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TACTICAL OPERATIONS

Armed With New Technologies



Maj. John Fraser, USA (r), of the Communications Embedded Training Team, Combined Security Transition Command, Afghanistan, trains Afghanistan National Army soldiers on the PacStar 5500 advanced deployable communications system.

The Afghan army is transitioning to a system that will send and receive secure Internet protocol-based communications, a major step forward from its previous process of delivering written material via messenger.

The U.S. Central Command is transferring logistical communication support from U.S. military personnel to their counterparts in the Afghan National Army as part of this process. Maj. John Fraser, USA, as head of the Communications Embedded Training Team, Combined Security Transition Command, Afghanistan, found that the task was much larger than he had anticipated. After more than 30 years of war that had torn the country apart, the Afghan army's communications capabilities needed to be brought into the 21st century. "The task was huge. You are not jumping one or two years in technology

By Tim
Albone

Afghanistan Army Moves From Messengers to Microchips

Internet protocol-based communications offers beleaguered country's military efficient and secure systems.



Initially skeptical of communications technology, Afghan National Army soldiers learn the PacStar system and incorporate applications such as spreadsheets and word processing into their work. Many of the soldiers had never used a computer, and a number of them could not read or write.

terms. We are talking decades,” relates Maj. Fraser.

“It’s a learning curve, and there have been some growing pains, but we are getting there,” acknowledges Maj. Kjäll Gopaul, USAF, Combined Security Command–Afghanistan, who has been working alongside Maj. Fraser for the past few months.

When Maj. Fraser arrived in Kabul, Afghanistan, a year ago, the Afghan army’s equipment was equivalent to that of a 1980s army. The military service had no secure communications equipment, no computers and, as a result, no Internet. All logistical needs entailed sending information through an excruciating paper trail.

Maj. Fraser’s responsibility includes integrating a portable, secure communications package within the Afghan army to give it a modern, broadband Internet protocol (IP)-based communications capability. The goal is for the Afghan army to be able to communicate securely from the field via e-mail, voice and video as it battles Taliban insurgents. The increased technology also will enable the army to be more efficient and will save lives as well as personnel hours.

The system deployed for the Afghan National Army is anchored by an

advanced deployable communications solution that offers secure voice and data broadband communications in infrastructure-starved locations throughout Afghanistan. The equipment chosen for this scenario was the PacStar 5500, a U.S. military-certified highly specialized communications system that is designed for troops in the field who need secure IP-based communications in difficult environments.

The system management software allows a user with limited technology experience to set up complex communications through a series of easy-to-understand wizards. The new network was built to support voice, data and video at remote deployment sites, with satellite connectivity back to the Afghan National Army strategic network.

Each deployable package supports up to 600 users at up to 11 work sites, and each package comes with 72 military-hardened laptops, 144 analog and voice over Internet protocol telephones, military-grade fiber, printers and test equipment. To ensure interoperability with military and civilian communications infrastructure, the core of the solution is Joint Interoperability Test Command (JITC) certified, built to military standard (MIL-STD) 810F and tested for vibration, heat and shock.

Before this, if the Afghans wanted to issue a troop movement order, they would have to write out a request and drive it to the main base in Kabul. With this new package, they will be able to make a secure call or send a secure e-mail, says Maj. Fraser.

The success of this initiative depends on being able to train soldiers who have had little, if any, technology experience and most of whom do not speak English. As a result, choosing equipment that is easy to use and support was a critical factor in the decision-making process, allows the major. To simplify the training, more than 20,000 pages of training and instruction were transcribed into Dari, the official language of Afghanistan.

Three decades of fighting have resulted in Afghanistan being behind technologically, so the U.S. military is working to bring the Afghan army up to date, relates Col. Abdul Gharfour, Afghan National Army, who is the officer commanding the Afghan National Army Control Command Center (CCC). The CCC supports three brigades. Col. Gharfour currently has 354 men under his direct command; however, that number is based on the first intake of training on the PacStar equipment. The number of men under his command will expand greatly as more are trained and introduced into his unit.

The Afghans were initially skeptical of the new technology, but they have now embraced it, reports Maj. Fraser. Col. Gharfour reiterates this point, saying, “At first we were overwhelmed by all the new equipment, but the training these guys set up was very useful. They took it step-by-step, and now we can see the benefits.”

“I had never seen a computer before I started this training and was very unsure of the benefits. The trainers explained everything to us, and now I can understand the benefits. It saves so much time and manpower and makes our army as good as other armies. As an Afghan, that makes me very proud,” acknowledges Lt. Gul Agha, Afghan National Army.

“Six years ago, I couldn’t even dream that we would have an army that would have such equipment. Now that we have learned to use this equipment, it makes our job so much quicker and

easier. I just can't believe the Afghan Army has such good equipment," says Col. Abdul Hannan, second in command of the Afghan National Army unit being trained.

"You must remember that after 9/11 we started at zero. Our army had nothing. Now the word is progress, and our army is being given this equipment. It is something amazing for us," relates Col. Mohammad Shah, Afghan National Army. "We were one of the least-advanced armies in the world, but at least now we can compete with neighboring countries," he adds.

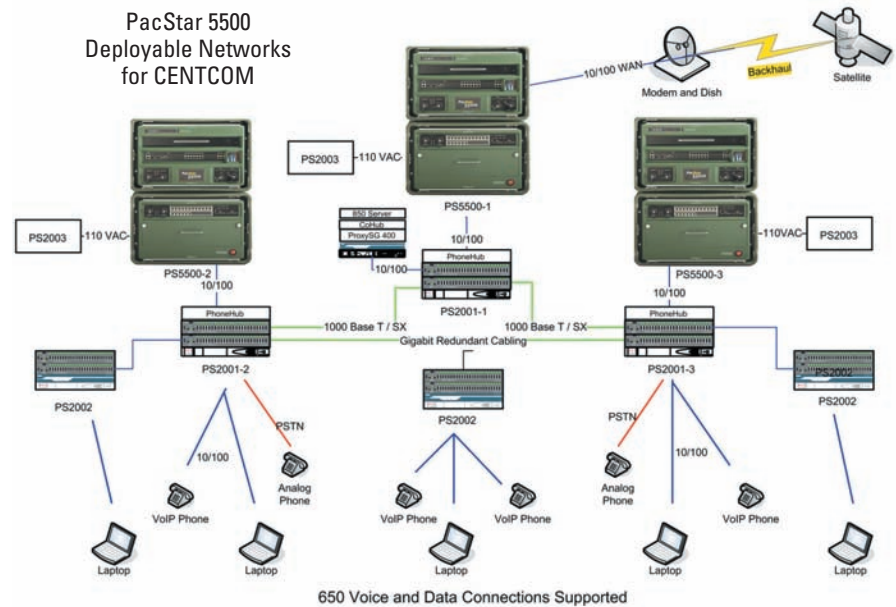
The person tasked with the day-to-day training in Afghanistan is Paul Felton, a PacStar technical engineer who has been in Afghanistan since February 2007. "I've been with these guys six days a week for up to seven hours a day. When I first arrived, many of them couldn't even turn on a computer. They didn't know what the Internet was. ... We've taken them from turning on a computer to e-mailing, to setting up Excel spreadsheets and Windows domains. Now they love it," Felton says.

Training in this environment is difficult because not only does the Afghan army have a lack of modern equipment, but also the education of the soldiers has suffered during 30 years of war. Very few have any formal education, and by some estimates only about 20 percent are literate.

"Several students can't read or write, and that makes it difficult. The next round of trainees will have to be able to read and write and have a basic understanding of the English alphabet before we accept them," notes Felton.

Felton says he has built a good relationship with his students. "I live here, and I like it. It makes me feel like I am doing something." It is Felton's first time as a trainer and his first time in Afghanistan. He must work through a translator; however, the students are responding to his training methods, he shares.

"He makes it very easy for us to understand. When we first heard what we would be doing, we were very ner-



This diagram illustrates the deployable system implemented by the U.S. Central Command that is currently in use by the Afghan National Army (ANA). Operating three separate deployable packages, each comprising three PacStar 5500s and 14 PacStar 2000 custom systems, the ANA can now support up to 600 users at up to 11 work sites. Each deployable communications system is equipped with 72 military-hardened laptops, 144 voice over Internet protocol and analog telephones, military-grade fiber, printers and test equipment. To endure transportation and the harsh environment, all the accessory equipment included in the system comes with specially designed military-hardened cases.

vous. Many of us had never seen a computer or written an e-mail, yet he has made it fun and easy," says Lt. Agha.

Embedded training teams such as the one headed by Maj. Fraser are essential if NATO and coalition troops are to build an army that is capable of supporting itself. Providing modern communications equipment and training the Afghan army to use that equipment is the next level.

"When we arrived, they were using radios that were completely unsecured and [that] the enemy could listen in on," says Maj. Fraser. "They are coming up to speed, but we still have a long way to go. The mission is to get them where they don't need us."

This is a message echoed by his Afghan counterpart Col. Gharfour, who says that progress will take time. "We have only had an army for four years,

and these things take time. We must be patient, but we are on the right track, and we are making progress.

"Under the Taliban regime, you must remember all sectors of life suffered. Military, education, economic, political—they were all damaged or destroyed. Only now and only with training like this, and through the support of the international community, can we rebuild," stresses Col. Gharfour.

Tim Albone is an Afghanistan correspondent.

WEB RESOURCES

U.S. Department of the State, Bureau of South and Central Asian Affairs:
www.state.gov/r/pa/ei/bgn/5380.htm
 PacStar: www.pacstar.com