

Enhancing Tomorrow's

While the Institute for Creative Technologies (ICT) focuses on the delivery of technologies in the 6.1, 6.2 and 6.3 arenas, others are working to refine and enhance those fielded technologies for the warfighter. Just two months before the introduction of new “virtual human” technologies through programs such as ICT’s Emergent Leader Interactive Training Environment at the Maneuver Center of Excellence at Fort Benning, Ga., soldiers at the Fires Center of Excellence had begun training in their latest facility on a significantly enhanced iteration of ICT’s previously delivered Joint Fires and Effects Training System (JFETS). [See “High-Tech Training, Low-Tech Training,” February 2005.]

The upgraded capabilities were recently installed in the newly dedicated Jared Monti Hall at Fort Sill, Okla. Named for field artillery Medal of Honor recipient SFC Jared C. Monti (September 20, 1975–June 21, 2006), the 80,000-square-foot facility was dedicated in a ribbon-cutting ceremony in August as TRADOC’s newest mission simulation center.

“This is Fort Sill’s immersive training facility,” said LTC Michael Adams, officer in charge of the new facility and G7 for the Fires Center of Excellence. “This is where we try to get soldiers out of the classroom and put them behind the equipment that they are going to use in the field.”

“We support both of the schools here at Fort Sill—both Air Defense Artillery and Field Artillery,” he said. “We support everyone from privates going through basic training to noncommissioned officers, warrant officers and commissioned officers going through basic and career courses. We also get units from FORSCOM, including the 75th Rangers [Regiment] and 10th Mountain [Division]. We also get some foreign nations visiting and using our simulators.”

One of the simulator systems in the new building is an enhanced version of JFETS recently upgraded—along with the Engagement Control Station Simulator (ECS2)—under contract to Creative Technologies Inc.

“JFETS is a system that is used in this facility, but we also have ECS2 [used by the Army’s Air Defense Artillery School to train the engagement of aircraft using different missile systems] and some training classrooms,” LTC Adams said. “If there is any immersive technology that we could use to train soldiers it would be placed in this facility. It was not designed specifically for any one simulation. And we have designed the building for future growth.”

The relocated JFETS includes a number of enhancements to the urban terrain module. Walking into the latest version, Adams passed through a sliding door and down a hallway that visually transports students “into an apartment similar to what you might find in Baghdad or that part of the world.”

The Jared Monti Hall Mission Simulation Center, which was dedicated in August at Fort Sill, Okla., provides field artillery and air defense artillery training in a virtual environment. It was named for SFC Monti, who was posthumously awarded the Medal of Honor in 2009.



U.S. Army/Jeff Crawley

Technologies

By Scott R. Gourley



U.S. Army/Marie Berbera

The Engagement Control Station Simulator and an updated version of the Joint Fires and Effects Training System are among the simulator systems installed in the 80,000-square-foot Jared Monti Hall, where both air defense artillery and field artillery will train.

"The apartment has three large projection screen windows, and soldiers sit behind a laser designator/range-finder, looking out on the terrain and executing their training missions in this room. This environment is all new," he said. "It's been a good time to update some of our technology with new projectors."

One example of the upgraded environment from the student's perspective involves the "feeling" of wind blowing in one window and out the other.

"Or if there is an explosion on one of the screen projections they will puff air into the room," LTC Adams noted, "so you are actually feeling the air from that explosion. It's using more Hollywood special effects to help improve the effects that the soldier feels, meaning that they get more into the training and into the environment."

LTC Adams acknowledged that some system and set modifications have resulted from a lessons-learned process of returning warfighters. "That's one of the good things about having soldiers who have been deployed and then come back here for the Captain's Career Course or the Advanced Noncommissioned Officer's Course," he said. "For instance, in the old urban training module we had a throw rug on the floor. They told us, 'That looks like a prayer rug, and it is disrespectful to walk on a prayer rug. Perhaps you shouldn't have that on the floor.' So the rug disappeared," he said. Other lessons learned have led to modifications of the appearance and actions of characters appearing on the projection screens.

Another JFETS module is the adaptive full spectrum

module (formerly called open terrain module). "Across the street the [sand and rock] berm was a little bit further away from the screen," he observed. "But here in the new facility we've actually been able to expand the screen, so instead of 130 degrees it's now 180 degrees. That means we can get

the soldiers closer to the screen. We have rear projection so that when they get in here we dim the lights and all they see are this screen and the equipment that they are using to train on: They are on an OP [observation post]; they're calling for fire; and we have room for other students to observe from camp stools behind them. We're using simulated military equipment so they're picking up a handset on a PRC-117 [field radio]. They're dialing in their frequencies. They're talking to their fellow observers or their maneuver commander on the radio. They're using mockup LLDRs [lightweight laser designator rangefinders] with projection screens inside. It's all part of the immersive experience," he said.

"Right now we're working with the Program Executive Office for Simulation, Training and Instrumentation," LTC Adams said. "This will fall under the Call for Fire Trainer (CFFT) program, so this will be an actual part of a program of record [CFFT-II-Plus], meaning that it will be used throughout the Army."

The CFFT-II-Plus version will include reconfigurable modules that can be disassembled, stored, shipped and exported to Army units.

"They can pull the walls apart, pull the monitors off, put in some transit cases and ship it to wherever it is needed," he said. "And again we are upgrading some of the technologies. For example, we'll be going with the large LCD monitors instead of projection screens. So this is a good thing for us in being able to export this training capability to the rest of the Army." ★