

AMENDMENT NO. _____ Calendar No. _____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—114th Cong., 1st Sess.

H. R. 2262

To facilitate a pro-growth environment for the developing commercial space industry by encouraging private sector investment and creating more stable and predictable regulatory conditions, and for other purposes.

Referred to the Committee on _____ and
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended
to be proposed by Mr. CRUZ (for himself, Mr. NELSON,
Mr. RUBIO, Mr. PETERS, Mr. GARDNER, and Mrs. MUR-
RAY)

Viz:

1 Strike all after the enacting clause and insert the fol-
2 lowing:

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS; REF-**
4 **ERENCES.**

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

7 (b) **TABLE OF CONTENTS.**—The table of contents of
8 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.

TITLE II—COMMERCIAL REMOTE SENSING

- Sec. 201. Annual reports.
- Sec. 202. Statutory update report.

TITLE III—OFFICE OF SPACE COMMERCE

- Sec. 301. Renaming of office of space commercialization.
- Sec. 302. Functions of the office of space commerce.

TITLE IV—SPACE RESOURCE EXPLORATION AND UTILIZATION

- Sec. 401. Short title.
- Sec. 402. Title 51 amendment.
- Sec. 403. Disclaimer of extraterritorial sovereignty.

1 (c) REFERENCES TO TITLE 51, UNITED STATES
2 CODE.—Except as otherwise expressly provided, wherever
3 in this Act an amendment or repeal is expressed in terms
4 of an amendment to, or repeal of, a section or other provi-
5 sion, the reference shall be considered to be made to a
6 section or other provision of title 51, United States Code.

1 **TITLE I—SPURRING PRIVATE**
2 **AEROSPACE COMPETITIVE-**
3 **NESS AND ENTREPRENEUR-**
4 **SHIP**

5 **SEC. 101. SHORT TITLE.**

6 This title may be cited as the “Spurring Private
7 Aerospace Competitiveness and Entrepreneurship Act of
8 2015” or “SPACE Act of 2015”.

9 **SEC. 102. INTERNATIONAL LAUNCH COMPETITIVENESS.**

10 (a) SENSE OF CONGRESS.—It is the sense of Con-
11 gress that it is in the public interest to update the method-
12 ology used to calculate the maximum probable loss from
13 claims under section 50914 of title 51, United States
14 Code, with a validated risk profile approach in order to
15 consistently compute valid and reasonable maximum prob-
16 able loss values.

17 (b) IMPLEMENTATION.—Not later than 180 days
18 after the date of enactment of this Act, the Secretary of
19 Transportation, in consultation with the commercial space
20 sector and insurance providers, shall—

21 (1) evaluate the methodology used to calculate
22 the maximum probable loss from claims under sec-
23 tion 50914 of title 51, United States Code, and, if
24 necessary, develop a plan to update that method-
25 ology;

1 (2) in evaluating or developing a plan under
2 paragraph (1)—

3 (A) ensure that the Federal Government is
4 not exposed to greater costs than intended and
5 that launch companies are not required to pur-
6 chase more insurance coverage than necessary;
7 and

8 (B) consider the impact of the cost to both
9 the industry and the Government of imple-
10 menting an updated methodology; and

11 (3) submit the evaluation, and any plan, to the
12 Committee on Commerce, Science, and Transpor-
13 tation of the Senate and the Committee on Science,
14 Space, and Technology of the House of Representa-
15 tives.

16 (c) INDEPENDENT ASSESSMENT.—Not later than
17 270 days after the date the evaluation is submitted under
18 subsection (b)(3), the Comptroller General shall submit to
19 the Committee on Commerce, Science, and Transportation
20 of the Senate and the Committee on Science, Space, and
21 Technology of the House of Representatives an assess-
22 ment of—

23 (1) the analysis and conclusions provided by the
24 Secretary of Transportation in the evaluation, and
25 any plan, under subsection (b);

1 (A) in the matter preceding paragraph (1),
2 by striking “that will be launched or reentered”
3 and inserting “or reusable launch vehicles that
4 will be launched into a suborbital trajectory or
5 reentered under that permit”;

6 (B) by amending paragraph (1) to read as
7 follows:

8 “(1) research and development to test design
9 concepts, equipment, or operating techniques;”; and

10 (C) in paragraph (3)—

11 (i) by striking “prior to obtaining a li-
12 cense”; and

13 (ii) by inserting “or vehicle” after
14 “design of the rocket”;

15 (2) in subsection (e)—

16 (A) in paragraph (1), by striking “sub-
17 orbital rocket design” and inserting “suborbital
18 rocket or suborbital rocket design, or for a par-
19 ticular reusable launch vehicle or reusable
20 launch vehicle design,”; and

21 (B) in paragraph (2), by inserting “or
22 launch vehicle” after “the suborbital rocket”;

23 (3) by amending subsection (g) to read as fol-
24 lows:

1 “(g) The Secretary may issue a permit under this sec-
2 tion notwithstanding any license issued under this chapter.
3 The issuance of a license under this chapter may not inval-
4 idate a permit issued under this section.”; and

5 (4) in subsection (h), by inserting “or reusable
6 launch vehicle” after “suborbital rocket”.

7 **SEC. 105. LICENSING REPORT.**

8 Not later than 120 days after the date of enactment
9 of this Act, the Secretary of Transportation shall submit
10 to the Committee on Commerce, Science, and Transpor-
11 tation of the Senate and the Committee on Science, Space,
12 and Technology of the House of Representatives a report
13 on approaches for streamlining the licensing and permit-
14 ting process of launch vehicles, reentry vehicles, or compo-
15 nents of launch or reentry vehicles, to enable non-launch
16 flight operations related to space transportation. The re-
17 port shall include approaches to improve efficiency, reduce
18 unnecessary costs, resolve inconsistencies, remove duplica-
19 tion, and minimize unwarranted constraints. The report
20 shall also include an assessment of existing private and
21 government infrastructure, as appropriate, in future li-
22 censing activities.

23 **SEC. 106. FEDERAL JURISDICTION.**

24 Section 50914 is amended by adding at the end the
25 following:

1 “(g) FEDERAL JURISDICTION.—Any claim by a third
2 party or space flight participant for death, bodily injury,
3 or property damage or loss resulting from an activity car-
4 ried out under the license shall be the exclusive jurisdic-
5 tion of the Federal courts.”.

6 **SEC. 107. CROSS WAIVERS.**

7 Section 50914(b)(1) is amended to read as follows:

8 “(1) A launch or reentry license issued or
9 transferred under this chapter shall contain a provi-
10 sion requiring the licensee or transferee to make a
11 reciprocal waiver of claims with its contractors, sub-
12 contractors, and customers, the contractors and sub-
13 contractors of the customers, and any space flight
14 participants, involved in launch services or reentry
15 services under which each party to the waiver agrees
16 to be responsible for property damage or loss it or
17 they sustain, or for personal injury to, death of, or
18 property damage or loss sustained by its own em-
19 ployees resulting from an activity carried out under
20 the applicable license.”.

21 **SEC. 108. SPACE AUTHORITY.**

22 (a) IN GENERAL.—Not later than 120 days after the
23 date of enactment of this Act, the Director of the Office
24 of Science and Technology Policy, in consultation with the
25 Secretary of State, the Secretary of Transportation, the

1 Administrator of the National Aeronautics and Space Ad-
2 ministration, the heads of other relevant Federal agencies,
3 and the commercial space sector, shall—

4 (1) assess current, and proposed near-term,
5 commercial non-governmental activities conducted in
6 space;

7 (2) identify appropriate authorization and su-
8 pervision authorities for the activities described in
9 paragraph (1);

10 (3) recommend an authorization and super-
11 vision approach that would prioritize safety, utilize
12 existing authorities, minimize burdens to the indus-
13 try, promote the U.S. commercial space sector, and
14 meet the United States obligations under inter-
15 national treaties; and

16 (4) submit to the Committee on Commerce,
17 Science, and Transportation of the Senate and the
18 Committee on Science, Space, and Technology of the
19 House of Representatives a report on the activities
20 described in paragraphs (1), (2), and (3).

21 (b) EXCEPTION.—Nothing in this section shall apply
22 to the activities of the ISS national laboratory as described
23 in section 504 of the National Aeronautics and Space Ad-
24 ministration Authorization Act of 2010 (42 U.S.C.

1 18354), including any research or development projects
2 utilizing the ISS national laboratory.

3 **SEC. 109. ORBITAL TRAFFIC MANAGEMENT.**

4 (a) SENSE OF CONGRESS.—It is the sense of the Con-
5 gress that an improved framework may be necessary for
6 space traffic management of United States Government
7 assets and United States private sector assets in outer
8 space and orbital debris mitigation.

9 (b) STUDY.—Not later than 90 days after the date
10 of enactment of this Act, the Administrator of the Na-
11 tional Aeronautics and Space Administration, in consulta-
12 tion with the Secretary of Transportation, the Chair of
13 the Federal Communications Commission, the Secretary
14 of Commerce, and the Secretary of Defense, shall enter
15 into an arrangement with an independent systems engi-
16 neering and technical assistance organization to study al-
17 ternate frameworks for the management of space traffic
18 and orbital activities.

19 (c) CONTENTS.—The study shall include the fol-
20 lowing:

21 (1) An assessment of current regulations, best
22 practices, and industry standards that apply to
23 space traffic management and orbital debris mitiga-
24 tion.

1 (2) An assessment of current statutory authori-
2 ties granted to the Federal Communications Com-
3 mission, the Department of Transportation, and the
4 Department of Commerce that apply to space traffic
5 management and orbital debris mitigation and how
6 those agencies utilize and coordinate those authori-
7 ties.

8 (3) A review of all space traffic management
9 and orbital debris requirements under treaties and
10 other international agreements to which the United
11 States is a signatory, and other nonbinding inter-
12 national arrangements in which the United States
13 participates, and the manner and extent to which
14 the Federal Government complies with those require-
15 ments and arrangements.

16 (4) An assessment of existing Federal Govern-
17 ment assets used to conduct space traffic manage-
18 ment and space situational awareness.

19 (5) An assessment of the risk to space traffic
20 management associated with smallsats and any nec-
21 essary Government coordination for their launch and
22 utilization to avoid congestion of the orbital environ-
23 ment and improve space situational awareness.

1 (6) An assessment of existing private sector in-
2 formation sharing activities associated with space
3 situational awareness and space traffic management.

4 (7) Recommendations related to the appropriate
5 framework for the protection of the health, safety,
6 and welfare of the public and economic vitality of
7 the space industry.

8 (d) REPORT.—Not later than 1 year after the date
9 of enactment of this Act, the Administrator shall submit
10 to the Committee on Commerce, Science, and Transpor-
11 tation of the Senate and the Committee on Science, Space,
12 and Technology of the House of Representatives the study
13 required in subsection (b).

14 (e) DEPARTMENT OF DEFENSE AUTHORITIES.—

15 (1) SENSE OF CONGRESS.—It is the sense of
16 Congress that the Department of Defense plays a
17 vital and unique role in protecting national security
18 assets in space.

19 (2) RULE OF CONSTRUCTION.—Nothing in this
20 section may be construed to affect the authority of
21 the Secretary of Defense as it relates to safe-
22 guarding the national security.

1 **SEC. 110. SPACE SURVEILLANCE AND SITUATIONAL AWARE-**
2 **NESS DATA.**

3 Not later than 120 days after the date of enactment
4 of this Act, the Secretary of Transportation in concur-
5 rence with the Secretary of Defense shall—

6 (1) in consultation with the heads of other rel-
7 evant Federal agencies, study the feasibility of proc-
8 essing and releasing safety-related space situational
9 awareness data and information to any entity con-
10 sistent with national security interests and public
11 safety obligations of the United States; and

12 (2) submit a report on the feasibility study to
13 the Committee on Commerce, Science, and Trans-
14 portation of the Senate and the Committee on
15 Science, Space, and Technology of the House of
16 Representatives.

17 **SEC. 111. CONSENSUS STANDARDS AND EXTENSION OF**
18 **CERTAIN SAFETY REGULATION REQUIRE-**
19 **MENTS.**

20 Section 50905(c) is amended—

21 (1) in paragraph (1), by inserting “IN GEN-
22 ERAL.—” before “The Secretary”;

23 (2) in paragraph (2), by inserting “REGULA-
24 TIONS.—” before “Regulations”;

25 (3) by striking paragraph (3);

1 (4) by redesignating paragraph (4) as para-
2 graph (10);

3 (5) by inserting after paragraph (2) the fol-
4 lowing:

5 “(3) FACILITATION OF STANDARDS.—The Sec-
6 retary shall continue to work with the commercial
7 space sector, including the Commercial Space Trans-
8 portation Advisory Committee, or its successor orga-
9 nization, to facilitate the development of voluntary
10 industry consensus standards based on rec-
11 ommended best practices to improve the safety of
12 crew, government astronauts, and space flight par-
13 ticipants as the commercial space sector continues to
14 mature.

15 “(4) COMMUNICATION AND TRANSPARENCY.—
16 Nothing in this subsection shall be construed to limit
17 the authority of the Secretary to discuss potential
18 regulatory approaches, potential performance stand-
19 ards, or any other topic related to this subsection
20 with the commercial space industry, including obser-
21 vations, findings, and recommendations from the
22 Commercial Space Transportation Advisory Com-
23 mittee, or its successor organization, prior to the
24 issuance of a notice of proposed rulemaking. Such
25 discussions shall not be construed to permit the Sec-

1 retary to promulgate industry regulations except as
2 otherwise provided in this section.

3 “(5) INTERIM VOLUNTARY INDUSTRY CON-
4 SENSUS STANDARDS REPORTS.—

5 “(A) IN GENERAL.—Not later than De-
6 cember 31, 2016, and every 30 months there-
7 after until December 31, 2021, the Secretary,
8 in consultation and coordination with the com-
9 mercial space sector, including the Commercial
10 Space Transportation Advisory Committee, or
11 its successor organization, shall submit to the
12 Committee on Commerce, Science, and Trans-
13 portation of the Senate and the Committee on
14 Science, Space, and Technology of the House of
15 Representatives a report on the progress of the
16 commercial space transportation industry in de-
17 veloping voluntary industry consensus stand-
18 ards that promote best practices to improve in-
19 dustry safety.

20 “(B) CONTENTS.—The report shall in-
21 clude, at a minimum—

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

1 “(ii) the identification of areas that
2 have the potential to become voluntary in-
3 dustry consensus standards that are cur-
4 rently under consideration by the industry
5 at large;

6 “(iii) an assessment from the Sec-
7 retary on the general progress of the in-
8 dustry in adopting voluntary industry con-
9 sensus standards;

10 “(iv) any lessons learned about vol-
11 untary industry consensus standards, best
12 practices, and commercial space launch op-
13 erations;

14 “(v) any lessons learned associated
15 with the development, potential applica-
16 tion, and acceptance of voluntary industry
17 consensus standards, best practices, and
18 commercial space launch operations; and

19 “(vi) recommendations, findings, or
20 observations from the Commercial Space
21 Transportation Advisory Committee, or its
22 successor organization, on the progress of
23 the industry in developing voluntary indus-
24 try consensus standards that promote best
25 practices to improve industry safety.

1 “(6) REPORT.—Not later than 270 days after
2 the date of enactment of the SPACE Act of 2015,
3 the Secretary, in consultation and coordination with
4 the commercial space sector, including the Commer-
5 cial Space Transportation Advisory Committee, or
6 its successor organization, shall submit to the Com-
7 mittee on Commerce, Science, and Transportation of
8 the Senate and the Committee on Science, Space,
9 and Technology of the House of Representatives a
10 report specifying key industry metrics that might in-
11 dicate readiness of the commercial space sector and
12 the Department of Transportation to transition to a
13 safety framework that may include regulations under
14 paragraph (9) that considers space flight partici-
15 pant, government astronaut, and crew safety.

16 “(7) REPORTS.—Not later than March 31 of
17 each of 2018 and 2022, the Secretary, in consulta-
18 tion and coordination with the commercial space sec-
19 tor, including the Commercial Space Transportation
20 Advisory Committee, or its successor organization,
21 shall submit to the Committee on Commerce,
22 Science, and Transportation of the Senate and the
23 Committee on Science, Space, and Technology of the
24 House of Representatives a report that identifies the
25 activities, described in this subsection and subsection

1 (d) most appropriate for a new safety framework
2 that may include regulatory action, if any, and a
3 proposed transition plan for such safety framework.

4 “(8) INDEPENDENT REVIEW.—Not later than
5 December 31, 2022, an independent systems engi-
6 neering and technical assistance organization or
7 standards development organization contracted by
8 the Secretary shall submit to the Committee on
9 Commerce, Science, and Transportation of the Sen-
10 ate and the Committee on Science, Space, and Tech-
11 nology of the House of Representatives an assess-
12 ment of the readiness of the commercial space indus-
13 try and the Federal Government to transition to a
14 safety framework that may include regulations. As
15 part of the review, the contracted organization shall
16 evaluate—

17 “(A) the progress of the commercial space
18 industry in adopting voluntary industry con-
19 sensus standards as reported by the Secretary
20 in the interim assessments included in the re-
21 ports under paragraph (5);

22 “(B) the progress of the commercial space
23 industry toward meeting the key industry
24 metrics identified by the report under para-
25 graph (6), including the knowledge and oper-

1 ational experience obtained by the commercial
2 space industry while providing services for com-
3 pensation or hire; and

4 “(C) whether the areas identified in the re-
5 ports under paragraph (5) are appropriate for
6 regulatory action, or further development of vol-
7 untary industry consensus standards, consid-
8 ering the progress evaluated in subparagraphs
9 (A) and (B) of this paragraph.

10 “(9) LEARNING PERIOD.—Beginning on Octo-
11 ber 1, 2023, the Secretary may propose regulations
12 under this subsection without regard to subpara-
13 graphs (C) and (D) of paragraph (2). The develop-
14 ment of any such regulations shall take into consid-
15 eration the evolving standards of the commercial
16 space flight industry as identified in the reports pub-
17 lished under paragraphs (5), (6), and (7).”; and

18 (6) in paragraph (10), as redesignated, by in-
19 serting “RULE OF CONSTRUCTION.—” before “Noth-
20 ing”.

21 **SEC. 112. GOVERNMENT ASTRONAUTS.**

22 (a) FINDINGS AND PURPOSE.—Section 50901(15) is
23 amended by inserting “, government astronauts,” after
24 “crew” each place it appears.

1 (b) SENSE OF CONGRESS.—The National Aero-
2 nautics and Space Administration has a need to fly gov-
3 ernment astronauts (as defined in section 50902 of title
4 51, United States Code, as amended) within commercial
5 launch vehicles and reentry vehicles under chapter 509 of
6 that title. This need was identified by the Secretary of
7 Transportation and the Administrator of the National
8 Aeronautics and Space Administration due to the intended
9 use of commercial launch vehicles and reentry vehicles de-
10 veloped under the Commercial Crew Development Pro-
11 gram, authorized in section 402 of the National Aero-
12 nautics and Space Administration Authorization Act of
13 2010 (124 Stat. 2820; Public Law 111–267). It is the
14 sense of Congress that the authority delegated to the Ad-
15 ministration by the amendment made by subsection (d)
16 of this section should be used for that purpose.

17 (c) DEFINITION OF GOVERNMENT ASTRONAUT.—
18 Section 50902 is amended—

19 (1) by redesignating paragraphs (4) through
20 (22) as paragraphs (7) through (25), respectively;
21 and

22 (2) by inserting after paragraph (3) the fol-
23 lowing:

24 “(4) ‘government astronaut’ means an indi-
25 vidual who—

1 “(A) is designated by the National Aero-
2 nautics and Space Administration under section
3 20113(n);

4 “(B) is carried within a launch vehicle or
5 reentry vehicle in the course of his or her em-
6 ployment, which may include performance of ac-
7 tivities directly relating to the launch, reentry,
8 or other operation of the launch vehicle or re-
9 entry vehicle; and

10 “(C) is either—

11 “(i) an employee of the United States
12 Government, including the uniformed serv-
13 ices, engaged in the performance of a Fed-
14 eral function under authority of law or an
15 Executive act; or

16 “(ii) an international partner astro-
17 naut.

18 “(5) ‘international partner astronaut’ means an
19 individual designated under Article 11 of the Inter-
20 national Space Station Intergovernmental Agree-
21 ment, by a partner to that agreement other than the
22 United States, as qualified to serve as an Inter-
23 national Space Station crew member.

24 “(6) ‘International Space Station Intergovern-
25 mental Agreement’ means the Agreement Con-

1 cerning Cooperation on the International Space Sta-
2 tion, signed at Washington January 29, 1998 (TIAS
3 12927).”.

4 (d) POWERS OF THE NATIONAL AERONAUTICS AND
5 SPACE ADMINISTRATION IN PERFORMANCE OF FUNC-
6 TIONS.—Section 20113 is amended by adding at the end
7 the following:

8 “(n) IDENTIFICATION OF GOVERNMENT ASTRO-
9 NAUTS.—For purposes of a license issued or transferred
10 by the Secretary of Transportation under chapter 509 to
11 launch a launch vehicle or to reenter a reentry vehicle car-
12 rying a government astronaut (as defined in section
13 50902), the Administration shall designate a government
14 astronaut in accordance with requirements prescribed by
15 the Administration.”.

16 (e) DEFINITION OF LAUNCH.—Paragraph (7) of sec-
17 tion 50902, as redesignated, is amended by striking “and
18 any payload, crew, or space flight participant” and insert-
19 ing “and any payload or human being”.

20 (f) DEFINITION OF LAUNCH SERVICES.—Paragraph
21 (9) of section 50902, as redesignated, is amended by strik-
22 ing “payload, crew (including crew training), or space
23 flight participant” and inserting “payload, crew (including
24 crew training), government astronaut, or space flight par-
25 ticipant”.

1 (g) DEFINITION OF REENTER AND REENTRY.—
2 Paragraph (16) of section 50902, as redesignated, is
3 amended by striking “and its payload, crew, or space
4 flight participants, if any,” and inserting “and its payload
5 or human beings, if any.”.

6 (h) DEFINITION OF REENTRY SERVICES.—Para-
7 graph (17) of section 50902, as redesignated, is amended
8 by striking “payload, crew (including crew training), or
9 space flight participant, if any,” and inserting “payload,
10 crew (including crew training), government astronaut, or
11 space flight participant, if any.”.

12 (i) DEFINITION OF SPACE FLIGHT PARTICIPANT.—
13 Paragraph (20) of section 50902, as redesignated, is
14 amended to read as follows:

15 “(20) ‘space flight participant’ means an indi-
16 vidual, who is not crew or a government astronaut,
17 carried within a launch vehicle or reentry vehicle.”.

18 (j) DEFINITION OF THIRD PARTY.—Paragraph
19 (24)(E) of section 50902, as redesignated, is amended by
20 inserting “, government astronauts,” after “crew”.

21 (k) RESTRICTIONS ON LAUNCHES, OPERATIONS, AND
22 REENTRIES; SINGLE LICENSE OR PERMIT.—Section
23 50904(d) is amended by striking “activities involving crew
24 or space flight participants” and inserting “activities in-

1 volving crew, government astronauts, or space flight par-
2 ticipants”.

3 (l) LICENSE APPLICATIONS AND REQUIREMENTS;
4 APPLICATIONS.—Section 50905 is amended—

5 (1) in subsection (a)(2), by striking “crews and
6 space flight participants” and inserting “crew, gov-
7 ernment astronauts, and space flight participants”;

8 (2) in subsection (b)(2)(D), by striking “crew
9 or space flight participants” and inserting “crew,
10 government astronauts, or space flight participants”;
11 and

12 (3) in subsection (c)—

13 (A) in paragraph (1), by striking “crew
14 and space flight participants” and inserting
15 “crew, government astronauts, and space flight
16 participants”; and

17 (B) in paragraph (2), by striking “to crew
18 or space flight participants” each place it ap-
19 pears and inserting “to crew, government astro-
20 nauts, or space flight participants”.

21 (m) MONITORING ACTIVITIES.—Section 50907(a) is
22 amended by striking “at a site used for crew or space
23 flight participant training” and inserting “at a site not
24 owned or operated by the Federal Government or a foreign

1 government used for crew, government astronaut, or space
2 flight participant training”.

3 (n) ADDITIONAL SUSPENSIONS.—Section
4 50908(d)(1) is amended by striking “to crew or space
5 flight participants” each place it appears and inserting “to
6 any human being”.

7 (o) RELATIONSHIP TO OTHER EXECUTIVE AGEN-
8 CIES, LAWS, AND INTERNATIONAL OBLIGATIONS; NON-
9 APPLICATION.—Section 50919(g) is amended to read as
10 follows:

11 “(g) NONAPPLICATION.—

12 “(1) IN GENERAL.—This chapter does not
13 apply to—

14 “(A) a launch, reentry, operation of a
15 launch vehicle or reentry vehicle, operation of a
16 launch site or reentry site, or other space activ-
17 ity the Government carries out for the Govern-
18 ment; or

19 “(B) planning or policies related to the
20 launch, reentry, operation, or activity under
21 subparagraph (A).

22 “(2) RULE OF CONSTRUCTION.—The following
23 activities are not space activities the Government
24 carries out for the Government under paragraph (1):

1 “(A) A government astronaut being carried
2 within a launch vehicle or reentry vehicle under
3 this chapter.

4 “(B) A government astronaut performing
5 activities directly relating to the launch, re-
6 entry, or other operation of the launch vehicle
7 or reentry vehicle under this chapter.”.

8 **SEC. 113. STREAMLINE COMMERCIAL SPACE LAUNCH AC-**
9 **TIVITIES.**

10 (a) SENSE OF CONGRESS.—It is the sense of Con-
11 gress that eliminating duplicative requirements and ap-
12 provals for commercial launch and reentry operations will
13 promote and encourage the development of the commercial
14 space sector.

15 (b) REAFFIRMATION OF POLICY.—Congress reaff-
16 irms that the Secretary of Transportation, in overseeing
17 and coordinating commercial launch and reentry oper-
18 ations, should—

19 (1) promote commercial space launches and re-
20 entries by the private sector;

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

1 (3) protect public health and safety, safety of
2 property, national security interests, and foreign pol-
3 icy interests of the United States; and

4 (4) consult with the head of another executive
5 agency, including the Secretary of Defense or the
6 Administrator of the National Aeronautics and
7 Space Administration, as necessary to provide con-
8 sistent application of licensing requirements under
9 chapter 509 of title 51, United States Code.

10 (c) REQUIREMENTS.—

11 (1) IN GENERAL.—The Secretary of Transpor-
12 tation under section 50918 of title 51, United States
13 Code, and subject to section 50905(b)(2)(C) of that
14 title, shall consult with the Secretary of Defense, the
15 Administrator of the National Aeronautics and
16 Space Administration, and the heads of other execu-
17 tive agencies, as appropriate—

18 (A) to identify all requirements that are
19 imposed to protect the public health and safety,
20 safety of property, national security interests,
21 and foreign policy interests of the United States
22 relevant to any commercial launch of a launch
23 vehicle or commercial reentry of a reentry vehi-
24 cle; and

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

5 (i) determine whether the satisfaction
6 of a requirement of one agency could result
7 in the satisfaction of a requirement of an-
8 other agency; and

9 (ii) resolve any inconsistencies and re-
10 move any outmoded or duplicative require-
11 ments or approvals of the Federal Govern-
12 ment relevant to any commercial launch of
13 a launch vehicle or commercial reentry of
14 a reentry vehicle.

15 (2) REPORTS.—Not later than 180 days after
16 the date of enactment of this Act, and annually
17 thereafter until the Secretary of Transportation de-
18 termines no outmoded or duplicative requirements or
19 approvals of the Federal Government exist, the Sec-
20 retary of Transportation, in consultation with the
21 Secretary of Defense, the Administrator of the Na-
22 tional Aeronautics and Space Administration, the
23 commercial space sector, and the heads of other ex-
24 ecutive agencies, as appropriate, shall submit to the
25 Committee on Commerce, Science, and Transpor-

1 tation of the Senate, the Committee on Science,
2 Space, and Technology of the House of Representa-
3 tives, and the congressional defense committees a re-
4 port that includes the following:

5 (A) A description of the process for the ap-
6 plication for and approval of a permit or license
7 under chapter 509 of title 51, United States
8 Code, for the commercial launch of a launch ve-
9 hicle or commercial reentry of a reentry vehicle,
10 including the identification of—

11 (i) any unique requirements for oper-
12 ating on a United States Government
13 launch site, reentry site, or launch prop-
14 erty; and

15 (ii) any inconsistent, outmoded, or du-
16 plicative requirements or approvals.

17 (B) A description of current efforts, if any,
18 to coordinate and work across executive agen-
19 cies to define interagency processes and proce-
20 dures for sharing information, avoiding duplica-
21 tion of effort, and resolving common agency re-
22 quirements.

23 (C) Recommendations for legislation that
24 may further—

1 (i) streamline requirements in order
2 to improve efficiency, reduce unnecessary
3 costs, resolve inconsistencies, remove dupli-
4 cation, and minimize unwarranted con-
5 straints; and

6 (ii) consolidate or modify require-
7 ments across affected agencies into a sin-
8 gle application set that satisfies the re-
9 quirements identified in paragraph (1)(A).

10 (3) DEFINITIONS.—For purposes of this sub-
11 section—

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

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

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

23 **SEC. 114. OPERATION AND UTILIZATION OF THE ISS.**

24 (a) SENSE OF CONGRESS.—It is the sense of Con-
25 gress that—

1 (1) maximum utilization of partnerships, sci-
2 entific research, commercial applications, and explo-
3 ration test bed capabilities of the ISS is essential to
4 ensuring the greatest return on investments made by
5 the United States and its international partners in
6 the development, assembly, and operations of that
7 unique facility; and

8 (2) every effort should be made to ensure that
9 decisions regarding the service life of the ISS are
10 based on the station’s projected capability to con-
11 tinue providing effective and productive research and
12 exploration test bed capabilities.

13 (b) CONTINUATION OF THE INTERNATIONAL SPACE
14 STATION.—

15 (1) IN GENERAL.—Section 501 of the National
16 Aeronautics and Space Administration Authorization
17 Act of 2010 (42 U.S.C. 18351) is amended—

18 (A) in the heading, by striking
19 “**THROUGH 2020**”; and

20 (B) in subsection (a), by striking “through
21 at least 2020” and inserting “through at least
22 2024”.

23 (2) MAINTENANCE OF THE UNITED STATES
24 SEGMENT AND ASSURANCE OF CONTINUED OPER-
25 ATIONS OF THE INTERNATIONAL SPACE STATION.—

1 Section 503 of the National Aeronautics and Space
2 Administration Authorization Act of 2010 (42
3 U.S.C. 18353) is amended—

4 (A) in subsection (a), by striking “through
5 at least September 30, 2020” and inserting
6 “through at least September 30, 2024”; and

7 (B) in subsection (b)(1), by striking “In
8 carrying out subsection (a), the Administrator”
9 and inserting “The Administrator”.

10 (3) RESEARCH CAPACITY ALLOCATION AND IN-
11 TEGRATION OF RESEARCH PAYLOADS.—Section
12 504(d) of the National Aeronautics and Space Ad-
13 ministration Authorization Act of 2010 (42 U.S.C.
14 18354(d)) is amended by striking “September 30,
15 2020” each place it appears and inserting “at least
16 September 30, 2024”.

17 (4) MAINTAINING USE THROUGH AT LEAST
18 2024.—Section 70907 is amended to read as follows:

19 **“§ 70907. Maintaining use through at least 2024**

20 “(a) POLICY.—The Administrator shall take all nec-
21 essary steps to ensure that the International Space Sta-
22 tion remains a viable and productive facility capable of po-
23 tential United States utilization through at least Sep-
24 tember 30, 2024.

1 “(b) NASA ACTIONS.—In furtherance of the policy
2 under subsection (a), the Administrator shall ensure, to
3 the extent practicable, that the International Space Sta-
4 tion, as a designated national laboratory—

5 “(1) remains viable as an element of overall ex-
6 ploration and partnership strategies and approaches;

7 “(2) is considered for use by all NASA mission
8 directorates, as appropriate, for technically appro-
9 priate scientific data gathering or technology risk re-
10 duction demonstrations; and

11 “(3) remains an effective, functional vehicle
12 providing research and test bed capabilities for the
13 United States through at least September 30,
14 2024.”.

15 (5) TECHNICAL AND CONFORMING AMEND-
16 MENTS.—

17 (A) TABLE OF CONTENTS OF 2010 ACT.—

18 The item relating to section 501 in the table of
19 contents in section 1(b) of the National Aero-
20 nautics and Space Administration Authorization
21 Act of 2010 (124 Stat. 2806) is amended by
22 striking “through 2020”.

23 (B) TABLE OF CONTENTS OF CHAPTER
24 709.—The table of contents for chapter 709 is

1 amended by amending the item relating to sec-
2 tion 70907 to read as follows:

“70907. Maintaining use through at least 2024.”.

3 **SEC. 115. STATE COMMERCIAL LAUNCH FACILITIES.**

4 (a) SENSE OF CONGRESS.—It is the sense of Con-
5 gress that—

6 (1) State involvement, development, ownership,
7 and operation of launch facilities can enable growth
8 of the Nation’s commercial suborbital and orbital
9 space endeavors and support both commercial and
10 Government space programs;

11 (2) State launch facilities and the people and
12 property in the affected launch areas of those facili-
13 ties may be subject to risks resulting from an activ-
14 ity carried out under a license under chapter 509 of
15 title 51, United States Code; and

16 (3) to ensure the success of the commercial
17 launch industry and the safety of the people and
18 property in the affected launch areas of those facili-
19 ties, States and State launch facilities should seek to
20 take proper measures to protect themselves, to the
21 extent of their potential liability for involvement in
22 launch services or reentry services, and compensate
23 third parties for possible death, bodily injury, or
24 property damage or loss resulting from an activity
25 carried out under a license under chapter 509 of

1 title 51, United States Code, to which the State or
2 State launch facility is involved in the launch serv-
3 ices or reentry services.

4 (b) REPORT.—Not later than 1 year after the date
5 of enactment of this Act, the Comptroller General shall
6 submit to the Committee on Commerce, Science, and
7 Transportation of the Senate and the Committee on
8 Science, Space, and Technology of the House of Rep-
9 resentatives a report on the potential inclusion of all gov-
10 ernment property, including State and municipal property,
11 in the existing indemnification regime established under
12 section 50914 of title 51, United States Code.

13 **SEC. 116. SPACE SUPPORT VEHICLES STUDY.**

14 (a) IN GENERAL.—Not later than 1 year after the
15 date of enactment of this Act, the Comptroller General
16 shall submit to the Committee on Commerce, Science, and
17 Transportation of the Senate and the Committee on
18 Science, Space, and Technology of the House of Rep-
19 resentatives a report on the use of space support vehicle
20 services in the commercial space industry.

21 (b) CONTENTS.—This report shall include—

22 (1) the extent to which launch providers rely on
23 such services as part of their business models;

24 (2) the statutory, regulatory, and market bar-
25 riers to the use of such services; and

1 (3) recommendations for legislative or regu-
2 latory action that may be needed to ensure reduced
3 barriers to the use of such services if such use is a
4 requirement of the industry.

5 **SEC. 117. SPACE LAUNCH SYSTEM UPDATE.**

6 (a) IN GENERAL.—Chapter 701 is amended—

7 (1) in the heading by striking “**SPACE**
8 **SHUTTLE**” and inserting “**SPACE LAUNCH**
9 **SYSTEM**”;

10 (2) in section 70101—

11 (A) in the heading, by striking “**space**
12 **shuttle**” and inserting “**space launch sys-**
13 **tem**”; and

14 (B) by striking “space shuttle” and insert-
15 ing “space launch system”;

16 (3) by amending section 70102 to read as fol-
17 lows:

18 **“§ 70102. Space launch system use policy**

19 “(a) IN GENERAL.—The Space Launch System may
20 be used for the following circumstances:

21 “(1) Payloads and missions that contribute to
22 extending human presence beyond low-Earth orbit
23 and substantially benefit from the unique capabili-
24 ties of the Space Launch System.

1 “(2) Other payloads and missions that substan-
2 tially benefit from the unique capabilities of the
3 Space Launch System.

4 “(3) On a space available basis, Federal Gov-
5 ernment or educational payloads that are consistent
6 with NASA’s mission for exploration beyond low-
7 Earth orbit.

8 “(4) Compelling circumstances, as determined
9 by the Administrator.

10 “(b) AGREEMENTS WITH FOREIGN ENTITIES.—The
11 Administrator may plan, negotiate, or implement agree-
12 ments with foreign entities for the launch of payloads for
13 international collaborative efforts relating to science and
14 technology using the Space Launch System.

15 “(c) COMPELLING CIRCUMSTANCES.—Not later than
16 30 days after the date the Administrator makes a deter-
17 mination under subsection (a)(4), the Administrator shall
18 transmit to the Committee on Commerce, Science, and
19 Transportation of the Senate and the Committee on
20 Science of the House of Representatives written notifica-
21 tion of the Administrator’s intent to select the Space
22 Launch System for a specific mission under that sub-
23 section, including justification for the determination.”;

24 (4) in section 70103—

1 (A) in the heading, by striking “**SPACE**
2 **SHUTTLE**” and inserting “**SPACE LAUNCH**
3 **SYSTEM**”; and

4 (B) in subsection (b), by striking “space
5 shuttle” each place it appears and inserting
6 “space launch system”; and

7 (5) by adding at the end the following:

8 **“§ 70104. Definition of Space Launch System**

9 “In this chapter, the term ‘Space Launch System’
10 means the Space Launch System authorized under section
11 302 of the National Aeronautics and Space Administra-
12 tion Authorization Act of 2010 (42 U.S.C. 18322).”.

13 (b) **TECHNICAL AND CONFORMING AMENDMENTS.—**

14 (1) **TABLE OF CHAPTERS.—**The table of chap-
15 ters of title 51 is amended by amending the item re-
16 lating to chapter 701 to read as follows:

“701. Use of space launch system or alternatives 70101”.

17 (2) **TABLE OF CONTENTS OF CHAPTER 701.—**

18 The table of contents of chapter 701 is amended—

19 (A) in the item relating to section 70101,
20 by striking “space shuttle” and inserting
21 “space launch system”;

22 (B) in the item relating to section 70102,
23 by striking “Space shuttle” and inserting
24 “Space launch system”;

1 (C) in the item relating to section 70103,
2 by striking “space shuttle” and inserting
3 “space launch system”; and

4 (D) by adding at the end the following:

“70104. Definition of Space Launch System.”.

5 (3) REQUIREMENT TO PROCURE COMMERCIAL
6 SPACE TRANSPORTATION SERVICES.—Section
7 50131(a) of chapter 51 is amended by inserting “or
8 in section 70102” after “in this section”.

9 **TITLE II—COMMERCIAL REMOTE**
10 **SENSING**

11 **SEC. 201. ANNUAL REPORTS.**

12 (a) IN GENERAL.—Subchapter III of chapter 601 is
13 amended by adding at the end the following:

14 **“§ 60126. Annual reports**

15 “(a) IN GENERAL.—The Secretary shall submit a re-
16 port to the Committee on Commerce, Science, and Trans-
17 portation of the Senate and the Committee on Science,
18 Space, and Technology of the House of Representatives
19 not later than 180 days after the date of enactment of
20 the U.S. Commercial Space Launch Competitiveness Act,
21 and annually thereafter, on—

22 “(1) the Secretary’s implementation of section
23 60121, including—

24 “(A) a list of all applications received in
25 the previous calendar year;

1 “(B) a list of all applications that resulted
2 in a license under section 60121;

3 “(C) a list of all applications denied and
4 an explanation of why each application was de-
5 nied, including any information relevant to the
6 interagency adjudication process of a licensing
7 request;

8 “(D) a list of all applications that required
9 additional information; and

10 “(E) a list of all applications whose dis-
11 position exceeded the 120 day deadline estab-
12 lished in section 60121(c), the total days over-
13 due for each application that exceeded such
14 deadline, and an explanation for the delay;

15 “(2) all notifications and information provided
16 to the Secretary under section 60122; and

17 “(3) a description of all actions taken by the
18 Secretary under the administrative authority grant-
19 ed by paragraphs (4), (5), and (6) of section
20 60123(a).

21 “(b) CLASSIFIED ANNEXES.—Each report under sub-
22 section (a) may include classified annexes as necessary to
23 protect the disclosure of sensitive or classified information.

24 “(c) SUNSET.—The reporting requirement under this
25 section terminates effective September 30, 2020.”.

1 (b) TABLE OF CONTENTS.—The table of contents of
2 chapter 601 is amended by inserting after the item relat-
3 ing to section 60125 the following:

“60126. Annual reports.”.

4 **SEC. 202. STATUTORY UPDATE REPORT.**

5 Not later than 1 year after the date of enactment
6 of this Act, the Secretary of Commerce, in consultation
7 with the heads of other appropriate Federal agencies and
8 the National Oceanic and Atmospheric Administration’s
9 Advisory Committee on Commercial Remote Sensing, shall
10 submit to the Committee on Commerce, Science, and
11 Transportation of the Senate and the Committee on
12 Science, Space, and Technology of the House of Rep-
13 resentatives a report on statutory updates necessary to li-
14 cense private remote sensing space systems. In preparing
15 the report, the Secretary shall take into account the need
16 to protect national security while maintaining United
17 States private sector leadership in the field, and reflect
18 the current state of the art of remote sensing systems,
19 instruments, or technologies.

20 **TITLE III—OFFICE OF SPACE**
21 **COMMERCE**

22 **SEC. 301. RENAMING OF OFFICE OF SPACE COMMER-**
23 **CIALIZATION.**

24 (a) CHAPTER HEADING.—

1 (1) AMENDMENT.—The heading for chapter
2 507 is amended by striking “**COMMER-**
3 **IALIZATION**” and inserting “**COM-**
4 **MERCE**”.

5 (2) CONFORMING AMENDMENT.—The item re-
6 lating to chapter 507 in the table of chapters for
7 title 51 is amended by striking “Commercialization”
8 and inserting “Commerce”.

9 (b) DEFINITION OF OFFICE.—Section 50701 is
10 amended by striking “Commercialization” and inserting
11 “Commerce”.

12 (c) RENAMING.—Section 50702(a) is amended by
13 striking “Commercialization” and inserting “Commerce”.

14 **SEC. 302. FUNCTIONS OF THE OFFICE OF SPACE COM-**
15 **MERCE.**

16 Section 50702(c) is amended by striking “Com-
17 merce.” and inserting “Commerce, including—

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

21 “(2) to coordinate space commerce policy issues
22 and actions within the Department of Commerce;

23 “(3) to represent the Department of Commerce
24 in the development of United States policies and in

1 negotiations with foreign countries to promote
2 United States space commerce;

3 “(4) to promote the advancement of United
4 States geospatial technologies related to space com-
5 merce, in cooperation with relevant interagency
6 working groups; and

7 “(5) to provide support to Federal Government
8 organizations working on Space-Based Positioning
9 Navigation, and Timing policy, including the Na-
10 tional Coordination Office for Space-Based Position,
11 Navigation, and Timing.”.

12 **TITLE IV—SPACE RESOURCE EX-**
13 **PLORATION AND UTILIZA-**
14 **TION**

15 **SEC. 401. SHORT TITLE.**

16 This title may be cited as the “Space Resource Explo-
17 ration and Utilization Act of 2015”.

18 **SEC. 402. TITLE 51 AMENDMENT.**

19 (a) IN GENERAL.—Subtitle V is amended by adding
20 at the end the following:

21 **“CHAPTER 513—SPACE RESOURCE COM-**
22 **MERCIAL EXPLORATION AND UTILIZA-**
23 **TION**

“Sec.

“51301. Definitions.

“51302. Commercial exploration and commercial recovery.

“51303. Asteroid resource and space resource rights.

1 **“§ 51301. Definitions**

2 “In this chapter:

3 “(1) ASTEROID RESOURCE.—The term ‘asteroid
4 resource’ means a space resource found on or within
5 a single asteroid.

6 “(2) SPACE RESOURCE.—

7 “(A) IN GENERAL.—The term ‘space re-
8 source’ means an abiotic resource in situ in
9 outer space.

10 “(B) INCLUSIONS.—The term ‘space re-
11 source’ includes water and minerals.

12 “(3) UNITED STATES CITIZEN.—The term
13 ‘United States citizen’ has the meaning given the
14 term ‘citizen of the United States’ in section 50902.

15 **“§ 51302. Commercial exploration and commercial re-
16 covery**

17 “(a) IN GENERAL.—The President, acting through
18 appropriate Federal agencies, shall—

19 “(1) facilitate commercial exploration for and
20 commercial recovery of space resources by United
21 States citizens;

22 “(2) discourage government barriers to the de-
23 velopment in the United States of economically via-
24 ble, safe, and stable industries for commercial explo-
25 ration for and commercial recovery of space re-

1 sources in manners consistent with the international
2 obligations of the United States; and

3 “(3) promote the right of United States citizens
4 to engage in commercial exploration for and com-
5 mercial recovery of space resources free from harm-
6 ful interference, in accordance with the international
7 obligations of the United States and subject to au-
8 thorization and continuing supervision by the Fed-
9 eral Government.

10 “(b) REPORT.—Not later than 180 days after the
11 date of enactment of this section, the President shall sub-
12 mit to Congress a report on commercial exploration for
13 and commercial recovery of space resources by United
14 States citizens that specifies—

15 “(1) the authorities necessary to meet the inter-
16 national obligations of the United States, including
17 authorization and continuing supervision by the Fed-
18 eral Government; and

19 “(2) recommendations for the allocation of re-
20 sponsibilities among Federal agencies for the activi-
21 ties described in paragraph (1).

22 **“§ 51303. Asteroid resource and space resource rights**

23 “A United States citizen engaged in commercial re-
24 covery of an asteroid resource or a space resource under
25 this chapter shall be entitled to any asteroid resource or

1 space resource obtained, including to possess, own, trans-
2 port, use, and sell the asteroid resource or space resource
3 obtained in accordance with applicable law, including the
4 international obligations of the United States.”.

5 (b) TABLE OF CHAPTERS.—The table of chapters for
6 title 51 is amended by adding at the end of the items for
7 subtitle V the following:

“513. Space resource commercial exploration and utilization 51301”.

8 **SEC. 403. DISCLAIMER OF EXTRATERRITORIAL SOV-**
9 **EREIGNTY.**

10 It is the sense of Congress that by the enactment of
11 this Act, the United States does not thereby assert sov-
12 ereignty or sovereign or exclusive rights or jurisdiction
13 over, or the ownership of, any celestial body.