

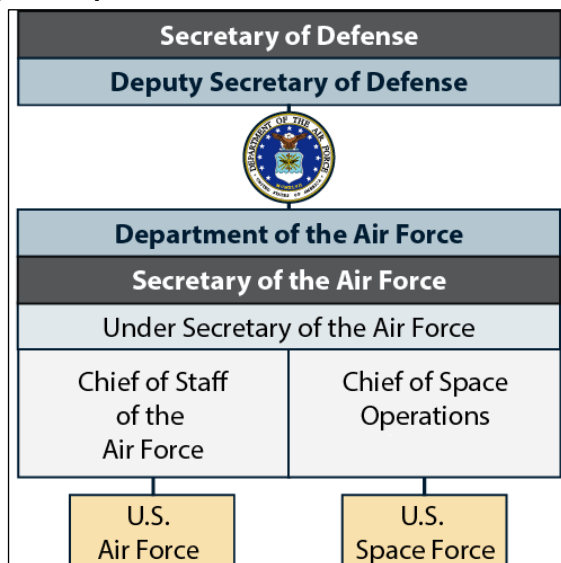


Updated January 8, 2021

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 current Chief of Space Operations (CSO) is General John W. “Jay” Raymond, who serves as the principal uniformed advisor for all space activities to the Secretary of the Air Force.

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 military space forces of the United States provide freedom of operation in, from, and to the space domain. 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 Space Force relies on the Air Force for approximately 75% of the foundational and 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 with Title 10 authorization. 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 first 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.

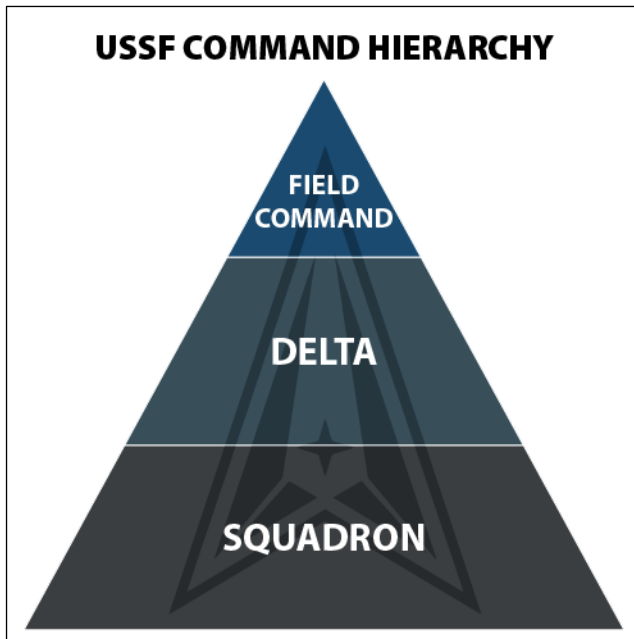
Mission

The U.S. Space Force organizes, trains, and equips space forces in order to protect U.S. and allied interests in space and to provide space capabilities to the joint force. Its responsibilities include “developing military space professionals, acquiring military space systems, maturing the military doctrine for space power, and organizing space forces to present to our Combatant Commands.” According to DOD, the Space Force will be lean, agile, and mission-focused in order to remove the traditional layers of bureaucracy. 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 Organization

The Office of the Chief of Space Operations and the Space Force Headquarters are located at the Pentagon. According to the Space Force, “this staff will focus on establishing a fully-functioning headquarters; preparing to execute the full scope of its organize, train, and equip responsibilities; and, in conjunction with the U.S. Air Force, developing a detailed plan to transfer forces into the U.S. Space Force.” To pursue the military services goal of being lean, agile, and mission-focused and to remove the traditional layers of bureaucracy, the Space Force created a command hierarchy (see **Figure 2**) that consists of three levels: Field Commands are led by a three-star general officer; Deltas, by a Colonel; and Squadrons, by field grade officers. The career tracks within the Space Force include space-specific operations, intelligence, engineering, acquisition, science, and cyber/communications.

Figure 2. Space Force Organizational Structure



Source: Figure created by CRS using data from U.S. Space Force.

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 included 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 1**.

Table 1. 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 included 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 included 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 was due to Congress May 1, 2020. Since then, only a draft report was submitted to the defense committees.

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

Stephen M. McCall, Analyst in Military Space, Missile Defense, and Defense Innovation

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