Vehicles (COB-Vs). The capability will provide an accurate replication of the OPFOR and COB vehicle environment that rotational units must train against.

DESCRIPTION

The OSWV fleet is a collection of wheeled vehicles used as training aids to portray threat vehicles including tactical vehicles, technical vehicles, and Civilian on the Battlefield Vehicles (COB-Vs). These vehicular training aids are essential to the Army's ability to simulate the capability of enemy maneuver forces countering Unified Land Operations (ULO) during Maneuver Combat Training Center (MCTC) rotations. Each type of OSWV is composed of three components: the vehicle, a visual modification

(VISMOD) to make it appear as an OPFOR vehicle, and the Tactical Engagement Simulation System (TESS) with the instrumentation system (IS) required to participate in CTC rotations. Both TESS and IS are developed under the I-MILES and CTC-IS programs of record, respectively, with their own inherent requirements.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Home Station/Army Mobile Instrumentation Training System (HITS)
- Combat Training Center-Instrumentation System (CTC-IS)
- LT2 Product Line Components
- I-MILES Tactical Vehicle System (TVS)

PROGRAM STATUS

- 2Q-3Q FY15: Conducted Market Research
- 4Q FY15: Materiel Development Decision

PROJECTED ACTIVITIES

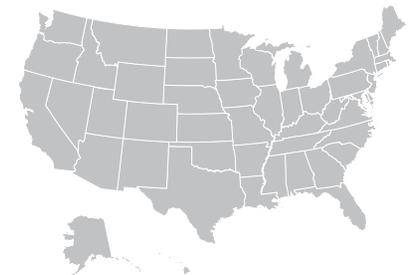
- FY16: Establish OSWV Integrated Product Team (IPT) with stakeholders
- FY16: Conduct Market Research
- FY16: Developing MOU/PLAs
- FY16: Assisting with POM development
- FY16: Drafting RFI

FOREIGN MILITARY SALES

None

CONTRACTORS

To Be Determined (TBD)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PRODUCT MANAGER MEDICAL SIMULATION (PdM MEDSIM)



To develop, field and sustain Medical Modeling and Training Aids, Devices, Simulators and Simulations (TADSS) across the Live, Virtual, Constructive and Gaming (LVCG) domains for the Continuum of Care.



PdM MEDSIM

MEDICAL SIMULATION TRAINING CENTERS (MSTCS)

MISSION

Conduct sustainment and enhanced medical training for Combat Medics and Combat Lifesavers.

DESCRIPTION

The MSTC provides realistic medical training to both medical and non-medical Soldiers in the Active, Reserve, and National Guard. MSTCs provide hands-on instruction on the latest battlefield trauma and critical care techniques based on Army

Medical Department (AMEDD) approved performance oriented Programs of Instruction (POI). Medical treatment validation exercises simulate the high stress of performing medical interventions in combat. MSTC supports Unit Medical Readiness by validating Combat Medic (68W) Emergency Medical Technician (EMT) biennial recertification requirements and to provide Combat Lifesaver (CLS) training to non-medical Soldiers.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 4Q FY15: Sustainment & maintenance, technical refresh and concurrency refresh on Medical TADSS

PROJECTED ACTIVITIES

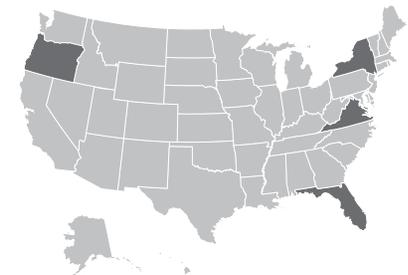
- 4Q FY16: Award of the Virtual Patient Simulation Systems (VPSS) Indefinite Delivery/Indefinite Quantity (IDIQ) contract
- 4Q FY19-FY23: Continue to field MSTCs to achieve the full operational capability of 25 sites

FOREIGN MILITARY SALES

- Uruguay, Serbia

CONTRACTORS

- Computer Sciences Corporation (Orlando, FL)
- Laerdal (Wappingers Falls, NY)
- SIMETRI (Winter Park, FL)
- Optimal Technologies International (Orlando, FL)
- PULAU Corporation (Orlando, FL)
- Kforce Government Solutions (Fairfax, VA)
- SKEDCO, Inc. (Tualatin, OR)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT



ITTS FOR SOLDIERS.

DEVELOP, FIELD, SUSTAIN
AND IMPROVE

MISSION: Provide and operate effective and relevant test, training and threat capabilities in support of the Army and other customers. Develop, field, sustain and improve high quality mission, training and preparation of systems for Special Operations, Joint Conventional and Coalition Forces that exceed our Warfighters' requirements.

The Project Manager Instrumentation, Targets and Threat Simulators (PM ITTS) was established in 1990 at Aberdeen Proving Ground, MD to provide centralized acquisition for the research, development, production and fielding of test assets and investments in support of U.S. Army developmental and operational testing. PM ITTS is the life-cycle manager of major test instrumentation, aerial and ground targets and threat simulators/systems, and manages the operation and maintenance of targets and threats for developmental and operational tests. PM ITTS executes Army-led programs resourced by the Office of the Secretary of Defense (OSD) Central Test and Evaluation Investment Program (CTEIP). In 2015, Product Manager Special Operations Forces Training Systems (STS) joined PM ITTS.

PM ITTS

PROJECT MANAGER INSTRUMENTATION,
TARGETS AND THREAT SIMULATORS

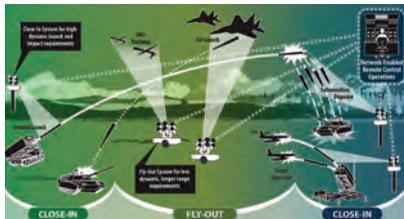
INSTRUMENTATION MANAGEMENT OFFICE (IMO)



To manage the development, acquisition, and fielding of major test instrumentation systems used for developmental and operational Test & Evaluation (T&E) of Army and Tri-Service tactical systems. Eliminate duplication, combine requirements, and place emphasis on mobility and reuse of test instrumentation.

IMO

ADVANCED RANGE TRACKING AND IMAGING SYSTEM (ARTIS)



MISSION

To provide state-of-the-art technology replacement for the aging fleet of optical tracking systems at Department of Defense (DoD) test ranges.

DESCRIPTION

ARTIS solution will consist of two different optical tracking systems. A small, highly dynamic Close-In Optical Tracking System will provide improved support capabilities for high-dynamic launch and impact requirements, as well as ground-based testing scenarios. A medium-sized Fly-Out Optical Tracking System will support longer range imaging requirements to include ballistic missile fly-outs, mid-course tracking, and high-altitude intercepts. Both systems will incorporate multi-waveband optics and sensors to allow simultaneous sensing in the visible and infrared bands. Computer automation, remote operability, weatherization, and improved data fusion with other range sensor systems will provide the efficiency and robustness that is not available with the current architecture.

Under Central Test and Evaluation Investment Program (CTEIP) funding, ARTIS will design, develop, integrate and test three Close-In and two Fly-Out Optical Tracking Systems. The CTEIP-funded portion of the project will conclude with the successful testing and fielding of these five systems at White Sands Missile Range, NM. ARTIS development will occur under an Indefinite

Delivery/Indefinite Quantity contract with follow-on delivery orders for the manufacturing and fielding of additional systems for the DoD Test Ranges. Follow-on delivery orders will be exercised as required and funded by the military services.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- FY15: Evaluating contract proposals

PROJECTED ACTIVITIES

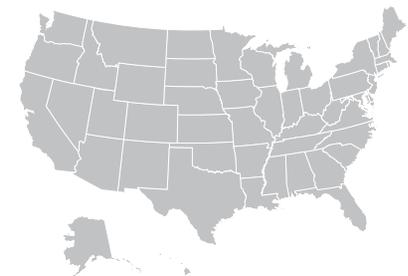
- 2Q FY16: Projected contract award

FOREIGN MILITARY SALES

None

CONTRACTORS

To Be Determined (TBD)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

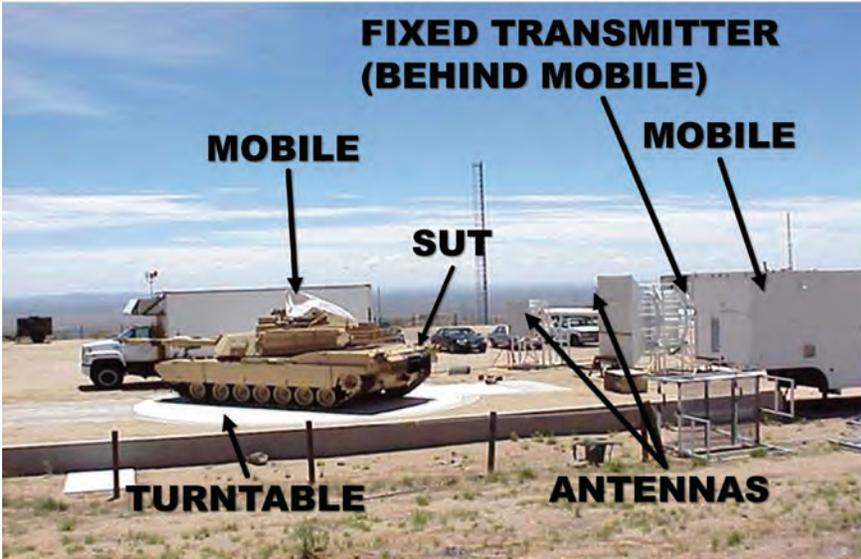
ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

IMO

ELECTROMAGNETIC ENVIRONMENTAL EFFECTS (E3) SYSTEMS MODERNIZATION PROGRAM



MISSION

To develop, field and modernize 27 instrumentation test facilities at the Electromagnetic Radiation Effects (EMRE) Test Complex, White Sands Missile Range (WSMR), NM.

DESCRIPTION

The E3 instrumentation facilities at EMRE are used to test and evaluate military systems against vulnerabilities and electromagnetic effects to issue a safety release prior to the system’s deployment. E3 testing certifies equipment compliance with E3 DoD mandates and is safe for Soldier operation.

The purpose of the E3 Systems Modernization Program is to upgrade existing high-power test capabilities at WSMR. These facilities are used to conduct testing to verify compliance with Military Standard (MIL STD) 461 and 464. The most urgent requirement entails high-power transmitters, but the entire effort includes specialized facilities to test for Electromagnetic Radiation (EMR), Electromagnetic Compatibility (EMC), Electromagnetic Interference (EMI), and

ACQUISITION PHASE



Radiated Emissions testing of diverse E3 configurations. The top priority for the E3 program is provisioning replacement systems for Transmitter Site 1 (T1), Transmitter Site 2 (T2) and Transmitter Site 3 (T3) at EMRE test complex. The government team successfully completed the development and fielding of the E3 T1 transmitter in February 2015, under a separate competitive acquisition. Under the current E3 Indefinite Delivery/Indefinite Quantity (IDIQ) contract vehicle, subsequent to procuring the T2 and T3 transmitter systems, 24 additional test facilities will require upgrades of commercial test support equipment or modifications to commercial solutions.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 2Q FY15: Awarded IDIQ Contract

PROJECTED ACTIVITIES

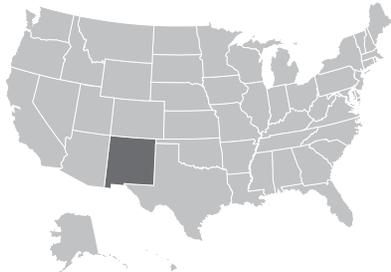
- 3Q FY17: Completing site upgrades and delivery of T2/T3 transmitters

FOREIGN MILITARY SALES

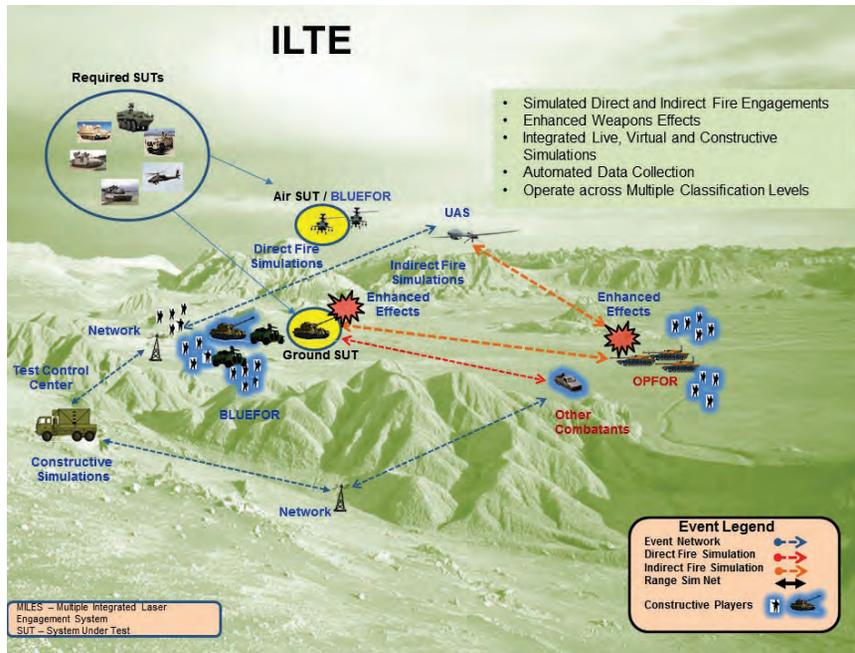
None

CONTRACTORS

- TMC Design Corporation (Las Cruces, NM)



INTEGRATED LIVE, VIRTUAL, CONSTRUCTIVE (LVC) TEST ENVIRONMENT (ILTE)



SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 4Q FY15: PEO STRI Designated Milestone Decision Authority (MDA)

PROJECTED ACTIVITIES

- 3Q FY16: Obtain Materiel Development Decision (MDD)
- FY17: Conduct Milestone B

FOREIGN MILITARY SALES

None

CONTRACTORS

To Be Determined (TBD)

MISSION

To provide enhanced capability through development of hardware, software, interfaces and new capabilities to ensure Integrated Live, Virtual, Constructive (LVC) Test Environment (ILTE) requirements for upcoming operational tests are satisfied.

DESCRIPTION

ILTE simulates battlefield effects with improved combat realism by leveraging and integrating existing and evolving testing and training LVC capabilities. Identified technology gaps will be addressed and solutions integrated to complete the stated needs of Army and DoD test and evaluation oversight organizations. This includes leveraging training systems and development efforts that will initially be directed toward enhanced testing capabilities to provide a realistic operational test environment. It also supports upcoming Operational Tests, such as M1A2 Abrams tank, M2/M3 Abrams tank, Apache Helicopter (AH-64), and Stryker vehicles.

ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



IMO

NUCLEAR EFFECTS TEST CAPABILITY MODERNIZATION



MISSION

To replace obsolete equipment and develop new test capabilities and facilities at White Sands Missile Range (WSMR), NM, to support DoD’s Nuclear Effects Test and Evaluation (T&E) requirements. These capabilities will help ensure that the military’s tactical and strategic systems will survive nuclear threats.

DESCRIPTION

Nuclear Effects Test and Evaluation must address survivability requirements from a number of simulated nuclear threat mechanisms to include neutrons, gamma rays, X-rays, Electromagnetic Pulse (EMP) and thermal. The Nuclear Effects Test Capability Modernization program will replace obsolete test equipment and develop new test capabilities and facilities at WSMR that ensure evolving U.S. systems can survive nuclear threats. Such developments will include an improved relativistic electron beam accelerator, an enhanced linear accelerator, an improved solar thermal test facility, improvements to the gamma range facility and the various diagnostic and assessment facilities used to quantify radiation effects. The new capabilities will better meet existing and future test requirements while vastly improving test accuracy and efficiency. When complete, the upgraded facilities at WSMR will represent a comprehensive and world class nuclear effects test capability.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 4Q FY15: Complete Laboratory acquisition and upgrade
- 4Q FY15: Obtain Materiel Development Decision for Prompt Gamma Simulator (PGS)

PROJECTED ACTIVITIES

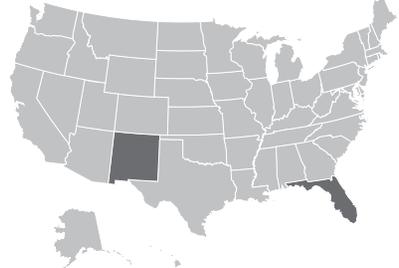
- 1Q FY16: Conduct Milestone B for PGS
- 1Q/2Q FY16: Continue ongoing technology upgrades
- 3Q FY16: PGS contract award
- 4Q FY16: Continue ongoing technology upgrades (14 sites total)

FOREIGN MILITARY SALES

None

CONTRACTORS

- Lockheed Martin Missiles and Fire Control (Orlando, FL)
- XL Scientific (Albuquerque, NM)



ACQUISITION PHASE



SCIENCE AND TECHNOLOGY (S&T) - DIRECTED ENERGY TEST (DET)



MISSION

To address test technology shortfalls in High Energy Laser (HEL) and High Power Microwave (HPM) domains by maturing and transitioning high-risk, high-payoff directed energy test technologies for both the laboratory environment and DoD test ranges to enable capability

development for full-spectrum Test and Evaluation (T&E) for Directed Energy (DE) weapon systems and U.S. systems' vulnerability to DE threats.

DESCRIPTION

Directed Energy Test Science and Technology (DET S&T) provides capabilities to support testing of high energy lasers and high powered microwave weapon systems.

A Directed Energy Weapon (DEW) emits a surge of energy capable of disabling a target such as electronics in vehicles, communications equipment or other weapons.

DET S&T is a multi-year effort sponsored by the DoD Test Resource Management Center (TRMC). Since 2005, DET S&T has been providing timely investments to mature technologies that fill both current and future critical test gaps identified by periodic tri-Service studies, Service test and evaluation reliance prioritization processes, and DoD test ranges/facilities emerging needs. DET S&T publishes a Broad Agency Announcement (BAA) with updated technical topics to solicit offerors or projects that address DE test technology gaps to mature Technology Readiness Levels (TRLs) from a TRL3 up to a goal of TRL6.

Customers Supported include:

- Army White Sands Missile Range – WSMR, NM
- Air Force Research Laboratory – Fort Sam Houston, TX
- Air Force Research Laboratory – Kirtland AFB, NM
- Air Force 96th Test Wing – Eglin AFB, FL
- Naval Surface Warfare Center – Dahlgren, VA
- Naval Surface Warfare Center – Port Hueneme, CA
- Naval Research Laboratory – Washington, DC
- Office of Naval Research – Arlington, VA

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- FY15: Broad Agency Announcements and Awards

PROJECTED ACTIVITIES

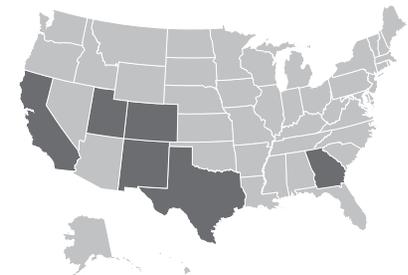
- FY16: Multiple Technology Maturation Efforts

FOREIGN MILITARY SALES

None

CONTRACTORS

- Lockheed Martin Missiles and Fire Control (Grand Prairie, TX)
- Brigham Young University (Provo, UT)
- ASR Corporation (Albuquerque, NM)
- Georgia Tech Applied Research Corporation (GTARC) (Atlanta, GA)
- SemQuest, Inc. (Colorado Springs, CO)
- Scientific Applications & Research Associates (Cypress, CA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

IMO

SCIENCE AND TECHNOLOGY (S&T) - ELECTRONIC WARFARE TEST (EWT)



MISSION

To address test technology shortfalls in Electro-Optic (EO) and Radio Frequency (RF) domains by maturing and transitioning high-risk, high-payoff electronic warfare test technologies for both laboratory environment and DoD test ranges, and to enable capability development for full-spectrum Test and Evaluation (T&E) for Electronic Warfare (EW) sensor systems and U.S. systems vulnerability to EW threats.

DESCRIPTION

Electronic Warfare Test Science & Technology (EWT S&T) is a multi-year effort sponsored by the DoD Test Resource Management Center (TRMC). In 2011, EWT S&T began to mature technologies that fill both current and future critical test gaps identified by periodic studies, to service T&E reliance prioritization processes, and to support DoD test ranges/facilities emerging needs. EWT S&T publishes a Broad Agency Announcement (BAA) with updated technical topics to solicit offerors or projects that address EW test technology gaps to mature Technology Readiness Levels (TRLs) from a TRL3 up to a goal of TRL6. Upon verification in a relevant environment, S&T prototypes are transitioned to DoD test facilities to support upcoming EW tests, or future follow-on test infrastructure engineering developments. EWT S&T team manages between 13-18 active ongoing projects ranging from stimulators, emulators, and optical systems for use in test

ACQUISITION PHASE



systems at Installed Systems Test Facilities (ISTF), multispectral projectors and scene generators for sensor/seeker testing, to RF electronic attack evaluation technologies as well as various modeling and simulation tools – each with an intended transition to DoD EW test facilities. With synergy between the EWT S&T and TRMC T&E programs, S&T investments have also supported maturation of acquisition requirements as risk reductions, analysis of alternative candidates and Pre-Planned Product Improvements.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- FY15: Broad Agency Announcement and Awards

PROJECTED ACTIVITIES

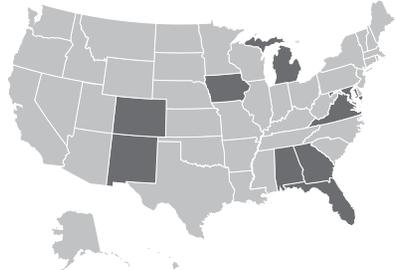
- FY16: Multiple Technology Maturation Efforts

FOREIGN MILITARY SALES

None

CONTRACTORS

- SPARTA Inc., A Parsons Company (Orlando, FL, Arlington, VA, Colorado Springs, CO, Huntsville, AL)
- Georgia Tech Applied Research Corporation (GTARC) (Atlanta, GA)
- The University of Iowa (Iowa City, IA)
- CTSi - Virtual Flight (Lexington Park, MD)
- Advanced Fiber Sensors, Inc. (Ann Arbor, MI)
- ASR Corporation (Albuquerque, NM)



TARGETS MANAGEMENT OFFICE (TMO)



Manage the total life cycle of targets, operational threat vehicles, target control systems, and ground range systems used in live and virtual testing and training. Provide best value acquisition, superior life cycle sustainment and operation for the U.S. Army, Department of Defense (DoD), and international customers. Execute missions as assigned or directed by the Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) and Project Manager for Instrumentation, Targets and Threat Simulators (PM ITTS).

TMO

AERIAL TARGETS FLIGHT SERVICES (ATFS)



MISSION

To provide an affordable, quick-reaction, turn-key flight services capability to the U.S. Army and DoD community, as well as to support Foreign Military Sales commitments for live weapons training, and weapon systems test and evaluation around the world.

DESCRIPTION

A DoD Value Engineering Achievement Award-winning program, ATFS provides complete operational capability to support U.S. Army Air Defense Artillery training and Tri-Service research, development, and test and evaluation requirements for a variety of weapons systems. A myriad of sub-scale, fixed-wing target drones (MQM-107, BQM-34, and Medium Speed Aerial Targets (MSAT)) are flown at various speeds, altitudes and profiles to support tracking missions and live-fire engagements for live training and testing environments. Sub-scale, rotary-wing target aircraft and Ballistic Aerial Targets (BATS) are also used to meet DoD training and testing needs.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Aerial Targets
- Army Ground Aerial Target Control System (AGATCS)

PROGRAM STATUS

- FY15: Support to Patriot Advanced Capability-3 (PAC-3); Support to Japan and Ft. Bliss, TX on a continual basis

PROJECTED ACTIVITIES

- FY16: Qualification of AGATCS on White Sands Missile Range, NM on a continual basis

FOREIGN MILITARY SALES

- Japan, Korea, Spain, Portugal, Israel and Turkey

CONTRACTORS

- Micro Systems, Inc., A KRATOS Company (Ft. Walton Beach, FL)
- Systems Application & Technologies, Inc. (SATECH) (Largo, MD)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT



TMO
AERIAL TARGETS

MISSION

To provide aerial targets for Army, DoD and other nations' weapons system developmental and operational testing.

DESCRIPTION

Aerial Targets' mission is accomplished by two major target categories: High Speed Aerial Targets (HSAT) and Medium Speed Aerial Targets (MSAT). Current HSATs are: MQM-107 Streaker, BQM-34

Firebee, and MQM-178A Firejet. The MQM 107 Streaker and BQM-34 Firebee are turbojet-powered drones capable of reaching speeds of up to 575 miles per hour (mph) at altitudes up to 40,000 feet, or about 10,000 feet higher than the average cruising altitude of a 747 commercial airplane. Both targets are launched from zero-length launchers using Rocket Assisted Take-Off (RATO) motors that fall away after boosting the target to flight speed. The MQM-178A (Firejet) is a pneumatically launched target capable of speeds up to 400 mph at altitudes up to 35,000 feet. These targets are controlled by the Army Ground Aerial Target Control Systems (AGATCS) and are recoverable via parachute if not shot down. The targets are used to test various surface-to-air missile systems, such as the Stinger and Patriot, as well as train anti-aircraft artillery crews.

Current MSATs are the MQM-175A (DT-35) and the MQM-175B (DT-45). These targets fly at lower speed and altitude than HSAT, but more cost effective to procure and operate. These targets are launched from a hybrid hydraulic/pneumatic launcher that accelerates the target up a short ramp, has a stand-alone control system and is capable of flying at several hundred miles per hour at altitudes up to 20,000 feet. They can be parachute-recovered and reused as well.

Both HSAT and MSAT systems are transportable to TMO-supported test missions at locations around the world. TMO is examining alternative systems to replace or supplement HSAT and MSAT fleets in an effort to continue to provide affordable Aerial Target missions in the future.

SYSTEM INTERDEPENDENCIES

- AGATCS
- Aerial Targets Flight Services

PROGRAM STATUS

- FY15: MQM-178A Firejet acceptance completed

PROJECTED ACTIVITIES

- FY20: New start for a replacement High Speed Aerial Target

FOREIGN MILITARY SALES

None

CONTRACTORS

- BOEING (Huntsville, AL)
- Griffon Aerospace (Madison, AL)
- KRATOS Defense & Security Solutions (Huntsville, AL)
- ASRC Federal (Huntsville, AL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

AERIAL WEAPONS SCORING SYSTEM (AWSS)

**MISSION**

To provide objective scoring for aviation gunnery crew qualification and training.

DESCRIPTION

AWSS is an objective scoring system that supports live Army aviation gunnery training. AWSS provides scoring for 2.75-inch training rockets, both point detonation and multipurpose submunitions. AWSS provides area scoring and hit location for a variety of machine gun weapons and laser scoring of the Hellfire training missile.

Four systems are provided for U.S. training exercises and are deployed as needed to support home station training events. A fifth system is stationed in Grafenwoehr, Germany, and supports training in Germany and other European countries. A sixth system is stationed in Korea and supports Pacific theater training events. An annual scheduling conference, held in conjunction with the Aviation Master Gunner's Conference, prepares a baseline schedule for the deployment of the U.S. systems for the following fiscal year.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 1Q FY15: Supported a record 43 gunnery events
- 2Q FY15: Digital Air Ground Integrated Range (DAGIR) at Fort Bliss, TX
- 2Q FY15: AWSS and AWSS-Unit Gunner Report Generator (UGRG) received Stand-alone Authority to Operate (SATO)
- 3Q FY15: Aviation Home Station Interim Package (AHIP) and Inter-Coastal Electronics (ICE) Data Translator (IDT) added to accreditation

PROJECTED ACTIVITIES

- FY16:
 - Field Radar Rocket Scoring (RRS) at Fort Bliss, TX
 - Begin development of Unmanned Aerial System (UAS) scoring capability
 - Complete updates to unit gunnery report

FOREIGN MILITARY SALES

None

CONTRACTORS

- Meggitt Defense Systems (Irvine, CA)
- Raytheon (Waltham, MA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

TMO

AIR DEFENSE ARTILLERY (ADA) TARGETS



MISSION

To provide live targets and scoring systems in support of Air Defense Artillery (ADA) Standards in Training Commission (STRAC) Department of Army Pamphlet 350-38 training and qualification tables.

DESCRIPTION

Crew-gunnery and live-fire training are conducted using various unmanned aerial targets. The targets are threat representative of real cruise missiles, unmanned aircraft systems, and tactical fixed-wing aircraft currently being employed against U.S. forces. These targets must be capable of representing generic threat characteristics and must allow the ADA weapon system crew to employ missile and gun systems to engage and destroy the target systems. ADA unit training programs must result in demonstrated tactical and technical competence, Soldier confidence in their weapon systems, and the abilities of our Soldiers to employ their weapon systems in a field environment.

The ADA Targets program is composed of three primary components: MQM-170 Remotely Piloted Vehicle Target (RPVT Outlaw), MTR-15 Ballistic Aerial Target System (BATS), and Scoring Miss Distance Indicator (MDI) systems. The MQM-170 Remotely Piloted Vehicle Target (RPVT) system and the scoring systems are Government Owned/Contractor Operated (GOCO) with target operations provided on unit training ranges. The MTR-15 BATS is a Government Owned/Government Operated (GOGO) system with targets provided to the unit

ACQUISITION PHASE



for operation on their ranges. These systems are available for use on DoD test or training ranges within the continental United States (CONUS) and overseas, as well as in support of Foreign Military Sales clients.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 2Q FY15: Annual Gunnery Qualification Training for Avenger & Indirect Fire Protection Capability Army Air Defense units
- 3Q FY15: U.S. Marine Corps Stinger Training
- 4Q FY15: Navy Carrier fleet (surrogate threat UAS) training and surrogate UAS joint testing requirements

PROJECTED ACTIVITIES

- FY16-17: Continued support for Army Air Defense Artillery (ADA) qualification training, Black Dart Counter UAS demonstration support, National Training Center (NTC) surrogate Intelligence, Surveillance, and Reconnaissance (ISR), UAS OPFOR training with other Combat Training Center (CTC) involvement, continued support for testing, and support for multiple R&DTE activities for Army and other military services laboratories

FOREIGN MILITARY SALES

- Japanese electronic scoring, Israeli Ministry of Defense counter UAS training, Portugal Stinger live fire, NATO Support Agency (NSPA) Remotely Piloted Vehicle Target (RPVT) operations

CONTRACTORS

- Griffon Aerospace (Madison, AL)



ARMY GROUND AERIAL TARGET CONTROL SYSTEM (AGATCS)



MISSION

To provide a complete target control system capability to control aerial (subscale, full scale, and rotary wing), ground, seaborne, unmanned aerial system (UAS), and small unmanned aerial system (SUAS) targets for weapon systems evaluation. To also provide a single target control system for all Army test ranges, making support and maintenance of the system much more cost effective.

DESCRIPTION

The AGATCS is a system of systems providing a reliable and robust capability for the remote control of unmanned target vehicles for the Army in support of weapon systems test and evaluation. The AGATCS consists of the aerial, ground, and seaborne target ground control station, aerial avionics packages, the ground vehicle control module, surface (ground/seaborne) vehicle instrumentation packages, target test sets, and a simulator/trainer. AGATCS incorporates all TMO targets, making it the primary target control system for ground, aerial (subscale, full scale, and rotary wing), seaborne, UAS, and SUAS targets for the Army.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Aerial Targets
- Mobile Ground Targets

PROGRAM STATUS

- 2Q FY15: Development of Model 59 Block II test set (MQM-178A, BQM-167, BQM-177 I/O)
- 2Q FY15: Development of AGATCS radio frequency module (RFM) for new frequency band (358-380 MHz)

PROJECTED ACTIVITIES

- FY16: New fielded AGATCS systems to begin subscale aerial operations
 - Ground target Vehicle Control Module (VCM) prototype testing
 - Hammerhead unmanned seaborne vehicle-target (USV-T) integration
 - Small Unmanned Aerial Systems (UAS) integration

FOREIGN MILITARY SALES

None

CONTRACTORS

- Micro Systems, Inc., A KRATOS Company (Fort Walton Beach, FL)

ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



TMO

MOBILE GROUND TARGETS (MGT)



MISSION

To provide the test and evaluation community with mobile ground and seaborne target vehicles for use as threat targets for destructive and non-destructive testing scenarios.

DESCRIPTION

The new generation of ground-to-ground and air-to-ground weapon systems that employ intelligent seekers require ground targets with visual, infrared, acoustic and radar signatures that accurately emulate the real version of the threat. The MGT program is responsible for managing the acquisition and certification of actual threats, as well as development, prototype fabrication and validation of ground target surrogates to meet these requirements.

MGT consists of a fleet of operational foreign vehicles and equipment used as threat targets for test and evaluation. The vehicles are located at five Primary Operating Centers (POCs) that have the capability to perform operations and maintenance of the foreign assets. The POC locations are Aberdeen Test Center, MD; Eglin Air Force Base, FL; Redstone Test Center, AL; White Sands Missile Range, NM; and Yuma Test Center, AZ.

TMO has established a training course that provides instruction on safe operations and preventive maintenance checks and services procedures for foreign ground assets. A train-the-trainer program provides annual refresher training for operators. MGTO's objective is to support the testing and training community's target needs as fully, efficiently and effectively as possible. Only properly trained personnel (civil service and support contractors) operate and maintain these assets. Vehicles can be transported to various locations for tests. Customers are responsible for transportation costs. Currently the MGTO inventory has more than 300 assets available for testing or training events.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Army Ground Aerial Target Control System (AGATCS)

PROGRAM STATUS

- FY15: MGTH – Received and accepted the following foreign threat systems:
 - Toyota Hilux technical vehicles
 - BTR-80 Armored Personnel Carriers
 - UAZ-469 Jeeps
 - T-72M1 Main Battle Tank
 - SA-6 Radar

PROJECTED ACTIVITIES

- FY16: MGTH – Monitor delivery of multiple task orders
- FY16: MGTO – Initiate lease agreements for seven customer tests
 - Provide Test Support for Green Flag West (3), Iron Focus, Brigade Modernization Command (BMC) Network Integration Evaluation Weapons and Tactics Instruction (WTI), and Small Diameter Bomb (SDB II)
 - Scheduled to receive delivery orders of spare parts and manuals
 - Customer support/submit two accreditation reports

FOREIGN MILITARY SALES

None

CONTRACTORS

- Culmen International, LLC (Alexandria, VA)
- Quantum Research International, Inc. (Huntsville, AL)
- UDC USA, Inc. (Tampa, FL)
- Victory Procurement System (VPS) (Huntsville, AL)



ACQUISITION PHASE



PRECISION TARGET SIGNATURES (PTS)

**MISSION**

To provide low-cost, three-dimensional (3-D) surrogate targets and decoys.

DESCRIPTION

The PTS project implements state-of-the-art Visual and Electro-Optical Infrared (EO/IR) signature technologies to produce full-scale, validated 3-D decoys that can be stationary or used on existing mover equipment. These decoys emulate visual and infrared signatures of “actual” threat vehicles (T-72 main battle tanks, BMP-2 infantry fighting vehicles and BTR-80 armored personnel carriers).

PTS targets are:

- Low Cost
- Deployable Worldwide
- Multipurpose: Low-Cost Decoy/Surrogate Target
- Durable/Reusable
- Mobile
- Augmented with Thermal Signature Kits
- Validated
- Threat Representative
- Recyclable

ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- FY15: Continued to support Soldiers with a cost effective target/decoy to employ in testing and training

PROJECTED ACTIVITIES

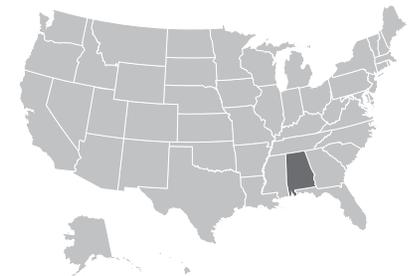
- FY16: PTS deployment in support of Unmanned Aerial Systems (UAS) gunnery training; Joint Readiness Training Center and Gray Eagle operational testing

FOREIGN MILITARY SALES

None

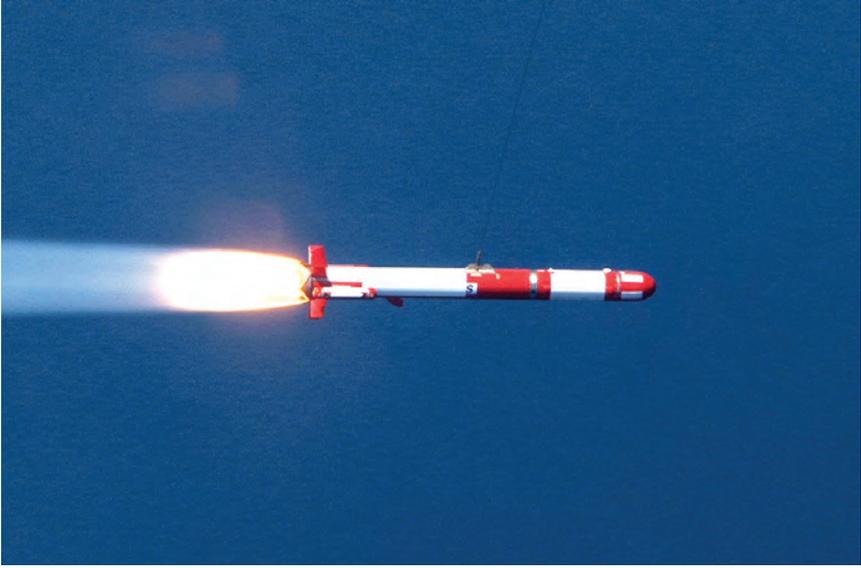
CONTRACTORS

- ASRC Federal (Huntsville, AL)
- Trideum Corporation (Huntsville, AL)
- Signature Solutions, Inc. (Huntsville, AL)



TMO

TOWED TARGET PROGRAM



MISSION

To provide live towed-target prototypes and production hardware that closely emulates the signature level (radar or infrared) and performance of typical threat aircraft or cruise missiles.

DESCRIPTION

The Towed Target Program has a variety of economical, off-the-shelf, towed targets that can be towed by either droned or manned aircraft systems. Towed targets can be used for both testing and training by various air-defense weapon systems. A broad range of large and small Radar Cross Section (RCS) towed systems are available with little lead time for use. All towed systems can be fitted with both miss-distance and bullet-counting types of scoring systems and RCS measurements. Additionally, towed targets can be designed and built to meet customer-specific signature requirements.

ACQUISITION PHASE



SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- FY15: Tow assets sent to Aberdeen Proving Grounds, MD (APG); remaining assets packed up and stored at Dugway Proving Ground, UT
 - Completed 4 Learjet/Towed Target flight support periods (8 Lear/Tow flight tests over W-386 (Atlantic east of APG) for Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) (staging from Phillips AAF, APG)
 - Completed modifications to towed sphere launcher after initial sphere tow flight testing analysis
 - Glide Tow radio replacement complete/awaiting Radio Frequency Authorization (RFA) from Army Spectrum Management Office (ASMO)

PROJECTED ACTIVITIES

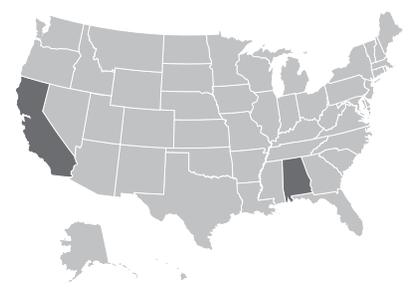
- FY16: Additional Learjet/Towed Target support to JLENS at APG
 - Sphere Tow flight testing over Gulf Range
 - Glide Tow flight test; new radio/RFA
 - OSD/DOT&E/Center for Counter-Measures Learjet/Towed Target support at Woomera, AU

FOREIGN MILITARY SALES

- Japan

CONTRACTORS

- Meggitt Defense Systems (Irvine, CA)
- Signature Solutions, Inc. (Huntsville, AL)





TMO

UNMANNED AIRCRAFT SYSTEM-TARGET (UAS-T)

MISSION

To provide a target system that offers a generic representation of a tactical class of unmanned aircraft systems being deployed by potential adversaries worldwide. The target system is available to support developmental and operational testing of weapon systems, Force Development Test and Experimentation, and training operations.

DESCRIPTION

The BroadSword Unmanned Aircraft System–Target (UAS-T), designated MQM-171, provides realistic threat

representation of unmanned aircraft systems likely to be employed against U.S. and Allied Forces in the tactical environment. It can be flown manually within line-of-sight by the operator, but is normally operated using an autopilot that provides a wide variety of repeatable flight mission profiles to represent UAS operations. The air vehicle is available in both carbon fiber and fiberglass construction to provide different radar signatures to accommodate varied user requirements. UAS-T systems are currently available to support target requirements on ranges worldwide.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 3Q FY14: Awarded follow-on, five year production and support contract
- 2Q FY15:
 - Supported Littoral Combat Ship 4 test program from Point Mugu Naval Air Station, CA
 - Supported Space and Missile Defense Command (SMDC) High Energy Laser (HEL) Project Office instrumented tracking support at White Sands Missile Range (WSMR), NM
 - Conducted first night operations at WSMR, NM

PROJECTED ACTIVITIES

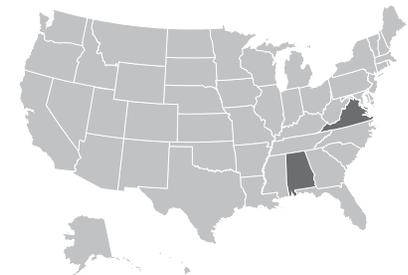
- FY16:
 - Support Navy test program from Point Mugu, CA
 - Support Long Wave Infrared sensor test program at Redstone Arsenal, AL
 - Initiate 100 hp alternate engine integration design effort

FOREIGN MILITARY SALES

None

CONTRACTORS

- Griffon Aerospace (Madison, AL)
- Computer Sciences Corporation (CSC) (Falls Church, VA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

TMO

VIRTUAL TARGETS

**MISSION**

To develop simulation inputs from virtual target models to support visual, predictive radar frequency and predictive infrared spectrum simulations; to conduct verification and validation of virtual targets; to support development of high-fidelity computer-aided

design (CAD) models; and to maintain and distribute virtual targets through the Army Model Exchange (AME).

DESCRIPTION

The Virtual Target Center provides a wide array of support to the test and training modeling and simulation community. Virtual Targets provides four supporting modeling and simulation components:

1. Targets Generation Laboratory develops simulation inputs to support visualization, radar frequency and infrared simulations. The Target Generation Laboratory also addresses emerging simulation technologies to maintain model products suitable for simulation input, both today and in the future.
2. Model verification and validation process was developed by the Virtual Targets Center staff and approved by the Army Threat Validation Committee. Models are reviewed by this process to ensure that each model is properly constructed in accordance with (IAW) AR 5-11 and properly validated as threat representative IAW AR 73-1.
3. Virtual Targets project develops high-fidelity CAD models of field equipment for use throughout the Army and DoD.
4. The Army Model Exchange provides a distribution point for target models and Synthetic Environment Core (SE Core) Common Moving Models to support test and evaluation, training, modeling and simulation requirements. It is located at <https://modelexchange.army.mil/>.

SYSTEM INTERDEPENDENCIES

Other Major Interdependencies

- Virtual Targets project is a collaborative effort with Aviation & Missile Command (AMCOM) Research Development Engineering Command (RDECOM)

PROGRAM STATUS

- FY15: Virtual Targets continued to reduce the number of test range events by providing weapon system developers with simulation resources. Virtual Targets validates virtual targets and other multi-use models as required by AR 5-11 and DA PAM 73-1 for RDT&E, and transforms models into formats usable for simulations. Virtual Targets provides a single repository and supports Army users via the world-wide web through the Army Model Exchange, reducing duplication of effort and resulting in significant cost avoidance for the T&E and M&S communities through Army-wide reutilization. Army Model Exchange: <https://modelexchange.army.mil/>.

PROJECTED ACTIVITIES

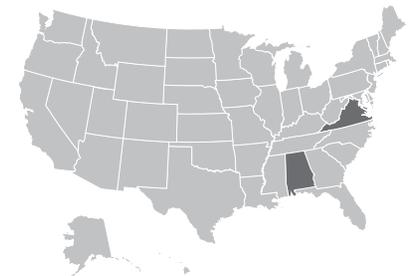
- FY16: Multiple activities to several organizations: Army Test and Evaluation Command (ATEC) Test Centers, Intelligence Centers, Ground Combat Vehicle (GCV), Small Diameter Bomb (SDB II), Joint Air to Ground Munition (JAGM), Longbow Hellfire. Close Combat Weapon System (CCWS), Counter Unmanned Aerial System (UAS), PM Radars, Accelerated Improved Intercept Initiative (AI3), Lower Tier Project Office - Patriot, and Medium Extended Air Defense System (MEADS)

FOREIGN MILITARY SALES

None

CONTRACTORS

- Science Applications International Corporation (SAIC) (McLean, VA)
- Signature Solutions, Inc. (Huntsville, AL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

THREAT SYSTEMS MANAGEMENT OFFICE (TSMO)



Develop, operate and support threat representative systems in support of Developmental Testing, Operational Testing and Training.



TSMO

ADVANCED NETWORKED ELECTRONIC SUPPORT THREAT SENSORS (ADVNESTS)

MISSION

To provide advanced threat representative Signal Intelligence and Direction Finding (SIGINT/DF) capabilities for collection and reporting of Direction Finding (DF) to support threat command decisions and optimize the use of threat force assets.

DESCRIPTION

- Sustains Army's ability to provide current, relevant and realistic threat Electronic Support of advanced communication devices for test and evaluation
- Ensures the Army is keeping pace with real-world threat technologies and capabilities in support of test and evaluation

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

Not Applicable

PROJECTED ACTIVITIES

Not Applicable

FOREIGN MILITARY SALES

None

CONTRACTORS

Not Applicable



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT



TSMO

INTEGRATED THREAT FORCE (ITF)

MISSION

To provide an integrated scalable and reconfigurable Information Operations (IO) threat force operating over a robust threat representative Command, Control, and Communications (C3) network in live, virtual, and constructive (LVC) operational environments.

DESCRIPTION

ITF uses mission control, visualization and collaboration tools to provide a scalable and reconfigurable representation of opposing force structure and capabilities. ITF is currently established as an Initial Operational Capability and accomplishes this through integration of multiple threat representative assets, across all functional areas that are interoperable, via a robust mission control backbone. Coupled with scalable visualization and collaboration tools, ITF enables reconfigurable data-fusion

functionality to mirror and manage threats fidelity and establish complete control of live, virtual and constructive threat assets.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

Not Applicable

PROJECTED ACTIVITIES

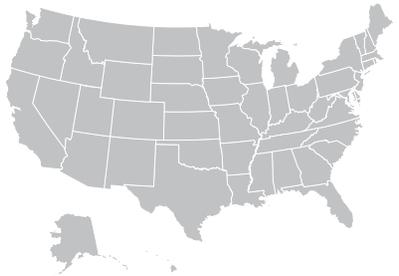
Not Applicable

FOREIGN MILITARY SALES

None

CONTRACTORS

Not Applicable



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



TSMO

MOBILE COMMERCIAL NETWORK INFRASTRUCTURE TEST RANGE (MCNITR)

MISSION

To create a closed-loop telecommunications network that replicates the radio frequency emissions and infrastructure expected to be encountered in an operational environment.

DESCRIPTION

MCNITR is a closed-loop commercial telecommunications network that produces representative radio frequency signals and 2G-3G cellular infrastructure. MCNITR provides a commercially available, wireless telecommunications network using second through third generation technology via Global System for Mobile (GSM) communications, Universal Mobile Telecommunications Standard/Wideband-Code Division Multiple Access (UMTS/W-CDMA), and Wi-Fi network utilizing IEEE 802.11a/b/g/n standards.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

Not Applicable

PROJECTED ACTIVITIES

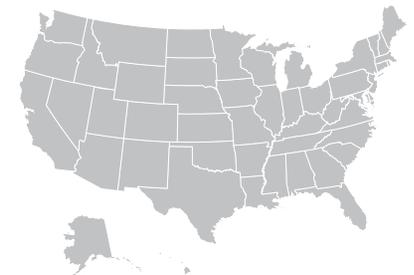
Not Applicable

FOREIGN MILITARY SALES

None

CONTRACTORS

Not Applicable



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT



TSMO

THREAT SIGNAL INJECTION JAMMER (TSIJ)

MISSION

To provide injected and open-air threat-representative communications Electronic Attack (EA), creating effects of threat jamming attacks against tactical and operational assets.

DESCRIPTION

TSIJ is a suite of validated jamming devices designed to mitigate the restrictions of open-area emissions routinely enforced by the Federal Communications Commission. These devices, operating in the 30-6000 MHz band, are intended to replicate the effects of real-world jamming environments through use of injection and open-air techniques. Signal injection technology utilizes a remote “control tone” to stimulate an on-board jamming device. TSIJ is utilized to implement the Red Commander’s Electronic Attack (EA) based on information delivered by Electronic Support (ES) assets.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

Not Applicable

PROJECTED ACTIVITIES

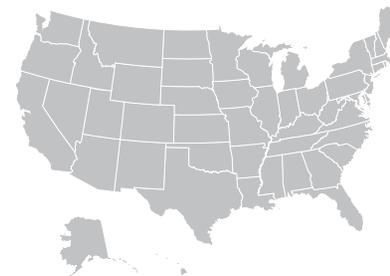
Not Applicable

FOREIGN MILITARY SALES

None

CONTRACTORS

Not Applicable



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

WIDEBAND CONFIGURABLE CONTROLLED JAMMER SYSTEM (WCCJ)



MISSION

To provide a threat-representative open-air Electronic Attack (EA) that creates the effects of threat jamming against tactical, operational and strategic assets.

DESCRIPTION

WCCJ is a reprogrammable, open-air jamming asset that operates in the 30 MHz to 18 GHz band against various forms of communications devices and networks. The system uses software programmable Arbitrary Waveform Generator (AWG) to create threat-representative waveforms. The waveforms can be tailored to “notch” out or inhibit transmissions of designated protected frequencies, thereby minimizing unwanted out-of-band emissions.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

Not Applicable

PROJECTED ACTIVITIES

Not Applicable

FOREIGN MILITARY SALES

None

CONTRACTORS

Not Applicable



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PRODUCT MANAGER SPECIAL OPERATIONS FORCES TRAINING SYSTEMS (PdM STS)



To develop, field, sustain, and improve high quality mission, training, and preparation systems for Special Operations, Joint Conventional, and Coalition Forces that meet or exceed our Warfighters' requirements.

PdM STS

CALL FOR FIRE TRAINER (CFFT) IMMERSIVE SYSTEM



MISSION

To improve the existing capability for observed fire institutional training in support of all fire support and close air support mission tasks, as well as provide an immersive environment to train advanced call for fire techniques

DESCRIPTION

The CFFT Immersive System will be a collection of 15 separate Immersive

Modules of five distinctive Immersive Modules. The modules in the completed system will consist of:

- Four Adaptive Full Spectrum Modules (AFSMs) for outdoor, rural scenarios
- Two Close Air Support Modules (CASMs) for close air support techniques
- Two Urban Terrain Modules (UTMs) for generic, urban terrain scenarios
- Five Fire Effects and Cell Modules (FECMs) for fires chain of command coordination
- Two After Action Review Modules (AARMs) for enhanced learning/training

The CFFT Immersive System is being used by the Fires Center of Excellence and United States Army Field Artillery School to train soldiers in the integration and

delivery of fire tasks using an immersive interactive virtual training environment. (DIVEs) by putting Soldiers in a simulated battlefield environment.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Synthetic Environment Core (SE Core)
- One Semi-Automated Forces (OneSAF)

PROGRAM STATUS

- 1Q FY15: Test Readiness Review (TRR)
- 1Q-3Q FY15: Government Acceptance Test (GAT) of the CFFT III baseline

PROJECTED ACTIVITIES

- 4Q FY15-1Q FY16: Technical refresh of the Immersive System

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Nova Technologies (Panama City, FL)
- Subcontractor: TJ, Inc. (Christmas, FL)

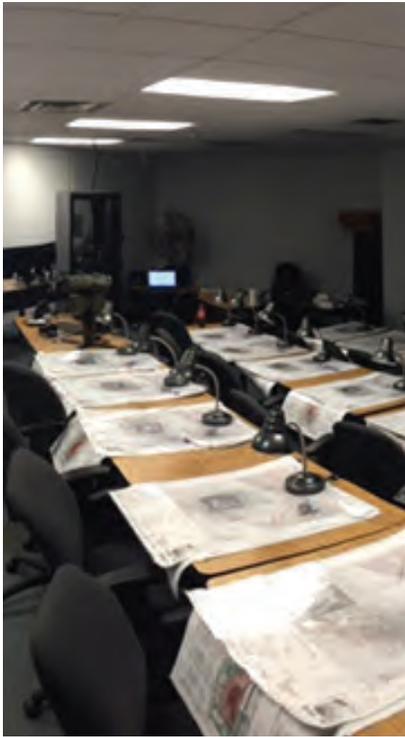


ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

CALL FOR FIRE TRAINER, INCREMENT III (CFFT III)



MISSION

To provide realistic observed fire training in support of all indirect fire and close air support mission tasks.

DESCRIPTION

CFFT III is a hardware and software upgrade to the CFFT II. The CFFT family of systems is a lightweight, rapidly deployable, observed fire training system that provides simulated battlefield training for Fire Support Specialists (FSS), Joint Fires Observers (JFO) and other Soldiers. The system provides simulated battlefield training to conduct Indirect Fires, Close Air Support, Close Combat Attack, and Naval Surface Fire Support. The CFFT III operates utilizing the Joint Fires Product Line (JFPL) architecture, which is modular and scalable in design.

- Trains FSS, JFO, and other Soldiers in critical fires and close air support tasks
- Base system trains and sustains JFO in Type II and III Day/Night/Laser Close Air Support tasks
- CFFT III with Joint Close Air Support (JCAS) Mod Kit will substitute for two Live Type I, II and III Day/Laser Close Air Support calls for Joint Terminal Attack Controller (JTAC) sustainment
- Trains fixed and rotary wing JCAS, Army rotary wing close combat attack, mortars, and naval gunfire
- Trains precision effects without the use of precision guided munitions
- Two configurations: Classroom (1:30) and Transportable (1:4 and 1:12)
- Operates in stand-alone mode as well as network capable; able to support classified training up to the Secret level

- Provide virtual terrain databases including Fort Sill, OK, the National Training Center (NTC), Afghanistan, and Korea
- Develop simulated military equipment for the virtual environment, computer generated forces, and Command, Control, Communications, Computers and Intelligence (C4I) interoperability (e.g. ruggedized hand-held computer, The Advanced Field Artillery Tactical Data System (AFATDS), Pocket-sized Forward Entry Device (PFED))
- Modular-system architecture allows for integration with other simulation systems

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Joint Fires Product Line (JFPL) architecture
- Synthetic Environment Core (SE Core)
- One Semi-Automated Forces (OneSAF)

PROGRAM STATUS

- 1Q FY15: Test Readiness Review (TRR)
- 1Q-3Q FY15: Government Acceptance Test (GAT) of the CFFT III baseline
- 3Q FY15: Technical refresh of Classroom Systems

PROJECTED ACTIVITIES

- 4Q FY15-1Q FY17: Technical refresh Classroom and Transportable Systems
- 1Q FY16: Bold Quest 15.2 – Test interoperability with Joint Fires Simulators

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Nova Technologies (Panama City, FL)
- Subcontractor: TJ, Inc. (Christmas, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PdM STS

ENGAGEMENT SKILLS TRAINER (EST)



MISSION

To simulate live weapon training events that lead to individual and crew-served weapons qualification including collective and escalation of force exercises in a controlled environment, while providing detailed feedback to the fire-team/squad that covers the fundamentals of marksmanship and/or fire control and distribution of fires.

DESCRIPTION

The EST is the unit/institutional, indoor, multipurpose, multi-lane, small arms, crew served and individual anti-tank training simulation that enables training across three different modes - individual marksmanship, small unit (collective) gunnery and tactical training and judgmental use of force (shoot/don't shoot), which includes escalation of force/graduated response scenarios. The EST provides the capability to build and sustain individual marksmanship, squad and team fire distribution, and control and judgmental use of force skills using computer-generated imagery and video. Deploying units use EST to maintain skills when they are not able to conduct live-fire training. EST marksmanship qualification standards and collective scenarios are validated by the U.S. Army Training and Doctrine Command (TRADOC).

Capabilities include:

- Small arms (pistol, rifle, carbine, and grenade launcher) simulators
- Medium, crew-served weapons (M240B and M249 Semi-Automatic Weapon) simulators
- Shoulder-fired munition (AT4 and M141 BDM) simulators
- Heavy machine gun (M2 and MK-19) simulators

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Synthetic Environment Core (SE Core)
- Virtual Battle Space (VBS)

PROGRAM STATUS

- 3Q FY14: Base Award
- 1Q FY15: System Readiness Review
- 3Q FY15: Preliminary Design Review
- 4Q FY15: Critical Design Review

PROJECTED ACTIVITIES

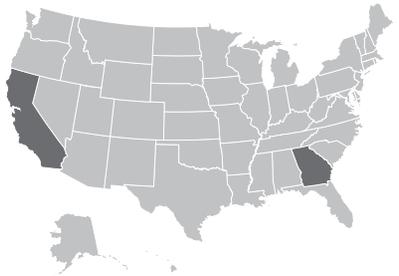
- 3Q FY16: Prototype evaluation
- 1Q FY17-2Q FY19: Technical Refresh EST systems

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime EST II: Meggitt Training Systems, Inc. (Suwanee, GA)
- Prime EST: Cubic Global Defense (San Diego, CA)



ACQUISITION PHASE



INTELLIGENCE ELECTRONIC WARFARE TACTICAL PROFICIENCY TRAINER (IEWTPT)

**MISSION**

To fill critical intelligence warfighter training gaps at home stations for Human Intelligence (HUMINT), Signals Intelligence (SIGINT), Geospatial Intelligence (GEOINT), and All Source intelligence individual, crew, and collective sustainment training in support

of Mission Command and Unified Land Operations. To be the key enabler for Military Intelligence (MI) analyst/operator training in a live, virtual and constructive (LVC) simulation environment. To support the Intelligence Center of Excellence MI holistic training strategy for both stand-alone and network-enabled training supporting Intelligence, Surveillance, Reconnaissance (ISR) platforms (Prophet, Distributed Common Ground System-Army (DCGS-A), Tactical Ground Station (TGS), Guardrail and Medium Altitude Surveillance aircraft).

DESCRIPTION

The IEWTPT provides proficiency training for analysts and system operators to acquire and exploit intelligence data in a “train as we fight” simulated environment. The IEWTPT technology is comprised of two main components: the Technical Control Cell (TCC) and the Human Intelligence Control Cell (HCC). The TCC is the cornerstone training device of the IEWTPT. It is a server stack that powers the SIGINT, GEOINT, and All Source capabilities that enable individual and collective training and is the network interface to the exercise training environment. The TCC component includes exercise scenario development tools, management tools and an after action review capability.

The HCC provides sustainment training for HUMINT/Counter Intelligence (CI) collectors in an immersive, virtual training environment. The HCC utilizes life-size avatars and speech recognition software to support Soldiers and HUMINT/CI collectors in sustaining and refining their skills in tactical questioning, interrogation, screening, and use of an interpreter through free-flowing conversation with virtual humans.

SYSTEM INTERDEPENDENCIES

Other Major Interdependencies

- Intelligence, Surveillance, Reconnaissance (ISR) Platforms: Prophet, Distributed Common Ground System Army (DCGS-A)
- Tactical Ground Station (TGS)
- Aerial Intelligence, Surveillance, and Reconnaissance (ISR) systems

PROGRAM STATUS

- 3Q FY15: System certification inspections by Department of the Army Military Intelligence (DAMI)-G2/Ft. Bragg, NC, Korea, Schofield Barracks, HI
- 3/4Q FY15: Competitive contract planning and execution
- 4Q FY15: SIGINT Exercise 2nd Brigade, 82nd Airborne Division

PROJECTED ACTIVITIES

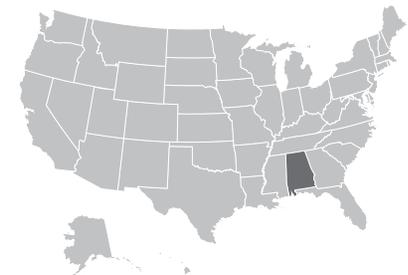
- 2Q FY16: Technical Control Cell (TCC) fielding to Ft. Stewart, GA
- 2Q FY16: Release RFP for IEWTP Re-Compete
- 3Q FY16: TCC fielding; TBD to Ft. Gordon or Ft. Gillem, GA

FOREIGN MILITARY SALES

None

CONTRACTORS

- General Dynamics Mission Systems (Huntsville, AL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PdM STS

**JOINT FIRES PRODUCT LINE (JFPL)
JOINT TERMINAL ATTACK CONTROL (JTAC) TRAINER**



MISSION

To provide Terminal Attack Control (TAC), fire support coordination training and joint Close Air Support (CAS) training and mission rehearsal capability to the special operations community.

DESCRIPTION

The JTAC trainer provides realistic fire mission and Terminal Attack Control (TAC) training in portable classroom and immersive environment configurations. It uses the JFPL core asset software and leverages the same hardware for all configurations. The system is fielded in three primary configurations (phases) but is modular and reconfigurable to meet the specific needs of the customer and/or facility. It is Close Air Support (CAS) Type I-III, day/night accredited without restriction by the Joint Close Air Support Executive Steering Committee.

ACQUISITION PHASE



SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Synthetic Environment Core (SE Core)

Other Major Interdependencies

- Joint Semi-Automated Forces (JSAF)

PROGRAM STATUS

- FY08: Joint Terminal Control Training and Rehearsal System (JTC TRS) prototype established JFPL Phase I system
- FY09: Procured two Phase I JTAC systems
- FY10: Block I upgrade
- FY11: Upgraded one Phase I system to Phase II and upgraded two Phase I systems to Phase III systems
- FY12: Block II upgrade
- FY13-14: Simulated military equipment enhancements
- FY15: Block III upgrade, CAS tactics update and integration of CFFT III capabilities

PROJECTED ACTIVITIES

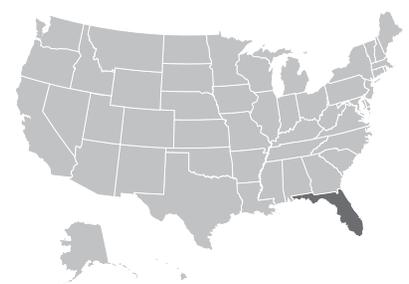
- FY16: Operations and maintenance

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Nova Technologies (Panama City, FL)
- Subcontractor: TJ, Inc. (Christmas, FL)



SOLDIER MONITORING SYSTEM



MISSION

To provide real-time automated Soldier tracking, a panic button feature, no-motion indicator, and on-the-move tracking capability. To mitigate training risk with 96% tracking accuracy and coverage.

DESCRIPTION

In developing the specified Vice Chief of Staff of the Army (VCSA) reactive requirement, Soldier Monitoring System (SMS) use has evolved to a proactive real-time training management resource where incidences of severely distressed Soldiers and/or emergency recoveries have been replaced by instantaneous situational awareness and refined Tactics, Techniques and Procedures (TTPs) for interdiction that protect Soldiers, while preserving the realism and assessment intent of the Special Forces Assessment and Selection (SFAS) mission.

SMS is fully integrated into the Program of Instruction (POI); SFAS cadre have implicit trust in the system and have developed TTPs utilizing SMS as a risk

control tool beyond that envisioned during development. SMS has reduced personnel recovery time at exercise completion from 5 hours to less than 30 minutes, providing opportunities to end the event early or add additional practical exercises within the same allotted training time – saving cadre manpower, contractor support costs, and logistics support costs (rations, fuel, utilities, consumables, etc.).

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- The SMS system has optional capability to be interoperable with the Home Station Instrumentation Training System (HITS) system by utilizing the interfaces to feed SMS Data to a HITS display

PROGRAM STATUS

- Field to four Special Operations Forces (SOF) locations

PROJECTED ACTIVITIES

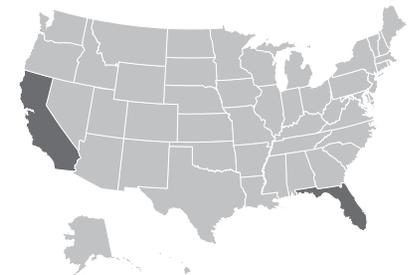
- Additional production for SOF components as requested

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Raptor Training Services, LLC (Orlando, FL)
- Major Subcontractor: Raveon Technologies Corporation (Carlsbad, CA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PdM STS

SPECIAL OPERATIONS AVIATION COMBAT MISSION SIMULATOR (SOA CMS) SIMULATION BLOCK UPDATES (SBUDS)



MISSION

To provide the 160th Special Operations Aviation Regiment (Airborne) (SOAR(A)) with high-fidelity training systems for the MH-60M, MH-47G and A/MH-6M aircraft with superior aircrew training and mission-rehearsal capabilities that support United States Special Operations Command (USSOCOM) requirements. To provide aircrews a real-world capability to practice, validate and verify tactics, techniques and procedures to support training and mission rehearsal.

DESCRIPTION

The SBUDs program provides the capability to maintain airframe concurrency while addressing obsolescence and technology upgrades on the aviation simulation systems in a timely and cost-effective manner with minimal impact on training and mission-rehearsal operations. SBUDs ensures that Special Operations Forces (SOF) aircrews are provided training systems that are reliable, technically advanced and concurrent with the operational aircraft on the flight line. The Combat Mission Simulators under SBUDs provide the commander with a system to plan and rehearse a special operations mission that incorporates tactics, situational awareness (real-world combat environment), decision making and crew coordination. Identical to the actual aircraft capability, the simulators accept automated transfer of all applicable mission data from SOF mission planning systems. SBUDs also supports additional capability in incident investigation, battle staff training and combined collective simulation training exercises.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 3Q FY15: MH-47-1 Test Readiness Review completed, MH-60-1 Critical Design Review completed
- 4Q FY15: MH-47-1 Contractor Verification Testing

PROJECTED ACTIVITIES

- 1Q FY16: MH-47-1 Government Acceptance Testing

FOREIGN MILITARY SALES

None

CONTRACTORS

- Veraxx Engineering Corporation (Chantilly, VA)
- Nova Technologies (Panama City, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

SPECIAL OPERATIONS FORCES RANGE UPGRADES (SOFRANGES)



MISSION

To address emerging kinetic requirements and augment existing special operations range activities with superior targetry, general improvements, and live, virtual and/or mixed reality capabilities that allow Special Operations Forces (SOF) to conduct individual and collective engagement training.

DESCRIPTION

The portfolio addresses live, virtual and mixed-reality engagement capabilities for the special operations community. Many of the projects leverage emerging technologies and state-of-the-art virtual capability to augment existing training with video projectors, computers and self-healing screens to provide training versatility against a variety of scenarios. Virtual enemy combatants move freely throughout the scene and allow assault forces to react to animated combatants instead of the standard one corner movement that currently exists in non-virtual shoot-houses.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- Multiple Special Operations Command (SOCOM) component locations completed

PROJECTED ACTIVITIES

- Live and virtual (Indoor/Outdoor) upgrades and modifications to existing ranges

FOREIGN MILITARY SALES

None

CONTRACTORS

- Multiple

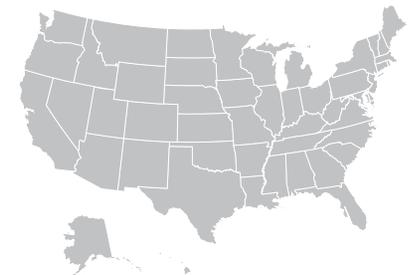
ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT





LIVE, VIRTUAL, CONSTRUCTIVE.

PLAN. PREPARE.
EXECUTE. EVALUATE.

MISSION: Provide relevant integrated modeling and simulation capabilities to achieve Army readiness.

The Project Manager Integrated Training Environment (PM ITE) provides relevant integrated modeling and simulation capabilities to achieve Army readiness. It converges virtual, constructive and gaming products into one organizational structure to ensure maximum benefits are derived from their blended capabilities in concert with live training. PM ITE enables tough, realistic training through the replication of the uncertainty, stress and complexity found in today's evolving operational environment. PM ITE provides commanders the ability to train the full range of military operations within current or projected training space in large scale home station exercises. PM ITE is comprised of three product offices: Warrior Training Integration (WTI), Maneuver Collective Training Systems (MCTS) and Constructive Simulation Support (CSS).

PM ITE

PROJECT MANAGER INTEGRATED
TRAINING ENVIRONMENT

SYNTHETIC TRAINING ENVIRONMENT (STE)



MISSION

To provide a cognitive, collective, multi-echelon training and mission rehearsal capability for the Operational, Institutional and Self-Development training domains. To converge the virtual, constructive and gaming training environments into a single Synthetic Training Environment (STE) for Active and Reserve Components as well as civilians. To provide training services to ground, dismounted and aerial platforms and command post (CP) points-of-need (PoN).

DESCRIPTION

The Synthetic Training Environment (STE) will interact with and augment live training; the primary training approach for the Army. This concept will allow the Army to provide a single STE that delivers a training service to the PoN. The capability will allow the training audience to train all warfighting functions (WfF) and the human dimension, across all echelons with joint and Unified Action Partners (UAP) in the context of Unified Land Operations (ULO). The scope includes the training and mission rehearsal capability, interfaces with operational networks, training interfaces with Network Enable Mission Command (NeMC) Initial Capability Document (ICD) defined platforms and CPs, interfaces to live training instrumentation and native interoperability with the Common Operating Environment (COE). STE Virtual Military Equipment (VME) that leverages Commercial Off The Shelf (COTS) and Government Off The Shelf (GOTS) hardware will provide an immersive and semi-immersive training capability to the training audience. The STE, a software solution, will not have a production line to produce custom hardware. Instead, it will have an integration line that integrates COTS and GOTS hardware.

SYSTEM INTERDEPENDENCIES

To Be Determined (TBD)

PROGRAM STATUS

- The program is in the Pre-Materiel Development Decision (MDD) phase

PROJECTED ACTIVITIES

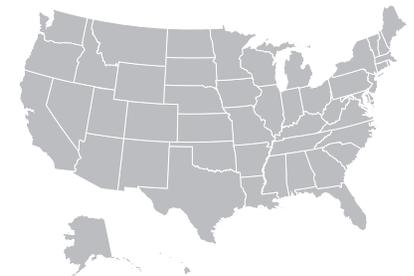
None

FOREIGN MILITARY SALES

None

CONTRACTORS

To Be Determined (TBD)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT

PRODUCT MANAGER

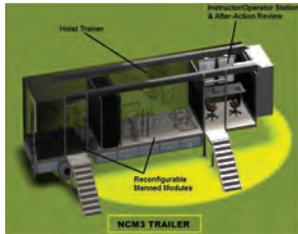
MANEUVER COLLECTIVE TRAINING SYSTEMS (PdM MCTS)



To provide effective and efficient total life cycle management of Maneuver Collective Virtual Training Systems, Flight School XXI (FS XXI), and UH-72 Lakota Training Aids, Devices, Simulators and Simulations for the National Guard Bureau (NGB).

PdM MCTS

AVIATION COMBINED ARMS TACTICAL TRAINER (AVCATT)



MISSION

To enable unit collective and combined arms air-ground training for AH-64, UH-60, CH-47, UH-72 and OH-58 aircrews within the LVC-G ITE. To support the training of non-rated crew members in crew coordination, flight, aerial gunnery, hoist and sling-load related tasks via the NCM3.

DESCRIPTION

The AVCATT is Army aviation's only collective training system of record for Active, Reserve and ARNG aviation units. AVCATT is a mobile multi-station virtual simulation device that supports unit collective and combined arms training for helicopter aircrews. AVCATT is composed of two trailers per suite with six reconfigurable modules for the Apache Longbow, Chinook, Kiowa Warrior, Lakota and Black Hawk. The NCM3 introduces a third trailer containing two reconfigurable modules which can be linked to AVCATT's UH-60 Black Hawk and CH-47 Chinook cockpit configurations to support a unit's specific mission training requirements. Both the AVCATT and NCM3 use Helmet Mounted Displays (HMD) for out-the-window scenes.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- SE Core
- OneSAF

PROGRAM STATUS

- 2Q FY15: HVAC Replacement Contract Award
- 3Q FY15: Training Effectiveness Evaluation Contract Award
- 4Q FY15: Award of PDSS Contract Award

PROJECTED ACTIVITIES

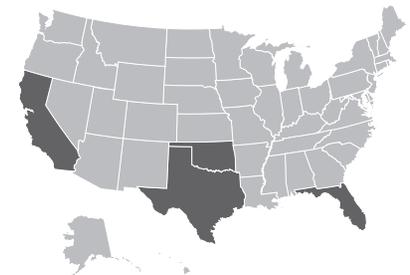
- 4Q FY16: HMD Upgrade Contract Award

FOREIGN MILITARY SALES

None

CONTRACTORS

- L3 Communications (Orlando, FL, Arlington, TX)
- Science Applications International Corporation (SAIC) (Orlando, FL)
- AVT Simulation (Orlando, FL)
- Dignitas Technologies, LLC (Orlando, FL)
- Leidos, Inc. (Orlando, FL)
- CymSTAR, LLC (Broken Arrow, OK)
- Applied Companies (Valencia, CA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

CLOSE COMBAT TACTICAL TRAINER (CCTT)

**MISSION**

To provide armor, mechanized infantry, cavalry, infantry and recon crews, units and staffs with virtual, collective training capability.

DESCRIPTION

The CCTT is a collective training program composed of three subsystems: CCTT, RVTT and DSTS. CCTT supports the virtual training of infantry, armor, mechanized infantry, cavalry and armored reconnaissance units from squad through battalion/squadron level, to include their staffs. The primary training audience operates from full crew simulators, mock-up command posts and live battalion command posts to accomplish their combined arms training tasks. Units train and perform tasks on these products in order to successfully accomplish their collective missions. These simulators and SAFs are connected via a local area network to provide real-time, fully interactive, collective task training on computer generated terrain.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- SE Core
- OneSAF

PROGRAM STATUS

- 3Q FY15: CCTT Concurrency upgrades fielded to Fort Hood, TX; Los Alamitos, CA; Gowen Field, ID; Production and fielding of the DSTS to Gowen Field, ID
- 3Q FY15-4Q FY15: Software upgrades fielded to all CCTT and RVTT sites
- 4Q FY15: CCTT Concurrency upgrades fielded to Fort Riley, KS; Mobile CCTT M1 Concurrency upgrades fielded to Fort Bragg, NC; Camp Ripley, MN; M2A3 BFIST Critical Design Review

PROJECTED ACTIVITIES

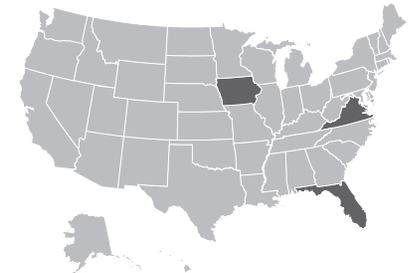
- 1Q FY16: Fielding of CCTT concurrency upgrades to Fort Stewart, GA; Fielding of Mobile CCTT concurrency upgrades to Knoxville, TN; Fielding of DSTS to Camp Butner, NC
- 2Q FY16: Fielding of Mobile CCTT concurrency upgrades to Camp Casey, Korea; Los Alamitos, CA; Camp Shelby, MS; First Unit Acceptance test for M2A3 BFIST
- 2Q FY16-4Q FY16: Fielding of M2A3 BFIST
- 3Q FY16: Fielding of Mobile CCTT concurrency upgrades to Fort Indiantown Gap, PA; Knoxville, TN; Fielding of concurrency upgrades to Fort Carson, CO
- 4Q FY16: Concurrency upgrades to Camp Ripley, MN
- FY17: Fielding of Concurrency upgrades at Fort Bliss, TX and Fort Benning, GA
- 2Q FY17: PDSS and Manned Module Modernization Contract Award

FOREIGN MILITARY SALES

None

CONTRACTORS

- CCTT: Lockheed Martin Mission Systems and Training (Orlando, FL)
- DSTS: Intelligent Decisions (Ashburn, VA, Orlando, FL)
- PDSS: AVT Simulation (Orlando, FL)
- Image Generator: Rockwell Collins (Cedar Rapids, IA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PdM MCTS
FLIGHT SCHOOL (FS) XXI



MISSION

To meet the needs of student loads, training schedules and individual/crew and collective training requirements prescribed by the U.S. Army Aviation Center of Excellence at Fort Rucker, AL.

DESCRIPTION

Flight School (FS) XXI Simulation Services provides high-fidelity, virtual aircraft simulators in support of Army and Air Force Initial Entry Rotary Wing training, graduate pilot training, collective training, and Professional Military Education at the United States Army Aviation Center of Excellence, Fort Rucker, AL. The FS XXI simulation capability is a long-term, contractor-provided simulation service that was competitively awarded as a Firm Fixed Price contract with award term provision in March 2004. The services are provided in three parts consisting of Training Helicopter virtual simulators (TH-67, TH-1H, and UH-72A), Advanced Aircraft Virtual Simulators (AAVS) (UH-60A/L, UH-60M, AH-64A/D, CH-47D and CH-47F), Reconfigurable Collective Training Devices and a training support/management oversight capability. The Virtual Simulator Systems are owned, operated and maintained by the contractor with government oversight and approval.

ACQUISITION PHASE



SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Synthetic Environment Core (SE Core)
- One Semi-Automated Forces (OneSAF)

PROGRAM STATUS

Significant FY15 activities:

- 2QFY15: SE Core and OneSAF integration completed Reconfigurable Collective Training Devices (RCTD)
- 4Q FY15: UH-72A Training Helicopter Virtual Simulator Upgrade contract modification award
- 4Q FY15: UH-60M, CH-47F, AH-64D, and AH-64E concurrency upgrade contract modification award

PROJECTED ACTIVITIES

Significant FY16&17 activities:

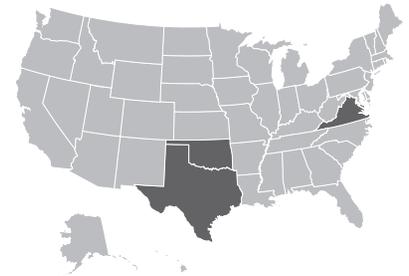
- 1Q FY16: Additional CH-47F AAVS capabilities delivery (2x CH-47F)
- 1Q FY16: UH-60A/L ASE upgrade (RCTD)
- 4Q FY16: Initial Delivery UH-72A capabilities
- 1Q FY17: Additional UH-60M AAVS capabilities delivery (1x UH-60M)
- 2Q FY17: Additional UH-60M AAVS capabilities delivery (2x UH-60M)

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Computer Sciences Corporation (CSC) (Falls Church, VA)
- Subcontractor: Flight Safety International (Broken Arrow, OK)
- Subcontractor: L3 Communications (Arlington, TX)



UH-72A SYNTHETIC FLIGHT TRAINING SIMULATOR

**MISSION**

To provide the ability for UH-72A crew members to perform training under simulated day/visual meteorological conditions (VMC), instrument meteorological conditions (IMC), degraded visual environment conditions, night conditions, to include the use of night vision devices (NVDs) and Chemical, Biological, Radiological and Nuclear (CBRN) operational conditions.

DESCRIPTION

The UH-72A Synthetic Flight Training Simulator (SFTS) will be a high fidelity flight simulator for training UH-72A helicopter pilot and co-pilot individual and crew tasks. The U.S. Army National Guard has a requirement to procure eight SFTS devices. The SFTS will be mounted in a trailer to support movement from Regional Service and Support (S&S) Battalion Headquarters to remote training locations. The SFTS will assist UH-72A aircrews in achieving high levels of mission readiness. This will occur as a consequence of SFTS supported training designed to improve knowledge and proficiency in the areas of aircraft employment, doctrine, mission planning, mission execution, communications, command and control, situational awareness, accident prevention, risk management and survivability. Following fielding, the device will be supported by Interim Contractor Support until transition to Worldwide Contractor Logistics Support (WCLS).

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Synthetic Environment Core (SE Core)
- One Semi-Automated Forces (OneSAF)

PROGRAM STATUS

- 2Q FY15: Preliminary Design Review, Critical Design Review
- 3Q FY15: Award of contracts to produce SFTS devices #3-8, Flight and Engine Model Engineering Change Proposal Award
- 4Q FY15: SFTS #1 Trailer First Article Acceptance Test, Dynamic Motion Seat First Article Acceptance Test

PROJECTED ACTIVITIES

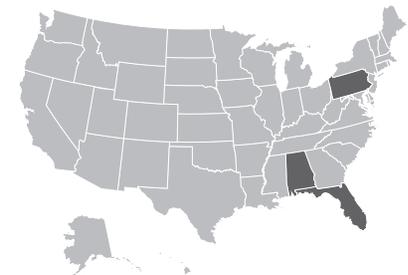
- 1Q FY16: Hardware Software Integration SFTS Version 1
- 2Q FY16: Contractor In-Plant Testing SFTS Version 1
- 3Q FY16: Government Acceptance Test SFTS Version 1
- 1Q FY17: Government Acceptance Test SFTS Version 2
- 2Q FY17: Government Acceptance Test SFTS Version 3

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Fidelity Flight Systems, Inc. (F2Si) (Pittsburgh, PA)
- Subcontractor: Leidos, Inc. (Orlando, FL)
- Subcontractor: S3, Inc. (Huntsville, AL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



PdM MCTS

UH-72A VIRTUAL MAINTENANCE TRAINER (VMT)

MISSION

To replicate identified maintenance tasks completed in a virtual aircraft environment and provide a training platform for development of maintenance skills for UH-72A maintainers.

DESCRIPTION

The UH-72A Virtual Maintenance Trainer (VMT) is an integrated training system consisting of virtual environment-based maintenance training simulation that provides realistic training for ground maintenance operations and procedures. An institutional training suite of 13

student work stations and one instructor/operator station will be delivered to Western Army National Guard Aviation Training Site. A reach-back capability for refresher/upgrade training will also be provided. Following fielding, the trainer will be supported by Interim Contractor Support until transition to WCLS.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- 2Q FY15: Contract Award
- 3Q FY15: System Requirements Review
- 4Q FY15: Preliminary Design Review

PROJECTED ACTIVITIES

- 1Q FY16: Critical Design Review
- 2Q FY16: Test Readiness Review
- 3Q FY16: Government Acceptance Testing, Ready for Training
- 4Q FY16: Reach-Back Capability Ready for Training

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: The DiSTI Corporation (Orlando, FL)
- Subcontractor: Charles River Analytics (Cambridge, MA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PRODUCT MANAGER WARRIOR TRAINING INTEGRATION (PdM WTI)



To provide operationally relevant integrated simulation environments for the Soldier and the Nation.

PdM WTI

LIVE, VIRTUAL, CONSTRUCTIVE-INTEGRATING ARCHITECTURE (LVC-IA)



MISSION

To provide the framework for integrating live, virtual and constructive systems into a unified training environment.

DESCRIPTION

LVC-IA is a net-centric linkage that collects, retrieves and exchanges data among TADSS and Joint and Army Mission Command Systems. LVC-IA

defines “how” information is exchanged among TADSS and Mission Command Systems. It enables the live, virtual, constructive training audience to see the common operating picture and to communicate using organizational command and control equipment. LVC-IA supports DoD Training Transformation and Army Training Doctrine by providing the LVC training environment that allows commanders, leaders, mission command staffs and units to “train as they operate” as part of a Joint Task Force.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- AVCATT
- CCTT
- GFT
- HITS
- JLCCTC
- MTC Infrastructure

PROGRAM STATUS

- 1Q FY15: FUA of Version 1.3 at Fort Riley, KS
- 2Q FY15: Fielding of Version 1.3 to Fort Bragg, NC, Fort Stewart, GA, Fort Campbell, KY and Fort Drum, NY
- 3Q FY15: Version 2.0 Distribution Capability testing with Fort Rucker, AL and Fort Benning, GA; Fielding of Version 1.3 to JBLM and Schofield Barracks, HI
- 4Q FY15: Fielding of Version 1.3 at Fort Carson, CO Fort Hood, TX and Fort Bliss, TX

PROJECTED ACTIVITIES

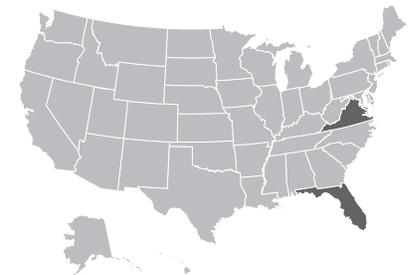
- 1Q-2Q FY16: GAT/FUA of LVC-IA Version 2.0
- 3Q FY16: Award of LVC-IA Enhanced Capabilities Contract for Development of Version 3.0; Retrofit fielded sites with Version 2.0

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Cole Engineering and Services, Inc. (Orlando, FL)
- Subcontractor: Accenture Federal Systems (Reston, VA)
- Subcontractor: Intelligent Decisions Systems, Inc. (Centerville, VA)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT



PdM WTI

SYNTHETIC ENVIRONMENT CORE (SE CORE)

MISSION

To generate a common environment, standard static and common moving models, common computer generated forces and common tools and standards that support Army training for system and non-system Training Aids, Devices, Simulators, and Simulations (TADSS) systems in the live, virtual, constructive and gaming simulation systems.

DESCRIPTION

The Synthetic Environment Core (SE Core) program is building the Army's Common Virtual Environment (CVE) to link virtual simulation devices into an integrated and interoperable training environment. SE Core provides the Virtual Simulation Architecture that links system and non-system simulations. SE Core sustains the Virtual Extensions of One Semi-Automated Forces (OneSAF) used by the Close Combat Tactical Trainer (CCTT) and the Aviation Combined Arms Tactical Trainer (AVCATT). SE Core produces synthetic terrain for simulators and simulations by using a standard Terrain Database (TDB) generation process that is non-proprietary, open format and image generator independent. It enables the entire training audience to see the same terrain, buildings and vehicles across the Integrated Training Environment (ITE).

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Aviation Combined Arms Tactical Trainer (AVCATT)
- Close Combat Tactical Trainer (CCTT)
- Homestation Instrumentation Training System (HITS)
- Games for Training (GFT)
- Joint Land Component Constructive Training Capability (JLCCTC)
- Live Virtual Constructive - Integrating Architecture (LVC-IA)
- One Semi-Automated Forces (OneSAF)

PROGRAM STATUS

- 2Q FY15: Delivered database to Ft. Bliss, TX
- 3Q FY15: Delivered database to Germany
- 4Q FY15: Delivered database to Alaska

PROJECTED ACTIVITIES

Significant FY16-17 activities:

- 1Q FY16: Deliver ITE terrain database to Ft. Benning, GA
- 1Q FY16: Deliver constructive database to Caspian Sea
- 2Q FY16: Deliver ITE terrain database to Ft. Polk, LA
- 3Q FY16: Deliver ITE terrain database to Joint Base Lewis-McChord, WA
- 3Q FY16: Deliver constructive database Decisive Action Training Environment (DATE)
- 4Q FY16: Deliver ITE terrain database to Ft. Hood, TX
- 4Q FY16: Deliver constructive database Afghanistan
- 1Q FY17: Deliver constructive database to Joint Readiness Training Center
- 2Q FY17: Deliver ITE database to Ft. Campbell, KY
- 3Q FY17: Deliver ITE database to Ft. Stewart, GA
- 3Q FY17: Deliver constructive database to National Training Center
- 4Q FY17: Deliver constructive database to Hawaii

FOREIGN MILITARY SALES

None

CONTRACTORS

- Prime: Leidos, Inc. (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

U.S. ARMY GAMES FOR TRAINING (GFT) PROGRAM



MISSION

To prepare Soldiers and leaders for the full spectrum of military operations with robust virtual training and mission rehearsal capabilities, and to comprehensively train company-and-below formations.

DESCRIPTION

The GFT Program provides Soldiers and leaders with low overhead, easily adaptable and readily available, Commercial- and Government- Off-the-Shelf (COTS/GOTS) gaming applications to prepare for operations. GFT satisfies the Active, National Guard and the Army Reserves training and educational requirements in the Operational, Institutional and Self-Development Training Domains with a persistent training capability that is relevant with all military platforms and weapons systems.

Virtual Battlespace 3 (VBS3) is the U.S. Army’s flagship gaming engine. VBS3 is a 3-D, first-person, gaming platform that provides realistic, semi-immersive environments, dynamic terrain, hundreds of simulated military and civilian entities, geo-typical terrain areas as well as actual geo-specific terrains. U.S. Army, U.S. Marine Corps, U.S. Air Force and multinational equipment is modeled.

VBS3 has a 3-D scenario editor as well as a robust After Action Review (AAR) capability. It is compatible with Distributed Interactive Simulation (DIS) and High Level Architecture (HLA) in order to provide integration with live, virtual and constructive architectures.

The GFT program also hosts the MilGaming Web Portal available to all Soldiers and Military that provides various game-based courses and simulations:

<https://milgaming.army.mil/>

- Bilateral Negotiation Trainer (BiLAT)
- Operational Language and Culture Training System (Iraqi, Dari, Pashto, French, Indonesian)
- UrbanSim
- Video Creation Tool
- Emergent Leader Immersive Training Environment
- Military Intelligence Support to Target (MIST)

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- FY15: Delivery of VBS3 v3.4.9 gaming software to the field
- FY15: Award of VBS3 Option Year #2
- FY15: GFT Suites Hardware Refresh

PROJECTED ACTIVITIES

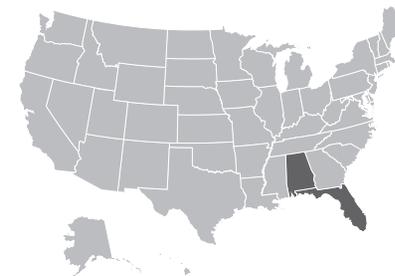
- FY16: Delivery of VBS3 v3.7 gaming software to the field
- FY16: Delivery of GFT suites to additional NATO countries
- FY16: Award of VBS3 Option Year #3

FOREIGN MILITARY SALES

- Latvia, Serbia, Poland, Romania and Taiwan

CONTRACTORS

- Prime: Calytrix Technologies (Orlando, FL)
- Subcontractor: Bohemia Interactive Simulations (Orlando, FL)
- Subcontractor: U.S. Army Aviation and Missile Research Development and Engineering Center (AMRDEC) Software Engineering Directorate (Huntsville, AL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

PROJECT DIRECTOR CONSTRUCTIVE SIMULATION SUPPORT (PD CSS)



To develop and field constructive simulations that enable commanders from battalion to theater level to train their battle staffs to fight and win our Nation's wars. Provide Semi-Automated Forces throughout the Army's modeling and simulation communities to conduct realistic and effective research and development.

PD CSS

JOINT LAND COMPONENT CONSTRUCTIVE TRAINING CAPABILITY (JLCCTC)



MISSION

To provide Army commanders and their battle staff the capability to train in an operationally relevant, constructive simulation environment that simulates Army Decisive Action operations employed for Simulation/Stimulation (SIM/STIM) of collective digital Mission Command training, at all echelons, from brigade to theater level.

DESCRIPTION

The JLCCTC supports Army Title X training worldwide for Army commanders and their staffs at Mission Command Training Centers (MCTCs), Training and Doctrine Command (TRADOC) facilities and other customer locations. JLCCTC trains commanders and their staff in offensive, defensive, stability and civil support operations. System capabilities include:

- Stimulation of Mission Command (MC) systems
- Intelligence (Human Intelligence, Imagery Intelligence, Electronics Intelligence, Communications Intelligence, and Measurement and Signature Intelligence)
- Irregular Warfare (IW) (insurgents, terrorists, car bombs/IEDs, civilians/refugees, etc.)
- Unmanned Aerial Vehicle (UAV) Visualization
- Logistics training (maintenance, supply, transportation, ammunition, personnel)
- Non-kinetic effects modeling
- After Action Review (AAR) system

- Interface with the Air Force Simulation, the Air and Space Cyber Constructive Environment (ASCCE)

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Live, Virtual, Constructive-Integrating Architecture (LVC-IA)
- Synthetic Environment Core (SE Core)
- One Semi-Automated Forces (OneSAF)

PROGRAM STATUS

- FY15: Supported dozens of Army Warfighter Exercises (WFXs) worldwide at the Brigade, DIV, and above echelons

PROJECTED ACTIVITIES

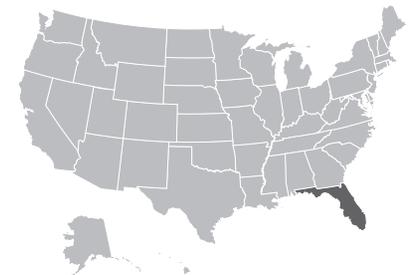
- 1Q-4Q FY16: Support dozens of WFXs worldwide
- 3Q FY16: Validate ERF v5.6 capabilities
- 3Q-4Q FY16: Validate MRF v7.1/v8.0 capabilities

FOREIGN MILITARY SALES

- Warfighters' Simulation (WARSIM) - Japan

CONTRACTORS

- Prime: Lockheed Martin Mission Systems and Training (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

ONE SEMI-AUTOMATED FORCES (ONESAF)



MISSION

To provide relevant integrated modeling and simulation capabilities to achieve Army readiness.

DESCRIPTION

One Semi-Automated Forces (OneSAF) is a Computer Generated Forces simulation that provides entity-level models and behaviors that are both semi-automated and fully automated applications. As a cross-domain simulation, OneSAF supports the Training, Test and Evaluation, Analysis, Intelligence,

Acquisition, Experimentation communities by providing the latest physics-based modeling and data, enhanced data collection and reporting capabilities. OneSAF models real world representations of platforms, soldiers, equipment, logistical supplies, communications systems and networks, emerging threats and aviation assets to achieve the level of fidelity required for a particular application or scenario across the full spectrum of military operations.

OneSAF has been crafted to be uniquely capable of simulating aspects of the urban operating environment and its effects on simulated activities and behaviors. Special attention has been paid to urban operations details including interior rooms, furniture, tunnels and subterranean features, and associated automated behaviors to make use of these attributes. OneSAF is unique in its ability to model unit behaviors from fire team to company level for all units, for both combat and non-combat operations. Intelligent, doctrinally correct behaviors and a range of constructive, gaming and virtually-based user interfaces are provided to increase the span of control for workstation operators.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Provides required SAF capabilities for Aviation Combined Arms Tactical Trainer (AVCATT), the Non-Rated Crew Member Manned Module (NCM3) and Close Combat Tactical Trainer (CCTT)

Other Major Interdependencies

- Provides the common Mission Command Adapter used to stimulate the latest Army Mission Command systems.
- Provides the operational realism and wraparound forces in support of Battle Lab Collaborative Simulation Environment experiments and the Network Integration Evaluation (NIE) objectives.

PROGRAM STATUS

- FY15: New Releases
 - Version 8.0 and 8.5 release
- FY15: Training/Events
 - NIE 15.1 and 15.2 support (Ft. Bliss, TX)
 - NIE 16.1/AWA (Ft. Bliss, TX)

PROJECTED ACTIVITIES

- FY16: Version 8.6 release
- FY16: NIE 16.1/AWA support (Ft. Bliss, TX)

FOREIGN MILITARY SALES

- Canada, Egypt, Israel, Singapore, United Kingdom

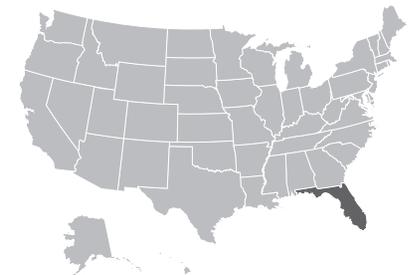
CONTRACTORS

Integration, Interoperability and Support (I2S):

- Prime: Cole Engineering Services, Inc. (Orlando, FL)

Software Production:

- Prime: Leidos, Inc. (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



SUPPORT TO THE WARFIGHTER.

ON TIME, ANYTIME, ANYWHERE.

MISSION: To provide Integrated Army Training Systems Operations, Sustainment and Training Services Worldwide.

Field Operations Directorate (Field OPS) executes its life-cycle management services to meet U.S. Army and other customer-specific requirements. Field OPS provides worldwide Training Aids, Devices, Simulators, and Simulations (TADSS) maintenance, operations, and sustainment plus training support services to U.S. Army Garrisons, Institutions, Combat Training Centers, and deployed areas of operation. It exercises acquisition management, oversight, and quality assurance across the enterprise through its small footprint of acquisition professionals.

FIELD OPS

FIELD OPERATIONS DIRECTORATE

Field OPS maintains an extensive quality assurance program to monitor, report, and improve contract performance. Local commanders nominate Quality Assurance Representatives (QARs) who receive training in measuring contract performance standards versus actual performance.

Critical to contract performance oversight are the Field OPS Liaison Representatives (LRs). Field OPS has 14 LRs at the most heavily contractor populated Army training sites worldwide. Eleven provide contract oversight in the Continental United States, two in Germany and one in Korea. They are trained Contracting Officer Representatives. LRs provide a “Weekly Report” that summarizes local training support activities. Taken in sum, the QAR and LR reports add to the “total contract oversight picture” required to assess performance. To complete the contract quality performance picture, Field OPS uses customer surveys, emails, phone calls, and face-to-face meetings.

Field OPS LRs provide a real time vital coordination link between local commanders and contractors at the point of contract execution. LRs also keep personnel in the Field OPS home office informed of upcoming training events, the progress of training system fieldings, and help resolve contract administration and operational issues.

Field OPS executes its mission through two Life Cycle Contract Support (LCCS) service contracts: Warfighter Field Operations Customer Support (FOCUS) (WFF)



and the Artillery and Chemical Training (ACT). Each executes through a different prime contractor who provides services to operate, maintain, and sustain the Army’s extensive array of training systems.

Field OPS has the contractual flexibility to provide responsive and cost effective training system LCCS whenever and wherever required. Field OPS’ critical overall performance measurement is Operational Availability (AO) which means having TADSS ready for training in accordance with commanders’ requirements. Field OPS measures its contractors’ success by how well they meet their required contract performance factors. They require cross-leveling of labor and tool sets to achieve maximum efficiency and operational flexibility for required worldwide training services. Using the tenets of the Department of Defense’s “Better Buying Power,” Field OPS has achieved significant cost avoidance and savings by using Performance Based Logistics contracts, telling contractors what to do, not how to do it.



ARMY TRAINING AIDS, DEVICES, SIMULATORS, AND SIMULATIONS (TADSS) MAINTENANCE PROGRAM (ATMP) CONTRACT

MISSION

Execute the AR 350-38 Army Training Aids, Devices, Simulators, and Simulations (TADSS) Maintenance Program for Program of Record TADSS. Provide an integrated maintenance and sustainment contract for Army TADSS, Instrumentation Systems (ISs) and ranges funded directly by the Department of the Army.

DESCRIPTION

The ATMP Contract will provide the U.S. Army a seven-year training services contract providing worldwide maintenance, operations and support for TADSS that will begin 3Q FY17. It will provide training services integrally related to Army Program of Record (POR) TADSS maintenance directly funded by the Department of the Army. The ATMP Contract will be a single award based on market research, cost analysis, and mission requirements and will be competed through full and open competition. It excludes customer-funded training services not integrally related to POR TADSS maintenance. The program will ensure that all of the specified TADSS are maintained and updated in accordance with mission requirements and constraints. The ATMP Contract will have Field OPS Program Management and contract oversight.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Project Managers Integrated Training Environment (PM ITE); Training Devices (PM TRADE); and Instrumentation, Targets, and Threat Simulators (PM ITTS) provide life cycle updates to associated TADSS to include concurrency, technical refresh, and obsolescence upgrades. These efforts assist Field Operations with extending TADSS useful life and lowering sustainment of fielded systems. ATMP provides detailed maintenance, sustainment, and engineering analysis of fielded TADSS to the PMs to form life-cycle investment decisions and development efforts for future TADSS.

PROGRAM STATUS

- ATMP is planned to be a seven year, single award, IDIQ contract

PROJECTED ACTIVITIES

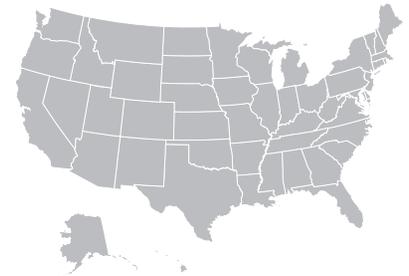
- 3Q FY17: ATMP is scheduled for Contract Award

FOREIGN MILITARY SALES

- ATMP may be used to maintain FMS TADSS identical to Army Program of Record (POR) TADSS where it will provide economies of scale

CONTRACTORS

To Be Determined (TBD)



ACQUISITION PHASE





ARTILLERY AND CHEMICAL (ACT) CONTRACT

MISSION

Provide management, maintenance, and supply support required to maintain specified Army Air Defense Artillery (ADA), Field Artillery (FA), and Chemical (CM) training systems available to provide commanders the ability to maintain operational readiness.

DESCRIPTION

The Artillery and Chemical Training (ACT) contract is a small business set-aside providing worldwide Life Cycle Contract Support (LCCS) for Air Defense Artillery, Field Artillery, and Chemical training systems based on commanders' requirements. The program ensures that all of the specified Training, Aids, Devices, Simulators, and Simulations (TADSS) are maintained and updated in accordance with mission requirements and constraints. The ACT Contract currently has oversight and maintenance responsibilities for a minimum of 12

specified families of systems and is expected to expand in the near future. The program maintains eight (8) manned sites, both CONUS and OCONUS (Fort Sill, OK; Fort Leonard Wood, MO; Fort Bliss, TX; Fort Polk, LA; Fort Lee, VA; Fort Bragg, NC; Camp Casey, Korea and Vilseck, Germany) as well as a large number of remote locations servicing both Active and Reserve Component as well as Joint Services. Field OPS provides acquisition management, contract oversight, and quality assurance for this contract.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Project Manager Integrated Training Environment (ITE). PM ITE provides life cycle updates to associated TADSS to include concurrency, technical refresh and obsolescence upgrades. These efforts assist Field Operations with extending the useful life and lowering sustainment costs of fielded systems.

PROGRAM STATUS

- ACT is a five-year small business set aside training services contract providing maintenance, operations, and support for Artillery, Chemical, and Air Defense TADSS and is in the third year of execution

PROJECTED ACTIVITIES

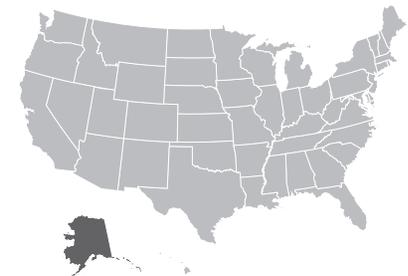
- FY17: ACT to be re-named "Artillery Chemical Training Sustainment (ACTS)" and re-competed with contract award

FOREIGN MILITARY SALES

None

CONTRACTORS

- KATMAI (Anchorage, AK)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

MAINTENANCE

RECAPITALIZATION

MODERNIZATION

INVESTMENT COMPONENT



TRAINING INSTRUCTOR/OPERATOR SERVICES SUPPORT (TRIOSS) CONTRACT

MISSION

Provide Instructors/Operators for PEO STRI-developed and potentially other U.S. Army simulators and simulations worldwide in support of institutional and organizational training.

DESCRIPTION

The training Instructors/Operator Services Support (TRIOSS) acquisition is a potential small business IDIQ set-aside contract. TRIOSS requirements are based on historical and current Instructor/Operator (I/O) support of PEO STRI Training Aids, Devices, Simulator,

and Simulations (TADSS) requirements. TRIOSS will support the following training systems: Medical Simulation Training Center (MSTC); Home Station Instrumentation Training Systems (HITS); Intelligence and Electronic Warfare Tactical Proficiency Trainer (IEWTPT); Air Force Medical and Modeling Simulation Trainer (AFMMAST); Korea Battle Simulations Center (KBSC) Gunnery Instructor, I/O Flight Simulators, I/O Engagement Skills Trainer (EST) 2000 and I/O High Mobility Wheeled Vehicle Egress Assistance Trainer (HEAT.)

The contract's scope includes I/O support of these training systems when used by other services and additional training systems as required by the Active Army, Army National Guard and Army Reserve. Field OPS provides acquisition management, contract oversight and quality assurance for this contract.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Project Managers Integrated Training Environment (PM ITE); Training Devices (PM TRADE); and Instrumentation, Targets, and Threat Simulators (PM ITTS) provide life cycle updates to associated TADSS to include concurrency, technical refresh and obsolescence upgrades. These efforts assist Field Operations with extending the useful life and lowering sustainment costs of fielded systems.

PROGRAM STATUS

- The TRIOSS Integrated Product Team (IPT) is conducting initial market research, while concurrently completing draft requirements documents for a potential five-year small business set-aside training services contract. TRIOSS will provide I/Os for multiple training systems that is planned for award in the Third Quarter of FY17.

PROJECTED ACTIVITIES

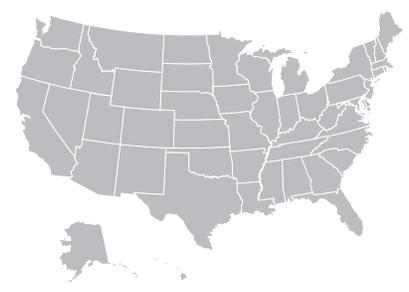
- 3Q FY17: Contract Award

FOREIGN MILITARY SALES

None

CONTRACTORS

To Be Determined (TBD)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT



WARFIGHTER FOCUS (WFF) CONTRACT

MISSION

Provide integrated worldwide Live, Virtual, and Constructive maintenance, operations, and sustainment of training systems.

DESCRIPTION

Field Operations Directorate (Field

OPS) executes the largest part of its business through the Warfighter Field OPS Customer Support (FOCUS) (WFF) contract. WFF is the U.S. Army's largest training services contract. It provides integrated worldwide Live, Virtual, and Constructive maintenance, operations, and sustainment of training systems. Field OPS' WFF Contract generates substantial efficiencies by maximizing flexibility within a site, and among multiple sites by providing technicians cross-trained in various disciplines across numerous systems. This enables local and regional training managers to concentrate manpower seamlessly, which maximizes the efficiency of every training dollar by expending resources exactly where, when, and in the amount required.

Field OPS also dramatically improves efficiency by task-organizing itself and the WFF contract to support the Army's Training Support System Enterprise. It has assistant directors who specialize in:

- Soldier Systems which support particular weapons systems training; training systems that provide individual and collective training regardless of unit type or a Soldier's Military Occupational Specialty; and "Mission Command Training" which trains commanders and their staffs
- Maneuver Combat Training Centers, where units train in brigade and battalion collective instrumented training
- Sustainable Range Programs, the firing and non-firing ranges that train marksmanship and fire control
- Support Mission (includes Contingency Operations Support and Foreign Military Sales)

Field OPS executes the WFF contract using a workforce that contains a broad range and extended depth of knowledge and experience. Field OPS uses government and contracted personnel to perform acquisition management of its training services contracts.

SYSTEM INTERDEPENDENCIES

With Other Products Listed in this Publication

- Project Managers Training Devices (TRADE), Instrumentation, Targets and Threat Simulators (ITTTS) and Integrated Training Environment (ITE). PMs TRADE, ITTS and ITE provide life cycle updates to associated TADSS to include concurrency, technical refresh and obsolescence upgrades. These efforts assist Field Operations with extending the useful life and lowering sustainment costs of fielded systems.

PROGRAM STATUS

- Warfighter FOCUS (WFF) is a 10-year training services contract providing maintenance, operations, and support for Training Aids, Devices, Simulators, and Simulations (TADSS) and is in the eighth year of execution

PROJECTED ACTIVITIES

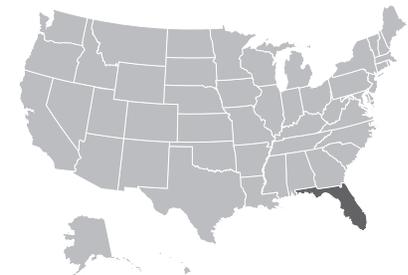
- WFF re-compete referred to as Army TADSS Maintenance Program (ATMP) award expected in FY17

FOREIGN MILITARY SALES

- WFF provides FMS training services to the following countries: Afghanistan, Albania, Australia, Azerbaijan, Bulgaria, Columbia, Egypt, Georgia, Kuwait, Indonesia (FY18), Latvia, Lebanon, Lithuania, Macedonia, Netherlands, Qatar, Romania, Saudi Arabia, Senegal, Serbia, Taiwan and United Arab Emirates

CONTRACTORS

- Raytheon Intelligence, Information and Services (Orlando, FL)



ACQUISITION PHASE

TECHNOLOGY DEVELOPMENT

ENGINEERING & MANUFACTURING DEVELOPMENT

PRODUCTION & DEPLOYMENT

OPERATIONS & SUPPORT

FIELD OPS DIRECTORATE | OPERATIONS



ASSISTANT DIRECTOR COMBAT TRAINING CENTERS

MISSION

Provide Life Cycle Contract Support (LCCS) for training system maintenance, sustainment and operational support for the U.S. Army's three fixed location Maneuver Combat Training Centers (MCTC): the Joint Multi-national Readiness Center (JMRC), Hohenfels, Germany; the National Training Center (NTC),

Fort Irwin, CA; and the Joint Readiness Training Center (JRTC), Fort Polk, LA, and for mobile maneuver training center capabilities in Europe and the Pacific.

DESCRIPTION

The Assistant Director, Combat Training Centers (AD CTCs), provides worldwide Life Cycle Contract Support (LCCS) for the U.S. Army Maneuver Combat Training Centers. The fixed Centers provide the pinnacle training event for Army combat brigades by incorporating all training systems into an integrated simulated force-on-force event followed by an integrated live-fire exercise.

These include:

- Training Exercise Command and Control
- Weapon specific training systems for force-on-force maneuver systems including ground combat and aviation
- Non-weapons specific training systems and devices for medical training, engagement skills, artillery simulators, chemical defense, and Soldier Common Skills-related trainers
- Mission Command Training systems
- Integrating systems that seamlessly combine Live, Virtual, and Constructive Training
- Highly sophisticated After Action Review systems beyond those located at Army home stations that include player-to-player pairings, combat outcome determination and audio/video systems
- Range Monitoring Systems, electronic and human



ASSISTANT DIRECTOR SOLDIER SYSTEMS

MISSION

Provide Life Cycle Contract Support (LCCS) management, oversight, and quality assurance to ensure a wide variety of training systems remain operationally available in accordance with Department of the Army validated requirements.

DESCRIPTION

Provide acquisition management of LCCS operations, maintenance, and sustainment for:

- Weapon specific training systems for gunnery, force-on-force, aviation, maintenance and driver trainer virtual training systems
- Non-weapons specific training systems and devices for medical training, engagement skills, artillery simulators, chemical defense, and Soldier Common Skills-related trainers
- Mission Command Training systems support in the Live, Virtual, and Constructive training domains
- Fixed and mobile simulations and simulator/trainers, intelligence training systems and trainers, and training for Unmanned Aerial Vehicles (UAVs) systems
- Artillery and Chemical Training (ACT) systems support for Air Defense Artillery, Field Artillery and Chemical Training systems and devices
- Fixed Tactical Internet systems
- Integrating systems that enable combining the Live, Virtual, and Constructive Simulations



ASSISTANT DIRECTOR SUPPORT MISSION

MISSION

Provide Life Cycle Contract Support (LCCS) worldwide for the U.S. Army and other customers within the Warfighter FOCUS (WFF) Contract, including deployed operations. To provide Foreign Military Sales (FMS) services in support of PEO STRI's FMS portfolio.

DESCRIPTION

The Assistant Director, Support Mission (AD SM) supports the complete Field OPS portfolio on an “as requested pay-as-you-go” basis. The FMS activities are done in coordination with the U.S. Departments of Defense and State through the Defense Security Cooperation Agency and include contingency operations support for coalition partners.

Assistant Director SM provides customer funded LCCS operators, maintainers, instructors, and logisticians for:

- U.S. Army Major Subordinate Commands
- The United States Special Operations Command
- Other U.S. military branches
- U.S. government agencies
- Allied or Coalition Partners



ASSISTANT DIRECTOR SUSTAINABLE RANGE PROGRAM

MISSION

Provide Life Cycle Contract Support (LCCS) worldwide for range maintenance, sustainment, and operations support for firing and non-firing ranges including digitized ranges predominantly used by the U.S. Army.

DESCRIPTION

The Assistant Director, Sustainable Range Program (AD SRP) supports a wide variety of ranges, many of which serve specialized purposes. These ranges include ground and aerial ranges as well as specialized ranges for operating in urban terrain and other specialized environments.

These include LCCS operations, maintenance, and sustainment for:

- Ground combat ranges including live fire, non-live fire, digitized, Military Operations in Urban Terrain (MOUT) sites, and Shoot Houses
- Aerial combat ranges including live fire and simulated live fire ranges such as the Aerial Weapons Scoring System (AWSS); Instrumented and Non-instrumented ranges including on-board instrumentation packages, vehicle-mounted, internal and external field audio and video systems, other scoring means such as role player and exercise observer feedback
- Advanced and reconfigurable targetry, battlefield sound effects, and other battlefield effects
- After Action Review (AAR) Systems
- Home Station ranges
- Integrating systems that enable combining the Live, Virtual, and Constructive Simulations



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GLOSSARY OF ACRONYMS

A

AAR – After Action Review
AARM – After Action Review Module
AAVS – Advanced Aircraft Virtual Simulator
ABCT – Armor Brigade Combat Team
ACSL – Abrams Common Software Library
ACT – Artillery and Chemical Training
ADA – Air Defense Artillery
AD CTC – Assistant Director Combat Training Centers
AD SM – Assistant Director Support Mission
AD SRP – Assistant Director Sustainable Range Program
AD SS – Assistant Director Soldier Systems
ADVNESTS – Advanced Networked Electronic Support Threat Sensors
AFATDS – Advanced Field Artillery Tactical Data System
AFMAST – Air Force Medical Modeling and Simulation Training
AFSM – Adaptive Full Spectrum Module
AFSS – Automatic Fire Suppression System
AFV – Armored Fighting Vehicle
AGATCS – Army Ground Aerial Target Control System
AGTS – Advanced Gunnery Training System
AHIP – Aviation Homestation Interim Package
AI3 – Accelerated Improved Intercept Initiative
AIM – Abrams Integrated Management
AKI – Aircraft Kill Indicator
ALT – Advanced Learning Technologies
AMCOM – Aviation & Missile Command
AMCS – Army Mission Command System

AME – Army Model Exchange
AMEDD – Army Medical Department
AMRDEC SED – U.S. Army Aviation and Missile Research Development and Engineering Center Software Engineering Directorate
AMSAA – Army Materiel Systems Analysis Activity
ANG – Air National Guard
APFT – Army Physical Fitness Test
APG – Aberdeen Proving Ground
APM TRADE – Assistant Project Manager Training Devices
AR – Army Regulations
ARFORGEN – Army Force Generation
ARNG – Army Reserve National Guard
ARTIS – Advanced Range Tracking and Imaging System
ASA(ALT) – Assistant Secretary of the Army for Acquisition, Logistics and Technology
ASCCE – Air and Space Cyber Constructive Environment
ASMO – Army Spectrum Management Office
ASMODIM – Advanced SMart Onboard Data Interface Module
ASP – Articulating Sensor Package
ATC – Aberdeen Test Center
ATD – Aircrew Training Devices
ATEC – U.S. Army Test and Evaluation Command
ATFS – Aerial Targets Flight Services
ATGM – Anti–Tank Guided Missile
ATMP – Army Training Aids, Devices, Simulators, and Simulations (TADSS) Maintenance Program
ATV – Army Tactical Vehicle

ATWESS – Anti–Tank Weapon Effect Signature Simulator
AVCATT – Aviation Combined Arms Tactical Trainer
AVSTIL – Aviation System Test and Integration Laboratory
AV TESS – Aviation Tactical Engagement Simulation System
AWA – Army Warfighting Assessment
AWG – Arbitrary Waveform Generator
AWSS – Aerial Weapons Scoring System

B

BAA – Broad Agency Announcement
BATS – Ballistic Aerial Targets System
BCTC-ES – Battle Command Training Capability–Equipment Support
Bde – Brigade
BDM – Bunker Defeat Munitions
BEMT – Basic Electronics Maintenance Trainer
BES – Battlefield Effects Simulator
BFIST – Bradley Fire Support Team
BFV – Bradley Fighting Vehicle
BiLAT – Bilateral Negotiation Trainer
BLCSE – Battle Laboratory Collaborative Simulation Environment
BMC – Brigade Modernization Command
BML – Battle Management Language
BOI – Basis Of Issue
BOIP – Basis Of Issue Plan
BOSS – Boom Operator Simulation System
BVS – Battlefield Visualization System

GLOSSARY OF ACRONYMS

- C**
- C3** - Command, Control and Communications
 - C3T** - Command, Control and Communications–Tactical
 - C4I** - Command, Control, Communications, Computers and Intelligence
 - C4ISR** - Command, Control, Communications, Computer, Intelligence Surveillance and Reconnaissance
 - C4ISR/EW** - Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance/Electronic Warfare
 - CA** - Component Architecture
 - CACCTUS** - Combined Arms Command and Control Trainer Upgrade System
 - CAC-T** - Combined Arms Center–Training
 - CACTF** - Combined Arms Collective Training Facility
 - CAD** - Computer Aided Design
 - C-AGTS** - Conduct of Fire Trainer Advanced Gunnery Training System
 - CALFEX** - Combined Arms Live Fire Exercises
 - CAS** - Close Air Support
 - CASM** - Close Air Support Module
 - CBCSE** - Common Battle Command Simulation Equipment
 - CBID/IMI** - Computer–Based Instructional Development/Interactive Multimedia Instruction
 - CBRN** - Chemical, Biological, Radiological and Nuclear
 - CCM** - Center for Countermeasures
 - CCTT** - Close Combat Tactical Trainer
 - CCWS** - Close Combat Weapon Systems
 - CDR** - Critical Design Review
 - CDS** - Cross Domain Solution
 - CDT** - Common Driver Trainer
 - CE** - Common Equipment
 - CFFT** - Call For Fire Trainer
 - CFFT III** - Call For Fire Trainer Increment III
 - CFV** - Cavalry Fighting Vehicle
 - CGF** - Computer Generated Forces
 - CI** - Counter Intelligence
 - C-IED** - Counter–Improvised Explosive Device
 - CIS** - Core Instrumentation System
 - CLS** - Combat Lifesavers
 - CMWS** - Common Missile Warning System
 - CNO** - Computer Network Operations
 - COB-Vs** - Civilian on the Battlefield Vehicles
 - COE** - Common Operating Environment
 - COFT-SA** - Conduct Of Fire Trainer–Situational Awareness
 - CONUS** - Continental United States
 - COP** - Common Operating Picture
 - COTS** - Commercial Off The Shelf
 - CP** - Command Post
 - CPD** - Capability Production Document
 - CPM** - Consolidated Product Line Management
 - CPXs** - Command Post Exercises
 - CREW2** - Counter Radio Electronic Warfare 2
 - CSI** - Crew Station Interface
 - CT** - Combat Trainers
 - CTC** - Combat Training Center
 - CTC Aviation** - Combat Training Center Aviation
 - CTC-IS** - Combat Training Center–Instrumentation System
 - CTC LFM** - Combat Training Center Life Fire Modernization
 - CTC MOUT-IS** - Combat Training Center Military Operations on Urban Terrain–Instrumentation System
 - CTEIP** - Central Test and Evaluation Investment Program
 - CTF** - Collective Training Facility
 - CTIA** - Common Training Instrumentation Architecture
 - CTR** - Continuous Technical Refresh
 - CUI** - Controlled Unclassified Information
 - CVE** - Common Virtual Environment
 - CVT** - Contractor Verification Test
 - CVTESS** - Combat Vehicle Tactical Engagement Simulation System
- D**
- D3A** - Decide, Detect, Deliver and Assess
 - DA** - Department of the Army
 - DAGIR** - Digital Air Ground Integrated Range
 - DAMI** - Department of the Army Military Intelligence
 - DAMO-TR** - Department of the Army Military Operations-Training
 - DA PAM** - Department of the Army Pamphlet
 - DASA DEC** - Deputy Assistant Secretary for the Army for Defense Exports and Cooperation
 - DATE** - Decisive Action Training Environment
 - DAWIA** - Defense Acquisition Workforce Improvement Act
 - DCGS-A** - Distributed Common Ground System–Army
 - DE** - Directed Energy
 - DET** - Directed Energy Test
 - DEW** - Directed Energy Weapon
 - DF** - Direction Finding
 - DIRCM** - Directed Infrared Counter Measures
 - DIS** - Distributed Interactive Simulation
 - DIVE** - Dynamic, Immersive, Virtual Environment
 - DMPBAC** - Digital Multi–Purpose Battle Area Course
 - DMPRC** - Digital Multi–Purpose Range Complex

DMPTR - Digital Multi-Purpose Training Range
DoD - Department of Defense
DODIIS - Department Of Defense Intelligence Information Systems
DOF - Degrees Of Freedom
DOT&E - Director Operation Test and Evaluation
DRTS - Digital Range Training System
DSTS - Dismounted Soldier Training System
D/T - Diagnostic and Troubleshooting
DTE - Distributed Testing Event
DVE - Driver's Vision Enhancer
DVH - Double-V Hull
DXTRS - Division eXercise Training and Readiness System

E

E3 - Electromagnetic Environmental Effects
EA - Electronic Attack
E-CSTs - Enhanced-Control Signal Transmitters
ED - Embedded Diagnostics
EDM - Electronic Data Manager
EHS - Explosive Hazards
ELITE - Emergent Leader Immersive Training Environment
EMC - Electromagnetic Compatibility
EMI - Electromagnetic Interference
EMP - Electromagnetic Pulse
EMR - Electromagnetic Radiation
EMRE - Electromagnetic Radiation Effects
EMT - Emergency Medical Technician
EO - Electro-Optic
EO - Electro-Optical
EO/IR - Electro-Optical/Infrared
ERF - Entity Resolution Federation
ES - Electronic Support
EST - Engagement Skills Trainer

EW - Electronic Warfare
EWT - Electronic Warfare Test
EXCON - Exercise Control

F

FA - Field Artillery
FASIT - Future Army System of Integrated Targets
FCS - Fire Control System
FECM - Fires Effects Cell Module
FEP - Firepower Enhancement Program
FHTE-LS - Future Holistic Training Environment-Live Synthetic
Field OPS - Field Operations Directorate
FMS - Foreign Military Sales
FOCUS - Field Operations Customer Support
FOT - Force-On-Target
FOUO - For Official Use Only
FOV - Family of Vehicles
FSS - Fire Support Specialists
FS XXI - Flight School XXI
FTS - Family of Training Systems
FTS - Field Training System
FTT - Field Tactical Trainer
FUA - First User Assessment

G

GAT - Government Acceptance Testing
GCS - Ground Combat Systems
GCV - Ground Combat Vehicle
GEOINT - Geospatial Intelligence
GFT - Games For Training
GHz - Gigahertz
GOCO - Government Owned/Contractor Operated
GOGO - Government Owned/
Government Operated
GOTS - Government Off The Shelf

GPR - Ground Penetrating Radar
GPS - Global Positioning System
GSC - Global Simulation Capability
GSM - Global System for Mobile

H

HCC - Human Intelligence Control Cell
HEAT - High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) Egress Assistance Trainer
HEL - High Energy Laser
HEMTT - Heavy Expanded Mobility Tactical Truck
HINT - Hybrid Irregular Warfare (IW) Network-defeat Toolkit
HITL - Human-In-The-Loop
HITS - Home Station Instrumentation Training System
HLA - High Level Architecture
HMD - Helmet Mounted Displays
HMDS - Husky Mounted Detection Systems
HMMWV - High Mobility, Multi-Purpose, Wheeled Vehicle
HOT - Hands On Trainer
HPM - High Power Microwave
HQDA - Headquarters Department of the Army
HSAT - High Speed Aerial Targets
HUMINT - Human Intelligence
HVAC - Heating, Ventilation, Air Conditioning
HW - Hardware

I

IBCT - Infantry Brigade Combat Team
ICD - Initial Capabilities Document
ICT - Institute for Creative Technologies at the University of Southern California
ID/IQ - Indefinite Delivery/Indefinite Quantity
IE - Integration Event

GLOSSARY OF ACRONYMS

IED - Improvised Explosive Device
IED-D - Improvised Explosive Device—Detect/Defeat
IEDES - Improvised Explosive Device Effects Simulator
IEEE - Institute of Electrical and Electronics Engineers
IEWTPT - Intelligence and Electronic Warfare Tactical Proficiency Trainer
IGDS - Image Generation/Display System
ILE - Immersive Learning Environments
ILTE - Integrated Live, Virtual, Constructive (LVC) Test Environment
IMC - Instrument Meteorological Conditions
IMI - Interactive Multimedia Instruction
I-MILES - Instrumentable—Multiple Integrated Laser Engagement System
IMO - Instrumentation Management Office
I-MTS - Integrated—Military Operations on Urban Terrain Training System
INSCOM - Intelligence and Security Command
IO - Information Operations
I/O - Instructor/Operator
IOC - Initial Operational Capability
IOS - Instructor/Operator Station
IPR - In Process Review
IPT - Integrated Product Team
IR - Instrumented Ranges
IR/DRTS - Instrumented Ranges/Digital Range Training System
IR/UV - Infrared/Ultraviolet
IRCM - Infrared Countermeasures
IS - Instrumentation System
ISD - Instructional System Design
ISS - Independent Suspension System
ISS - Instruction Support System

ISTF - Installed Systems Test Facilities
I&T - Integration and Test
ITAS - Improved Target Acquisition System
ITE - Integrated Training Environment
ITF - Integrated Threat Force
ITS - Independent Target System
IVA - Instructional Visual Aid
IW - Irregular Warfare
IWS 2 - Individual Weapon System 2

J
JAGM - Joint Air to Ground Munition
JC3IEDM - Joint Consultation, Command, and Control Information Exchange Data Model
JCAS - Joint Close Air Support
JCATS - Joint Conflict and Tactical Simulations
JCR-Log - Joint Capabilities Release—Logistics
JCW - Joint and Coalition Warfighting
JDIF - Joint Development Integration Facility
JFETS - Joint Fires and Effects Trainer System
JFO - Joint Fires Observers
JFPL - Joint Fires Product Line
JIIM - Joint, Interagency, Intergovernmental, and Multinational
JITC - Joint Interoperability Test Command
JLCCTC - Joint Land Component Constructive Training Capability
JLENS - Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System
JLTV - Joint Light Tactical Vehicle
JMRC - Joint Multinational Readiness Center
JMTC - Joint Multinational Training Center
JPMRC-IS - Joint Pacific Multinational Readiness Capability—Instrumentation System
JRTC - Joint Readiness Training Center
JSAF - Joint Semi—Automated Forces

JTAC - Joint Terminal Attack Control

K
KBSC - Korea Battle Simulation Center
km - kilometers

L
LAN - Local Area Network
LASER - Light Amplification by Stimulated Emission of Radiation
LAV - Light Armored Vehicles
LBA - Longbow Apache
LCCS - Life Cycle Contract Support
LCPM - Life Cycle Product Line Management
LCT - Longbow Crew Trainer
LFM - Live Fire Modernization
LLDR - Lightweight Laser Designated Rangefinder
LMS - Learning Management System
LOMAH - Location Of Miss And Hit
LR - Liaison Representative
LRU - Line Replaceable Unit
LT2 - Live Training Transformation Product Line
LT2-FTS - Live Training Transformation Family of Training Systems
LTEC - Live Training Engagement Composition
LUH - Light Utility Helicopter
LVC - Live, Virtual and Constructive
LVCG - Live, Virtual, Constructive and Gaming
LVC-IA - Live, Virtual, Constructive—Integrating Architecture
LVC-ITE - Live, Virtual and Constructive—Integrated Training Environment

M
MANPADS - Man—Portable Air Defense System

MAST - Man-Portable Aircraft Survivability Trainer
MATV - MRAP All Terrain Vehicle
MC - Mission Command
MC - Mortar Carrier
MCA - Mission Command Adapter
MCNITR - Mobile Commercial Network Infrastructure Test Range
MCS - Mission Command System
MCTC - Maneuver Combat Training Center
MCTC-IS - Maneuver Combat Training Center-Instrumentation System
MDA - Milestone Decision Authority
MDD - Materiel Development Decision
MDI - Miss Distance Indicator
MDMP - Military Decision Making Process
MEADS - Medium Extended Air Defense System
MET - Mine Resistant Ambush Protected Egress Trainer
MFVP - Multifunction Vehicle Port
MGS - Mobile Gun System
MGT - Mobile Ground Targets
MGTH - Mobile Ground Target Hardware
MGTO - Mobile Ground Target Operations
MHz - Megahertz
MI - Military Intelligence
MIBT - Multi-echelon Integrated Brigade Training
MILES - Multiple Integrated Laser Engagement System
MIL STD - Military Standard
MIST - Military Intelligence Support to Target
MITAS - Modified Improved Target Acquisition System
MITS - Mobile Independent Target System

MLRS - Multiple Launch Rocket System
MMPV - Medium Mine Protected Vehicle
MOBILE MOUT - Mobile Military Operations on Urban Terrain
MOS - Military Occupational Specialty
MOU - Memorandum Of Understanding
MOUT - Military Operations on Urban Terrain
MPCV - Mine Protected Clearance Vehicle
MPRC - Multipurpose Range Complex
MRAP - Mine Resistant Ambush Protected
MRF - Multi-Resolution Federation
MRT - Maintenance Release Test
MRXs - Mission Rehearsal Exercises
M&S - Modeling and Simulation
MSAT - Medium Speed Aerial Target
MSDE - Military Simulation Development Environment
MSDL - Military Scenario Development Language
MSD-V3 - Maintenance Support Device - Version 3
MSMODIM - Modular SMART On-board Data Interface Module
MSTCs - Medical Simulation Training Centers
MTC - Medium Tactical Vehicle
MTC - Mission Training Complex
MTF - Mobile Training Facility
MTRS - Man Transportable Robotic Systems
MTS - Maintenance Training System
MV - MRAP Variant
MWS - Missile Warning System

N
NATO - North Atlantic Treaty Organization
NCM3 - Non-Rated Crew Member Manned Module
NCO - Noncommissioned Officer
NeMC - Network Enable Mission Command

NET - New Equipment Training
NETCM - Nuclear Effects Test Capability Modernization
NETT - Network Exploitation Test Tool
NGB - National Guard Bureau
NIE - Network Integration Evaluation
NIE - Network Integration Event
NIPRNet - Non-classified Internet Protocol Router Network
NPCs - Non-Player Characters
NSPA - NATO Support Agency
NSTD - Non-System Training Device
NTC - National Training Center
NVDs - Night Vision Devices
NVESD - Night Vision and Electronics Sensors Directorate
NVIG - Night Vision Image Generator
O
OCCS - Observer Controller Communications System
OCONUS - Outside Continental United States
OC/T - Observer-Controller/Trainer
ODS-SA - Operation Desert Storm-Situational Awareness
OE - Operating Environment
OIPT - Overarching Integrated Product Team
OneSAF - One Semi-Automated Forces
OneTESS - One Tactical Engagement Simulation System
OPFOR - Opposing Forces
OPLAN - Operational Language
OSD - Office of the Secretary of Defense
OSWV - Opposing Forces Surrogate Wheel Vehicle
OT - Operational Test

GLOSSARY OF ACRONYMS

P

PAC-3 - Patriot Advanced Capability-3
PAGTS - Platoon Advanced Gunnery Training System
PD CSS - Project Director Constructive Simulation Support
PdM CTIS - Product Manager Combat Training Instrumentation Systems
PdM DT - Product Manager Digitized Training
PdM GCTT - Product Manager Ground Combat Tactical Trainers
PdM LTS - Product Manager Live Training Systems
PdM MCTS - Product Manager Maneuver Collective Training Systems
PdM MEDSIM - Product Manager Medical Simulation
PdM STS - Product Manager Special Operations Forces Training Systems
PdM WTI - Product Manager Warrior Training Integration
PDR - Preliminary Design Review
PDSS - Post Deployment Software Support
PEO GCS - Program Executive Office Ground Combat Systems
PEO IEW&S - Program Executive Office for Intelligence, Electronic Warfare & Sensors
PEO STRI - Program Executive Office Simulation, Training and Instrumentation
PFED - Pocket-sized Forward Entry Device
PGS - Prompt Gamma Simulator
PGTS - Precision Gunnery Training System
PLA - Program Level Agreement
PM ITE - Project Manager Integrated Training Environment
PM ITTS - Project Manager Instrumentation, Targets and Threat Simulators

PM MRAP - Program Manager Mine Resistant Ambush Protected
PM SBCT - Product Manager Stryker Brigade Combat Team
PM TRADE - Project Manager Training Devices
POC - Primary Operating Center
POI - Program of Instruction
POM - Program Objective Memorandum
PoN - Point-of-Need
POR - Program of Record
PTS - Precision Target Signature
PTTs - Part-Task Trainers

Q

QAR - Quality Assurance Representative
QRC - Quick Reaction Capabilities

R

RATO - Rocket Assisted Take-Off
RCS - Radar Cross Section
RCS - Range Communication System
RCTD - Reconfigurable Collective Training Devices
R&D - Research and Development
RDECOM - Research Development Engineering Command
RETS/ERETS - Remote Target System/Enhanced Remote Target System
RF - Radio Frequency
RFI - Request For Information
RFM - Radio Frequency Module
RFP - Request For Proposal
ROC - Range Operation Control
RPVT - Remotely Piloted Vehicle Target
R&R - Rest and Recuperation
RRS - Radar Rocket Scoring
RTI - Run-Time Infrastructure

RVTT - Reconfigurable Vehicle Tactical Trainer
RWS - Remote Weapons System

S

SA - Situational Awareness
SAF - Semi-Automated Forces
SAL - Semi-Active Laser
SAM - Surface-to-Air Missiles
SAT - Small Arms Transmitter
SATO - Stand-alone Authority to Operate
SBIR - Small Business Innovation Research
SBT - Skill Based Training
SBUDs - Simulation Block Updates
SCT - Shadow Crew Trainer
SCWS - Stabilized Commanders Weapon Station
SDB II - Small Diameter Bomb II
SE - Synthetic Environment
SE Core - Synthetic Environment Core
SEPv2 - System Enhancement Package version 2
SFAS - Special Forces Assessment and Selection
SFTS - Synthetic Flight Training Simulator
SH - Shoot House
SIGINT/DF - Signal Intelligence and Direction Finding
SIMCI - Simulation to Mission Command Interoperability
SIM/STIM - Simulation/Stimulation
SINCGARS - Single Channel Ground and Airborne Radio System
SIPRNet - Secret Internet Protocol Router Network
SLM-BDM - Shoulder Launched Munitions-Bunker Defeat Munitions
SLOC - Source Lines of Code
SMDC - Space and Missile Defense Command
SME - Subject Matter Expert
SMODIM - SMart Onboard Data Interface Module

SMS – Soldier Monitoring System
SOA – Service Oriented Architecture
SOA CMS – Special Operations Aviation Combat Mission Simulator
SOAR (A) – Special Operations Aviation Regiment (Airborne)
SOCOM – United States Special Operations Command
SOF – Special Operations Forces
SOFRANGES – Special Operations Forces Range Upgrades
SOFTEAMS – Special Operations Forces Training, Engineering and Maintenance Support
SOFTES – Special Operations Forces Training and Exercise Support
SOPs – Standard Operating Procedures
SRP – Sustainable Range Program
S&S – Service and Support
SS – Soldier Systems
S&T – Science and Technology
STE – Synthetic Training Environment
STIL – System Test and Integration Laboratory
STRAC – Standards In Training Commission
STS – Special Operations Forces Training Systems
STS – Stryker Tow Simulator
SUAS – Small Unmanned Aerial System
SUPT – Specialized Undergraduate Pilot Training
SV – Stryker Variant
SW – Software

T

T2 – Training Transformation
T2 – Transmitter Site 2
T3 – Transmitter Site 3
TAC – Terminal Attack Control
TAD – TOW ATWESS Device

TADSS – Training Aids, Devices, Simulators, and Simulations
TAF – Training Analysis and Feedback
TBD – To Be Determined
TC – Training Circular
TCC – Technical Control Cell
TCC – Test Control Centers
TCS – Target Control System
TDB – Terrain Database
T&E – Test and Evaluation
TENA – Test and Training Enabling Architecture
TESS – Tactical Engagement Simulation System
T&E/S&T – Test and Evaluation, Science and Technology
TEV – Tank Engineering Variant
TFPS – Transportable Flight Proficiency Simulator
TGS – Tactical Ground Station
TLD – TOW Laser Device
TLOs – Training Learning Objectives
TMDE – Test Measurement and Diagnostic Equipment
TMO – Targets Management Office
TOC – Tactical Operation Center
TOW – Tube–launched, Optically–tracked, Wire–guided
TRACR – Targetry Range Automated Control and Recording
TRADOC – United States Army Training and Doctrine Command
TRIOSS – Training Instructor/Operator Services Support
TRISA – TRADOC Intelligence Support Activity
TRL – Technology Readiness Level
TRMC – Test Resource Management Center
TRR – Test Readiness Review
TSIJ – Threat Signal Injection Jammer

TSMO – Threats Systems Management Office
TSSC – Training Systems Support Center
TTPs – Tactics, Techniques, and Procedures
TUL – Targetry Range Automated Control and Recording Ultra Lite
TV – Tank Variant
TVS – Tactical Vehicle System
TWV – Tactical Wheeled Variant

U

UAC – Urban Assault Course
UAP – Unified Action Partners
UAS – Unmanned Aerial System
UAS-T – Unmanned Aircraft System–Target
UAV – Unmanned Aerial Vehicle
UGRG – Unit Gunnery Report Generator
UH – Utility Helicopter
UK CBRN – United Kingdom Chemical Biological Radiological and Nuclear
ULE – Unit Level Entity
ULO – Unified Land Operations
UMTS – Universal Mobile Telecommunications Standard
USA – United States Army
USAACE – United States Army Aviation Center of Excellence
USAICoE – United States Army Intelligence Center of Excellence
USAF – United States Air Force
USMC – United States Marine Corps
USN – United States Navy
USSOCOM – United States Special Operations Command
USV-T – Unmanned Seaborne Vehicle-Target
UTM – Urban Training Module
UV – Ultraviolet

GLOSSARY OF ACRONYMS

V

VBS - Virtual Battlespace
VBS3 - Virtual Battlespace 3
VCM - Vehicle Control Module
VCSA - Vice Chief of Staff of the Army
VCT - Video Creation Tool
VCTS - Virtual Clearance Training Suites
VDbs - Visual Databases
VE - Validation Event
VHA - Veterans Health Administration
VICTORY - Vehicular Integration for Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance/Electronic Warfare (C4ISR/EW) Interoperability
VISMOD - Visual Modification
VMC - Visual Meteorological Conditions
VME - Virtual Military Equipment
VMMD - Vehicular Mounted Mine Detector
VMT - Virtual Maintenance Trainer
VOSS - Vehicle Optic Sensor System
VPSS - Virtual Patient Simulation Systems

W

WAN - Wide Area Network
WARSIM - Warfighters Simulation
WCCJ - Wideband Configurable Controlled Jammer
W-CDMA - Wideband-Code Division Multiple Access
WCLS - Worldwide Contractor Logistics Support
WESS - Weapon Effects Simulation System
WFF - WarFighter FOCUS
WfF - Warfighting Functions
WFXs - Warfighter Exercises
WITS - Wireless Independent Target System

WP - Weapons Processor

WSMR - White Sands Missile Range, New Mexico

WTI - Weapons and Tactics Instruction

WWW - World Wide Web

Y

YPG - Yuma Proving Ground, Arizona



SYSTEMS BY CONTRACTORS

Accenture Federal Systems

Live, Virtual, Constructive-Integrating Architecture (LVC-IA)

Advanced Fiber Sensors, Inc.

Science and Technology (S&T) – Electronic Warfare Test (EWT)

AHTNA

MRAP Egress Trainers (MET)

Airbus Group

Combat Training Center Aviation (CTC Aviation)

Akima Infrastructure Services, LLC

Computer-Based Instructional Development (CBID)/Interactive Multimedia Instruction (IMI)

Applied Companies

Aviation Combined Arms Tactical Trainer (AVCATT)

ASRC Federal

Aerial Targets
Precision Target Signatures (PTS)

ASR Corporation

Science and Technology (S&T) – Directed Energy Test (DET)
Science and Technology (S&T) – Electronic Warfare Test (EWT)

AT&T

Combat Training Center- Instrumentation System (CTC-IS)

AVT Simulation

Aviation Combined Arms Tactical Trainer (AVCATT)
Close Combat Tactical Trainer (CCTT)
Post Deployment Software Support

BOEING

Aerial Targets

Bohemia Interactive Simulations

U.S. Army Games For Training Program (GFT)

Brigham Young University

Science and Technology (S&T) – Directed Energy Test (DET)

CAE USA

Abrams Maintenance Training System (MTS)
One Semi-Automated Forces (OneSAF)

Calytrix Technologies

U.S. Army Games For Training Program (GFT)

Camber Corporation

One Semi-Automated Forces (OneSAF)

Charles River Analytics

UH-72A Virtual Maintenance Trainer (VMT)

Cole Engineering and Services, Inc. (CESI)

Live, Virtual, Constructive-Integrating Architecture (LVC-IA)
One Semi-Automated Forces (OneSAF)

Computer Sciences Corporation (CSC)

Flight School XXI
Medical Simulation Training Centers (MSTCs)
Unmanned Aircraft System–Target (UAS-T)

CTSi – Virtual Flight

Science and Technology (S&T) – Electronic Warfare Test (EWT)

CUBIC Global Defense

Engagement Skills Trainer (EST)
Home Station Instrumentation Training System (HITS)
Instrumentable-Multiple Integrated Laser Engagement System Individual Weapon System 2 (I-MILES IWS 2)
Instrumentable-Multiple Integrated Laser Engagement System Tactical Vehicle System (I-MILES TVS)

Culmen International, LLC

Mobile Ground Targets (MGT)

CymSTAR, LLC

Aviation Combined Arms Tactical Trainer (AVCATT)

Dignitas Technologies, LLC

Aviation Combined Arms Tactical Trainer (AVCATT)
One Semi-Automated Forces (OneSAF)

Dynamic Research Corporation

One Semi-Automated Forces (OneSAF)

SYSTEMS BY CONTRACTORS

FAAC, Inc.

Boom Operator Simulator System (BOSS)
Virtual Clearance Training Suites (VCTS)

Fidelity Flight Systems, Inc. (F2Si)

UH-72A Synthetic Flight Training Simulator

Flight Safety International

Flight School XXI

General Dynamics Mission Systems

Combat Training Center-Instrumentation System (CTC-IS)
Combat Training Center Military Operations on Urban Terrain-Instrumentation System (CTC MOUT-IS)
Common Training Instrumentation Architecture (CTIA)
Digital Range Training Systems (DRTS)
Embedded Training
Homestation Instrumentation Training System (HITS)
Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT)

Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS)
Live Training Transformation (LT2) Product Line

Georgia Tech Applied Research Corporation (GTARC)

Science and Technology (S&T) - Directed Energy Test (DET)
Science and Technology (S&T) - Electronic Warfare Test (EWT)

Griffon Aerospace

Aerial Targets
Air Defense Artillery (ADA) Targets
Unmanned Aircraft System-Target (UAS-T)

Infinitas Engineering, Inc.

One Semi-Automated Forces (OneSAF)

Intelligent Decisions

Dismounted Soldier Training System (DSTS)

Intelligent Decision Systems, Inc. (IDSI)

Computer-Based Instructional Development (CBID)/Interactive Multimedia Instruction (IMI)
Live, Virtual, Constructive-Integrating Architecture (LVC-IA)

Inter-Coastal Electronics

Aviation Tactical Engagement Simulation System (AV TESS)
Combat Training Center Aviation (CTC Aviation)
Improved Target Acquisition System-Tactical Engagement Simulation System Field Training System (ITAS-TESS FTS)
Longbow Apache Tactical Engagement Simulation System (LBA TESS)

KATMAI

Artillery and Chemical Training (ACT) Contract

Kforce Government Solutions

Medical Simulation Training Centers (MSTCs)

KRATOS Defense & Security Solutions

Aerial Targets

L3 Communications

Aviation Combined Arms Tactical Trainer (AVCATT)
Flight School XXI

Laerdal

Medical Simulation Training Centers (MSTCs)

Leidos, Inc.

Aviation Combined Arms Tactical Trainer (AVCATT)
One Semi-Automated Forces (OneSAF)
Synthetic Environment Core (SE Core)
UH-72A Synthetic Flight Training Simulator

Lockheed Martin Missiles and Fire Control

Nuclear Effects Test Capability Modernization
Science and Technology (S&T) - Directed Energy Test (DET)

Lockheed Martin Mission Systems and Training

Close Combat Tactical Trainer (CCTT)
Combat Training Center Military Operations on Urban Terrain-Instrumentation System (CTC MOUT-IS)
Digital Range Training Systems (DRTS)
Integrated-Military Operations on Urban Terrain (MOUT) Training System (I-MTS)
Joint Land Component Constructive Training Capability (JLCCTC)
One Semi-Automated Forces (OneSAF)

Meggitt Defense Systems

Aerial Weapons Scoring System (AWSS)
Aerial Weapons Scoring System
Integration with Longbow Apache
Tactical Engagement Simulation System (AWSS-LBA TESS)
Towed Target Program

Meggitt Training Systems, Inc.

Engagement Skills Trainer II (EST II)

Micro Systems, Inc.,**A KRATOS Company**

Aerial Targets Flight Services (ATFS)
Army Ground Aerial Target Control System (AGATCS)

Northrop Grumman

Combat Training Center-
Instrumentation System (CTC-IS)
One Semi-Automated Forces (OneSAF)

Nova Technologies

Call For Fire Trainer (CFFT)
Immersive System
Call For Fire Trainer, Increment III (CFFT III)
Joint Fires Product Line (JFPL) Joint Terminal Attack Control (JTAC) Trainer
Special Operations Aviation Combat Mission Simulator (SOA CMS)
Simulation Block Updates (SBUDs)

Optimal Technologies International

Medical Simulation Training Centers (MSTCs)

PULAU Corporation

Medical Simulation Training Centers (MSTCs)

Quantum Research International, Inc.

Mobile Ground Targets (MGT)

Raptor Training Services, LLC

Soldier Monitoring System

Raveon Technologies Corporation

Soldier Monitoring System

Raydon Corporation

Common Driver Trainer (CDT)

Raytheon

Aerial Weapons Scoring System (AWSS)

Raytheon Intelligence, Information and Services

MRAP Egress Trainers (MET)
Warfighter FOCUS (WFF) Contract Trainer

Red River Army Depot

MRAP Egress Trainers (MET)

Riptide Software

Target Modernization

Rockwell Collins

Close Combat Tactical Trainer (CCTT)
Image Generator
Mine Resistant Ambush Protected (MRAP) Automatic Fire Suppression System (AFSS)
Upgrade

S3, Inc.

UH-72A Synthetic Flight Training Simulator

Saab Training USA, LLC

Instrumentable-Multiple Integrated Laser Engagement System Combat Vehicle Tactical Engagement Simulation System (I-MILES CVTESS)

Science Applications International Corporation (SAIC)

Aviation Combined Arms Tactical Trainer (AVCATT)
Virtual Targets

Scientific Applications & Research Associates

Science and Technology (S&T) – Directed Energy Test (DET)

SemQuest, Inc.

Science and Technology (S&T) – Directed Energy Test (DET)

Signature Solutions, Inc.

Precision Target Signatures (PTS)
Towed Target Program
Virtual Targets

SIMETRI

Medical Simulation Training Centers (MSTCs)

SKEDCO, Inc.

Medical Simulation Training Centers (MSTCs)

SPARTA, Inc.,**A Parsons Company**

Science and Technology (S&T) – Electronic Warfare Test (EWT)

StackFrame

One Semi-Automated Forces (OneSAF)

Systems Application & Technologies, Inc. (SATECH)

Aerial Targets Flight Services (ATFS)

Tactical Micro

Digital Range Training Systems (DRTS)

SYSTEMS BY CONTRACTORS

Textron Systems

Man-Portable Aircraft Survivability Trainer (MAST)

The Aegis Technologies Group, Inc.

One Semi-Automated Forces (OneSAF)

The DiSTI Corporation

UH-72A Virtual Maintenance Trainer (VMT)

The University of Iowa

Science and Technology (S&T) – Electronic Warfare Test (EWT)

TJ, Inc.

Call For Fire Trainer (CFFT) Immersive System

Call For Fire Trainer, Increment III (CFFT III)

Joint Fires Product Line (JFPL) Joint Terminal Attack Control (JTAC) Trainer

TMC Design Corporation

Electromagnetic Environmental Effects (E3) Systems Modernization Program

Trideum Corporation

Precision Target Signatures (PTS)

UDC USA, Inc.

Mobile Ground Targets (MGT)

U.S. Army Aviation & Missile Research Development & Engineering Center (AMRDEC), Software Engineering Directorate (SED)

U.S. Army Games For Training Program (GFT)

U.S. Army Research Development and Engineering Command (RDECOM) Advanced Design and Manufacturing Division

Husky Mounted Detection System Version 1-Trainer (HMDS V1-T)

Victory Procurement System (VPS)

Mobile Ground Targets (MGT)

Veraxx Engineering Corporation

Special Operations Aviation Combat Mission Simulator (SOA CMS) Simulation Block Updates (SBUDs)

XL Scientific

Nuclear Effects Test Capability Modernization

ZelTech

Combat Training Center Live Fire Modernization (CTC LFM)



CONTRACTORS BY STATE

ALABAMA

ASRC Federal (Huntsville)
BOEING (Huntsville)
General Dynamics Mission Systems (Huntsville)
Griffon Aerospace (Madison)
KRATOS Defense & Security Solutions (Huntsville)
Quantum Research International, Inc. (Huntsville)
S3, Inc. (Huntsville)
Signature Solutions, Inc. (Huntsville)
SPARTA, Inc., A Parsons Company (Huntsville)
Trideum Corporation (Huntsville)
Victory Procurement System (VPS) (Huntsville)
U.S. Army Aviation & Missile Research Development & Engineering Center (AMRDEC), Software Engineering Directorate (SED) (Huntsville)

ALASKA

KATMAI (Anchorage)

ARIZONA

Inter-Coastal Electronics (Mesa)

CALIFORNIA

Applied Companies (Valencia)
CUBIC Global Defense (San Diego)
Meggitt Defense Systems (Irvine)
Raveon Technologies Corporation (Carlsbad)
Scientific Applications & Research Associates (Cypress)

COLORADO

SemQuest, Inc. (Colorado Springs)
SPARTA, Inc., A Parsons Company (Colorado Springs)

FLORIDA

AT&T (Orlando)
AVT Simulation (Orlando)
Bohemia Interactive Simulations (Orlando)
CAE USA (Orlando and Tampa)
Calytrix Technologies (Orlando)
Camber Corporation (Orlando)
Cole Engineering and Services, Inc. (CESI) (Orlando)
Computer Sciences Corporation (CSC) (Orlando)
Dignitas Technologies, LLC (Orlando)
Dynamic Research Corporation (Orlando)
General Dynamics Mission Systems (Orlando)
Infinitas Engineering, Inc. (Orlando)
Intelligent Decisions (Orlando)
L3 Communications (Orlando)
Leidos, Inc. (Orlando)
Lockheed Martin Missiles and Fire Control (Orlando)
Lockheed Martin Mission Systems and Training (Orlando)
Micro Systems, Inc., A KRATOS Company (Fort Walton Beach)
Northrop Grumman (Orlando)
Nova Technologies (Panama City)
Optimal Technologies International (Orlando)
PULAU Corporation (Orlando)
Raptor Training Services, LLC (Orlando)
Raydon Corporation (Port Orange)
Raytheon Intelligence, Information and Services (Orlando)
Riptide Software (Oviedo)
Saab Training USA, LLC (Orlando)
Science Applications International Corporation (SAIC) (Orlando)
SIMETRI (Winter Park)
SPARTA, Inc., A Parsons Company (Orlando)
StackFrame (Sanford)
Tactical Micro (Orlando)

CONTRACTORS BY STATE

The Aegis Technologies Group, Inc. (Orlando)
The DiSTI Corporation (Orlando)
TJ, Inc. (Christmas)
UDC USA, Inc. (Tampa)
ZelTech (Winter Park)

GEORGIA

Georgia Tech Applied Research Corporation (GTARC) (Atlanta)
Meggitt Training Systems, Inc. (Suwanee)

IOWA

Rockwell Collins (Cedar Rapids)
The University of Iowa (Iowa City)

MARYLAND

CTSi – Virtual Flight (Lexington Park)
Systems Application & Technologies, Inc. (SATECH) (Largo)
Textron Systems (Hunt Valley)
U.S. Army Research Development and Engineering Command (RDECOM)
Advanced Design and Manufacturing Division (Edgewood)

MASSACHUSETTS

Charles River Analytics (Cambridge)
Raytheon (Waltham)

MICHIGAN

Advanced Fiber Sensors, Inc. (Ann Arbor)
FAAC, Inc. (Ann Arbor)

NEW MEXICO

ASR Corporation (Albuquerque)
TMC Design Corporation (Las Cruces)
XL Scientific (Albuquerque)

NEW YORK

Laerdal (Wappingers Falls)
Rockwell Collins (Binghamton)

OKLAHOMA

CymSTAR, LLC (Broken Arrow)
Flight Safety International (Broken Arrow)

OREGON

SKEDCO, Inc. (Tualatin)

PENNSYLVANIA

Fidelity Flight Systems, Inc. (F2Si) (Pittsburgh)

TEXAS

AHTNA (Texarkana)
Airbus Group (Grand Prairie)
L3 Communications (Arlington)
Lockheed Martin Missiles and Fire Control (Grand Prairie)
Red River Army Depot (Texarkana)

UTAH

Brigham Young University (Provo)

VIRGINIA

Accenture Federal Systems (Reston)
Akima Infrastructure Services, LLC (Hampton)
Computer Sciences Corporation (CSC) (Falls Church)
Culmen International, LLC (Alexandria)
Intelligent Decisions (Ashburn)
Intelligent Decision Systems, Inc. (IDSI) (Centreville)
Kforce Government Solutions (Fairfax)
Science Applications International Corporation (SAIC) (McLean)
SPARTA, Inc., A Parsons Company (Arlington)
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