

## Network-Based Field Tests Underway for BCT Modernization

By Paul Mehney and Sam Tricomo

WHITE SANDS, N.M. (Army News Service, June 24, 2009) -- The U.S. Army is now conducting a series of high-tech network and equipment verification tests at its massive White Sands test range as part of brigade combat team modernization.

The tests support the Army's efforts to modernize all brigade combat teams with the latest networked intelligence, surveillance, reconnaissance and lethality capabilities, officials said.

As part of what is termed the Technical Field Test, Army engineers and product developers -- supported by Soldiers of the Army Evaluation Task Force and a host of industry partners -- are testing the performance of unmanned ground and air vehicles, unattended sensors, an unattended munitions delivery system and the network that supports them.

"These tests mark an important step toward the goal of spinning out networked equipment sets to the brigade combat teams," said Lt. Col. John Matthews who is overseeing the integration and validation of tests.



Soldiers of the Army Evaluation Task Force at Fort Bliss test the Multifunctional Utility/Logistics and Equipment vehicle. The MULE is a three-ton unmanned ground system designed to support dismounted, mounted and air assault operations. (Photo Credit: Army)

"The ability to transmit vital situational awareness data over the network will be key to how these brigades will fight, and the recently completed first series of TFT events assisted Army engineers in gathering technical details of how that will happen," Matthews said.

Data gathered from the early TFT events will factor into network and product development improvements as the network and equipment move to the next level of evaluations, Matthews said.

"These capabilities are in a continual state of testing and evaluation, which will culminate in late summer with the Limited User Test," Matthews said. He explained that a successful LUT will help form a production decision in early FY 2010.

Recently, Soldiers of the AETF, a special unit set up to test the modernization equipment, participated in various stages of the TFT.

"Until recently it has largely been the engineers who had the interaction with the assets and the network," Matthews said. "This marks the first time in this test series that Soldiers were outfitted and tasked with passing data through the network in a field environment."

Test cases in the TFT included passing target and image data taken from networked equipment transitioned from the Future Combat Systems program to the new Army Brigade Combat Team Modernization plan. The equipment includes the Small Unmanned Ground Vehicle, or SUGV; the Class 1, Block 0 Unmanned Air System, known as UAS; the Unmanned Tactical and Ground Sensors, T-UGS and U-UGS; and the Non-Line of Sight Launch System, or NLOS-LS.

Images and data from these assets were captured and sent in real time to a humvee containing a Network Integration Kit, a key component to ensuring battlefield sensor and target acquisition data can be transmitted across the brigade combat team.

These networked humvees contain an Integrated Computer System consisting of multi-band antennas, a ground mobile radio suite from the Joint Tactical Radio System family, Wideband Networking and Soldier Radio Waveforms. The waveforms allow for secure image transfer to the onboard integrated computer system.

In this configuration, the integrated computer works with the current force battle command software equipment and can pass up to higher echelons from there in real time, providing ground and air situational awareness to those who need it.

"We are rapidly integrating this technology with the network to provide Soldiers down to the platoon level with the kind of important battlefield situational awareness that is needed in such complex operating environments as Afghanistan," Matthews said.

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Source: <http://www.army.mil/-news/2009/06/24/23417-network-based-field-tests-underway-for-bct-modernization/?ref=news-science-title0>