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Located in Orlando, Florida, PM TRASYS is Marine Corps Systems Command's executive agent assigned to manage acquisition and life-cycle support of Marine Corps ground training systems, devices, and training support services. PM TRASYS equips and sustains the Marine Corps with the most capable and cost-effective training systems for current and future expeditionary and crisis response operations. We provide various training products including simulators, mock weapons, range targets, range

instrumentation, training technology research and development,

distributed learning capabilities, training observation capabilities, and after-action review systems. All of this is successfully accomplished by a staff of 180 including Marines, civilians and contractor personnel with professional expertise across the areas of program management, engineering, training facilities engineering, logistics, instructional systems design, procurement, contract management, cost estimation, budget and financial management, live, virtual, constructive integration, and business operations. PM TRASYS also supports customers, fielded training systems, and training support services with TRASYS Liaison Offices (TLOs) located across and outside the United States. At PM TRASYS we understand the Marine Corps' needs and vision. By providing training systems, training environments, and training support and sustainment, we support Marines with their overall mission.

Colonel Marcus J. Reynolds has served as Marine Corps Systems Command's Program Manager for Training Systems since April 2022.

Reynolds enlisted into the Marine Corps in 1993 and was commissioned in 1998. He has served overseas for 11 years including deployments throughout the Indo-Pacific area of responsibility as well as combat deployments to Kuwait as an individual augmentee with Coalition Forces Land Component Command in support of Operation Iraqi Freedom (OIF) as well as leading an embedded training

### **PROGRAM MANAGER**

team in Afghanistan during Operation Enduring Freedom (OEF). He was selected for the Secretary of Defense Executive Fellowship Program in 2020 and served a year as an Executive Fellow at Microsoft Corporation in Washington, D.C., upon completion of training at the Darden Business School in Charlottesville, Virginia.

His research papers on Mixed Reality have been published in the Marine Corps Gazette and in the U.S. Naval Institute's Proceedings.

He holds an Associate of Science in Drafting & Design Technology, a Bachelor of Science in Industrial Technology from West Virginia Institute of Technology and a **Master of Science in Project** Management from Colorado Technical University, He holds DAWIA Certifications in Program Management Level 3, Engineering Level 1, Facilities Engineering Level 1, has completed PMT 4010, and is a member of the Defense Acquisition Corps. He is a graduate of EWS, Command & Staff College, and Air War College.



The Product Manager for Range Training Systems (PdM RTS) provides U.S. Marine Corps bases and stations with live force-on-force, force-on-target tactical engagement training and dynamic capabilities for real time and post mission battle tracking and after action review. RTS directly impacts tactical training and the commander's ability to meet mandated pre-deployment training requirements, which ultimately affects force readiness. In addition to concentrating on live, interactive simulations and ranges, RTS also provides support to more than 1,400 range training areas (165 are instrumented) across the Marine Corps enterprise - working hand in hand with Naval Facilities Engineering Command on military construction projects on range modernization efforts that require site preparation and simulator buildings that will house our simulators.

# FORCE -ON -FORCE TRAINING SYS



### **DESCRIPTION**

Force-on-Force Training Systems (FoFTS) Marine Corps Tactical Instrumentation System (MCTIS) provides realistic, non-live fire capabilities to perform force-on-force training using personnel (MCTIS-P), vehicle (MCTIS-V), and surrogate weapon (MCTIS-WS) devices as part of a suite of tactical engagement capabilities that enhance training around the world and across the range of military operations. The employment of FoFTS provides instant feedback and after-action capabilities which enhance both the realism and effectiveness of force-on-force training from small unit-level to large-scale training exercises. MCTIS is the replacement system for Instrumented Tactical Engagement Simulation System (ITESS-II).



The Special Effects Small Arms Marking (SESAMS) project provides weapons modification kits to fire low-velocity marking ammunition while precluding the weapon from firing live ammunition. This capability provides immediate visual and sensory feedback to the shooter and target during force-on-force close quarter battle scenarios, reducing risk to participants and the maintenance costs to shooting houses.



Infantry Immersion Trainers (IITs) are small unit training ranges consisting of urban structures finished and decorated to replicate geo-specific locations paired with integrated direct fire training systems, virtual simulation screens and windows, and video instrumentation for after action review. The indoor and outdoor mixed reality training environments highly replicate current operational theaters by stimulating the Warfighter's senses in order to stress small unit actions and small unit leader tactical, moral and ethical decision making within the context of operational culture.

PM TRASYS
2024 P&S CATALOG

COMBAT TRAINING ENVIRONMENT



### **DESCRIPTION**

Combat Training Environment (CTE) incorporates "real world" conditions, which replicate urban environments commonly encountered within the theater of operation. These training systems include a variety of technologies and configurations to target various training scenarios and objectives supporting a variety of training tasks related to the deployment and maneuver of Marines in urban settings. These training systems are comprised of non-permanent building structures constructed of various materials configured for training in both live fire and non-live fire environments. The structure, character, density, and features of each system are designed to reflect logical functions that are typical within the settings being replicated (e.g., residential, commercial, industrial, recreation, religious, etc.).



### ACTICAL VIDEO CAPTURE SYSTEM



### **DESCRIPTION**

The Tactical Video Capture System (TVCS) provides video-based real-time visualization, situational awareness,

and after-action review (AAR) capabilities to support Marine Corps live training. TVCS provides these capabilities through the use of a commercial off-the-shelf integrated video management software suite containing a graphical user interface, two-dimensional high definition (HD) displays, configurable video based alarms, and the ability to provide quick access to any desired camera view and audio during a training exercise. The HD view and other system tools are used in real-time to observe the Marine's Urban Warfare tactics and highlight strengths and weaknesses for later use during both group and individual AAR evaluation sessions. TVCS provides performance feedback to Marines via immediate "hot wash", full AAR, and/or a video take-home package allowing for continued analysis of tactics, techniques and lessons learned.



UNDERWATER SSTRAINER



### **DESCRIPTION**

The Underwater Egress Trainer (UET) program consists of classroom instruction and familiarization of the training methodology - knowledge-based training followed by the performance-based training in the "dunker" devices. The Modular Amphibious Egress Trainer (MAET) uses a generic fuselage section representing rotary aircraft, amphibious vehicles, cockpits and cabin emergency escape exits. The MAET trainer acts as a 'dunker,' which functions closely to the general characteristics of a 'ditched' aircraft. During a training exercise, the MAET is lowered into a pool, and turned up to a 180 degree rotation on its longitudinal axis. MAET lifting systems (hoists and gantries) provide, at a minimum, a twospeed rate of descent retract. Students are able to practice under-water egress from the MAET in an upright position (zero degree rotation), an inverted position (180 degree rotation), or in any position between zero and 180 degrees. Current systems are able to simulate CH-46, CH-53 and MV-22 configurations and are adaptable to future platforms. The Submerged Vehicle Egress Trainer (SVET) has the same modular core and rotational capabilities as the MAET, but dedicated for ground vehicle simulation. It is equipped with modules for the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) and a generic amphibious track platform. The Shallow Water Egress Training (SWET) is an individual seat-type device used prior to and in conjunction with MAET and SVET. It is used to introduce water submersion and the proper use of current supplemental emergency breathing devices such as the intermediate passenger helicopter aircrew breathing device and survival egress air.

(HMMWV) EGRESS ASSISTAN П HIGH MOBILITY MUI



### **DESCRIPTION**

The High Mobility Multi-purpose Wheeled Vehicle Egress Assistance Trainer (HEAT) provides a realistic and relevant training environment for Marines to train tactical vehicle egress procedures in various degrees of vehicle rollover. Marines experience the real effects of a vehicle rollover, practice egress through cab doors and turret opening, receive reinforcement of the importance of wearing a seat belt and learn the procedures and effort levels required to execute vehicle egress.





Joint Light Tactical Vehicle Egress Trainer (JET) is similar to the high-mobility multipurpose wheeled vehicle assistance trainer with seating for four and a gunner compartment. The JET is a variant of the mine-resistant ambush-protected egress trainer (MET) modified by removing the MET variant capsule replacing it with a joint light tactical vehicle (JLTV) cab. The JET is capable of continuous or intermittent rotation allowing for the simulation of safety and survival procedures during a JLTV rollover. The JLTV cab interfaces with the existing mounting structure and tube weldments of the vehicle cage assembly.

### ANGE TRAINING AIDS PORTFOLIO



### **DESCRIPTION**

The Range Training Aids Portfolio (RTAP) includes ranges, targets, atmospherics, and battlefield effects simulators. These ranges enable rifle and pistol qualification, familiarization fire, live fire and maneuver, and escalation of force training. Targets include fielding and installation of all types of automated stationary and moving infantry and vehicle targets as well as automated scoring systems for traditional ranges and military operations on urban terrain (MOUT) facilities.

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### LIVE FIRE TRAINING SYSTEMS



### **DESCRIPTION**

The Live Fire Training Systems (LFTS) program will procure, field, install, and sustain the equipment needed to operate live fire ranges not previously fielded under the RTAP program. The LFTS program will provision individual and crew served, small arms weapon ground target systems for the following newly constructed, military construction ranges:

- Camp Pendleton, California Range P-637
- Guam Live Fire Training Range Complex Range P-715
- Known Distance Rifle Range (KDRR)
- Known Distance Pistol Range (KDPR)
- Modified Record of Fire Range (MRFR)
- Non-Standard Small Arms Range (NSSAR)
- Guam Live Fire Training Range P-735
- Multi-Purpose Machine Gun Range (MPMGR)

## SHELL TRAING SYSTEMS



The Product Manager for Synthetic Training Systems (PdM STS) provides training systems that leverage technology to provide immersive, cost-effective, and more accessible training to echelons from individual Marines through Marine Air-Ground Task Force staffs. The training systems support individual and collective synthetic training needs for occupational requirements, operational planning, and global readiness in an increasingly joint and partnered global security environment. Ongoing modernization efforts are advancing capabilities to familiarize, qualify, and sustain competency with weapon platforms and command and control tools to enhance training relevance, operational performance, and the overall lethality of the force.

### DEPLOYABLE VIRTUAL TRAINING ENVIRONMENT



### **DESCRIPTION**

The Deployable Virtual Training Environment (DVTE) will eventually be replaced by the Marine Common Virtual Platform (MCVP). DVTE is a laptop PC-based simulation system developed to sustain individual, team, and unit critical warfighting cognitive skills associated with the application of combined arms, squad, and platoon level tactics, various recognition of combatants (ROC) packages language/cultural training. DVTE/MCVP is capable of emulating organic and supporting infantry battalion weapons systems and training scenarios to facilitate training and readiness (T&R) based training while aboard ship, forward deployed, in garrison or schoolhouse environments. During fiscal year 24-25, DVTE hardware and software will be upgraded to enable virtual reality/mixed reality (VR/MR) training capabilities and be redesignated as the Marine Common Virtual Platform (MCVP). The first MR/VR capability planned for MCVP is the Joint Virtual Fires Trainer (JVFT).

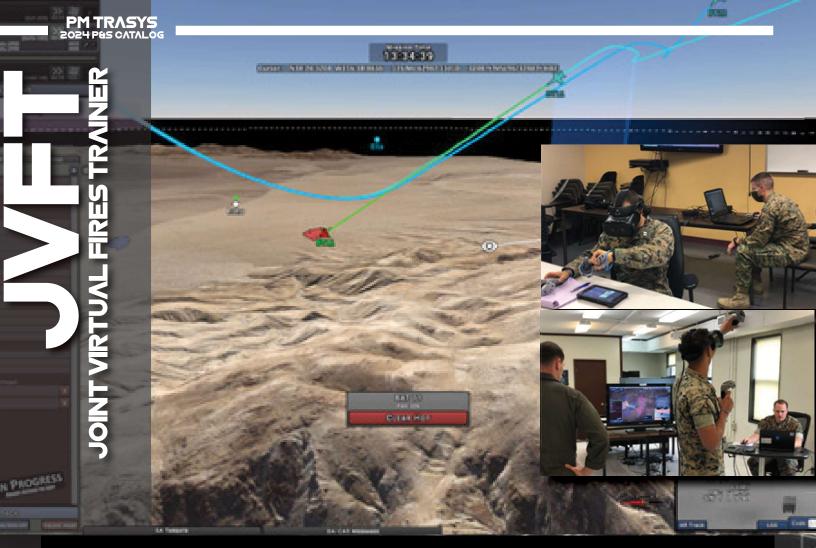
**WREARE SIMU** TOTAL PROPERTY PROPERTY **MAGTE TA** 

### **DESCRIPTION**

The MAGTF Tactical Warfare Simulation (MTWS) will eventually be replaced by the Maritime Constructive Simulator (MCS). MTWS/MCS is the Marine Corps' only constructive, aggregate-level simulation system used to support the training of Marine commanders and their battle staffs in Marine Air-Ground Task Force war-fighting principles/concepts as well as associated command and control procedures. MTWS/MCS is designed to support the training of commanders and their staffs in exercises involving live, virtual and constructive land, air and naval forces at all operational command levels. The system supports all levels of command throughout the marine expeditionary force and joint task force.



The Supporting Arms Virtual Trainer (SAVT) enhances operational readiness and tactical proficiency of USMC digital terminal attack controllers, forward observers, and forward air controllers. The simulator provides Marines a virtual environment for training using scenarios that require the placement of tactical ordnance on selected targets using digital close air support and observed fire procedures. These scenarios allow for practical application of naval surface fire support, artillery and mortar fire, neutralization, suppression, illumination, interdiction and harassment fire missions. SAVT may eventually become part of the Multi-Domain Fires Simulation (MDFS).



The Joint Virtual Fires Trainer (JVFT) provides the US Marine Corps the ability to train and rehearse Joint Fire, Close Air Support (CAS), Call For Fire (CFF) and Naval Surface Fire Support (NSFS) coordination in a 3D (VR/XR) environment while aboard ship, forward deployed, in a garrison or schoolhouse. The JVFT will provide a deployable (one-Marine portable), VR/MR training system capable of providing standards-based training and rehearsal of critical cognitive skills associated with the application of combined arms (air, surface and/or naval surface fires) by the Marine Air-Ground Task Force (MAGTF) at the Marine Expeditionary Unit and below. The JVFT will emulate surface or air vehicles, dismounted infantry, JTAC, Joint Fires Observer (JFO), Forward Aircraft Controller (FAC), Forward Observer (FO), Fire Direction Center (FDC) and other and other kill-chain nodes. It also provides a stealth 3D viewer, after-action review (AAR), and a semiautonomous force model in a 3d battlefield environment to all Marines to engage in virtual combat scenarios. The JVFT will be hosted on the Marine Common Virtual Platform (MCVP).

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The Live Virtual Constructive Training Environment (LVC-TE) is being developed as a persistent, all-domain, all-echelon software-intensive system that incorporates constructive simulations from the Joint Staff J7's Joint Live Virtual Constructive Federation to provide enhanced respresentation of all domains and of each service's capabilities. In addition, select legacy and new virtual reality and augmented reality technologies are integrated to support enhanced individual and small unit training as incereased training opportunities for high-demand/ low-density assets. Ultimately, the LVC-TE required by the Fleet Marine Force to support the future operating concepts envisioned in Force Design 2030.



Combat Vehicle Training Systems (CVTS) is a high-fidelity computer-based, interactive simulator that provides individual, crew, section and platoon training in precision gunnery and mission tactical skills to the light armored reconnaissance (LAR) and assault amphibian communities. CVTS trains Marines in vehicle operation skills, target acquisition and identification, tactical decision-making, maneuvering, and engagement using fire control systems and sighting equipment against mobile and stationary threats in a realistic battlefield environment. The LAR requirements are satisfied by the Light Armored Vehicle-25 (LAV-25) Advanced Gunnery Training Systems (AGTS). The AGTS variants include the relocatable AGTS (RAGTS), mobile AGTS (MAGTS), deployable AGTS (DAGTS) and table-top AGTS (TAGTS). The assault amphibian requirement is satisfied by the Assault Amphibious Vehicle Turret Trainer (AAV-TT). CVTSs are a gate-to-live-fire, and used to hone combat skills and improve readiness.

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### COMBAT CONVOY SIMULATOR



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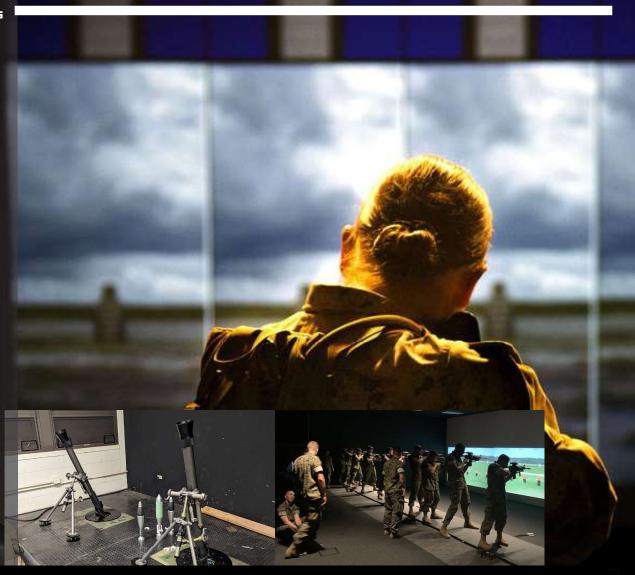
### **DESCRIPTION**

The Combat Convoy Simulator (CCS) is an immersive training environment for convoy operations. CCS provides training for vehicle operators, pasengers, and command elements. CCS supports versatile training in vehicle operations, crew-served weapons utilization, supporting arms integration, command and control procedures, and responses to enemy attacks and countermeasures. CCS is an exceptional tool for small unit tactics development, standard operating procedures rehearsal, and teambuilding.



Ground Vehicle Training Systems is the emerging family of systems that stems from baseline Operator Driving Simulator (ODS) to emerging high-fidelity training simulators. GVTS will support individual through collective training for motor transport operators and incidental drivers and vehicle crews using visual simulation, aural/audio/ haptic cues, and dynamic motion to promote a spectrum of reliable and realistic vehicle training experiences that improve global readiness.

### NDOOR SIMULATED MARKSMANSHIP



### **DESCRIPTION**

The Indoor Simulated Marksmanship Trainer (ISMT) uses simulation to instill and sustain Marines and Sailors in marksmanship fundamentals, mortars and crew served weapons employment, call for fire and tactical decision-making. A standalone ISMT can support up to five firing points while simulating known and unknown distance ranges or eight assigned weapons while executing tactical scenarios within Virtual Battlespace (VBS). When three ISMTs are networked together to form an Infantry Squad Trainer (IST), the system can support 15 firing points while simulating known and unknown distance ranges, or up to 24 assigned weapons while executing tactical scenarios within VBS. Marksmanship fundamentals are instilled and sustained through simulated qualification tables of fire which provide real time and after action review feedback of the shooter's line of sight, point of aim, and triggerpull for the entire engagement.

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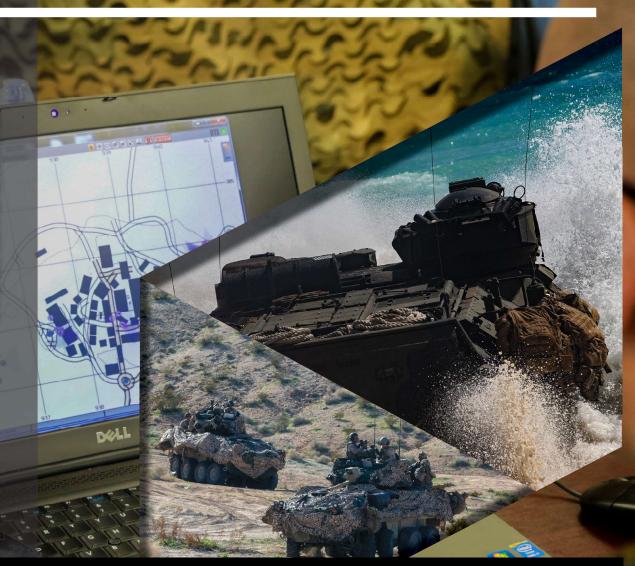
NOED SMALL ARMS



### **DESCRIPTION**

Advanced Small Arms Lethality Trainer (ASALT) provides an enhanced simulated capability that directly supports infantry Marines' weapons proficiency training to include updated scoring for basic/advanced marksmanship and team/squad drills. ASALT provides detailed feedback that measures overall human performance to include shot lethality. ASALT allows Marines to increase their cognitive decision-making and confidence in a dynamic environment - multiple targets, limited exposure targets, and shooting on the move. ASALT enhances live-fire performance, combat readiness, and overall lethality of the force.

### ERPRISE GROUND MAINTENANCE TRAINING SIMULATOR



### **DESCRIPTION**

The Enterprise Ground Maintenance Training Simulator (EGMTS) program is an emerging training capability that is intended to modernize the state of ground maintenance training devices. The program will accomplish the objective by providing a suite of common hardware and software platforms which will serve as a vehicle for developing course syllabi and related materials for schoolhouses and ground maintenance trainers. Hardware and software will use cutting-edge extended reality (XR) capabilities, which is comprised of virtual reality, augmented reality, and mixed reality technologies, in conjunction with more traditional software solutions to deliver a superior learning experience across the ground maintenance training continuum. EGMTS will provide a deployable, distributive capability to allow Marines access to ground maintenance training manuals (TMs), learning modules, training curricula, and other content on demand. The result will be a better trained force which yields increased equipment readiness and enhanced mission execution.

### ARFIGHTER TRAINING SUPPORT



The Product Manager for Warfighter Training Support (PdM WTS) provides a geographically-aligned mechanism for PM TRASYS to conduct contract surveillance and increase awareness of regional resources, relationships, and Marine Corps priorities linked to fielding and sustaining training systems. Emphasizing the warfighter-focused mission of PM TRASYS, WTS awards and manages contract actions which enable globally-deployed Marines to take advantage of training systems supported by contracted logistics partners, software sustainment, knowledge-based service support, and other range training products and services that enable mission readiness.

### SASYSLIMISON OFFICES

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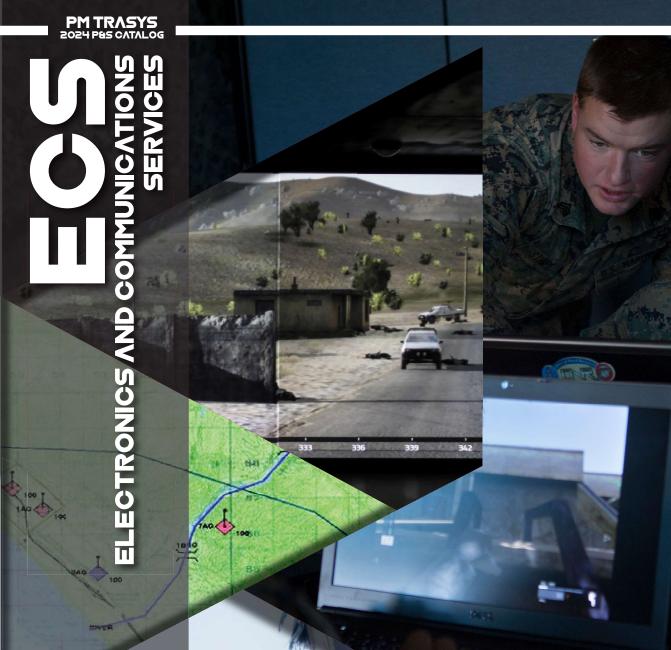
TWENTYNINE PALMS

HOME OF EXPEDITIONARY

FORCES IN READINESS

PM TRASYS has liaison offices and staff at major Marine Corps installations across and outside the continental United States to support customers, fielded training systems, and training support services. PM TRASYS provides support through worldwide, regional, base and home station operations, logistics and maintenance contracts, and through personnel at the TRASYS Liaison Offices (TLOs). The TRASYS Liaison Offices are staffed with program management and technical liaisons that enable direct lines of communication

with training systems customers, stakeholders, and industry support contractors. The technical liaisons provide a wide range of direct support for fielded training systems and their operation. They also have the capability to support training systems development and installation. The TLOs provide the ability to perform quick response or emergency modifications, assist with engineering and training analysis, and with the testing, acceptance and disposal of training systems.

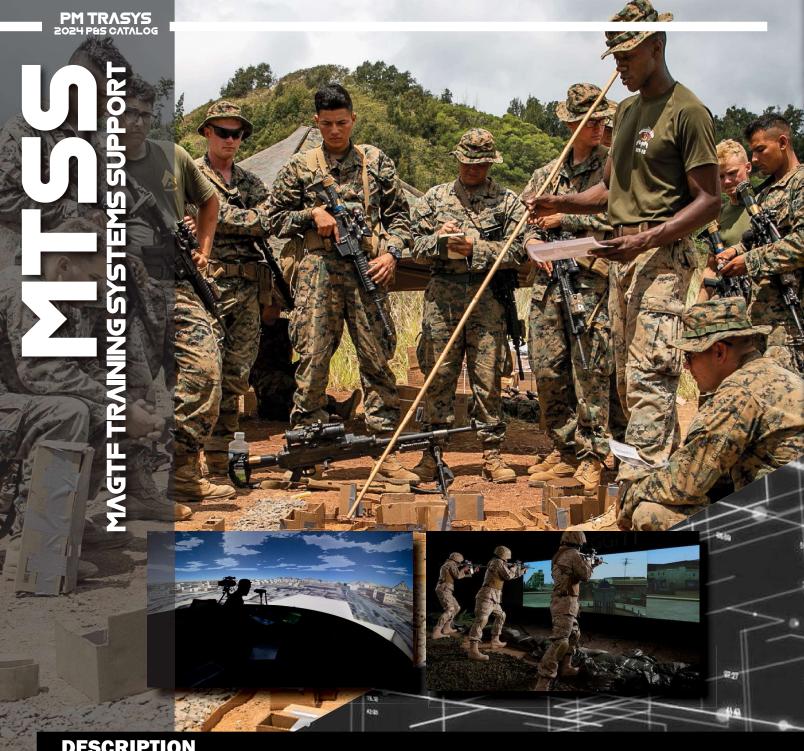


Electronics Communications Services (ECS) Service Portfolio Group is within DoD's Taxonomy of Services. The ECS MATOC will be used to issue task orders to provide sustainment support for areas to include post deployment software support, on-going software modifications and cybersecurity support. This MATOC will support existing and future USMC training systems to include MAGTF tactical warfare simulation system, the deployable virtual training environment, and the indoor simulated marksmanship trainer.

### EQUIPMENT RELATED SERVICES



The ERS - Systems (ERS-S) MATOC will include maintenance, logistics, and training requirements. The simulators and simulations supported under this contract are relatively complex items of training equipment, using electronic/mechanical means to reproduce conditions necessary for an individual, or a crew, to rehearse operational tasks. The simulators and simulations replicatethe functions and environment of actual equipment or systems. Programs or systems that are expected to be supported under this contract include the Underwater Egress Trainer (UET), Dry Rollover Egress Trainer (DRET), Indoor Simulated Marksmanship Trainer, (ISMT), Combat Convoy Simulator (CCS), Operator Driving Simulator (ODS), and Combat Vehicle Simulators (CVTS).



The Marine Air-Ground Task Force Training Systems Support (MTSS) contract was established in 2019. The knowledge-based services multiple award task order contract is structured for maximum flexibility by providing an expedited ordering process to satisfy training and education requirements in Training and Education Command organizations. This contract may be used to satisfy all worldwide training and education requirements for any Marine Corps organization that is directly supporting Marine Corps training and education that are within its scope.

# GROUND TRAININGS







### **DESCRIPTION**

The Ground Training Systems Support (GTSS) contract provides contractor sustainment support services for ground training systems at USMC bases, stations, and training centers. The services provided include: systems operations, maintenance, inventory management, supply services, and user training and instruction to support training events at training environments while integrating the use of training devices. The ground training environments supported include the Immersion Training Range **Support (ITRS), Military Operations in Urban Terrain (MOUT),** and several ground training ranges. GTSS services also support various ground training instrumented systems, such as the Instrumented Tactical Engagement System (I-TESS) and Tactical Video Capture System (TVCS). Through the GTSS warehouses, training devices such as Special Effects Small Arms Marking System (SESAMS), Battlefield Effects Simulators (BES), and portable target systems are also available for training. The GTSS contract also supports other stand-alone trainers such as the Pit Safety Sentry Systems, and other part-task trainers.

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TRACKLESS MOBILE INFANTRY



### **DESCRIPTION**

Trackless Mobile Infantry Targets (TMITs) are semi-autonomous, human-like, live fire robotic targets that provide realistic characteristics of a "thinking" opposing force. TMITs are all terrain, programmable, three-dimensional targets that function as free-roaming (within geo-fenced areas), variable speed/variable acceleration movers that react to fire, and provide auditory and visual feedback. TMITs provide small unit leaders the ability to improve target recognition and discrimination, decision-making, and battlefield shooting proficiency. This training capability revolutionizes the way Marines train by providing tools which enable commanders to develop dynamic, combat-realistic training scenarios to increase unit lethality and the combat effectiveness of the individual Marine.



The immersion training range support, home station training lanes, and Marine Air Ground Task Force Training Command training requires the employment of roleplayers to act as foreign language specialists, civilians, insurgents, terrorists and other personnel encountered in the applicable theater of operations. Role players are provided via commercial contract with the flexiblity to incorporate changes to training requirements that reflect the current cultural, political, and tactical environment where the US Marine Corps will be deployed. The role player support contract extends to 14 locations within the continental United States and Hawaii. Contracts awarded for roleplayers is all-inclusive for labor, clothing, housing, food, and all services required for the subject matter experts to perform required operations as well as incidentals to equip and prepare these contracted personnel to serve as roleplayers during pre-deployment training operations.

### MARINE CORPS SYSTEM COMMAND PROGRAM MANAGER TRAINING SYSTEMS



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