

The Army Space Cadre FORMAL

By Ken Royston

The Army recognized its need for a core of professional Space operations and it created the Space Operations Career Field (FA40) — a dedicated career field of Space experts, trained and managed to function as dedicated Army assets for general Space-related operations. We continue to recognize the need to mature the process of identifying its Space smart professionals for proper tracking and management.

To that end, the Army has embarked on a Force Management Analysis (FORMAL) process to define its cadre of Space professionals and develop a comprehensive strategy for their education, training and development to meet mission requirements. This undertaking is a result of the recommendations by the Commission to Access United States National Security Space Management and Organization (known as the Space Commission), and directives published in subsequent Department of Defense (DoD) directives and legislation.

As stated in the DoD Space Human Capital Resources Strategy, people are central to our success in Space. Meeting the serious challenges of the future in Space requires competent people who are skilled in the operational demands of the Space medium, the tactical environment they support, the technical requirements of the vehicles that operate in it, the acquisition of Space systems, Space-related research and development, Space unique tactics, techniques and procedures, the needs of the many and varied end-users of Space capabilities, and in the ability to formulate and articulate new Space doctrine to fully control and exploit the medium of Space in support of our nation's security objectives. The strategy must also ensure that it supports the Army's unique mission requirements.

Agent of Change

In January 2001, the congressionally chartered Space Commission reported that the DoD lacked the senior level focus and accountability to provide guidance and oversight for national security Space operations. The commission, initially chaired by the Honorable Donald H. Rumsfeld (who left the commission in December 2000 after being nominated to become the secretary of defense), cited several shortcomings. They included a weak Space culture resulting in unfocused career development, education and training; lack of depth within the Space specialty; unqualified leaders serving short tour lengths; poor retention resulting in a shortage of scientist and engineers; and a shortage of personnel with both operations and acquisition experience.

In order to comply with the commission's recommendations, in June 2003, DoD published Directive 5101.2, designating the Secretary of the Air Force as the DoD executive agent for Space. Later this responsibility was delegated to the undersecretary of the Air Force. This was followed by the Fiscal Year 2004 National Defense Authorization Act, which required the secretary of defense to develop a strategy for DoD that would promote the development of Space personnel career fields within each of the military departments, and ensure that the Space personnel career fields developed by the military departments are integrated to the maximum extent practicable. It also required DoD to report its progress starting in February 2004 and provide a statement of the Space strategy. Congress also instructed the Government Accountability Office to review and report by June 15, 2004, on the effectiveness of the DoD strategy and of the services' efforts to develop Space personnel career fields.



Space is truly a joint and coalition capability as seen in this photo. Right SPC Daniel Coggins along with two unidentified British Soldiers set up a satellite link during Operation Iraqi Freedom.
SMDC Photo

In January 2004, the executive agent for Space was given guidance on the implementation plan for DoD Directive 5101.2, which required action in 11 specific areas.

- National Security Space (NSS) Plan
- NSS Planning and Programming Recommendations
- NSS Program Assessment
- Virtual Major Force Program (vMFP) for Space
- Space Acquisition
- Space Science and Technology
- Space Test and Evaluation
- NSS Best Practices
- Space Industrial Base Capability
- Space Capability Needs and Architectures
- Space Professional Cadre

All 11 functional areas have been or are in the process of being fully implemented by the military departments.

The FORMAL

In order to comply with DoD direction and GAO recommendations, Headquarters Department of the Army (HQDA) G-3 decided to utilize the FORMAL process to accomplish the requirement to establish a professional Space cadre.

The FORMAL was selected for several reasons. First, as the capstone force management tool, the FORMAL review provides intensive management forums to facilitate Army-wide integration of all activities required to produce and sustain mission capable units to perform Army missions. Secondly, FORMAL reviews allow senior Army leaders to resolve issues that effect the execution of short- and mid-range plans and programs. Finally, it provides a valuable forum for horizontal and vertical integration between HQDA, Major Commands (MACOMs), and all other stakeholders involved in a specific issue.

The FORMAL review process focuses on the Army's ability to maintain the readiness and the force capability required to

support combatant commander requirements and other Army missions, while continuing to execute a coherent force modernization program across the Program Objective Memorandum (POM) years. The bottom line is: whereas a study includes a designated portion of the Army, the FORMAL is a mechanism that involves the entire Army.

To facilitate the process, the Army G3 designated the Army Space and Missile Defense Command — the Army's specified proponent for Space — to take the lead in the conduct of the Army Space Cadre FORMAL (ASCF). The guidance from the Army G-3 was to define the Army cadre of Space professionals, provide for professional military education to stress the application of Space systems in combat operations, and maintain a sufficient Space cadre with the capability to develop, plan, program and acquire Space systems uniquely required to support the Army's missions.

The ASCF officially kicked off July 23, 2004, in Arlington, Va. During the initial meeting, the office of the DoD executive agent provided an overview, and representatives from the Air Force and Navy outlined their efforts to define their Space cadre, key terminology and proposed Space education. The ASCF lead action officer outlined the rules of engagement concerning the conduct of the FORMAL and provided an overview of critical timelines, actions and requirements.

The ASCF comprises four phases:

- Phase I will establish an Army-unique definition for the Army Space Cadre for use in the remaining three phases.
 - Phase II is a vertical analysis of all Army structure conducted by all elements of the Army to identify roles, missions, organizations, functions and personnel based on the approved Phase I Space Cadre definition.
 - Phase III is a functional review which reviews and develops, comprehensive Department of the Army policies support-
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Space Object Identification

Wide bandwidth radar assets are critical to the SSN because they provide critical all weather, day or night imagery with resolution independent of range. The ALCOR and MMW sensors at USAKA/RTS are tasked routinely to collect data for Space Object Identification (SOI). This tasking comes from the USSTRATCOM Joint Intelligence Center and is used extensively for payload determination (size and shape), operation mode (i.e. mission), status monitoring, damage assessment, and motion determination.

Space Environment Studies

The reliable transmission of large amounts of information; the ability to provide wide area Space and

ground based surveillance; and the availability of high integrity, high accuracy navigational information are increasingly important to the military as part of its desire for spectrum and information superiority. However, the ionosphere affects all trans-ionospheric radio frequency (RF) communications, surveillance and navigation systems operating at frequencies below 2 GHz.

USAKA/RTS routinely hosts programs that study the Space environment. Current projects include the NASA Equatorial Ionosphere Studies II and the Air Force Research Laboratory's (AFRL) Wideband Ionospheric Distortion Experiment. RTS hosts a ground station of the AFRL Scintillation Detection system which provides worldwide "nowcasting" of ionospheric disturbances that

could disrupt communication systems. This site will also help validate the AFRL C/NOFS satellite which will provide forecasts of ionospheric disturbances. These programs are providing important contributions to our understanding of the ionosphere.

USAKA/RTS is clearly a unique and valuable entity. The outstanding government and contractor work force, the unique technologies and capabilities, and continued community support have combined to make USAKA/RTS a true leader in Space surveillance and a critical contributor to the national Space control mission.

¹This commission was established in 1999 by an amendment to the FY2000 Defense Authorization Bill and was chaired by Donald Rumsfeld.

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ing the Army Space cadre within the eight life cycle functions (structure, acquisition, individual training and education, distribution, deployment, sustainment, professional development, and separation).

- Phase IV is a comprehensive analysis of the doctrine, organization, training, materiel, leadership & education, personnel, and facilities (DOTMLPF) domains to develop the final recommended Army Space Cadre Strategy for the Army.

The ASCF culminates with a briefing to the vice chief of staff, Army where recommended strategy and courses of action for implementation are presented and input is provided for resourcing requirements for Fiscal Year 2008-13 POM. The VCSA will decide which ASCF recommendations will be implemented and on what timelines.

An Army Space Cadre provides significant value. Foremost, it fulfills Congressional mandate, implements DoD directive, and meets guidance

from the DoD Executive Agent for Space. The Army as a whole will profit from the efficiencies gained as a result of this FORMAL. A core of highly trained professionals will be identified and tracked to fully support the warfighters. This process will also increase the Army's capability to support combatant commanders and improve utilization of Army personnel. In the joint community, this FORMAL will enable the Army to participate in the joint arena on an equal footing and it also enables the Army to compete for joint resources.

The value that the Army gains from conducting a FORMAL cannot be overstated. FORMAL reviews are not intended to be stand-alone assessments. Rather, they are an integral part of the Army's Force Management process. FORMAL reviews provide valuable teaching mechanisms and a forum for horizontal and vertical exchange of information between HQDA and MACOM participants.

Through this process the Army will improve management of its Space assets and develop systems to ensure proper education and career development for its Space professionals.

All Army MACOM POCs are encouraged to request access and visit the restricted FORMAL Web site portal at <https://smdcsp.smdc.army.mil/sites/FDIC/default.aspx>. All messages and correspondence pertaining to the FORMAL will be posted to this site for easy access information. (Requests for access may be addressed to mark.murray@smdc.army.mil.)

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