

Space Control and Electronic Warfare Detachment

(Force Structure)

By LTC Scott Netherland

Resident within the 1st Space Battalion, Army Space Command, is an organization known as the Space Control and Electronic Warfare Detachment (SEWD). The SEWD is one of the Army's few systems capable of supporting a mission assigned to Army Space Command by the commander of U.S. Space Command's Unified Command Plan — the mission of Space control. Unique to the SEWD organization is the fact that the force structure for mission execution comes primarily from Department of Army civilians and contractors from the command's Big Crow Program Office (BCPO). In addition to the BCPO personnel, 1st Space Battalion has trained soldiers to deploy as part of the SEWD to provide command and control of the system. Army Space is capable today of organizing, training and equipping the SEWD to conduct Space control missions in support of warfighter requirements.

Before delving into the specifics of the organization, it is appropriate to provide some historical background. The Army has long recognized the importance of the Space control mission. Over the years, the Army has developed a variety of Space surveillance and negation systems, such as the Space surveillance radars at Kwajalein Atoll that contribute to the overall Space Surveillance Network, and both Directed Energy and Kinetic Energy Anti-Satellite Programs. The operational capabilities of the SEWD were derived from years of test and evaluation experience as part of the Big Crow Program Office. In late 1998, Army Space Command became interested in the potential Space control capabilities inherent within the BCPO, then assigned to the Army Test and Evaluation Command. The continued interest and increase in

warfighter requirements for Space control capabilities resulted in the assignment of the BCPO to Army Space Command in October 2000. Since then, Army Space has worked with the BCPO to operationalize the capability and prepare for missions to provide Space control support to the warfighter.

Today, the SEWD is configured into two principal components: (1) the command and control element, and (2) the Electronic Warfare element. The command and control element is composed of military personnel. A major is the officer in charge and has overall responsibility for the successful mission execution of the detachment. The command and control element is the interface with the supported unit chain of command. They participate in mission planning and facilitate smooth mission execution. The electronic warfare element is composed of civilian personnel who can be a mix of Department of the Army civilians or contractor personnel. This includes a lead electronic warfare engineer and technicians, and a maintenance technician. With this mix of personnel, the detachment can execute 24-hour support to the warfighter.

Since the SEWD capability was derived out of the training and evaluation community and subsequently assigned to Army Space, there is no military force structure in place to conduct sustained combat operations. The military personnel who support the command and control elements are generally members of the 1st Space Battalion who have received specialized training in Space control operations and are subsequently detailed to man the SEWD. Currently, personnel from the battalion staff, an existing Army Space Support Team, or the Army Space staff are selected

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and processing stations (airborne, sea-based, fixed or mobile land-based). All parts of the ground segment are vulnerable to attack from various means such as clandestine operations, air attack, direct ground attack, and IO.

Space Operations Officers bring their Space control expertise to IO. The latest Army IO field manual, FM 3-13, clearly establishes the Space Operations Officer as a member of the command's IO cell, and identifies some specific duties, such as:

- Including IO requirements in the Space operations appendix of the operations annex.
- Coordinating IO requirements with U.S. Army Space Command.
- Coordinating with IO targeting to include adversary Space system elements in the targeting process.
- Supporting operations security and military deception efforts by maintaining adversary Space order of battle, to include monitoring orbital paths and satellite coverage areas.
- Conducting operational planning analysis and determining how Space operations can meet IO requirements.

It is not a one-way street. As mentioned above, the relationship between Space control and IO is symbiotic — two unlike, yet closely associated mission areas providing each other mutual advantages. Space Operations Officers should also incorporate IO capabilities into their Space planning and operations. Computer Network Defense, physical security, counterintelligence, and information assurance capabilities can become part of Space protection

planning. Computer Network Attack, electronic warfare and military deception can become Space negation options.

Integrating Space and Information Operations provides increased operational flexibility by increasing options available at any level of conflict. A Space Operations Officer who understands the basics of IO, and can contribute to the planning efforts, becomes more valuable to a commander than one who does not. These two mission areas will continue to expand and grow in importance, and enable the realization of Joint Vision 2020 - Full Spectrum Dominance.

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Endnotes

1. DOD Directive 3600.1, Information Operations, is in final coordination and the Deputy Secretary of Defense should sign it before the end of Summer 2002.
2. Joint Publication 1-02, Dictionary of Military and Associated Terms, as amended through 15 October 2001.
3. Lt Col Robert H. Zielinski, et al, "Star Tek-Exploiting the Final Frontier: CounterSpace Operations in 2025," A Research Paper Presented to Air Force 2025, August 1996 (<http://www.au.af.mil/au/2025/volume3/chap09/v3c9-1.htm#Introduction>)
4. Jonathon Broder, "The Threat over the Horizon," MSNBC, undated (<http://www.msnbc.com/news/561893.asp>)
5. FM 3-13, Information Operations: Doctrine, Tactics, Techniques, and Procedures, is in the final stages of approval, and replaces FM 100-6.

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for training.

On the equipment side, the SEWD is an electronic warfare ground suite that can be tailored to meet specific mission requirements. Again, with roots in the BCPO, the very nature of the test and evaluation mission is to retain flexibility to meet mission requirements. Today, the ground suite consists of three expando vans (one for mission planning, one for command and control and one for the electronic warfare suite), generators, and the requisite antennas for the mission. The ground suite is deployable by C-17 or C-5.

Army Space is working the Force Design Update process to mature the SEWD into a Modified Table of Organization and Equipment unit. The intent is to gain manning requirements so we can dedicate military personnel to the Space control mission, rather than rob personnel from other missions within Army Space. Additionally, we intend to normalize the ground suite equipment. In this regard, we want to mature the system from a training and evaluation based capability requiring much hands-on involvement from the lead electronic warfare engineer to a more soldier friendly system. The end state will be a

system operated and maintained entirely by soldiers from the 1st Space Battalion with limited reliance on contractor technical support for system upgrades. The last item in the force structure maturation of the SEWD is to increase both personnel and equipment from a single-suite detachment to a company with multiple platoons to allow for simultaneous operations in multiple theaters.

The outlook is positive for Army Space to have an increased role in Space support to the warfighter. The increased SEWD force structure will help Army Space to provide relevant Space control capabilities to meet the warfighter demand. Army Space is proud to serve alongside with the Big Crow Program Office in manning and equipping the SEWD to provide improved Space control support to the warfighter! Space Warriors!

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