Collective Unit Training System

Overview

Joint Fires Training has become a major focus in the collective unit capability of today's fighting forces. The mission takes more than just the "Cleared Hot" and "Fire for Effect" to be successful... the Collective Unit Training System (CUTS) from IDSI utilizes a progressive design approach to modular and scalable training curriculum by integrating BSI Modern Air Combat Environment (MACE) with the MetaVR Virtual Reality Scene Generator (VRSG) in a range of Immersive Display Solutions' dome and cylindrical visual systems to produce a progressive, interoperable distributed training environment for both individual and collective training.

Emulated Military Equipment

The CUTS systems will allow units to practice the skills required for joint fires training across multiple systems. The system can be scaled to train multiple teams that can be called upon by a Joint Fires Observer (JFO) or a Joint Terminal Attack Controller (JTAC). Each CUTS module allows units to have one or multiple mortar crews, JFO's, JTAC's as well as Pilot stations linked into the same training environment. This not only gives trainee's the ability to rehearse radio messages that will be used for Close Air Support (CAS) control, but also provides visual and auditory feedback of munitions employment to the target. In a fast paced training environment the CUTS provides unit commanders, instructors and trainee's the ability to test, refine and validate current and new TTP's. CUTS provides the ability to quickly reset a scenario and fully allow the participation of all parties.

The Collective Unit Training System was recently accredited by the Joint Fire Support Executive Steering Committee (JFS ESC) to complete mission essential training tasks for Type I, Type II, Type III, day and night missions under the 2015 JTAC Memorandum of Agreement (MOA). The system also supports the employment of Video Downlink (VDL) and simulated equipment such as Laser Target Designator, Binoculars and an integrated communications suite.

Portable CUTS

CUTS 400 Classroom

CUTS Product Family

Basic and Advanced Portable CFF and CAS Training Systems (CUTS 100/150 Series)

- Single Person Portable System in Ruggedized Cases
- Features VRSG and MACE software on enhanced laptop PC's with WFOV Monitors, Sensor Feeds, 1st Person Control and high-fidelity terrain databases
- CUTS 100/150 can be connected to any external display system
- CUTS 150 adds EME Module and Option for Large Screen Projection
- EME Module provides immersion through the Ranger 47 combined LRF, LTDR, and Digital Binocular
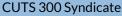
Individual Team Training Syndicate System (CUTS 300 Series)

- 1 x High-Fidelity 220° CURVE Display for Day/Night Scenarios
- 1 x Instructor Console and Role Player/Pilot Console Station
- 1 x Student-Controlled Virtual Position for Networked or Independent Training
- 4 x Student Stations with Tablet-based Radio and PTT Headsets
- Emulated Military Equipment, including Laser Range Finder/Designator, Izlid IR Pointer, ROVER, Radio tablets, and Compass
- Expandable to accept Immersive Desktop Pilot Station, Mortar Lines, Artillery Lines and Fire Direction Centers

Multiple Team Training Classroom (CUTS 400 Series)

- Multiple CUTS 300 Systems (Typically 3 x 120° CURVE Display)
- 3 x Student-Controlled Virtual Position for Collective or Independent Training
- 1 x Master Instructor Console and Role Player/Pilot Console Station
- 2 x Instructor Console

CUTS 300 Syndicate

CUTS 605 JTAC Trainer

Multiple Team Training Classroom (CUTS 400 Series) *continued*

- Emulated Military Equipment, including Laser Range Finder/Designator, Izlid IR Pointer, ROVER, Radio tablets, and Compass
- 1 x Immersive Desktop Dome

Dome Systems (CUTS 600 Series)

- Advanced JTAC Training System (AJTS) Dome System from Quantadyn
- Immersive Display Solutions 5-Meter Dome Visual Display with Simulation-specific Multi-Channel LED+IR Projection System for Day/Night Scenarios, MetaVR VRSG Image Generation and Battlespace Simulation MACE Environmental Generator Software
- 1 x Instructor Console and Role Player/Pilot Console Station
- Emulated Military Equipment, including Laser Range Finder/Designator, Izlid IR Pointer, ROVER, Compass, Radio tablets, and Emulated M4; 6-DOF Tracking System
- Also available in 3-Meter, 4-Meter and 6-Meter Configurations

Joint/After Action Review Module (J/AAR)

- IDSI's Joint/AAR has been tightly integrated within the CUTS Product Family to provide an After Action and During Action Review interface to any simulator-training environment
- Combines use of Situational Awareness Video, Audio and Data feeds with the flexibility to filter information as per the MSEL and/or end-users training objectives to create a powerful decision-making tool for decision making training with a "lessons learned" focus
- Displayed content focuses on intended training objectives, and links end-user performance to drive subsequent training requirements
- J/AAR is based on VAADAR software from Plexys Interface Products, Inc.

Emulated Equipment

VS2 Desktop Role Player/Pilot Station

AAR Display

Immersive Desktop Dome (VS2)

- VisionStation 2™ Immersive Desktop Display from IDSI

- Single-User Desktop Workstation Utilized as Role Player/Pilot Station

- Allows user to "attach to any asset perspective" for a more immersive training experience

- Can be operated stand-alone or connected to any networked CUTS System

- Includes Integrated Flat Monitor Display and HOTAS as standard equipment

Mortar Trainer Module (MT)

- Best of Breed Technology supplied in partnership with Meggitt Training Systems Inc.

- Ability to command a mixture of the 60LRM and 60-Commando mortar simulators, with separate sections

- Weapon Server Software and Hardware allows for up to 20 weapon systems to be "commanded" at the same time

- Teaches mortar teams on methods to properly adjust fuse/charge settings on high-fidelity Smoke, HE, and Illumination rounds

- Mortar Fire Control integration within individual and collective training environments

- Mobile Mortar Trainer (MMT) configuration also available as small unit stand-alone trainer

About Immersive Display Solutions

IDSI partners with its clients to design and integrate a range of both commercial and custom-designed cylindrical, panoramic and spherical visual display products including the necessary ancillary services to deliver cost-effective immersive simulation and training experiences to military and commercial customers worldwide.

To learn more about our Immersive Training Solutions, scan the QR code or visit
www.immersivedisplayinc.com