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Space Marines: Opportunities for the Marine Corps

Michael Johnson, Alison Vernon, and Maj Lewis Flinn (USMC)

"From commerce to meteorology to global communications, society not only relies on space capabilities, it expects the services they provide to always be present. Space enables our national security to preserve our way of life. From protecting the homeland and fighting our nation's wars alongside allies and partners, to providing humanitarian assistance, space makes the achievements of America's military possible." – USSPACECOM [1]

Introduction

As the space domain becomes increasingly important to the US and Marine Corps forces, the service has made several changes, but big questions remain to ensure it is prepared for the future operating environment and possible new roles and responsibilities in the space domain. To that end, we examined the following questions: What are the Marine Corps' space equities? What are the Corps' organizations and billets to address its equities and develop its strategy for the space domain? And what are the bigger issues (challenges and opportunities) for the Corps at its current stage of space development? We provide a brief discussion of these questions in this information memorandum.

Approach and limitations

We reviewed the development of "Space Marines" through a literature review, discussions with subject matter experts (SMEs), and an examination of Marine Corps space-related billets. Literature included DOD publications, USMC concepts, MARADMINs, NAVMC Orders, Marine Corps Orders, prior CNA research, Army publications, news articles, and US Space Force (USSF) and US Space Command (USSPACECOM) documentation. SMEs included current and recent Space Marines at three Headquarters Marine Corps (HQMC) Deputy Commandants—Information (DC I); Plans, Policy, and Operations (DC PP&O) and Combat Development and Integration (DC CD&I)—and at Marine Corps Forces, US Space Command (MARFORSPACE), the Marine service component to USSPACECOM. For the purposes of this study, we define a Space Marine as any Marine in a billet designated for a holder of a Space MOS, whether located in the Fleet Marine Force (FMF), in the supporting establishment, or at MARFORSPACE. Space MOS designations include 1706, 1786 (currently 0540), and 8866. We considered only officers because there is no enlisted space MOS in the USMC.

Finally, we have several caveats, the biggest being that the space domain, USSF, and USSPACECOM are undergoing many changes and the other services and CCDRs are trying to organize for the moving target that is space. We also note that authorities and policies are still under review and development, and command and control structures are still in flux.

Background

What is space and the current US space strategy?

Joint Publication (JP) 3-14, Space Operations, defines the space domain as:

the area above the altitude where atmospheric effects on airborne objects become negligible. United States Space Command's (USSPACECOM) area of responsibility (AOR) is the area surrounding the Earth at altitudes equal to, or greater than, 100 kilometers (54 nautical miles) above mean sea level. [2]

The DOD Space Strategy Summary identifies four lines of effort (LOE). [3] Based on our research, Space Marines are engaged primarily in LOE 2, but may provide limited support to other LOEs as well. The four LOEs for DOD in space are:

- 1. *Build a comprehensive military advantage in space*. This focuses on the development of space capabilities.
- 2. *Integrate military space power into national, joint, and combined operations*. This focuses on the incorporation of space power into operations.
- 3. *Shape the strategic environment.* This focuses on shaping the strategic environment associated with the development of space capabilities.
- 4. *Cooperate with allies, partners, industry, and other US government departments and agencies.* This focuses on cooperating with other key stakeholders in space. [4]

There are nine types of space operations¹. They are prioritized and executed by a single combined force space component command (CFSCC) in support of USSPACECOM and the other combatant commands.² Before delving into the vagaries of CFSCC and the Space Operations Command (SpOC), we first provide a broad overview of the USSF and USSPACECOM to clarify the distinction between the two.

¹ The nine types of space operations are: (1) space situational awareness; (2) space control; (3) position, navigation and timing (PNT); (4) intelligence, surveillance, and reconnaissance (ISR); (5) satellite communications; (6) environmental monitoring; (7) nuclear detonation detection; (8) space lift; and (9) satellite operations. [2]

² Space Operations Command (SpOC) serves as the headquarters and staff for CFSCC. [5]

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US Space Force

"The US Space Force (USSF) was established Dec. 20, 2019 when the National Defense Authorization Act was signed into law, creating the first new branch of the armed services in 73 years. As a separate and distinct branch of the armed services, USSF is organized under the Department of the Air Force in a manner very similar to how the Marine Corps is organized under the Department of the Navy." [5]

"The USSF is responsible for organizing, training, and equipping Guardians to conduct global space operations that enhance the way our joint and coalition forces fight, while also offering decision makers military options to achieve national objectives. As a new military service, the U.S. Space Force will leverage the Department of the Air Force for more than 75 percent of its enabling functions to significantly reduce cost and avoid duplication. The Department of the Air Force will provide support functions that includes logistics, base operating support, IT support, audit agencies, etc." [5]

"The Chief of Space Operations, U.S. Space Force, serves as the principal uniformed adviser to the Secretary of the Air Force on Space Force activities. The CSO presides over the Office of the Chief of Space Operations, transmits plans and recommendations to the Secretary of the Air Force and acts as the Secretary's agent in carrying them out." [5]

USSF has three subordinate commands: (1) Space Operations Command (SpOC), which "generates, presents, and sustains combat-ready intelligence, cyber, space and combat support forces and serves as the USSF Service Component to USSPACECOM"; (2) Space Training and Readiness Command (STARCOM), which provides training and education of forces, development of space TTPs, and test and evaluation of space capabilities; and (3) Space Systems Command (SSC), the space capability delivery organization of the USSF. [5] USSF will also establish service components at each of the geographic and functional combatant commands over the next few years.

USSF is still maturing, growing, and establishing itself as the sixth and newest branch of the military services.

US Space Command

US Space Command (USSPACECOM) was reestablished in 2019³ as the unified combatant commander for all military space operations. As the newest of the eleven unified combatant commands (CCMD) in DOD, USSPACECOM will command USSF personnel and assets; that is, USSF will organize, train, and equip space forces, while "U.S. Space Command is the warfighting component that actively employs forces from [all services] to accomplish the mission in space." Its mission is "to conduct operations in, from, and through space to deter conflict, and if necessary,

³ USSPACECOM was initially established in 1985 to provide joint command and control for all military forces in outer space and coordinate with the other combatant commands. USSPACECOM was disestablished in 2002, and its responsibilities and forces were merged into United States Strategic Command (USSTRATCOM). A second incarnation of Space Command was established in 2019, with a reemphasized focus on space as a warfighting domain.