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# Space Smart

## Army filling gaps in Space Capabilities

Several years ago, the Army identified its gaps in Space-based capabilities through the U.S. Training and Doctrine Command capabilities needs analysis process. The needs included: enhanced satellite communications; tactically responsive sensors and sensors that link directly to the shooters, timely and actionable Space-based intelligence; surveillance and reconnaissance; and an expanded bench of Space professionals.

In the last year, the Army has made progress towards filling or mitigating those gaps. In this article, I want to highlight some of that progress. This is not intended to be an exhaustive list by any means, but is one that covers several operational areas in which we — the Army, and the Space operations field — have made headway. Generally, the successes fall into three areas: providing support to Soldiers and commanders, expanding the pool of Space-smart Soldiers, and educating people about what Space-smart Soldiers and U.S. Army Space and Missile Defense Command/Army Forces Strategic Command do for our Army and the Joint community.

**PROVIDING SUPPORT TO SOLDIERS AND COMMANDERS**  
**Deployed Space Expertise:** Currently, approximately 90 Soldiers and Civilians are deployed from the 1st Space Brigade to support Operation Iraqi Freedom warfighters with enabling Space capabilities. Since 2003, the brigade has continuously had people deployed on Army Space Support Teams, Commercial Exploitation Teams, Joint Tactical Ground Station (JTAGS) detachments, and other jobs needing Space experts. That is quite an accomplishment for such a relatively small organization.

Another approximately 20 Space professionals and enablers are deployed in Space Elements (SE) that are organic to fires brigades, Divisions, Corps and Army headquarters. The Space Element assists the commander with accessing and integrating Space capabilities and Space-based technology into the fight. For example, Space Elements leverage the latest overhead non-imaging infrared sensors to provide direct support to operations and educate commanders and staffs on the current capabilities to protect satellite communications.

**Wideband Global SATCOM (WGS):** One of the themes in my presentations is that whatever capabilities or equipment we provide to the warfighter; they must serve the Soldier, staff sergeant, lieutenant, or battalion commander. The launch of the first of six WGS satellites

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in October 2007, and placing it in operation in April in the U.S. Pacific Command area of operations, is an excellent example of meeting that goal. That one satellite provides 10 times more throughput than a current Defense Satellite Communications System Satellite. Think about the increased ability of Soldiers in that area of operation to communicate, share timely and actionable intelligence, surveillance, and reconnaissance information, and to download other critical information. Five more WGS are scheduled for launch through 2013.

**Newly deployed JTAGS:** In January, SMDC/ARSTRAT permanently stationed another JTAGS in Japan to augment the early missile warning already provided by JTAGS-Korea to commanders in the Pacific area of operations. The presence of JTAGS-Japan provides a more robust Theater Ballistic Missile Defense and Ballistic Missile Warning Capability. The new JTAGS helps fill the sensor-to-shooter gap.

#### EXPANDING THE POOL OF SPACE-SMART SOLDIERS

This past year the number of Functional Area 40 (FA40) Space Operations Officers grew from 187 to 224. Although this increase has provided the ability to meet more of the Army's requirements, we still need more and will continue to pursue additional Space professionals in order to fill both Army and

Department of Defense demands. Additionally, the newly formed Army Space Cadre Office has been working with the rest of the Army to identify a cadre of individuals whose roles and responsibilities require some level of Space experience or training. Once formalized, this database will serve as a mechanism to track those personnel and their Space-related experience and training. When complete, nearly 2000 Space enablers could be added to the Space cadre pool.

Every year, about 80 officers – most of whom are not FA40s — take the 3Y “Space Activities” course at Intermediate Level Education schools. That program continues to increase the number of officers in other branches and functional areas who understand how Space operations and Space systems can be a combat multiplier.

#### EDUCATING PEOPLE ON SPACE OPERATIONS

Kudos to BG Stuart Pike, Assistant Adjutant General for Space, Colorado Army National Guard. General Pike put together a conference for all The Adjutant Generals and their subordinates to discuss Space and missile defense. A dozen general officers were present, including commanders who have or will receive Space Elements or Space Support Officers. Instructors from the Space Operations Officers Qualification Course presented a day-long

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executive course. General officers from Alaska and California, Colorado's partners in the Ground-based Midcourse Defense mission, represented missile defense. The discussions were fruitful and the group reconvened in Fort Greely, Alaska in April. One outcome has been the creation of a General Officer Steering Committee from Alaska, California and Colorado General Officers to address Space and missile defense issues that concern the Army National Guard.

**Outside Organizations:** This past year, SMDC/ARSTRAT units on Peterson Air Force Base hosted civic leaders, recruiters, classes from military schools, and senior enlisted advisors and senior officers to educate them on the command's Space and missile defense missions. Without fail, we heard "I didn't know you did that!" Getting the word out helps build an educated and informed support base. And these are just a few of the ways the Army is filling its gaps in Space capabilities.

As I mentioned up front, one of my themes is that whatever capabilities or equipment we provide the warfighter must serve the Soldier, staff sergeant, lieutenant or battalion commander. During my tenure in SMDC/ARSTRAT, I have been impressed with its focus on Soldiers with boots on the ground. That is a driving force behind the majority of the command's operations, plans and supporting efforts. As I leave the command and my direct association with the Space operations field, I would like to applaud the officers, Soldiers, and Civilians throughout the Army who are providing enabling Space-based capability to warfighters. Well Done! 

concept must change also. Maintenance operations and overall capabilities remain unchanged; however, maintenance functions previously consolidated at brigade level must move to battalion level. Tables of Organization and Equipment will change. A portion of the brigade's maintenance related force structure will be cut while additional force structure in the battalions will be stood up.

As can be seen in the three examples above, the Army is dynamic and always evolving, which is driving changes to Space operations and causing SMDC/ARSTRAT to reassess and refine Space force structure. Army Space Forces must adapt to meet the operational needs of our ever changing Army and Joint forces. As the Space Proponent, SMDC/ARSTRAT must routinely assess and update equipment, doctrine, training, facilities, as well as organizational structures in order to ensure we continue to provide ready and relevant Space-based/enabled capabilities to the Army. The ongoing Major Restructuring Initiative provides us the mechanism to conduct this assessment and make necessary changes to our units' force structures.

SMDC/ARSTRAT has been on the cutting edge of innovation and technology for many years. The command has developed and fielded innovative Space capabilities, greatly enabling the combat effectiveness of the American Soldier. During the majority of this decade, SMDC/ARSTRAT has worked successfully to operationalize Space-based/enabled capabilities and push them down and forward to the tactical warfighter. The Space Major Restructuring Initiative carries this work forward and ensures that future Army forces will continue to be supported by relevant, responsive and capable Army Space Forces. 