New network supports advise-and-assist mission

By Claire Heininger and Amy Walker

Confronted by insurgent fire outside a remote village, the isolated platoon fired back, called for air support and requested an evacuation helicopter for a wounded Soldier.

Using radios and handheld digital devices tied into the Army's tactical network, the platoon communicated with its headquarters, while the leadership followed the status of the operation and location of forces from miles away.

"You can reach out to get help, call for a Medevac, inform your higher, request air assets, coordinate with your Afghan National Security Forces partners – all of those kinds of things at the company and below level are here with this system," said LTC Alan Boyer, commander of the 2nd Battalion, 30th Infantry Regiment, 4th Brigade Combat Team, 10th Mountain Division (Light Infantry). "I think it will save people's lives in combat. I think it will help us save our partners' lives."

The realistic scenario that unfolded at the Joint Readiness Training Center at Fort Polk, La., this spring began with U.S. forces in an advisory role as their Afghan partners met with village leaders, with role players acting as the Afghan army, civilians and insurgents. It was part of the brigade's intensive training for deployment to Afghanistan, where they are now relying on CS 13 technologies to stay connected and cover more ground during advise-and-assist missions in support of the Afghan National Security Forces.

"The enhanced situational awareness given to us by this suite of technology has allowed us to maintain a 'digital guardian angel' as we conduct our advising duties and missions," said MAJ Gary Pickens, the communications officer for the 4th BCT, 10th Mountain Division. "The various platforms of CS 13 give us a digital reach like we've never had before."

The technology, an integrated group of tactical communications systems that came together through the Army's Network Integration Evaluation process, arrived in Operation Enduring Freedom with the BCT this summer and has supported multiple missions, from tracking the progress of small groups of Soldiers at remote outposts to directing operations while traveling through mountainous terrain. While it is still early in their deployment, users say CS 13 is a significant improvement over previous equipment and will become even more critical as drawdown operations accelerate.

As U.S. forces continue to retrograde, they are closing many of their forward operating bases and removing communications infrastructure such as hard lines, towers and other equipment. With CS 13, select units that remain will still have the ability to communicate at the tactical level and exchange voice and data information across their entire area of operations.

The 4th BCT will be joined in theater this fall by the 3rd BCT, 10th Mountain Division, which has also been fielded with Capability Set 13. Both Infantry Brigade Combat Team units have reorganized into Security Force Assistance Brigades, which deploy with fewer personnel than a typical BCT and work closely with the Afghan forces in mobile, dispersed operations – making network connectivity even more important.

"As you go smaller and you go over to advise, you need to be more aware of your environment and your partners," Boyer said. "These capabilities provide force protection and situational awareness that I never experienced when I was in these guys' shoes as a platoon leader 15 years ago."

CS 13 provides the Army's first integrated communications capability across the entire BCT formation, empowering commanders and Soldiers at every echelon to make faster, better informed decisions. Through its tactical network backbone, Warfighter Information Network-Tactical Increment 2, it provides mission command "on the move" – allowing leaders to expand their reach on the battlefield by taking the network with them in their vehicles.

(U.S. Army Photo by Amy Walker)

Soldiers from the 3rd Brigade Combat Team, 10th Mountain Division (Light Infantry), train using Capability Set 13 at Fort Polk, La. The Soldier is speaking on a radio in front of a Humvee training set integrated with components of CS 13, mirroring the systems in the mine-resistant, ambush-protected vehicle variants that CS 13 units will use in Operation Enduring Freedom.

In Afghanistan, this capability has allowed battalion-level advising teams to exchange voice and data, access mission command systems and maintain situational awareness while on patrols, even in extremely difficult terrain.

"As U.S. forces start to reduce our presence, we're partnered with the Afghan security forces and continue to focus on their development, but we're doing it over greater distances," said COL Sam Whitehurst, 3/10 commander. "Having this capability where I can take some of the capabilities to command and control the brigade on the move – that gives us the ability to extend our reach, even as we reduce our presence."

CS 13 also extends the network to the Soldier level through a combination of Smartphone-like Nett Warrior "End User Devices" and Rifleman Radios that together can transmit text messages, Global Positioning System locations and other data. This empowers dismounted troops with the real-time information that previously was only available in vehicles or command posts. It also allows the BCT headquarters and battalion and company leadership to digitally track and communicate with small groups of Soldiers who have spread out to remote locations – even inside distant buildings – as they advise their Afghan partners.

"Previously, voice reporting over FM radio was the only communications link to Soldiers in these scenarios," MAJ Pickens said. "The EUDs come in very handy not only for situational awareness

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of the operator's position and those of his fellow Soldiers, but also their ability to carry information."

Built on Soldier feedback, CS 13 addresses more than 55 operational needs statements that troops submitted from Iraq and Afghanistan. The package was integrated, refined and validated through the NIEs, the Army's process to continually mature the tactical network and accelerate and improve the way communications technologies are delivered to Soldiers.

The capability set's arrival in Afghanistan is the culmination of a total Army effort to quickly field the technologies, spanning dozens of commands and locations and requiring constant coordination among network and vehicle project managers, production facilities, brigade staffs, fielding personnel and training professionals. As the brigades prepared for the new advise-and-assist mission on a tight training schedule, their young Soldiers' familiarity with digital technology proved a great asset as they incorporated CS 13, said SGM Joe Singerhouse, of 4/10's 2nd Battalion, 30th Infantry Regiment.

"They're dealing with iPhones, Androids, Playstations and computers every day," he said. "That's the beauty of this system is these Soldiers, once they've figured out the architecture and what makes it go, now they know, 'Hey I can take this capability, move it over here and be responsive to what the commander wants for mission command on the battlefield.'"

Fielding and training operations are now underway for two more brigades, the 2nd and 3rd BCTs of the 101st Airborne Division. The 101st Airborne and 10th Mountain Division headquarters have also received WIN-T Increment 2 and other CS 13 elements this year.

Additional units will be fielded with CS capabilities in Fiscal Year 2014 and beyond as part of the Army's Network Modernization plan.

With each integrated fielding effort, units can adapt the equipment to their particular mission requirements. The Army's aim is to provide scalable and tailorable equipment that is integrated across all levels, so it can be responsive to what the commander needs to execute mission command. That integrated network baseline and built-in flexibility will be critical in the future as the Army restructures its BCTs and regionally aligns its forces.

The follow-on CS fieldings will incorporate lessons-learned from the NIEs and the 10th Mountain BCTs' experience, such as additional training to help commanders understand the integrated network as a combat multiplier. Such an "opportunity to conduct prescriptive, controlled integration training" would be extremely valuable for future operators, MAJ Pickens said.

"With anything new, it takes time to fully understand the capability – both its opportunities and its deficiencies," MAJ Pickens said. "CS 13 is a significant step in the right direction to enable mission command at all echelons and across all environments."

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Acronym QuickScan

3/10 - Third Brigade Combat Team, 10th Mountain Division
4/10 – Fourth Brigade Combat Team, 10th Mountain Division
BCT - Brigade Combat Team
CS - Capability Set
EUD - End User Device
FOB - Forward Operating Base
GPS - Global Positioning System
IBCT - Infantry Brigade Combat Team
JRTC - Joint Readiness Training Center
NIE - Network Integration Evalution
OEF - Operation Enduring Freedom
SFAB - Security Force Assistance Brigade
WIN-T - Warfighter Information Network-Tactical