2013/2014 PEO STRI DESK SIDE REFERENCE GUIDE

2013

TWO THOUSAND THIRTEEN AND FOURTEEN

2014

PEO STRI

DESK-SIDE REFERENCE GUIDE

U.S. ARMY PROGRAM EXECUTIVE OFFICE
FOR SIMULATION, TRAINING AND INSTRUMENTATION

A MESSAGE FROM THE PEO

JAMES T. BLAKE, PH.D. (SES)

A complex global environment and constrained resources characterize the current state of our Army. Our Soldiers must be up to any challenge. They are expected to respond with decisive action at a moment's notice. As the Army's simulation, training, testing and instrumentation experts, we're key enablers in preparing our Soldiers to conduct the full range of military operations to meet the needs of our nation, now and in the future.

In this era of tightened budgets – coupled with our Army's heightened mission – there is no time more relevant for simulated training than now. Take, for instance, the cost savings associated with flying a simulated helicopter. The price tag on flying an actual helicopter could equate up to $6,000 per hour whereas operating in the virtual world amounts to under $500 per hour. High-fidelity flight simulators allow our aviators to perform missions in a virtual reality environment that could never be safely performed in the real world, like reacting to a stuck pedal, the loss of a tail rotor, severing of the drive shaft, or complete engine failure.

Similarly, operating a tank for training may cost $155 per mile whereas tank driver trainers cost a mere $5.44 per simulated mile. Like aviation simulators, driving a simulated vehicle in the virtual world allows Soldiers to train for hazardous tasks that could never be safely recreated, like vehicle rollover and egress operations.

Simulation not only saves money and lives, but it also limits the environmental impact and maximizes live training events. What's especially worth noting about simulation is the high-fidelity training experience that it affords the Soldier.

The troops of the U.S. Army's 2nd Infantry Division in Korea recently experienced the effects of state-of-the-art simulated training. PEO STRI, together with our battle buddies from the Training and Doctrine Command, supported an immersive training exercise. The Combat Training Center-like event validated the Soldiers' warfighting readiness through a mix of live, virtual, constructive and game-based systems that were integrated to produce a battalion-level training exercise. I was totally impressed by the level of creativity and skill demonstrated by the Soldiers of the 2nd ID in using these tools.

The blended training environment will soon be amplified when Soldiers at Fort Hood, Texas, receive the Army's first Live, Virtual, Constructive-Integrating Architecture, or LVC-IA for short. The technology will allow commanders to train up to a brigade using a "plug and play" approach to link simulators from the live, virtual, and constructive environments to create a robust training experience. The LVC-IA program will reach 18 installations throughout the Army.

PEO STRI is hard at work doing what is best for the Soldier, today, tomorrow and always. As our motto goes, "Mission first, people always. Army Strong!" We say it. We mean it. We live it.

Mission first, people always! Army Strong!

Dr. James T. Blake
Program Executive Officer
U.S. Army Program Executive Office for Simulation, Training and Instrumentation

VISION

To be the Nation's Acquisition and Contracting Center of Excellence for Training, Testing, and Simulation Solutions.

STRATEGIC GOALS

Goal 1.0 Provide STRI capabilities to support Decisive Action operations.
Goal 2.0 Ensure capabilities meet the needs of the Integrated Training and T&E environments.
Goal 3.0 Develop a workforce with expert level acquisition, technical and leadership skills.
Goal 4.0 Promote and sustain excellence in the execution of contracting activities.

MISSION

Acquire and Sustain Training, Testing, and Simulation Solutions in Support of the Nation.

MOTTO

Putting the power of simulation into the hands of our Warfighters.

HISTORY

In 1974, the U.S. Army recognized the need for new training technologies in the face of the advancing Soviet threat in Europe and established the Project Manager for Training Devices (PM TRADE). In 1976, the Army consolidated PM TRADE with the Army Training Device Agency. During the late 1980s, PM TRADE moved from the Navy base to Central Florida's Research Park. The Army proved the importance of simulation and training in 1991 with a swift victory in Operation Desert Storm. The U.S. Army's Simulation, Training and Instrumentation Command was activated on August 1, 1992, in Orlando, FL. Then in 2003, Brigadier General Stephen Seay became the first Program Executive Officer for PEO STRI. On June 2, 2005, Dr. James T. Blake was named the organization's first civilian leader. The partnerships that have been established and nurtured over the years have produced a thriving and responsive simulation industry that is proudly referred to as the center of excellence for simulation and training.

ORGANIZATION

PEO STRI is the U.S. Army's acquisition and contracting center of excellence for simulation, training and testing capabilities. PEO STRI annually executes programs valued at more than $2.8 billion with a workforce of 1,200 military, civilian and contractor personnel. Acquisition programs cover 1,618 contracts valued at more than $21.9 billion and support 5,500 training systems at 600 sites worldwide. In addition, PEO STRI's Foreign Military Sales program supports 52 countries. Headquartered in Central Florida's Research Park, the organization also has geographically separated offices in Redstone Arsenal, AL, Fort Bliss, TX, and Fort Huachuca, AZ.

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PM CATT MISSION

Develop, field and sustain high quality ground and air combat virtual training devices that meet or exceed the needs of our Army, Joint, Special Operations, and Foreign Military Sales Warfighter.

PM CATT

PROJECT MANAGER COMBINED ARMS TACTICAL TRAINERS

PUTTING THE POWER OF SIMULATION INTO THE HANDS OF THE WARFIGHTER

The Project Manager for Combined Arms Tactical Trainers (PM CATT) manages the development, acquisition, fielding and life-cycle support of the virtual synthetic environment and associated Training Aids, Devices, Simulators and Simulations (TADSS) to support individual, institutional and collective training. PM CATT refers to a group of high-fidelity, interactive, manned simulators; command, control and communications workstations; exercise control stations; After-Action Review (AAR) systems; and the virtual combined arms synthetic environment used to support virtual training up to battalion/task force level. PM CATT's virtual synthetic environment includes large-scale virtual terrain representations with synthetic natural environment effects and accredited Computer Generated Forces (CGF) that replicate adjacent, supporting and opposing forces.

PRODUCT MANAGER AIR AND COMMAND TACTICAL TRAINERS (PM ACTT)

Introduction

The ACTT Program Management Office is responsible for the Aviation Combined Arms Tactical Trainer (AVCATT), all synthetic flight training system simulators, as well as system and non-system training aids, devices, simulators and simulations for Aviation, Air Traffic Control, Army Watercraft, Air Defense, Intelligence and Electronic Warfare, and Command and Control. Projects include various high-fidelity flight, weapons, combat mission simulators, part task trainers and maintenance trainers, and the Army's Games for Training program.

Aviation Combined Arms Tactical Trainer (AVCATT)

MISSION

The Aviation Combined Arms Tactical Trainer (AVCATT) is an Army aviation training system for Active, Reserve and Army National Guard components. AVCATT supports unit collective and combined arms training for the AH-64, UH-60, CH-47 and OH-58 aircraft. Other AVCATT modules, such as the Non-Rated Crewmember Manned Module ((NCM3), a sub-system of AVCATT), can be linked to this basic configuration, when and where needed, to support specific unit training requirements. The NCM3 supports the training of non-rated crew members in crew coordination, flight, aerial gunnery, hoist and slingload-related tasks.

DESCRIPTION

AVCATT is a mobile, transportable, multi-station virtual simulation device that supports unit collective and combined arms training for helicopter aircrews. The AVCATT is composed of two trailers per suite with six reconfigurable modules for Apache Longbow, Chinook, Kiowa Warrior and Black Hawk. The NCM3 introduces a third trailer containing two reconfigurable modules for the Chinook and Black Hawk. Both the AVCATT and NCM3 use Helmet Mounted Displays (HMD) for out-the-window scenes.

Joint Primary Aircraft Training System (JPATS) Aircrew Training Device (ATD) visual system retrofit.

MISSION

The objective is to provide JPATS Aircrew Training Device (ATD) visual system retrofits to the production visual system baseline configuration, consolidate and convert all VITAL-9 JPATS T-6 visual databases into a single VITAL X visual database with 1-meter satellite imagery and procure spares. These retrofits will occur at the following Air Force Bases: Randolph, Vance, Columbus, Laughlin, Sheppard and Naval Air Station Pensacola.

DESCRIPTION

The JPATS Aircrew Training Devices consist of Operational Flight Trainers (OFT), Instrument Flight Trainers (IFT) and Cockpit Procedural Trainers (CPT) to support the JPATS joint USAF/USN venture to replace the services' fleets of primary trainer aircraft (T-37 and T-34 respectively) and their associated ground-based training systems with the Hawker Beechcraft T-6A Texan II military trainer aircraft. The USAF is the executive service. JPATS supports Air Education and Training Command's (AETC) implementation of Specialized Undergraduate Pilot Training (SUPT) and the Department of Defense initiative for joint pilot training.

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 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.

RC-12X Cockpit Procedural Trainer (CPT)

MISSION

To develop, produce, and field two RC-12X cockpit procedural trainers at Fort Huachuca, AZ in order to provide rated crew members of RC-12X aircraft a means to familiarize themselves with the cockpit switch/controls layout and manipulation of the flight management system displays. The RC-12X CPT will train and sustain specified individual and crew skills proficiency.

DESCRIPTION

The RC-12X CPT is a procedural trainer for the RC-12X aircraft. The RC-12X CPT will have a modular design of hardware and software components to support training in the RC-12X configuration, a subsystem component design to allow assembly/disassembly for relocation in government-furnished facilities, and the hardware and software necessary to serve as the medium for the training of RC-12X aircrews.

Shadow Crew Trainer (SCT)

MISSION

To provide a Shadow unit-level classroom/desktop or mobile environment trainer for sustainment, proficiency and mission training.

DESCRIPTION

The SCT is a mission simulator that provides unit-level sustainment training for the lightweight, rapidly deployable, short-range airborne reconnaissance system that gives the tactical commander a day/night, multi-sensor, intelligence collection system. The SCT provides training positions for two air vehicle operators, two payload operators, launch and recovery crew via interactive multimedia instruction, staff/leader station, and an instructor operator station.

Engine Room Simulator (ERS)

MISSION

To provide engine room training to crews and officers from entry level to chief engineer. The ERS solution for marine engine room simulators has been designed to meet different platforms for full-scope general marine engineering, maintenance, operation, troubleshooting, casualty control and engineering resource management procedures at a single facility.

DESCRIPTION

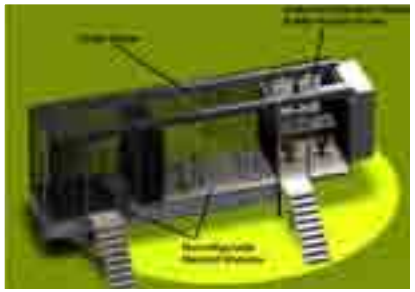
The ERS, which consists of a fully integrated system of commercial, off-the-shelf hardware and software, provides Army watercraft engineers with real-time, man-in-the-loop simulation training to Army doctrinal standards. The ERS integrates computer-based simulation with vessel-specific, three-dimensional, physically-interactive simulation/stimulation components. The ERS meets the needs of the U.S. Army Transportation School for initial and sustainment training on the marine engineering systems and components of the Joint High Speed Vessel, Theater Support Vessel, Logistic Support Vessel, Landing Craft Utility 2000 and Large Tug.

Joint High Speed Vessel (JHSV)

MISSION

To provide the Army with an upgraded, high-

AVCATT



NCM3 Trailer

JPATS

Joint High Speed Vessel (JHSV) {Continued}

speed ship simulator replacing the Theater Support Vessel (TSV) with the JHSV. The JHSV will be added to the Maritime Integrated Training System (MITS) family of maritime training simulators to provide a total training solution for the primary navigation, seamanship and ship handling, and the Engine Room Simulator (ERS).

DESCRIPTION

The JHSV trainer is fully integrated and compatible with the existing MITS for integrated exercises. The JHSV Program updated key elements of the MITS such as the Full Mission Bridge (FMB) and the ERS. The JHSV FMB simulator replicates the key features and functions necessary to train essential operating tasks carried out to doctrinal standards. This includes the training of Army mariners to published competency requirements. These objectives are consistent with the required simulation objectives for a Class A bridge simulator. The JHSV ERS system is provided as an upgrade to the existing MITS ERS. The JHSV ERS system upgrades the TSV ERS elements of the existing multi-ship ERS system to the JHSV machinery system. All of the other existing capabilities of the ERS, such as the instructor station, evaluation system and CCTV monitoring system, remain in place and fully functional. Existing ERS elements will be upgraded with the newest JHSV software version in order to ensure native compatibility across all ERS student stations and the Instructor/ Operator Station (IOS).

Vessel Defense System (VDS)

MISSION

To provide the Army the joint training needs for crews operating and defending a vessel from armed threat at close range. The VDS has been specifically designed to provide a highly-effective training and learning environment for defensive tactics, techniques and procedures employing weapons in the defense of vessels. The intended training purpose of the VDS is to enable total team training for vessel crews to include the command and leadership roles of officers and crew.

DESCRIPTION

The VDS is designed to train crews defending maritime vessels from an armed threat at close range, generally between 50 and 500 yards. The VDS has four, physical gun positions that represent the actual gun mount positions on an Army JHSV, Logistics Support Vessel, Landing Craft Utility-2000, and Landing Craft Mechanized-8 allowing for an effective training and learning environment for defensive tactics, techniques and procedures. The VDS trainer is capable of facilitating training scenarios for threat activity while in port or while underway. The VDS contains training weapons with accurate representations of their ballistics. The premise of the VDS is that it is not sufficient to simply have qualified gunners, but it is essential that the entire team is trained in the skills and knowledge for legal and effective management of weapons, personnel, ammunition, communications within the context of governing law and regulatory authority.

Basic Electronics Maintenance Trainer (BEMT)

MISSION

To support critical electronics training for 43 Maintenance Military Occupational Specialties (MOS) trained at 28 Army/Reserve/National Guard locations.

DESCRIPTION

BEMT is a commercial product used to teach electronics theory. The core of the system is a test console with an associated circuit card set to provide instruction in a multitude of specialties including basic electric motors, industrial controls, fiber optics, power supplies, network architectures, automotive electronics, avionics, radio communications and advanced programmable logic control. The systems include representations of digital Test Measurement and Diagnostic Equipment (TMDE). In addition, when used with the appropriate software, the system can be set up to permit self-paced instruction in the classroom.

U.S. ARMY GAMES FOR TRAINING PROGRAM

Virtual Battlespace 2 (VBS2) U.S. Army

MISSION

To field and support an Army-wide, game-based training system that provides our Soldiers with a

platform to train small unit tactics, techniques and procedures in Unified Land Operations.

DESCRIPTION

VBS2 U.S. Army is a 3-D, first-person, games-for-training platform that provides realistic, semi-immersive environments, dynamic terrain areas, hundreds of simulated military and civilian entities, and a range of geo-typical (generic) as well as geo-specific virtual terrains. U.S. Army, U.S. Marine Corps and multinational equipment is modeled. Over 100 users can join the same exercise on a network. A 3-D scenario editor is included as well as a robust After Action Review capability. VBS2 is compatible with DIS and HLA in order to provide integration with Live, Virtual and Constructive architectures. Several new capabilities will be available in version 2.0 including terrain paging, more realistic models and updated behaviors. VBS2 v2.0 is expected to be released in FY13 after completion of the User Acceptance Test.

Virtual Battlespace 2 (VBS2) Fires

VBS2 Fires is an advanced, call-for-fire module for VBS2 that simulates artillery, mortars, MLRS and naval gunfire support at a high level of fidelity. It allows offensive support specialists to construct a call-for-fire mission, which is then processed and actioned accordingly within VBS2. Simulating exterior and terminal ballistics, VBS2 Fires enables gun-to-target visualization of artillery orders in VBS2. The wide array of munitions, fuse types and firing platforms allows instructors to range from basic skills to decision making from individual to battalion level. Seamless integration of VBS2 Fires with the existing VBS2 training programs enables Call-For-Fire training to be conducted simultaneously with other Soldier skills in the same virtual environment. An update to VBS2 Fires is expected to be released in FY13 along with VBS2 v2.0 after completion of the User Acceptance Test.

Bilateral Negotiation Trainer (BiLAT)

BiLAT is a 3-D software simulation designed to provide an immersive and compelling training environment to practice skills in conducting meetings and negotiations in a specific, cultural context. Students assume the role of a U.S. Army officer to conduct a series of bi-lateral meetings with local leaders to achieve mission objectives. Enhanced Learning Environments with Creative Technologies (ELECT) BiLAT is a part of the Learning with Adaptive Simulation and Training (LAST) Army Technology Objective (ATO), a collaboration between the University of California's Institute for Creative Technologies (ICT), the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI), the U.S. Army Research Laboratory Human Research and the Engineering Directorate (ARL-HRED) and the U.S. Army Research, Development and Engineering Command's Simulation and Training Technology Center (RDECOM STTC). BiLat v2.1 is available for download from the Milgaming web portal, https://milgaming.army.mil.

JPATS

BOSS

RC-12X Cockpit Procedural Trainer

Operational Language and Culture Training System (Iraqi, Dari, Pashto, French, Indonesian)

The Operational Language and Culture Training System is a suite of game-based courses and simulations. The courses are self-paced, interactive "serious games" with numerous research-based pedagogic and technologic innovations that enable rapid and sustained learning of foreign languages and cultures. The goal of the software is to allow everyone from beginners to advanced students, regardless of their self-perceived learning aptitude or prior language knowledge, to learn and retain functional spoken communication skills after just a few hours of study. The latest versions are available for download from the Milgaming web portal.

UrbanSim

UrbanSim is a PC-based, virtual training application for practicing the art of battle command in complex counterinsurgency and stability operations. UrbanSim consists of a game-based, practice environment, a web-based multimedia primer on doctrinal concepts of counterinsurgency and a suite of scenario authoring tools. The practice environment allows Soldiers to take on the role of an Army battalion commander and to plan and execute operations in the context of a difficult, fictional, training scenario. After developing their commander's intent, identifying their lines of effort and information requirements, and selecting their measures of effectiveness, Soldiers direct the actions of a battalion as they attempt to maintain stability, fight insurgency, reconstruct the civil infrastructure and prepare for transition. UrbanSim targets Soldiers' abilities to maintain situational awareness, anticipate second and third-order effects of actions and adapt their strategies in the face of difficult situations. UrbanSim is driven by an underlying socio-cultural behavior model coupled with a novel story engine that interjects events and situations based on the real-world experience of former commanders. UrbanSim v1.011 is available for download from the Milgaming web portal.

ASSISTANT PROJECT MANAGER CLOSE COMBAT TACTICAL TRAINER (APM CCTT)

MISSION

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

DESCRIPTION

CCTT is a collective training program composed of three subsystems: (CCTT, the Reconfigurable Vehicle Tactical Trainer (RVTT) and the Dismounted Soldier Training System (DSTS)). CCTT supports the 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.

The CCTT system consists of computer-driven, manned module simulators replicating the vehicles found in close combat units such as the M1 Abrams Tank, the M2 Bradley Fighting Vehicle (BFV), the M3 Cavalry Fighting Vehicle (CFV), the Bradley Fire Support Team Vehicle (BFIST), the M113 Armored Personnel Carrier, the Heavy Expanded Mobility Tactical Truck (HEMTT) and the High Mobility, Multipurpose, Wheeled Vehicle (HMMWV). Semi-Automated Forces (SAF) populate the battlefield and function through emulators to work interactively with the manned modules. These simulators and SAFs are connected via a local area network to provide real-time, fully-interactive, collective task training on computer-generated terrain. The CCTT system provides a collective training environment where units conduct multiple, platoon-level training events or company and team collective training up to battalion task force level. CCTT allows for up to 32 simultaneous, independent exercises.

The CCTT system provides several realistic virtual environments, based on the Synthetic Environment Core (SE Core) database products. Units train and perform tasks on these products in order to successfully accomplish their collective missions. The CCTT system was developed to support virtual, collective, training requirements for armored, mechanized infantry battalions and armored cavalry squadrons.

Dismounted Soldier Training System (DSTS)

DSTS is a virtual trainer focused on the individual Soldier and squad-level training that combine gaming technology in a virtual, 360-degree training environment using untethered weapons. The initial DSTS systems are stand-alone, virtual systems and consist of nine, untethered, manned modules, one exercise control/After Action Review workstation and one SAF workstation. These networked systems provide an immersive, training environment for individual Soldiers and squad members. The production systems incorporate the functionality of the development assets, but also are interoperable with other training systems. The DSTS also supports Improvised Explosive Device-Detect/Defeat (IED-D) training.

Reconfigurable Vehicle Tactical Trainer (RVTT) System

RVTT is a system within CCTT that includes the Reconfigurable Vehicle Simulator (RVS), which was originally designed to train the Armored Reconnaissance Platoons and Combat Service Support units supporting the Heavy Brigade Combat Team (HBCT). RVTT has evolved to support the Infantry Brigade Combat Team, Airborne, Rangers and Special Forces units as well as Improvised Explosive Device-Defeat (IED-D) training. The RVTT simulator provides training for selected combat and tactical wheeled vehicles. RVTT complements the CCTT family of simulators with a representation of a wide variety of wheeled vehicles, including multiple variants of the HMMWV and HEMTT.

ASSISTANT PROJECT MANAGER (APM) MEDSIM

MISSION

Medical Simulation Training Center (MSTC) systems are an Army training asset with a regional training requirement. They are located at 18 installations in both the contiguous United States (CONUS) and outside contiguous United States (OCONUS) locations. They deliver effective medical training with a standardized training platform for both classroom and simulated battlefield conditions. The MSTC program supports training for medical and non-medical personnel including Active Duty, Reserve, and National Guard, with priority given to deploying units. The MSTC's goal is to better prepare Soldiers, Sailors, Airmen and Marines for the application of medical interventions under combat conditions.

DESCRIPTION

MSTC is a standardized family of supporting component systems that provides a framework fitted with reconfigurable, enabling technology and supporting training devices. Some of the training devices are the Virtual Patient System (VPS), Instruction Support System (ISS), Medical Training Command and Control (MT-C2) system, and the Medical Training Evaluation System (MTES).

The MSTC training components include a computerized, bleed-breathe mannequin that is weighted and airway equipped, partial task trainers and associated equipment. Enabling technology includes audiovisual enhancements, camera

SCT

ERS

JHSV

ASSISTANT PROJECT MANAGER (APM) MEDSIM {CONTINUED}

surveillance capability, computer labs, and control rooms with a remotely managed training platform. The Army has a requirement for 34 MSTCs.

PRODUCT MANAGER GROUND COMBAT TACTICAL TRAINERS (PM GCTT)

MISSION

To develop, field and sustain high-quality ground combat virtual training devices that meet or exceed our Soldiers' requirements. Specific responsibilities include the acquisition, production, initial support, and product improvements for virtual training devices for Armor, Infantry, Field Artillery and Combat Engineer systems. This includes, but is not limited to, conduct of fire trainers, driver trainers, and maintenance trainers. PM GCTT also administers the Foreign Military Sales program for all supported training systems.

Abrams Maintenance Training System (MTS)

MISSION

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

DESCRIPTION

The Abrams MTS is a suite of devices that provides maintenance training capabilities to the institution. It is composed of Diagnostic and Troubleshooting Trainers (DTT) in addition to hands-on and part-task trainers. DTT lessons are completed on a desktop computer station and provide a virtual view of each maintenance task. These lessons can be repeated with hands-on and part-task devices.

Stryker Maintenance Training System (MTS)

MISSION

To provide skill-level development for system operation, fault diagnosis, troubleshooting, adjustments, removal/replacement and repair tasks for armament and vehicle maintenance specialty Soldiers for the Stryker tactical vehicles.

DESCRIPTION

Stryker MTS is a suite of devices that provides a maintenance training capability to the institution. It is composed of Diagnostic and Troubleshooting Trainers (DTT) in addition to hands-on and part-task trainers. DTT lessons are completed on a desktop computer station and provide a virtual view of each maintenance task. These same lessons can be repeated with hands-on and part task devices. The system uses the actual vehicle Interactive Electronic Technical Manual (IETM) to support training tasks.

Bradley Maintenance Training System (MTS)

MISSION

To provide skill-level development for system operation, fault diagnosis, troubleshooting, adjustments, removal/replacement and repair tasks for armament and vehicle maintenance specialty Soldiers who support the Bradley family of combat vehicles.

DESCRIPTION

The Bradley MTS is a suite of devices that provides a maintenance training capability to the institution. It is composed of Diagnostic and Troubleshooting Trainers (DTT) in addition to hands-on and part-task trainers. DTT lessons are completed on a desktop computer station and provide a virtual view of each maintenance task. These same lessons can be repeated with hands-on and part-task devices.

High Mobility Artillery Rocket System (HI-MARS) Maintenance Training System (MTS)

MISSION

To provide skill-level development for system operation, fault diagnosis, troubleshooting, adjustments, removal/replacement and repair tasks for armament specialty Soldiers who support the HIMARS tactical system.

DESCRIPTION

The HIMARS MTS is a suite of devices that provides maintenance training capability to the institution. It is composed of Diagnostic and

Troubleshooting Trainers (DTT) in addition to hands-on and part-task trainers. DTT lessons are completed on a desktop computer station and provide a virtual view of each maintenance task. These same lessons can be repeated with hands-on and part-task devices.

Advanced Gunnery Training System (AGTS)

MISSION

To develop and sustain individual, crew and platoon precision gunnery skills to a level of proficiency that permits transition to live-fire training or combat gunnery.

DESCRIPTION

The AGTS is a family of gunnery training simulators for vehicle commander/gunner teams for M1A2 System Enhanced Package (SEP), M1A2, M1A1, M1A1 SA, M1A1 FEP and LAV-25 vehicles. It is rapidly transportable and deployable and features a high-fidelity crew compartment replicating the vehicle's turret and fire control system in both physical and functional aspects. The AGTS presents the vehicle commander and gunner with a full range of simulated engagement situations. The system trains both fully-operational and degraded-mode gunnery techniques under a wide variety of conditions. The pre-programmed, computer-controlled exercises vary in target type and number, range, vehicle and target motion, and visibility. The AGTS-based systems are capable of networking to provide section, platoon and company collective gunnery training. An After Action Review capability is provided for exercise management.

Stryker Mobile Gun System (MGS) Advanced Gunnery Training System (AGTS)

MISSION

To develop and sustain individual, crew and platoon precision gunnery skills to a level of proficiency that permits transition to live-fire training or combat gunnery.

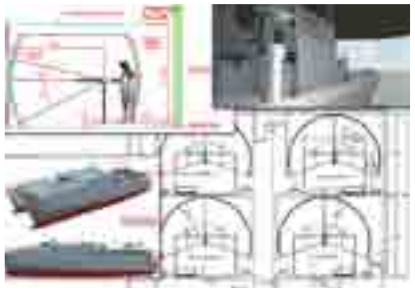
DESCRIPTION

The MGS AGTS is a gunnery training simulator for vehicle commander/gunner teams for the Stryker MGS vehicle. It is rapidly transportable and deployable and features a high-fidelity crew compartment replicating the vehicle's turret and fire control system in both physical and functional aspects. The MGS AGTS presents the vehicle commander and gunner with a full range of simulated engagement situations. The system trains both fully-operational and degraded-mode gunnery techniques under a wide variety of conditions. The pre-programmed, computer-controlled exercises vary in target type and number, range, vehicle and target motion, and visibility. The MGS AGTS-based system is capable of networking to provide section, platoon and company collective gunnery training. An After Action Review capability is provided for exercise management.

Bradley Advanced Training System (BATS)

MISSION

To simulate the functionality of the M2A3 Bradley Fighting Vehicle system and to train and sustain the crew's ability to perform critical gunnery skills required for direct-fire engagements.



VDS

BEMT

VBS2

Bradley Advanced Training System (BATS) {Continued}

DESCRIPTION

BATS is a precision gunnery system for the M2A3 Bradley Fighting Vehicle. It is comprised of a crew station, an instructor/operator station and a remote monitoring station. BATS includes a high-fidelity crew station that accurately replicates the commander and gunner positions within the vehicle. The system provides precision and degraded-mode gunnery simulation training. BATS enables digital communications with Force XXI Battle Command Brigade-and-Below functionality in the crew station. The latest updates include urban operations exercises.

Common Driver Trainer (CDT)

MISSION

To provide initial and sustainment driver training at operational units and training installations for the Stryker, Abrams and MRAP family of vehicles.

DESCRIPTION

The CDT consists of a simulated vehicle cab, instructor/operator station, After Action Review (AAR) station, visual system, six-degrees-of-freedom motion system and a computational system. Via the instructor/operator station, the instructor is capable of selecting a visual scene, introducing malfunctions and emergency control situations, monitoring each Soldier's performance and providing recorded AAR feedback. The reconfigurable, common platform provides driver training for U.S. Army tactical vehicles including the M1A2 Abrams, Stryker, Mine Resistant, Ambush Protected (MRAP) vehicle, MRAP All Terrain Vehicle (MATV) and the Abrams Tank Engineering Variant (TEV). The CDT has been fielded in both fixed-site and mobile configurations.

Route Clearance Training Services (RCTS)

MISSION

To instruct route clearance operations, improve Soldier route clearance skills, teach the latest tactics, techniques, and procedures (TTPs) for route clearance, and practice how to employ route clearance vehicles including the Mine Protected Clearance Vehicle (MPCV) ("Buffalo"), Vehicular Mounted Mine Detector (VMMD) ("Husky") with the Mine Detonation Trailer (MDT), Medium Mine Protected Vehicle (MMPV) (RG31), Joint Explosive Ordnance Disposal Rapid Response Vehicle (JERRV), and the Man Transportable Robotic Systems (MTRS) ("Talon"). RCTS will remain a stopgap-training tool until the U.S. Army completes the planned acquisition and fielding of the Virtual Clearance Training Suite (VCTS) program of record.

DESCRIPTION

The RCTS uses four, self-contained, mobile trailers containing four MPCV (Buffalo) virtual simulators (driver and co-driver positions), two VMMD (Husky) virtual simulators (Husky with/without MDT), four MMPV (RG-31) virtual simulators (driver, commander, gunner positions), one JERRV virtual simulator, one MTRS (Talon-IIIB) virtual simulator and five Instructor Operator Stations (IOS) with three shared After Action Review areas. The RCTS provides classroom instruction and a mobile virtual simulator environment that is owned, operated and maintained by the contractor. The vehicle simulators can be networked for collective route clearance mission training or provide individual skill training. The MPCV ("Buffalo") simulator incorporates the actual MPCV Arm Control Box, MPCV Arm Camera Control Box, and Camera View Select Box. The MMPV (JERRV/RG31) simulator also incorporates the M2 crew served weapon. Metal detection and marking system capabilities are incorporated for the Husky. The instructor can modify scenario conditions and events such as Improvised Explosive Devices (IED) explosions in real time, allowing flexibility in training. The RCTS can be relocated to support Active, Reserve and National Guard units.

Construction Equipment Virtual Trainers (CEVT)

MISSION

To provide training to Soldiers on the tasks used to operate construction equipment. These tasks include locations and functions of controls, instruments, and tactics prior to operating the actual construction equipment. The simulator

replicates the form, fit, and function of tactical construction equipment.

DESCRIPTION

The CEVT Type I simulators represent the U.S. Army's initial use of simulation to support the training of construction equipment operators. The CEVT provides cost-effective training in a virtual environment. This allows personnel with little or no experience in operating construction equipment to have an opportunity for familiarization training. The simulator models the form, fit, and function of the actual construction equipment controls and provides instructions for basic machine operation and skills through a training curriculum that progresses from controls familiarization through complex application tasks. The CEVT Type I simulators incorporate interactive training lessons for basic operating techniques associated with the equipment. This includes tasks associated with maneuvering and earthmoving techniques and procedures. It also includes fully narrated, interactive, operator training on daily service checks, startup and operation, safety, and emergency response drills. Currently, the CEVT program has fielded two variants. The CEVT Hydraulic Excavator (HYEX) Type I simulator is based on the John Deere Excavator (Model 230LCR). The CEVT Wheel Loader (WL) Type I simulator is based on the Caterpillar Small Wheel Loader (Model 924H). The CEVT- HYEX and CEVT - WL simulators are based on available, commercial off the shelf (COTS) products that have been modified for the U.S. Army. Thirty CEVT - HYEX and thirty CEVT - WL are installed in fixed facility classrooms at Fort Leonard Wood, MO to support the U.S. Army Engineer School. The CEVT Type I simulators are expected to expand and include the Motor Grader and Dozer.

Egress Assistance Trainers

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 both the HMMWV and Mine Resistant Ambush Protected (MRAP) families of tactical vehicles.

DESCRIPTION

The HMMWV Egress Assistance Trainer (HEAT) and the MRAP Egress Trainer (MET) increase 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.

Engagement Skills Trainer (EST)

MISSION

To simulate weapon-training events that lead to live-fire individual/crew weapon qualification and other weapon-training events/activities.

VBS2 Fires

OLCTS

UrbanSim

Engagement Skills Trainer (EST) {Continued}

DESCRIPTION

The EST provides initial and sustainment marksmanship training, static unit collective gunnery and tactical training, and shoot/don't shoot training. It supports the following three modes of training: marksmanship, squad/fire team collective and judgmental use of force. The system models multiple small arms weapons and is deployable with its own system shelter. All EST training scenarios are U.S. Army Training and Doctrine Command (TRADOC) validated.

Laser Marksmanship Training System (LMTS)

MISSION

To simulate weapons-training events that lead to live-fire qualification for individual and crew weapons.

DESCRIPTION

The LMTS is a commercial, off-the-shelf, laser marksmanship training system that supports the Army's marksmanship training strategy. Since it is light, transportable, uses either self-sustained power or power from a vehicle, and requires no fixed facility support, it is ideal for training scenarios in the field during the day or at night. The LMTS accommodates numerous weapons and calibers to include the M9 pistol, the M16 and M4 rifles, and the M249, M240 and M2 machine guns. It uses the Soldier's personal weapon, optics and accessories. LMTS allows units to conduct both initial and sustainment marksmanship training.

PRODUCT MANAGER SPECIAL OPERATIONS FORCES TRAINING SYSTEMS (PM STS)

MISSION

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.

Call For Fire Trainer (CFFT) Increment II

MISSION

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

DESCRIPTION

The CFFT is a lightweight, rapidly deployable, observed fire-training system that provides multiple simulated battlefield environments for instructing Fire Support Specialists, Joint Fires Observers and Soldiers at the institutional and operational unit level. The CFFT is capable of training all Artillery, Type II and III close air support, naval gunfire and mortar missions. The system is fielded in multiple CONUS and OCONUS locations in three primary configurations: the 1:30 (one instructor to 30 students), 1:12 and 1:4. The 1:12 and 1:4 system configurations are deployable. Increment II systems are certified for networked operations with other simulators in both unclassified and classified environments, and fully interoperable with the Advanced Field Artillery Targeting and Direction System (AFATDS). Near term enhancements fully integrate Synthetic Environment Core (SE Core) and One Semi-Automated Forces (OneSAF), and leverage capabilities developed for the Joint Fires and Effects Trainer System through use of the Joint Fires Product Line architecture. These include high-fidelity, immersive visual displays for the institution and helmet-mounted displays, voice communications, C4ISR capabilities and improved After Action Review capability for the operational force. The CFFT II also has special mission training modules to include the Joint Fires Observer variant and Joint Close Air Support Modification Kit.

Call For Fire Trainer (CFFT) II Plus

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 II Plus is a follow-on to the existing CFFT II system and incorporates the functionality and immersiveness of the technology demonstration/prototype Joint Fires and Effects Trainer System (JFETS) developed by the Fires

Battle Lab. It adds the following five modules to the available CFFT configurations:

1. Adaptive Full Spectrum Module (AFSM) for outdoor, rural scenarios.
2. Urban Terrain Module (UTM) for a generic, urban terrain scenario.
3. Close Air Support Module (CASM) for close air support techniques.
4. Fires and Effects Command Module for fires chain of command coordination.
5. After Action Review (AAR) Module for enhanced learning/training.

Joint Fires Product Line (JFPL)

MISSION

Provide a government-owned and well-documented software architecture/reusable core assets to promote a synergized and collaborated common virtual fires training solution throughout the Special Operations Forces (SOF) and Joint communities.

DESCRIPTION

The JFPL is a family of virtual training systems that support portable classroom and immersive configurations. JFPL is the backbone of the Joint Terminal Attack Control (JTAC) trainers used in the SOF community and is currently being integrated into the CFFT family of systems.

JFPL leverages existing and emerging technologies into common and interoperable devices for indirect fire, close air support and terminal attack control training. It was a collaborative development between the Joint and Coalition Warfighting (JCW), the United States Special Operations Command (USSOCOM) and the US Army.

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 TAC control 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 CAS Type I-III, day/ night accredited without restriction by the Joint Close Air Support Executive Steering Committee.

Phase 1 (Portable). Provides the base laptop configuration with head-mounted displays and multi-station functionality.

Phase 2 (Classroom). Integrates additional training stations and simulated military equipment to provide greater training throughput and a hands-on experience.

Phase 3 (Immersive). The "Dome" provides all of the training capability of Phases I-II and adds immersive training realism with a six-

CCTT

DSTS

MET

JFPL Joint Terminal Attack Control (JTAC) Trainer {Continued}

degrees-of-freedom (six-DOF) tracker, a high-fidelity projection dome, communications and augmented, aural cueing.

Light Assault/Attack Reconfigurable (LASAR) Combat Mission Simulator (CMS)

MISSION

To provide the 160th Special Operations Aviation Regiment (Airborne) (SOAR(A)) with superior aircrew training and mission-rehearsal capabilities. LASAR provides aircrews with a real-world capability to practice, validate and verify tactics, techniques and procedures to support training and mission rehearsal.

DESCRIPTION

The A/MH-6 LASAR CMS is a high-fidelity, motion-based, reconfigurable cockpit replication of the A/MH-6 Mission Enhanced Little Bird (MELB). All systems and controls required for aircrew training and mission execution are functional, including the capability for all system operations (including weapons). It also has the ability to simulate all systems emergencies, malfunctions, and degraded system operations. The LASAR CMS provides 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 simulator accepts automated transfer of all applicable mission data from Special Operations Forces (SOF) mission planning systems.

MH-47G and MH-60L Combat Mission Simulators (CMS)

MISSION

To provide the 160th Special Operations Aviation Regiment (Airborne) (SOAR(A)) with superior aircrew training and mission-rehearsal capabilities. The MH-47G and MH 60L CMS provide aircrews with a real-world capability to practice, validate and verify tactics, techniques and procedures to support training and mission rehearsal.

DESCRIPTION

The MH-47G and MH-60L CMS are high-fidelity, full-motion simulators that operate with the latest Special Operations Aviation (SOA) Common Avionics Architecture System (CAAS). They provide correlated sensor simulation, full-flight and aircraft performance replication, and threat and environmental models. These simulators have improved out-the-window and FLIR scenes to support the field-of-view of the aircraft, as well as mission-rehearsal platforms. The systems are Distributed Interactive Simulation/ High Level Architecture (DIS/HLA) compliant for interoperability.

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

MISSION

To provide the 160th Special Operations

MSTC

Abrams MTS

Stryker MTS

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

Aviation Regiment (Airborne) (SOAR(A)) with high-fidelity training systems for the MH-60K, MH-60M, MH-47G and A/MH-6M aircraft that support United States Special Operations Command (USSOCOM) requirements.

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 SOF aircrews are provided training systems that are reliable, technically advanced and concurrent with the operational aircraft on the flight line. SBUDs also supports additional capability in incident investigation, battle staff training and combined, collective simulation training exercises.

Special Operations Forces Air Ground Simulation (SAGIS)

MISSION

To provide Special Operations Forces (SOF) with realistic air traffic control, terminal attack control, fire support coordination training and mission rehearsal capability.

DESCRIPTION

SAGIS is a modular and scalable system designed to provide training for both U.S. Army and Air Force Special Operations personnel in multiple fire support and air traffic control roles. SAGIS operates in a stand-alone or networked configuration using Distributed Interactive Simulation (DIS) or High Level Architecture (HLA).

Special Operations Forces Training and Exercise Support

MISSION

Support training, exercise, and mission rehearsal activities within the Special Operations community to support the creation and sustainment of an elite force.

DESCRIPTION

The portfolio supports program of instruction creation, automated courseware, various live and virtual exercises, training events across the SOF community, and the SOF Live Rehearsal System (a water resistant version of Multiple, Integrated, Laser Engagement System (MILES)). It also includes instructors, role players, equipment, scenario development, courseware and other enabling functions to ensure that the Special Operations community trains as it fights.

Special Operations Forces Range Upgrades

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 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.

Special Operations Forces Soldier Monitoring and Tracking Systems

MISSION

Provide real-time tracking and monitoring technologies to the Special Operations community to augment exercises and training.

DESCRIPTION

This portfolio provides cellular and radio-frequency-based systems with advanced tracking software packages to augment training and exercises within the Special Operations community to support the creation and sustainment of an elite force.

Special Operations Forces Virtual Mission Rehearsal (SOF VMR)

MISSION

To provide the SOF community a state-of-the-art and three-dimensional mission-planning, rehearsal, and after action review capability.

DESCRIPTION

The SOF VMR project augments the existing Army Virtual Battlespace 2 (VBS2) capabilities with SOF-unique modifications to transform the game into a virtual, immersive, planning, rehearsal, and after-action review system. Additional capabilities include a "John Madden-like" chalkboard drawing tool, more user-friendly interfaces to modify man-made structures and terrain, a mission planning folder option to access real-world planning data and intelligence, and an application to integrate FalconView planning products into the VBS2 environment. These SOF-unique capabilities will migrate into the Army VBS2 baseline to provide additional capability to the community.

Special Operations Forces Training, Engineering and Maintenance Support (SOF TEAMS)

MISSION

To provide contractor support for Training Aids, Devices, Simulators and Simulation (TADSS) to the 160th Special Operations Aviation Regiment (Airborne) (SOAR(A)).

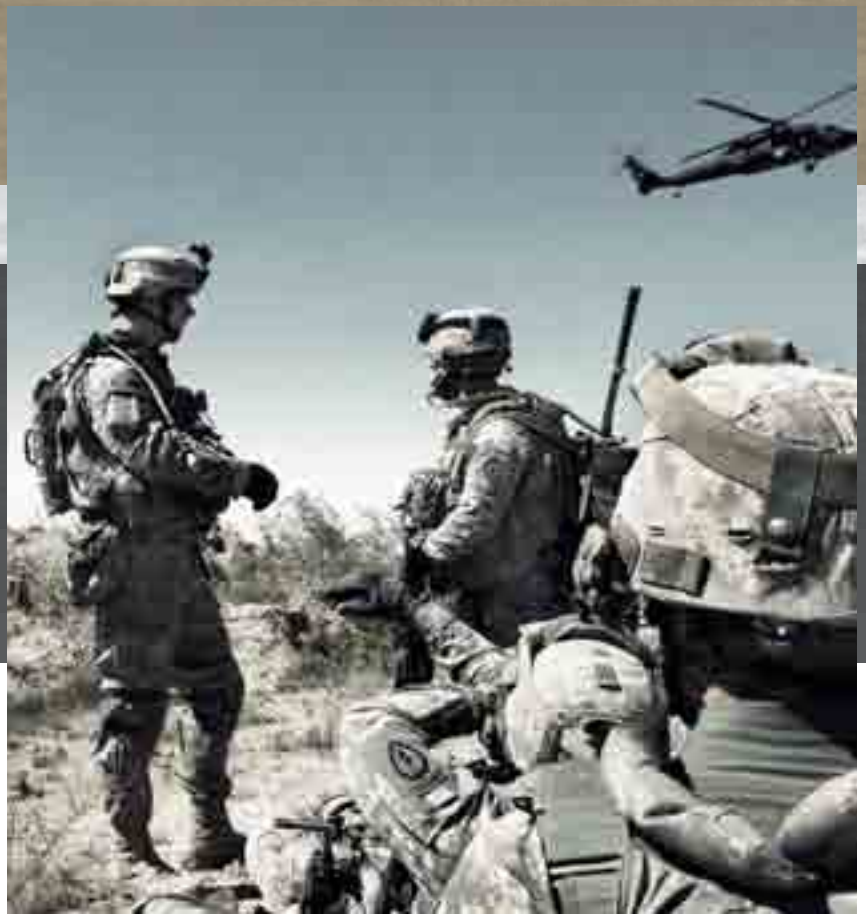
DESCRIPTION

SOF TEAMS maintains, troubleshoots, repairs, upgrades and modifies TADSS in response to aviation mission rehearsal requirements, accident investigation, aircrew and staff training, TADSS upgrades/ updates and other identified requirements. Additionally, SOF TEAMS provides the addition, deletion and relocation of equipment, performance of technical services in support of hardware, software and network infrastructure modifications, and the performance of other on-site support as required.

Bradley MTS

HIMARS MTS

Stryker MGS AGTS



PM CONSIM

Building integrated, interoperable live, virtual, constructive training environments providing full-spectrum individual collective training.

PM CONSIM

PROJECT MANAGER CONSTRUCTIVE SIMULATION

TRAINING OUR NATION'S WARFIGHTERS

The Project Manager for Constructive Simulation (PM ConSim) acquires, fields, and sustains constructive simulations and integrated simulation environments to support Army Mission Command and Intelligence collective training requirements. Constructive simulations and integrated multi-domain environments are the most effective and efficient means to train commanders and staffs from company to theater level. PM ConSim supports training transformation, Army Force Generation (ARFORGEN) and the modular force while providing tailor-made integrated environments for collective training objectives across the full spectrum of military operations.

Program Manager Constructive Simulation (PM ConSim)

VISION

To be the recognized leader for providing constructive and integrated simulation environments.

MISSION

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

JOINT COALITION SIMULATION SYSTEMS (JCSS)

MISSION

To develop, acquire, field and sustain interoperable simulation environments in support of multiservice, joint and coalition forces.

Interactive Multi-Media 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. The IMI contract provides access to an array of innovative and creative providers of interactive multimedia products that can be used by the Soldier at homestation or when deployed.

DESCRIPTION

The JCSS IMI contract provides for analyses and studies, training program structure development, course conduct 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 manuals, learning management systems, electronic job aids (e.g., templates, macros, etc.) and Advanced Distributed Learning Products Online.

ASSISTANT PROJECT MANAGER CONSIM JOINT LAND COMPONENT CONSTRUCTIVE TRAINING CAPABILITY (APM JLCCTC)

Joint Land Component Constructive Training Capability (JLCCTC)

MISSION

To provide unit 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 of collective digital Mission Command training at all echelons from brigade to theater level.

DESCRIPTION

JLCCTC supports Army Title X training worldwide for Army Commanders and their staffs at Mission Command Training Centers (MCTC), Training and Doctrine Command (TRADOC) training facilities, and other customer locations. JLCCTC supports Decisive Action to include offensive, defensive, stability, and civil support operations. System capabilities include: Stimulation of Mission Command (MC) systems, Non-Kinetic Effects, Intelligence, Irregular Warfare, UAV Visualization, 3D Operational Environment, Logistics, Air/Air Force Simulation Interface, and an After Action Review (AAR) system.

JLCCTC is a modeling and simulation software capability that contributes to the joint training functional concept and the Army training mission area by providing the appropriate levels of modeling and simulation resolution as well as the fidelity needed to support both Army and joint training requirements. JLCCTC is comprised of two separate federations, JLCCTC Multi-Resolution Federation (MRF) and JLCCTC-Entity Resolution Federation (ERF). The MRF is a federated set of constructive simulation software that is supported by commercial software and commercial-off-the-shelf hardware that will support training of commanders and their staffs

in maneuver, logistics, intelligence, air defense and artillery. The federate models are connected by a combination of the standard high-level architecture run-time infrastructure, distributed interactive simulation, custom interfaces, the master interface and point-to-point. The JLCCTC MRF-WARSIM trains Army commanders and their staffs in support of Command Post Exercises (CPXs), Warfighter Exercises (WFXs), and Mission Rehearsal Exercise (MRXs). JLCCTC provides the simulated operational environment in which computer-generated forces stimulate and respond to the Mission Command (MC) processes of the commanders and staffs. JLCCTC models will provide full training functionality for leader and battle staff for the Army and the joint, intergovernmental, interagency and multinational (JIIM) spectrum. JLCCTC provides an interface to MC Systems allowing commanders and their staffs to train with their organizational real-world MC equipment. JLCCTC ERF is a federation of simulations, data collection and after-action review tools. It stimulates the Mission Command Networks and Systems to facilitate battle staff collective training by requiring staff reaction to incoming digital information while executing the commander's tactical plan. The targeted training audience is comprised of brigade and battalion battle staffs, functional Command Post (CP) training and full CP training.

Army Low Overhead Training Toolkit (ALOTT)

MISSION

To provide unit commanders and institutions with an automated, low-overhead toolkit of constructive simulation applications for training units from company to division.

DESCRIPTION

The Army Low Overhead Training Toolkit (ALOTT) provides homestation mission command training capabilities that bridge the training gap between large-scale JLCCTC-supported exercises and non-simulation supported unit training cycles. It is a collection of products designed to help train tactical unit commanders and staffs on the key elements of the Military Decision Making Process (MDMP) without the investment of significant numbers of support personnel and equipment. It is designed to bring enhanced command and staff training at the "crawl" and "walk" phases of the Army Mission Command Training Strategy.

ALOTT consists of four key applications:

- Homestation Enabling Low-overhead Integrated eXercise (HELIX) is the staff exercise driver. It provides full-spectrum scenarios involving major combat operations to train commanders and unit staffs collectively.
- Division eXercise Training and Readiness System (DXTRS) is the individual leader/small group trainer. It provides full-spectrum scenarios involving major combat operations to train staff officers and NCOs as individuals or in small groups.
- UrbanSim is the stability and support operations trainer. It provides commanders and staffs familiarity with intense situational leadership challenges encountered during stability and civil support operations.

JLCCTC

JLCCTC

JLCCTC

Army Low Overhead Training Toolkit (ALOTT) {Continued}

- Metis is the attack the network trainer. It provides Improvised Explosive Device (IED) insurgent network scenarios designed to allow commanders and staffs the opportunity to reduce the IED network's effectiveness.

Common Battle Command Simulation Equipment (CBCSE)

MISSION

To procure and field commercial-off-the-shelf hardware and software products in support of the Army's Joint Land Component Constructive Training Capability (JLCCTC) mission providing unit 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 of collective digital Mission Command training at all echelons from Battalion to Theater level.

DESCRIPTION

The CBCSE program provides commercial-off-the-shelf hardware and software products capable of running Army constructive simulations and games for training products providing Army-wide equipment standardization, commonality and compatibility, as well as sufficient network and computer capacity to operate current and future versions of JLCCTC. Additionally, the CBCSE program provides new equipment training teams responsible for fielding each new JLCCTC version to Army Mission Command Training Centers and Battle Simulation Centers worldwide. Currently, JLCCTC Entity Resolution Federation Version 5.3, as well as the JLCCTC Multi-Resolution Federation-WARSIM Version 6.1, are fielded providing constructive simulations training capability.

Joint Deployment Logistics Model (JDLM)

MISSION

To integrate JDLM into both the Joint Land Component Constructive Training Capability (JLCCTC)–Multi-Resolution Federation (MRF) and Entity-Resolution Federation (ERF) constructive simulation environments; to provide commanders and their staffs with the necessary tools to cost-effectively conduct the mission planning, rehearsals and training associated with the five phases of power projection operations: mobilization, deployment, employment, sustainment and redeployment.

DESCRIPTION

The Joint Deployment Logistics Model (JDLM) is the high-fidelity, logistics component, constructive simulation model of the JLCCTC federation. Whether operating in stand-alone mode or in a JLCCTC federated environment, JDLM provides commanders and their staffs with the complete array of Warfighting function capabilities required to meet logistics training requirements.

Warfighters' Simulation (WARSIM)

MISSION

To increase the effectiveness of commander and staff training, exercises and mission rehearsals by dramatically improving the realism and the scope of the available training environment; in conjunction with other simulations, to provide a complete operational environment with scenarios covering the full spectrum of military operations within the stages of force projection operations to support the global distributed Army as well as joint and coalition force task-based training.

DESCRIPTION

WARSIM trains and provides mission-rehearsal capabilities for Army and joint commanders and their staffs during stability operations, peacetime and wartime. Additionally, WARSIM portrays activities associated with post-employment operations such as war termination and post-conflict operations including restoring order, supplementing civilian government, providing humanitarian assistance, redeployment, reconstitution and demobilization. The simulation accounts for the time and space factors associated with large unit movements as well as the differences between heavy and light units. The simulation allows all units, including Warfighting function

units, to be committed to combat operations in response to threats in a rear area. The WARSIM system uses a software computer-based simulation and associated hardware to support the planning, decision-making and operational execution of unit commanders and their staffs from battalion through theater level as well as the training events in educational institutions. Designed and built using modern computer technology, modern software engineering techniques and verified and validated algorithms and databases, WARSIM will allow units worldwide to train using their organizational real-world Mission Command equipment. WARSIM is the cornerstone of the Joint Land Component Constructive Training Capability (JLCCTC) Multi-Resolution Federation (MRF). In the JLCCTC-MRF, WARSIM is linked with other constructive simulations to provide a more realistic presentation of the Operational Environment. The system is compliant with the high-level architecture.

WARSIM capabilities include:

- Computer-based battle simulation models that portray the operational environment needed to support Army training events
- Software modules to support exercise preparation and scenario generation
- Software modules/databases to support after-action review
- Software modules for linking WARSIM to other simulations in order to expand the training environment for Joint force training exercises
- Workstations for use by personnel in an exercise support function
- Training Audience interfaces to the Simulation via Mission Command (MC) Systems (two-way communications)
- Synthetic Natural Environment (SNE) that provides 3D Battlespace with Terrain/Time of day impacts and Bio/Chemical/Weather effect
- Comprehensive Intelligence capability (HUMINT, IMINT, ELINT, COMINT, and MASINT systems); currently modeling over 160 Sensor Systems within three-enclave architecture
- Irregular Warfare (IW) Operations, explicit IED and associated Countermeasures Modeling
- Automated Unit/Reactive Behaviors and Workstation/Role-player efficiencies
- Data Driven Models will allow for changes in Parametric Data without changing source code (pre-ex and during run-time)
- Automated Internal Recovery and improved diagnostic tools

PRODUCT MANAGER ONE SEMI-AUTOMATED FORCES (PDM ONESAF)

MISSION

To provide a simulation product line that meets the modeling and simulation (M&S) needs of both the current and future force across the Army's M&S community. To eliminate the need for multiple simulation tools across the Research, Development and Acquisition; Advanced Concepts and Requirements; and Training, Exercises and Military Operations M&S domains. To provide software solutions supporting Live,

WARSIM

OneSAF

OneSAF

PRODUCT MANAGER ONE SEMI-AUTOMATED FORCES (PDM ONESAF) {CONTINUED}

Virtual and Constructive (LVC) applications by fostering common components, interoperability, standardization and reuse.

DESCRIPTION

OneSAF is a next-generation, entity-level simulation that supports both Computer Generated Forces and Semi-Automated Forces applications. This enables it to support a wide range of constructive and virtual simulator system solutions. OneSAF has been integrated as the replacement SAF for the Aviation Combined Arms Tactical Trainer (AVCATT), the Non-Rated Crew Member Manned Module (NCM3), and Close Combat Tactical Trainer (CCTT). It is serving as the basis for subsequent modernization activities across the U.S. Army for simulators such as the Longbow Crew Trainer (LCT) and Transportable Flight Proficiency Simulator (TFPS). OneSAF was built to represent the modular and future force and provides entities, units and behaviors 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. OneSAF combined with the U.S. Army Night Vision Image Generator (NVIG) Toolkit is providing a range of high-fidelity sensor system training capabilities and supporting analysis of future system capabilities. The OneSAF Environmental Runtime Component provides a range of terrain database services and capabilities already supporting LVC applications across the world and bridging a critical interoperability gap by establishing a common terrain basis. In addition, interoperability support is present for industry standards such as Distributed Interactive Simulation, High-Level Architecture, Military Scenario Development Language, Joint Consultation Mission Command Information Exchange Data Model and Army Mission Command System devices. As a cross-domain simulation suitable for supporting training, analysis, research, experimentation, mission-planning and rehearsal activities, OneSAF provides the latest physics-based modeling and data, enhanced data collection and reporting capabilities. OneSAF provides a domestic release that is available to all U.S. government users and an international version to support non-U.S. requirements. OneSAF also provides a full range of training, development, technical support and on-site event support services.

ASSISTANT PROJECT MANAGER SYNTHETIC ENVIRONMENT CORE (SE CORE)

MISSION

To focus on delivering software and limited hardware to enable an interoperable common virtual training environment for training Soldiers. The ultimate objective of SE Core is to facilitate a common virtual training environment to enhance the training and mission rehearsal capabilities for our Soldiers. The program ensures the Army's virtual simulation systems have an interoperable capability and are compatible with live and constructive training systems so that our Soldiers can truly train as they fight.

DESCRIPTION

The Department of Defense Training Transformation, Army Training Strategies, Army Modernization Programs, Joint/Army Training Doctrine, Joint/Army Mission Command Training Support, and Army Force Generation require an LVC Integrated Training Environment (ITE). The SE Core program is the Army's virtual component of the LVC ITE. SE Core develops and sustains the Army's Common Virtual Environment (CVE), which links current and future virtual simulation devices into an interoperable full-spectrum training capability. The CVE connects to gaming training enablers and the live and constructive environments for an integrated LVC ITE capability.

As the Army transitions to a campaign-quality Army with a joint and expeditionary mindset,

our Soldiers require relevant, on-demand training available anywhere, anytime, and tailored to their operational training requirements. SE Core is comprised of complementary efforts for developing the common virtual training environment that facilitates fair-fight interoperability for virtual system and non-system Training Aids Devices Simulators and Simulations (TADSS). The program develops operational training terrain databases, models, and simulation architecture connectivity to meet Soldier operational training requirements. The terrain and model development efforts provide non-proprietary, open format and image generator independent common virtual training environment deliverables.

The simulation architecture provides an integrated training network. These common virtual training environment deliverables, linking current and future virtual training devices/simulations, enable the Army to execute combined arms and joint training as well as mission planning and rehearsals at homestation and deployed locations. The SE Core Product Line Architecture Framework defines the architecture for the Army's common virtual training environment. Common protocol and standards for virtual training devices are essential for fair-fight interoperability. SE Core's Virtual Distributed Interactive Simulation protocol provides the foundation for virtual systems interoperability and common communication to other components of the LVC ITE.

Through the involvement of SE Core's system development and demonstration phase, requirements for training and SE Core have grown. SE Core continues to produce terrain databases, common moving models, the virtual simulation architecture, changes to OneSAF, dynamic environment development, and common virtual components such as, but not limited to, after-action review, interoperability gateway, scenario generation tool, and C4I adapter. New requirements include, but are not limited to, common virtual training environment capability management for system and non-system TADSS, mission planning and rehearsal visualization capability, acquisition of terrain source data, SE Core to TADSS plug-in expansion, battlefield representation, semi-automated forces development and integration, exercise preparation and execution capabilities and definitions for the terms interoperability and fair fight. SE Core also facilitates integration and updates concerning the U.S. Army's OneSAF and SE Core version releases into system and non-system virtual TADSS.

SE Core-Dismount

SE Core-TDB

BCTC-ES

SIMULATION TO COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS AND INTELLIGENCE (C4I) INTEROPERABILITY (SIMCI) – SIMCI EXECUTIVE AGENT

MISSION

To provide common products, to support initiatives, to lead process improvement efforts and to make policy recommendations to Army leadership for improving and closing interoperability gaps between the Modeling and Simulations (M&S) domain and the Mission Command (MC) domain by employing the following chartered objectives: seamless interoperability between M&S and MC systems; alignment of M&S and MC standards,

SIMULATION TO COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS AND INTELLIGENCE (C4I) INTEROPERABILITY (SIMCI) – SIMCI EXECUTIVE AGENT {CONTINUED}

architectures and common MC components; identification of requirements for M&S and MC systems to support interoperability.

DESCRIPTION

The SIMCI program is focused on improving interoperability between the M&S domain and the MC domain. SIMCI uses an Overarching Integrated Product Team (OIPT) approach with more than 30 member organizations Army wide to include the Army Staff, capability developers and materiel developers. The OIPT addresses five key SIMCI components: architecture alignment, common data/object models, common standards, reusable component interfaces and programmatic-processes/certification/education. SIMCI executes part of its mission through an annual project call that focuses on unique applied research areas that support interoperability between M&S and Mission Command Systems. Past products from the annual project call include extensions to the Battle Management Language (BML), C2 adaptor improvements, and enhancements to the understanding across both communities. The SIMCI OIPT is co-chaired by PEO STRI and PEO Command, Control and Communications Tactical (PEO C3T).

PRODUCT MANAGER WARRIOR TRAINING INTEGRATION (PDM WTI)

INTRODUCTION

The primary focus of the Warrior Training Integration Product Manager's Office is three fold:

- Enable the Army Integrated Training Environment by developing, fielding, and sustaining a persistent Live, Virtual, Constructive, and Gaming architecture
- Acquire, field and sustain doctrinally relevant intelligence training capabilities
- Provide Mission Command equipment, skills and expertise in support of the Integrated Training environment

VISION

To be the premier provider for the integrated training simulation environments, products, services and support.

MISSION

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

Battle Command Training Capability - Equipment Support (BCTC-ES)

MISSION

To provide network, equipment and technical tools that enable the integration of constructive simulations systems; to integrate Army Mission Command Systems white boxes into Tactical Operation Center (TOC) sets; to provide visualization of the Common Operating Picture (COP); and to ensure Simulation-Mission Command (MC) system thread functionality. It is the enabling link within a Mission Command Training Center (MCTC) that supports Joint Land Component Constructive Training Capability (JLCCTC) stimulation. It provides support to the Mission Command Training Center Design Board for New Military Construction, Army development.

DESCRIPTION

MCTC-ES tools enable JLCCTC effectiveness by providing the MCTC with an improved ability to integrate constructive simulations with Mission Command training aligning the training environment to the operational environment. MCTC-ES provides significant mission command capability enablers including:

- Network - Internal MCTC Wide Area Network, Local Area Network additions and distribution to external Tactical Operations Center (TOC) pads, classrooms, Local Training Areas and remote sites
- Radio-Wire Integration System - Links constructive player work cells and live TOCs across combat radio nets
- Mission Command (MC) Servers - Link MC white boxes into unit and Higher Control (HICON)/Exercise Control (EXCON) TOC sets and interface with mobile operational TOC
- Battlefield Visualization System - Tool provides

video, simulations and/or MC feeds to TOC, Executive Director, Simulation Control and After Action Review room
- Simulation/Command and Control End-to-End Integration - Integrate Simulation/ Command and Control threads in conjunction with JLCCTC fieldings and update BCTC-ES components as required
- Architectural & Engineering Support - Subject matter experts planning support for new MCA projects prior to design directive issuance.
- Battery Refresh for computer back-up system - Eight MCTC sites - a five-year refresh cycle
- Combat Training Center (CTC) Mission Command Training Support Program Upgrades - One CTC per year

PEO STRI Digital Integration Laboratory (DIL)

MISSION

The PEO STRI DIL is operated by PEO STRI and is co-located with the Joint Development Integration Facility (JDIF) at 12000 Research Parkway, Suite 300, Orlando, FL. The Digital Integration Laboratory (DIL) provides resources and services in a centrally-controlled environment for the purpose of supporting the integration of PEO STRI systems and non-system Training Aids, Devices, Simulators and Simulations with existing and emerging mission command systems. The DIL reduces PEO STRI's integration and development cost and enables the timely delivery of level II-V training products in parallel with Army Mission Command Systems while ensuring that PEO STRI products are relevant to emerging mission command baselines. The DIL supports PEO STRI system and software integration and development activities, conducts pre-Army interoperability certification testing and directly supports formal distributed Army interoperability certification in accordance with published software blocking schedules for designated PEO STRI programs.

DESCRIPTION

The DIL is formally recognized as an extension of the Central Technical Support Facility (CTSF) for the purpose of conducting formal distributed Army Interoperability Certification (AIC) and, as such, augments and supplements the published CTSF AIC test architecture. The DIL facilitates the adoption of common interoperability-related products and standards across the mission command and M&S communities. AIC testing conducted in the DIL does not duplicate or limit testing conducted by the Joint Interoperability Test Command, the U.S. Army Test and Evaluation Command or other test activities. Operating in full cooperation with the CTSF, the DIL has established representative mission command networks and provides a trained and certified cadre of mission command system operators and administrators as a dedicated risk reduction and digital integration facility in support of PEO STRI training system and simulation development. DIL processes, policies and procedures parallel those of the CTSF, and the DIL is fully certified as a Federated Net-Centric Site by HQDA CIO/G-6.

Integration & Interoperability (I2)

MISSION

According to the U.S. Army policy for the

BCTC-ES

DIL

IEWTPT-HCC

Integration & Interoperability (I2) {Continued}

acquisition of training devices, PEO STRI has been designated the U.S. Army Acquisition Center of Excellence for training and testing enablers. PEO STRI is striving to achieve the Department of Defense Training Transformation goal stating that Training Aids, Devices, Simulators and Simulations are developed for interoperability across the live, virtual and constructive training environments and support operational and institutional, homestation, Combat Training Center and deployed training.

DESCRIPTION

PEO STRI recognizes this emerging need and is in the position to foster interoperability and integration of our current and future test and training systems to meet the LVC goal. By overseeing the planning, integration, cross-organization development, fielding and support of the PEO STRI portfolio, the organization can yield persistent simulation capabilities to meet LVC-derived requirements. The concept of operations for the I2 is documented and provides the overarching description and guidance for its operation as chartered by the PEO. The document defines three focus areas for the I2:

- Program Synchronization – Identification of key simulation activities and their interdependencies to identify issues and support decision making
- Interoperability – Implementation of processes to plan, develop, field and support persistent simulation capabilities for interoperability within PEO STRI programs to support user needs for training and testing
- Common Components – Implementation of processes to develop and manage common simulation capabilities for cross-program use to increase the efficiency and quality of program development and support

Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT)

MISSION

To provide Intelligence Military Occupational Specialty (MOS) training allowing Warfighting Commanders and their staff at all echelons the ability to train the Intelligence Warfighting Function (IWF) based on accurately portraying insurgency or Full Spectrum Operations; to train intelligence Soldiers by stimulating MI warfighting equipment where system operators and analysts are able to synchronize their Intelligence, Surveillance, and Reconnaissance (ISR) assets to exploit exercise intelligence data and provide the commander with opportunistic or requested, executable, exercise co-related, intelligence information.

DESCRIPTION

IEWTPT is a Non-System Training Device (NSTD) that provides proficiency training for analyst and system operators to acquire and exploit intelligence data during training, just as they would in real world operations. IEWTPT is composed of four components: a constructive simulation [JCATS/JLCCTC (OneSAF/ ERF, WARSIM/ MRF)] that feeds the Technical Control Cell (TCC) and Target Signature Arrays (TSA)/simulation interface, which are used to process the enhanced constructive information into native protocols of the organic ISR systems being stimulated, and the Human Intelligence (HUMINT) Control Cell (HCC). The TCC supports Combat Training Centers and Homestation intelligence sustainment training by merging the Live, Virtual and Constructive training environments. IEWTPT provides a realistic target environment for multi-intelligence disciplines including SIGINT, IMINT, HUMINT, CI, MASINT, GEOINT, and OSINT. IEWTPT must stimulate multiple systems TSAs (TUAS, TES, CGS, GRCS, CHARCS, DCGS-A, ACS, Prophet, etc.) as well as SIGINT Quick Reaction Capabilities (QRC's). In addition, IEWTPT provides a set of exercise support tools (i.e. SIGACT Generator, SIGINT ExCON, iLOD, etc.) specific to Intelligence training.

The HCC component provides sustainment training for HUMINT/Counter Intelligence (CI) collectors in an immersive, virtual training environment including the free-flowing interaction with avatars. This allows Soldiers to refine their skills in tactical questioning, source operations, interrogations, screenings, and use of an interpreter. Avatars speak in targeted foreign languages and behave culturally appropriately for the context of the scenario. The HCC allows the

Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) {Continued}

HUMINT/CI Collector to gather intelligence information from the virtual human while a HUMINT/CI instructor monitors the student's performance. At the end of the tactical questioning training event, the HUMINT/CI collector reviews after action review statistics as well as HUMINT/CI instructor commands. The HCC provides proficiency training of Tactical HUMINT Collectors, Company Intelligence Support Teams (CoIST), S2 Section, MC, and, in general, all Soldiers (every Soldier is a sensor/collector) in a realistic environment.

Joint Exercise & Experimentation Integration (JEEI)

MISSION

To provide PEO STRI programmatic, technical and analytical support for planning, developing, integrating and executing Joint National Training Capability (JNTC) activities.

DESCRIPTION

JEEI is the tangible presence of PdM WTI and PEO STRI at JNTC and Joint Operating System Environment (JOSE) activities. JEEI resources compile the information provided at various JNTC and JOSE activities and outreaches to PEO STRI entities and receives and delivers feedback (requirements based). It maintains a strong, collaborative presence for the Army within the JFCOM/ DD J7 JCWC realm. JFCOM became the Deputy Director J7 Joint Coalition and Warfighting Center's (JCWC) 31 August 2011. Additionally, JEEI assets also monitor the development of the JLVC and its associated joint standards. Specifically, JEEI serves as the PEO STRI integrator for JCWC's JOSE. JOSE is a merging of the previously independent technical capabilities that support the training, experimentation, information operations, concept development and coalition activities under the JFCOM organizational structure.

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

MISSION

To provide the foundational structure and framework for integrating live, virtual, constructive systems into the integrated Soldier's training environment.

DESCRIPTION

The Live, Virtual, Constructive-Integrating Architecture (LVC-IA) is a system of systems providing a net-centric linkage that collects, retrieves and exchanges data among existing Training Aids, Devices, Simulations, and Simulators (TADSS) and both joint and Army Mission Command Systems. The LVC-IA defines "how" information is exchanged among the different LVC domains and the Mission Command Systems. The LVC-IA provides enterprise level tools for exercise control, after action review, and system information assurance. It provides hardware and software to interface the different

IEWTPT - HCC

IEWTPT - HCC

IEWTPT - HCC

Live, Virtual, Constructive-Integrating Architecture (LVC-IA) {Continued}

Live, Virtual and Constructive communication protocols. It also provides a correlated common operating picture for the training audience on their organic command and control equipment. The integration of the Live, Virtual and Constructive TADSS with the Mission Command equipment will enable larger, more robust training events thus better preparing United States Soldiers for their missions at an overall reduced cost. The end-state goal is an LVC Integrated Training Event (ITE) that can cost effectively approximate operational environments to provide a high level of value added training and mission rehearsal opportunities to Army's commanders and their Soldiers.

Mission Command Training Center (MCTC)

MISSION

To provide acquisition and contracting support to the III Corps MCTC and its associated sites.

DESCRIPTION

This effort represents a fusion of the simulation and mission command training capabilities at Forts Hood, Carson, Riley, Bliss, Sill and Knox. This capability is henceforth known as the Mission Command Training Center (MCTC). Under the Army's "hub and spoke" strategy, Mission Command Training Capabilities are the centerpiece of an installation's digital training support strategy and are responsible for supporting all individual, staff, leader and collective digital training within the installation and across all associated spokes. This support is provided to Active and Reserve component forces as well as to other government agencies as required.

LVC - IA

LVC - IA

JBAD

PM FIELD OPS MISSION

PM Field OPS provides worldwide operations, maintenance, sustainment and instructional support of training systems used by the U.S. Army, Air Force, Marines, Navy and Multinational Coalition Forces.

PM FIELD OPS

PROJECT MANAGER FIELD OPERATIONS

SUPPORT TO THE WARFIGHTER

ON TIME, ANYTIME, ANYWHERE

PM Field OPS provides worldwide operations, maintenance, sustainment and instructional support of training systems used by the U.S. Army, Air Force, Marines, Navy and Multinational Coalition Forces. PM Field OPS uses four training services contracts to accomplish its mission of providing integrated live, virtual and constructive training worldwide. The four contracts are the Warfighter FOCUS contract, the STRICOM Omnibus contract, the Artillery, Chemical and Air Defense contract, and the Flight School XXI training services contract.

Introduction

PM Field OPS' life-cycle acquisition management services can be tailored to meet customer-specific requirements. Our acquisition professionals are Defense Acquisition Improvement Act (DAWIA) certified in Program Management; Life Cycle Logistics; Contracting; Business - Cost Estimating; Business-Financial Management; Production, Quality and Manufacturing; Purchasing; Systems Planning, Research, Development and Engineering-Program Systems Engineering, Science and Technology Management, and Systems Engineering; and Test and Evaluation. This insures that PM Field OPS has the broad range of critical skills required to support a wide variety of programs and projects.

WARFIGHTER FIELD OPERATIONS CUSTOMER SUPPORT (FOCUS) WARFIGHTER FOCUS (WFF)

The Warfighter FOCUS program provides worldwide integrated Live, Virtual, and Constructive training operations, maintenance, sustainment, instruction and other services for training devices, simulators, simulations on a global basis. These services primarily support the U.S. Army and include some training support for other U.S. services and Coalition partners. WFF maximizes opportunities for training support flexibility within a site and among multiple sites. Training support is seamlessly provided where and when it is required. The primary areas supported under WFF are the Mission Command Training Programs, Combat Training Centers, Sustainable Range Program, Soldier Non-Systems, Soldier Systems, Contingency Operations and the Support Mission arena. WFF provides military instruction, new equipment training, and tactical training to both the Iraq and Afghan national armies.

Combat Training Centers (CTC)

MISSION

The Assistant Program Manager (APM) for Combat Training Centers (CTC) provides Life-Cycle Contract Support (LCCS) for training operations, maintenance and support for U.S. Army's three Maneuver Combat Training Centers.

DESCRIPTION

APM CTC personnel perform exercise control, data collection and correlation, training systems maintenance and repair, and live-firing range operations, and provide role-players at the CTCs. Although the Army's three CTCs share a common core set of training requirements, each has specialized requirements.

Joint Multinational Readiness Center (JMRC), Hohenfels, Germany

The JMRC trains leaders, staffs, units up to Brigade Combat Teams (BCTs) and multinational partners to dominate Full-Spectrum Operations anywhere in the world both now and in the future. The JMRC Commander's intent is to conduct training that:

1. Trains leaders, staffs and units to expertly execute Full-Spectrum Operations
2. Focuses training on operations in Afghanistan to enable USAREUR and multinational leaders, staffs and units to succeed upon deployment to Afghanistan
3. Provides world-class specialty training on leadership; media engagement; counter-improvised explosive device operations and live-fire exercises
4. Provides the world's premier Multinational Training Center

APM CTC provides the JMRC with eight 32-day BCT-level exercises (rotations) per year to meet the Commander's intent. It can export up to four of the eight rotations to homestation or at a power generation platform locations. All of these exercises include elements of the five CTC training program pillars:

1. Operations group command and control
2. Instrumentation/training aids and devices
3. Observer/controllers/trainers
4. Opposing forces
5. Support infrastructure

WFF contract support at JMRC/JMTC includes operations and maintenance for the JMRC-Instrumentation System (JMRC-IS) and Exportable Instrumentation System that provide

the capability to produce after action reports (AARs) and take-home packages (THPs), voice and data communications, instrumentation for tracking personnel, vehicles and aircraft, urban environment conflict scenarios, simulation operations, and battlefield effects.

WFF provides training scenarios and operational training environments to meet commanders' training objectives, conduct leader training and development programs, and conduct live-fire exercises. It provides subject matter experts for the Joint Improvised Explosive Device Defeat Organization (JIEDDO), Improvised Explosive Device (IED) expertise, IED homestation trainers, transportation specialists, information operations specialists, civilian intelligence planners and signal school coaches.

Joint Readiness Training Center (JRTC), Fort Polk, Louisiana

The JRTC provides advanced-level joint training for the Army, Air Force and Navy contingency forces. It focuses training on low- to mid-intensity combat. The JRTC trains up to a task-organized brigade, selected division maneuver assets, special operations forces, and selected multi-echeloned combat support and combat service support units. JRTC training scenarios are based on each participating organization's mission-essential tasks list. Many of the exercises are mission rehearsals for actual operations that the organization is scheduled to conduct. They replicate many of the unique situations and operational challenges units may face while conducting operations. Part of PM Field OPS mission at the JRTC includes constantly evolving training scenarios based on input from current operational theaters. APM CTC supports ten 24-day rotations per year with 4,000 to 5,000 Soldiers involved in each.

APM CTC maintains the JRTC-IS. It is an integrated system of computer software and hardware; workstations; databases; voice, video, and data recording, production, and presentation equipment; interface devices; and communication networks. It provides the tools for the Observer Controller Teams (OCTs) and Training Analysts to collect, analyze and present training performance feedback to the training unit in the AARs and THPs. The JRTC instruments track personnel, vehicles and aircraft in urban environment conflict scenarios and simulation operations electronically and by voice data communications.

Through the WFF, APM CTC also provides subject matter experts for the Army Mission Command Systems, Distributed Common Ground System-Army (DCGS-A) integration support, JIEDDO support, Company Intelligence Support Team support (CoIST), Human tErrain Communication replicaTIon Capability - Army (HECTIC-A), and replication of a Provincial Reconstruction Team (PRT)/Interagency.

National Training Center (NTC), Fort Irwin, California

APM CTC provides joint and combined arms training focused on developing Soldiers, leaders, force-on-force and live-fire training for ground and aviation brigade scenarios across the spectrum of conflict. APM CTC supports unparalleled

PM Field OPS operates, maintains, and sustains objective instrumentation systems at the Combat Training Centers

PM Field OPS maintains counter ambush training site at the Joint Maneuver Readiness Center

Soldiers search man and his vehicle at the JRTC

Combat Training Centers {Continued}

force-on-force and live-fire training opportunities at the NTC. Recent additions to the training capabilities added to the NTC include cave and urban complexes that mirror combat conditions that Soldiers would expect to encounter in theaters of engagement such as Afghanistan. It can use a live-virtual-constructive training model if required to meet the needs of Army and Joint Forces commanders' training requirements. A key APM CTC function at the NTC is providing training performance feedback and assessments to the unit during its training rotation. Units receive this feedback in the form of After Action Reviews (AARs) and Take-Home Packages (THP). WFF contract support provides the operations and maintenance for the NTC-IS that provides the capability to produce AARs and THPs.

APM CTC personnel operate and maintain voice and data communications, instrumentation for tracking personnel vehicles and aircraft urban environment conflict scenarios simulation operations, and battlefield effects. It provides subject matter experts for the leadership training program, human terrain system support, support services, information operations and human intelligence operations support, and Distributed Common Ground System-Army integration support.

APM CTC supports ten 24-day training exercise rotations per year with each rotation having 4,000 to 5,000 Soldiers.

Contingency Operations Support (COS)

MISSION

Warfighter Focus (WFF) Contingency Operations Support provides live, virtual and constructive training support to U.S. Armed Forces, host nation and multinational coalition forces deployed in Iraq, Kuwait, Jordan, Afghanistan, Saudi Arabia, United Arab Emirates and Kyrgyzstan.

DESCRIPTION

WFF provides contractor training and training support services for 18 separate efforts valued at $320M in the following regions:

Afghanistan

NATO Training Mission – Afghanistan/Combined Security Training Command – Afghanistan efforts focus on the training and development of capable and self-sustaining Afghan National Security Forces (ANSF) and Coalition Forces to include institutional instruction to develop capabilities in Counter Improvised Explosive Device/Explosive Ordnance Disposal (CIED/EOD), Personal Security Detachment, Logistics from Corps to Battalion, Commando, Special Infantry Training, Afghan Education Program, NATO Air Training Command, Route Clearance Company, Special Vehicle Training and other branch-specific training and leadership development for a force that will exceed 250,000 personnel.

Pilot training for the Afghan National Air Force is being conducted at the Horizon Flight Academy in the United Arab Emirates until such time as the Afghan National Army (ANA) facilities are built and curriculum developed enabling the Afghan Air Force (AAF) to assume responsibility for future pilot selection and training.

WFF provides training to the United States Forces – Afghanistan (USFOR-A) in support of their Title-10 training responsibilities for all U.S. forces deployed to and operating in Afghanistan to ensure units and personnel are appropriately trained to conduct effective operations in support of Cdr, USFOR-A priorities.

Afghan Air Force Flight and Maintenance Training

APM CTC trains Afghan National Security Force (ANSF) pilots. It trains or will train 297 flight crews. It has developed an interim and long-term training strategy to execute this training. All basic flight training includes some form of minimum, standard English language proficiency training. Follow-on, specialized flight training will take place in Eastern Europe and within Afghanistan. APM COS is conducting concurrent aircraft maintenance technician training. The long-term strategy is planned to include all pilot and maintenance training in Afghanistan by the year 2017.

Iraq

APM COS supports Iraqi Army training in Iraq through the Office of Security Cooperation – Iraq (OSC-I). The Iraqi Army is shifting the focus of

its operations from establishing the Iraqi Army training base and developing Iraqi Army internal defense capability to developing sustainment, external defense capability, fielding of modernized equipment, combined arms and collective training, and the integration of Kurdistan Regional Guard Brigades (RGBs). The OSC-I Army effort focuses on advising, assisting and training the Iraqi Army with the development of a sustainment capability to adequately maintain combat systems and develop an overall logistics system for the Iraqi Army. Developing this sustainment capability revolves around a core effort of Logistics advisors at Medium Workshops and Maintenance Assistance and Instruction Training (MAIT) Teams at key Iraqi Army locations designed to train Iraq Army soldiers and units on Level 2 equipment maintenance. Training Iraqi Army leaders in managing workflow and maintenance supply system procedures is another key training effort of the MAIT teams.

Kuwait

For U.S. Army Central Command (ARCENT), WFF contractors provide critical realistic Theater Specific Readiness Training (TSRT). This includes training to safely exit disabled vehicles using the Mine Resistant Ambush Protected vehicle (MRAP) and HMMWV Egress Training (HEAT), casualty treatment training (Medical Simulation Training Center (MSTC)), situational weapons engagement training using the Engagement Skills Trainer 2000 (EST 2000), and the Call for Fire Trainer (CFFT).

The Kuwait-Based Training Team effort trains individual, collective, leader and staff training at the Kuwait Armed Forces Training Center (KAFTC). It provides a staff of 90 personnel consisting of Observer Controllers and Mobile Training Teams as well as subject matter experts and staff augmentation in support of ARCENT G7 training requirements.

Mission Command Training Program (MCTP)

MISSION

Under the Warfighter FOCUS (WFF) contract, the Mission Command Training Program (MCTP) provides training and training support in the live, virtual and constructive training spectrums to U.S. and Coalition Warfighters. This includes both fixed and mobile simulations and simulator/trainers, intelligence training and training for unmanned aerial systems.

DESCRIPTION

WFF MCTP provides training and/or training support for 18 distinct programs in the United States, Germany and Korea:

- Virtual Combat Convoy Trainer (VCCT) – (R) 2 trailers/1 site and 3 manned modules
- Mobile Close Combat Tactical Trainer (MCCTT) – 71 trailers/6 sites
- Close Combat Tactical Trainer (CCTT) – 303 manned modules /8 sites
- Reconfigurable Vehicle System (RVS) – 5 fixed sites/20 manned modules and 3 mobile sites/10 manned modules
- Reconfigurable Vehicle Tactical Trainer (RVTT) – 5 fixed sites/20 manned modules and 11 mobile sites/44 manned modules
- Fixed Tactical Internet (FTI) – 14 military

A HMMWV maneuvers through smoke at the Joint Readiness Training Center

PM Field OPS' contractors activate a simulated IED attack on friendly forces at the National Training Center (NTC)

Simulated car-borne IED attack as medical convoy approaches main street of simulated city at the NTC

Mission Command Training Program (MCTP) {Continued}

installations utilize this network

- Common Battle Command Simulation Equipment (CBCSE) – 24 maintainers are responsible for repair of the common hardware platforms world wide
- Very Small Aperture Terminals (VSATs) – there are 3 contractor positions located at Ft. Jackson SSI
- U.S. Army Training and Doctrine Command (TRADOC) – 63 simulations (computer) operators
- Battle Command Arts & Science Program (BCASP) – 52 instructors for various Army schools: Fort Bliss United States Army Sergeants Major Academy, Fort Sill Air Defense Artillery School, Fort Rucker Aviation Center and Warrant Officer Course, Fort Benning Infantry School, Fort Knox Armor Center, Fort Leonard Wood, Fort Lee
- Intelligence and Electronic Warfare Tactical Proficiency Trainer (IEWTPT) – 9 sites
- Virtual Battle Space 2 Gaming – 46 positions located at 16 sites
- MILSTAR Extremely High-Frequency Satellite Simulator – 1 tower
- Secure Mobile Anti-Jam Reliable Tactical Terminal Training System (SMART-T) – classroom equipment
- Mission Command Training Centers (BCTC) – 8 sites
- United States Army Intelligence Center (USAIC) – see below
- Unmanned Aircraft Systems (UAS) – see below
- One Semi-Automated Forces (OneSAF) – software installation and training support
- U.S. Army Medical Department (AMEDD) – computer operator support for exercise Global Medic

WFF currently supports intelligence training and training support primarily at Fort Huachuca, AZ, as well as at Fort Devens, MA, Goodfellow Air Force Base, and Pensacola Naval Station. At Fort Huachuca, WFF supports the United States Army Intelligence Center's mission of leading, training and equipping the world's premier Corps of Military Intelligence professionals by providing professional instructors, training developers, training systems, infrastructure support, training material and system purchases. From FY09 to date, WFF has assisted the Intelligence Center with the training of 29,819 students in resident courses, conducted 89,197 Mobile Training Team (MTT) and New Equipment Training (NET) visits, and trained more than 119,016 Soldiers. WFF is a key component of the Intelligence School's transformation from an instructor-centric to a learning-centric environment in compliance with the Army Learning Concept (ALC) 2015. WFF also provides training instruction for in-flight operations and maintenance on four unmanned aerial systems: Shadow, Hunter, Warrior A and ER/MP (Unmanned Aerial Systems Extended Range and Multi-Purpose) — along with training and training support in Federal Aviation Administration (FAA) ground certification in visual and instrument flight rules (VFR and IFR) and flight safety and standardization.

Soldier Non-Systems (SNS)

MISSION

Soldier Non-Systems (SNS) supports (worldwide) Soldier training through sustainment and operations of entrusted "non system" Training Aid Devices, Simulations and Simulators (TADSS) and programs. SNS performs life-cycle management for fielding Program Managers (PMs), Army Training Support Center (ATSC) and other strategic partners.

DESCRIPTION

PM Field OPS SNS supports over 225,000 training devices worldwide using two on-going contracts:

- Warfighter FOCUS (WFF) Contract
- Artillery and Chemical Training (ACT) Contract, which is a five-year 8(a) (small business set aside) contract

WFF provides sustainment, support, and, in some cases, operation of legacy and newly fielded Tactical Engagement Simulation Systems (TESS) equipment. For the Engagement Skills Trainer 2000 (EST 2000), training support includes scenario development and operation, recording of units' performance, and preparation of training

results. For the Medical Simulation Training Centers (MSTC), training support includes sound effects, battlefield effects, the smells of war, realistic threat environments, and reaction recording. WFF also supports training data collection using internal and external field camera systems – the information it gathers is used in the preparation and presentation of the AARs for the units' evaluation. Sustainment efforts also include installation of TESS, hardware maintenance, interaction/training of unit personnel, instrumented operations and preparation of After Action Reviews (AARs).

SNS TADSS supported by WFF:
SNS provides training and training support services for the following training systems:

- Air-to-Ground Engagement System II (AGES II)
- AN/PSS-14 Training Set Comprised of the Sweep Monitoring System (SMS) and Training Target Set (TTS)
- Anti-Tank Guided Missile Tactical Engagement System (ATGM TES)
- Basic Electronics Maintenance Trainer (BEMT)
- Basic Multiple Integrated Laser Engagement Systems (MILES)
- Close Combat Mission Capability Kit (CCMCK)
- Engagement Skills Trainer 2000 (EST 2000)
- Fire-Arms Training Systems (FATS)
- Improved Target Acquisition System TESS (ITAS TESS)
- Improvised Explosive Device Effects Simulator (IEDES)
- Instrumentable MILES (IMILES), consisting of the Individual Weapons Systems (IWS), Shoulder Launched Munitions (SLM), Wireless Independent Target System (WITS), Universal Controller Device (UCD), and Combat Vehicle Tactical Engagement Simulation System (CVTESS)
- Laser Marksmanship Training System (LMTS)
- Longbow Tactical Engagement Simulation System (LB TESS)
- M2A3 Bradley Adapter Kits
- Man-portable Aircraft Survival Trainer (MAST)
- Medical Simulation Training Centers (MSTC)
- MILES 2000
- MILES XXI
- Mine Resistant Ambush Protected (MRAP) suite (unique WITS and Mk-19)
- Mk-19
- Mobile Gun System TESS (MGS TESS)
- Multi-Cultural Mobile Counter-IED Interactive Trainer (MCIT)
- Non-System Training Devices (NSTD)
- Opposing Forces and OPFOR Surrogate Vehicle and Main Battle Tank Tactical Engagement Simulation Systems (Opposing Forces OPFOR SV and MBT TESS
- SBCT Vehicle Instrumentation Interface Package (VIIP)
- Simulated Area Weapons Effects/MILES II (SAWE MILES II)
- Tube-launched, Optically-tracked, Wire command-link guided Improved Target Acquisition System (TOW ITAS)
- Counter Radio Electronic Warfare, Increment 2 (CREW 2)

PM Field OPS supports Overseas Contingency Support training operations – here an Apache Longbow Crew Trainer arrives in Southwest Asia

PM Field OPS' contractor coaches a Soldier on marksmanship

Apache Longbow pilots review simulator training results with PM Field OPS trainer at the Aviation Center of Excellence, Fort Rucker, AL

Soldier Non-Systems (SNS) {Continued}

The Artillery and Chemical Training Contract (ACT)

ACT is an 8(a) set-aside for providing worldwide Life-Cycle Contractor Support for the U.S. Army's Air Defense, Field Artillery and Chemical Training devices. It supports more than 1,300 training devices located worldwide. These include the Call For Fire Trainer, Fire Support Combined Arms Tactical Trainer and the Chemical Agent Monitoring Simulator.

ACT devices supported by SNS include:

- Automated Chemical Agent Detector Alarm Simulation (ACADA SIM)
- Avenger Institutional Conduct of Fire Trainer (ICOFT)
- M270A1 Multiple Launched Rocket Systems (MLRS) Maintenance Trainers
- M93 Nuclear, Biological, Chemical Reconnaissance System (NBCRS FOX) Simulator
- Air Defense/Field Artillery/Chemical (ADFAC) Base
- Anti-Tank Guided Missile (ATGM) Basic Skills Trainer (BST)
- Biological Detection System (BIDS) Trainer
- Chemical Agent Monitoring Simulation (CAMSIM)
- Fire Support Combined Arms Tactical Trainer (FSCATT)
- High-Mobility Artillery Rocket System (HIMARS)
- Stryker NBC Reconnaissance Vehicle (NBCRV)

Soldier Systems

MISSION

Soldier Systems provides high-quality and economical sustainment services for the families of aviation, gunnery, maintenance and driver trainer virtual training devices at more than 150 training sites worldwide. Sustainment services consist of device maintenance, supply support, engineering and upgrade support, device relocations, and minor post-production software support. Training services, to include instructors, operators and facilitators for the family of devices, are also provided as necessary.

DESCRIPTION

Soldier Systems currently focuses on the following platforms: Abrams, Bradley and Stryker Maintenance Trainers; Abrams Advanced Gunnery Training System (AGTS); Bradley Advanced Training System (BATS); Bradley Conduct of Fire Trainer – Situational Awareness (COFT-SA); Common Driver Trainer (CDT) (including variants for Mine Resistant Ambush Protected (MRAP); Stryker, Tank, and Tank Engineering vehicles); High-Mobility Multi-Wheeled Vehicle (HMMWV) Egress Assistance Trainer (HEAT); Legacy Aviation and Transportation Devices; CH-47F Transportable Flight Proficiency Simulator (TFPS); UH-60M Transportable Blackhawk Operations Simulator (TBOS); AH-64D Longbow Crew Trainer (LCT); LUH-72A Lakota Cockpit Procedures Trainers; Aviation Maintenance Trainers, and Aviation Combined Arms Tactical Trainer (AVCATT).

Soldier Systems System Availability

Device availability is critical to ensure Soldiers have necessary resources available to learn and sustain required skills.

The required 90% contractor performance factor has been exceeded with an average from 2009 to present of +98%.

Gunnery Maintenance and Driver Trainers (GMDT) operational excellence includes:

- Attaining over 97% operational readiness
- Meeting 100% of all scheduled training events
- Training over 100,000 Soldiers at GMDT sites in 2010
- Attaining work order-to-completed status over 95%
- Successfully relocating over 500 devices to Fort Benning, GA and Fort Lee, VA in support of both the Maneuver and Support Centers of Excellence

Aviation and Transportation operational excellence includes:

- Achieving Contractor Performance Factor (CPF) of over 98% CPF since contract inception (and previous to December 2003)
- Meeting many obsolescence challenges for 25 to 30-year-old devices
- Successfully supporting interface of newer

technology with old technology that is still in use
- Successfully installing field kits sent to device sites
- Actively participating with Office of Emergency Management (OEM) modification teams
- Supporting fielding of new devices and relocation of existing devices
- Reacting quickly to short-notice requirements

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Support Mission (SM)

MISSION

Under the WFF program, APM Support Mission (SM) provides live, virtual and constructive training products and services for the U.S. Army, Navy, Air Force, Marine Corps, Special Operations Command and Other Government Agencies (OGA). SM provides particular emphasis on the training of special operations units in both CONUS and OCONUS locations. Additionally, SM provides Foreign Military Sales (FMS) support throughout Asia, Africa, Europe and Southwest Asia.

DESCRIPTION

Through use of the WFF contract, APM SM provides its customers with opposing forces, role players and distinctive courses and exercises to support the specific requirements and needs of U.S. Army, Navy, Air Force and Marines Corps units. These courses, which are extremely varied and diverse in nature, can range from

Romanian Soldier talks with a PM Field OPS-provided role player during a training exercise with the U.S. 2nd Armored Cavalry Regiment at the Joint Maneuver Training Center, Hohenfels, Germany.

PM field OPS instructors train Soldiers to use the SHADOW QR-7 Unmanned Aerial Vehicle at Fort Huachuca, AZ

A battalion commander and a PM Field OPS contractor watch the progress of a Reconfigurable Vehicle Tactical Trainer RVTT exercise

Support Mission (SM) {Continued}

specialized training topics, such as combat first aid and tactical combat casualty care, to host-nation interactions, advanced weapons handling, enhanced force protection, improvised explosive device (IED) awareness, counter - IED (C-IED) training, high threat driving, cultural awareness training and other critically needed combat skills. The WFF contract vehicle also provides APM SM the expertise necessary to support the Joint Collective Training environment, including providing a rapid reaction capability to conduct training exercises for special operations forces (SOF) worldwide, as well as provide SOF expertise supporting special forces/conventional forces integration events. Through WFF, APM SM also provides critical support to the planning and implementation of pre-and post-mobilization training, as well as rebalancing and transformation of major commands and their subordinate commands into modular forces operating within the Army Force Generation process. Additionally, the WFF contract vehicle provides subject matter experts for U.S. Army North's Homeland Defense mission and Defense Support to Civil Authorities, including disaster-preparedness exercise support. The WFF contract provides FMS customers with worldwide virtual, live and constructive contractor support. The WFF contract vehicle also provides customized levels of life-cycle support for unique training systems, technical analysis, evaluation and integration of modeling and simulation, as well as tailored technical support to information technology (IT) platform architectures, including requirements analysis, software maintenance, configuration management and large-scale Army training database integration.

WFF currently provides training services supporting the SM customer base at more than 350 sites throughout the U.S., Asia, the Mid-East, Africa and Europe.

SM provides training operations and support for more than 50 customers including:

- U.S. Special Operations Command (USSOCOM)
  - U.S. Army Special Operations Command (USASOC)
  - 95th Civil Affairs Brigade
  - U.S. Army Special Forces Command (USASFC)
  - JFK Special Warfare Center and School (JFKSWCS)
  - Marine Corps Special OPS Command (MARSOC)
- U.S. Marine Corps
  - Marine Air Ground Task Force Training Command (MAGTFTC)
  - First Marine Expeditionary Force (IMEF)
- U.S. Joint Forces Command (JFCOM)
- U.S. Navy
  - Center for Security Forces (CENSECFOR)
  - Navy Expeditionary Combat Command (NECC)
  - Naval Special Warfare Command (NSW)
- National Ground Intelligence Center (INSCOM)
- U.S. Army Forces Command (FORSCOM)
- 10th Mountain Division
- 21st Calvary Brigade
- Department of Energy (DOE)]
- Department of Transportation (DOT)
- Installation Management Command (IMCOM)
- U.S. Army Training Support Center (ATSC), Ft Eustis VA
- Central Technical Support Facility (CTSF), PEO C3T, Ft Hood TX
- U.S. Air Force Expeditionary Center
- U.S. Air Force Special Investigation Academy
- U.S. Army Reserve Command (USARC)
  - 75th Division (MCTD)
- First U.S. Army
  - Division East
  - Division West
  - Training Support Brigades (TSB)
- Third U.S. Army (ARCENT)
- Fifth U.S. Army North (ARNORTH)
- USAREUR, Joint Maneuver Training Center (JMTC)
- United States Coast Guard (USCG)
- 82nd ABN Division
- Foreign Military Sales (FMS)
  - Saudi Arabia
  - Kuwait
  - Oman
  - Jordan
  - Lebanon
  - Egypt
  - Botswana
  - Ukraine

- Georgia
- Serbia
- Slovenia
- Uzbekistan
- Poland
- Netherlands

Sustainable Range Program (SRP)

MISSION

The SRP provides worldwide operations, maintenance and sustainment support for digitized and other training range systems used by the U.S. Army, Air Force, Marines, Navy and multinational Coalition Forces.

DESCRIPTION

The Sustainable Range Program provides world-wide training operations, support, and sustainment for the Joint and Coalition firing and simulated firing training ranges. These operations include ground and aerial ranges as well as specialized ranges for operating in urban terrain.

These range systems consist of the following training platforms:

- Aerial Weapon Scoring System (AWSS)
- Homestation Instrumentation Training System (HITS)
- Integrated Military Operations on Urban Terrain (MOUT) Training System (IMTS) consisting of:
    - Combined Arms Collective Training Facility (CACTF)
    - Shoot House (SH)
    - Location of Miss and Hit (LOMAH)
    - Range Support
    - Mobile Urban Training System (MUTS)
- Digital Range Training System (DRTS) consisting of:
    - Digital Multi-Purpose Range Complex (DMPRC)
    - Digital Multi-Purpose Training Range (DMPTR)
    - Digital Multi-Purpose Battle Area Complex (DMPBAC)
    - Multi-Purpose Training Range (MPTR)
    - Battle Area Complex (BAX)

Using advanced targetry, sound effects, battlefield effects and the smells of war, WFF supports training range systems that represent realistic threat environments. They produce realistic training conditions and environments. WFF supports enhanced training data collection using on-board instrumentation systems, as well as vehicle-mounted, internal and external field audio and video systems. The information collected becomes the basis for the using unit's After Action Review (AAR) and Take-Home Package (THP). Units use them for training self- evaluation and to develop training programs to correct deficiencies. They also use them to develop Tactical Techniques and Procedures (TTPs) to enhance and improve the unit's combat readiness. WFF sustainment efforts include instrumentation hardware maintenance, interaction/training support of unit personnel and instrumented operations and preparation of AARs, and THPs for training units. Under WFF, the SRP can also interoperate within a live-virtual-constructive integrated architecture to support Army and Joint exercises.

Pilots train in the UH-60 Tactical Flight Proficiency Trainer (TFPT) at Fort Bragg

PM Field OPS' operator simulates an MRAP roll-over to train Soldiers who to escape after an IED attack at Camp Buehring, Kuwait

Combined Arms Collective Training Facility (CACTF) at Fort Wainwright, Alaska

Sustainable Range Program (SRP) {Continued}

Cross Utilization

Through SRP, WFF has developed a strategy for providing detailed support to the Soldier. Depending on the training requirement for deploying units and the need for training, WFF affords the capability to surge support across the program. This equates to government cost avoidance and has saved the program valuable dollars. It also provides Soldiers training opportunities to sharpen Ground Combat Crew Gunnery skills, realistic individual and collective training scenarios in an urban environment and challenges, Aviation Crew Gunnery skills improvement, and invaluable target acquisition and engagement skills training in preparation for Full Spectrum Combat Operations.

Flight School XXI (FSXXI)

MISSION

FS XXI provides pilot training and training support services for the Joint services at Fort Rucker, AL.

DESCRIPTION

The FS XXI simulation capability is a long-term, contractor-provided simulation service consisting of Training Helicopter (TH-67) virtual simulators, advanced aircraft virtual simulators (UH-60A/L, UH-60M, AH-64A/D, OH-58D, CH-47D and CH-47F), reconfigurable collective training devices and a training support/management oversight capability. Systems are owned, operated and maintained by the contractor with government oversight and approval. The number, type, functionality, fidelity and availability of the flight simulators 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.

PM ITTS VISION

Be THE leader for Instrumentation, Target and Threat System Enterprise Solutions.

PM ITTS

PROJECT MANAGER INSTRUMENTATION, TARGETS AND THREAT SIMULATORS

ITTS FOR SOLDIERS

Project Manager for Instrumentation, Targets and Threat Simulators (PM ITTS) was established in 1990 at Aberdeen Proving Ground, MD, to provide centralized acquisition of the research, development, production, and fielding of test assets and investments in support of full-spectrum, developmental, and operational testing for the U.S. Army. PM ITTS is the life-cycle manager of major test instrumentation, aerial and ground targets, and threat simulators/systems, as well as manager of the operation and maintenance of targets and threats for developmental and operational test and evaluation (T&E). PM ITTS also executes all Army-led Central Test and Evaluation Investment Programs (CTEIP) resourced by the Office of the Secretary of Defense (OSD) Test Resource Management Center (TRMC).

INSTRUMENTATION MANAGEMENT OFFICE (IMO)

Advanced Distributed Modular Acquisition System Product Improvement Program (ADMAS PIP)

MISSION

To enhance the instrumentation data collection capabilities of the ADMAS Instrumentation Suite to meet emerging test and evaluation needs.

DESCRIPTION

ADMAS PIP, which is comprised of the macro and micro ADMAS, will expand the current ADMAS Instrumentation Suite. The expansion will include updates to the existing hardware and software and the development of two new devices (Magma ADMAS and GiG ADMAS). At the completion of the ADMAS PIP, the suite will be comprised of four ADMAS devices (Macro, Micro, Magma and GiG ADMAS). The ADMAS Instrumentation Suite emphasizes modularity, low recurring costs, small size, weight, power performance, commonality and non-intrusive data collection capability.

Advanced Range Tracking And Imaging System (ARTIS)

MISSION

To provide a capability that replaces the existing Kineto Tracking Mount based optical tracking systems at White Sands Missile Range (WSMR) with modern optical tracking systems.

DESCRIPTION

ARTIS will develop and build two medium and three smaller sized systems. The multiple units will provide a fully developed and integrated system capability that includes time-space-position information solutions, sensor fusion, automated flight regime handoff, and staged and segmented camera triggering. ARTIS will result in greatly reduced operation and maintenance costs, and will provide support for weapon platform test programs and scenarios that are not adequately supported with existing systems. ARTIS will also provide a much improved turnaround time while simultaneously producing superior data products.

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

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 Department of Defense (DoD) test ranges to enable capability development for full-spectrum test and evaluation for Directed Energy (DE) weapon systems and U.S. systems' vulnerability to DE threats.

DESCRIPTION

DET S&T is a multi-year effort sponsored by DoD Test Resource Management Center (TRMC). Since 2005, DET S&T has been providing timely investments to mature technologies that fill both critical current and future test gaps identified by periodic tri-Service studies, Service test and evaluation reliance prioritization processes, and from emerging needs identified by DoD test ranges/facilities. Annually, DET S&T releases a Broad Agency Announcement with updated technical topics to solicit offers or projects that address DE test technology gaps to mature Technology Readiness Levels (TRLs) from a TRL3 up to a goal of TRL6. Upon verification in a DoD test range environment, S&T prototypes are transitioned to DoD test facilities to support upcoming DE tests or future follow-on test infrastructure engineering developments. As of Fiscal Year 2012, the DET S&T team has 12 current projects and has transitioned over 35 past projects ranging from HEL onboard and remote sensors, multi-waveband imagers, and HPM non-intrusive miniaturized sensors and target boards to various modeling and simulation tools – to DoD DE test facilities. With common Instrumentation Management Office (IMO) management and synergy within the DET 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.

Electromagnetic Environmental Effects (E3) Systems Modernization Program

MISSION

To develop and field a new transmitter system for

the WSMR T1 Test facility for Military Standard (MIL-STD) testing electromagnetic radiation and electromagnetic compatibility, electromagnetic interference and electromagnetic discharge, and electromagnetic radiation hazards. This effort will provide a transmitter system operation and control function, and it will ensure the transmitter system is fully compliant with all T1 transmitter interfaces.

DESCRIPTION

The E3 Systems Modernization Program is a major multi-phase upgrade to the Electromagnetic Radiation Effects (EMRE) test complex at WSMR, NM. The program is being managed by an Integrated Product Team comprised of government and contractor personnel. The Instrumentation Management Office has overall project management responsibility. Subject Matter Expert support is being provided by the Systems Engineering Directorate and the Survivability, Vulnerability and Assessment Directorate at WSMR.

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

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 to enable capability development for full-spectrum test and evaluation for electronic warfare (EW) weapon systems and U.S. systems vulnerability to EW threats.

DESCRIPTION

EWT S&T is a multi-year effort sponsored by the Test Resource Management Center (TRMC). EWT S&T began in 2011 to mature technologies that fill both critical current and future test gaps identified by periodic studies, service test and evaluation reliance prioritization processes, and from emerging needs identified by DoD test ranges/facilities. Annually, EWT S&T releases a Broad Agency Announcement with updated technical topics to solicit offers 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. As of Fiscal Year 2012, the EWT S&T team has 18 current projects ranging from stimulators, emulators, and optical systems for use in test systems at Installed Systems Test Facilities (ISTFs), multispectral projectors, and scene generators for sensor/seeker testing to RF electronic attack evaluation technologies to various modeling and simulation tools – each with an intended transition to DoD EW test facilities.

Fiber Optic Network (FON II)

MISSION

To provide instrumented test areas at Aberdeen Test Center (ATC) with high-speed communication links.

ADMAS PIP

E3

Fiber Optic Network II

Fiber Optic Network (FON II) {Continued}

DESCRIPTION

FON II is intended to modernize instrumented test areas at ATC with high-speed communication links by modernization/replacement of microwave, copper cable, and slower Ethernet links. The project provides the ability for added bandwidth, faster routing, user prioritization, and quality of service with the addition of high-speed, complex Internet Protocol Version 6 (IPV6), and multi-media links. Additional security equipment will also improve gateway access, bandwidth, and increase the number of locations with encryption capability. ATC's Versatile Information System Integrated ON-line enterprise is dependent on FON II to move data within the ATC intranet and through gateways to other locations.

Joint Urban Test Capability (JUTC)

MISSION

To develop a set of urban test capabilities to fulfill the Department of Defense's (DoD's) need for a realistic, reconfigurable, instrumented urban test environment to support developmental and operational testing in a multi-dimensional battlefield.

DESCRIPTION

JUTC is a TRMC sponsored Central Test and Evaluation Investment Program (CTEIP) project that uses an evolutionary acquisition approach to deliver test capabilities in increments to the DoD test community. JUTC is a system of systems comprised of: a representative Live Urban Area; Augmented Urban Environment Effects (AUEE); Virtual and Constructive Urban Environment; Data Collection, Reduction and Analysis; Test Planning and Control; Test Architecture and Net-Centric Interoperability; Weapon System Urban Test Capability; Communications Jamming Urban Test Capability; and Infrared Countermeasure System Urban Test Capability. The first incremental capability is a subset of the total requirement and will be located at White Sands Missile Range (WSMR). The first increment will include a portion of the Live Urban Area; the AUEE; Data Collection, Reduction and Analysis; Test Planning and Control; and Test Architecture and Net-Centric Interoperability.

Mobile Multi-Sensor Time-Space-Position Information (TSPI) System (MMTS)

MISSION

To provide an accurate, mobile, multi-sensor TSPI system to support live testing of high-speed, low-altitude guided munitions.

DESCRIPTION

The MMTS is a state-of-the-art tracking system that will enhance the Army's ability to provide accurate live missile and projectile performance data. Currently in the test phase, the MMTS is a mobile system that will track existing and future tactical missiles, rockets, and projectiles in order to provide high-fidelity TSPI data. The system will be able to track high-speed (up to 2000m/s) guided munitions, as well as weapons with low/flat trajectories (as low as two meters) and low radar cross sections. The project will employ both visible and infrared cameras along with a ranging radar, all integrated on a high-performance tracking pedestal. MMTS will capture and produce highly accurate positional information from launch to impact. Data will be further combined within the system post test to produce an accurate time-correlated flight path. The objective accuracy of the system is to resolve the position of the target missile within 1 meter at a range of 10 kilometers.

Multi-Spectral Sea And Land Target Simulator (MSALTS)

MISSION

To provide the Office of the Director, Operational Test and Evaluation (DOT&E) Center for Countermeasures (CCM) and its customers with a portable Infrared/Ultraviolet (IR/UV) open-air missile simulator to support multiple tests of Directed IR Countermeasures (DIRCM) and/or Missile Warning Systems (MWS).

DESCRIPTION

MSALTS is managed by DOTE CCM for the CTEIP Resource Enhancement Program with

support from PM ITTS. The MSALTS project will develop several mobile IR/UV open-air missile simulators to support multiple simultaneous missile engagement tests and evaluation of a DIRCM and/or MWS at a single location, or concurrent single-missile tests at any suitable Government or urban location. Each MSALTS will consist of radiometry and controls on suitable support vehicles to enable both easy portability to DoD range/urban locations and activation of the sources while the support vehicle is in motion.

Objective Helicopter Icing Spray System (OHISS)

MISSION

To improve and replace the current Helicopter Icing Spray System (HISS) equipment with Objective Helicopter Icing Spray System (OHISS). OHISS will generate an artificial cloud with controlled and quantifiable characteristics to test the System Under Test's (SUT) de-icing capabilities. OHISS is a project under the Office of the Secretary of Defense (OSD) Test Resource Management Center Central Test and Evaluation Investment Program that will continue to be a unique national asset supporting multi-Service aviation development and icing certification.

DESCRIPTION

The OHISS project is developing a replacement airborne icing capability that will provide low-speed icing test mission support at low altitudes, produce a large cloud capable of full immersion of a test aircraft, and be able to accurately simulate natural rain and Federal Aviation Administration icing conditions (used as a standard for icing qualification by both Government and industry). OHISS is fielding two capabilities: the UH-60-based Cloud Characterization System, which will replace the current C-12 Airborne Cloud Measurement System; and the Cloud Generation System, which will replace the current 35-year-old U.S. Army HISS. Artificial icing clouds provide a safer, more reliable and controlled flight-test environment for evaluating de-icing technologies. Small-scale rain conditions can be created to provide a safer and better controlled flight-test environment for evaluating rain effects on critical aircraft surfaces, sensors, and engine inlets.

Operational Test Command Analytic Simulation And Instrumentation Suite-Enterprise Integration Systems (OASIS-EIS)

MISSION

To develop common technology tools, processes, procedures, practices and standards required to support U.S. Army Operational Test Command (OTC) test missions. Specifically, OASIS-EIS integrates test technologies and weaves them into the Live Virtual Constructive (LVC) test environment through a family of integrated systems that support operational tests.

DESCRIPTION

OASIS-EIS provides the connecting infrastructure

JUTC

MMTS

MSALTS

Operational Test Command Analytic Simulation And Instrumentation Suite-Enterprise Integration Systems (OASIS-EIS) {Continued}

within the enterprise to create a comprehensive operational testing LVC environment that enables and supports test control, and data collection, reduction and analysis. Capability solutions will have appropriate configuration management, accreditation, certification, and information assurance pedigrees.

To succeed in this new environment, OTC will have to increasingly utilize advanced technologies (simulations, instrumentation, diagnostic systems, modernized ranges, visualization tools, data management methods, etc.), innovative procedures and techniques, partnerships, and other existing products to accomplish the mission. This includes requirements identification and management, analysis of materiel solutions to meet those requirements, and integration planning and coordination leading to implementation in conjunction with OTC's resources and other major user test programs. It is highly desired that solutions acquired by EIS will leverage capabilities from Army Test and Evaluation Command Test Centers and PEO STRI/Team Orlando Project Managers.

Range Radar Replacement Program (RRRP)

MISSION

To replace obsolete tracking radars at Aberdeen Test Center, Redstone Test Center, White Sands Missile Range, and Yuma Proving Ground with modern digital instrumentation radars.

DESCRIPTION

The Army Test and Evaluation Command operates and maintains a fleet of large tracking and surveillance radars. After four decades of service, these radars are experiencing decreased reliability and require a large, highly-skilled workforce to operate and maintain them. To keep pace with test requirements and overcome obsolescence, the ranges used limited funds to make sporadic modifications and upgrades over the years. In spite of these modifications, the technical capability, maintenance, operational costs and failure rates have reached unacceptable levels. The inability of these radars to keep pace with current and emerging test customer requirements has resulted in increased flight safety risk and reduced customer satisfaction.

RRRP will develop and deploy modern radar designs that provide improved radar resolution, sensitivity, accuracy, clutter suppression and reliability. These radars will also require smaller crew sizes and reduce operational costs through remote control operations. Significantly improved radar mobility will also increase the operational tempo of the radar fleet, allowing increased missions. Rapid relocation of radars will optimize radar placement and improve technical performance for the wide variety of test scenarios each test center supports.

Starship Software Tool Suite Product Line

MISSION

To provide end-to-end integration of planning, simulation and stimulation, monitoring, data collection, command, control, communications, surveillance, reconnaissance, and analysis services for the test, training, and operational communities of the Department of Defense (DoD).

DESCRIPTION

The Starship Software Tool Suite consists of an integrated set of products that includes a mission thread or script generator known as StarGen, a command and control function known as Starship, a network analysis tool known as NetSounder, and a total instrumentation studio known as C3 Driver. The tools are packaged as an easy-to-use, single-delivery, DVD media-based, integrated software solution. The tools are user customizable to give the best practicable user experience to any mission or event or customer. The tools are also inherently extensible, tying to the U.S. Army Test and Evaluation Command Electronic Proving Ground's Remotely Reconfigurable Intelligent Instrumentation to Control, Collect, Stimulate and Simulate, which provides data collection, stimulation, data reduction and analysis; role player work station, which allows for role-playing capability; and variable message format/United States message text format test tools, which serve as the Army-approved message validation tools.

Similarly, the tools are packaged into other networked architectures, such as OSD TRMC Joint Mission Environment Test Capability, Interoperability Test and Evaluation Capability,

Battle Command Network Integration and Simulation, and the Operational Test Command Advanced Simulation and Instrumentation Suite, enabling interoperability with other test and instrumentation capabilities. The suite has earned acclaim for enabling more rapid startup of missions and for its design flexibility as a government off-the-shelf product, allowing the government user to tailor the tool for each specific use. The tool is also recognized as the key system employed in Army Interoperability Certification testing at the Central Technical Support Facility to verify the interoperability of networked assets.

System Test And Integration Laboratory (STIL)

MISSION

To develop a set of laboratories for the testing and evaluation of systems and electronic components installed on aircraft prior to flight test. This capability will enhance the Army's ability to rapidly, accurately, and efficiently perform developmental testing on new and modernized aircraft and their integrated systems.

DESCRIPTION

The STIL project includes two major test capabilities composed of test suites and test control center infrastructure, each with its own specific operational requirements:

- The Aviation STIL includes a reconfigurable cockpit and will be used for aviation systems platform testing at the Redstone Test Center Aircraft Flight Test Directorate in Huntsville, AL. The Aviation STIL focuses on test capabilities for navigation, sensors, aircraft survivability equipment, electrical power, communications and weapons systems. It will have a Crew Station Interface and a Test Control Center (TCC). The Aviation STIL will be transportable and rapidly re-configurable to enable testing of different aircraft and associated aircraft systems while minimizing costs for instrumentation and modification.
- A smaller Weapons STIL is used for aviation weapons/aircraft testing at Yuma Proving Ground. The Weapons STIL consists of test laboratories, a TCC, weapons station interface and test infrastructure. The test suites provide the capabilities to test navigation, sensors, weapons and armaments. The weapons station interface consists of a series of workstations utilizing commercial software to be used for mission rehearsal and crew-member, mission-specific preparation. The Weapons STIL reached full operating capability in Fiscal Year 2010.

Test Resource Management Center (TRMC) Test And Evaluation, Science And Technology (T&E/S&T) Consolidated Contracting Activity (CCA)

MISSION

To improve overall Office of the Secretary of Defense (OSD) TRMC T&E/S&T program execution by providing responsive, single-source streamlined acquisition and life cycle contract

OHISS

Starship

ATFS

Test Resource Management Center (TRMC) Test And Evaluation, Science And Technology (T&E/S&T) Consolidated Contracting Activity (CCA) {Continued}

management services for eight Test Technology Areas (TTAs) across the country.

DESCRIPTION

The TRMC S&T CCA is a multi-year, acquisition customer support effort for all the military Services. The Instrumentation Management Office (IMO) releases annual updated technical topics in Broad Agency Announcements (BAAs) where offerors compete for available S&T funding. The IMO awards and executes contracts for projects upon completion of the annual BAA source selection efforts. The TTA teams manage their S&T projects with a goal to make timely investments to mature technologies that fill both critical current and future test gaps identified by periodic studies, Service test and evaluation reliance prioritization processes, and from emerging needs identified by DoD test ranges/facilities. The annual BAAs with updated technical topics solicit offerors or projects that address their respective test technology gaps to mature Technology Readiness Levels (TRLs) from a TRL3 up to a goal of TRL6. S&T prototypes are transitioned to DoD test facilities to support upcoming tests or future follow-on test infrastructure engineering developments. The Office of the Secretary of Defense TRMC T&E/S&T Program Management Office funds the eight separate and specific TTAs in support of future full-spectrum DoD weapons and military systems' vulnerability testing.

TARGETS MANAGEMENT OFFICE (TMO)

Aerial Targets

MISSION

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

DESCRIPTION

The aerial targets mission is accomplished by two major target categories: High and Medium Speed Aerial Targets (HSAT and MSAT). The current HSAT targets are the MQM-107 and the BQM-34. Both of these targets are launched from zero length launchers using Rocket Assisted Take Off (RATO) rocket motors that fall away after boosting the aircraft to flight speed. Both aircraft are controlled through the Target Tracking Control System and are capable of high subsonic flight speeds at altitudes up to 40,000 feet. The current MSAT targets are the MQM-175A (DT-35) and the MQM-175B (DT-45) target aircraft. These targets are less powerful/capable than the HSAT, but also less expensive to procure and operate. These targets are launched from a hybrid hydraulic/pneumatic launcher that accelerates the aircraft up a short ramp, have a stand-alone control system and are capable of flying at several hundred miles per hour at altitudes up to 20,000 feet. Both the HSAT and MSAT systems are transportable, and TMO supports test missions at locations around the world. TMO is examining alternative systems to replace or supplement the HSAT and MSAT fleets in an effort to continue to provide affordable aerial target performance in the future.

Aerial Target 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

The Aerial Target Flight Services (ATFS) program provides a 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 MSAT) are flown at various speeds, altitudes, and profiles to support tracking missions and live-fire engagements for live training and testing environments. Full-scale, rotary-wing target aircraft (QUH-1) and Ballistic Aerial Targets (BATS) are also used to meet DoD training and testing needs.

Unique augmentation devices are used to meet specific weapons system requirements, including scoring devices for missile miss-distance and bullet counting, cruise missile profile replication, radar cross section enhancement devices, flare and electronic countermeasure pods, and various towed targets to offset drone kill costs. Single or multiple target drones can be launched and flown either in formation or simultaneously with other target systems.

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. The fifth system is stationed in Grafenwoehr, Germany, and supports training both in Germany and in other European countries. The sixth system is stationed in Korea and supports Pacific theater training events. A seventh tailored system is in Camp Buehring, Kuwait. 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.

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. The program includes the MQM-170 Remotely Piloted Vehicle Target (Outlaw), MTR-15 Ballistic Aerial Target System (BATS), and Air Defense Scoring system and services. These systems are available for use on DoD test or training ranges within CONUS and overseas, as well as in support of Foreign Military Sales clients.

DESCRIPTION

Crew-gunnery and live-fire training are conducted using various unmanned aerial targets. The targets are threat representative of cruise missiles, unmanned aircraft systems, and tactical fixed-wing aircraft 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 abilities of our Soldiers to employ their weapon systems in a field environment. The ADA Targets program is composed of three primary components: the MQM-170 Remotely Piloted Vehicle Target

MGT

Rotary Wing

CMMT Towed Target

Air Defense Artillery (ADA) Targets {Continued}

(Outlaw), the MTR-15 BATS, and the Scoring Miss Distance Indicator (MDI) systems. The MQM-170 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 for operation on their ranges.

Army Ground Aerial Target Control System (AGATCS)

MISSION

To provide cost-effective, reusable and reconfigurable control subsystems for live sub-scale aerial targets, live full-scale rotary-wing targets, and live unmanned mobile ground targets used in test and evaluation events and training exercises.

DESCRIPTION

The Army Ground Aerial Target Control System (AGATCS) program is a system of systems designed to provide a reliable and robust capability for the remote control of aerial and ground unmanned target vehicles that meet continually evolving needs of the Army. AGATCS is the latest in a continuation of evolutionary target control systems. New developments will include new hardware, software, and added capabilities for the avionics packages, test sets, and control system. AGATCS incorporates all Targets Management Office (TMO) targets, including ground targets, into a single control system making it the primary rotary-wing, ground target, and subscale aerial target control system for the Army.

Deployable Range Package (DRP)

MISSION

To provide a live fire training range in the operational theater for deployed units.

DESCRIPTION

Deployable Range Packages (DRPs) include all of the equipment, tools and instructions to establish and operate a training range in support of various combat units and their individual and crew-served weapons. Lifters for infantry and armor targets (both moving and stationary), along with generators, batteries, hammers, nails, tape and other small items needed to set up a training facility, are included in the containers shipped to the units. Target lifters are operated using hand-held controllers that communicate via radio frequency signals. The hand-held controllers allow training scenarios to be designed and run by range operators according to special unit needs. Master gunners responsible for conducting unit live-fire training are able to devise scenarios that use the available range space to its best advantage. If appropriate, the targetry can be divided among up to three separate ranges, allowing individual units to conduct their own mission-focused training.

Mobile Ground Targets (MGT)

MISSION

To provide the test and evaluation community with mobile ground 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 threat. The MGT program is responsible for managing the acquisition and certification of actual threats, as well as the development, prototype fabrication and validation of ground target surrogates to meet these requirements. TMO provides centralized management, sustainment and control of three components:

Mobile Ground Target Hardware (MGTH), Mobile Ground Target Operations (MGTO) and the Operational Threat Vehicle Company (OTVC).

MGTH provides actual and surrogate targets for specific test scenarios. These targets are the highest priority based upon the U.S. Army Test and Evaluation Command's (ATEC) test-specific requirements.

MGTO provides the methods and procedures for

the management, utilization, operation, control and support of foreign mobile ground targets, surrogate assets and equipment. MGTO consists of a fleet of operational foreign vehicles and equipment used as 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. The objective of MGTO 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 350 assets available for testing or training events.

OTVC acquires and fields fully mission-capable targets (such as T-72 Main Battle Tanks, BMP-2 Infantry Fighting Vehicles and BTR-80 Armored Personnel Carriers) to meet emerging requirements for threat representative missions. This program provides realistic threat-capable targets for use in force-on-force exercises allowing blue forces to think and adapt to unfolding, changing battle dynamics.

Precision Target Signatures (PTS)

MISSION

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

DESCRIPTION

The PTS project implements state-of-the-art Visual and 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 the 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 Kit
- Validated
- Threat Representative
- Recyclable

Rotary Wing

MISSION

To provide Rotary Wing aerial targets for all Services of the U.S. military and allied foreign countries to support air defense weapon systems development and operational testing.

DESCRIPTION

The QUH-1 Rotary Wing Target provides a low-

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Virtual Targets

Rotary Wing {Continued}

cost, realistic helicopter target system to be used in live-fire tracking and engagement testing by air defense missile systems and is approved for use on DoD test and training ranges. The QUH-1 is controlled by the Army's Target Control System. This target can be modified with infrared (IR) and Radio Frequency (RF) signature augmentation to provide a more realistic threat representation to meet customer needs. An effort to identify and acquire a low-cost replacement to the existing rotary wing target is underway.

Target Control System (TCS)

MISSION

To provide cost-effective, reusable and reconfigurable control subsystems for live sub-scale aerial targets, live full-scale rotary-wing targets, and live unmanned mobile ground targets used in test and evaluation events and training exercises.

DESCRIPTION

The TCS is a mobile control system that provides on-site control of a large variety of targets. Through its ultra high-frequency data link (380-400MHz band), the system is capable of controlling up to four targets out to distances of 200 miles from the control console with a single data link unit. The system can control targets out to 400 miles with a remote relay. Additional radio frequency units can be added to the control system network for additional target control. The TCS comes in two configurations. The first is installed in a climate-controlled S280 transportable shelter and the second is a fixed site system located on McGregor Range, Fort Bliss, TX. With the addition of extra control consoles, both systems can be expanded to control as many targets as needed.

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 for 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 of all towed targets can be provided to customers. Customer-specified signature towed targets can be designed and built, if specific signature requirements cannot be met with in-stock inventory tow targets.

Unmanned Aircraft System – Target (UAS -T)

MISSION

To provide a target system that offers a generic representation of the 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 UAS-T, designated MQM-171, provides realistic representation of the class 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 profiles to represent UAS operations in a variety of mission profiles. 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.

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 for specific customer funded requirements; 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 modeling and simulation community for test and evaluation and for training. The Virtual Targets project provides four supporting modeling and simulation components:

1. The 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. The 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 the model is properly constructed in accordance with (IAW) AR 5-11 and properly validated as threat representative IAW AR 73-1.
3. The Virtual Targets project develops high-fidelity CAD models of field equipment for use throughout the Army and Department of Defense.
4. The Army Model Exchange provides a distribution point for simulation target models and Synthetic Environment (SE) Core Common Moving Models to support T&E and training, modeling and simulation requirements. It is located at https://modelexchange.army.mil/.

THREAT SYSTEMS MANAGEMENT OFFICE (TSMO)

Camouflage, Concealment, Deception, and Obscurants (CCD&O)

MISSION

To provide threat representative obscurants and camouflage systems that replicate advanced threat camouflage capabilities expected to be encountered in an operational environment.

DESCRIPTION

The CCD&O program includes high-fidelity decoys, low observable materials, and advanced camouflage for utilization on, and in conjunction with, various weapon systems or high-value targets expected to be encountered in a real-world environment.

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

The ITF is being developed using mission control, visualization and collaboration tools to provide a scalable and reconfigurable representation of opposing force structure and capabilities. The ITF, currently established as an Initial Operational

NESTS

NETT

TIEW ENV OV-1

Integrated Threat Force (ITF) {Continued}

Capability (IOC), accomplishes this through the integration of multiple threat representative Information Operations (IO) assets across all functional areas that are interoperable via a robust mission control backbone. Coupled with scalable visualization and collaboration tools, the ITF enables reconfigurable data fusion functionality for the purpose of managing threat fidelity and establishing complete control of live, virtual and constructive threat assets.

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 cellular infrastructure. MCNITR provides a commercially available, wireless telecommunications network implementing Second through Third Generation via Global System for Mobile communications and Universal Mobile Telecommunications Standard/ Wideband-Code Division Multiple Access and Wi-Fi network utilizing IEEE 802.11a/b/g/n standards.

Networked Electronic Support Threat Sensors (NESTS)

MISSION

To provide advanced threat representative Signal Intelligence and Direction Finding (SIGINT/ DF) capabilities for the collection and reporting of DF lines-of-bearing, emitter geo-location, net construction, and signal analysis information to support threat command decisions, and optimize the use of threat force assets.

DESCRIPTION

The NESTS program consists of a multilevel sophisticated suite of SIGINT/DF capabilities utilized to monitor radio frequency emissions for the purposes of determining direction and geolocation of signals/emitters of interest. The NESTS provides threat representative Electronic Support (ES) capabilities to the Integrated Threat Force (ITF) to assist in Red Commander decisions.

Network Exploitation Test Tool (NETT)

MISSION

To provide a Computer Network Operations (CNO) threat platform that provides Command and Control (C2) of CNO exploits and tools.

DESCRIPTION

NETT is a comprehensive CNO threat platform for delivering an integrated suite of open-source exploitation tools in support of CNO missions. NETT is designed to be used by information/cyber warfare professionals to conduct full-spectrum, live, distributed cyber operations for threat and vulnerability analysis and system evaluation.

Threat Computer Network Operations (CNO) Team

MISSION

To conduct live Threat Computer Network Operations missions involving the use of full-spectrum information/cyber operations.

DESCRIPTION

Threat CNO teams consist of highly-qualified Government and contractor personnel possessing highly-specialized authority, certifications and training necessary to conduct live, full-spectrum cyber operations in support of vulnerability analysis and system evaluation.

Threat Intelligence Electronic Warfare Environment (TIEW ENV)

MISSION

To provide a near real-time, simulated, wrap-around, threat-representative constructive Information Operations (IO) environment.

DESCRIPTION

To create this constructive EW environment, the

TIEW ENV develops and integrates EW (Electronic Attack, Support and Protect) and Computer Network Operations (CNO) models into the One Semi-Automated Forces (OneSAF) baseline. The TIEW ENV has the ability to interact with the live and virtual environments via the Integrated Threat Force (ITF). This program provides high-fidelity model representation of radio-frequency propagation and entity interaction and is intended to be integrated with existing mission command and electronic warfare assets for varying degrees of force-level portrayal. The ability to support such events with a Live, Virtual and Constructive (LVC) environment will allow for a greater diversity of assets as well as anticipated cost savings.

Threat Signal Injection Jammer (TSIJ)

MISSION

To provide injected and open air threat representative communications and Global Positioning System (GPS) Electronic Attack (EA) that creates the effects of threat jamming and spoofing 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 30-3000 MHz band, are intended to replicate the effects of real-world jamming environments through the use of injection and low power open air techniques. Signal injection technology utilizes a remote "control tone" to stimulate an on-board (victim) jamming device. This jamming device is coupled between the antenna and radio receiver for the purpose of injecting jamming waveforms. The current program consists of signal injection devices capable of simultaneously replicating the effects of communications and GPS jamming, as well as tailored open air jamming capabilities. TSIJ is utilized by the Integrated Threat Force (ITF) to implement an Electronic Attack (EA) as a result of Red Commander decisions determined from information delivered by Electronic Support (ES) assets.

Wideband Configurable Controlled Jammer System (WCCJ)

MISSION

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

DESCRIPTION

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

TSIJ

WCJJ

Cicada

Cicada

MISSION

To provide a mobile state-of-the-art actual communications Electronic Attack (EA) system for use against tactical communications links.

DESCRIPTION

Cicada is a mobile state-of-the-art communications jamming system used to jam communications links in the frequency range of 20 MHz – 3 GHz. It utilizes several jamming modes that can be used against frequency hoppers, cell phones, and satellite navigation. The jammers may be controlled either by the operator or remotely. The system is designed to respond to its environment utilizing responsive jamming that can be programmed to jam only certain signals, or the operator can scan the environment and jam only when those signals are present.

Threat Unmanned Devices (TUD)

MISSION

To provide a threat representative Intelligence, Surveillance, and Reconnaissance (ISR) and Electronic Warfare (EW) surrogate Unmanned Aerial System (UAS).

DESCRIPTION

TUD provides realistic threat representations for the purpose of locating, identifying, and targeting Blue Systems through the utilization of sensors and surrogate jamming capabilities integrated on a DA-40 aerial platform to represent actual UAV capabilities in potentially restricted environments. Threat electro-optical/infrared (EO/IR) and Control Signal Transmitter payloads will effectively represent the capabilities utilized in unmanned aerial platforms. Unmanned seismic and acoustic ground sensors will be integrated through a Ground Control Station, effectively allowing for the continued command and control by the Red Commander.

PM TRADE VISION

Providing our Soldiers realistic training environments and equipment to ensure they are the best trained force in the world.

PM TRADE

PROJECT MANAGER TRAINING DEVICES

LIVE TRAINING. IT'S NO GAME

REAL SOLDIERS, REAL ACTION, REAL SWEAT

Project Manager for Training Devices (PM TRADE) is the Army's solution provider for collective instrumented live training systems. PM TRADE's mission is to improve Soldier readiness, in peace and war, by leading the life-cycle management of collective live training capabilities that enhance the Integrated Training Environment at homestations, Combat Training Centers and deployed locations.

APM TRAINING DEVICES

Live Training Transformation (LT2) Product Line

MISSION

To provide the Project Manager for Training Devices (PM TRADE) a product line strategy to efficiently and effectively address future live collective training systems acquisitions by focusing on the shared requirements of all live domain training systems with the strategic objectives to maximize commonality and systematic component reuse and to ensure interoperability across the live, virtual and constructive domains. The LT2 product line reduces fielding time, minimizes acquisition costs, enables total ownership cost reductions across the live training domain, the Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE), the live domain and enhances training benefits afforded to the Soldier through software and component reuse.

DESCRIPTION

The LT2 Product Line focuses on live-training domain requirements, 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 homestation training, deployed training, Military Operations on Urban Terrain (MOUT) training, Maneuver Combat Training Center (MCTC) training and instrumented live-fire range training. The LT2 product line is comprised of programs that use the Common Training Instrumentation Architecture (CTIA), the Future Army System of Integrated Targets (FASIT) architecture and the LT2 CTIA components to implement the various product instantiations, such as the Objective Instrumentation Systems (OISs) for the MCTCs, Homestation Instrumented Training System (HITS), Army live-fire Digital Range Training Systems (DRTS), Integrated-Military Operations on Urban Terrain Training System (I-MTS), Exportable Training Capability-Instrumentation System (ETC-IS), One Tactical Engagement Simulation System (OneTESS), the Targetry Range Automated Control and Recording (TRACR) program and the New Generation Army Target Systems (NGATS) ground target programs.

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 homestation, MCTC and deployed and joint training domains. The LT2 product line vision is captured in the figure at the right and in the following program objectives:

- Produce a product line architecture that completely supports live instrumentation, Tactical Engagement Simulation System (TESS), 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 Test and Training Enabling Architecture (TENA) and the Live, Virtual, Constructive Integrating Architecture (LVC-IA)

PM TRADE awarded the Consolidated Product Line Management (CPM) indefinite delivery/indefinite quantity contract in fiscal year 2010. The CPM contract provides the management, maintenance and evolution for the LT2 product line core assets and provides total life-cycle support to product managers within the LT2 product line. The CPM contract will meet the requirement for a consolidated streamlined approach that provides the project managers and product managers an efficient, effective and agile

method to accomplish the following:

- Management, maintenance and evolution of the LT2 product line core assets
- Total life-cycle system management product line support of systems/products within the LT2 product line family of training systems
- Product line support of systems/products that leverage LT2 product line assets
- Support of external interoperability initiatives such as LVC-IA, joint and Foreign Military Sales
- Synchronization with the Warfighter FOCUS (WFF) contract

Common Training Instrumentation Architecture (CTIA)

MISSION

To provide a flexible product line architecture environment that will support the development and evolution of a common architecture to support Army live training instrumentation systems. The product line provides integration and interoperability with legacy and emerging Army and joint architectures such as the Live, Virtual and Constructive Integrating Architecture (LVC-IA) and the Test and Training Enabling Architecture (TENA). The CTIA provides cost reduction across the total life-cycle of Army live training instrumentation systems.

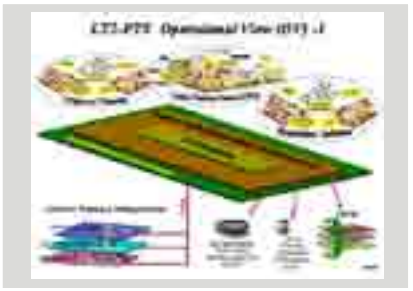
DESCRIPTION

The CTIA is the foundation architecture of the Live Training Transformation Family of Training Systems (LT2-FTS) strategy. The CTIA is the product line architecture that provides commonality across training instrumentation systems and interoperability across LVC and joint training systems. It consists of the architecture services, software components, standards and protocols to be used by systems developers and is the core software component of the Army live training instrumentation systems. The CTIA is a component-based, domain-specific, product line architecture that enables the U.S. Army's LT2 the ability to leverage the high degree of commonality of requirements among the U.S. Army's instrumented ranges and homestations. With significant emphasis on commonality, the CTIA improves the quality of training, while significantly reducing development, training, logistics and sustainment costs. The CTIA and its family of product line components are Army-owned and are managed by the PM TRADE Assistant Project Manager. The CTIA-based systems are fielded and fully operational at the Army's Combat Training Centers (CTCs) and at numerous homestation training ranges. Additionally, CTIA systems are being fielded by the Marine Corps and Air Force. The CTIA systems are Information Assurance certified to operate at the secret classification level.

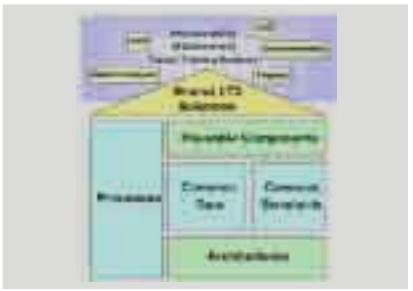
Live Training Transformation (LT2) Video Service Oriented Architecture (SOA)

MISSION

To provide the SOA framework and contract specification to create a non-proprietary, interoperable standard to allow various service consumers (TOC2, TAFF workstations, etc.) to communicate with any video control system regardless of the vendor.



CTIA



LT2

TRACR at Ft. Eustis

Live Training Transformation (LT2) Video Service Oriented Architecture (SOA) {Continued}

DESCRIPTION

The goal of the Video SOA is to create a framework to organize and utilize the distributed video capabilities located on a live training range and provide compatibility with various consumers on the training data network. The SOA allows for a vendor-neutral approach to linking video sources and controls with any range operations software system. The SOA approach is the ideal solution for addressing the Live Training Transformation Family of Training Systems (LT2-FTS) need for agnostic video services. Because there are many different ranges and training sites around the world, it is necessary to "plug-in" the various LT2 products into any range and have interoperability with the local video services infrastructure. The Video SOA will prevent the creation of additional stovepipe systems, where the consumers of video control services interface to a vendor-specific video system. Such a stovepipe would require costly rework if the video system were to change. It also requires a vendor-specific consumer implementation at each site where the video system is different. The video SOA will provide industry a clear standard for interfacing their video technology with LT2-based systems, while providing the government improved means to provide tech insertion, address obsolescence and reduce life-cycle costs across ranges.

Future Army System Of Integrated Targets (FASIT)

MISSION

To provide and maintain a set of common standards, specifications and interface protocols for the Army associated with live fire range target systems, devices and interoperabilities.

DESCRIPTION

The FASIT effort provides a single target system architecture and standard solution set (specifications and interface standards) for live fire training range devices. The FASIT standards allow for the replacement of the aging family of range devices first fielded in the late 1970s/early 1980s, while allowing for standardization and future technology insertion. Its capabilities include reduced life-cycle costs, improved threat representations, a reduction in components' size, weight and power requirements, and a data interface port for instrumentation capabilities. FASIT is part of the overarching LT2 product line initiative within PM TRADE that is driving the live training standardization strategy.

Target Modernization

MISSION

To provide and maintain a set of standard requirements and capabilities for range device capabilities and communication protocols that is synchronized with LT2, allows "plug and play" for differing hardware solutions across live training ranges, and to provide a mechanism for developing and implementing capabilities.

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 controls legacy targets (RETS/ERETS) and FASIT targets and allows for commercial-off-the-shelf 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 technology 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 (ROC-V) and Combat Identification (CID), and developing and integrating solutions to modernize existing legacy ranges via new technology to align to the FASIT and Corps of Engineering requirements.

Targetry Range Automated Control And Recording (TRACR)

MISSION

To provide a single common target controller for all Army targets and ranges 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 controls legacy targets (RETS/ERETS) and FASIT targets and allows for commercial-off-the-shelf system integration (via standard interface documentation to allow industry to create their own interfaces and/or adapters).

DESCRIPTION

The TRACR system is a software application that supports the planning, execution and review of scenario-based training at non-instrumented Army training ranges. TRACR allows users to develop and prepare automated target control scenarios that support time and event-based target control, as well as triggering via manual control. TRACR permits the user to control training scenarios via scenario or manual overrides and control. TRACR also collects target engagement statistics and assists the user with the generation and presentation of After Action Review (AAR) material. Currently, the TRACR system can be utilized on all live fire training ranges, from small arms, lane-based versions, up to large maneuver ranges such as Multipurpose Range Complex (MPRC). TRACR is a proven replacement for the existing Enhanced Remote Equipment Target System (ERETS) control system and is also compatible with FASIT-compliant targets. The TRACR suite provides modular software components to extend capabilities, to include score sheets and AAR functions (HTML and PowerPoint-based), Common Player Unit Gateway support, Situational Awareness and embedded functions to support the LT2 Video SOA. The TRACR suite has been updated to provide legacy COTS target integration and support for both Meggitt and Saab-based range systems.

TRACR Maneuver Base

PRODUCT MANAGER LIVE TRAINING SYSTEM (PM 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 and rocket engagements 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

THOR

PM LTS

Aerial Weapons Scoring System Integration With Longbow Apache Tactical Engagement Simulation System (AWSS-LBA TESS) {Continued}

performance and provide constructive AAR feedback.

THOR-III-T

MISSION

To provide the Soldier a training simulator that looks, feels and operates like the equipment fielded to operational units. To train users to employ current Electronic Countermeasure (ECM) equipment in response to an adaptive threat and to understand the potential impacts of using radio frequency emitters on enemy and friendly-force equipment located in the same battle space. THOR-III-T will be fielded at homestations and maneuver Combat Training Centers according to the Army-wide distribution plan.

DESCRIPTION

The THOR III-T is a dismounted three-backpack system that replicates the operational system by providing full functionality of all trainer switches, indicators, and procedures and provides a training simulator that looks, feels and operates like the equipment fielded to operational units. When operated correctly, the trainer interrupts radio-frequency bands that can be used by other trainer Radio Frequency - Improvised Explosive Device (RF-IED) simulators. The trainer provides appropriate devices to train users to employ CREW 3.1 ECM equipment in response to a simulated adaptive threat. The THOR-III-T is configured in a three-backpack system to replicate the low, mid, and high-band units. The THOR-III-T consists of a Receiver Transmitter Assembly, Radio Control Unit Assembly (RCU Assembly), Rx/Tx Antenna Assemblies, GPS Antenna Assemblies, and Rechargeable Battery Assemblies.

Improved Target Acquisition System-Tactical Engagement Simulation System Field Training System (ITAS-TESS)

MISSION

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

DESCRIPTION

The ITAS-TESS is an operationally transparent integrated training system that provides crew and combined arms training as either a stand-alone system or as an integrated component at U.S. Army Combat Training Centers (CTC) and homestations. The ITAS-TESS is a fully-deployable mobile 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 the equipment to support homestation training exercises, remote relays to bridge long distances between the ITAS-TESS in an exercise box, and the Mobile Command and Control (C2) at homestations.

Improvised Explosive Device Effects Simulator (IEDES)

MISSION

To provide better training fidelity by including more realistic training capabilities, reduced life-cycle costs and more realistic simulation for the current improvised explosive device threats in a live training environment. IEDES will assist the Army in training the joint and individual services on the key tasks of explosive hazards defeat required to support DoD IED defeat objectives. IEDES is fielded according to the Army-wide distribution plan.

DESCRIPTION

Under current force structure, IEDES is programmed to be fielded and employed in a full spectrum of operations and conflicts by offering realistic detection and reaction training against IED threats. IEDES consists of wireless and manual tripwires and control devices to simulate the IED threat. IEDES includes a Module Control Unit, an Electronic Common Interface Device, a trip wire IED, booby traps and a suicide bomber's vest. The

IED Effects Simulator (IEDES) kit is a TADSS that will assist the Army in training the joint and individual service on operational support tasks, conditions and standards needed to achieve U.S. Military IED objectives. The IEDES is configured to simulate a small, medium, large, and extra large explosive signature. The IEDES is designed to train key tasks of Explosive Hazards (EHs) defeat, to predict, prevent, detect, classify, neutralize, mark, report and record EH; and to protect personnel, equipment and facilities from EH effects. The Counter Radio Electronic Warfare 2 (CREW2) is compatible with IEDES to counter the threat of simulated IEDs. NOTE: The CREW 2 Training System is not included in the IEDES kit.

Instrumentable Multiple Integrated Laser Engagement System Combat Vehicle Tactical Engagement Simulation System (IMILES 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 homestation local training area and instrumented training areas. To replace Basic MILES, M2000 and MXXI target systems and field in accordance with the Army-wide distribution plan.

DESCRIPTION

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 I-MILES CVTESS 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 homestation training area through instrumented training. The system interfaces with instrumentation systems at Maneuver Combat Training Centers (MCTC). 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.

Instrumentable Multiple Integrated Laser Engagement System Independent Target System/Wireless Independent Target System (IMILES ITS/WITS)

MISSION

To replace Basic MILES target systems at homestations and maneuver Combat Training Centers (CTC) according to the Army-wide distribution plan.

DESCRIPTION

IMILES ITS/WITS provides real-time casualty effects necessary for tactical engagement training

IWS

SLM (BDM)

TVS

Instrumentable Multiple Integrated Laser Engagement System Independent Target System/Wireless Independent Target System (IMILES ITS/WITS) {Continued}

in direct-fire, force-on-force training scenarios and instrumented training scenarios. It replaces the previously fielded Mobile Independent Target System (MITS) and Independent Target System (ITS) used on non-turret military vehicles (e.g. tactical wheeled vehicles, M113s, MRAPs, etc.). It can also be used independently on fixed structures, i.e. bridges. Instrumentation interface is provided for CTC use and includes GPS and battery eliminator functionality. IMILES ITS/WITS is fielded Army-wide in accordance with the MILES Basis of Issue Plan (BOIP).

Instrumentable Multiple Integrated Laser Engagement System Individual Weapon System 2 (IMILES IWS 2)

MISSION

To replace Basic MILES IWS at homestations and maneuver Combat Training Centers according to the Army-wide distribution plan.

DESCRIPTION

The IMILES Individual Weapons System 2 (IWS 2) is a man-worn, dismounted system, providing real-time casualty effects necessary for tactical engagement training in direct fire force-on-force and instrumented training scenarios (Homestation Instrumentation Training System – (HITS) and Maneuver Combat Training Centers – (MCTCs)). Event data can be downloaded for use in an After Action Review and training assessment. The IWS 2 replaces Basic MILES man-worn systems at homestations and Maneuver Combat Training Centers (MCTCs) Army-wide in accordance with the I-MILES Basis of Issue (BOI).

Instrumentable Multiple Integrated Laser Engagement System Shoulder Launched Munitions (IMILES SLM)

MISSION

To replace basic MILES simulators for the AT4 anti-tank weapon and RPG-7 opposing forces equivalent systems at homestations and maneuver Combat Training Centers according to the Army-wide distribution plan.

DESCRIPTION

The IMILES SLM provides real-time casualty effects necessary for tactical engagement training in direct-fire, force-on-force training scenarios and instrumented training scenarios. IMILES SLM replaces basic MILES currently fielded, improves simulation of opposing forces and links to MILES 2000 and MILES Individual Weapon System (IWS) torsos. It provides better training fidelity for blue forces weapons and a more realistic simulation of threat weapons using opposing forces visual modifications vehicles (VISMOD). The SLM replaces older systems at homestations and Maneuver Combat Training Centers (MCTCs) Army-wide in accordance with the MILES Basis of Issue Plan (BOIP).

Instrumentable Multiple Integrated Laser Engagement System Tactical Vehicle System (IMILES TVS)

MISSION

To replace basic MILES target systems at homestations and maneuver Combat Training Centers Army wide in accordance with the distribution plan as next generation to WITS.

DESCRIPTION

IMILES 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 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 WITS, permitting a "weapons link" between the system's target detectors and the Small Arms Transmitter (SAT) used by personnel on board the tactical vehicle; adding the capability of killing both the vehicle and the on-board small arms weapon system. Instrumentation interface is provided for CTC use and includes GPS, crew-served weapons interface and battery eliminator functionality.

IMILES TVS is fielded Army-wide in accordance with the MILES Basis of Issue Plan (BOIP).

Instrumentable Multiple Integrated Laser Engagement System Universal Control Device/Micro-Controller Devices (IMILES UCD/MCD)

MISSION

To replace legacy MILES controller devices at homestations and maneuver Combat Training Centers according to the Army-wide distribution plan.

DESCRIPTION

The IMILES controller devices are low-cost, lightweight devices used by observer controllers and maintenance personnel to initialize, set up, troubleshoot, reload, reset and manage participants during live force-on-force training exercises. These self-contained devices interact and provide administrative control of all other MILES devices.

Kiowa Warrior Cockpit And Sensor Upgrade Program Tactical Engagement Simulation System (KW CASUP TESS)

MISSION

To provide a live training system to support KW CASUP Limited User Testing (LUT) planned for FY 13 and Operational Testing (OT) planned for FY 15.

DESCRIPTION

KW CASUP TESS is planned to be used as a data collection tool to support KW CASUP LUT evaluation in FY 13 and OT evaluation in FY 15. The system will provide aircraft location, heading, status (alive or killed), lethality (weapons engagements) and vulnerability information in near real-time. The system will leverage and be interoperable with the existing Apache Tactical Engagement Simulation System (TESS) homestation system infrastructure. KW CASUP TESS will simulate missile, gun and rocket engagements and provide for an After Action Review capability.

One Tactical Engagement Simulation System (OneTESS)

MISSION

To provide the indirect fire capability and fill the weapon systems training gap in live Fire force-on-force training across the Army to include the development of the initial architecture and standards for indirect fire to ensure commonality and interoperability between components.

DESCRIPTION

The OneTESS system will provide a live, precision, combined arms Indirect Fire (IDF) Force-on-Force (FoF) training capability for brigade and below exercises, at homestation, Combat Maneuver Training Centers and deployed sites, and will be interoperable with Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) laser-based systems for the Direct Fire (DF) capability. It will provide realistic, real-time casualty effects for tactical engagement training

OneTESS

MXXI Abrams

MXXI Bradley

One Tactical Engagement Simulation System (OneTESS) {Continued}

scenarios and have the ability to integrate with training instrumentation systems such as the Homestation Instrumentation Training System (HITS) and the Combat Training Center-Instrumentation System (CTC-IS) for data collection to be included in After Action Reviews (AARs). The OneTESS requirements have been de-scoped and will focus on three increments:

a. Simulation of an Infantry Brigade Combat Team (IBCT) mortar capability for a 60mm, 81mm, 120mm mortars and forward observer visualization
b. Simulation of artillery capability and continued development of Heavy Brigade Combat Team (HBCT)/Stryker Brigade Combat Team (SBCT) mortar capability.
c. Automated casualty assessment card and automated maintenance assessment.

Longbow Apache Tactical Engagement Simulation System (LBA TESS)

MISSION

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

DESCRIPTION

The 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 homestations and ranges. The system is comprised of aircraft and target hardware, a telemetry network, repeaters and ground station. LBA TESS displays live training events in real-time and enables trainers to control live training exercises. LBA TESS simulates Apache weapons engagements to include SAL and RF Hellfire, rocket, and gun and provides an AAR capability.

Man-Portable Aircraft Survivability Trainer (MAST)

MISSION

To field MAST to the maneuver CTCs according to the Army-wide distribution plan.

DESCRIPTION

The MAST is a MANPADS live training device used to train aircrews to react to surface-to-air missile (SAM) threats during live training exercises. The MAST will interoperate with the AN/AAR-47 MWS and AN/AAR-57 CMWS. A WESS simulates the visual launch signature of a MANPADS to signify that the MAST has been fired. Additionally, the MAST has a capability to record SAM engagements during live training exercises. The recorded engagements are used for debriefing aircrews and support the preparation of AARs. The system also has the capability to interoperate with aircraft MILES/LBA TESS aircraft instrumentation during force-on-force training at the MCTCs.

Mobile Gun System Tactical Engagement Simulation System (MGS TESS)

MISSION

To simulate both the firing capabilities and the vulnerability of the vehicle and provide a means to objectively assess weapons' effects during training; to provide unit commanders an integrated training system for use at homestation local training areas and at the Combat Training Centers.

DESCRIPTION

MGS TESS provides laser-based precision gunnery capabilities and force-on-force training. It provides a full-fire control interface that allows the crew to train reinforcing tactical, crew and engagement skills. The main and secondary weapons are simulated and integrated through the Fire Control System (FCS). TESS interfaces with the vehicle with brackets and connectors and to the crew with audio and visual signals through Sight Video captures tracer effects, vehicle position and firing events. It also records video from Gunner's Day, Gunner's Thermal, Commander's Panoramic Viewer and from the crew camera mounted in the turret to be used during AAR. The sub-caliber In-bore Device System is appended as a cost-saving alternative to main gun live fire for comprehensive force-on-target training.

Multiple Integrated Laser Engagement System (MILES) XXI

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 replace Basic MILES, M2000 target systems and field in accordance with the Army-wide distribution plan.

DESCRIPTION

The MILES XXI CVS is a Tactical Engagement Simulation System (TESS) currently used to instrument M1 Abrams and M2/M3 Bradley and Stryker vehicles at the Army's Maneuver Combat Training Centers (MCTC) and homestations providing a direct-fire training capability. It provides the real-time casualty effects necessary for tactical engagement training in direct-fire force-on-force combined arms training scenarios.

Opposing Forces Weapons (OPFOR WEAPONS)

MISSION

To provide Opposing Forces Weapons Tactical Engagement Simulation Systems (OPFOR Weapons TESS) to support OPFOR Main Battle Tanks (OPFOR MBT), Opposing Forces Surrogate Vehicle BMPs (OSV) and Shoulder Launched Munitions (SLM) OPFOR weapon variants. The OPFOR Weapons will provide Combat Training Centers' Opposing Forces (OPFORs) the ability to replicate hybrid threat vehicles and weapons that are needed to train a Rotational Training Unit (RTU) using their Full Spectrum Operations Mission Essential Task Lists. The OPFOR Weapons TESS provides real-time casualty effects necessary for tactical engagement training in direct fire, force-on-force training scenarios and instrumented scenarios.

DESCRIPTION

The IMILES OPFOR Weapons TESS is compatible and interoperable and interfaces with the fielded MILES family of training devices. The OPFOR MBT and OSV is a modular, wireless design that significantly reduces system installation times. Its Direct/Indirect Fire Cue (DIFCUE) interfaces provide better visual cues, flash, and smoke to simulate a weapon firing and enhance battlefield effects. The OPFOR MBT TESS replicates a T72/80 threat weapons, and the BMP TESS replicates the BMP 2 threat weapons. The SLM reports and communicates with the man-worn MILES via an inductive loop, providing engagement and casualty assessment data. The IMILES SLM allows visual modification to the "base" system, replicating the physical appearance of the simulated weapon (RPG 27and other OPFOR Weapon Variants). It includes a Weapons Effects Signature Simulation (WESS) assembly that provides visual cues, flash and smoke to simulate a rocket firing.

Stryker Anti Tank Guided Missile (ATGM) Stryker Tow Simulator (STS) MILES XXI

MISSION

To provide a MILES capability for the (ATGM) vehicle. It replaces the obsolete Field Tactical Trainer (FTT) with a system that is compatible with both Fire Control Systems (FCS).

DESCRIPTION

STS works in conjunction with the vehicle Modified Improved Target Acquisition System

Longbow Apache

MAST

MXXI Stryker

Stryker Anti Tank Guided Missile (ATGM) Stryker Tow Simulator (STS) MILES XXI {Continued}

(MITAS) and the MILES XXI training system. STS has two major components; TOW Laser Device (TLD) stimulates the actual TOW missile round, and TOW ATWESS Device (TAD) provides the visual and audible cues associated with the TOW missile when engaging targets. It is currently the only force-on-force trainer that accommodates the common processor.

Stryker Multiple Integrated Laser Engagement System (MILES XXI)

MISSION

To provide nine of ten Stryker variants with MILES training capability to include crew served weapons, MK-19 and below.

DESCRIPTION

Stryker MILES XXI provides a laser-based training device to realistically replicate casualty effects necessary for tactical engagement training during a direct-fire, force-on-force training scenario. It enables collective training from platoon to brigade to train as a combined arms team at homestation and CTCs. Force-on-force maneuver training affords the brigade the means to train Soldiers on combat engagement skills using go-to-war weapon platforms in a safe environment. It provides realistic training without the expense and environmental impact of firing live ammunition. Stryker MILES XXI provides training capability to the following variants: Infantry Carrier Vehicle, Commander's Vehicle, Fire Support Vehicle, NBC Reconnaissance Vehicle, 120mm Mounted Mortar Carrier, Anti-Tank Guided Missile, Engineer Squad Vehicle, Medical Evacuation Vehicle and Reconnaissance Vehicle.

Foreign Military Sales (FMS) Aviation Tactical Engagement Simulation System (TESS)

MISSION

To provide an aviation collective training capability for foreign military organizations.

DESCRIPTION

The TESS is an advanced training system developed for foreign aviation aircraft and military forces to support force-on-force and force-on-target live training at foreign Combat Training Centers (CTCs), as well as foreign aviation homestations and ranges. Standard packages developed to support these cases include an instrumentation package that consists of TESS Kit(s) comprised of aircraft and target hardware, a telemetry network, repeaters, and ground station. Additional case lines include a standardized spare package, New Equipment Training (NET), follow-on logistics and re-familiarization training as well as depot maintenance (repair and return options).

PRODUCT MANAGER COMBAT TRAINING INSTRUMENTATION SYSTEMS (PM CTIS)

Combat Training Center Instrumentation System (CTC-IS)

MISSION

To enhance the ability of the CTCs to provide effective training feedback to rotation units conducting force-on-force, live-fire and training in a Decisive Action Training Environment (DATE), as well as combined arms training by allowing the collection of engagement data for analysis and after-action review production.

DESCRIPTION

The 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. CTC-IS is scalable to collect, report, store, manage, process and display event data for 11,000 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 After Action Review (AARs). 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, after-action review 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 DIS, HLA or TENA protocols. The CTC-IS program also provides the National Training Center (NTC), Joint Readiness Training Center (JRTC) and the Joint Multinational Training Center (JMRC) a mobile instrumentation system that provides a mobile training capability to support ARFORGEN and Unified Land Operations.

Exportable Training Capability Instrumentation System (ETC-IS)

MISSION

To provide a mobile, deployable, instrumented training system capable of augmenting Combat Training Center rotations with live, instrumented and brigade combat team size exercises at homestations.

DESCRIPTION

The Exportable Training Capability - Instrumentation System is a transportable instrumentation system to support live maneuver combat training for Brigade Combat Team level units at locations other than the MCTCs. ETC-IS is a rapidly deployable, self-supported system providing an Observer Controller Communications Systems, Battle Command Systems, Instrumentation System, Embedded Constructive Simulations, TAF workstations, Voice and Video Monitoring, AAR presentation, and provides its own power generation. ECT-IS performs the end-to-end mission functions of Exercise Planning, System Preparation, Exercise Management, Monitoring, and Control, Training Performance Feedback through onsite AARs and unit Take Home Packages.

Homestation Instrumentation Training System (HITS)

MISSION

To provide consistent homestation-instrumented training systems throughout the Army; to interoperate with existing and future capabilities.

DESCRIPTION

HITS supports collective maneuver training for platoon through battalion units. By integrating future and legacy tactical engagement simulation, HITS provides position location and weapons effects data for real-time exercise monitoring and AAR. HITS supports force-on-force and force-on-target training across the full spectrum of operations at a security level up to Secret System High. HITS is part of the Live Training Transformation–Family of Training Systems (LT2-FTS) and is based on the Common Training Instrumentation Architecture (CTIA). 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

ETC-IS

CTC-IS MOD

HITS

Homestation Instrumentation Training System (HITS) {Continued}

spectrum of training. HITS is interoperable with other external systems through DIS, HLA or TENA protocols. HITS provides the live domain for Live, Virtual, Constructive Integrated Training Environment (ITE).

PRODUCT MANAGER DIGITIZED TRAINING (PM DT)

Battlefield Effects Simulator (BES)

MISSION

To simulate the flash/bang of a weapon's discharge and impact in Force-On-Target (FoT) live training.

DESCRIPTION

The Battle Effects Simulator (BES) provides real-time feedback to units conducting FoT tactical training and realistic battlefield effects. The system is used in a day and night range exercise for visual and acoustic target recognition at stationary range positions with a target mechanism or mounted on a moving target platform.

BES is designed to produce flash/bang and smoke signatures using the M34 (Hostile Fire) cartridge and/or M35 (Target Hit) cartridge, which simulates/replicates a large caliber weapon fire of a hostile threat and/or an impact round on an armor target. The system is a core feature in support of live fire ranges throughout the Army as identified within Training Circular (TC) 25-8.

Multiple PEO STRI programs such as the Remote Target System/Enhanced Remote Target System RETS/ERETS, New Generation Army Targetry System (NGATS), Future Army Systems of Integrated Targets (FASIT), Non-Instrumented (Small Arms), and Instrumented Ranges/ Digital Range Training System (IR/DRTS) rely on the BES system in order to support the training missions requirements.

Combat Training Center Military Operations On Urban Terrain Instrumentation System (CTC MOUT-IS)

MISSION

To provide Military Operations On Urban Terrain (MOUT) video, audio, battlefield effects, instrumentation and supporting infrastructure in the Combat Training Centers (CTCs) to support urban operations training events. The Combat Training Center Military Operations On Urban Terrain Instrumentation System (CTC MOUT-IS) provides both the ability to support training for full-spectrum operations for individual Soldiers through brigade-level urban operations training, and timely and effective After Action Review (AAR) capabilities for the units.

DESCRIPTION

This system provides state-of-the-art urban training facilities capable of training today's Soldiers in a realistic environment, and ensures Soldiers are prepared to conduct full-spectrum operations in any urban environment. This system monitors and controls the training exercise, processes, and displays data that is presented for AARs and OCs to analyze; prepares and presents standardized training performance feedback, and archives training performance information for external use.

Digital Range Training System (DRTS)

MISSION

To provide modern digitally-instrumented ranges capable of training evaluating and stressing today's Soldiers and their modern equipment in a realistic train-as-you-fight environment.

DESCRIPTION

The Instrumented Ranges/Digital Range Training System (IR/DRTS) program is the enabler of range modernization for tactical vehicle training. IR/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 Live Fire Exercises (CALFEX). IR/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. IR/DRTS addresses emerging doctrinal requirements and enables new training techniques. IR/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 stimulate 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.

Integrated Military Operations On Urban Terrain (MOUT) Training System (I-MTS)

MISSION

To help Soldiers increase their readiness to complete their wartime mission by enhancing their abilities and honing their skills in urban terrain environments.

DESCRIPTION

Integrated - Military Operations On Urban Terrain (Mout) Training System (I-MTS) consists of four training facilities/systems: The Urban Assault Course (UAC), the Shoot House (SH), the Combined Arms Collective Training Facility (CACTF), and the Collective Training Facility (CTF). These systems are designed to provide individual Soldier-through-Battalion-level training in urban-operations at homestations. These training facilities allow units to train Warfighters 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.

These UAC, SH, and CACTF training facilities 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 warfighting readiness for Soldiers preparing for battle. Soldier's lessons are learned on the training ground and not on the battleground.

Mobile Military Operations On Urban Terrain (MOBILE MOUT) Training System

MISSION

To provide a rapidly fielded, deployable urban operations training system that allows Warfighters to improve their tactics, techniques, and procedures and to conduct mission rehearsals practicing force-on-force or force-on-target while utilizing Multiple Integrated Laser Engagement System (MILES), blanks, man-marker rounds or Short-Range Training Ammunition.

DESCRIPTION

Mobile Military Operations On Urban Terrain

CACTF

CTC MOUT

Digital Range

Mobile Military Operations On Urban Terrain (MOBILE MOUT) Training System {Continued}

(MOUT) is a transportable, urban combat training system consisting of reconfigurable shipping containers assembled into urban structures. Urban structures are fitted with audio/ video instrumentation systems, exercise control and monitoring and After Action Review (AAR) presentation capability. Urban structures can be multi-story with interior/ exterior stairwells and may include balconies and trap doors leading to subterranean storage areas or tunnel complexes. In its fully instrumented configuration, the system allows realistic battlefield effects (smoke, sounds, smells, pyrotechnics, etc.) and provides video and audio of Warfighters being trained to allow for rapid AAR.

APM FOREIGN MILITARY SALES (FMS)

Egyptian Combat Training Center (AFCTC-3)

MISSION

To provide I-MILES player units, detectors and other equipment to facilitate force-on-force live training and instrumented Combat Training Centers (CTC) training capability to the Egyptian Foreign Military Sales (FMS) customer.

DESCRIPTION

Production MILES hardware has been and is being provided under FMS cases. These FMS MILES deliveries from several different MILES manufacturers include foreign-made combat vehicles as well as different types of small arms weapons. They will provide man-worn MILES instrumentation for small arms weapons, medium crew-sized weapons, vehicles, artillery, tanks, and air defense systems. The MILES-based tactical engagement simulation system (TESS) is also offered, along with a communications

infrastructure and an exercise control/AAR center. Vehicles to be outfitted with MILES player units include five trucks and jeeps, six artillery and mortar pieces, and seven air defense artillery guns and missiles. Both fixed and mobile EXCON/AAR centers are included in the effort. In addition, a semi-automatic, computer-generated forces simulation piece (OneSAF) will be included in the project. This will provide realistic computer-generated forces to fill out the battlefield, enabling commanders and staff sections to be fully trained during exercises.

Jordanian Armed Forces (JAF) Interim House Station Instrumentation Training Systems (I-HITS)/MILES Training System

MISSION

To provide I-MILES player units, detectors and other equipment to facilitate a force-on-force live training and instrumented home station version of a Combat Training Center (CTC) training capability to the Jordanian FMS customer.

DESCRIPTION

Production MILES hardware has been, and is being provided under FMS cases. These FMS MILES deliveries from several different MILES manufacturers include foreign-made combat vehicles, as well as different types of small arms weapons. They will provide man-worn MILES instrumentation for small-arms weapons and some tactical vehicles, including the M60 tank and M113 Armored Personnel Carrier, to provide a homestation CTC-like environment. The MILES-based tactical engagement simulation system (TESS) is also offered along with a communications infrastructure and an exercise control/AAR center.

Saudi Arabian National Guard (SANG) MILES/Combat Training Center (CTC)

MISSION

To provide I-MILES player units, detectors and other equipment to facilitate force-on-force live training and instrumented Combat Training Centers (CTC) training capability to the Saudi Arabian National Guard (SANG) FMS customer.

DESCRIPTION

Production MILES hardware has been and is being provided under FMS cases. These FMS MILES deliveries from several different MILES manufacturers include foreign-made combat vehicles as well as different types of small arms weapons. They will provide man-worn MILES instrumentation for seven different small arms weapons for use by the individual soldier trainee. Six different MILES-based vehicle Tactical Engagement Simulation Systems (TESS) are also offered along with a communications infrastructure and an exercise control/AAR center. Vehicles to be outfitted with MILES include the LAV-25, -AT, -AG, -M, -CC/PC/AC and the Recon/Pinz. Both fixed and mobile EXCON/AAR centers are included in the effort.

SH

AFCTC-3

Jordan Armed Forces CTC

PEO STRI Acquisition Center

MISSION

To provide sound business advice and tailored contracting and acquisition solutions to acquire a variety of products and services managed by PEO STRI in support of the U.S. Army and the Nation's security.

VISION

To serve as an Acquisition and Contracting Center of Excellence that focuses on customer satisfaction; promotes innovative and flexible business practices, calculated risk-taking, empowerment and collaborating with industry; and emphasizes diversity in the workforce and professional development.

Simulation and Training Omnibus Contract (STOC II)

Awarded in January 2009, STOC II provides the Soldier with the next generation of simulation and training devices to meet the challenges of the joint operational environment. STOC II is not only a continuation but an evolution of its predecessor, STOC I. The omnibus contracting vehicle awarded a total of 142 contracts spread over two lots: Lot I, Full and Open Lot (consisting of small and large businesses), and Lot II, Small Business Set-Aside. These awards resulted in multiple-award, indefinite delivery/indefinite quantity contracts that will provide troops with simulation, training and instrumentation products and services beginning with concept development and continuing through life-cycle support.

Warfighter Field Operations Customer Support Contract (Warfighter FOCUS)

Warfighter FOCUS is a contract that fully integrates the live, virtual and constructive training services at Army installations worldwide. As the Army continues to field an increasing number of interoperable training systems, the Warfighter FOCUS contract provides a fully-integrated contractor workforce to operate and maintain them. Furthermore, the contract will allow PEO STRI to provide a more rapid response to Department of the Army requests.

Systems Engineering and Technical Assistance Services (SETA) Contract

An indefinite delivery/indefinite quantity contract for SETA services was awarded in August 2009, with a period of performance of five years (basic and options). The SETA contract provides systems engineering and technical support services for PEO STRI and other federal agencies worldwide. The services include activities in support of all aspects of providing responsive integrated and interoperable infrastructure for simulation, training, testing, and instrumentation solutions and acquisition services for the Soldiers and the Nation.

Procurement Administrative Lead Time (PALT) Updates

PEO STRI PALT Industry Days serve the contracting community, requiring activities and industry partners alike. The monthly PALT Industry Day provides the attendee with status of PEO STRI programs, ongoing procurements, and an opportunity for industry to request updates on specific procurements of interest in a question and answer type forum. PEO STRI's PALT Industry Days diffuse old communication myths by changing a culture of silence within the acquisition community and restore the credibility and transparency to the procurement process in the eyes of our industry partners.

Introduction

The Business Operations Office (BOO) oversees the daily operations of the PEO and is focused on developing and implementing policies and procedures across the PEO that provide an efficient environment for the project managers to produce interoperable products and services for our Army. The BOO is responsible for PEO finance, personnel resources, acquisition management oversight, strategic planning and business operations support. The Assistant Program Executive Officer for Business Operations (APEO BO) leads the BOO through five individual groups identified below.

Acquisition Management Support

MISSION

The Acquisition Management Support group is responsible for responding to Department of the Army tasks and questions, maintaining PEO and Department of the Army databases, providing support to the PEO and PMs on acquisition requirements and current status, and preparing budget justifications to Department of the Army Office of the Secretary of Defense and Congress.

The primary functional areas include:

- Program Reporting/Enterprise Business System Oversight
- Acquisition Management Oversight
- Assistant Secretary of the Army (Acquisition, Logistics and Technology) Liaison
- Budget Submission and Justification

Strategic Plans and Integration

MISSION

The Strategic Plans and Integration group continuously seeks to improve business processes and procedures by focusing on credible, streamlined, accountable and responsive support to the Warfighter.

The primary functional areas include:

- PEO Operating Fund Execution
- PEO Business Reviews
- Strategic Planning for Program Execution: Goals, Objectives, Resources
- Training Support System Integration
  - Non-System/System Training Aids, Devices, Simulators and Simulations (TADSS)
  - Weapons System Review
  - TADSS Integration Forum

Human Resources

MISSION

The Human Resources group is responsible for providing proactive, user-focused, innovative and efficient human resources support to the PEO STRI leaders, managers and employees. Human Resources encompasses civilian and military personnel, life-cycle management from recruiting, retention, employee relations, equal employment, position management and performance management.

The primary functional areas include:

- Civilian and Military Personnel Management
- Civilian and Military Performance Management
- Enterprise Business System – Human Resources Management Architecture
- Management Employee Relations
- Time and Attendance
- Awards

PEO Business Operations Support

MISSION

The PEO Business Operations Support group provides accurate, relevant and responsive support for PEO STRI operations. The group assists in areas throughout the entire organization to provide support to the workforce and advance the PEO STRI mission.

The primary functional areas include:

- Public Affairs
- Protocol
- Facilities, Mail, Property Book
- Travel, Credit Card
- Management Controls
- Audits and Freedom of Information Act Requests

PEO Manpower Management

MISSION

The PEO Manpower Management group oversees

the manpower requirements and authorizations for civilians, military and contractor manpower equivalents for the PEO. It provides support, analysis and manpower process implementation based upon the force documentation decision. It also coordinates staffs' manpower authorization documents with HQDA and aligns manpower resources with program resources.

Mission

The mission of the Customer Support Group (CSG) is to advance the global awareness of PEO STRI capabilities in support of the Warfighter and the Nation.

Introduction

The CSG provides an entry point for ease of navigation within the PEO STRI organization for Army, other services, joint community, other U.S. departments and agencies, allied nations, and our industry partners. The CSG works with these entities to better understand their training, simulation or testing requirements and how PEO STRI solutions can support their missions.

To accomplish these tasks, the CSG is organized into three business units: Warfighter Outreach Office (WOO), International Programs Office (IPO) and Strategic Communications Support Office. The CSG also provides staffing to the Joint Training Integration and Evaluation Center (JTIEC) in the form of the deputy director and project manager positions. The JTIEC is the operational arm of the Team Orlando Enterprise, while the Assistant Program Executive Officer for Customer Support (APEO CS) serves as the PEO STRI principal on the Team Orlando Board of Directors (BoD).

Warfighter Outreach Office (WOO)

DESCRIPTION

The WOO is an externally-focused organization, reaching out across the Army, the Department of Defense, and other U.S. departments and agencies. As the mission of PEO STRI evolves, its focus shifts to include the provision of modeling and simulation (M&S), training and testing solution support to these aforementioned commands, organizations and agencies. The WOO's primary goal is to educate these groups on PEO STRI's capabilities and to provide them with a single point of contact (POC) for their access to PEO STRI. These POCs serve as coordinators to ensure requirements receive a solution optimized across the live, virtual and constructive M&S training and testing domains so as to best support the Warfighter and the Nation.

Within the WOO, there are four discrete functional areas that work in concert to achieve this goal: Senior Training Management Advisors (STMAs), Acquisition Support, the Field Service Representatives (FSRs), and the Technology and Industry Liaison Office (TILO).

The WOO assigns an STMA to each command, organization, or agency with a potential training or testing need. The STMA educates each on the capabilities of PEO STRI, assists in the triage of their requirements, identifies potential solutions and support, and connects them with the PEO STRI Project Manager (PM) best capable of satisfying their needs. The STMA remains a part of the customer/PEO STRI team until the PM achieves a satisfactory outcome solving the training or testing challenge.

Acquisition Support provides additional experienced acquisition and program management professionals. These professionals work with the STMAs, as requirements evolve, to explore and identify the optimum acquisition approach and available contractual vehicles that maximize responsiveness to the Soldier.

The FSR program extends the ability of the Program Executive Officer (PEO) to reach out to the Army and the Soldier. It is a PEO STRI-sponsored initiative, with a cadre of retired senior military officers positioned at key military installations to liaise on training and testing-related issues affecting both PEO STRI and the host installation/organization. The FSRs help to ensure PEO STRI is providing the service and support necessary to enhance the ability of their respective customers to accomplish their missions. Their primary function is to facilitate the early communication of emerging needs at the host installation/organization to PEO STRI, ensure the host installation/organization is kept abreast of the status of on-going acquisitions, and acquire feedback regarding the ability of fielded systems to provide the desired level of training support in both functionality and availability.

The TILO function provides an interface between PEO STRI and its industry stakeholders. In

fulfilling this requirement, it meets four critical communication needs by: 1) serving as an access point for industry to expand PEO STRI's awareness of existing and emerging industry capabilities the PMs may use to enhance their support in meeting Soldier requirements; 2) assisting our industry members in doing business with PEO STRI by outlining the PEO's mission, goals, structure and acquisition processes; 3) providing insight into the PMs' and PEO's Capability Areas of Interest within and across testing and Live, Virtual, Constructive-Gaming (LVC-G) training domains; and 4) facilitating formal access to the PEO/PM senior leadership, especially for those industry members not having habitual, long-standing relationships with the organization.

International Programs Office (IPO)

DESCRIPTION

The function of the IPO is to build partner capacity in support of national security and foreign policy objectives. Towards these ends, highly-trained and experienced Army international affairs professionals execute a robust Security Cooperation Program, developing and managing Foreign Military Sales (FMS) cases that result in the delivery of PEO STRI products, services and capabilities around the globe. In addition, the IPO develops and oversees international armaments cooperation activities with key allies that increase interoperability and reduce total development and life-cycle costs. Industry requests for export licenses of PEO STRI-related products and services are also reviewed within the IPO to ensure protection of critical technologies while allowing U.S. industry to export those technologies that support U.S. interests abroad.

Strategic Communication Support Office

The CSG also directs and manages the PEO STRI Strategic Communication Support Office, which in coordination with the PEO's Public Affairs Office (PAO) helps ensure that the PEO STRI message is widely and accurately communicated. Assistance is also given to the PM offices in their outreach activities. The office promotes the awareness of PEO STRI's capabilities across the country and around the globe, through multimedia methods that include conferences, exhibits, publications, websites and other social media.

Summary

The CSG plays an essential role in successfully achieving PEO STRI's mission to support the Warfighter and the Nation. As an organization, the CSG provides a global awareness and easy access to PEO STRI's capabilities, products and services. For more information, please contact us at 407-384-3773 or by e-mail at CSG@peostri.army.mil, customerliaison@peostri.army.mil or FMSPEOSTRI@peostri.army.mil.

Introduction

The mission of the Project Support Group (PSG) is to be the force provider for PEO STRI and to ensure that the workforce has the proper skills, processes, procedures and tools to efficiently and successfully accomplish the mission of the organization. We recruit some of the best and brightest talent across the DoD, other agencies and industry. PEO STRI, and organizations all across the Army and DoD, are experiencing a very intense operational tempo. It is critical that every employee in federal service - from the newest developmental employee to the most senior journeyman - perform their duties with reduced oversight. The PSG sponsors the Acquisition Academy (A2), an 11-week on-site training program, to introduce developmental employees to the federal government. The A2 provides the basics of each career field's functions and high-level information about the Army and acquisition processes. PEO STRI has a very active employee development program and has won the OSD Workforce Development Award (Bronze). The Assistant Program Executive Officer for Project Support leads the PSG through three Directorates and the Workforce Development Office, each of which are identified below.

Engineering Directorate

MISSION

To provide an agile, highly-efficient technical workforce that ensures the technical relevance and superiority of training and testing solutions across the acquisition life cycle to support the needs of the Soldier.

GOALS

- Horizontal Technical Integration Interoperability and Integration
- Technology Investment and Transition Goal: Facilitate the insertion and transition of research and innovation that has the potential for high impact in meeting the Army's modeling and simulation needs
- Technical Management for Customers
  * Organizational Excellence
    - Effectively organize the directorate to provide agile, multi-disciplinary technical and leadership expertise to the PEO
    - Front-end analysis
    - Technical program execution
    - Sound Systems Engineering foundations
  * Processes, procedures
- Technical/Acquisition Education and Workforce Development: Provide opportunities for advanced technical and professional training and education

To support the mission and goals of the PEO, the Engineering Directorate takes an active role in identifying the state-of-the-art for application to the PEO's development programs. We evaluate the future program requirements and identify technology gaps in achieving these requirements. Our Engineers monitor industry's and academia's research and development activities and work to influence their efforts to support PEO STRI's future technology needs. We continuously review these gaps with respect to the Army's technology needs to support training and testing and evolve our focus areas to ensure that PEO STRI is providing innovative solutions to the Soldier.

Finance Directorate

MISSION

To provide a workforce to PEO STRI Project Managers and customers to execute and manage financial processes to ensure coordination of financial matters. These include the planning, programming, budget and execution system functions across all years (prior, current and future), time/attendance/payroll system control, accounting functions, independent cost analyses, program support and resource-related automation tools, and the development of standardized processes, procedures, guidance and training for budget, cost, program and systems analysts.

GOALS

In order to achieve this ultimate organizational success, our focus must be on creatively delivering and transitioning financial management solutions to ensure that:

- Our customers achieve a competitive advantage utilizing a mission-driven workforce to provide systems at the right time and at the least cost
- Our customers' expectations about the quality of the workforce provided are met and often exceeded
- Our customers regard our employees as

knowledgeable, helpful, competent and committed to their mission
- Our customers clearly understand the emerging mission strategy so that they can achieve improved mission performance, decision making and quality
- Our customers think of us first as their force provider when existing and future business requirements arise

Acquisition Logistics Directorate

MISSION

To maintain a highly trained acquisition logistics workforce to support Project Managers and customers by managing the materiel fielding of cost-effective and supportable systems; supporting logistics requirements in Requests for Proposal development and evaluation; coordinating system sustainment; managing the procurement of Integrated Product Support elements and logistics performance requirements; and facilitating Total Life-Cycle System Management of fielded systems

GOALS

- Influence system design for reliability and supportability; reduce total ownership costs and the logistics footprint throughout the life cycle; identify, plan and implement support requirements; procure and deliver life-cycle documentation, support items and services to support cradle-to-grave life-cycle management.
- Provide technical/acquisition education and workforce development
- Provide opportunities for technical and professional training and education
- Attain appropriate DAWIA levels of Certification

Workforce Development Office

MISSION

To oversee training and career development across PEO STRI.

GOALS

- Manage a comprehensive career leadership and development program for the PEO STRI workforce
- Execute the Acquisition Academy developmental employee program
- Execute the new employee orientation and on-boarding

Acquisition Academy Class 2012

Introduction

The Corporate Information Office's (CIO) mission is to provide responsive and trusted technology solutions that enable acquisition excellence for the Warfighter and the Nation. The CIO offers world-class support services for all of Information Technology (IT) Business Management needs to include Cybersecurity (CS)/Information Assurance (IA) and Systems Engineering (SE).

The CIO provides IT business system products and services within its four core competencies: IT Business Management, SE, CS and Information Management. This includes project management, network engineering, security engineering, asset acquisition and management, system maintenance, software development, customer support, sustainment and other services in support of the IT infrastructure. Customers include PEO STRI program offices, PEO STRI tenants, and PEO STRI supported laboratories to include RDECOM and ADL Co-Lab. Most customers are located within the Central Florida Research Park campus in Orlando, FL; however, PEO STRI maintains two offices at Redstone Arsenal in Huntsville, AL, and field offices at numerous other military installations. In addition, the CIO supports NAVAIR PMA-262, ARL, ARI, JFCOM, Air Force, and many other organizations throughout the DoD.

Whether managing large IT contracts or hosting enterprise systems on the Non-classified Internet Protocol Network (NIPRNET) and the Defense Research and Engineering Network (DREN), the CIO stands ready to support IT business and technical needs in support of the Warfighter.

Enterprise Business System (EBS) Development

The CIO oversees the development and deployment of PEO STRI's internal application, the Enterprise Business System (EBS), which is used to manage the complex business operations within PEO STRI. The system consists of seven modules: human resources, program management and tracking, financial management, legal/timekeeping, contracts, engineering, and CIO services. EBS was designed to automate PEO STRI's business processes to assist management in making informed decisions regarding resource allocation. In addition, the system integrates with existing Army-level systems to provide PEO-level visibility and status of the business operations. The CIO will provide and implement a flexible and centralized business-based solution for the Program Managers' core business units, which will enable PEO-level rollup with reusable, maintainable and secure information. EBS was designed and developed in a service-oriented architecture, thus allowing EBS services, in whole or in part, to be shared across the Army and DoD.

Information Technology Business Management

MISSION

To provide efficient, world-class IT business services to the Army and DoD in support of the Warfighter.

DESCRIPTION

The CIO Business Office provides a full range of services to run an IT organization. These services include:

- Procurement of IT Equipment, Software, Maintenance and Cellular Equipment
- Asset Management
- IT Support Contract Management and Documentation
- Software Licensing and Hardware Ordering Support
- Finance Management in support of IT purchases and services

The CIO Business Office provides the tools and services required to be successful in today's DoD environment.

Cybersecurity Services

MISSION

To provide the Cybersecurity products and services for managing, enforcing and maintaining a formal Cybersecurity program while providing technical support in carrying out the program for the PEO and Army in support of the Warfighter.

DESCRIPTION

The Cybersecurity Office (CSO) provides direct

guidance and Certification & Accreditation (C&A) consulting services while acting as the liaison to external Army and DoD Cybersecurity organizations. The office has developed tools, templates and products, such as the Basic Accreditation Manual (BAM), which consolidates many DoD and Army directives, instructions, regulations and processes into one, easy-to-read document.

The many tools and templates developed and made available by the CSO, simplify the DoD Information Assurance Certification and Accreditation Process (DIACAP) for Project Managers (PMs) who are developing the PEO STRI systems.

The office also provides direct support to PMs and their contractors in the form of classroom and hands-on training in the Information Assurance Integration and Training Lab (IAITL). The training can range from DIACAP artifact generation, to hardening of a system, to scanning for vulnerabilities and analyzing the reports. Finally, the CSO provides direct support in ensuring that PEO STRI developed systems receive favorable accreditation decisions upon conclusion of the C&A process. This is done by actively participating in the reviews that are conducted as a part of the system's development as well as by tracking various DIACAP milestones and program metrics throughout the process to ensure that the C&A plan remains executable. The CIO CSO also has close working relationships with Agents for the Certification Authority (ACA) and the Certification Authority (CA) of the Army to assist in the completion of successful certification events and help resolve complex IA challenges that programs encounter over the course of their life cycle.

System Engineering Office (SEO)

MISSION

To provide Certificate of Networthiness (CoN), Spectrum Management (SM), Information Technology System Engineering (ITSE), and Host Based Security System (HBSS) products, tools, and services to assist in meeting fielding requirements while providing technical support for the PEO and Army in support of the Warfighter.

DESCRIPTION

The System Engineering Office (SEO) provides subject matter expertise to the PMs in the development of the DoD and/or Army acquisition life-cycle requirements for CoN, Equipment Spectrum Certification (ESC), Tactical Radio Purchase Program (TRPP), ITSE and HBSS compliance. The office also provides a common point of contact and a systematic approach through guidance and consulting services for PMs, while acting as a liaison to external Army and DoD organizations. The SEO has developed tools, processes, templates and products to assist the PMs in developing systems and meeting Army and DoD fielding requirements.

The SEO develops and manages the PEO STRI CoN process, ensuring all current PEO STRI applications receive a valid CoN and assists other

System Engineering Office (SEO) {Continued}

PEO STRI program offices in obtaining any CoNs required for lab use/project/system/software development.

The SEO provides spectrum coordination and certification support to the PMs by developing the required certification documentation to include DD-1494, preliminary assessments, range coordination and host nation coordination requests. It functions as the PEO liaison for meetings and teleconferences with the Army Spectrum Management Office, the National Telecommunication and Information Administration, and Federal Communications Commission as required. The office also provides direct support to PMs and their contractors with classroom and hands-on spectrum certification training, conducts research and develops support material as required. It provides support with developing required documentation for the Army Tactical Radio purchase program.

The SEO provides HBSS subject matter expertise to support PMs in establishing an initial system baseline and HBSS installation. It provides assistance with both compatibility testing for all Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)) systems and documenting system impacts and compliance guidance. The SEO performs annual HBSS review for CoN and provides validation documentation to ASA(ALT). The office also provides direct support to PMs and their contractors with classroom and hands-on HBSS training.

In addition, the SEO ITSE provides subject matter expertise in the form of telecommunications, as well as network and software expertise, to augment product development teams and assist with fielding and configuration management in order to ensure life-cycle requirements are successfully achieved.

Information Management

MISSION

To provide outstanding and secure network operations and customer service support to the PEO and its customers.

DESCRIPTION

Data Center Operations: The PEO STRI Data Center provides a secure, robust set of network, file-server and net-centric operations in support of PEO STRI and other CIO customers. Among the featured services are web-server, application and collaboration hosting to complement a feature-rich set of office automation services provided to the desktops of PEO STRI personnel. The state-of-the-art Data Center makes efficient use of blade servers, storage area networks, enterprise backup systems, backup power systems and the latest Microsoft products.

Network Infrastructure: PEO STRI provides a high-speed, all-optical network backbone to buildings and offices housing PEO STRI personnel in the Central Florida Research Park. As PEO STRI grows, new fiber strands with dark fiber growth capacity are installed in new locations. The backbone is powered by gigabit switches and 100Mb connections to the desktop. Wide-area connections include a 45Mbps NIPRNET connection and a 9Mbps backup NIPRNET connection. A high-speed connection to the DREN is also available.

Desktop Support: Support to PEO STRI personnel is provided by both the Client Services Group, which provides hands-on technical support, and also by Network Operations, which provides automated delivery of software packages and patches. Updating of anti-virus software and anti-virus signature files is fully automated, as is the response to detection of infected software. PEO STRI users usually experience all software upgrades on a transparent basis. In addition, Client Services will assist personnel in identifying and procuring hardware and software required for their mission on a reimbursable basis.

Help Desk: The PEO STRI Help Desk stands willing to assist personnel on all their IT issues and should be the first contact made when problems are encountered with PEO STRI systems. The PEO STRI Help Desk enjoys an Initial Call Close Rate of more than 90%, one of the highest in DoD and industry.

System Training: Numerous training courses have been developed for PEO STRI and other

customers. Most of the training courses are available on PEO STRI's intranet as well as formal instructor-led sessions, both on and off site. The training facility is available for IT training use by other PEO STRI organizations or outside organizations training PEO STRI personnel if scheduled sufficiently in advance.

Cellular Management Support: Wireless cellular and Blackberry services through several major carriers are available on a reimbursable basis. In addition, broadband wireless personal computer data cards are also available.

Office of Small Business Programs

MISSION

The mission of the Office of Small Business Programs (OSBP) is to support our Nation's Soldiers by serving as an advisor to the PEO, DPEO and staff members on issues impacting federal small business programs. The office advocates for small business enterprises, and it develops and implements strategies that provide maximum procurement opportunities to small businesses while supporting PEO STRI's contracting mission.

Program Areas

- Small Business
- Small Disadvantaged Business/Small Business Administration Section 8(a)
- Woman-Owned Small Business
- Veteran-Owned Small Business
- Service-Disabled Veteran-Owned Small Business
- Historically Underutilized Business Zone (HUBZone)
- Historically Black Colleges & Universities and Minority Serving Institutions (HBCU/MSI)
- Subcontracting

Steps to Doing Business with PEO STRI

Step 1: Review PEO STRI's public website, http://www.peostri.army.mil/, to become familiar with the mission, organizational structure, and products and services procured by PEO STRI.

Step 2: Perform an analysis of the products and services to identify how your company supports PEO STRI's mission.

Step 3: Contact the Office of Small Business Programs to discuss your interest, experience and capabilities.

Step 4: Frequently review the Federal Business Opportunities (FedBizOpps) website, http://fedbizopps.gov, and PEO STRI's Business Opportunity Portal (STRI BOP), https://bop.peostri.army.mil/sites/bop/default.aspx, for contracting and possible subcontracting opportunities.

Step 5: Participate in industry briefings, business opportunity conferences, and trade fairs as this is an excellent opportunity to meet with technical and/or acquisition personnel who are searching for qualified firms that may serve to support their mission requirements.

Step 6: Actively respond to competitive requirements and seek opportunities to team, joint venture or subcontract.

Step 7: Follow up routinely with OSBP. Be sure your information is up-to-date and accurate in the System for Award Management (SAM).

Contact Information

To learn more about PEO STRI's small business programs and contract opportunities contact OSBP at OSBP@peostri.army.mil

DOING BUSINESS WITH PEO STRI

WWW.PEOSTRI.ARMY.MIL

The first option is to visit our website. Once there, you will find information about PEO STRI, its' organization, Desk-Side Reference Guide, information about business opportunities and more.

407.384.3773 (DSN 970)

The second option is to call the PEO STRI Customer Service number. You will be prompted to leave your contact information. Once the information is received, a member of the Customer Support Group will review it and forward it to the appropriate project manager for action.

TECHNICAL INDUSTRIAL LIAISON OFFICE (TILO)

TILO

The TILO is the point of contact between industry and PEO STRI, and provides guidance to streamline the exchange of information. We assist our partners in industry with doing business with the government. We can provide an overview of PEO STRI's mission, goals, structure and acquisition processes along with insight for short and long term business opportunities. It is advantageous for PEO STRI to provide this assistance so that our industry partners can effectively apply its resources in developing materiel necessary to support the national defense effort.

We depend on the industrial sector to provide material acquisition and services. By providing information to industry on our needs, we gain access to existing and emerging technologies and benefit from increased competition. In return, industry can effectively apply its resources in developing the material and weapons necessary to support the national defense effort. Following a review of a company's capabilities by the TILO, the company's information will be provided to the PEO STRI community for further consideration.

E-mail TILO at customerliason@peostri.army.mil.

GLOSSARY OF ACRONYMS

A2 - Acquisition Academy
AAR - After Action Review
ACA - Agents for the Certification Authority
ACADA SIM - Automated Chemical Agent Detector Alarm Simulation
ACS - Aerial Common Systems
ACT - Artillery and Chemical Trainers
ADA - Air Defense Artillery
ADFAC Base - Air Defense/Field Artillery/Chemical Base Contract
ADL Co-lab - Advanced Distributed Learning Co-laboratory
ADMAS - Advanced Distributed Modular Acquisition System
ADMAS PIP (IMO) - Advanced Distributed Modular Acquisition System Product Improvement Program
AETC - Air Education and Training Command's
AFAMS - Air Force Agency for Modeling & Simulation
AFATDS - Advanced Field Artillery Targeting and Direction System
AFSM - Adaptive Full Spectrum Module
AGATCS (TMO) - Army Ground Aerial Target Control System
AGES II - Air-to-Ground Engagement System II
AGFT - Army Games For Training
AGTS - Advanced Gunnery Training System
AIC - Army Interoperability Certification
ALC 2015 - Army Learning Concept 2015
ALOTT - Army Low Overhead Training Toolkit
AME (PMO) - Army Model Exchange
AMEDD - (U.S.) Army Medical Department
AN/PSS-14 SMS TTS - Mine Detecting Training Set Comprised of the Sweep Monitoring System and Training Target Set
ANA - Afghan National Army (ANA)
ANAAF - Afghan National Army Air Force
ANG - Air National Guard
ANSF - Afghan National Security Forces
APEO-CS - Assistant Program Executive Officer for Customer Support
APEO-PS - Assistant Program Executive Officer for Project Support
APM - Assistant Project Manager
APM CCTT - Assistant Project Manager Close Combat Tactical Trainer
ARCENT - (U.S.) Central Command
ARFORGEN - Army Force Generation
ARI - Army Research Institute ARI - U.S. Army Research Institute for the Behavioral and Social Sciences
ARL STTC - U.S. Army Research Laboratory Simulation and Training Technology Center
ARL-HRED - U.S. Army Research Laboratory Human Research and Engineering Directorate
ARTIS (IMO) - Advanced Range Tracking and Imagining System
ASA(ALT) - Assistant Secretary of the Army for Acquisition, Logistics and Technology
ATC - Aberdeen Test Center
ATD - Aircrew Training Device
ATEC - Army Test and Evaluation Command (Alexandria, VA)
ATFS (TMO) - Aerial Target Flight Services
ATGM TES - Anti-Tank Guided Missile Tactical Engagement System
ATO - Army Technology Objective
AUEE - Augmented Urban Environment Effects
AVCATT - Aviation Combined Arms Tactical Trainer
AWG (TSMO) - Arbitrary Wave Generator
AWSS (TMO) - Aerial Weapon Scoring System
BAA (IMO) - Broad Agency Announcement
BAM - Basic Accreditation Manual
BATS - Bradley Advanced Training System
BATS (PMO) - Ballistic Aerial Targets System
BAX - Battle Area Complex
BCASP - Battle Command Arts & Science Program
BCT B - Battle Command Training Branch
BCTC - Battle Command Training Center
BCTC - ES - Battle Command Training - Equipment Support
BEMT - Basic Electronics Maintenance Trainer
BES - Battlefield Effects Simulator
BFIST - Bradley Fire Support Team Vehicle
BFV - Bradley Fighting Vehicle
BiLAT - Bilateral Negotiation Trainer
BML - Battle Management Language
BOA - Basis of Issue
BoD - Board of Directors
BOO - Business Operations Office
BOSS - Boom Operator Simulator System
C&A - Certification & Accreditation
C2 - Command Control
C3 - Command, Control and Communications
C4I - Command, Control, Communications,
CA - Certification Authority
CAAS - Common Avionics Architecture System
CACTF - Combined Arms Collective Training Facility
CAD - Computer Aided Design
CALFEX - Combined Live Fire Exercises Capability-Equipment Support
CAS - Close Air Support
CASM - Close Air Support Module
CBCSE - Common Battle Command Simulation Equipment
CBS - Corps Battle Simulation
CCD&O (TSMO) - Camouflage Concealment Deception and Obscurants
CCM (TSMO) - Center for Countermeasures
CCTT - Close Combat Tactical Trainer
CDT - Common Driver Trainer
CEVT - Construction Equipment Virtual Trainers
CFFT - Call For Fire Trainer
CFV - Cavalry Fighting Vehicle
CGF - Computer Generated Forces
CGS - Cloud Generation System

CHARCS - Counterintelligence Human Intelligence Automated Reporting and Collection System
CI - Counter Intelligence
CICADA-AIOJ - CICADA - All In One Jammer
CID - Combat Identification
CIED/EOD - Counter Improvised Explosive Device/ Explosive Ordnance Disposal
CIO - Corporate Information Office
CMS - Combat Mission Simulator
CNO (TSMO) - Computer Network Operations
CoIST - Company Intelligence Support Teams
COMINT - Communication Intelligence Computer, Information
CoN - Certificate of Networthiness
CONUS - Contiguous United States
COP - Common Operating Picture
COS - Contingency Operations Support
COTS - Commercial Off The Shelf
CP - Command Post
CPM - Consolidated Product-Line Management
CPT - Cockpit Procedural Trainers
CPX - Command Post Exercise
CREW 2 - Counter Radio Electronic Warfare, Increment 2 (CREW 2)
CS - Cybersecurity
CSG - Customer Support Group
CSO - The Cybersecurity Office
CTO - Chief Technology Officer
CTC - Combat Training Center
CTEIP (IMO) - Central Test and Evaluation Investment Program
CTF - Collective Training Facility
CTIA - Common Training Instrumentation Architecture
CTS F - Central Technical Support Facility
CTS-IS - Combat Training Center Instrumentation Center
CVC - Common Virtual Components
CVE - Common Virtual Environment
DAU - Defense Acquisition University
DAWIA - Defense Acquisition Workforce Improvement Act
DCGS-A - Distributed Common Ground Station - Army
DE - Direct Energy
DE S&T (IMO) - Direct Energy Science and Technology
DET S&T - Direct Energy Test Science and Technology
DF - Direct Fire
DHS - Department of Homeland Security
DIACAP - DoD Information Assurance Certification and Accreditation Process
DIL - Digital Integration Laboratory
DIRCM (IMO) - Directed Infrared Counter Measures
DIRSP (IMO) - Dynamic Infrared Scene Projector
DIS - Distributed Interactive Simulation
DIS/HLA - Distributed Interactive Simulation/High Level Architecture
DMPBAC - Digital Multi-Purpose Battle Area Complex
DMPRC - Digital Multi-Purpose Range Complex
DMPTR - Digital Multi-Purpose Training Range
DoD - Department of Defense
DOT&E - Director Operation Test and Evaluation
DREN - Defense Research and Engineering Network
DRP - Deployable Range Packages
DRT - Digital Receiver Technology
DRTS - Digital Range Training System
DSTS - Dismounted Soldier Training Systems
DTT - Diagnostic and Troubleshooting Trainers
DXTRS - Division Exercise Training and Readiness System
E3 (IMO) - Electromagnetic Environmental Effects
EA (TSMO) - Electronic Attack
EBS - Enterprise Business System
ECM - Electronic Countermeasure
ELECT - Enhanced Learning Environments with Creative Technologies
ELINT - Electronic Intelligence
EMO - Events Managements Office
EMRE (IMO) - Electromagnetic Radiation Environment
EO (TSMO) - Electro-Optical
EO/IR (TMO) - Electro-Optical/Infrared
ERF - Entity Resolution Federation
ERS - Engine Room Simulator
ES - Electronic Support
ESC - Equipment Spectrum Certification
EST - Engagement Skills Trainer
EST - Engagement Skills Trainer
ETC-IS - Exportable Training Capability-Instrumentation System
EW (TSMO) - Electronic Warfare
EWT - Electronic Warfare Test
EXCON - Exercise Control
FAA - Federal Aviation Administration
FASIT - Future Army Systems of Integrated Targets
FCS - Fire Control Systems
FedBizOpps - Federal Business Opportunities
FLETC - Department of Homeland Security, Federal Law Enforcement Training Center
FMB - Full Mission Bridge
FMS - Foreign Military Sales
FOCUS - Field Operations Customer Support
FoF - Force-on-Force
FON II (IMO) - Fiber Optic Network
FoT - Force-on-Target
FS XXI - a state-of-the-art, contractor-owned training service that teaches student pilots to fly a host of different aircraft in controlled, simulated environments without ever leaving the ground; it also teaches crew and collective training; based in and around the U.S. Army Aviation Center of Excellence at Fort Rucker, AL
FSCATT - Fire Support Combined Arms Tactical

Trainer
FSR - Acquisition Support, the Field Service Representatives
FTI - Fixed Tactical Internet
GEOINT – Geospatial Intelligence
GOCO – Government Owned Contractor Operated
GOGO – Government Owned Government Operated
GPS (TSMO) – Global Positioning System
GRCS - Guardrail Common Sensor
HBCT - Heavy Brigade Combat Team
HBCU/MSI - Historically Black Colleges & Universities and Minority Serving Institutions
HBSS - Host Based Security System
HCC - HUMINT Control Cell
HEAT - HMMWV Egress Assistance Trainer
HEL (IMO) - High Energy Laser
HELIX - Homestation Enabling Low-overhead Integrated Exercise
HEMTT - Heavy Expanded Mobility Tactical Truck
HICON - Higher Control
HIMARS - High-Mobility Artillery Rocket System
HISS - Helicopter Icing Spray System
HITS - Homestation Instrumentation Training System
HLA - High Level Architecture
HMD - Helmet Mounted Displays
HMMWV - High Mobility, Multipurpose, Wheeled Vehicle
HPM - High Power Microwave
HQDA - Headquarters Department of the Army
HSAT - High Speed Aerial Targets
HUBZone - Historically Underutilized Business Zone
HUMINT - Human Intelligence
HYEX - Hydraulic Excavator
I2 - Integration and Interoperability
IA - Information Assurance
IAITL - Information Assurance Integration and Training Lab
IBCT - Infantry Brigade Combat Team
IC3 - Improved Command, Control and Communications
ICT - Institute for Creative Technologies University of California
ID/IQ - Indefinite Delivery/Indefinite Quantity
IDF - Indirect Fire
IED - Improvised Explosive Devices
IED-D - Improvised Explosive Device-Detect/Defeat
IEDES - Improvised Explosive Device Effects Simulator
IETM - Interactive Electronic Technical Manual
IEWTPT - Intelligence Electronic Warfare Tactical Proficiency Trainer
IFR - instrument flight rules
IFT - Instrument Flight Trainers
ILOD - Intel Low Overhead Driver
IMI - Interactive Multi-media Instruction
IMILES - Instrumentable Multiple Integrated Laser Engagement System
IMILES CVTESS - IMILES Combat Vehicle Tactical Engagement Simulation System
IMILES IWS 2 - IMILES Individual Weapon System 2
IMILES SLM - IMILES Shoulder Launched Munitions
IMILES TVS - IMILES Tactical Vehicle System
IMILES UCD/MCD - IMILES Universal Control Device/Micro-Controller Devices
IMINT - Image Intelligence
I-MTS - Integrated-Military Operations on Urban Terrain Training System
IMTS - JMRC - Joint Multinational Readiness Center, Hohenfels, Germany Integration
IO - Information Operations
IOC (TMO) - Initial Operational Capability
IOS - Instructor Operator Stations
IPO - International Programs Office
IR (TSMO) - Infrared
IR/DRTS - Instrumented Ranges/Digital Range Training System
ISR - Intelligence, Surveillance and Reconnaissance
ISS - Instruction Support System
ISTF - Installed Systems Test Facilities
IT - Information Technology
ITAS-TESS - Improved Target Acquisition System-Tactical Engagement Simulation System Field Training System
ITE - Integrated Training Environment
ITF - Integrated Threat Force
ITSE - Information Technology System Engineering
IW - Irregular Warfare
IWF - Intelligence, Warfighting Function
JCAS - Joint Close Air Support
JCW - Joint and Coalition Warfighting
JCWC - Joint coalition and Warfighting Center's
JDIF - Joint Development Integration Facility
JDLM - Joint Deployment Logistics Model
JEEI - Joint Exercise and Experimentation
JERRV - Joint Explosive Ordnance Disposal Rapid Response Vehicle
JFCOM - Joint Forces Command
JFETS - Joint Fires and Effects Trainer System
JFPL - Joint Fires Product Line
JHSV - Joint High Speed Vessel
JIIM - Joint, Intergovernmental and
JITC - Joint Interoperability Test Command
JL VC - Joint Live, Virtual, Constructive
JLCCTC - Joint Land Component Constructive Training Capability
JLCCTC - ERF - JLCCTC Entity Resolution Federation
JLCCTS - MRF - JLCCTC Multi Resolution Federation
JMRC - Joint Multinational Training Center
JNTC - Joint National Training Center, Fort Irwin, California
Joint - operations that involve two or more U.S. armed forces

JOSE - Joint Operating system Environment
JPATS - Joint Primary Aircraft Training System
JRTC - Joint Readiness Training Center, Fort Polk, Louisiana
JTAC - JFPL Joint Terminal Attack Control
JTAC - Joint Terminal Attack Control
JTIEC - Joint Training Integration and Evaluation Center
JUTC (IMO) - Joint Urban Test Capability
KAFTC - Kuwait Armed Forces Training Center
KW CASUP TESS - Kiowa Warrior Cockpit And Sensor Upgrade Program Tactical Engagement Simulation System
LASAR - Light Assault/Attack Reconfigurable
LAST - Learning with Adaptive Simulation and Training
LBA TESS - (Apache) Longbow Tactical Engagement Simulation System
LBA TESS - Longbow Apache Tactical Engagement Simulation System
LCCS - Life-Cycle Contractor Support
LCM - Landing Craft Mechanized
LCT - Longbow Crew Trainer
LCU - Landing Craft Utility
LMTS - Laser Marksmanship Training System
LOMAH - Location of Hit or Miss (marksmanship trainer)
LSV - Logistics Support Vessel
LVC - Live Virtual Constructive
LVC SE - LVC Simulation Equipment
LVC-G - Live, Virtual, Constructive-Gaming
LVC-IA - LVC Integrating Architecture
LVC-ITE - Live, Virtual, Constructive-Integrated Training Environment
M&S - Modeling and Simulation
M270A1 MLRS MT - M270A1 Multiple Launched Rocket Systems Maintenance Trainers
MAIT - Maintenance Assistance and Instruction Training
MARCORSYSCOM - Marine Corps Systems Command
MASINT - Systemic Intelligence
MAST - Man-Portable Aircraft Survivability Trainer
MATV - MRAP All Terrain Vehicle
MC - Mission Command
MCA - Military Constructive, Army
MCCTT - Mobile Close Combat Tactical Trainer
MCIT - Multi-Cultural Mobile Counter-IED Interactive Trainer
MCNI-TR (TSMO) - Mobile Communication Network Infrastructure Test Range
MCTC - Maneuver Combat Training Center
MCTC - Mission Command Training Center
MCTP - Mission Command Training Program
MDMP - Military Decision Making Process
MDT - Mine Detonation Trailer
MELB - Mission Enhanced Little Bird
MET - MRAP Egress Trainer
MGS - Mobile Gun System
MGS TESS - Mobile Gun System Tactical Engagement Simulation System
MGT (TMO) - Mobile Ground Targets
MGTH (TMO) - Mobile Ground Targets Hardware
MGTO - Mobile Ground Targets Operations
MI - Master Interface
MILES - Basic Multiple Integrated Laser Engagement Systems
MILES 2000 - Multiple Integrated Laser Engagement System 2000
MILES XXI - Multiple Integrated Laser Engagement System XXI
MILSTAR - Extremely High-Frequency Satellite Simulator
MILSTD - Military Standard
MITS - Maritime Integrated Training System
MLRS - Multiple Launch Rocket System
MMPV - Medium Mine Protected Vehicle
MMTS (IMO) - Mobile Multi-Sensor Time-Space-Position Information System
MOS - Military Occupational Specialties
MOUT - Military Operations on Urban Terrain
MOUT IMTS - Integrated Military Operations on Urban Terrain (MOUT) Training System
MPCV - Mine Protected Clearance Vehicle
MPRC - Multipurpose Range Complex
MPTR - Multi-Purpose Training Range
MRAP - Mine Resistant Ambush Protected vehicle
MRAP WITS and MK (Mark) 19 - Mine Resistant Ambush Protected training suite with Wireless Independent Target System and Mark 19 Grenade Launcher
MRF - Multi-Resolution Federation
MRX - Mission Rehearsal Exercise
MSALTS (IMO) - Multi-spectral Sea and Land Target Simulator
MSAT (TMO) - Medium Speed Aerial Target
MSTC - Medical Simulation Training Center
MT-C2 - Medical Training Command and Control
MTES - Medical Training Evaluation System
MTRS - Man Transportable Robotic Systems
MTS - Maintenance Training System
MTT - Mobile Training Team
MCTC - Mission Command Training Centers Multinational
MUTS - Mobile Urban Training System
MWS (TSMO) - Missile Warning System
NATO - North Atlantic Treaty Organization
NAWCTSD - Naval Air Warfare Center Training Systems Division
NBCRS FOX - M93 Nuclear, Biological, Chemical Reconnaissance System Simulator
NCM3 - Non-Rated Crew Member Manned Module
NESTS (TSMO) - Network Electronic Support Threat Sensor
NET - New Equipment Training
NETT (TSMO) - Network Exploitation Test Tool
NGATS - New Generation Army Target Systems

Ground Target Programs
NIPRNET - Non-classified Internet Protocol Network
NSTD - Non System Training Device
NVIG - Night Vision Image Generator
OASIS EIS (IMO) - Operational Test command Advanced Simulation and Instrumentation System Enterprise Integration System
OCONUS - Outside Contiguous United States
OEM - Office of Emergency Management
OFT - Operational Flight Trainers
OGA - Other Government Agencies
OHISS (IMO) - Objective Helicopter Icing Spray System
OIPT - Overarching Integrated Team
OISs - Objective Instrumentation Systems
OLCTS - Operational Language and Culture Training System
OneSAF - One Semi Automatic Forces
OneTESS - One Tactical Engagement Simulation System
OPFOR OSV and MBT TESS - Opposing Forces and OPFOR Surrogate Vehicle and Main Battle Tank Tactical Engagement Simulation Systems
OPFOR WEAPONS - Opposing Forces Weapons
OSBP - Office of Small Business Programs
OSC-I - Office of Security Cooperation – Iraq
OSD - Office of the Secretary of Defense
OSINT - Open Source Intelligence
OTC - Operational Test Command
OTVC (TMO) - Operational Threat Vehicle Company
PALT - Procurement Administrative Lead Time
PARC - Principle Assistant Responsible for Contracting
PC IGs - Personal Computer Image Generators
PEO - Program Executive Officer
PEO C3T - Program Executive Office, Command, Control and Communications Tactical
PEO STRI - Program Executive Office for Simulation, Training and Instrumentation
PM - Program Manager
PM ACTT - Product Manager Air and Command Tactical Trainers
PM CATT - Project Manager Combined Arms Tactical Trainers
PM ConSim - Program Manager Constructive Simulations
PM Field OPS - Program Manager Field Operations
PM GCTT - Product Manager Ground Combat Tactical Trainers
PM ITTS - Project Manager for Instrumentation, Targets and Threat Simulators
PM STS - Product Manager Special Operations Forces Training Systems
PM TRADE - Project Manager for Training Devices
PM TRASYS - Program Manager Training Systems
PMs - Project Managers
POC - Point of Contact
POC - Primary Operating Center
PSG - Project Support Group
PTS (TMO) - Precision Target Signature
RATO (TMO) - Rocket Assisted Take-Off
RCS (TMO) - Radar Cross Section
RCTS - Route Clearance Training Services
RCU - Radio Control Unit
RDECOM STTC - U.S. Army Research, Development and Engineering Command's Simulation and Training Technology Center Reconnaissance
RF (TSMO) - Radio Frequency
RF-IED - Radio Frequency – Improvised Explosive Device
RGB - (Kurdistan) Regional Guard Brigades
ROC-V - Recognition of Combat Vehicles
RRRP (IMO) - Range Radar Replacement Program
RVS - Reconfigurable Vehicle Simulator
RVS - Reconfigurable Vehicle System
RVTT - Reconfigurable Vehicle Tactical Trainer
S&T - Science and Technology
S2 - Intel Staff Office(r)
SAF - Semi-Automated Forces
SAGIS - Special Operations Forces Air Ground Simulation
SAM - Surface-to-air missile
SAM - System for Award Management
SANG - Saudi Arabian National Guard
SAWE/MILES II - Simulated Area Weapons Effects/ Multiple Integrated Laser Engagement System II
SBCT - Stryker Brigade Combat Team
SBCT VIIP - Stryker Brigade Combat Team Vehicle Instrumentation Interface Package
SBUDs - Simulation Block Updates
SCT - Shadow Crew Trainer
SE - Synthetic Environment
SE - Systems Engineering
SE Core - Synthetic Environment Core
SEO - System Engineering Office
SEP - System Enhanced Package
SETA - Systems Engineering and Technical Assistance Services
SH - Shoot House
SIGACT - Significant Activity
SIGINT - Signals Intelligence
SIGINT/DF - Signal Intelligence and Direction Finding
SIM/STIM - Simulation/Stimulation
SIM-C2 - Simulation-Command and Control
SIMCI - Simulation to C41 Interoperability
Six-DOF - six degree of freedom
SLM - Shoulder launched Munitions
SM - Spectrum Management
SM - Support Mission
SMART-T - Secure Mobile Anti-Jam Reliable Tactical Terminal Training System
SMODIM - Smart Onboard Data Interface Module
SNE - Synthetic Natural Environment
SNS - PM Field OPS Assistant Program Manager for Soldier Non-System Training

SNS - Soldier Non-System (Training) Systems, i.e., systems used by all Soldiers and not
SOA - Service Oriented Architecture
SOA - Special Operations Aviation
SOA CMS - Special Operations Aviation Combat Mission Simulator
SOAR(A) - Special Operations Aviation Regiment (Airborne)
SOF - Special Operations Forces
SOF VMR - Special Operations Forces Virtual Mission Rehearsal
SRP - Sustainable Range Program
STIL (IMO) - System Test Integration Laboratory
STIL/CSI (IMO) - Systems Test Integration Lab/Crew Station Interface
STMAs - Senior Training Management Advisors
STOC II - Simulations and Training Omnibus Contract
STRAC (TMO) - Standards In Training Commission
STRI BOP - PEO STRI's Business Opportunity Portal
Stryker ATGM - Stryker Anti Tank Guided Missile
Stryker NBCRV - Stryker NBC Reconnaissance Vehicle
STS - Stryker Tow Simulator MILES XXI
SUPT - Specialized Undergraduate Pilot Training
SUT - System Under Test
T&E - Test and Evaluation
T&E/S&T - Test and Evaluation, Science and Technology
TAC - Terminal Attack Control
TACSIM - Tactical Simulation
TADSS - Training Aids, Devices, Simulators and Simulations
TAS TESS - (Improved) Target Acquisition System Tactical Engagement Simulation
TCC - Technical Control Cell
TCC - Test Control Center
TCNO - Threat Computer Network Operations
TCS (TMO) - Target Control System
TENA - Training Enabling Architecture
TES - Tactical Engagement Simulation
TESS - Tactical Engagement Simulation System
TEV - Tank Engineering Variant
TFPS - Transportable Flight Proficiency Simulator tied to a specific weapons platform
TIEW (TSMO) - Threat Intelligence Electronic Warfare
TIEW ENV - Threat Intelligence and Electronic Warfare Environment
TILO - Technology and Industry Liaison Office
TMDE - Test Measurement and Diagnostic Equipment
TOC - Tactical Operation Center
TOW ITAS - Tube-launched, Optically-tracked, Wire command-link guided Improved
TRACR - Targetry Range Automated Control and Recording
TRADOC - U.S. Army Training and Doctrine Command
TRL - Test Readiness Level
TRMC (IMO) - Test Resource Management Center
TRPP - Tactical Radio Purchase Program
TSA - Target Signature Arrays
TSIJ (TSMO) - Threat Signal Injection Jammer
TSPG - Training Systems Product Group
TSPI (IMO) - Time, Space and Position Information
TSRT - Theater Specific Readiness Training
TSSC - Training Systems Support Center
TSV - Theater Support Vessel
TTA (IMO) - Test Technology Area
TTPs - Tactical Techniques and Procedures
TTPs - Tactics, Techniques, and Procedures
TUAS - Tactical Unmanned Aerial System
TUD - Threat Unmanned Devices
UAC - Urban Assault Course
UAS - Unmanned Aircraft Systems
UAS (TMO) - Unmanned Aerial Systems
UAS (TMO) - Unmanned Aircraft System
UAS-T (TMO) - Unmanned Aerial System-Target
UAV - Unmanned Aerial Vehicle
USAF - United States Air Force
USAIC - United States Army Intelligence Center
USAREUR - United States Army Europe
USFOR-A - United States Forces – Afghanistan
USN - United States Navy
USSOCOM - United States Special Operations Command
UTM - Urban Terrain Module
VBS2 - Virtual Battlespace 2
VCCT - Virtual Combat Convoy Trainer
VCTS - Virtual Clearance Training Suite
VDS - Vessel Defense System
VMMD - Vehicular Mounted Mine Detector
VPS - Virtual Patient System
VSAT - Very Small Aperture Terminals
VSR - visual flight rules
Warfighter FOCUS (WFF) - Warfighter Field Operations Customer Support
Warfighter FOCUS - Warfighter Field Operations Customer Support Contract
Warrior A and E/P - Unmanned Aerial System Extended Range/Multi- Purpose
WARSIM - Warfighters' Simulation
WCCJ (TSMO) - Wideband Configurable Controlled Jammer
WESS - Weapons Effects Signature Simulation
WFXs - Warfighter Exercises
WL - Wheel Loader
WOO - Warfighter Outreach Office
WSMR - White Sands Missile Range
WSMR (TMO) - White Sands Missile Range (in NM)
WTI - Warrior Training Integration

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