

Space Ops Division

The Future for Space Operations in Korea

By MAJ Kathi Thornton & CPT Joseph Guzman

Over the past two years the 8th U.S. Army Space Operations Division has evolved in its scope and function. The division, currently residing within the Assistant Chief of Staff, G-2, touches all facets of Space Force Enhancement. Additionally, it serves a limited role in Space Control for the Commander, 8th U.S. Army and, as required, for the Commander, U.S. Forces Korea (USFK). Army Space Operations Officers coordinate with Space Operations personnel from all services to enhance Battle Command for the Korean Theater of Operations (KTO). Staffed by MAJ Kathi Thornton, FA40, and CPT Joe Guzman, the Space Operations Branch coordinates Space-related activities for all U.S. Army units in the KTO. Looking to the future, this coordination will continue to include real-world armistice operations, exercise support, support for ongoing Advanced Concept Technology Demonstrations (ACTDs), and development of Space-based support capabilities and tactics, techniques, and procedures.

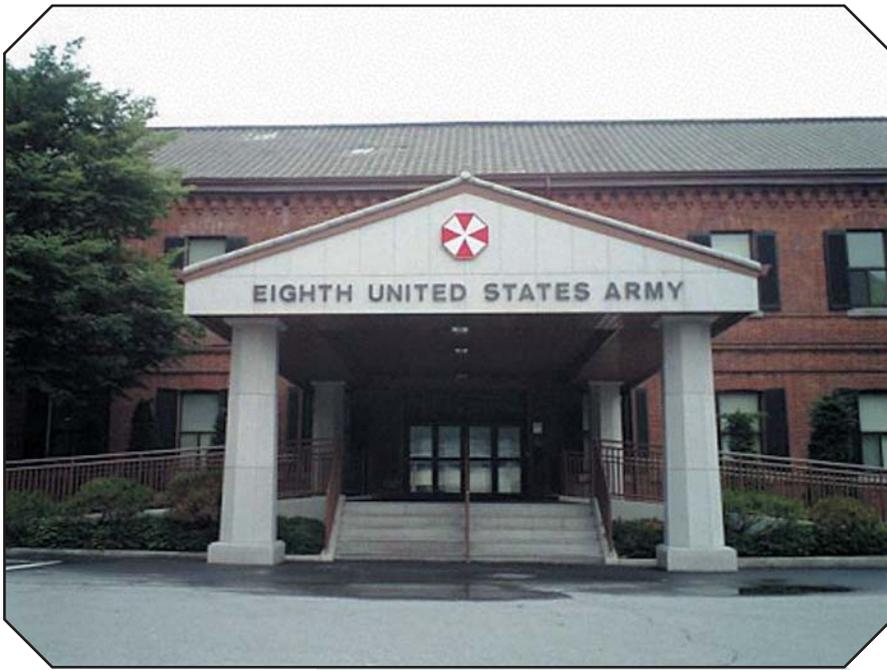
Through participation in the Joint Requirements Oversight Council directed Joint Blue Force Situational Awareness (JBFS) ACTD, the 8th U.S. Army Space Operations Division learned just how challenging Blue Force Tracking (BFT) can be in a combined environment. Future battle command in Korea will depend heavily on the use of the Common Operating Picture - Korea (COP-K). As the theater's visualization tool, the COP-K must provide a near-real-time picture of both Red and Blue forces. Currently, Combined Forces Command units update their locations and status by manually inputting data into the Army ground database. The data are then transformed into BFT information for the theater and displayed on the COP-K. This BFT method taxes the resources of units that must continually update the database to provide a near-real-time picture for the commander. By utilizing the automation, accreditation, and dissemination process of Army Space Command's mission management center, the theater would reap

immediate benefits. The JBFS ACTD will provide the means for the theater to employ a mixture of Commercial Off-The-Shelf (COTS) and military BFT devices, to support a variety of missions ranging from logistics to special operations. This information will then be shared with coalition partners via broadcast or network solutions, increasing situational awareness, and limiting the incidence of fratricide. By employing systems tailored to the mission, the JBFS ACTD will balance the use of national technical means with commercial vendors for BFT and provide users with maximum access to Space-based resources. Users will ship all data via network to the mission management center, which will integrate and transmit information to theater servers for fusion onto the COP-K. Utilizing the Network-Centric concept, the ACTD will bring South Korea to the forefront in fully automated BFT and will vastly improve situational awareness and command and control.

Space Operators in Korea continue to push the envelope in the area of Intelligence, Surveillance, and Reconnaissance (ISR). Ironically, the real challenge in Korea lies not in the acquisition of overhead imagery, but in the dissemination and exploitation of that imagery in a combined environment. Army Space Operators have identified this shortfall and continue to collaborate with USFK J-2 to optimize dissemination. Together with Department of the Army (DA) G-6, the National Imagery and Mapping Agency will upgrade the imagery product library architecture in the KTO in this fiscal year. By coordinating Army requirements with DA G6 and other Service Components, 8th U.S. Army Space Operators are paving the way for network-centric imagery sharing and exploitation across a wide array of security domains. Furthermore, we will push for data sharing between Service Components, which will enhance the overall capabilities of Imagery Intelligence production and exploitation in Korea.

CPT Joe Guzman currently serves as Orbital Safety Officer/ Launch Officer, Cheyenne Mountain Operations Center. He served as the Deputy Space Operations Officer for Eighth U.S. Army, Yongsan U.S. Army Garrison, Korea from June 2002 to September 2003. A branch Qualified Field Artillery Officer, volunteered for the Eighth U.S. Army Space Operations assignment in Korea to learn more about Army Space Operations and earn his 3Y Additional Skill Identifier. He aspires to be an Army FA40.

MAJ Kathi Thornton currently serves in Yongsan, Korea as the FA40 and TENCAP Manager for Eighth U.S. Army since August 2002. After earning her Masters of Science in Strategic Intelligence from the Joint Military Intelligence College, she served as an evaluator for the Army Test and Evaluation Command. Her evaluator expertise strongly supports her involvement in Korea's Spiral 2 of the JROC-directed Joint Blue Force Situational Awareness Advanced Concepts Technology Demonstration. Previously she served at the Kunia Regional SIGINT Operations Center in Oahu, Hawaii and as a Signal soldier she served as a SATCOM Ground Station Repairer/Operator for the TENCAP site in Fort Bragg, NC and for the strategic DSCS site in Fort Buckner, Okinawa, Japan.



The newly refurbished 8th U.S. Army Headquarters, Yongsan U.S. Army Garrison, Seoul, South Korea. Home of 8th U.S. Army Space Operations.

In another effort, the 8th U.S. Army Space Division assists the Army Space Program Office (ASPO) in all facets of the Army's Tactical Exploitation of National Capabilities (TENCAP) program. We represent theater TENCAP users by coordinating assets to fulfill theater and division requirements at the 501st Military Intelligence Brigade, whose customers include the First, Second, and Third Republic of Korea Armies and the 2nd Infantry Division. Our efforts in the past year included the validation of current and future requirements to ensure theater capabilities and the transition to the Distributed Common Ground Station for Army users. In 2003, ASPO will field the Distributed Tactical Exploitation System to the 2nd Infantry Division, facilitated by Space Operations Officers. TENCAP systems play a significant role in the Indications and Warnings mission supporting the commander during armistice and wartime operations.

Working to improve future intelligence, surveillance, and reconnaissance (ISR) capability in Korea, 8th U.S. Army G-2 seized an opportunity to gain Space expertise by sending the G-2 Geospatial Information Systems (GIS) Technician, WO1 Randy Johnson, for training at the Spectral Operations Resource Center in Colorado Springs, Colo. He received training on specialized software that enables the exploitation of multi-spectral imagery. He was the first GIS technician trained by U.S. Army Space and Missile Defense Command and looks forward to sharing his knowledge of spectral imagery with other GIS personnel. By enhancing future multi-spectral imagery exploitation, Space Operations directly influences tomorrow's battles. The importance of applying emerging capabilities to the KTO must not be underestimated; that idea applies to potential adversaries as well.

North Korea, like other threat nations, may possess the capability to employ COTS or reverse engineered technology to jam Global Positioning System (GPS) signals. Army Space Operators provide staff members and com-

ponents with threat assessments and information briefs in an effort to mitigate risk to Combined Forces command and 8th U.S. Army. Training on the employment of countermeasures and maintaining a high level of situational awareness about the potential for GPS jamming ensures that major subordinate commands will be ready for such events. By keeping the Command informed of emerging threats like GPS jamming, Space Operations helps to win the battle for information dominance and to preserve friendly access to Space-based products.

The 8th U.S. Army Space Operations Division plays a vital role in both current and future operations for Korea. It provides the theater with access to Army Space assets and products from the Spectral Operations Resource Center. We educate and train the staff on Space-related issues such as emerging threats and technologies. Over the past year, Space Operations received a variety of requests for information from the 8th U.S. Army and USFK staffs. These requests indicate the increased staff awareness about the military use of Space that occurs not only in Korea, but around the globe. Space Operations personnel continue to provide value-added to the commander, 24 hours a day, 7 days a week. As we look ahead, the 8th U.S. Army Space Operations Division will support each of the five missions of U.S. Strategic Command. With windows into the worlds of Space, Global-Strike, Information Operations, Integrated Missile Defense, and C4ISR, Space Operators must enable transformation while we continue to support current operations.