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10 Years Later

Look How Far We've Come

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his is my last column in the Army Space Journal as the U.S. Army Space and Missile Defense Command Director of Combat Development. During the past four years I have had the privilege of working with the tremendous people of DCD shaping combat and force development, as well as institutional training for the Space and Ground-based Midcourse Defense mission areas. For this last article I decided to look back over the past ten years that I have been a FA40 and document some of the significant Doctrine, Organization, Training, Leader Development, Materiel, Personnel and Facility milestones in the evolution and advancement of Army Space.

Ten years ago the Army designated its Space Proponent and began the development and expansion of operational space capabilities. Prior to the summer of 2000 space forces consisted of Army Space Support Teams and Joint Tactical Ground Station detachments, which were Table of Distribution and Allowances organizations. Institutional – level space training did not exist nor did Army Space Doctrine. Despite the fact the Army had an operational headquarters - U.S. Army Space Command - space operations within the Army were fledgling and immature. Officers assigned to Army Space at that time talked about “normalizing” or “operationalizing” space. Space systems and organizations were considered exotic and were not included in the mainstream Army’s thoughts or plans. Rather than being seen as an integral part of the force enabling and

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multiplying combat power, space was viewed as something outside the regular Army. In the ensuing decade thoughts and perceptions, throughout the Army, reference the utility and value of Space Forces has shifted one hundred eighty degrees. Today the majority of leaders and Soldiers do not give space-enabled capabilities much thought; by in large space-enabled capabilities are integrated into other Army architectures and systems. Space in many ways has moved from the exotic to the mainstream. Most Soldiers recognize the vital role space units, systems and capabilities play in combat, combat support, and combat service support operations. Space is integrated and “operationalized” into most facets of operations to include fires, communications, maneuver, intelligence, and sustainment. Daily in both Afghanistan and Iraq, as well as around the world, Soldiers are using and are reliant upon GPS satellite communications, space-enabled theater missile warning, and space situational awareness systems. Today Space Operations Officers no longer talk about “normalizing” or “operationalizing” space – it has been accomplished during the combat operations of the last eight years.

DOTMLPF ACTIONS

The first step in “operationalizing” space was the Army’s decision to create a Space Operations career field. Prior to the creation of the Career Field Designation process and the stand up of the FA40 Space Operations Officer the Army selected Soldiers to serve in U.S. Army Space Command in branch immaterial assignments. After several years the Soldiers would change duty stations and return to their basic branches; Signal, Military Intelligence, Air Defense Artillery, Aviation. While some select number of officers would serve in several space assignments, the vast majority of Soldiers would never return to serve in a space-related assignment again. The Army recognized the tremendous experience being lost and the detriment to space operations that this assignment policy was causing. Standing up the FA40 career field gave the Army the opportunity to develop a cadre of space professionals, who over the course of a career of sequential assignments grew in their competence, and in turn improved space-related operations.

The second major step occurred shortly afterward in the fall of 2000; the Army began what is known as the Headquarters Department of Army Space Force Management Analysis. The purpose of the Force Management Analysis was to develop unit

structure for space forces, retiring the Table of Distribution and Allowances, and documenting the forces on Tables of Organization and Equipment, like every other operational force in the Army. The initial Table of Organization and Equipment structures were approved in July 2002, and contained designs for the Space Battalion, and Theater Missile Warning Detachments. The following year Headquarters Department of the Army approved the 1st Satellite Control Battalion design, which became the 53rd Signal Battalion. Headquarters Department of the Army later resourced the 1st Space Battalion Headquarters and Headquarters Company, an Army Space Support Company, five Active Component and four U.S. Army Reserve Space Support Teams, a Commercial Exploitation Team, and a Theater Missile Warning Company for fiscal year 2004 activation. In fiscal year 2006 the Headquarters and Headquarters Company, 1st Space Brigade and Space Control Company Headquarters were activated. With Army modularity, we also saw Army Space directly integrated into operational forces through the redesign of Army Service Component Commands, Corps and Divisions and the inclusion of Space Support Elements to those organizations’ Modified Tables of Organization and Equipment. Organizing space forces on Tables of Organization and Equipment brought recognition of the legitimacy and importance of the space mission to the Army, as well as providing the sustainment capabilities, readiness reporting, and command and control measures that previously had not existed.

In addition, the Army has further “operationalized” space by enhancing and developing new space-related systems and equipment. For example, JTAGS systems have continued to be upgraded in the past decade and today provide enhanced theater missile warning capabilities. New antennas, processors, and satellite feeds have significantly increased Joint Tactical Ground Stations’ value to the theater commanders, such that they all continue to support the forward stationing and upgrade of these systems. During this same time the Space and Missile Defense Battle Lab developed and fielded the Army Space Support Team – Tactical Set to both Army Space Support Teams and Space Support Elements. The Army Space Support Team – Tactical Set has brought space planning, communication and production capabilities to Division, Corps and Army Staffs, further “operationalizing” space by pushing space-related products and services down and forward to tactical-level units.

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The Army Space Support Team-Tactical Set will not remain in the inventory, after the ongoing war concludes, but is scheduled to be replaced by the Distributed Common Ground Station – Army which will have greater computing power, improved interoperability, and enhanced space planning tools. Future Army Space Support Team and Space Support Element members will be better equipped and better enabled to provide operational space planning and effects to maneuver forces.

Two other very significant factors that have contributed to “operationalizing” space include expanded space-related training activities and doctrine development. On June 13, 2001, fourteen FA40s began the first ever Space Operations Officer Qualification Course. The first course was seven weeks long and was taught by a variety of government Civilians and support Contractors. Today the course is ten weeks long and is taught in partnership with the National Security Space Institute in a state-of-the-art Army Space classroom. In addition to the basic space curriculum, students now receive training associated with Special Technical Operations, as well as with familiarization with space Tactics, Techniques and Procedures that have been developed through eight years of combat operations. In addition to the Qualification Course, the Army has further enhanced space education and training with the development and initiation of the Tactical Space Operations Course, JTAGS Operator Course, JTAGS Senior Leader Course, and the Army Space Cadre Basic Course. This last course has been designed to provide Space Cadre “Enabler” personnel a basic level of space education in order to enhance their understanding of Army Space Operations. With this increased understanding they are better able to support “operationalizing” space, whether it is with technology, concepts, analysis, wargaming, modeling, etc. At the same time space-related doctrine development and publishing has grown in step. Ten years ago we had one joint publication; JP 3-14 Space Operations, which had taken almost ten years to produce. Since that time the JP 3-14 has been rewritten with significant input from the Army – and better reflects the operational requirements and wishes of the land component. Furthermore; Army doctrine has matured and now includes FM 3-14 Space Operations, as well as doctrine manuals and Army Tactics, Techniques and Procedures related to the Space Brigade and Theater Missile Warning operations.

THE FUTURE – WHERE DO WE GO FROM HERE?

Army space forces operational capabilities and related Doctrine, Organization, Training, Leadership Development, Materiel, Personnel and Facility activities bear little semblance to their predecessors. It is widely recognized both within and outside

of the Army that we are a space-enabled force. We cannot fight today across extended distances on a noncontiguous battlefield in an operational complex environment without space-enabled support. Despite the rapid progress the Army has made in the last ten years “operationalizing” space we cannot afford to let up. There are new threats, new technologies, and new operational paradigms that are emerging that must be continually addressed. Warfare is constantly evolving and space must evolve also if it is to contribute effectively. In the months and years to come USASMDC/ARSTRAT and the Army must determine how best to integrate space and cyber capabilities, for both offensive and defensive purposes. In addition, we are faced with the questions of if and how the Army should integrate space and Special Technical Operations. Our world is growing increasingly complicated with integrated applications and networked communications paths changing the way we live, do business, and how the Army fights. In the next ten years the Army and USASMDC/ARSTRAT are going to have to determine how to “operationalize” space within the context of this new operating environment. Organizations, equipment, doctrine and training must continue to evolve to meet these new challenges.

CONCLUSION

So as I conclude my time in uniform, I am both proud and confident of Army Space. I am proud of the tremendous strides the Army has made in the last ten years “operationalizing” space. Within the short timeframe of ten years, space-enabled systems and capabilities, related organizations and forces have rapidly developed, and consistently proven themselves in combat. Army Space capabilities today are far more robust than they were when stood up. Our FA40s in Army Space Support Teams and Space Support Elements are currently doing work and supporting missions that were not even envisioned ten years ago.

At the same time I am confident in the future of Army Space. Space Operations Officers are creatively expanding and shaping the space mission area as they assume responsibility for integrating Special Technical Operations and cyber missions and capabilities, thereby bringing increased combat power to the land-component warfighter. It is a given that the Army will continue to evolve and with it the tactics, equipment, organizations, and training that sustain its operations; space operations will continue to evolve also, enabling operations across the Army. I am confident that Army Space Operations Officers, and those that support them, will continue to successfully develop, integrate, and adapt full spectrum capabilities in order to continue “operationalizing” space.

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