



Space Policy Review – 2019

As we launch into the new year, here's a recap of some of the key space policy activities, legislation, and funding that resulted from government action in 2019.

Government Funding/Appropriations

On December 20, 2019, President Donald Trump signed the FY2020 Consolidated Appropriations bill (H.R. 1158) into law (Pub. L 116-93), finalizing appropriators' efforts to combine bills into minibuses for quicker passage after several continuing resolutions. NASA receives \$22.6 billion within the Commerce, Justice, Science, and Related Agencies (CJS) appropriations bill.¹

Space Force

The FY2020 National Defense Authorization Act (NDAA) establishes the U.S. Space Force as the sixth armed service of the United States. Under the Air Force, the U.S. Space Force replaces Air Force Space Command. The NDAA report further outlined the creation of a Chief of Space Operations (CSO), an Assistant Secretary of Defense for Space Policy and a Senate-confirmed Assistant Secretary of the Air Force for Space Acquisition and Integration. The CSO will be a member of the Joint Chiefs of Staff. In the appropriations bill, Space Force will receive a limited funding of \$40 million (of the \$72 million requested).

The Artemis Program and the Space Launch System (SLS)

The House Committee on Science, Space, and Technology in the 116th Congress repeatedly challenged NASA in hearings over the FY2020 budget, and the new 2024 timeline proposals. The CJS bill funds \$6.01 billion for Exploration (the SLS and Artemis) — \$79.1 million above FY2019 funding. Orion will receive \$1.4 billion while the SLS receives \$2.58 billion.² The SLS's Exploration Upper Stage (EUS) development receives \$300 million. As both House and Senate members have challenged NASA in committee hearings throughout 2019 for not providing a clear multi-year budget outline on Artemis, the bill requests a five-year budget profile that includes the SLS, Orion, and Exploration Mission-2.³ The bill further stipulates that not more than 40% of the allocations for the Lunar Gateway and lunar landers may be obligated until the NASA Administrator submits a multiyear plan for SLS flights to build the Lunar Gateway.

From the additional \$1.6 billion requested for a lunar lander and to start new programs,⁴ NASA receives \$600 million. Since Congress has expressed skepticism with regard to Artemis funding,

¹ Report: Commerce, Justice, Science, and Related Agencies Appropriations Bill, 2020 (H. Rept. 116-101)

² Consolidated Appropriations Act, 2020 (H.R. 1158)

³ Consolidated Appropriations Act, 2020

⁴ "America to the Moon by 2024 - NASA's FY2020 Budget Amendment Summary." NASA. 2019.

meeting the 2024 timeframe with the allocated funds will be challenging. Other legislation, such as the NASA Authorization Act, passed by a voice vote, authorizes NASA to continue development of the EUS for the SLS.

Space Situational Awareness/Space Traffic Management (SSA/STM)

Despite general agreement that civil SSA/STM responsibilities should be moved from the Department of Defense (DOD) to another agency, there is nonetheless disagreement in Congress over whether the Department of Commerce (DOC) should assume such responsibilities. The national security appropriations minibuss allocates \$363 million to the DOD's SSA responsibilities.⁵ In the FY2020 budget proposal, Secretary Wilbur Ross requested a merger between the Office of Space Commerce (OSC) and the Commercial Remote Sensing Regulatory Affairs office (CRSRA). The bill rejected a proposed merger of the OSC and the CRSRA along with a \$10 million total request, and instead directed a study of the proposal by the Secretary of Commerce, with the OSC receiving \$2.3 million.⁶

Space Launch

Appropriators funded \$1.2 billion⁷ for the National Security Space Launch (NSSL) request.⁸ The House-proposed NSSL requirement (Sect. 1601, House Resolution) for the Air Force to reopen competition for a third awardee (and receive a \$500 million development contract) was not adopted.⁹

Spaceports

Despite increased interest in regional spaceports by state and local policymakers, there was no substantial legislative activity on the subject. Sen. Martin Heinrich (D-NM) previously sponsored a small launch amendment which requires the DOD to study commercial spaceports usage and invest in infrastructure, which was adopted by the Senate Armed Services Committee.¹⁰ Sen. Ted Cruz (R-TX) reintroduced the Space Frontier Act of 2019 (S.919) which would require a study on the joint use of spaceports.¹¹ The bill was referred to the Senate Commerce Committee and passed.¹² The bill had passed through the Senate in the previous year, but was defeated in the House.

Satellite Servicing

Satellite servicing refers to the maintenance of existing on-orbit satellites, such as refueling to extend service. Restore-L, a robotic spacecraft mission to extend satellites' lifespan, receives \$180

⁵ "House to Consider National Security Appropriations Minibus This Week." House Committee on Appropriations, 2019.

⁶ "Division B - Commerce, Justice, Science, and Related Agencies Appropriations Act, 2020". Joint Explanatory Statement on H.R. 1158. 2019.

⁷ "Appropriations Committee Advances FY2020 Defense Funding Bill." Senate Committee on Appropriations. 2019.

⁸ "Division A - Department of Defense Appropriations Act, 2020." Joint Explanatory Statement on H.R. 1158. 2019.

⁹ "Congress Announces Appropriations Deal." Air Force Magazine, December 17, 2019.

¹⁰ "Highlights FY20 National Defense Authorization Act." Senator Martin Heinrich.

¹¹ "Space Frontier Act of 2019." (S. 919). 116th Congress. 2019.

¹² "Space Frontier Act of 2019." (S. Rept. 116-172). 2019.

million,¹³ which is equal to FY2019 funding.¹⁴ The Restore-L/SPace Infrastructure DExterous Robot (SPIDER) satellite servicing mission will receive \$227 million. In the committee report, the committee “encourages” the development of satellite servicing to benefit NASA, DOD, the Intelligence Community, and the private sector. Section 306 of the 2019 NASA Authorization Act requests a study on the feasibility of in-space refueling.¹⁵

Spectrum

Reallocation of Spectrum remains one of the top concerns of the satellite and communications industry. Nearly all stakeholders in the government and industry agree that the U.S. needs to maintain strategic leadership in 5G technology ahead of China. In the 116th Congress, there have been several hearings, and lawmakers introduced 10 legislative items in the Senate and 13 in the House that mention 5G.¹⁶ The Committee Report for FY2020 directs the National Oceanic and Atmospheric Administration (NOAA) to engage with the National Telecommunications and Information Administration (NTIA) for a “review of assumptions on the commercial deployment of 5G telecommunications networks” for satellites and interference protection criteria.¹⁷

Space Weather

Space weather gained some traction in Congressional hearings and discussions, such as the introduction of the Space Weather Research and Forecasting Act (S.881) by Sens. Gary Peters (D-MI) and Cory Gardner (R-CO), and the “Promoting Research and Observation of Space Weather” (H.R.5260) bill by Rep. Ed Perlmutter (D-CO). The Senate version (S. 881) is broader than the House version previously passed in the last Congressional session, and would clarify roles for agencies such as NASA, the FAA, the DOD, etc. The House version is projected for markup in January 2020,¹⁸ and calls for the establishment of a Space Weather User Advisory Group. In the FY2020 appropriations bill, Space Weather Follow-On would receive \$64 million,¹⁹ close to the Senate Report’s \$68 million figure.²⁰ Heliophysics in the NASA appropriations bill also receives \$724.5 million.²¹

Remote Sensing

Remote sensing was a widely discussed topic in the past year, led by Rep. Brian Babin’s (R-TX) American Space Commerce Free Enterprise Act of 2019 (H.R. 3610), directing the Federal Government to update the regulatory process and reorganize the Commerce Department for

¹³ “Division B.” Joint Explanatory Statement on H.R. 1158. 2019.

¹⁴ Report: Commerce, Justice, Science, and Related Agencies Appropriations Bill, 2020. (H.Rept. 116-101)

¹⁵ “NASA Authorization Act of 2019” (S. 2800.) 2019.

¹⁶ “What Congress Is (And Isn’t) Doing on 5G.” Lawfare, October 31, 2019.

¹⁷ “Division B - Commerce, Justice, Science, and Related Agencies Appropriations Act, 2020.” Joint Explanatory Statement on H.R. 1158. 2019.

¹⁸ H.R. 5260 passed on Jan. 9, 2020.

¹⁹ “Division B.” Joint Explanatory Statement on H.R. 1158. 2019.

²⁰ Report: Commerce, Justice, Science, and Related Agencies Appropriations Bill, 2020. (H. Rept. 116-127)

²¹ Consolidated Appropriations Act, 2020 (H.R. 1158)

expedited licensing.²² For FY2020, the Commercial Remote Sensing Regulatory Affairs Office (CRSRA) will receive \$1.8 million.²³

China in Space

House Republican members sent a letter²⁴ in late November detailing the majority leadership's lack of focus on China's space advancements in legislation and hearings, which also urged for a hearing on China's research and development agenda, objectives, and tactics. Committee Chair Eddie Bernice Johnson (D-TX) responded that the Democratic leadership held a hearing covering the "competitive challenge presented by China." Sec. 526 of the FY2020 Appropriations bill prohibits the use of funds by NASA, the Office of Science and Technology Policy, and the National Space Council to engage in bilateral activities with China.²⁵

Miscellaneous Notes:

The appropriation bill also includes a seven-year reauthorization for the U.S. Export-Import Bank²⁶ and \$10.4 billion for the Missile Defense Agency. For Space Operations, commercial low Earth orbit (LEO) development receives \$15 million.²⁷ The James Webb Space Telescope receives \$423 million.²⁸

²² "American Space Commerce Free Enterprise Act of 2019." (H.R. 3610.) 2019.

²³ "Division B." Joint Explanatory Statement on H.R. 1158. 2019.

²⁴ "Science Committee Republicans Call for Renewed Focus on Critical Science and Basic R&D." Committee on Science, Space, and Technology. 2019.

²⁵ "Division B - Commerce, Justice, Science, and Related Agencies Appropriations Act, 2020." Joint Explanatory Statement on H.R. 1158, 2019.

²⁶ Henry, Caleb. "Ex-Im Bank Gets Seven-Year Extension." SpaceNews.com. December 21, 2019

²⁷ Joint Explanatory Statement on H.R. 1158, 2019.

²⁸ Joint Explanatory Statement on H.R. 1158.

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