

FORGING AHEAD



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The Army proponent for Space, LTG Kevin T. Campbell, recently spoke to U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command (SMDC/ARSTRAT) personnel, both in Huntsville, Ala., and Colorado Springs, Colo., about his vision and focus for the command. To no one's surprise, he said that his focus and the focus of SMDC/ARSTRAT had to be on the warfighter, something we've been doing since SMDC's inception. I suppose you could say that the creation of Functional Area 40 in 1998, was the direct result of the warfighter community realizing that Space-based capabilities and Space Operations Officers could be a force multiplier enabling their success in the field. A constant theme of LTG Campbell and all the commanders before him, has been the need to look at and evaluate what we provide, in either materiel, products or people, to remain relevant, ready and to make the warfighter as lethal as possible.

As we look to our future, I want to take this opportunity as I leave the command to review the successes we've had during the last 17 months. You will see in each success more opportunities to influence the Space operations mission set. I challenge each of you to continue looking, analyzing, debating and striving to keep Space working for the warfighter.

1st Space Brigade

Requests for Space operations skills and mission areas continue to grow. In late May, the 1st Space Battalion held a farewell ceremony for a company of Soldiers deploying in support of U.S. Central Command operations. Although Soldiers from the battalion have been deployed continuously since 9/11, this was the battalion's largest deployment — approximately 40 Soldiers from 1st Space Battalion and the battalion Tactical Operations Center — approximately 8 Soldiers. Almost 40 percent of the battalion's Soldiers are now deployed. This deployment is validating the concept of operations for Space assets working for and through the Joint Functional Component Command for Space and the Combined Air Operations Center in theater. In addition, challenging new missions have emerged for the brigade, which assist in protection of the Nation and critical satellite communications links supporting Department of Defense and U.S. Government missions. The brigade is well on its way to being prepared to assume on-orbit control of the payloads on the Wideband Global Satellite System. Equipment is in place at two of the Wideband Satellite Operations Centers and training is underway to add a new skill set for control of this complex asset which will provide tremendous capability to the warfighter.

100th Missile Defense Brigade

The 100th Missile Defense Brigade (Ground-based Midcourse Defense) and the 49th Missile Defense Battalion (GMD) have achieved a Limited Defensive posture and are ready to defend the Nation against all incoming hostile/misguided missiles. This was so ably demonstrated last July during the North Korean missile launches. As it turned out, the missiles weren't headed to the continental United States, but had they been a threat, the brigade and battalion fire direction elements would have been able to launch the ground-based interceptor with a kill vehicle to neutralize their missiles. The process through the chain of command; from the White House, U.S. Northern Command, U.S. Strategic Command's Joint Functional Component Command for Integrated Missile Defense to the brigade and to the battalion functioned properly. What a success for a process that involves so many entities!

Expanding Missile Defense Architecture

The expanding number of sensors in the missile defense architecture enabled this success of the 100th and 49th. Importantly, during the past couple of years, the Ballistic Missile Defense System community has been working to increase the number of sensors, integrate them, and instill redundancies between them to support both tactical and strategic missile defense in a network-centric manner.

One such sensor is the Sea-based X-Band Radar. This radar sailed to the waters off Alaska, passed several tests and is joining the array of sensors. Of significance, the Sea-based X-Band Radar can be moved to any location to optimize its effectiveness, depending on the threat. Another X-Band Radar, the AN/TPY-2, a Forward Based X-Band Radar Transportable, is now in

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Japan in support of the global ballistic missile defense system. Activities are ongoing to emplace additional radars to provide increased strategic warning capabilities to the Nation and allies.

Sensors in the Ballistic Missile Defense System architecture have been performing their single-focus missions for many years. When the existing systems were built years ago, they were designed to support just one mission. Today, as a result of a lot of consultation and cooperation, the sensors are more responsive to both Space and missile defense needs and can respond in a network-centric fashion to numerous missions (i.e. Intelligence).

Satellite Communications

SMDC/ARSTRAT Chief Information Office (CIO)/G6 executes the duties as the Satellite Communications (SATCOM) System Expert and Designated Approval Authority for the Global Broadcast Service and the Wideband Global SATCOM (WGS) systems. Additionally, as a strong advocate for warfighter capability through its role as the Consolidated Wideband SATCOM System Expert, SMDC/ARSTRAT has succeeded in balancing the Information Assurance requirements with the operational imperatives of combatant command requirements. The Department of Defense SATCOM community recognizes SMDC/ARSTRAT as the wideband SATCOM expert and has noted the positive impact that WGS will have for the warfighter when placed in operations by March 2008.

Because of their outstanding performance of their SATCOM System Experts responsibilities U.S. Strategic Command recently added Mobile Users Objective System SATCOM System Experts to CIO/G6 mission responsibilities. Mission support has been in the areas of requirements advocacy and assessments, new systems planning and integration, combatant command assistance, and operations planning and sustainment. As an example, in order to deliver the communications capacity to the warfighter quickly, only 37 days are scheduled to charac-

terize payload operations and performance for the first WGS satellite. To this end, the SATCOM System Experts office (G6) has worked diligently to develop an aggressive characterization testing schedule that will allow for full payload characterization within the allotted 37-day test window. The office has worked closely with the satellite contractor to develop payload configurations that will support not only payload characterization, but also initial Air Force Operational Test and Evaluation Center testing of the satellite and terminal performance certification testing for the new Ka-band capable terminals. All of this will occur during the short test window to maximize the warfighters' use of the WGS payload immediately upon its activation. The goal is the seamless integration of Wideband SATCOM operations for the warfighter as the constellation transitions from the Defense Satellite Communications System to WGS.

Since 2004 when the Global Broadcast Service Designated Approval Authority mission was assigned to SMDC/ARSTRAT, the CIO/G6 has relentlessly sought to balance operational and Information Assurance requirements. This is significant within Global Broadcast Service operations because of its numerous unresolved Information Assurance issues. SMDC/ARSTRAT has provided an operationally focused direction to the program to obtain compliance with Information Assurance regulations, policy and law. SMDC/ARSTRAT, in its Designated Approval Authority role, has led the Global Broadcast Service community by addressing these concerns in the Wideband Working Group and Global Broadcast Service Operations Working Group. The result is a jointly coordinated "get well" plan of action and milestones. While there is still a long way to go, significant progress has been made toward reducing risk. One thing is for sure, operations planning and sustainment of Satellite Communications is an Army Core competency.

One of the great synergies within SMDC/ARSTRAT is the
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lash-up between the operational and research and development sides of the command. It is an essential relationship that supports the Space and missile defense mission areas well. The Future Warfare Center bridges those two sides with its development of the documents that support Army requirements development and represent operational needs against identified gaps. For example:

Counter Satellite Communications Integrated Concept Plan

In May, the Future Warfare Center Director of Combat Development Space Branch succeeded in gaining the approval of the Joint Capabilities Board for a Space control Initial Capabilities Document. This document defines an approach to filling specific Space control shortfalls (gaps) and, when approved, will “green light” the acquisition community to move forward on the next generation of Space control equipment. The approval by the board moves this document to within two months of the expected Joint Requirements Oversight Council four-star final stamp of approval. The challenge and key to success was to work closely with U.S. Strategic Command and the Services to ensure the document met their needs. The first fruit of that effort occurred when all stakeholders united to push the document through the Joint Capabilities Board with no objections or issues. The final fruit will mature in a few years as the Army and our sister services field new equipment that ensures the United States freedom of action in Space while denying that freedom, when directed, to our adversaries.

Operational Responsive Space Office

The Future Warfare Center



Satellite communications are the lifeline to the “boots on the ground” forces in Operations Iraqi Freedom and Enduring Freedom. The system must be set up to support the ground forces when and as they need communications. *Photograph courtesy of*

led the SMDC/ARSTRAT role in standing up Department of Defense Operational Responsive Office which will be at its “initial operational capability,” manned and functioning when you read this article with the goal of being fully operational by October 2007.

The good news is that the Department of Defense Space community has successfully integrated Space-based capabilities into the core of U.S. national security operations; the bad news is that our military (and civil) community is increasingly reliant on those capabilities

and their demands have increased. Because of this, many are interested in enhancing the responsiveness of Space systems through what the Department of Defense calls Operationally Responsive Space. Department of Defense defines Operationally Responsive Space “as assured Space power focused on timely satisfaction of Joint Force Commanders’ needs,” and sees it as just one of many Space activities designed to support the Joint Force Commander.

Congress in the Defense Authorization Act for Fiscal Year

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2007 directed Department of Defense to establish a Joint Operationally Responsive Space Office with the mission to (1) contribute to the development of low-cost, rapid reaction payloads, buses, space lift and launch control capabilities in order to fulfill joint military operational requirements for on-demand Space support and reconstitution; and (2) coordinate and execute operationally responsive Space efforts across the Department of Defense with respect to planning, acquisition and operations.

To develop the plan for the office, the Department of Defense Executive Agent for Space, Dr. Ronald Sega, also the Undersecretary of the Air Force and the Commander, U.S. Strategic Command GEN James E. Cartwright co-chaired a working group with broad community participation from civil, defense and intelligence communities to develop the plan for the office. According to the Plan, the overall objective of the office is “to expedite development and fielding of select responsive Space systems by leveraging National Security Space-wide technology development activities and operational capabilities; provide integration and technical support to other Service and other Government Agency activities that leverage select National Security Space-developed technologies and/or operational Space capabilities; and conduct independent operational and technical assessments of Space system capabilities and vulnerabilities as necessary for

Operationally Responsive Space solutions that will meet the full range of U.S. diplomatic, information, military and economic needs.”

Army Space Support Teams, Space Support Elements and Space Operations Officers

In the mid-90’s, then — U.S. Army Space Command created Army Space Support Teams and aligned them with the Corps to provide those units (and their subordinate units) with a deployable team of trained Space-savvy Soldiers (officers and noncommissioned officers). These Space experts came with their own specialized equipment and could provide “on-call, Space-based products, services and expertise, worldwide, in support of civil and military operations,” in the five Space force enhancement functions: intelligence, reconnaissance and surveillance; position/navigation; Space and terrestrial weather/terrain/environmental monitoring, communications; and missile warning.

Their mission has not changed much since those early days, but it began evolving with the fielding and embedding of the Space Support Elements to the Army corps and divisions starting in 2005. Exactly what the roles and functions of the Space Support Elements are and how they differ from those of the Army Space Support Teams has been the subject of intense debate within the Army Space community and should continue.

The differences between the Space Support Elements and Army Space Support Teams and their inherent strengths and weaknesses are outlined by Lieutenant Colonels Bob Guerriero, Tom James and Jim Rozzi, (all combat veterans and FA40s), in a white paper entitled “Future Evolution of Army Space Forces: A Vision to Optimize Tactical and Operational Space Support.” They authored the paper in early April 2007 for SMDC/ARSTRAT’s Future Warfare Center Directorate of Combat Development. In it, they go beyond just the Space Support Element/Army Space Support Team debate to also spell out what they think the Space community must do to stay relevant and effective. (Their paper is printed in its entirety in this issue.) They provide a good review of the FA40 Space professional “State of the Union.” You and I may not agree with all their points, but it’s a good read and warrants reflective thought.

Indeed, much has been accomplished; many challenges lie ahead. As I depart for my next assignment, I know that you will be intricately involved in the further improvement and development of Army Space-based capabilities and supporting doctrine. Thank you for your support and friendship over the past year and a half. Connie and I will miss you and look forward to our next encounter. Cheers!

Secure The High Ground! 