

COMMERCIAL SPACE SUPPORT VEHICLE ACT

JUNE 27, 2018.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. SMITH of Texas, from the Committee on Science, Space, and Technology, submitted the following

R E P O R T

[To accompany H.R. 5346]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, Space, and Technology, to whom was referred the bill (H.R. 5346) to amend title 51, United States Code, to provide for licenses and experimental permits for space support vehicles, and for other purposes, having considered the same, report favorably thereon without amendment and recommend that the bill do pass.

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COMMITTEE STATEMENT AND VIEWS

PURPOSE AND SUMMARY

The purpose of H.R. 5346, the “Commercial Space Support Vehicle Act,” is to provide for licenses and experimental permits for space support vehicles.

BACKGROUND AND NEED FOR LEGISLATION

The Commercial Space Launch Competitiveness Act (CSLCA, P.L. 114–90), Section 105, required the Secretary of Transportation to prepare a report on approaches for streamlining the licensing and permitting process of launch vehicles, reentry vehicles, or components of launch or reentry vehicles, (also referred to as hybrid vehicles) to enable non-launch flight operations related to space transportation. Informally, the Federal Aviation Administration (FAA) uses the term hybrid vehicle to mean a launch or reentry vehicle that may also be used for non-launch non-reentry operations. Congressional Report 108–429 notes that, “Hybrid vehicles are vehicles that have some of the characteristics of aircraft and some of the characteristics of launch vehicles.”

The Section 105 report was transmitted to Congress on June 29, 2017. According to the report, a statutory or regulatory change would be needed to allow companies to utilize hybrid vehicles as space support vehicles. The report concluded that the “option of having a single statutory regime and regulatory office oversee a demonstrated commercial space program throughout its operational lifecycle would allow consistent application of regulatory philosophy and safety oversight and be more efficient and cost effective for the launch operator as well as the licensing agency. For an evolving industry, a regulatory environment that can adjust to accommodate changes would allow for more flexible and more responsive oversight.”

The CLSCA also required the Government Accountability Office (GAO) (GAO–17–100: Published: Nov 25, 2016) to review the uses for space support vehicles and services and any barriers to their use. The GAO found that the standard aircraft certification process is lengthy, is not designed for unique, single-production aircraft, and does not allow companies to receive compensation for carrying people or property. The GAO also found that some of the companies interviewed have training operations in other countries where they can receive payment for the activity and are delaying investments in space support vehicles due to regulatory uncertainty. The GAO recommended that the FAA examine and document whether the FAA’s current regulatory framework is appropriate for space support vehicles and, if not, suggest legislative or regulatory changes, or both, as applicable.

LEGISLATIVE HISTORY

During the 113th, 114th and 115th Congresses, the House Committee on Science, Space, and Technology held seven hearings and two markups relevant to this bill.

On Wednesday, November 20, 2013, the Subcommittee on Space held a hearing titled, “Commercial Space,” to examine ways in which companies are utilizing federal support and government poli-

cies to grow their commercial business in space launch, communications, GPS, remote sensing, weather monitoring, suborbital tourism, science experimentation, and human spaceflight. The witnesses discussed policies contained in H.R. 3038, the Suborbital and Orbital Advancement and Regulatory Streamlining (SOARS) Act. The Subcommittee heard testimony from the Honorable Kevin McCarthy, Member and Majority Whip of the U.S. House of Representatives; Ms. Patricia Cooper, President of the Satellite Industry Association; Mr. Stuart Witt, Chief Executive Officer and General Manager of the Mojave Air and Space Port; and Mr. Dennis Tito, Chairman of the Inspiration Mars Foundation.

On Tuesday, February 4, 2014, the Subcommittee on Space held a hearing titled, “Necessary Updates to the Commercial Space Launch Act,” to discuss the growth of the commercial space industry since the passage of the Commercial Space Launch Act (CSLA) of 1984. The CSLA provided authority to the FAA to license launches and indemnify launch providers from their-party claims should an accident occur. The law also provides a framework for the FAA’s regulatory authority. The hearing examined the various changes in the industry and what, if any, accompanying changes to the CSLA may be needed going forward. The Subcommittee heard testimony from Dr. George Nield, Associate Administrator for Commercial Space Transportation at the Federal Aviation Administration; Dr. Alicia Cackley, Director of Financial Markets and Community Investment Team at the Government Accountability Office; and Dr. Henry Hertzfeld, Research Professor of Space Policy and International Affairs at the Elliot School of International Affairs at George Washington University.

On May 12, 2015, the Committee met to consider H.R. 2262, the Commercial Space Launch Competitiveness Act. H.R. 2262 facilitates a pro-growth environment for the developing commercial space industry by encouraging private sector investment and creating more stable and predictable regulatory conditions. Several reporting requirements were due under this Act regarding licensing of space vehicles. This Act became law on November 25, 2015 (P.L. 114–90).

On Tuesday, April 19, 2016, the Subcommittee on Space held a hearing titled, “The Commercial Space Launch Industry: Small Satellite Opportunities and Challenges,” to examine the current state of the small satellite commercial launch industry. The hearing highlighted the contributions and impacts of the commercial space launch industry, as well as NASA’s Launch Services Program for the acquisition and program management of expendable launch vehicle (ELV) missions. Service providers and small satellite launch vehicles, including the use of reusable vehicles, were also discussed. The Subcommittee heard testimony from Mr. Elliot Pulham, Chief Executive Officer of the Space Foundation; and Mr. Eric Stallmer, President of the Commercial Spaceflight Federation.

On Wednesday, March 8, 2017, the Subcommittee on Space held a hearing titled, “Regulating Space: Innovation, Liberty, and International Obligations,” to examine U.S. international obligations in light of new and innovative space activities. The hearing reviewed authorization and continuing supervision of non-governmental activities in space per the Outer Space Treaty. The licensing of launch and re-entry vehicles and sites by the Federal Aviation Ad-

ministration (FAA) was also discussed. The Subcommittee heard testimony from Ms. Laura Montgomery, Attorney and Sole Proprietor of Ground Based Space Matters, LLC; Dr. Eli Dourado, Senior Research Fellow and Director of the Technology Policy Program at the Mercatus Center at George Mason University; Mr. Doug Loverro, Former Deputy Assistant Secretary of Defense for Space Policy; Mr. Dennis J. Burnett, Adjunct Professor of Law at the University of Nebraska-Lincoln College of Law; and Dr. Henry B. Hogue, Specialist in American National Government at the Congressional Research Service.

On June 29, 2017, the Committee received from the Department of Transportation the report due pursuant to section 105 of H.R. 2262, the Commercial Space Launch Competitiveness Act, regarding the licensing and permitting process of launch vehicles, reentry vehicles, or components of launch or reentry vehicles, to enable non-launch flight operations related to space transportation. The report included approaches to improve efficiency, reduce unnecessary costs, resolve inconsistencies, remove duplication, and minimize unwarranted constraints.

On October 20, 2017, the Committee received from the Department of Transportation and NASA the report due pursuant to section 113 of H.R. 2262, the Commercial Space Launch Competitiveness Act, regarding the streamlining of commercial space launch activities. The report included a description of the process for the application and approval of a permit or license, current efforts to coordinate across executive agencies, and recommendations for legislation to improve efficiency in the licensing of space launch activities.

On March 20, 2018, H.R. 5346 was introduced in the House by Representative Bill Posey of Florida.

On March 22, 2018, the Committee on Science, Space, and Technology met to order H.R. 5346 reported by voice vote.

COMMITTEE VIEWS

The Committee is aware of alternative proposals to establish space support vehicle or similar authorities outside of Title 51 authorities and within existing aviation authorities under Title 49. After extensive discussions with stakeholders, and on the basis of testimony provided in hearings, the Committee concludes that establishing a carve out under Title 49 for aircraft that operate under special airworthiness certificates in the experimental category is not in the best interests of the aviation or space community. The Committee firmly believes that H.R. 5346 is the best policy to facilitate the development of commercial space support flights.

SECTION-BY-SECTION

Section 1. Short title

Commercial Space Support Vehicle Act.

Section 2. Definitions

This section amends title 51 to include definitions for “space support flight” and “space support vehicle.”

Section 3. Licensing of space support flights

This section amends section 50904 of title 51 to give the Secretary of Transportation the authority to license space support flights.

Section 4. Experimental permits for space support flights

This section amends section 50906 of title 51 to include space support vehicles, as well as prohibit reusable suborbital rockets and reusable launch vehicles operating under an experimental permit from carrying any property or human for compensation or hire.

Section 5. Communication and transparency

This section informs the Secretary to discuss the regulatory approach with the commercial space industry prior to issuing the notice of proposed rulemaking.

Section 6. Applicability

This section allows but does not require the Secretary to develop regulations for issuing licenses and permits for space support flights and space support vehicles by March 1, 2019, when the act would go into effect. The intent of this provision is to include the development of regulations for space support vehicles in the regulatory reform process that the National Space Council tasked the Federal Aviation Administration (FAA) to complete by this date.

DIRECTED RULEMAKINGS

The law does not direct the Secretary of Transportation to promulgate a rule or regulation. This law modifies the Secretary of Transportation's existing licensing authority for space vehicle launch and re-entry to allow for the licensing of experimental permits for space support flights.

DUPLICATIVE PROGRAMS

No provision of H.R. 5346 establishes or reauthorizes a program of the Federal Government known to be duplicative of another Federal program, a program that was included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111-139, or a program related to a program identified in the most recent Catalog of Federal Domestic Assistance.

EXPLANATION OF AMENDMENTS

There were no amendments to this bill.

COMMITTEE CONSIDERATION

On March 22nd, 2018, the Committee met in open session and ordered reported favorably the bill, H.R. 5436, by roll call vote, a quorum being present.

APPLICATION OF LAW TO THE LEGISLATIVE BRANCH

Section 102(b)(3) of Public Law 104-1 requires a description of the application of this bill to the legislative branch where the bill relates to the terms and conditions of employment or access to public services and accommodations. This bill provides for licenses and

experimental permits for space support vehicles. As such, this bill does not relate to employment or access to public services and accommodations.

Legislative branch employees and their families, to the extent that they are otherwise eligible for the benefits provided by this legislation, have equal access to its benefits.

STATEMENT OF OVERSIGHT FINDINGS AND RECOMMENDATIONS OF THE COMMITTEE

In compliance with clause 3(c)(1) of rule XIII and clause (2)(b)(1) of rule X of the Rules of the House of Representatives, the Committee's oversight findings and recommendations are reflected in the descriptive portions of this report.

STATEMENT OF GENERAL PERFORMANCE GOALS AND OBJECTIVES

In accordance with clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the Committee's performance goals and objectives are reflected in the descriptive portions of this report.

DUPLICATION OF FEDERAL PROGRAMS

No provision of H.R. 5346 establishes or reauthorizes a program of the Federal Government known to be duplicative of another Federal program, a program that was included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111-139, or a program related to a program identified in the most recent Catalog of Federal Domestic Assistance.

DISCLOSURE OF DIRECTED RULE MAKINGS

The Committee estimates that enacting H.R. 5346 does not direct the completion of any specific rule makings within the meaning of 5 U.S.C. 551.

FEDERAL ADVISORY COMMITTEE ACT

The Committee finds that the legislation does not establish or authorize the establishment of an advisory committee within the definition of 5 U.S.C. App., Section 5(b).

UNFUNDED MANDATE STATEMENT

Section 423 of the Congressional Budget and Impoundment Control Act (as amended by Section 101(a)(2) of the Unfunded Mandate Reform Act, P.L. 104-4) requires a statement as to whether the provisions of the reported include unfunded mandates. In compliance with this requirement the Committee has received a letter from the Congressional Budget Office included herein.

EARMARK IDENTIFICATION

H.R. 5346 does not include any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9 of rule XXI.

COMMITTEE ESTIMATE

Clause 3(d)(2) of rule XIII of the Rules of the House of Representatives requires an estimate and a comparison by the Committee of the costs that would be incurred in carrying out H.R. 5436. However, clause 3(d)(3)(B) of that rule provides that this requirement does not apply when the Committee has included in its report a timely submitted cost estimate of the bill prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act.

BUDGET AUTHORITY AND CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

With respect to the requirements of clause 3(c)(2) of rule XIII of the Rules of the House of Representatives and section 308(a) of the Congressional Budget Act of 1974 and with respect to requirements of clause (3)(c)(3) of rule XIII of the Rules of the House of Representatives and section 402 of the Congressional Budget Act of 1974, the Committee has received the following cost estimate for H.R. 5346 from the Director of Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, June 25, 2018.

Hon. LAMAR SMITH,
*Chairman, Committee on Science, Space, and Technology,
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 5346, the Commercial Space Support Vehicle Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Megan Carroll.

Sincerely,

KEITH HALL,
Director.

Enclosure.

H.R. 5346—Commercial Space Support Vehicle Act

H.R. 5346 would streamline regulatory processes for licensing operations of vehicles that support launches of commercial space vehicles. Under current law, such vehicles are regulated by the Federal Aviation Administration's (FAA's) Office of Aviation Safety; under the bill, that responsibility would be transferred to the FAA's Office of Commercial Space Transportation.

CBO estimates that enacting H.R. 5346 would not significantly affect the federal budget. The bill would not alter the scope of the FAA's underlying responsibility to regulate all aspects of commercial space transportation. Using information from the FAA, CBO estimates that any change in federal costs stemming from the proposed reorganization of regulatory responsibilities—which would be subject to appropriation—would be negligible.

Enacting H.R. 5346 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

CBO estimates that enacting H.R. 5346 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

H.R. 5346 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act.

The CBO staff contact for this estimate is Megan Carroll. The estimate was reviewed by H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, 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 matter is printed in italic, and existing law in which no change is proposed is shown in roman):

TITLE 51, UNITED STATES CODE

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**SUBTITLE V—PROGRAMS TARGETING
COMMERCIAL OPPORTUNITIES**

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**CHAPTER 509—COMMERCIAL SPACE LAUNCH
ACTIVITIES**

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§ 50902. Definitions

In this chapter—

- (1) “citizen of the United States” means—
 - (A) an individual who is a citizen of the United States;
 - (B) an entity organized or existing under the laws of the United States or a State; or
 - (C) an entity organized or existing under the laws of a foreign country if the controlling interest (as defined by the Secretary of Transportation) is held by an individual or entity described in subclause (A) or (B) of this clause.
- (2) “crew” means any employee of a licensee or transferee, or of a contractor or subcontractor of a licensee or transferee, who performs activities in the course of that employment directly relating to the launch, reentry, or other operation of or in a launch vehicle or reentry vehicle that carries human beings.
- (3) “executive agency” has the same meaning given that term in section 105 of title 5.
- (4) “government astronaut” means an individual who—
 - (A) is designated by the National Aeronautics and Space Administration under section 20113(n);
 - (B) is carried within a launch vehicle or reentry vehicle in the course of his or her employment, which may include performance of activities directly relating to the launch, re-

entry, or other operation of the launch vehicle or reentry vehicle; and

(C) is either—

(i) an employee of the United States Government, including the uniformed services, engaged in the performance of a Federal function under authority of law or an Executive act; or

(ii) an international partner astronaut.

(5) “international partner astronaut” means an individual designated under Article 11 of the International Space Station Intergovernmental Agreement, by a partner to that agreement other than the United States, as qualified to serve as an International Space Station crew member.

(6) “International Space Station Intergovernmental Agreement” means the Agreement Concerning Cooperation on the International Space Station, signed at Washington January 29, 1998 (TIAS 12927).

(7) “launch” means to place or try to place a launch vehicle or reentry vehicle and any payload or human being from Earth—

(A) in a suborbital trajectory;

(B) in Earth orbit in outer space; or

(C) otherwise in outer space,

including activities involved in the preparation of a launch vehicle or payload for launch, when those activities take place at a launch site in the United States.

(8) “launch property” means an item built for, or used in, the launch preparation or launch of a launch vehicle.

(9) “launch services” means—

(A) activities involved in the preparation of a launch vehicle, payload, crew (including crew training), government astronaut, or space flight participant for launch; and

(B) the conduct of a launch.

(10) “launch site” means the location on Earth from which a launch takes place (as defined in a license the Secretary issues or transfers under this chapter) and necessary facilities at that location.

(11) “launch vehicle” means—

(A) a vehicle built to operate in, or place a payload or human beings in, outer space; and

(B) a suborbital rocket.

(12) “obtrusive space advertising” means advertising in outer space that is capable of being recognized by a human being on the surface of the Earth without the aid of a telescope or other technological device.

(13) “payload” means an object that a person undertakes to place in outer space by means of a launch vehicle or reentry vehicle, including components of the vehicle specifically designed or adapted for that object.

(14) except in section 50904(c), “permit” means an experimental permit issued under section 50906.

(15) “person” means an individual and an entity organized or existing under the laws of a State or country.

(16) “reenter” and “reentry” mean to return or attempt to return, purposefully, a reentry vehicle and its payload or human beings, if any, from Earth orbit or from outer space to Earth.

(17) “reentry services” means—

(A) activities involved in the preparation of a reentry vehicle and payload, crew (including crew training), government astronaut, or space flight participant, if any, for reentry; and

(B) the conduct of a reentry.

(18) “reentry site” means the location on Earth to which a reentry vehicle is intended to return (as defined in a license the Secretary issues or transfers under this chapter).

(19) “reentry vehicle” means a vehicle designed to return from Earth orbit or outer space to Earth, or a reusable launch vehicle designed to return from Earth orbit or outer space to Earth, substantially intact.

(20) “space flight participant” means an individual, who is not crew or a government astronaut, carried within a launch vehicle or reentry vehicle.

(21) “space support flight” means a flight in the air that is—

(A) not a launch or reentry; but

(B) related to launch or reentry services.

(22) “space support vehicle” means a vehicle that is—

(A) a launch vehicle;

(B) a reentry vehicle; or

(C) a component of a launch or reentry vehicle.

[(21)] (23) “State” means a State of the United States, the District of Columbia, and a territory or possession of the United States.

[(22)] (24) unless and until regulations take effect under section 50922(c)(2), “suborbital rocket” means a vehicle, rocket-propelled in whole or in part, intended for flight on a suborbital trajectory, and the thrust of which is greater than its lift for the majority of the rocket-powered portion of its ascent.

[(23)] (25) “suborbital trajectory” means the intentional flight path of a launch vehicle, reentry vehicle, or any portion thereof, whose vacuum instantaneous impact point does not leave the surface of the Earth.

[(24)] (26) “third party” means a person except—

(A) the United States Government or the Government’s contractors or subcontractors involved in launch services or reentry services;

(B) a licensee or transferee under this chapter;

(C) a licensee’s or transferee’s contractors, subcontractors, or customers involved in launch services or reentry services;

(D) the customer’s contractors or subcontractors involved in launch services or reentry services; or

(E) crew, government astronauts, or space flight participants.

[(25)] (27) “United States” means the States of the United States, the District of Columbia, and the territories and possessions of the United States.

* * * * *

§ 50904. Restrictions on launches, operations, and reentries

(a) REQUIREMENT.—A license issued or transferred under this chapter, or a permit, is required for the following:

(1) for a person to launch a launch vehicle or to operate a launch site or reentry site, or to reenter a reentry vehicle, in the United States.

(2) for a citizen of the United States (as defined in section 50902(1)(A) or (B) of this title) to launch a launch vehicle or to operate a launch site or reentry site, or to reenter a reentry vehicle, outside the United States.

(3) for a citizen of the United States (as defined in section 50902(1)(C) of this title) to launch a launch vehicle or to operate a launch site or reentry site, or to reenter a reentry vehicle, outside the United States and outside the territory of a foreign country unless there is an agreement between the United States Government and the government of the foreign country providing that the government of the foreign country has jurisdiction over the launch or operation or reentry.

(4) for a citizen of the United States (as defined in section 50902(1)(C) of this title) to launch a launch vehicle or to operate a launch site or reentry site, or to reenter a reentry vehicle, in the territory of a foreign country if there is an agreement between the United States Government and the government of the foreign country providing that the United States Government has jurisdiction over the launch or operation or reentry.

Notwithstanding this subsection, a permit shall not authorize a person to operate a launch site or reentry site.

(b) COMPLIANCE WITH PAYLOAD REQUIREMENTS.—The holder of a license or permit under this chapter may launch or reenter a payload only if the payload complies with all requirements of the laws of the United States related to launching or reentering a payload.

(c) PREVENTING LAUNCHES AND REENTRIES.—The Secretary of Transportation shall establish whether all required licenses, authorizations, and permits required for a payload have been obtained. If no license, authorization, or permit is required, the Secretary may prevent the launch or reentry if the Secretary decides the launch or reentry would jeopardize the public health and safety, safety of property, or national security or foreign policy interest of the United States.

(d) SINGLE LICENSE OR PERMIT.—The Secretary of Transportation shall ensure that only 1 license or permit is required from the Department of Transportation to conduct activities involving crew, government astronauts, or space flight participants, including launch and reentry, for which a license or permit is required under this chapter. The Secretary shall ensure that all Department of Transportation regulations relevant to the licensed or permitted activity are satisfied.

(e) SPACE SUPPORT FLIGHTS.—

(1) *The Secretary of Transportation may issue or transfer a license for multiple space support flights of a space support vehicle to a citizen of the United States, but only if such citizen holds an operator license issued under this chapter for launch or reentry of such space support vehicle as, or included as a component of, a launch vehicle or reentry vehicle.*

(2) A licensee may only carry out a space support flight of a space support vehicle under a license for carrying a person or property for compensation or hire if such flight lands at the same site from which the vehicle took flight.

§ 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.

(2) In carrying out paragraph (1), the Secretary may establish procedures for safety approvals of launch vehicles, reentry vehicles, safety systems, processes, services, 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.

(b) REQUIREMENTS.—(1) Except as provided in this subsection, all requirements of the laws of the United States applicable to the launch of a launch vehicle or the operation of a launch site or a reentry site, or the reentry of a reentry vehicle, are requirements for a license or permit under this chapter.

(2) The Secretary may prescribe—

(A) any term necessary to ensure compliance with this chapter, including on-site verification that a launch, operation, or reentry complies with representations stated in the application;

(B) any additional requirement necessary to protect the public health and safety, safety of property, national security interests, and foreign policy interests of the United States;

(C) by regulation that a requirement of a law of the United States not be a requirement for a license or permit if the Secretary, after consulting with the head of the appropriate executive agency, decides that the requirement is not necessary to protect the public health and safety, safety of property, and national security and foreign policy interests of the United States;

(D) additional license requirements, for a launch vehicle carrying a human being for compensation or hire, necessary to protect the health and safety of crew, government astronauts, or space flight participants, only if such requirements are imposed pursuant to final regulations issued in accordance with subsection (c); and

(E) regulations establishing criteria for accepting or rejecting an application for a license or permit under this chapter within 60 days after receipt of such application.

(3) The Secretary may waive a requirement, including the requirement to obtain a license, for an individual applicant if the Secretary decides that the waiver is in the public interest and will not jeopardize the public health and safety, safety of property, and national security and foreign policy interests of the United States. The Secretary may not grant a waiver under this paragraph that would permit the launch or reentry of a launch vehicle or a reentry vehicle, or the operation of a space support vehicle, without a license or permit if a human being will be on board.

(4) The holder of a license or a permit under this chapter may launch or reenter crew only if—

(A) the crew has received training and has satisfied medical or other standards specified in the license or permit in accordance with regulations promulgated by the Secretary;

(B) the holder of the license or permit has informed any individual serving as crew in writing, prior to executing any contract or other arrangement to employ that individual (or, in the case of an individual already employed as of the date of enactment of the Commercial Space Launch Amendments Act of 2004, as early as possible, but in any event prior to any launch in which the individual will participate as crew), that the United States Government has not certified the launch vehicle as safe for carrying crew or space flight participants; and

(C) the holder of the license or permit and crew have complied with all requirements of the laws of the United States that apply to crew.

(5) The holder of a license or a permit under this chapter may launch or reenter a space flight participant only if—

(A) in accordance with regulations promulgated by the Secretary, the holder of the license or permit has informed the space flight participant in writing about the risks of the launch and reentry, including the safety record of the launch or reentry vehicle type, and the Secretary has informed the space flight participant in writing of any relevant information related to risk or probable loss during each phase of flight gathered by the Secretary in making the determination required by section 50914(a)(2) and (c);

(B) the holder of the license or permit has informed any space flight participant in writing, prior to receiving any compensation from that space flight participant or (in the case of a space flight participant not providing compensation) otherwise concluding any agreement to fly that space flight participant, that the United States Government has not certified the launch vehicle as safe for carrying crew or space flight participants;

(C) in accordance with regulations promulgated by the Secretary, the space flight participant has provided written informed consent to participate in the launch and reentry and written certification of compliance with any regulations promulgated under paragraph (6)(A); and

(D) the holder of the license or permit has complied with any regulations promulgated by the Secretary pursuant to paragraph (6).

(6)(A) The Secretary may issue regulations requiring space flight participants to undergo an appropriate physical examination prior to a launch or reentry under this chapter. This subparagraph shall cease to be in effect three years after the date of enactment of the Commercial Space Launch Amendments Act of 2004.

(B) The Secretary may issue additional regulations setting reasonable requirements for space flight participants, including medical and training requirements. Such regulations shall not be effective before the expiration of 3 years after the date of enactment of the Commercial Space Launch Amendments Act of 2004.

(c) SAFETY REGULATIONS.—

(1) IN GENERAL.—The Secretary may issue regulations governing the design or operation of a launch vehicle to protect the health and safety of crew, government astronauts, and space flight participants.

(2) REGULATIONS.—Regulations issued under this subsection shall—

(A) describe how such regulations would be applied when the Secretary is determining whether to issue a license under this chapter;

(B) apply only to launches in which a vehicle will be carrying a human being for compensation or hire;

(C) be limited to restricting or prohibiting design features or operating practices that—

(i) have resulted in a serious or fatal injury (as defined in 49 CFR 830, as in effect on November 10, 2004) to crew, government astronauts, or space flight participants during a licensed or permitted commercial human space flight; or

(ii) contributed to an unplanned event or series of events during a licensed or permitted commercial human space flight that posed a high risk of causing a serious or fatal injury (as defined in 49 CFR 830, as in effect on November 10, 2004) to crew, government astronauts, or space flight participants; and

(D) be issued with a description of the instance or instances when the design feature or operating practice being restricted or prohibited contributed to a result or event described in subparagraph (C).

(3) FACILITATION OF STANDARDS.—The Secretary shall continue to work with the commercial space sector, including the Commercial Space Transportation Advisory Committee, or its successor organization, to facilitate the development of voluntary industry consensus standards based on recommended best practices to improve the safety of crew, government astro-

nauts, and space flight participants as the commercial space sector continues to mature.

(4) COMMUNICATION AND TRANSPARENCY.—Nothing in this subsection shall be construed to limit the authority of the Secretary to discuss potential regulatory approaches, potential performance standards, or any other topic related to this subsection with the commercial space industry, including observations, findings, and recommendations from the Commercial Space Transportation Advisory Committee, or its successor organization, prior to the issuance of a notice of proposed rule-making. Such discussions shall not be construed to permit the Secretary to promulgate industry regulations except as otherwise provided in this section.

(5) INTERIM VOLUNTARY INDUSTRY CONSENSUS STANDARDS REPORTS.—

(A) IN GENERAL.—Not later than December 31, 2016, and every 30 months thereafter until December 31, 2021, the Secretary, in consultation and coordination with the commercial space sector, including the Commercial Space Transportation Advisory Committee, or its successor organization, 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 of the commercial space transportation industry in developing voluntary industry consensus standards that promote best practices to improve industry safety.

(B) CONTENTS.—The report shall include, at a minimum—

(i) any voluntary industry consensus standards that have been accepted by the industry at large;

(ii) the identification of areas that have the potential to become voluntary industry consensus standards that are currently under consideration by the industry at large;

(iii) an assessment from the Secretary on the general progress of the industry in adopting voluntary industry consensus standards;

(iv) any lessons learned about voluntary industry consensus standards, best practices, and commercial space launch operations;

(v) any lessons learned associated with the development, potential application, and acceptance of voluntary industry consensus standards, best practices, and commercial space launch operations; and

(vi) recommendations, findings, or observations from the Commercial Space Transportation Advisory Committee, or its successor organization, on the progress of the industry in developing voluntary industry consensus standards that promote best practices to improve industry safety.

(6) REPORT.—Not later than 270 days after the date of enactment of the SPACE Act of 2015, the Secretary, in consultation and coordination with the commercial space sector, including the Commercial Space Transportation Advisory Committee, or

its successor organization, 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 specifying key industry metrics that might indicate readiness of the commercial space sector and the Department of Transportation to transition to a safety framework that may include regulations under paragraph (9) that considers space flight participant, government astronaut, and crew safety.

(7) REPORTS.—Not later than March 31 of each of 2018 and 2022, the Secretary, in consultation and coordination with the commercial space sector, including the Commercial Space Transportation Advisory Committee, or its successor organization, 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 that identifies the activities, described in this subsection and subsection (d) most appropriate for a new safety framework that may include regulatory action, if any, and a proposed transition plan for such safety framework.

(8) INDEPENDENT REVIEW.—Not later than December 31, 2022, an independent systems engineering and technical assistance organization or standards development organization contracted by 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 an assessment of the readiness of the commercial space industry and the Federal Government to transition to a safety framework that may include regulations. As part of the review, the contracted organization shall evaluate—

(A) the progress of the commercial space industry in adopting voluntary industry consensus standards as reported by the Secretary in the interim assessments included in the reports under paragraph (5);

(B) the progress of the commercial space industry toward meeting the key industry metrics identified by the report under paragraph (6), including the knowledge and operational experience obtained by the commercial space industry while providing services for compensation or hire; and

(C) whether the areas identified in the reports under paragraph (5) are appropriate for regulatory action, or further development of voluntary industry consensus standards, considering the progress evaluated in subparagraphs (A) and (B) of this paragraph.

(9) LEARNING PERIOD.—Beginning on October 1, 2023, the Secretary may propose regulations under this subsection without regard to subparagraphs (C) and (D) of paragraph (2). The development of any such regulations shall take into consideration the evolving standards of the commercial space flight industry as identified in the reports published under paragraphs (5), (6), and (7).

(10) RULE OF CONSTRUCTION.—Nothing in this subsection shall be construed to limit the authority of the Secretary to issue requirements or regulations to protect the public health

and safety, safety of property, national security interests, and foreign policy interests of the United States.

(d) PROCEDURES AND TIMETABLES.—The Secretary shall establish procedures and timetables that expedite review of a license or permit application and reduce the regulatory burden for an applicant.

§ 50906. Experimental permits

(a) A person may apply to the Secretary of Transportation for an experimental permit under this section in the form and manner the Secretary prescribes. Consistent with the protection of the public health and safety, safety of property, and national security and foreign policy interests of the United States, the Secretary, not later than 120 days after receiving an application pursuant to this section, shall issue a permit 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 90 days after receiving an application. The Secretary shall transmit to the Committee on Science of the House of Representatives and Committee on Commerce, Science, and Transportation of the Senate a written notice not later than 15 days after any occurrence when the Secretary has failed to act on a permit within the deadline established by this section.

(b) In carrying out subsection (a), the Secretary may establish procedures for safety approvals of launch vehicles, reentry vehicles, safety systems, processes, services, or personnel that may be used in conducting commercial space launch or reentry activities pursuant to a permit.

(c) In order to encourage the development of a commercial space flight industry, the Secretary may when issuing permits use the authority granted under section 50905(b)(2)(C).

[(d) The Secretary may issue a permit only for reusable sub-orbital rockets or reusable launch vehicles that will be launched into a suborbital trajectory or reentered under that permit solely for—

[(1) research and development to test design concepts, equipment, or operating techniques;

[(2) showing compliance with requirements as part of the process for obtaining a license under this chapter; or

[(3) crew training for a launch or reentry using the design of the rocket or vehicle for which the permit would be issued.]]

(d) *The Secretary may issue a permit only for—*

(1) reusable suborbital rockets or reusable launch vehicles that will be launched into a suborbital trajectory or reentered under that permit solely for—

(A) research and development to test design concepts, equipment, or operating techniques;

(B) showing compliance with requirements as part of the process for obtaining a license for launch or reentry under this chapter; or

(C) crew training for a launch or reentry using the design of the rocket or vehicle for which the permit would be issued; or

(2) a space support vehicle, or a vehicle that is in development to become a space support vehicle, operated by a citizen of the United States for space support flights that will be conducted under the permit for, or in support of, the purposes described in subparagraphs (A) through (C) of paragraph (1).

(e) Permits issued under this section shall—

(1) authorize an unlimited number of launches and reentries for a particular suborbital rocket or suborbital rocket design, or for a particular reusable launch vehicle or reusable launch vehicle design, for the uses described in subsection (d); and

(2) specify the type of modifications that may be made to the suborbital rocket or launch vehicle without changing the design to an extent that would invalidate the permit.

(f) Permits shall not be transferable.

(g) The Secretary may issue a permit under this section notwithstanding any license issued under this chapter. The issuance of a license under this chapter may not invalidate a permit issued under this section.

[(h) No person may operate a reusable suborbital rocket or reusable launch vehicle under a permit for carrying any property or human being for compensation or hire.]

(h) No person may, under a permit, operate a reusable suborbital rocket, reusable launch vehicle, or space support vehicle for carrying any property or human being for compensation or hire.

(i) For the purposes of sections 50907, 50908, 50909, 50910, 50912, 50914, 50917, 50918, 50919, and 50923 of this chapter—

(1) a permit shall be considered a license;

(2) the holder of a permit shall be considered a licensee;

(3) a vehicle operating under a permit shall be considered to be licensed; and

(4) the issuance of a permit shall be considered licensing.

This subsection shall not be construed to allow the transfer of a permit.

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