

Space Force Enhancement

Army Space Support Teams in OIF

By MAJ Dave Hotop

It was late September 2002 and the soldiers from 1st Space Battalion, Army Space Support Teams (ARSST) 1, 3 & 5 had just completed certification training when the company received the warning order for Internal Look. The order called for three ARSSTs to support the exercise. This was not the first time Space and Missile Defense Command-Colorado Springs (formerly Army Space Command) would have three ARSSTs deployed for one exercise, but it was one of many in a string of slightly different firsts.

The Army Space Support Company (ARSSC) already had two teams committed to the Global War on Terror (GWOT). Sending three more teams to Kuwait in late October and early November meant the ARSSC was 100 percent committed. At this point there was a general realization that a presidential decision to use military force to oust Saddam Hussein would require more Space teams to sustain the effort long-term.

As the requests for Space Teams to support Internal Look grew, to a number somewhere in the neighborhood of seventeen, the staff worked tirelessly to develop solutions to meet all the requirements. What was the backup? Soldiers from 193rd Space Support Battalion of the Colorado National Guard who had been mobilized after the terrorist attacks of Sept. 11, 2001, extended while others were called to active duty to form another ARSST. This helped, yet it was not enough to meet the anticipated missions. Soldiers from across the command volunteered, and with requirements finalized, started training. At this juncture, I will explain the ARSST mission and composition. In latter sections I will discuss training, team certification, and support to combat operations.

The ARSST

ARSSTs are rapidly deployable teams that provide Space Force Enhancement support and Space Control

MAJ David Hotop is a Reservist, mobilized for Operation Enduring Freedom. He currently serves as commander, Army Space Support Company, 1st Space Battalion. Prior to command, he served as Team Leader for Army Space Support Team 5 and 7. His former active duty service included tours as the Brigade S2 for the 3 Brigade, 4th ID and S2, Engineer Brigade, 2 ID. Prior to attending the Intelligence Officer Transition Course, he served as an infantry officer in the 6th ID Light.

awareness primarily at the Corps level. Regardless of the echelon, the teams deploy and integrate into the supported unit staff. The ARSSTs single focus is to provide relevant, timely Space-based products and support that enhance the ability of the warfighter to dominate the battle space and engage the enemy decisively.

ARSST leaders continuously seek areas that require relevant Space support and opportunities to educate the supported unit staff. The five Space Force Enhancement (SFE) areas defined in JP 3-14 are: 1) Satellite Communication (SATCOM), 2) Missile Early Warning (EW), 3) Environmental Monitoring, 4) Intelligence Surveillance and Reconnaissance (ISR), and 5) Position, Navigation, Velocity, and Timing (P/N/V/T). With some study of the SFE areas it doesn't take long for most to realize that there are prime actors (e.g., G2 and G6) who leverage Space-based systems across each of the SFE areas. So, the question that often comes up is how are Space support teams unique? In every SFE except P/N/V/T other staff sections perform the primary functions. Where there is apparent "overlap" in any of these areas — for example with the G6 for SATCOM — the ARSST augments and brings sufficient knowledge, capability, and reach support adding significant value. The ARSST also works closely with the staff to provide Space control awareness that supports maneuver unit operations.

An ARSST has three officers and three enlisted soldiers. The team conducts a mission analysis and uses factors of METT-T to integrate with and adapt to the supported units battle rhythm. With that said, for 24/7 operations, teams typically split into two 12-hour shifts. The team leader and the team NCOIC float but also have some overlap with each shift.

The Team Leader is a Major, Functional Area (FA) 40 Space Operations Officer, responsible for integrating Space products and Space control at the operational and

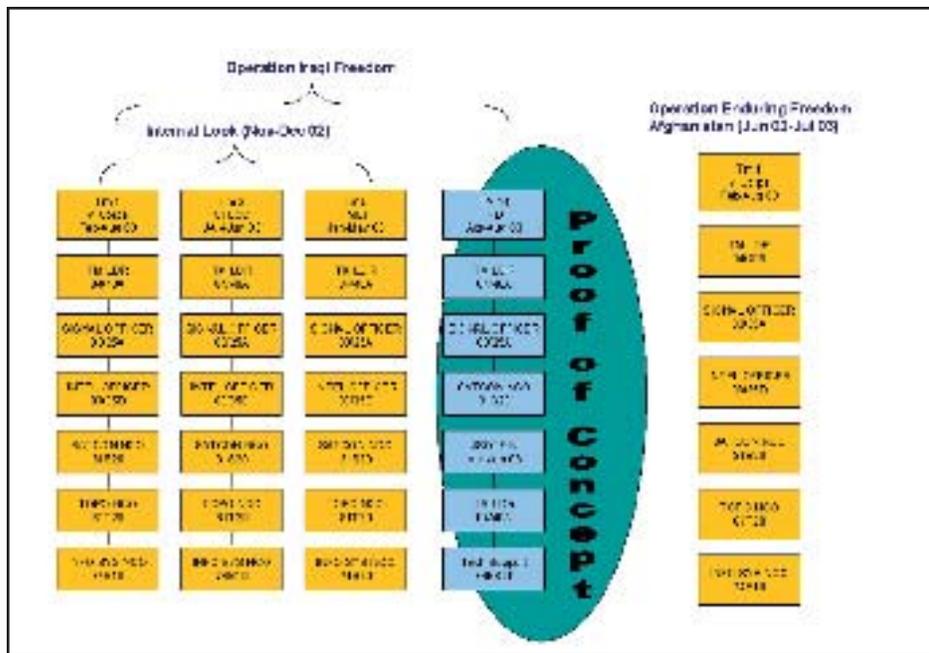


Figure 1

tactical level of war for the supported unit. The deputy team leader is a Captain and runs team operations. This officer is responsible for team collective training, manages production, and monitors Space and situational awareness of the team. The third officer is responsible for Space intelligence and insures full threat integration and counter Space threat assessment updates with the supported unit's intelligence section. While this is the current organization, the 1st Space Battalion is scheduled to transition to a Modified Table of Organization & Equipment (MTO&E) Oct 16. With this MTO&E there are some changes to team structure.

The one significant change for ARSST personnel is the conversion of the intelligence officer to an enlisted intelligence analyst. This intelligence analyst is a 96B30. The intelligence analyst is the senior enlisted soldier and, as such, the team NCOIC. In addition to primary MOS duties, the team NCOIC executes team administration, logistics, and individual training. The teams' truly unique character comes from the synergistic effect derived from the natural blending of the remaining enlisted soldiers skills combined with Space expertise realized through intense training.

The remaining three-team members bring the following skills and knowledge from their MOS. A Satellite Control NCO (31S1C) understands SATCOM, the space environment and orbital mechanics. The Topographic NCO understands mapping, charting, and geodesy as it relates to imagery production and spectral imagery capabilities. The teams leverage spectral products through the Spectral Operations Resource Center at SMDC-Colorado Springs and rely heavily on their topographic analyst for this capability. Last is the Automation NCO (74B) who is responsible for all technical support to include system accreditation for the Space Support Platform, wideband communications system, and general automation equipment support and

administration.

Training & Certification Program

Each ARSST relies on reach support provided by a portable wideband communications system. The system provides independent bandwidth and communications to a state of the art operations center at SMDC-Colorado Springs Headquarters. Except for this reach capability, once deployed, teams operate under the operational control or as an attached element to their supported unit. For this reason, teams sustain their training through a rigorous certification program based on a tiered, four level approach. Each of the levels progress through individual and collective skills, culminating in an external evaluation of team tasks found in the draft mission training plan for ARSST operations.

The evaluation is a three-day scenario driven, hands-on event designed to stress the team in a realistic environment. The team is issued an Operations Plan to study and start preparing for Space support operations. On the first day of the exercise, the team is issued a fragmentary order with requirements to provide capability briefings, develop Satellite Reconnaissance Advance Notice (SATRAN) or over-fly reports, GPS navigation accuracy graphs, and a number of imagery products typically produced to support assessments for supported units. Throughout the three-day event, the team is evaluated on each task and the results are recorded on the training and evaluation outline. At the final AAR, the team is given a completed evaluation package for further use in training.

Now that you know what an ARSST is, what an ARSST does, and how an ARSST trains, I'll review the support provided by those elements to Operation Iraqi Freedom (OIF). The deployment of three ARSSTs
(See *Force Enhancement*, page 70)

Force Enhancement ... from Page 53

for Internal Look provided our first opportunity to validate some of our latest improvements to our training program. During the short time between Internal Look and commencement of combat operations, two important additions were made to team operations.

The first was vital Space-based Blue Force Tracking training to ensure the ARSST could handle all the support requirements resulting from the fielding of Grenadier BRAT and mini-transmitter devices as part of the Force XXI Battle Command and Control Brigade and Below system. The concept that an ARSST should be able to provide support in all things Space; that the team is the one-stop shop for all Space related matters, has been consistently advocated at the highest levels. In that spirit, the teams embraced and quickly mastered combat identification to support Blue Force Tracking during both OEF and OIF.

The second addition was the Space Support Element Toolset-Light (SSET-L) that provided the independent bandwidth and communications package mentioned earlier. This capability proved quite valuable for receipt of large data files that did not draw from the limited bandwidth of the supported unit. In the next section, I will explain how ARSSTs supported OIF and relate specifics regarding Space support to combat operations.

Operation Iraqi Freedom

Three full teams from the ARSSC directly supported Operation Iraqi Freedom (OIF). Two additional teams stood up, trained and provided support to validate a proof of concept as depicted below in Figure 1. Figure 1 also shows the team that provided support to Operation Enduring Freedom in Afghanistan as part of the Combined Joint Task Force (CJTF) headquarters.

ARSST 1 supported V Corps and moved with the Corps headquarters from Kuwait to Baghdad. ARSST 5 supported the 1st Marine Expeditionary Force (I MEF) headquarters and executed split-based operations for both the main/forward and rear command posts of the MEF. ARSST 3 supported the Combined Force Land Component Command (CFLCC) headquarters and in addition to the normal ARSST missions also coordinated the space requirements between CENTCOM and the maneuver units supported by ARSST 1 & 5. ARSST 3 also provided administrative and logistic coordination and support for the forward deployed teams in the Area of Responsibility - on an as-needed basis.

One of the common observations from the group of experienced ARSST members is that no two Corps or supported units have the same requirements for Space Force enhancement support. This resulted in a diverse set of experiences across the ARSSTs. While there was significant commonality among the deployed teams' accomplishments it is the differences that stand out. For example, ARSST 5 conducted split-based operations that supported the I MEF main/forward command post. The team leader and two enlisted soldiers moved with the forward element and the rest of the team provided support from the rear command post.

In another example, ARSST 1 learned how to port the Grenadier BRAT - Blue Force Tracking data directly into user unit software. Prior to this work-around the unit experienced latency issues of 1-2 hours. In other words, ghost icons appeared on the units Common Operating Picture (COP) display after the aircraft had already landed. The ARSST work-around solution, while not perfect, allowed the unit

to bypass latency issues associated with standard COP software (C2PC & GCCS). This effort resulted in decreased latency and improved the units' friendly force situational awareness.

ARSSTs are often challenged with problems emerging from rapidly developing technology. Teams often require rapid solutions and use a variety of methods to achieve results in the form of new techniques and procedures for Space-based product and service support. A primary means for obtaining this type of support is through Home Station or reach support. Through the SMDCOC, teams can reach the Crisis Action Team, ARSSC, 1st Space Battalion, and other relevant staff as necessary.

The ARSSTs are the one-stop shop for all Space support to Army units. They provide relevant and timely Space-based products and services that will enable the supported unit to dominate their battle space. Through intense training, the team achieves a cohesive blend of skills that, when combined with Space knowledge, result in highly effective Space education, analysis, plans, and products and services.

Upon reflection, there are some questions that we should constantly ask ourselves: Were we relevant? Was there value? Can we improve? Always. Should we evolve? We have to. In fact, as I write this, all available ARSSC soldiers are in the midst of conducting an in-depth discovery learning to identify areas for positive change. This process of discovery, undertaken by the soldiers who deployed in support of OEF/OIF, is the basis for developing doctrine, organizations, training, materiel, leadership and education, personnel, and facility (DOTMLPF) solutions for ARSSC future support to the warfighter.