1st Satellite Control Batallion

Silent Support to the Warfighter

By LTC Mearen Bethea and CW2 Garth Hahn

LTC Mearen Bethea currently serves as the Commander, 1st Satellite Control Battalion. She is a signal officer with 19 years of communications and automation experience. Previous assignment, she served as the Customer Service Branch Chief, US CENTRAL COMMAND, MacDill, AFB in support of the entire CENTCOM and Coalition Forces in the effort to win the first part of the Global War on Terrorism (GWOT).

CW2 Garth Hahn serves as the Operations Officer for HHC, 1st Satellite Control Battalion. He served two tours in Kosovo performing voice and data switching and wide-area network management. During his 12-year tenure as an enlisted satellite systems operator-maintainer, he held various staff and operations positions in tactical and strategic satellite stations. He also serves as unit reporter.

The Senior Network Controller (SNC), SGT Jeremy Phillips, saw the alarm appear on the Defense Satellite Communication System Automated Spectrum Analyzer (DASA) at the same time as the Ground Mobile Forces Network Controller (GNC), SPC Jerry Dotseth, saw the light come on the Frequency Modulator Orderwire (FMOW). Dotseth answered the call on the push-to-talk phone of the FMOW. Mission C099-03, terminal E92 was ready to access the satellite from its location in the Iraqi desert. While in communication with the AN/TSC-85B, Dotseth directed power level adjustments until the terminal's actual power met the predicted power levels, verified proper frequency and took a current weather report. Once satisfied with the access, the GNC proceeded to do the same functions with the other terminals of the mission in accordance with the Satellite Access Authorization (SAA). This textbook access of a small hub-spoke configuration ensured critical communications within theater, and would not be possible without the worldwide network of DSCS Operations Centers (DSCSOC) belonging to the 1st Satellite Control Battalion.

The battalion has five DSCSOCs located throughout the world, each charged with maintaining Frequency Division Multiple Access (FDMA) links, Electronic Counter Counter Measures (ECCM) networks and various sub-networks as well as monitoring satellite health functions and performing satellite payload for the entire DSCS constellation. The primary MOS for the soldiers in the battalion is the "31S" Satellite Communications Systems Operator-Maintainer MOS with the "1C" additional skill identifier for Satellite Systems Network Coordinator. These soldiers spend almost a year in school at Fort Gordon getting trained in MOS 31S and the 1C ASI, and then proceed to one of the six companies in the battalion. The soldiers received plenty of hands-on work with GMF missions as the number of missions out of Southwest Asia tripled from December 2002 to April 2003.

The 1st Satellite Control Battalion comprises six companies: A Company at Fort Detrick, Md., controls the West Atlantic DSCS satellite; B Company at Fort Meade, Md., Controls the East Atlantic DSCS satellite; C Company in Landstuhl, Germany controls the Indian Ocean DSCS Satellites; D Company at Camp Roberts, Calif., controls the East Pacific DSCS satellite; and E Company in Okinawa, Japan controls the West Pacific DSCS satellite. Headquarters and Headquarters Company, located in Colorado Springs, Colorado has a contingency mission in support of U.S. Northern Command and U.S. Strategic Command, as well as administrative support for the battalion staff. This collection of geographically dispersed Operation Centers provides critical control of the DSCS satellite fleet, and enables U.S. military and government communications around the world and around the clock with this 24-hour, seven-days-a-week mission controlling the DSCS system.

All companies in the battalion played an important role in supporting the war, but C Company in Landstuhl, Germany and B Company, at Fort George G. Meade, Maryland, faced the brunt of the Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) workload. They are the primary controllers for the DSCS satellites supporting the Southwest Asia region of the world. This means they continually monitor the networks and the satellite to ensure maximum support for the users, and in this case, the users are the warfighters prosecuting Operation Iraqi Freedom. These geographically dispersed Operation Centers provided critical control of the DSCS satellite fleet in the Indian Ocean area, and enabled U.S. military and government communica-

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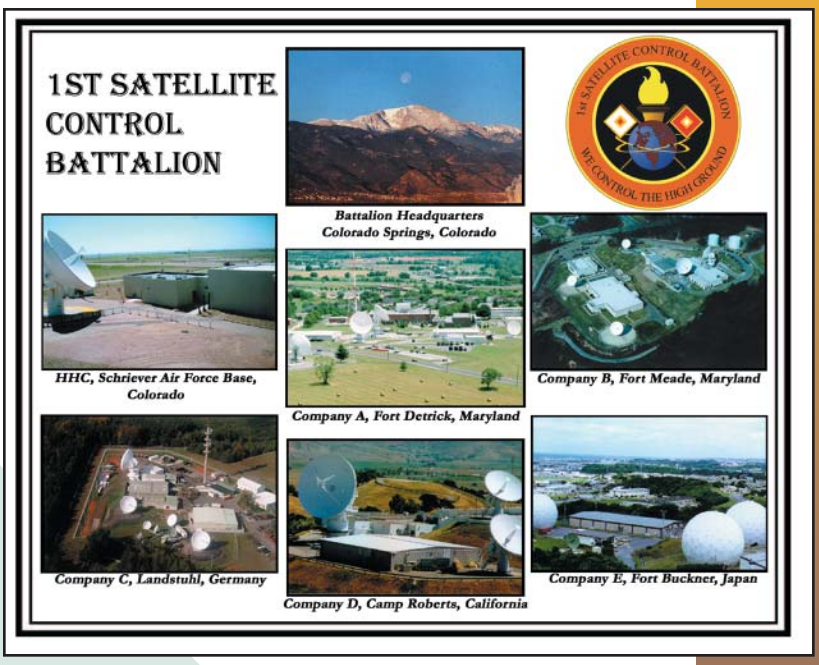

tions in support of Operation Iraqi Freedom.

To provide high levels of support to all users, positive control is key. Many users operate over the DSCS constellation, which requires strict control of power and bandwidth. Positive control is the means by which the DSCSOCs ensure enough power and bandwidth for users across the joint spectrum. During OIF, positive control became a critical issue with mobile communications and the challenges associated with communication between theaters while under fire. Access to the DSCS satellite by mobile terminals requires simultaneous voice communications to ensure the terminal is using its allocated amount of power and bandwidth. To overcome the difficulties some terminals had with their Frequency Modulation Orderwire, terminals used other satellite and ground systems to talk to the GMF Controller during access. The International Maritime satellite system or INMARSAT, and the Iridium satellite system played key roles in satellite accesses during the OIF conflict. Confusion is part of a battle, but the personnel in the DSCSOC facilities were able to mitigate the access communication problems with these alternative methods, enabling satellites terminals to continue the mission while maintaining that important positive control.

In the midst of the ground fighting, the DSCSOC at Fort Meade got a call from the Third Infantry Division requesting de-access of the satellite due to the end of that terminal's mission. The unit came under fire a short time later and called the DSCSOC to request a re-access of the satellite to support the commander with critical satellite communications during this hostile action. The GMF Network Controller, Dotseth, quickly coordinated through the Senior DSCS Controller, SSG Frank Kimberlin and the Operations NCO, with the Defense Information Systems Agency, Europe to regain access for this GMF terminal. This is usually a multi-week process of submitting requests through the Regional Space Support Centers (RSSC) and the Defense Information System Agency (DISA), but some initiative and fast coordination on the part of the Fort Meade soldiers allowed the crew to re-access the satellite and reestablish communications for their commander. SFC Martin Chaffee, the DISA Europe Satellite Communications Manager, stated "These soldiers' technical expertise, quick thinking, and professionalism returned terminal E92 to their tactical network in record time." This effort was crucial to the warfighting effort, and is indicative of the way the Bravo Company soldiers supported the Third Infantry Division and other warfighters involved in Operation Iraqi Freedom. Although their participation was great, the Landstuhl DSCSOC also played a role supporting OIF.

The Charlie Company DSCSOC in Landstuhl, Germany also supported the troops in Iraq with DSCS network control. After a harrowing battle, the 335th Theater Signal Command (FWD) had battle damage of an important satellite terminal. The antenna feedhorn was damaged, and the terminal needed to make repairs to continue the mission. The GMF Network Controller, SGT Benjamin Singleton, coordinated with DISA, RSSC Europe, and the Theater Communication Control Center Forward, to enable an outage for the terminal to replace the battle damaged equipment and quickly re-enter the network.

Besides the ground mobile forces (GMF), other mobile users were supported through the DSCSOC. Charlie Company in Landstuhl, Germany worked closely with the USS Nimitz as they accessed and used the satellite from the Southwest Asia region.

(See Silent Support, page 68)

Silent Support ... from Page 51

This ship was in the region supporting Operation Iraqi Freedom. The USS Nimitz provided Secure Internet, Internet and DSN phones to Fleet Command. This use of the DSCS satellite system shows the spectrum of support the 1st Satellite Control battalion provides to the joint warfighter.

In addition to supporting the warfighter from the DSCSOC, four soldiers of the 1st Satellite Control Battalion deployed to the region and two went to United States Central Command to provide expert DSCS satellite support. SPC Corey Wilson of Alpha Company in Fort Detrick deployed with an Army Space Support Team from the 1st Space Battalion to Afghanistan. CPL Chad Duncan of Bravo Company in Fort Meade also deployed with an Army Space Support Team to Iraq in support of the 4th Infantry Division. SFC Gregory Schuetz deployed from Landstuhl, Germany to work with the 10th Special Forces element in Iraq under the Worldwide Augmentee Program. SPC Daniel Alvarez deployed to Oman with the Space Electronic Warfare Detachment, and SFC Jerry Mobry and SFC Brent Smith went to CENTCOM to help out in Tampa, Fla.

The DSCS constellation is the workhorse satellite systems of the Department of Defense, and its effective operation relies upon the soldiers and civilians in the DSCS Operation Centers. The soldiers of the battalion showed their skills in satellite control during operations Iraqi Freedom and Enduring Freedom by providing exceptional and flexible support to the warfighters on the ground, sea and in the air. The 1st Satellite Control Battalion, with its worldwide, twenty-four hour, seven-day-a-week mission is always there for the warfighter.

Early Missile Warning ... from Page 55

deployed sections. This practice continues today and continues to build our knowledge base.

A big plus for our sustainability was through our Depot support. Northrup-Grumman, which runs our Depot, provided a full time contractor, on the ground in CENTCOM, to help diagnose and fix any problems that we encountered with our equipment. Robert Ramsey's expertise not only enabled JTAGS to maintain our 24/7 posture, but also provided the necessary guidance in which to prevent failures that might come up.

Our operators are now focusing on smaller areas in which to identify possible missile launch sites. This focus enables our operators to provide better situational awareness to the warfighters and confirming possible intelligence for missile attacks. Our operators can help narrow a search area for an aircraft that has gone down or be able report static events that will enable first responders to get to a location quicker. We also are increasing our ability of situational awareness through upgraded equipment and procedures.

JTAGS is also continuing to develop the "Sensor to Shooter" capability. This capability will allow a JTAGS section to send data direct to a Patriot Battalion, Aegis Cruiser or even through to a fighter aircraft. This data dissemination not only increases the situational awareness but also decreases the enemy's ability to use ballistic missiles against U.S. and Coalition forces. Through the use of Joint Range Extension, the ability to push information Beyond-Line-of-Sight will enable units to process information without the data being filtered or delayed through a theater operations center data dissemination process. This does not diminish the need for such data dissemination, but rather enhances the ability of the warfighter to have the direct cue and readiness to handle a threat.

The road ahead to answer or improve upon our mission requirements is being answered with the Multi-mission Mobile Processor (M3P). The Multi-mission Mobile Processor (M3P) for the Space Based Infrared System (SBIRS) is a Pre-Planned Product Improvement (P3I) to the Joint Tactical Ground Station (JTAGS) currently operational with SMDC-Colorado Springs. M3P will have more missions related to the strategic environment, thus bringing SMDC-Colorado Springs in line with the Air Force, USSTRATCOM and Combatant Commanders' overall mission requirements in each theater, thus increasing our role within the Joint community. Because of the lifespan of both the JTAGS shelters and DSP constellation, it is necessary to bring new systems on line that will increase our awareness, improve our predicted impacts, provide better accuracy for TBM launches, and bring tactical advantages to our warfighters.

Operation Iraqi Freedom and Enduring Freedom reinforced the requirement for an in-theater early warning dissemination asset. Although hostilities are officially concluded in Iraq, the threat of TBMs around the world continues to exist. JTAGS continues to provide 24/7, 365 days a year early warning through our dedicated soldiers and sailors, on point. The proliferation of tactical ballistic missiles will continue to threaten not only the U.S. military, but also the freedom of the world's citizens. Providing timely, accurate, assured early warning will help to crunch global terrorism as well as provide confidence of freedom for all people.