Soldiers to Get New Trainers

By Scott Gourley
Contributing Editor

Beginning in July, soldiers will start receiving a new training capability in the form of the Reconfigurable Virtual Collective Trainer.

The new trainer will allow soldiers to train collaboratively, decentralized or together, like they would fight in combat, according to Maj. Austin Forsythe, assistant product manager for the Reconfigurable Virtual Collective Trainer in Program Executive Office Simulation, Training and Instrumentation.

"It allows them to get multiple 'sets and reps' with low overhead and low-cost impact, to allow them to develop the situational awareness that they need in order to meet the missions of tomorrow," Forsythe said.

The Army has collaborative training systems in the Close Combat Tactical Trainer used by armored brigade combat teams and the Aviation Combined Arms Tactical Trainer used by Army aviation units.

"Both of those have been in the Army arsenal since the 1990s," Forsythe said. "But with [the Reconfigurable Virtual Collective Trainer], we're moving to the next generation of systems, so that soldiers can collaboratively train better than they could before."

Numerous Options

The Reconfigurable Virtual Collective Trainer includes aviation platforms, ground platforms, dismounted infantry collective maneuver training, collective gunnery training and mission rehearsal capability, according to the Army. Platforms can be configured between type class, such as the aviation platform, which can be reconfigured between Black Hawk or Apache helicopter configurations. The reconfigurable trainers provide a mobile, transportable, modular and scalable training capability with the minimum hardware necessary to rep-

resent form, fit and function for the user to execute collective tasks.

The Reconfigurable Virtual Collective Trainer will use the Common Synthetic Environment platform enabler, which delivers software, applications and services, and is composed of three foundational capabilities: the One World Terrain database, a Training Management Tool and Training Simulation Software, according to the Army.

The Reconfigurable Virtual Collective Trainer and its capabilities have been "a goal for a few years," but the contract work has been underway for

about 2½ years, Forsythe said.

"So, it's moving very quickly," he said, adding that the trainer's prime contractor is Cole Engineering Services, a subsidiary of By Light.

Asked how the trainer is going to make warfighters' lives better, he said, "It will allow soldiers to

Gen. James Rainey, seated, commander of the U.S. Army Futures Command, tries out the Reconfigurable Virtual Collective Trainer-Aviation for the AH-64 Apache helicopter during a demonstration in Orlando, Florida.

U.S. ARMY/DONNIE RYAN

Above: Col. Scott Woodward, deputy commander of the U.S. Army Combined Arms Center-Training, uses the Reconfigurable Virtual Collective Trainer-Ground for the M1 Abrams tank during a demonstration in Orlando, Florida.
Opposite: Gen. Gary Brito, commanding general of the U. S. Army Training and Doctrine Command, checks out the Reconfigurable Virtual Collective Trainer-Ground for the Bradley Fighting Vehicle in Orlando.

ABOVE: U.S. ARMY/DONNIE RYAN. OPPOSITE: U.S. ARMY/ARIANA AUBUCHON

collectively train in ways that they can't do now. For example, if you're a ground unit at Fort Cavazos, [Texas, formerly known as Fort Hood,] and you're going to be working with aviation units at Fort Drum, [New York,] you can't collectively train with them in the current Army system.

"But in the future, you will be able to train together with the [Reconfigurable Virtual Collective Trainer], using a TMT and TSS. The TMT is a Training Management Tool that allows company commanders to train collaboratively across all echelons to prepare for mission execution. The TSS is the actual Training Simulation Software that pulls a soldier from the real world into the digital environment."

Forsythe expanded on the digital environment piece, explaining how it also allows the ability to add "constructive," or simulated soldiers and systems, into the training scenarios.

"That's one of the better things as well," he said. "If you don't have enough people to conduct training, let's say you only have one platoon of people available, and you want to train as a company, all of the other units that you're going to train with can be constructive. While you have your live platoon that is going to be the main effort on an action, you can work with your sister units without them even being there."

He added, "As a former ground commander, I never had the opportunity to work with aviators until it was time to execute the mission or go overseas. Now, we can do that with no expense to the Army other than the infrastructure they put in place for the [Reconfigurable Virtual Collective Trainer] so we can train collaboratively."

Constant Updates
"The software here is a fundamental departure from anything that we've done before," said Capt. Travis Miner, assistant product manager for Training Simulation Software and the Training Management Tool in Program Executive Office Simulation, Training and Instrumentation.

"It's not a piece of hardware with iterative software drops," Miner said. "It's constantly updated, just like your [cell]phone. You're going to get an update, and we're going to do [software] drops on it as it improves. We don't want to put a hard line in

the sand that we're then beholden to, that eventually restricts us. We don't want to do that. So, that is the difference. We are going to be pushing new software out.

"[Training Simulation Software] and [the Training Management Tool] take multiple Mission Command systems, and, for the first time, you have a single interface. You don't have to plug in multiple systems that speak different languages. We virtualized that on a single interface," Miner said.

Forsythe mentioned a Reconfigurable Virtual Collective Trainer aviation platform that could be changed out between a UH-60 Black Hawk and an AH-64 Apache gunner's position.

"We've conducted multiple soldier touch points over the last couple of years of development, to make it much easier for soldiers to take the platforms apart to change between systems," he said. "So, everything is color-coordinated. And, it comes in a transit case. So, [for example,] right now, we have a UH-60. To convert to an AH-64, you just unplug the cables, take the module off, set it back in its case, take out the AH-64 module, put it on and plug it in. In about 30 minutes, you're back to training."

Easy Access

Forsythe noted that the different training modules are designed so soldiers at a post could go to the post Training Support Center and draw them out like any other training device, take it to where they want to train, train with it, then return it to the support center.

Although the complete fielding plan is "still under development," he said, fielding will start toward the end of fiscal 2024, with the first unit likely fielded at Fort Cavazos around July 1.

"And before that, we're going to have an operational demonstration at Fort Cavazos in February … where we're going to bring all of our platforms, all of our ground assets, all of our air assets, and conduct a huge training exercise," he said.

Formal initial operational capability likely will be achieved following

additional planned fieldings in fiscal 2024 and fiscal 2025, with subsequent fielding plans to be determined based on each installation's needs.

"We're working with higher headquarters and the cross-functional teams," Forsythe said. "They let us know what they think an installation needs and we will build to that installation, based on what they currently have. For example, Fort Moore, [Georgia, formerly known as Fort Benning,] has approximately 72 to 74 [Close Combat Tactical Trainers], our current ground combat trainer. We need to make sure they have the same training capacity in the future.

"We need to know how much they need, and we need to fill that need, especially at places like Fort Moore, where there are so many soldiers training there. It's very important to make sure they don't miss any facet of their training and this new capability."

Joint Venture

The Army also is working with the Marine Corps on possible expansion of Reconfigurable Virtual Collective

Trainer capabilities to reflect new platforms.

"They're looking at the same types of scenarios," Forsythe said of the Marine Corps. "They are very wheeled-centric, so our common wheeled platform, which could be a Humvee, could also be looked at for a [Joint Light Tactical Vehicle], Light Medium Tactical Vehicle or Family of Medium Tactical Vehicles to conduct the logistical operations as well as movement of ground troops."

In addition to working across the sister services, the program is working with all the centers of excellence across the Army to develop other potential applications, he said.

Asked about other potential upgrades, he pointed to the unique Reconfigurable Virtual Collective Trainer system's design, saying, "This system is designed somewhat like your [cell]phone. We're getting an initial capability out to soldiers now. And we're going to continue to develop software packages and deliver those over the internet to add capability in the future." ★