

Calendar No. 323

116TH CONGRESS }
1st Session }

SENATE

{ REPORT
116-172 }

SPACE FRONTIER ACT OF 2019

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION

ON

S. 919



December 11, 2019.—Ordered to be printed

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

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SPACE FRONTIER ACT OF 2019

DECEMBER 11, 2019.—Ordered to be printed

Mr. WICKER, from the Committee on Commerce, Science, and
Transportation, submitted the following

R E P O R T

[To accompany S. 919]

[Including cost estimate of the Congressional Budget Office]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 919) to reduce regulatory burdens and streamline processes related to commercial space activities, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

PURPOSE OF THE BILL

The purpose of S. 919, the Space Frontier Act of 2019, is to reduce regulatory burdens and streamline processes related to commercial space activities, and for other purposes.

BACKGROUND AND NEEDS

COMMERCIAL SPACE LAUNCH ACT

On January 25, 1984, President Reagan stated in his State of the Union address that the market for space transportation could surpass the Government's capacity to develop it, and that companies interested in putting payloads into space must have access to private sector launch services.¹ President Reagan issued Executive Order 12465 that designated the Department of Transportation

¹President Reagan State of the Union Address (<https://www.presidency.ucsb.edu/node/261634>).

(DOT) to take the lead on encouraging and facilitating commercial space activities by the private sector.²

Soon thereafter, Congress passed the Commercial Space Launch Act of 1984 (CSLA),³ which designated the DOT to oversee commercial space activities, issue launch licenses for such activities, and encourage the commercialization of space by the private sector. In addition to codifying the DOT's role and laying out the licensure process to ensure the safety of launches, the CSLA provides authority for the Government to indemnify launch providers from third-party claims, subject to additional appropriations and after a launch provider's insurance is exhausted, should an accident occur. The CSLA has been amended several times, most notably in 1988,⁴ 2004,⁵ and 2015.⁶

U.S. COMMERCIAL SPACE LAUNCH COMPETITIVENESS ACT

The U.S. Commercial Space Launch Competitiveness Act (CSLCA) was signed into law in November 2015. The CSLCA included several provisions that provided necessary updates to the CSLA to ensure stability for the continued development of a growing U.S. commercial space industry. For example, the CSLCA extended the existing liability indemnification regime for the commercial space transportation industry through September 30, 2025. The CSLCA also extended the existing industry learning period (i.e., a regulatory moratorium to allow the industry time to mature before additional regulations can be imposed) through October 1, 2023. Other notable provisions included the following: the extension of the International Space Station (ISS) until 2024; a definition of Government Astronaut; streamlining the Federal Aviation Administration (FAA) launch licensure process; clarifying asteroid resource and space resource rights; and requiring several reports to find solutions to a number of related commercial space issues.

ROLES OF FEDERAL AGENCIES

The commercial space industry interfaces with several Federal agencies with diverse roles. The Federal regulation of commercial launch licensing is primarily the responsibility of the DOT, but as companies sell capacity to government customers, they engage the requirements of those agencies, including the National Aeronautics and Space Administration (NASA) and the Department of Defense (DOD).⁷ Other agencies, such as the Department of Commerce (DOC) and the Federal Communications Commission (FCC), oversee compliance with regulatory functions within their agencies' expertise (i.e., licensure of spectrum frequencies (FCC) and Earth imaging satellites (DOC)). The CSLCA required several reports to ex-

² Executive Order 12465 (<http://www.reagan.utexas.edu/archives/speeches/1984/22484b.htm>).

³ CSLA 1984, Public Law 98-575 (<https://www.princeton.edu/~ota/disk2/1985/8513/851316.PDF>).

⁴ Commercial Space Launch Act Amendments of 1988 (Pub. L. 100-657) (<http://www.gpo.gov/fdsys/pkg/STATUTE-102/pdf/STATUTE-102-Pg3900.pdf>).

⁵ CSLA Amendments of 2004. (Pub. L. 108-492) (https://www.faa.gov/about/office_org/headquarters_offices/ast/media/PL108-492.pdf).

⁶ U.S. Commercial Space Launch Competitiveness Act of 2015 (Pub. L. 114-90) (<https://www.gpo.gov/fdsys/pkg/PLAW-114publ90/pdf/PLAW-114publ90.pdf>).

⁷ Congressional Research Service, "Commercial Space Industry Launches a New Phase." December 2016 (<http://www.crs.gov/Reports/R44708?source=search&guid=de8947be5b24c9f8ca7dbe08f95f87e&index=1>).

amine whether these roles and responsibilities could be consolidated, restructured, or managed more efficiently.

The Office of Commercial Space Transportation (or AST, which is its current internal designation as a component of the FAA) was first established by the CSLA of 1984 as part of the Office of the Secretary of Transportation. In 1995, AST was transferred to the FAA as a space-only line of business with responsibility for licensing commercial space launches in a way that would ensure compliance with applicable international obligations of the United States, and protect public health and safety, and the national security and foreign policy interests of the United States.⁸ In furtherance of this mission, AST issues licenses and permits for commercial launch and reentry activities within the United States or as carried out by U.S. citizens in other countries, as well as the operation of launch and reentry sites within the United States. By contrast, while NASA has funded some development of commercial space vehicles, it does not act as a regulatory agency with respect to commercial space launch activities.

The DOC oversees the Office of Space Commerce, which promotes the U.S. commercial space industry's economic growth and technological advancement, and focuses on various sectors of the space commerce industry, including satellite navigation and various entrepreneurial activities.⁹ The DOC (through the National Oceanic and Atmospheric Administration) is also responsible for licensing commercial remote sensing activities (e.g., for imaging satellites). An increase in commercial remote sensing license applications (a result of a quickly maturing industry) has led to lengthy delays with processing such licenses. Applications frequently are delayed in an ineffective interagency consultation process, which has in turn caused the DOC to often fail in meeting its statutory requirement to act within 120 days on Earth observation satellite license applications.

THE OUTER SPACE TREATY

The *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, also known as the Outer Space Treaty (Treaty), celebrated its 50th anniversary in 2017. The United States signed the Treaty on January 27, 1967. The purpose of the Treaty is to establish general principles for the peaceful exploration and use of outer space, including the Moon and other celestial bodies, but it grants State Parties significant discretion as to the implementation of its obligations. There has been ongoing debate about how various articles of the Treaty should be interpreted regarding U.S. compliance with meeting international obligations. Specifically, as innovative, non-traditional commercial space activity grows, including satellite servicing, space resources mining, commercial habitats, on-orbit manufacturing, and lunar exploration and development, there is much discussion on Article VI¹⁰ of the Treaty, which requires

⁸ FAA Office of Commercial Space (http://www.faa.gov/about/office_org/headquarters_offices/ast/).

⁹ Department of Commerce, Office of Space Commerce (<http://www.space.commerce.gov/about/mission/>).

¹⁰ Article VI: States shall be responsible for national space activities whether carried out by governmental or non-governmental entities, and activities of non-governmental entities in outer

governments to authorize and continually supervise the activities of non-government entities. At the time the Treaty was drafted, most activities in space were conceived of as only State actions. Yet, under Article VI of the Treaty, nongovernmental space activities are permitted, and each State Party to the Treaty is responsible for authorization and continuing supervision of all of its national space activities, including those of both governmental and nongovernmental entities.

SPACE POLICY DIRECTIVE 2

On May 24, 2018, President Trump signed Space Policy Directive 2 (SPD-2), *Streamlining Regulations on Commercial Use of Space*.¹¹ SPD-2 set executive branch policy on commercial space regulations. SPD-2 directs the DOT to update its regulatory system for managing launch and reentry activity and replace prescriptive requirements with performance-based criteria; requires the DOC to review and streamline commercial remote sensing regulations and create a “one-stop shop” for administering and regulating commercial space flight activities; requires Federal agencies to report on improving U.S. global competitiveness through space radio frequency spectrum policies, regulation, and activities at the International Telecommunication Union and other multilateral forums; and requires the National Space Council¹² to review export licensing regulations affecting commercial space flight activity and deliver recommendations to the President.

SUMMARY OF PROVISIONS

The Space Frontier Act of 2019 streamlines and reforms the regulatory frameworks for commercial space launches and reentries and nongovernmental Earth observation operations. This bill intends to provide stability and clarity to the commercial space sector in order to promote the industry and maintain U.S. leadership in space.

If enacted, the Space Frontier Act would do the following:

- Streamline launch and reentry regulations at DOT, by requiring it to issue a final rule, by February 1, 2020, creating technology-neutral performance requirements that apply to both expendable and reusable launch and reentry vehicles.
- Repeal the existing legal framework for nongovernmental Earth observation regulations (formerly commercial remote sensing) and create a new, more transparent framework at the DOC that focuses on managing risk to national security, preventing harmful interference to other space activities, and promoting the leadership, industrial innovation, and international competitiveness of the United States.
- Change the reporting structure at the Office of Commercial Space Transportation at the FAA by creating a new Assistant Secretary for Commercial Space Transportation at the DOT,

space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty.

¹¹The White House, Space Policy Directive-2, Streamlining Regulations on Commercial Use of Space (<https://www.whitehouse.gov/presidential-actions/space-policy-directive-2-streamlining-regulations-commercial-use-space/>).

¹²The National Space Council is a body within the Executive Office of the President of the United States that is tasked with advising and assisting the President regarding national space policy and strategy.

who shall also serve as the Associate Administrator for Commercial Space Transportation at the FAA.

- Extend authorization for full and complete utilization of the ISS through at least 2030 (current law states 2024) and support maintaining a National Lab in space to benefit the scientific community and promote space commerce.
- Direct NASA to designate an official at each NASA Center to serve as an advocate for small business and provide guidance to small businesses on how to participate in public-private opportunities with NASA.

LEGISLATIVE HISTORY

S. 919, the Space Frontier Act of 2019, was introduced on March 27, 2019, by Senator Cruz (for himself and Senators Sinema, Markey, and Wicker) and was referred to the Committee on Commerce, Science, and Transportation. Senators Peters and Scott are additional cosponsors. On April 3, 2019, the Committee met in open Executive Session and, by voice vote, ordered S. 919 reported favorably without amendment.

The Committee held one hearing during the 116th Congress to examine some of the key issues addressed in this legislation: The New Space Race: Ensuring U.S. Global Leadership on the Final Frontier (March 13, 2019).

During the 115th Congress, S. 3277, the Space Frontier Act of 2018, was introduced on July 25, 2018, by Senator Cruz (for himself and Senators Nelson and Markey) and was referred to the Committee on Commerce, Science, and Transportation. On August 1, 2018, the Committee met in open Executive Session and, by voice vote, ordered S. 3277 reported favorably with an amendment (in the nature of a substitute). On December 20, 2018, S. 3277 passed the Senate with an amendment by unanimous consent. On December 21, 2018, S. 3277 failed to garner the required supermajority to pass by a suspension of the rules in the House.

RELATED LEGISLATION

On February 27, 2019, S. 584, the Advancing Human Spaceflight Act, was introduced by Senator Cornyn (for himself and Senator Peters) and was referred to the Committee on Commerce, Science, and Transportation. If enacted, this bill would extend direct NASA funding for ISS until 2030 and commission a report on NASA's plans to transition to a future platform. The bill also directs NASA to establish a program to develop advanced space suits and codifies human settlement in space as a national goal.

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

At a Glance			
S. 919, Space Frontier Act of 2019			
As ordered reported by the Senate Committee on Commerce, Science, and Transportation on April 3, 2019			
By Fiscal Year, Millions of Dollars	2019	2019-2024	2019-2029
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Deficit Effect	0	0	0
Spending Subject to Appropriation (Outlays)	0	232	n.e.
Pay-as-you-go procedures apply?	No	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	Yes, Under Threshold
		Contains private-sector mandate?	Yes, Under Threshold
n.e. = not estimated.			

The bill would

- Authorize the appropriation of \$150 million in 2020 for a National Aeronautics and Space Administration (NASA) program promoting the commercial use of the low-Earth orbit
- Redesignate the Office of Space Commerce as the Bureau of Space Commerce and authorize the appropriation of \$10 million annually over the 2020–2024 period for the bureau
- Require entities that launch and operate Earth observation satellites to submit technical and safety information with license applications submitted to the National Oceanic and Atmospheric Administration (NOAA)

Estimated budgetary effects would primarily stem from

- Spending of appropriations authorized for NASA and the Bureau of Space Commerce
- Requirements for the Department of Transportation and NOAA to streamline certain permitting and licensing processes

Bill summary: S. 919 would authorize appropriations for the National Aeronautics and Space Administration to promote commercial use of the low-Earth orbit and for the Department of Commerce to carry out space commerce activities. (Low-Earth orbit is an Earth centered orbit with an altitude of about 1,200 miles or less.) The bill also would require the Department of Transportation (DOT) and the National Oceanic and Atmospheric Administration to streamline permitting for commercial space transportation and Earth observation. CBO estimates implementing S. 919 would cost \$232 million over the 2019–2024 period, assuming appropriation of the authorized and necessary amounts.

Estimated Federal cost: The estimated budgetary effect of S. 919 is shown in Table 1. The costs of the legislation fall within budget functions 250 (general science, space, and technology), 300 (natural resources and environment), 370 (commerce and housing credit), and 400 (transportation).

TABLE 1.—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER S. 919

	By fiscal year, millions of dollars—						
	2019	2020	2021	2022	2023	2024	2019–2024
Low-Earth Commercialization Program							
Authorization	0	150	0	0	0	0	150
Estimated Outlays	0	10	20	35	45	40	150
Bureau of Space Commerce							
Authorization	0	10	10	10	10	10	50
Estimated Outlays	0	8	10	10	10	10	48
Regulation of Commercial Space Transportation							
Estimated Authorization	0	6	6	6	6	7	31
Estimated Outlays	0	4	6	6	6	7	29
Regulation of Earth Observation Activities							
Estimated Authorization	0	1	1	1	1	1	5
Estimated Outlays	0	1	1	1	1	1	5
Total Changes							
Estimated Authorization	0	167	17	17	17	18	236
Estimated Outlays	0	23	37	52	62	58	232

Basis of estimate: For this estimate, CBO assumes that S. 919 will be enacted in late 2019 and that the authorized and necessary amounts will be appropriated each year. Estimated outlays are based on historical spending patterns for similar activities.

Low-Earth commercialization program: S. 919 would authorize the appropriation of \$150 million in 2020 for NASA to promote commercial use of the low-Earth orbit. Using information from NASA, CBO expects that under the bill, the agency would study potential launch destinations in the low-Earth orbit, conduct market surveys and workshops, promote private-sector use of the International Space Station (ISS), and provide financial support to industry partners for related research and development. In 2019, NASA allocated \$40 million for such activities. CBO estimates that implementing the provision would cost \$150 million over the 2020–2024 period.

Bureau of Space Commerce: S. 919 would redesignate the Office of Space Commerce, which oversees space commerce policy within the Department of Commerce, as the Bureau of Space Commerce and would direct the bureau to coordinate interagency commercial space activities. The bill would authorize the appropriation of \$10 million annually over the 2020–2024 period for that bureau. CBO expects that most of those amounts would be for additional staff. In 2019, NOAA allocated \$2 million for the Office of Space Commerce. CBO estimates that implementing that provision would cost \$48 million over the 2020–2024 period.

Regulation of commercial space transportation: DOT regulates commercial space transportation by issuing permits and licenses to entities that launch commercial space vehicles or operate related facilities. The agency also oversees the safety of such activities.

Title I of S. 919 would require DOT to streamline and expedite its regulatory activities. In particular, DOT would be required to reduce from 180 days to 90 days the review period for permit and license applications submitted by existing permit or license holders. By February 1, 2020, DOT also would be required to issue a draft rule to revise existing regulations and to streamline regulations for commercial space transportation. Title I also would impose additional administrative and reporting requirements.

Using information from DOT, CBO estimates that implementing title I would cost \$29 million over the 2020–2024 period, primarily to add around 20 new staff members and to purchase computer systems needed to complete reviews of certain applications under the new schedule. That estimate reflects an annual increase of \$6 million, or about 25 percent, over 2019 funding for those purposes.

Regulation of Earth observation activities: Title II would change NOAA’s licensing of private entities that collect Earth-imaging data from space. The bill would add technical requirements and shorten the timeline for NOAA’s license review. NOAA also would be required to issue new regulations for implementing those changes and to report to the Congress.

Using information from NOAA and considering the timeline and technical aspects of the new review process, CBO estimates that NOAA would need four additional employees with specialized technical abilities to implement title II and additional resources to issue the required regulations. Therefore, CBO estimates that implementing title II would cost \$1 million a year, or \$5 million over the 2020–2024 period. In 2019, NOAA allocated about \$2 million to such licensing activities.

Other costs: Title III would direct NASA to promote public-private partnerships with small businesses and to report to the Congress on the feasibility of establishing a microgravity national laboratory. Using information on existing activities under the agency’s Office of Small Business Programs, and based on the costs of similar tasks, CBO estimates that implementing those provisions would cost less than \$500,000 over the 2020–2024 period.

Current law requires NASA to operate the ISS through 2024. The bill would extend that authorization through 2030. Based on information for recent years, CBO estimates that after 2024, those operations would cost about \$4 billion annually, assuming the appropriation of the necessary amounts.

Pay-As-You-Go considerations: None.

Increase in long-term deficits: None.

Mandates: S. 919 would impose intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) by requiring entities that launch and operate Earth observation satellites to submit technical and safety information to NOAA with their satellite-licensing applications. Those requirements would affect private space companies, such as Space X, and publicly funded entities, such as research universities. Using information from NOAA and companies in the space industry about the costs of complying with current regulations, CBO estimates that the incremental costs of complying with the bill would fall well below the annual thresholds established in UMRA for intergovernmental and private-sector mandates (\$82 million and \$164 million in 2019, respectively, adjusted annually for inflation).

Estimate prepared by: Federal Costs: Janani Shankaran (National Aeronautics and Space Administration), Megan Carroll (Department of Transportation), Robert Reese (National Oceanic and Atmospheric Administration); Mandates: Jon Sperl.

Estimate reviewed by: Kim P. Cawley, Chief, Natural and Physical Resources Cost Estimates Unit; Susan Willie, Chief, Mandates Unit; Therese Gullo, Assistant Director for Budget Analysis.

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

NUMBER OF PERSONS COVERED

The bill would cover private companies who apply for a commercial space launch or reentry license or experimental permit with the DOT; private companies who apply for a license to conduct nongovernmental Earth observation activities with the DOC; and private companies interested in conducting nongovernmental space activities that are related to an application for a license or permit with the DOT but are not subject to authorization under other Federal law. Most of these persons are already subject to governmental regulations of some type in relation to the covered activities.

ECONOMIC IMPACT

The bill is intended to have a positive economic impact with respect to the commercial space launch and reentry sector, the nongovernmental Earth observation sector, and the emerging nongovernmental space activity sector. Specifically, this bill intends to streamline and shorten the requirements and time necessary for applicants to obtain a launch or reentry license or experimental permit from the DOT, a license to conduct nongovernmental Earth observation activities from the DOC, or authorization to conduct a nongovernmental space activity. By updating and reforming these processes, the intention of this bill is to provide clarity and stability to the commercial space sector and to promote the industry.

PRIVACY

The bill would not impact the personal privacy of individuals, since the bill affects private companies and the Federal Government.

PAPERWORK

The bill is intended to decrease the amount of paperwork requirements for applicants for commercial space launch, reentry licenses, or experimental permits with the DOT; applicants who apply for a license to conduct nongovernmental Earth observation activities with the DOC; and private companies interested in conducting nongovernmental space activities that are related to an application for a license or permit with the DOT and are not subject to authorization under other Federal law. Under the bill, the regulatory regime for commercial space launch activities and nongovernmental Earth observation activities would be required to be updated and streamlined, thus reducing the amount of paperwork required by applicants for licenses.

CONGRESSIONALLY DIRECTED SPENDING

In compliance with paragraph 4(b) of rule XLIV of the Standing Rules of the Senate, the Committee provides that no provisions

contained in the bill, as reported, meet the definition of congressionally directed spending items under the rule.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title; table of contents.

This section would provide that the bill may be cited as the “Space Frontier Act of 2019.” This section also would provide a table of contents for the bill.

Section 2. Definitions.

This section would provide definitions for key terms used throughout the legislation.

TITLE I—STREAMLINING OVERSIGHT OF LAUNCH AND REENTRY ACTIVITIES

Section 101. Office of Commercial Space Transportation.

This section would create an Assistant Secretary for Commercial Space Transportation at DOT, who would also serve as the Associate Administrator for Commercial Space Transportation at the FAA. The Assistant Secretary for Commercial Space Transportation would report directly to the Secretary of Transportation. This would ensure that the Secretary has a clear connection to the Office of Commercial Space Transportation and can prioritize the needs of that office appropriately. While it is the Committee’s intent to elevate the visibility and importance of commercial space functions within the DOT, the Committee notes that, beyond the establishment of the new Assistant Secretary position, the section places no additional requirements on the Secretary of Transportation pertaining to the organization of commercial space functions within the DOT.

Section 102. Use of existing authorities.

This section would state that it is the sense of Congress that, absent other comprehensive regulatory reform, the DOT should use all current existing authorities, including waivers and safety approvals, to promote the efficient use of resources and reduce the regulatory burden for commercial space launch or reentry license or experimental permit applicants. This section would direct the DOT to use all existing authorities, including waivers and safety approvals, to promote the efficient use of resources and reduce the regulatory burden for commercial space launch or reentry license or experimental permit applicants while still prioritizing public health and safety.

Further, this section would shorten the timeframe the DOT has to issue a license for previously licensed or currently licensed applicants from the current 180 days to 90 days. The existing period of 180 days would continue to apply for applicants who do not currently hold a license or have not held one in the past. This section would also make improvements to the process for issuing safety approvals and allow for the DOT to issue a single license or permit for an operator to conduct launch and reentry activities at multiple launch or reentry sites.

The Committee notes that in some instances the use of such authorities may reduce risks to public health and safety and directs

the Secretary of Transportation to expedite approvals in those instances. The Committee encourages the DOT to make use of other existing tools, such as FAA Guidance or Advisory Circulars, if those tools would further reduce the regulatory burden for commercial space launch or reentry license or experimental permit applicants.

Section 103. Experimental permits.

This section would direct the DOT to use all existing authorities, including waivers and safety approvals, to promote efficiency and reduce regulatory burden. This section would also direct DOT to expedite the processing of safety approvals that would reduce risks to health or safety during launch and reentry.

Section 104. Government-developed space technology.

This section would strike conflicting language in law stating that the Government must encourage the use of Government-developed space technology in its promotion of the U.S. private sector to provide launch vehicles, reentry vehicles, and associated services. The Committee recognizes that the DOT cannot establish technology-neutral launch and reentry regulations while, at the same time, promoting the use of Government-developed space technology. Therefore, this section would in effect express that the appropriate role of the Government is to facilitate the use of Government-developed space technology by the private sector, but not penalize potential licensees who choose not to utilize Government-developed space technology. It is not the intent of the Committee to limit the use of any Government-developed space technology.

Section 105. Regulatory reform.

This section would state that Congress finds that the regulatory environment faced by the commercial space launch sector has been an impediment to innovation in small-class launch technologies, reusable launch and reentry vehicles, and other launch and reentry technologies. Further, the section would direct the DOT to issue a final rule, by February 1, 2020, to create requirements that apply to both expendable and reusable launch and reentry vehicles; are neutral with regard to specific launch and reentry technologies; protect the safety of the public; establish high-level performance requirements and encourage industry technical standards that conform to the same; and encourage collaboration between the commercial launch and reentry sector and the DOT regarding establishment of these rules. The section would require the DOT to consult with the DOD, NASA, and appropriate members of the commercial space launch and reentry sector when conducting the rule-making. Finally, this section would require the DOT to submit a report within 60 days to the relevant committees of Congress detailing the progress made towards the requirements of this section.

Section 106. Secretary of Transportation oversight and coordination of commercial launch and reentry operations.

This section would direct the DOT to consolidate or modify requirements for launch and reentry licensing across all Federal agencies into a single application set that satisfies those requirements and expedites the coordination of commercial launch and reentry services. The Committee remains concerned with overlap and

duplication of requirements between the DOD and FAA for commercial launch operations occurring from Federal ranges, despite the direction given in section 1617 of the National Defense Authorization Act for Fiscal Year 2016¹³ to eliminate such duplicative requirements. The Committee further notes that section 1606 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019¹⁴ prohibits the Secretary of Defense from imposing requirements on a launch licensee that overlap with or duplicate the requirements of the Secretary of Transportation. The Committee understands and appreciates the role of the Secretary of Defense in protecting the safety and security of defense installations, including those that support commercial launch activity, and encourages the Secretary of Defense and Secretary of Transportation to continue to work diligently to harmonize and consolidate their requirements into a single set of non-duplicative requirements for launch licensees. This section would also repeal section 113 of the CSLCA,¹⁵ which is redundant law.

Section 107. Study on joint use of spaceports.

This section would direct the DOT, in consultation with the DOD, to conduct a study of the current Federal process to provide or permit the joint use of U.S. military installations for licensed nongovernmental space launch and reentry activities, space-related activities, and space transportation services by U.S. commercial providers. In conducting this study, the DOT would be directed to specifically take into account improvements that could be made to the current process, means to facilitate the ability for a military installation to request that the DOT consider that military installation for nongovernmental activities, the feasibility of increasing the number of military installations that can provide or permit nongovernmental space-related activities, and the importance of the use of safety approvals at these sites.

Section 108. Airspace integration report.

This section would require the DOT to submit a report to Congress within 90 days reviewing current policies and tools used to integrate launch and reentry activities into the National Airspace System.

TITLE II—STREAMLINING OVERSIGHT OF NONGOVERNMENTAL EARTH
OBSERVATION ACTIVITIES

Section 201. Nongovernmental Earth observation activities.

This section would repeal the existing legal framework for nongovernmental Earth observation regulations (formerly commercial remote sensing) and create a new, more transparent, framework at DOC that focuses on managing risk to national security, preventing harmful interference to other space activities, and promoting the leadership, industrial innovation, and international competitiveness of the United States. This section would direct the DOC to issue or deny a license for nongovernmental Earth observation activities with 120 days of receipt of a complete application. The sec-

¹³ 51 U.S.C. 50918 note.

¹⁴ Public Law 115-232; 132 Stat. 1636.

¹⁵ Public Law 114-90; 129 Stat. 704.

tion would also direct the DOC to submit any denied applications to the relevant committees of Congress. Further, this section would provide for a streamlined 90-day process for other agencies to review applications, as appropriate, and would state that non-responsiveness by another Federal agency would be treated as assent to the application. Non-concurrence by another Federal agency would have to be signed by the head of the non-concurring agency or department. The Committee notes that the DOC is not authorized to overrule another Federal agency or department as it pertains to interagency consultations on licensing decisions. Rather, if the heads of any two agencies disagree over a determination, the disagreement would be adjudicated by the President. This section would prohibit the DOC from denying an application in order to protect any existing Earth observation activity from competition, or, denying an application based solely on the technology's capabilities if those capabilities are already commercially available.

This section would also provide for the DOC to waive requirements for a nongovernmental Earth observation activity, or for a type or class of nongovernmental Earth observation activity, if the DOC decides that granting a waiver is consistent with the purposes of the chapter. The Committee notes that the definition of "Earth observation activity" in this chapter would exclude imaging devices intended for purposes other than Earth observation, such as cameras on launch or reentry vehicles or spacecraft that are intended to view separation events or other vehicle functions. This section would also direct the DOC to establish standards for determining *de minimis* Earth observation activities that would be eligible for a waiver not later than 120 days after enactment of the Act.

Finally, this section would require the DOC to report to Congress on the progress in implementing this section, including a list of all applications received or pending in the previous calendar year, the status of the applications, a list of all applications for which the DOC missed relevant deadlines, and a description of all actions taken by the Secretary under the administrative authority granted in this section.

Section 202. Radio-frequency mapping report.

This section would require the DOC, in consultation with the DOD and the Director of National Intelligence, to submit a report within 180 days to the relevant committees of Congress discussing the necessity, or lack thereof, of regulations on space-based radio-frequency mapping. The report would also examine the impacts of radio-frequency mapping activities on national security, include recommendations for additional regulatory action, and include a cost/benefit analysis of such regulatory action. The report would evaluate whether the development of voluntary consensus industry standards outweighs the case for issuing regulations and whether existing law could be applied to prevent the need for additional regulation.

TITLE III—MISCELLANEOUS

Section 301. Promoting fairness and competitiveness for NASA partnership opportunities.

This section would state that it is the sense of Congress that equitable access to NASA assets and services on a reimbursable and noninterference basis is advantageous in enabling the U.S. commercial space industry. This section would also direct NASA to provide opportunities for the participation of small businesses in planning public-private partnerships, and within 90 days, make public a list of all NASA assets, services, and capabilities that are or will be available for public-private partnership opportunities.

Section 302. Maintaining a National Laboratory in space.

This section would state that it is the sense of Congress that the ISS benefits the scientific community; promotes commerce in space; fosters stronger relationships between NASA, other Federal agencies, the private sector, and academia; advances science, technology, engineering, and mathematics education; and advances human knowledge and international cooperation. This section would also express the sense of Congress that, after the ISS is decommissioned, the United States should maintain a National Laboratory in space, using appropriate accommodations for different types of ownership and operational structures. This section also states that NASA should continue to support fundamental science research on future platforms.

Section 303. Presence in low-Earth orbit.

This section would state that it is the sense of Congress that a continuous human presence in low-Earth orbit is in the national and economic security interests of the United States and requires NASA to continuously maintain the capability for continuous human presence in low-Earth orbit beyond the useful life of the ISS.

Section 304. Continuation of the ISS.

This section would support ISS operations through 2030.

Section 305. United States policy on orbital debris.

This section would express the sense of Congress that existing guidelines for the mitigation of orbital debris may not be adequate to ensure long-term usability of the space environment for all users and that the United States should continue to exercise a leadership role in developing orbital debris prevention standards that can be used by all space-faring nations. This section would also state that it is the policy of the United States to have consistent standards across Federal agencies that minimize the risks from orbital debris in order to protect the following: public health and safety; humans in space; the national security interests of the United States; the safety of property; space objects from interference; and the foreign policy interests of the United States.

Section 306. Low-Earth orbit commercialization program.

This section would authorize NASA to establish a low-Earth orbit commercialization program to encourage the use and development

of space by the private sector, including activities to stimulate demand for human spaceflight, improvements to the commercial capabilities of the ISS, and activities to accelerate the development of commercial space stations. This section would also authorize \$150 million for fiscal year 2020 for this purpose.

Section 307. Bureau of Space Commerce.

This section elevates the Office of Space Commerce to the Bureau of Space Commerce, headed by an Assistant Secretary for Space Commerce, and authorizes \$10 million per year for the activities of the Bureau for fiscal years 2020 through 2024.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

TITLE 49—TRANSPORTATION

SUBTITLE I—DEPARTMENT OF TRANSPORTATION

CHAPTER 1—ORGANIZATION

* * * * *

§ 102. Department of Transportation

(a) * * *

(e) ASSISTANT SECRETARIES; GENERAL COUNSEL.—

(1) APPOINTMENT.—The Department has **[6]** 7 Assistant Secretaries and a General Counsel, including—

(A) an Assistant Secretary for Aviation and International Affairs, an Assistant Secretary for Governmental Affairs, an Assistant Secretary for Research and Technology, *an Assistant Secretary for Commercial Space Transportation*, and an Assistant Secretary for Transportation Policy, who shall each be appointed by the President, with the advice and consent of the Senate;

(B) an Assistant Secretary for Budget and Programs who shall be appointed by the President;

(C) an Assistant Secretary for Administration, who shall be appointed by the Secretary, with the approval of the President; and

(D) a General Counsel, who shall be appointed by the President, with the advice and consent of the Senate.

* * * * *

TITLE 51—NATIONAL AND COMMERCIAL SPACE PROGRAMS

SUBTITLE V—PROGRAMS TARGETING COMMERCIAL OPPORTUNITIES

CHAPTER 507—**[OFFICE]** *BUREAU* OF SPACE COMMERCE

Sec.
50701. Definition of **[Office]** *Bureau*.
50702. Establishment.

50703. Annual report.

50704. Authorization of appropriations.

§ 50701. Definition of [Office] Bureau

In this chapter, the term [“Office”] “Bureau” means the [Office] Bureau of Space Commerce established in section 50702 of this title.

§ 50702. Establishment

(a) IN GENERAL.—There is established within the Department of Commerce [an Office] a Bureau of Space Commerce.

[(b) DIRECTOR.—The Office shall be headed by a Director, who shall be a senior executive and shall be compensated at a level in the Senior Executive Service under section 5382 of title 5 as determined by the Secretary of Commerce.]

(b) ASSISTANT SECRETARY.—*The Bureau shall be headed by an Assistant Secretary for Space Commerce, to be appointed by the President with the advice and consent of the Senate and compensated at level II or III of the Executive Schedule, as determined by the Secretary of Commerce. The Assistant Secretary shall report directly to the Secretary of Commerce.*

(c) FUNCTIONS OF OFFICE.—The [Office] Bureau shall be the principal unit for the coordination of space-related issues, programs, and initiatives within the Department of Commerce, including—

(1) to foster the conditions for the economic growth and technological advancement of the United States space commerce industry;

(2) to coordinate space commerce policy issues and actions within the Department of Commerce, *including activities licensed under chapter 601 of this title*;

(3) to represent the Department of Commerce in the development of United States policies and in negotiations with foreign countries to promote United States space commerce;

(4) to promote the advancement of United States geospatial technologies related to space commerce, in cooperation with relevant interagency working groups; and

(5) to provide support to Federal Government organizations working on Space-Based Positioning Navigation, and Timing policy, including the National Coordination Office for Space-Based [Position] Positioning, Navigation, and Timing.

(d) DUTIES OF [DIRECTOR] Assistant Secretary.—The primary responsibilities of the [Director] Assistant Secretary in carrying out the functions of the [Office shall] Bureau shall, under the direction and supervision of the Secretary, include—

(1) *to oversee the issuing of licenses under chapter 601 of this title*;

(2) *coordinating Department policy impacting commercial space activities and working with other executive agencies to promote policies that advance commercial space activities*;

[(1)] (3) promoting commercial provider investment in space activities by collecting, analyzing, and disseminating information on space markets, and conducting workshops and seminars to increase awareness of commercial space opportunities;

[(2)] (4) assisting United States commercial providers in the efforts of those providers to conduct business with the United States Government;

[(3)] (5) acting as an industry advocate within the executive branch of the Federal Government to ensure that the Federal Government meets the space-related requirements of the Federal Government, to the fullest extent feasible, using commercially available space goods and services;

[(4)] (6) ensuring that the United States Government does not compete with United States commercial providers in the provision of space hardware and services otherwise available from United States commercial providers;

[(5)] (7) promoting the export of space-related goods and services;

[(6)] (8) representing the Department of Commerce in the development of United States policies and in negotiations with foreign countries to ensure free and fair trade internationally in the area of space commerce, *consistent with the international obligations, foreign policy, and national security interests of the United States*; and

[(7)] (9) seeking the removal of legal, policy, and institutional impediments to space commerce.

§ 50703. Annual report

The Secretary of Commerce shall submit an annual report on the activities of the [Office] *Bureau*, including planned programs and expenditures, to the Committee on Commerce, Science, and Transportation of the Senate and the [Committee on Science and Technology of the House of Representatives] *Committee on Science, Space, and Technology of the House of Representatives*.

§ 50704. Authorization of appropriations

There is authorized to be appropriated to the Secretary of Commerce to carry out this chapter \$10,000,000 for each of fiscal years 2020 through 2024.

* * * * *

CHAPTER 509—COMMERCIAL SPACE LAUNCH ACTIVITIES

* * * * *

§ 50901. Findings and purposes

(a) * * *

(b) PURPOSES.—The purposes of this chapter are—

(1) to promote economic growth and entrepreneurial activity through use of the space environment for peaceful purposes;

(2) to encourage the United States private sector to provide launch vehicles, reentry vehicles, and associated services by—

(A) simplifying and expediting the issuance and transfer of commercial licenses;

(B) facilitating [and encouraging] the use of Government-developed space technology; and

(C) promoting the continuous improvement of the safety of launch vehicles designed to carry humans, including

through the issuance of regulations, to the extent permitted by this chapter;

(3) to provide that the Secretary of Transportation is to oversee and coordinate the conduct of *all* commercial launch and reentry operations, issue permits and commercial licenses and transfer commercial licenses authorizing those operations, and protect the public health and safety, safety of property, and national security and foreign policy interests of the United States; and

(4) to facilitate the strengthening and expansion of the United States space transportation infrastructure, including the enhancement of United States launch sites and launch-site support facilities, and development of reentry sites, with Government, State, and private sector involvement, to support the full range of United States space-related activities.

* * * * *

§ 50903. General authority

(a) GENERAL.—The Secretary of Transportation shall carry out this chapter.

(b) FACILITATING COMMERCIAL LAUNCHES AND REENTRIES.—In carrying out this chapter, the Secretary shall—

(1) consistent with this chapter, authorize, license, and oversee the conduct of all commercial launch and reentry operations, including any commercial launch or commercial reentry at a Federal range;

(2) if an application for a license or permit under this chapter includes launch or reentry at a Defense range, coordinate with the Secretary of Defense, or designee, to protect any national security interest relevant to such activity, including any necessary mitigation measure to protect Department of Defense property and personnel;

[(1)] (3) encourage, facilitate, and promote commercial space launches and reentries by the private sector, including those involving space flight participants; and

[(2)] (4) take actions to facilitate private sector involvement in commercial space transportation activity, and to promote public-private partnerships involving the United States Government, State governments, and the private sector to build, expand, modernize, or operate a space launch and reentry infrastructure.

* * * * *

§ 50904. Restrictions on launches, operations, and reentries

(a) * * *

(e) MULTIPLE SITES.—The Secretary may issue a single license or permit for an operator to conduct launch services and reentry services at multiple launch sites or reentry sites.

§ 50905. License applications and requirements

(a) APPLICATIONS.—[(1) A person may apply to the Secretary of Transportation for a license or transfer of a license under this chapter in the form and way the Secretary prescribes. Consistent with the public health and safety, safety of property, and national

security and foreign policy interests of the United States, the Secretary, not later than 180 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(D), shall issue or transfer a license if the Secretary decides in writing that the applicant complies, and will continue to comply, with this chapter and regulations prescribed under this chapter. The Secretary shall inform the applicant of any pending issue and action required to resolve the issue if the Secretary has not made a decision not later than 120 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(D). The Secretary shall transmit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a written notice not later than 30 days after any occurrence when the Secretary has not taken action on a license application within the deadline established by this subsection.】

(I) IN GENERAL.—

(A) APPLICATIONS.—A person may apply to the Secretary of Transportation for a license or transfer of a license under this chapter in the form and way the Secretary prescribes.

(B) DECISIONS.—Consistent with the public health and safety, safety of property, and national security and foreign policy interests of the United States, the Secretary, not later than the applicable deadline described in subparagraph (C), shall issue or transfer a license if the Secretary decides in writing that the applicant complies, and will continue to comply, with this chapter and regulations prescribed under this chapter.

(C) APPLICABLE DEADLINE.—The applicable deadline described in this subparagraph shall be—

(i) for an applicant that was or is a holder of any license under this chapter, not later than 90 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E); and

(ii) for a new applicant, not later than 180 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E).

(D) NOTICE TO APPLICANTS.—The Secretary shall inform the applicant of any pending issue and action required to resolve the issue if the Secretary has not made a decision not later than—

(i) for an applicant described in subparagraph (C)(i), 60 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E); and

(ii) for an applicant described in subparagraph (C)(ii), 120 days after accepting an application in accordance with criteria established pursuant to subsection (b)(2)(E).

(E) NOTICE TO CONGRESS.—The Secretary shall transmit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a written notice not later than 30 days after any occurrence when the Secretary has not taken action on a license application

within an applicable deadline established by this subsection.

(2) *PROCEDURES FOR SAFETY APPROVALS.*—In carrying out paragraph (1), the Secretary may establish procedures for safety approvals of launch vehicles, reentry vehicles, safety systems, processes, services, *software*, or personnel (including approval procedures for the purpose of protecting the health and safety of crew, government astronauts, and space flight participants, to the extent permitted by subsections (b) and (c)) that may be used in conducting licensed commercial space launch or reentry activities. *Such safety approvals may be issued simultaneously with a license under this chapter.*

(b) * * *

(e) *USE OF EXISTING AUTHORITIES.*—

(1) *IN GENERAL.*—*The Secretary shall use existing authorities, including waivers and safety approvals, as appropriate, to make more efficient use of resources, reduce the regulatory burden for an applicant under this section, and promote commercial space launch and reentry.*

(2) *EXPEDITING SAFETY APPROVALS.*—*The Secretary shall expedite the processing of safety approvals that would reduce risks to health or safety during launch and reentry.*

§ 50906. Experimental permits

(a) * * *

(j) *USE OF EXISTING AUTHORITIES.*—

(1) *IN GENERAL.*—*The Secretary shall use existing authorities, including waivers and safety approvals, as appropriate, to make more efficient use of resources, reduce the regulatory burden for an applicant under this section, and promote commercial space launch and reentry.*

(2) *EXPEDITING SAFETY APPROVALS.*—*The Secretary shall expedite the processing of safety approvals that would reduce risks to health or safety during launch and reentry.*

* * * * *

§ 50921. Office of Commercial Space Transportation

(a) *ASSOCIATE ADMINISTRATOR FOR COMMERCIAL SPACE TRANSPORTATION.*—*The Assistant Secretary for Commercial Space Transportation shall serve as the Associate Administrator for Commercial Space Transportation.*

(b) *AUTHORIZATION OF APPROPRIATIONS.*—*There are authorized to be appropriated to the Secretary of Transportation for the activities of the Office of the Associate Administrator for Commercial Space Transportation—*

- (1) \$11,941,000 for fiscal year 2005;
- (2) \$12,299,000 for fiscal year 2006;
- (3) \$12,668,000 for fiscal year 2007;
- (4) \$13,048,000 for fiscal year 2008; and
- (5) \$13,440,000 for fiscal year 2009.

* * * * *

SUBTITLE VI—EARTH OBSERVATIONS
CHAPTER 601—LAND REMOTE SENSING POLICY

SUBCHAPTER I—GENERAL

Sec.
60101. Definitions.

SUBCHAPTER II—LANDSAT

60111. Landsat Program Management.
60112. Transfer of Landsat 6 program responsibilities.
60113. Data policy for Landsat 7.

[SUBCHAPTER III—LICENSING OF PRIVATE REMOTE SENSING SPACE SYSTEMS]

[60121. General licensing authority.]
[60122. Conditions for operation.]
[60123. Administrative authority of Secretary.]
[60124. Regulatory authority of Secretary.]
[60125. Agency activities.]
[60126. Annual reports.]

*SUBCHAPTER III—AUTHORIZATION OF NONGOVERNMENTAL EARTH OBSERVATION
ACTIVITIES*

60121. Purposes.
60122. General authority.
60123. Administrative authority of Secretary.
60124. Authorization to conduct nongovernmental Earth observation activities.
60125. Annual reports.
60126. Regulations.
60127. Relationship to other executive agencies and laws.

* * * * *

SUBCHAPTER I—GENERAL

§ 60101. Definitions

In this chapter:

(1) * * *

(4) *EARTH OBSERVATION ACTIVITY.*—The term “Earth observation activity” means a space activity the primary purpose of which is to collect data that can be processed into imagery of the Earth or of man-made objects orbiting the Earth.

[(4)] (5) LAND REMOTE SENSING.—The term “land remote sensing” means the collection of data which can be processed into imagery of surface features of the Earth from an unclassified satellite or satellites, other than an operational United States Government weather satellite.

[(5)] (6) LANDSAT PROGRAM MANAGEMENT.—The term “Landsat Program Management” means the integrated program management structure—

(A) established by, and responsible to, the Administrator and the Secretary of Defense pursuant to section 60111(a) of this title; and

(B) consisting of appropriate officers and employees of the Administration, the Department of Defense, and any other United States Government agencies the President designates as responsible for the Landsat program.

[(6)] (7) LANDSAT SYSTEM.—The term “Landsat system” means Landsats 1, 2, 3, 4, 5, and 6, and any follow-on land remote sensing system operated and owned by the United States

Government, along with any related ground equipment, systems, and facilities owned by the United States Government.

[(7)] (8) LANDSAT 6 CONTRACTOR.—The term “Landsat 6 contractor” means the private sector entity which was awarded the contract for spacecraft construction, operations, and data marketing rights for the Landsat 6 spacecraft.

[(8)] (9) LANDSAT 7.—The term “Landsat 7” means the follow-on satellite to Landsat 6.

[(9)] (10) NATIONAL SATELLITE LAND REMOTE SENSING DATA ARCHIVE.—The term “National Satellite Land Remote Sensing Data Archive” means the archive established by the Secretary of the Interior pursuant to the archival responsibilities defined in section 60142 of this title.

[(10)] (11) NONCOMMERCIAL PURPOSES.—The term “non-commercial purposes” means activities undertaken by individuals or entities on the condition, upon receipt of unenhanced data, that—

(A) such data shall not be used in connection with any bid for a commercial contract, development of a commercial product, or any other non-United States Government activity that is expected, or has the potential, to be profit-making;

(B) the results of such activities are disclosed in a timely and complete fashion in the open technical literature or other method of public release, except when such disclosure by the United States Government or its contractors would adversely affect the national security or foreign policy of the United States or violate a provision of law or regulation; and

(C) such data shall not be distributed in competition with unenhanced data provided by the Landsat 6 contractor.

(12) NONGOVERNMENTAL EARTH OBSERVATION ACTIVITY.—The term “nongovernmental Earth observation activity” means an Earth observation activity of a person other than—

(A) the United States Government; or

(B) a Government contractor or subcontractor if the Government contractor or subcontractor is performing the activity for the Government.

(13) ORBITAL DEBRIS.—The term “orbital debris” means any space object that is placed in space or derives from a space object placed in space by a person, remains in orbit, and no longer serves any useful function or purpose.

(14) PERSON.—The term “person” means a person (as defined in section 1 of title 1) subject to the jurisdiction or control of the United States.

[(11)] (15) SECRETARY.—The term “Secretary” means the Secretary of Commerce.

(16) SPACE ACTIVITY.—

(A) IN GENERAL.—The term “space activity” means any activity that is conducted in space.

(B) INCLUSIONS.—The term “space activity” includes any activity conducted on a celestial body, including the Moon.

(C) EXCLUSIONS.—The term “space activity” does not include any activity that is conducted entirely on board or

within a space object and does not affect another space object.

(17) *SPACE OBJECT.*—The term “space object” means any object, including any component of that object, that is launched into space or constructed in space, including any object landed or constructed on a celestial body, including the Moon.

[(12)] (18) *UNENHANCED DATA.*—The term “unenhanced data” means [land remote sensing] signals or imagery products from *Earth observation activities* that are unprocessed or subject only to data preprocessing.

[(13)] (19) *UNITED STATES GOVERNMENT AND ITS AFFILIATED USERS.*—The term “United States Government and its affiliated users” means—

(A) United States Government agencies;

(B) researchers involved with the United States Global Change Research Program and its international counterpart programs; and

(C) other researchers and international entities that have signed with the United States Government a cooperative agreement involving the use of Landsat data for non-commercial purposes.

* * * * *

[SUBCHAPTER III—LICENSING OF PRIVATE REMOTE SENSING SPACE SYSTEMS

[§ 60121. General licensing authority

[(a) LICENSING AUTHORITY OF SECRETARY.—

[(1) IN GENERAL.—In consultation with other appropriate United States Government agencies, the Secretary is authorized to license private sector parties to operate private remote sensing space systems for such period as the Secretary may specify and in accordance with the provisions of this subchapter.

[(2) LIMITATION WITH RESPECT TO SYSTEM USED FOR OTHER PURPOSES.—In the case of a private space system that is used for remote sensing and other purposes, the authority of the Secretary under this subchapter shall be limited only to the remote sensing operations of such space system.

[(b) COMPLIANCE WITH LAW, REGULATIONS, INTERNATIONAL OBLIGATIONS, AND NATIONAL SECURITY.—

[(1) IN GENERAL.—No license shall be granted by the Secretary unless the Secretary determines in writing that the applicant will comply with the requirements of this chapter, any regulations issued pursuant to this chapter, and any applicable international obligations and national security concerns of the United States.

[(2) LIST OF REQUIREMENTS FOR COMPLETE APPLICATION.—The Secretary shall publish in the Federal Register a complete and specific list of all information required to comprise a complete application for a license under this subchapter. An application shall be considered complete when the applicant has provided all information required by the list most recently published in the Federal Register before the date the application was first submitted. Unless the Secretary has, within 30 days

after receipt of an application, notified the applicant of information necessary to complete an application, the Secretary may not deny the application on the basis of the absence of any such information.

[(c) DEADLINE FOR ACTION ON APPLICATION.—The Secretary shall review any application and make a determination thereon within 120 days of the receipt of such application. If final action has not occurred within such time, the Secretary shall inform the applicant of any pending issues and of actions required to resolve them.

[(d) IMPROPER BASIS FOR DENIAL.—The Secretary shall not deny such license in order to protect any existing licensee from competition.

[(e) REQUIREMENT TO PROVIDE UNENHANCED DATA.—

[(1) DESIGNATION OF DATA.—The Secretary, in consultation with other appropriate United States Government agencies and pursuant to paragraph (2), shall designate in a license issued pursuant to this subchapter any unenhanced data required to be provided by the licensee under section 60122(b)(3) of this title.

[(2) PRELIMINARY DETERMINATION.—The Secretary shall make a designation under paragraph (1) after determining that—

[(A) such data are generated by a system for which all or a substantial part of the development, fabrication, launch, or operations costs have been or will be directly funded by the United States Government; or

[(B) it is in the interest of the United States to require such data to be provided by the licensee consistent with section 60122(b)(3) of this title, after considering the impact on the licensee and the importance of promoting widespread access to remote sensing data from United States and foreign systems.

[(3) CONSISTENCY WITH CONTRACT OR OTHER ARRANGEMENT.—A designation made by the Secretary under paragraph (1) shall not be inconsistent with any contract or other arrangement entered into between a United States Government agency and the licensee.

【§ 60122. Conditions for operation

[(a) LICENSE REQUIRED FOR OPERATION.—No person that is subject to the jurisdiction or control of the United States may, directly or through any subsidiary or affiliate, operate any private remote sensing space system without a license pursuant to section 60121 of this title.

[(b) LICENSING REQUIREMENTS.—Any license issued pursuant to this subchapter shall specify that the licensee shall comply with all of the requirements of this chapter and shall—

[(1) operate the system in such manner as to preserve the national security of the United States and to observe the international obligations of the United States in accordance with section 60146 of this title;

[(2) make available to the government of any country (including the United States) unenhanced data collected by the system concerning the territory under the jurisdiction of such

government as soon as such data are available and on reasonable terms and conditions;

[(3) make unenhanced data designated by the Secretary in the license pursuant to section 60121(e) of this title available in accordance with section 60141 of this title;

[(4) upon termination of operations under the license, make disposition of any satellites in space in a manner satisfactory to the President;

[(5) furnish the Secretary with complete orbit and data collection characteristics of the system, and inform the Secretary immediately of any deviation; and

[(6) notify the Secretary of any significant or substantial agreement the licensee intends to enter with a foreign nation, entity, or consortium involving foreign nations or entities.

[(c) ADDITIONAL LICENSING REQUIREMENTS FOR LANDSAT 6 CONTRACTOR.—In addition to the requirements of subsection (b), any license issued pursuant to this subchapter to the Landsat 6 contractor shall specify that the Landsat 6 contractor shall—

[(1) notify the Secretary of any value added activities (as defined by the Secretary by regulation) that will be conducted by the Landsat 6 contractor or by a subsidiary or affiliate; and

[(2) if such activities are to be conducted, provide the Secretary with a plan for compliance with section 60141 of this title.

[(§ 60123. Administrative authority of Secretary

[(a) FUNCTIONS.—In order to carry out the responsibilities specified in this subchapter, the Secretary may—

[(1) grant, condition, or transfer licenses under this chapter;

[(2) seek an order of injunction or similar judicial determination from a district court of the United States with personal jurisdiction over the licensee to terminate, modify, or suspend licenses under this subchapter and to terminate licensed operations on an immediate basis, if the Secretary determines that the licensee has substantially failed to comply with any provisions of this chapter, with any terms, conditions, or restrictions of such license, or with any international obligations or national security concerns of the United States;

[(3) provide penalties for noncompliance with the requirements of licenses or regulations issued under this subchapter, including civil penalties not to exceed \$10,000 (each day of operation in violation of such licenses or regulations constituting a separate violation);

[(4) compromise, modify, or remit any such civil penalty;

[(5) issue subpoenas for any materials, documents, or records, or for the attendance and testimony of witnesses for the purpose of conducting a hearing under this section;

[(6) seize any object, record, or report pursuant to a warrant from a magistrate based on a showing of probable cause to believe that such object, record, or report was used, is being used, or is likely to be used in violation of this chapter or the requirements of a license or regulation issued thereunder; and

[(7) make investigations and inquiries and administer to or take from any person an oath, affirmation, or affidavit concerning any matter relating to the enforcement of this chapter.

[(b) REVIEW OF AGENCY ACTION.—Any applicant or licensee that makes a timely request for review of an adverse action pursuant to paragraph (1), (3), (5), or (6) of subsection (a) shall be entitled to adjudication by the Secretary on the record after an opportunity for any agency hearing with respect to such adverse action. Any final action by the Secretary under this subsection shall be subject to judicial review under chapter 7 of title 5.

【§ 60124. Regulatory authority of Secretary

【The Secretary may issue regulations to carry out this subchapter. Such regulations shall be promulgated only after public notice and comment in accordance with the provisions of section 553 of title 5.

【§ 60125. Agency activities

【(a) LICENSE APPLICATION AND ISSUANCE.—A private sector party may apply for a license to operate a private remote sensing space system which utilizes, on a space-available basis, a civilian United States Government satellite or vehicle as a platform for such system. The Secretary, pursuant to this subchapter, may license such system if it meets all conditions of this subchapter and—

【(1) the system operator agrees to reimburse the Government in a timely manner for all related costs incurred with respect to such utilization, including a reasonable and proportionate share of fixed, platform, data transmission, and launch costs; and

【(2) such utilization would not interfere with or otherwise compromise intended civilian Government missions, as determined by the agency responsible for such civilian platform.

【(b) ASSISTANCE.—The Secretary may offer assistance to private sector parties in finding appropriate opportunities for such utilization.

【(c) AGREEMENTS.—To the extent provided in advance by appropriation Acts, any United States Government agency may enter into agreements for such utilization if such agreements are consistent with such agency’s mission and statutory authority, and if such remote sensing space system is licensed by the Secretary before commencing operation.

【(d) APPLICABILITY.—This section does not apply to activities carried out under subchapter IV.

【(e) EFFECT ON FCC AUTHORITY.—Nothing in this subchapter shall affect the authority of the Federal Communications Commission pursuant to the Communications Act of 1934 (47 U.S.C. 151 et seq.).

【§ 60126. Annual reports

【(a) IN GENERAL.—The Secretary shall submit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives not later than 180 days after the date of enactment of the U.S. Commercial Space Launch Competitiveness Act, and annually thereafter, on—

【(1) the Secretary’s implementation of section 60121, including—

- [(A) a list of all applications received in the previous calendar year;
 - [(B) a list of all applications that resulted in a license under section 60121;
 - [(C) a list of all applications denied and an explanation of why each application was denied, including any information relevant to the interagency adjudication process of a licensing request;
 - [(D) a list of all applications that required additional information; and
 - [(E) a list of all applications whose disposition exceeded the 120 day deadline established in section 60121(c), the total days overdue for each application that exceeded such deadline, and an explanation for the delay;
 - [(2) all notifications and information provided to the Secretary under section 60122; and
 - [(3) a description of all actions taken by the Secretary under the administrative authority granted by paragraphs (4), (5), and (6) of section 60123(a).
- [(b) CLASSIFIED ANNEXES.—Each report under subsection (a) may include classified annexes as necessary to protect the disclosure of sensitive or classified information.
- [(c) SUNSET.—The reporting requirement under this section terminates effective September 30, 2020.]

SUBCHAPTER III—AUTHORIZATION OF NONGOVERNMENTAL EARTH
OBSERVATION ACTIVITIES

§ 60121. Purposes

The purposes of this subchapter are—

- (1) to prevent, to the extent practicable, harmful interference to space activities by nongovernmental Earth observation activities;*
- (2) to manage risk and prevent harm to United States national security;*
- (3) to ensure consistency with international obligations of the United States; and*
- (4) to promote the leadership, industrial innovation, and international competitiveness of the United States.*

§ 60122. General authority

- (a) IN GENERAL.—The Secretary shall carry out this subchapter.*
- (b) FUNCTIONS.—In carrying out this subchapter, the Secretary shall consult with—*
 - (1) the Secretary of Defense;*
 - (2) the Director of National Intelligence; and*
 - (3) the head of such other Federal department or agency as the Secretary considers necessary.*

§ 60123. Administrative authority of Secretary

- (a) FUNCTIONS.—In order to carry out the responsibilities specified in this subchapter, the Secretary may—*
 - (1) grant, condition, or transfer licenses under this chapter;*
 - (2) seek an order of injunction or similar judicial determination from a district court of the United States with personal ju-*

jurisdiction over the licensee to terminate, modify, or suspend licenses under this subchapter and to terminate licensed operations on an immediate basis, if the Secretary determines that the licensee has substantially failed to comply with any provisions of this chapter, with any terms, conditions, or restrictions of such license, or with any international obligations or national security concerns of the United States;

(3) provide penalties for noncompliance with the requirements of licenses or regulations issued under this subchapter, including civil penalties not to exceed \$10,000 (each day of operation in violation of such licenses or regulations constituting a separate violation);

(4) compromise, modify, or remit any such civil penalty;

(5) issue subpoenas for any materials, documents, or records, or for the attendance and testimony of witnesses for the purpose of conducting a hearing under this section;

(6) seize any object, record, or report pursuant to a warrant from a magistrate based on a showing of probable cause to believe that such object, record, or report was used, is being used, or is likely to be used in violation of this chapter or the requirements of a license or regulation issued thereunder; and

(7) make investigations and inquiries and administer to or take from any person an oath, affirmation, or affidavit concerning any matter relating to the enforcement of this chapter.

(b) **REVIEW OF AGENCY ACTION.**—Any applicant or licensee that makes a timely request for review of an adverse action pursuant to paragraph (1), (3), (5), or (6) of subsection (a) shall be entitled to adjudication by the Secretary on the record after an opportunity for any agency hearing with respect to such adverse action. Any final action by the Secretary under this subsection shall be subject to judicial review under chapter 7 of title 5.

§ 60124. Authorization to conduct nongovernmental Earth observation activities

(a) **REQUIREMENT.**—No person may conduct any nongovernmental Earth observation activity without an authorization issued under this subchapter.

(b) **WAIVERS.**—

(1) **IN GENERAL.**—The Secretary, in consultation with the Secretary of Defense, the Director of National Intelligence, and the head of such other Federal agency as the Secretary considers appropriate, may waive a requirement under this subchapter for a nongovernmental Earth observation activity, or for a type or class of nongovernmental Earth observation activities, if the Secretary decides that granting a waiver is consistent with section 60121.

(2) **STANDARDS.**—Not later than 120 days after the date of the enactment of the Space Frontier Act of 2019, the Secretary shall establish standards, in consultation with the Secretary of Defense and the head of such other Federal agency as the Secretary considers appropriate, for determining *de minimis* Earth observation activities that would be eligible for a waiver under paragraph (1).

(c) *COVERAGE OF AUTHORIZATION.*—The Secretary shall, to the maximum extent practicable, require a single authorization for a person—

(1) to conduct multiple Earth observation activities using a single space object;

(2) to operate multiple space objects carrying out substantially similar Earth observation activities; or

(3) to use multiple space objects to carry out a single Earth observation activity.

(d) *APPLICATION.*—

(1) *IN GENERAL.*—A person seeking an authorization under this subchapter shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may require for the purposes described in section 60121, including—

(A) a description of the proposed Earth observation activity, including—

(i) a physical and functional description of each space object;

(ii) the orbital characteristics of each space object, including altitude, inclination, orbital period, and estimated operational lifetime; and

(iii) a list of the names of all persons that have or will have direct operational or financial control of the Earth observation activity;

(B) a plan to prevent orbital debris consistent with the 2001 United States Orbital Debris Mitigation Standard Practices or any subsequent revision thereof; and

(C) a description of the capabilities of each instrument to be used to observe the Earth in the conduct of the Earth observation activity.

(2) *APPLICATION STATUS.*—Not later than 14 days after the date on which an application is received, the Secretary shall make a determination whether the application is complete or incomplete and notify the applicant of that determination, including, if incomplete, the reason the application is incomplete.

(e) *REVIEW.*—

(1) *IN GENERAL.*—Not later than 90 days after the date on which the Secretary makes a determination under subsection (d)(2) that an application is complete, the Secretary shall review all information provided in that application and, subject to the provisions of this subsection, notify the applicant in writing whether the application was approved, with or without conditions, or denied.

(2) *APPROVALS.*—The Secretary shall approve an application under this subsection if the Secretary determines that—

(A) the Earth observation activity is consistent with the purposes described in section 60121; and

(B) the applicant is in compliance, and will continue to comply, with this subchapter, including regulations.

(3) *DENIALS.*—

(A) *IN GENERAL.*—If an application under this subsection is denied, the Secretary—

(i) shall include in the notification under paragraph

(1)—

(I) a reason for the denial; and

(II) a description of each deficiency, including guidance on how to correct the deficiency;

(ii) shall sign the notification under paragraph (1);

(iii) may not delegate the duty under clause (ii); and

(iv) shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a copy of the notification.

(B) *INTERAGENCY REVIEW.*—Not later than 3 days after the date on which the Secretary makes a determination under subsection (d)(2) that an application is complete, the Secretary shall consult with the head of each Federal department and agency described in section 60122(b) and if any head of such Federal department or agency does not support approving the application—

(i) that head of another Federal department or agency—

(I) not later than 60 days after the date on which such consultation occurs, shall notify the Secretary, in writing, of the reason for withholding support, including a description of each deficiency and guidance on how to correct the deficiency;

(II) shall sign the notification under subclause (I); and

(III) may not delegate the duty under subclause (II), except the Secretary of Defense may delegate the duty under subclause (II) to an Under Secretary of Defense; and

(ii) subject to all applicable laws, the Secretary shall include the notification under clause (i) in the notification under paragraph (1), including classified information if—

(I) the Secretary of Defense or the Director of National Intelligence, as appropriate, determines that disclosure of the classified information is appropriate; and

(II) the applicant has the required security clearance for the classified information.

(C) *INTERAGENCY ASSENTS.*—If the head of another Federal department or agency does not notify the Secretary under subparagraph (B)(i)(I) within the time specified in that subparagraph, that head of another Federal department or agency shall be deemed to have assented to the application.

(D) *INTERAGENCY DISSENTS.*—If, during the review of an application under paragraph (1), a head of a Federal department or agency described in subparagraph (B) disagrees with the Secretary or the head of another Federal department or agency described in subparagraph (B) with respect to a deficiency under this subsection, the Secretary shall submit the matter to the President, who shall resolve the dispute before the applicable deadline under paragraph (1).

(E) *DEFICIENCIES.*—The Secretary shall—

(i) provide each applicant under this paragraph with a reasonable opportunity—

(I) to correct each deficiency identified under subparagraph (A)(i)(II); and

(II) to resubmit a corrected application for reconsideration; and

(ii) not later than 30 days after the date of on which a corrected application under clause (i)(II) is received, make a determination whether to approve the application or not, in consultation with—

(I) each head of another Federal department or agency that submitted a notification under subparagraph (B); and

(II) the head of such other Federal department or agency as the Secretary considers necessary.

(F) IMPROPER BASIS FOR DENIAL.—

(i) COMPETITION.—The Secretary shall not deny an application under this subsection in order to protect any existing Earth observation activity from competition.

(ii) CAPABILITIES.—The Secretary shall not, to the maximum extent practicable, deny an application under this subsection based solely on the capabilities of the Earth observation activity if those capabilities—

(I) are commercially available; or

(II) are reasonably expected to be made commercially available, not later than 3 years after the date of the application, in the international or domestic marketplace.

(iii) APPLICABILITY.—The prohibition under clause (ii)(II) shall apply whether the marketplace products and services originate from the operation of aircraft, uncrewed aircraft, or other platforms or technical means or are assimilated from a variety of data sources.

(4) DEADLINE.—If the Secretary does not notify an applicant in writing before the applicable deadline under paragraph (1), the Secretary shall, not later than 1 business day after the date of the applicable deadline, notify the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives of the status of the application, including the reason the deadline was not met.

(5) EXPEDITED REVIEW PROCESS.—Subject to paragraph (2) and section 60122(b), the Secretary may modify the requirements under this subsection, as the Secretary considers appropriate, to expedite the review of an application that seeks to conduct an Earth observation activity that is substantially similar to an Earth observation activity already licensed under this subchapter.

(f) ADDITIONAL REQUIREMENTS.—An authorization issued under this subchapter shall require the authorized person—

(1) to be in compliance with this subchapter;

(2) to notify the Secretary of any significant change in the information contained in the application; and

(3) to make available to the government of any country, including the United States, unenhanced data collected by the Earth observation system concerning the territory under the jurisdiction of that government as soon as such data are available and on reasonable commercial terms and conditions.

(g) PROHIBITION ON RETROACTIVE CONDITIONS.—

(1) IN GENERAL.—Except as provided in paragraph (3), the Secretary may not modify any condition on, or add any condition to, an authorization under this subchapter after the date of the authorization.

(2) RULE OF CONSTRUCTION.—Nothing in this section shall be construed to prohibit the Secretary from removing a condition on an authorization under this subchapter.

(3) INTERAGENCY REVIEW.—

(A) IN GENERAL.—Subject to subparagraphs (B) and (E), the Secretary or the head of a Federal department or agency described in section 60122(b) may, without delegation, propose the modification or addition of a condition to an authorization under this subchapter after the date of the authorization.

(B) CONSULTATION REQUIREMENT.—Prior to making the modification or addition under subparagraph (A), the Secretary or the applicable head of the Federal department or agency shall consult with the head of each of the other Federal departments and agencies described in section 60122(b) and if any head of such Federal department or agency does not support such modification or addition that head of another Federal department or agency—

(i) not later than 60 days after the date on which the consultation occurs, shall notify the Secretary, in writing, of the reason for withholding support;

(ii) shall sign the notification under clause (i); and

(iii) may not delegate the duty under clause (ii).

(C) INTERAGENCY ASSENTS.—If the head of another Federal department or agency does not notify the Secretary under subparagraph (B)(i) within the time specified in that subparagraph, that head of another Federal department or agency shall be deemed to have assented to the modification or addition under subparagraph (A).

(D) INTERAGENCY DISSENTS.—If the head of a Federal department or agency described in subparagraph (A) disagrees with the Secretary or the head of another Federal department or agency described in subparagraph (A) with respect to such modification or addition under this paragraph, the Secretary shall submit the matter to the President, who shall resolve the dispute.

(E) NOTICE.—Prior to making a modification or addition under subparagraph (A), the Secretary or the head of the Federal department or agency, as applicable, shall—

(i) provide notice to the licensee of the reason for the proposed modification or addition, including, if applicable, a description of any deficiency and guidance on how to correct the deficiency; and

(ii) provide the licensee a reasonable opportunity to correct a deficiency identified in clause (i).

§ 60125. Annual reports

(a) *IN GENERAL.*—Not later than 180 days after the date of the enactment of the Space Frontier Act of 2019, and annually thereafter, the Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the progress in implementing this subchapter, including—

(1) a list of all applications received or pending in the previous calendar year and the status of each such application;

(2) notwithstanding paragraph (4) of section 60124(e), a list of all applications, in the previous calendar year, for which the Secretary missed the deadline under paragraph (1) of that section, including the reasons the deadline was not met; and

(3) a description of all actions taken by the Secretary under the administrative authority granted under section 60123.

(b) *CLASSIFIED ANNEXES.*—Each report under subsection (a) may include classified annexes as necessary to protect the disclosure of sensitive or classified information.

(c) *CESSATION OF EFFECTIVENESS.*—This section ceases to be effective September 30, 2021.

§ 60126. Regulations

The Secretary may promulgate regulations to implement this subchapter.

§ 60127. Relationship to other executive agencies and laws

(a) *EXECUTIVE AGENCIES.*—Except as provided in this subchapter or chapter 509, or any activity regulated by the Federal Communications Commission under the Communications Act of 1934 (47 U.S.C. 151 et seq.), a person is not required to obtain from an executive agency a license, approval, waiver, or exemption to conduct a nongovernmental Earth observation activity.

(b) *RULE OF CONSTRUCTION.*—This subchapter does not affect the authority of—

(1) the Federal Communications Commission under the Communications Act of 1934 (47 U.S.C. 151 et seq.); or

(2) the Secretary of Transportation under chapter 509.

(c) *NONAPPLICATION.*—This subchapter does not apply to any space activity the United States Government carries out for the Government.

* * * * *

§ 60147. Consultation

[(a) *CONSULTATION WITH SECRETARY OF DEFENSE.*—The Secretary and the Landsat Program Management shall consult with the Secretary of Defense on all matters under this chapter affecting national security. The Secretary of Defense shall be responsible for determining those conditions, consistent with this chapter, necessary to meet national security concerns of the United States and for notifying the Secretary and the Landsat Program Management promptly of such conditions.

[(b) *CONSULTATION WITH SECRETARY OF STATE.*—

[(1) *IN GENERAL.*—The Secretary and the Landsat Program Management shall consult with the Secretary of State on all

matters under this chapter affecting international obligations. The Secretary of State shall be responsible for determining those conditions, consistent with this chapter, necessary to meet international obligations and policies of the United States and for notifying promptly the Secretary and the Landsat Program Management of such conditions.

[(2) INTERNATIONAL AID.—Appropriate United States Government agencies are authorized and encouraged to provide remote sensing data, technology, and training to developing nations as a component of programs of international aid.]

[(3) REPORTING DISCRIMINATORY DISTRIBUTION.—The Secretary of State shall promptly report to the Secretary and Landsat Program Management any instances outside the United States of discriminatory distribution of Landsat data.]

[(c) STATUS REPORT.—The Landsat Program Management shall, as often as necessary, provide to Congress complete and updated information about the status of ongoing operations of the Landsat system, including timely notification of decisions made with respect to the Landsat system in order to meet national security concerns and international obligations and policies of the United States Government.]

[(d) REIMBURSEMENTS.—If, as a result of technical modifications imposed on a licensee under subchapter III on the basis of national security concerns, the Secretary, in consultation with the Secretary of Defense or with other Federal agencies, determines that additional costs will be incurred by the licensee, or that past development costs (including the cost of capital) will not be recovered by the licensee, the Secretary may require the agency or agencies requesting such technical modifications to reimburse the licensee for such additional or development costs, but not for anticipated profits. Reimbursements may cover costs associated with required changes in system performance, but not costs ordinarily associated with doing business abroad.]

§60147. Consultation

(a) *CONSULTATION WITH SECRETARY OF DEFENSE.—The Landsat Program Management shall consult with the Secretary of Defense on all matters relating to the Landsat Program under this chapter that affect national security. The Secretary of Defense shall be responsible for determining those conditions, consistent with this chapter, necessary to meet national security concerns of the United States and for notifying the Landsat Program Management of such conditions.*

(b) *CONSULTATION WITH SECRETARY OF STATE.—*

(1) *IN GENERAL.—The Landsat Program Management shall consult with the Secretary of State on all matters relating to the Landsat Program under this chapter that affect international obligations. The Secretary of State shall be responsible for determining those conditions, consistent with this chapter, necessary to meet international obligations and policies of the United States and for notifying the Landsat Program Management of such conditions.*

(2) *INTERNATIONAL AID.—Appropriate United States Government agencies are authorized and encouraged to provide remote*

sensing data, technology, and training to developing nations as a component of programs of international aid.

(3) *REPORTING DISCRIMINATORY DISTRIBUTION.—The Secretary of State shall promptly report to the Landsat Program Management any instances outside the United States of discriminatory distribution of Landsat data.*

(c) *STATUS REPORT.—The Landsat Program Management shall, as often as necessary, provide to Congress complete and updated information about the status of ongoing operations of the Landsat system, including timely notification of decisions made with respect to the Landsat system in order to meet national security concerns and international obligations and policies of the United States Government.*

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SUBTITLE VII—ACCESS TO SPACE

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CHAPTER 709—INTERNATIONAL SPACE STATION

* * * * *

§ 70907. Maintaining use through at least [2024] 2030

(a) **POLICY.**—The Administrator shall take all necessary steps to ensure that the International Space Station remains a viable and productive facility capable of potential United States utilization through at least September 30, [2024] 2030.

(b) **NASA ACTIONS.**—In furtherance of the policy under subsection (a), the Administrator shall ensure, to the extent practicable, that the International Space Station, as a designated national laboratory—

(1) remains viable as an element of overall exploration and partnership strategies and approaches;

(2) is considered for use by all NASA mission directorates, as appropriate, for technically appropriate scientific data gathering or technology risk reduction demonstrations; and

(3) remains an effective, functional vehicle providing research and test bed capabilities for the United States through at least September 30, [2024] 2030.

* * * * *

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AUTHORIZATION ACT, FISCAL YEAR 1993

[51 U.S.C. 50702 note]

SEC. 218. SPACE COOPERATION WITH THE FORMER SOVIET REPUBLICS.

(a) * * *

(c) **ROLE OF THE [OFFICE] Bureau OF SPACE COMMERCE.**—The [Office] Bureau of Space Commerce of the Department of Commerce is authorized and encouraged to conduct trade missions to appropriate independent states of the former Soviet Union for the purpose of familiarizing United States aerospace industry representatives with space hardware, space technologies, and space services that may be available from the independent states, and

with the business practices and overall business climate in the independent states. The **Office** *Bureau* of Space Commerce shall also advise the Administrator as to the impact on United States industry of each potential acquisition of space hardware, space technology, or space services from the independent states of the former Soviet Union, specifically including any anticompetitive issues the **Office** *Bureau* may observe

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AUTHORIZATION ACT OF 2010

[42 U.S.C. 18351(a)]

SEC. 501. CONTINUATION OF THE INTERNATIONAL SPACE STATION.

(a) **POLICY OF THE UNITED STATES.**—It shall be the policy of the United States, in consultation with its international partners in the ISS program, to support full and complete utilization of the ISS through at least **2024** 2030.

(b) **NASA ACTION.**—In furtherance of the policy set forth in subsection (a), NASA shall—

(1) pursue international, commercial, and intragovernmental means to maximize ISS logistics supply, maintenance, and operational capabilities, reduce risks to ISS systems sustainability, and offset and minimize United States operations costs relating to the ISS;

(2) utilize, to the extent practicable, the ISS for the development of capabilities and technologies needed for the future of human space exploration beyond low-Earth orbit; and

(3) utilize, if practical and cost effective, the ISS for Science Mission Directorate missions in low-Earth orbit.

* * * * *

SEC. 503. Maintenance of the united states segment and assurance of continued operations of the international space station.

(a) **IN GENERAL.**—The Administrator shall take all actions necessary to ensure the safe and effective operation, maintenance, and maximum utilization of the United States segment of the ISS through at least September 30, **2024** 2030.

* * * * *

SEC. 504. Management of the iss national laboratory

(a) * * *

(d) **RESEARCH CAPACITY ALLOCATION AND INTEGRATION OF RESEARCH PAYLOAD.**—

(1) **ALLOCATION OF ISS RESEARCH CAPACITY.**—As soon as practicable after the date of the enactment of this Act, but not later than October 1, 2011, ISS national laboratory managed experiments shall be guaranteed access to, and utilization of, not less than 50 percent of the United States research capacity allocation, including power, cold stowage, and requisite crew time onboard the ISS through September 30, **2024** 2030. Access to the ISS research capacity includes provision for the adequate upmass and downmass capabilities to utilize the ISS research capacity, as available. The Administrator may allo-

cate additional capacity to the ISS national laboratory should such capacity be in excess of NASA research requirements.

(2) **ADDITIONAL RESEARCH CAPABILITIES.**—If any NASA research plan is determined to require research capacity onboard the ISS beyond the percentage allocated under paragraph (1), such research plan shall be prepared in the form of a requested research opportunity to be submitted to the process established under this section for the consideration of proposed research within the capacity allocated to the ISS national laboratory. A proposal for such a research plan may include the establishment of partnerships with non-NASA institutions eligible to propose research to be conducted within the ISS national laboratory capacity. Until September 30, **[2024]** 2030, the official or employee designated under subsection (b) may grant an exception to this requirement in the case of a proposed experiment considered essential for purposes of preparing for exploration beyond low-Earth orbit, as determined by joint agreement between the organization with which the Administrator enters into a cooperative agreement under subsection and the official or employee designated under subsection (b).

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U.S. COMMERCIAL SPACE LAUNCH COMPETITIVENESS ACT

[Public Law 114–90; 129 Stat. 704; 51 U.S.C. 50918 note]

SECTION 1. SHORT TITLE; TABLE OF CONTENTS; REFERENCES.

(a) **SHORT TITLE.**—This Act may be cited as the “U.S. Commercial Space Launch Competitiveness Act”.

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents; references.

TITLE I—SPURRING PRIVATE AEROSPACE COMPETITIVENESS AND ENTREPRENEURSHIP

Sec. 101. Short title.

Sec. 102. International launch competitiveness.

Sec. 103. Indemnification for space flight participants.

Sec. 104. Launch license flexibility.

Sec. 105. Licensing report.

Sec. 106. Federal jurisdiction.

Sec. 107. Cross waivers.

Sec. 108. Space authority.

Sec. 109. Orbital traffic management.

Sec. 110. Space surveillance and situational awareness data.

Sec. 111. Consensus standards and extension of certain safety regulation requirements.

Sec. 112. Government astronauts.

[Sec. 113. Streamline commercial space launch activities.]

Sec. 114. Operation and utilization of the ISS.

Sec. 115. State commercial launch facilities.

Sec. 116. Space support vehicles study.

Sec. 117. Space launch system update.

* * * * *

[SEC. 113. STREAMLINE COMMERCIAL SPACE LAUNCH ACTIVITIES.

[51 U.S.C. 50918 note]

[(a) SENSE OF CONGRESS.—It is the sense of Congress that eliminating duplicative requirements and approvals for commercial

launch and reentry operations will promote and encourage the development of the commercial space sector.

[(b) REAFFIRMATION OF POLICY.—Congress reaffirms that the Secretary of Transportation, in overseeing and coordinating commercial launch and reentry operations, should—

[(1) promote commercial space launches and reentries by the private sector;

[(2) facilitate Government, State, and private sector involvement in enhancing U.S. launch sites and facilities;

[(3) protect public health and safety, safety of property, national security interests, and foreign policy interests of the United States; and

[(4) consult with the head of another executive agency, including the Secretary of Defense or the Administrator of the National Aeronautics and Space Administration, as necessary to provide consistent application of licensing requirements under chapter 509 of title 51, United States Code.

[(c) REQUIREMENTS.—

[(1) IN GENERAL.—The Secretary of Transportation under section 50918 of title 51, United States Code, and subject to section 50905(b)(2)(C) of that title, shall consult with the Secretary of Defense, the Administrator of the National Aeronautics and Space Administration, and the heads of other executive agencies, as appropriate—

[(A) to identify all requirements that are imposed to protect the public health and safety, safety of property, national security interests, and foreign policy interests of the United States relevant to any commercial launch of a launch vehicle or commercial reentry of a reentry vehicle; and

[(B) to evaluate the requirements identified in subparagraph (A) and, in coordination with the licensee or transferee and the heads of the relevant executive agencies—

[(i) determine whether the satisfaction of a requirement of one agency could result in the satisfaction of a requirement of another agency; and

[(ii) resolve any inconsistencies and remove any outmoded or duplicative requirements or approvals of the Federal Government relevant to any commercial launch of a launch vehicle or commercial reentry of a reentry vehicle.

[(2) REPORTS.—Not later than 180 days after the date of enactment of this Act, and annually thereafter until the Secretary of Transportation determines no outmoded or duplicative requirements or approvals of the Federal Government exist, the Secretary of Transportation, in consultation with the Secretary of Defense, the Administrator of the National Aeronautics and Space Administration, the commercial space sector, and the heads of other executive agencies, as appropriate, shall submit to the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the congressional defense committees a report that includes the following:

[(A) A description of the process for the application for and approval of a permit or license under chapter 509 of title 51, United States Code, for the commercial launch of a launch vehicle or commercial reentry of a reentry vehicle, including the identification of—

[(i) any unique requirements for operating on a United States Government launch site, reentry site, or launch property; and

[(ii) any inconsistent, outmoded, or duplicative requirements or approvals.

[(B) A description of current efforts, if any, to coordinate and work across executive agencies to define interagency processes and procedures for sharing information, avoiding duplication of effort, and resolving common agency requirements.

[(C) Recommendations for legislation that may further—

[(i) streamline requirements in order to improve efficiency, reduce unnecessary costs, resolve inconsistencies, remove duplication, and minimize unwarranted constraints; and

[(ii) consolidate or modify requirements across affected agencies into a single application set that satisfies the requirements identified in paragraph (1)(A).

[(3) DEFINITIONS.—For purposes of this subsection—

[(A) any applicable definitions set forth in section 50902 of title 51, United States Code, shall apply;

[(B) the terms “launch”, “reenter”, and “reentry” include landing of a launch vehicle or reentry vehicle; and

[(C) the terms “United States Government launch site” and “United States Government reentry site” include any necessary facility, at that location, that is commercially operated on United States Government property.]

* * * * *

