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# FY2020 National Security Space Budget Request: An Overview

Congress may choose to approve, reject, or modify the FY2020 President’s budget request for National Security Space (NSS), which includes \$14.1 billion for space launches, satellites, and other activities. The request also includes funding to begin the process of establishing a U.S. Space Force as the sixth branch of the armed forces, a separate branch within the U.S. Air Force.

## Background

NSS is a Major Force Program (MFP) of the Department of Defense (DOD). An MFP is an aggregation of resources necessary to achieve DOD objectives or plans. Of the dozen MFPs, six are combat force programs and six are support programs. The MFP for National Security Space, MFP-12, is the newest. Congress directed its establishment in the FY2016 National Defense Authorization Act (P.L. 114-92). MFP-12, a support program, includes funding for some classified programs. It generally excludes funding for National Geospatial-Intelligence Agency (NGA) and National Reconnaissance Office (NRO) programs.

## Budget Request

According to DOD, the \$14.1 billion requested for NSS in FY2020 is \$1.76 billion (14%) more than the FY2019-enacted amount of \$12.3 billion. By comparison, the department’s overall FY2020 budget request is 4.9% more than the FY2019-enacted amount. The FY2020 budget request for NSS includes \$72.4 million in a new appropriation, “Operation and Maintenance, Space Force,” to establish a U.S. Space Force headquarters. The figure amounts to less than 1% of the total MFP budget request. See **Figure 1**.

## By Appropriation Title

Broken down by appropriation title, more than half (60%) of the budget request is for research, development, test, and evaluation (RDT&E). See **Table 1**.

**Table 1. FY2020 National Security Space Budget Request, by Appropriation Title**  
(in millions of dollars of budget authority)

Title	FY2019 Enacted	FY2020 Request	\$ Change	% Change
RDT&E	\$6,676	\$8,409	\$1,733	26%
Proc.	\$2,804	\$2,646	-\$158	-6%
O&M	\$2,853	\$3,041	\$188	7%
<b>Total</b>	<b>\$12,332</b>	<b>\$14,096</b>	<b>\$1,763</b>	<b>14%</b>

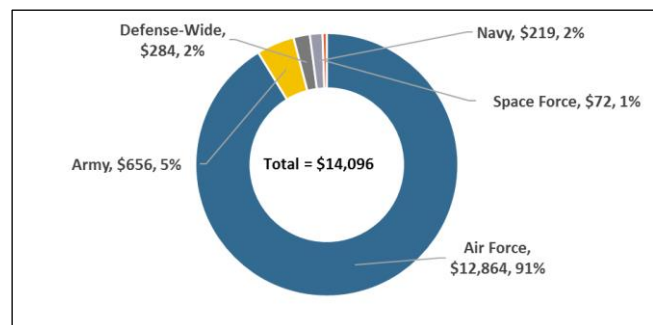
**Source:** Office of the Under Secretary of Defense (Comptroller).

**Notes:** RDT&E is research, development, test, and evaluation; Proc. is procurement, O&M is operation and maintenance. Numbers may not sum due to rounding.

## By Military Service

Broken down by military service, the vast majority (91%) of the budget request is allocated to the Air Force. See **Figure 1**.

**Figure 1. FY2020 National Security Space Budget Request, by Military Service**  
(in millions of dollars of budget authority)



**Source:** Office of the Under Secretary of Defense (Comptroller)

**Notes:** Numbers may not sum due to rounding.

## Selected Acquisition Programs

Approximately 84% of the budget request is for acquiring space-based systems, including space launch, satellites, and support activities. Major space-related acquisition programs include the following:

- **National Security Space Launch (NSSL).** The budget requests \$1.7 billion, including \$1.2 billion in procurement and \$432 million in RDT&E, for four launches in the NSSL program. Formerly known as the Evolved Expendable Launch Vehicle (EELV) program, NSSL provides launch services for medium- and heavy-lift class satellites for the Air Force and other government agencies.
- **Global Positioning System III (GPS).** The budget requests \$1.8 billion, including \$1.3 billion in RDT&E and \$477 million in procurement, for one GPS III satellite and related projects. The technology provides worldwide positioning, navigation, and timing (PNT) information to military and civilian users. Funding would support the GPS III Follow-on satellite, GPS Next Generation Operational Control System (OCX), and Military GPS User Equipment (MGUE), all of which are intended in part to provide a more powerful jam-resistant signal and information to military personnel in contested environments.
- **Space Based Overhead Persistent Infrared Systems (OPIR).** The budget requests \$1.6 billion, including \$1.4 billion in RDT&E and \$234 million in procurement.

million in procurement for the next generation OPIR program, which is a follow-on system to the Space Based Infrared System (SBIRS) designed to provide early warning of a strategic missile attack on the United States and to support missile defense activities. Funding would support development of next-generation satellites.

- **Satellite Communications Projects (SATCOM).** The budget requests \$1.1 billion, including \$1 billion in RDT&E and \$99 million in procurement, for SATCOM projects designed to provide secure communications. Funding would support three types of systems: (1) Advanced Extremely High Frequency (AEHF) system and the Evolved Strategic SATCOM (ESS); (2) Enhanced Polar System-Recapitalization (EPS-R), Protected Tactical Enterprise Service (PTES), and Protected Tactical SATCOM (PTS); and (3) Wideband Global SATCOM (WGS), Commercial SATCOM, and Multi-User Objective System (MUOS).

## Space Enterprise Reorganization

DOD has described reforming the organization of the military space enterprise as “a fundamental step in transforming our approach to space from a combat support function to a warfighting domain.” To that end, the request included funding to establish a Space Force—and to support the newly created U.S. Space Command and Space Development Agency. It described the need for creating a Space Force as follows: “Establishing a Space Force is a strategic priority to facilitate the DoD’s preparation for the changing character of warfare in the twenty-first century.” Others, however, including some Members of Congress, counter that a Space Force remains an undeveloped concept and that it is unclear whether it will help or hinder efforts to better organize space programs. The budget request included the following funding amounts associated with the Space Force, U.S. Space Command, and Space Development Agency:

### Space Force

The budget request for NSS includes \$72.4 million in operations and maintenance (O&M) funding to establish a U.S. Space Force headquarters with 160 personnel, mostly civilians. Many of the personnel would transfer from existing positions in DOD. The personnel figure includes 82 civilian transfers, 40 civilian new hires, and 38 military transfers. It excludes 40 additional contractors and support personnel. DOD estimates that headquarters costs would increase to \$500 million in FY2024.

### U.S. Space Command

The budget request includes \$83.8 million to support a total of 617 personnel at U.S. Space Command, which was established in December 2018 as a unified combatant command in part to emphasize the role of space as a warfighting domain. The figure includes \$75.6 million in funding transferred from existing accounts to support 587 personnel transferring to the command from U.S. Strategic Command organizations, including the National Space Defense Center (NSDC), Joint Force Space Component Command (JFSCC), Joint Navigation Warfare Center

(JNWC), and other organizations. The request also includes \$8.2 million in new funding to support 30 personnel at the command’s headquarters.

### Space Development Agency

The budget request includes \$149.8 million in new funding for the Space Development Agency, which was established in March 2019 to accelerate the process for acquiring space systems in part by consolidating operations. The funding would support 50 personnel, of which 30 would be new civilian positions and 20 would be military personnel transferring from existing positions.

### Competing Cost Estimates

A number of government and nongovernment organizations have published cost estimates related to the establishment of a Space Force. The estimates vary based in part on assumptions about how many personnel would be transferred from existing organizations and how many positions would be created for each of the new space organizations. For example, CBO recently estimated that DOD’s plan to establish the Space Force, U.S. Space Command, and Space Development Agency “could increase annual costs by \$1 billion to \$2 billion and require onetime startup costs of \$2 billion to \$5 billion.”

### Limitations to MFP-12 Budget Request

While DOD Directive 5100.96 states the MFP for space is to include personnel funding, the FY2020 budget request for MFP-12 does not include military personnel (MILPERS) appropriations. DOD has acknowledged that MFP-12 does not include all space-related funding: “Space budget tracking, including Major Force Program 12 for space, is complicated due to the various classifications and categories. Additionally, ground and user equipment is essential for functioning space capabilities, but is not always captured in space budget discussions. To begin to address this issue the Department has a cross-functional team working to establish clear standard practices for how to better track and count space budgets at all classification levels. Additionally, the Department is in interagency discussions about how to coordinate classified space budgets more effectively.”

### Potential Questions for Congress

- What are the roles and missions of Space Force and how do they differ from U.S. Space Command and the Space Development Agency?
- How much additional funding and how many new personnel would be needed to support the Space Force, U.S. Space Command, and Space Development Agency over the next five years?
- What is the status of the department’s efforts to better track and count space funding?

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