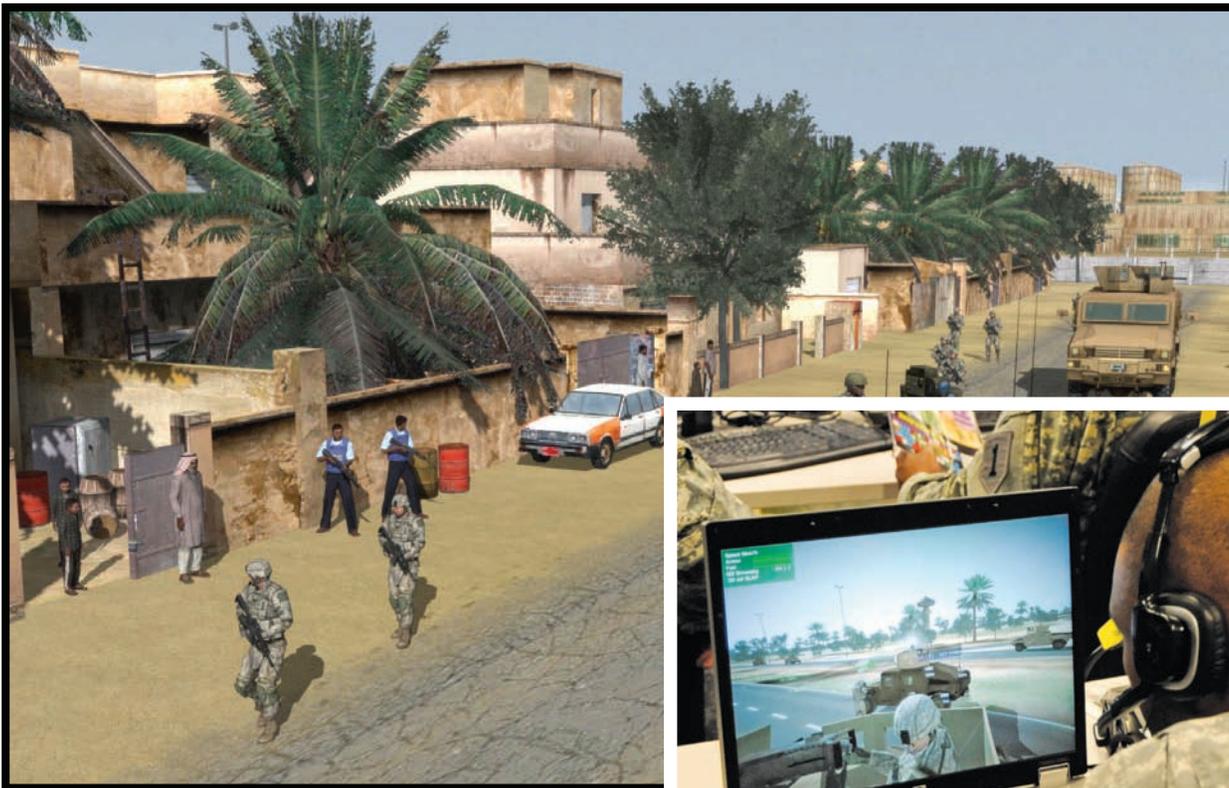


More than just a Game

Story and photos by Spc. Samuel J. Phillips



At right, A Soldier with Bravo Company, 101st Brigade Support Battalion, Fort Riley, Kan., mans the turret on his vehicle after his virtual convoy was ambushed during simulation training using Virtual Battlespace 2.

Throughout the Army, new training aids are providing leaders with valuable tools to ensure their Soldiers are ready to head to the field. Many of these come in the form of virtual simulators, found at most major installations, which can put a Soldier in the same type of environment they will be operating while deployed.

Though many of these simulators may resemble a first-person-shooter video game, they provide leaders the opportunity to train Soldiers in ways that were never before possible. At the same time, the simulators create a safe environment for Soldiers to learn important skills without the risk of injury or death.

One of these simulators is Virtual Battlespace 2. At first glance VBS2 looks just like a normal first-person shooter, a video

game genre centered around gun and projectile weapon-based combat where the player experiences the action through the eyes of their character. Once you get into the depths of its capabilities, it is easy to see the training benefits.

“We are able to put Soldiers into a realistic scenario in simulated areas that they will be operating in while in theater,” said David Eckel, lead VBS2 computer based trainer, at Fort Riley. “We can send them through downtown Baghdad, and they will actually be able to recognize structures like the Monument to the Unknown Soldier and the crossed sabers.”

This capability allows units to run missions just as they would in-country, Eckel said. Soldiers use their unit’s standard operating procedures and are briefed on the rules of engagement

and their mission. “These briefings are the same as the ones these Soldiers will receive downrange,” Eckel said. “And just like downrange, this gives the unit the chance to go over any last minute questions and training.”

“Based on what the unit wants, there are many different types of missions we can run,” Eckel said. “We can hit them with anything from an [improvised explosive device] to a full-out ambush of enemy forces. Or, we can just let them move from point A to point B, and let them practice radio communication, distancing and speed. The Soldiers never really know what’s going to hit them, so they have to be prepared for everything.”

After the briefing, Soldiers head out to their “vehicles.” Eckel said each “vehicle” consists of four laptops, a steering wheel and pedals for the driver, a simulated Blue Force Tracker in the truck commander’s position and headphones that connect each of the passengers with both convoy and command radio frequencies.

The system really kicks in once the mission begins, said Sgt. 1st Class Ralph Morrow, platoon sergeant, Bravo Company, 101st Brigade Support Battalion.

“They are able to record everything that my guys do, including the radio traffic,” he said. “This allows me to do an in-depth [after-action review] where I can point out where the Soldiers excelled and where they need improvement.”

The fact that the system records everything is one of the major features that makes it effective, Morrow said. “If

there are questions on what should have been done or what report should have been sent, we can open up that part of the mission and show the Soldiers in detail. This eliminates the guesswork, and we can focus more on the training.”

Another training tool that incorporates many similar features with a more hands-on approach is the Reconfigurable Vehicle Simulator. In the RVS, Soldiers are immersed in an interactive environment. This adds a new dimension to the virtual training, said Todd Hitchcock, a computer-based trainer at the Close Combat Tactical Trainer at Fort Riley.

During the training, Soldiers mount up on mock Humvees or Heavy Expanded Mobility Tactical Trucks, depending on which vehicle they want to train, Hitchcock said. “We try to make everything look and feel like the real thing as much as possible.”

The “real” feeling is further enhanced by the use of replica weapons such as M16 and M4 assault rifles, M9 pistols and M240 machine guns that function almost like the real things. “The weapons are loaded the same. All the switches and actions are the same, and they are air-powered so they even have about the same kick as the weapons they represent,” Hitchcock said.

The final, and probably most important component that completes the experience is the virtual world that is projected 360 degrees around the vehicle. Eight projectors mounted above the vehicle project the simulated environment onto the surrounding screens and bring the



Above: Sgt. 1st Class Ralph Morrow, platoon sergeant, Bravo Company, 101st Brigade Support Battalion, center, talks to Soldiers who “died” during a simulated convoy. Morrow uses this time to ask the driver and truck commander why they think they died and what they could have looked for or done to prevent it.





Above: Warrant Officer David Hemingway of Headquarters and Headquarters Battalion, 1st Infantry Division, scans his sector for possible threats after repelling an ambush during a training exercise with the Reconfigurable Vehicle Simulator.



Right: Pvt. Sheniel Gitelson of HHB, 1st Infantry Division, scans the road in front of her as her convoy stops for a suspected improvised explosive device during RVS training.

world to life. Hitchcock said, “This projected environment works with the sensors in the vehicle, weapons and hit sensors mounted next to the projectors to create a training experience bordering on real life.”

“The training really pulls you in,” said Sgt. Kenneth Hughes, of Headquarters and Headquarters Battalion, 1st Infantry Division at Fort Riley. “It is a great way for Soldiers to get some hands-on experience and familiarize themselves with convoy operations. Overall, it really gives them an edge when it comes to being ready for a deployment.”

Just like VBS2, the RVS system records everything, including radio transmissions, giving it great value during after-action reviews. “As a retired first sergeant, I can say from experience that being able to go over a training mission play-by-play is amazing,” Hitchcock said.

Finally, there is the Engagement Skills Trainer 2000, a virtual range. This system has been in the Army for years and has evolved to become such a fundamental training aid that it is being used in basic training.

The overall setup of projectors, weapon systems and hit sensors is similar to those found in the RVS. However, there are some major differences when it comes to operating the system. Staff Sgt. Christopher Sharp, a combat engineer with Charlie



Company, Special Troops Battalion, 2nd Brigade Combat Team, 1st Infantry Division, said the major difference is that with only a couple hours of training, the system can be operated by Soldiers.

“All the civilian operators have to do is start up the system and let us in the building, and then we take it from there,” Sharp said. “We hook up the weapon systems that we want to use, determine the programs we want to run and we are ready to start training.” The ease of use and the short time it takes to set up the EST 2000 allow units to get the most out of their time, Sharp said.

This is only one out of many benefits, Sharp said. “This system provides so many advantages to both the firer and the

