



April 6, 2020

Defense Primer: The United States Space Force

On December 20, 2019, the United States Space Force (USSF) became the sixth branch of the Armed Forces. The Space Force was established within the Department of the Air Force (DAF) with the enactment of the FY2020 National Defense Authorization Act (NDAA). The Secretary of the Air Force is responsible for organizing, training, and equipping the Space Force and the United States Air Force (USAF), two separate and distinct military uniformed services (see **Figure 1**). The Chief of Space Operations (CSO), a four-star general, serves as the principal uniformed advisor for all space activities to the Secretary of the Air Force.

infrastructure support for the Space Force. Some of these support functions include logistics, base operating support, civilian personnel management, IT support, and financial management.

Space Force Stand-Up

The FY2020 NDAA redesignated Air Force Space Command (AFSPC), located at Peterson Air Force Base, CO, as the U.S. Space Force. Subsequently, an estimated 16,000 military and civilian personnel assigned to the former AFSPC were reassigned to the Space Force. The Air Force personnel who were reassigned to the Space Force and are in space-related positions are to transfer into the new service and become Space Force service members over the next 18 months. DOD’s future plans include consolidating all of the space missions currently residing across all the Armed Forces and placing them within the Space Force.

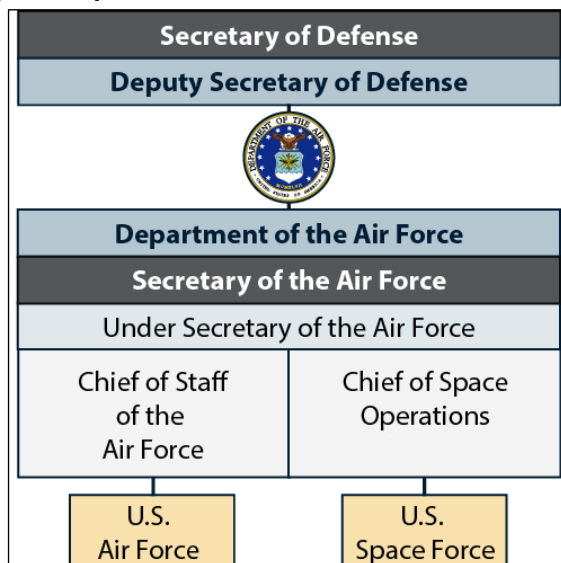
Mission

According to DOD, the Space Force will be lean, agile, and mission-focused in order to remove the traditional layers of bureaucracy. The Space Force mission is focused on space doctrine, training, and warfighting capability. Some of the Space Force missions include Space Superiority; Space Domain Awareness (military, civil, and commercial); Offense and Defensive Space Control; Command and Control of Space Forces & Satellite Operations; Space Support Nuclear Command, Control, Communications; and Missile Warning/Defense Operations.

Space Force Core Organic (SFCO) Framework

The Space Force is responsible for developing military space professionals, acquiring military space systems, developing a mature military doctrine for space power, and organizing space forces operationally for the Combatant Commands. To accomplish this, the Space Force created a Space Force Core Organic (SFCO) framework and aims to establish field units to execute space-unique functions (see **Table 1**). The SFCO comprises a set of career specialties organic to the Space Force, with career tracks that include space-specific operations, intelligence, engineering, acquisition, science, and cyber/communications.

Figure 1. Space Force Within DOD and DAF



Source: Comprehensive Plan on the Organizational Structure of USSF (Department of the Air Force, report to congressional committees).

Overview

The FY2020 NDAA assigned the Space Force the following duties: (1) protect the interests of the United States in space; (2) deter aggression in, from, and to space; and (3) conduct space operations. The Space Force mission is to “organize, train, and equip military space forces of the United States to provide: freedom of operation in, from, and to the space domain; and prompt and sustained space operations.” This includes both combat and space-focused combat support functions intended to enable the United States to promptly conduct offensive and defensive space operations to protect U.S. and allied interests in all war-fighting domains.

Except for functions unique to the space domain, in order to reduce cost and avoid duplication, the Air Force is to provide approximately 80% of the foundational and

Table 1. Field Units of the SFCO

• Personnel Center	• Professional Military Education (PME) Center
• Intelligence Center	• Test Center
• Doctrine Center	
• Warfare Center	

Source: Comprehensive Plan on the Organizational Structure of USSF (Department of the Air Force, report to congressional committees).

FY2021—Initial Budget

To provide space warfighting capabilities, the Space Force requested total personnel end strength for FY2021 of 9,979 people:

- 6,434 military end strength in the active Space Force, and
- 3,545 in civilian full-time equivalents.

The Space Force budget includes resources to build and staff its headquarters and field centers. The estimated personnel level within the headquarters and field centers is approximately 553 in FY2021, with an estimated end strength of 1,800 by FY2025. The four major investment areas identified in the defense budget request for space-based systems are shown in **Table 2**.

Table 2. FY2021 Space-Based Systems (\$15.5 Billion)

Type	FY2021
Technology Development	\$8.9
Satellites	\$4.1
Support	\$1.4
Launch	\$1.1
Total	\$15.5

Source: Program Acquisition Cost By Weapon System (Department of Defense Fiscal Year 2021 Budget Request).

Major Space Acquisition Programs

The FY2021 budget request for space-based systems includes funding for the development and procurement of space-based spacecraft, launch vehicles, space command and control systems, and terrestrial satellite terminals and equipment. It also includes Space Force startup costs. The major acquisition programs include the following:

- The **National Security Space Launch (NSSL)** program would provide launch services for the Space Force, Air Force, Navy, the National Reconnaissance Office (NRO), Space Development Agency (SDA), and many other government agencies. DOD is currently developing two or more commercially viable space launch providers intended to meet U.S. NSSL requirements.
- The **Global Positioning System III and Projects** would provide 24-hour-a-day, worldwide coverage, including positioning, navigation, and timing (PNT) for military and civilian users. The mission of the GPS III is to provide PNT coverage to all users around the globe.
- The **Space Based Overhead Persistent Infrared (OPIR) Systems** would aim to provide the initial warning of ballistic missile attacks against the United States homeland, as well as deployed, and allied forces.

- The **Satellite Communications (SATCOM) Projects** would provide SATCOM in three capability areas: *strategic* aims to provide Nuclear Command, Control, and Communications (NC3); *protected* is to enable tactical communications in a contested environment; and *wideband/narrowband* is to provide large amounts of throughput in a less contested environment.

Congressional Reports

The FY2020 NDAA directed the Secretary of the Air Force and the Secretary of Defense to provide various reports and briefings to the congressional defense committees on the establishment of the U.S. Space Force. The first report, *Comprehensive Plan for the Organizational Structure of the U.S. Space Force*, delivered to Congress in February 2020, provided a status update on implementation of the Space Force. As DOD and DAF continue to refine planning efforts, updates are to be provided accordingly. The next major milestone outlining the Space Force organizational design is estimated to be complete and presented to Congress by May 1, 2020.

Relevant Laws

National Defense Authorization Act for Fiscal Year 2020 (P.L. 116-92)

Title 10, U.S. Code, Chapter 803 – Department of the Air Force

CRS Products

CRS In Focus IF10547, *Defense Primer: The United States Air Force*, by Jeremiah Gertler

CRS In Focus IF11326, *Military Space Reform: FY2020 NDAA Legislative Proposals*, by Stephen M. McCall

CRS In Focus IF11244, *FY2020 National Security Space Budget Request: An Overview*, by Stephen M. McCall and Brendan W. McGarry

CRS In Focus IF11172, *“Space Force” and Related DOD Proposals: Issues for Congress*, by Kathleen J. McClinnis and Stephen M. McCall

Other Resources

USAF. *Comprehensive Plan for the Organizational Structure of the U.S. Space Force*, February, 2020.

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IF11495

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