

[DISCUSSION DRAFT]117TH CONGRESS
1ST SESSION**H. R.** _____

To [_____] _____

IN THE HOUSE OF REPRESENTATIVES

Mr. WEBER of Texas introduced the following bill; which was referred to the
Committee on _____

A BILL

To [_____] _____

ensure continued United States leadership in space and low-earth orbit.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

4 (a) SHORT TITLE.—This Act may be cited as the
5 “U.S. Leadership in Space Act of 2021”.

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

Sec. 1. Short title; table of contents.
Sec. 2. Definitions.

TITLE I—AUTHORIZATION OF APPROPRIATIONS

Sec. 101. Authorization of appropriations.

TITLE II—HUMAN SPACEFLIGHT AND EXPLORATION

- Sec. 201. Competitiveness within the human landing system program.
Sec. 202. Space launch system configurations.
Sec. 203. Advanced spacesuits.
Sec. 204. Acquisition of domestic space transportation and logistics resupply services.
Sec. 205. Rocket engine test infrastructure.
Sec. 206. Pearl River maintenance.
Sec. 207. Value of International Space Station and capabilities in low-Earth orbit.
Sec. 208. Extension and modification relating to International Space Station.
Sec. 209. Department of Defense activities on International Space Station.
Sec. 210. Commercial development in low-Earth orbit.
Sec. 211. Maintaining a national laboratory in space.
Sec. 212. International Space Station national laboratory; property rights in inventions.
Sec. 213. Data first produced during non-NASA scientific use of the ISS national laboratory.
Sec. 214. Stepping stone approach to exploration.
Sec. 215. Technical amendments relating to Artemis missions.

TITLE III—SAFETY AND TRANSPARENCY

- Sec. 301. Crew transportation safety.

TITLE IV—U.S. NATIONAL SECURITY

- Sec. 401. Cybersecurity.
Sec. 402. Exemption from the Iran, North Korea, and Syria Nonproliferation Act.
Sec. 403. Limitation on cooperation with the People's Republic of China.
Sec. 404. Countering Chinese threats to U.S. activities in space.
Sec. 405. Consideration of issues related to contracting with entities receiving assistance from or affiliated with the People's Republic of China.

1 SEC. 2. DEFINITIONS.

2 In this Act:

3 (1) ADMINISTRATION.—The term “Administra-
4 tion” means the National Aeronautics and Space
5 Administration.

6 (2) ADMINISTRATOR.—The term “Adminis-
7 trator” means the Administrator of the National
8 Aeronautics and Space Administration.

9 (3) APPROPRIATE COMMITTEES OF CON-
10 GRESS.—Except as otherwise expressly provided, the

1 term “appropriate committees of Congress”
2 means—

3 (A) the Committee on Commerce, Science,
4 and Transportation of the Senate; and

5 (B) the Committee on Science, Space, and
6 Technology of the House of Representatives.

7 (4) CISLUNAR SPACE.—The term “cislunar
8 space” means the region of space beyond low-Earth
9 orbit out to and including the region around the sur-
10 face of the Moon.

11 (5) DEEP SPACE.—The term “deep space”
12 means the region of space beyond low-Earth orbit,
13 including cislunar space.

14 (6) DEVELOPMENT COST.—The term “develop-
15 ment cost” has the meaning given the term in sec-
16 tion 30104 of title 51, United States Code.

17 (7) ISS.—The term “ISS” means the Inter-
18 national Space Station.

19 (8) ISS MANAGEMENT ENTITY.—The term
20 “ISS management entity” means the organization
21 with which the Administrator has entered into a co-
22 operative agreement under section 504(a) of the Na-
23 tional Aeronautics and Space Administration Au-
24 thorization Act of 2010 (42 U.S.C. 18354(a)).

1 (9) NASA.—The term “NASA” means the Na-
2 tional Aeronautics and Space Administration.

3 (10) ORION.—The term “Orion” means the
4 multipurpose crew vehicle described in section 303 of
5 the National Aeronautics and Space Administration
6 Authorization Act of 2010 (42 U.S.C. 18323).

7 (11) OSTP.—The term “OSTP” means the Of-
8 fice of Science and Technology Policy.

9 (12) SPACE LAUNCH SYSTEM.—The term
10 “Space Launch System” means the Space Launch
11 System authorized under section 302 of the National
12 Aeronautics and Space Administration Act of 2010
13 (42 U.S.C. 18322).

14 **TITLE I—AUTHORIZATION OF** 15 **APPROPRIATIONS**

16 **SEC. 101. AUTHORIZATION OF APPROPRIATIONS.**

17 There are authorized to be appropriated to the Ad-
18 ministration for fiscal year 2021 ~~\$22,405,000,000~~ as fol-
19 lows:

- 20 (1) For Exploration, \$6,706,400,000.
- 21 (2) For Space Operations, \$3,988,200,000.
- 22 (3) For Science, \$7,274,700,000.
- 23 (4) For Aeronautics, \$828,700,000.
- 24 (5) For Space Technology, \$1,206,000,000.

(6) For Science, Technology, Engineering, and Mathematics Engagement, \$120,000,000.

(7) For Safety, Security, and Mission Services, \$2,936,500,000.

(8) For Construction and Environmental Compliance and Restoration, \$390,300,000.

(9) For Inspector General, \$44,200,000.

TITLE II—HUMAN SPACEFLIGHT AND EXPLORATION

SEC. 201. COMPETITIVENESS WITHIN THE HUMAN LANDING SYSTEM PROGRAM.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) ~~advances in space technology and space exploration capabilities ensure the long-term technological preeminence, economic competitiveness, STEM workforce development, and national security of the United States;~~

(2) the development of technologies that enable human exploration of the lunar surface and other celestial bodies ~~is critical to the space industrial base of the United States;~~

(3) commercial entities in the United States have made significant investment and progress toward the development of human-class lunar landers;

1 (4) NASA developed the Artemis program—

2 (A) to fulfill the goal of landing United
3 States astronauts, including the first woman
4 and the next man, on the Moon; and

5 (B) to collaborate with commercial and
6 international partners to establish sustainable
7 lunar exploration by 2028;

8 (5) in carrying out the Artemis program, the
9 Administrator should ensure that the entire Artemis
10 program is inclusive and representative of all people
11 of the United States, including women and minori-
12 ties; and

13 (6) maintaining multiple technically credible
14 providers within NASA commercial programs is a
15 best practice that reduces programmatic risk.

16 (b) STATEMENT OF POLICY.—It shall be the policy
17 of the United States—

18 (1) to bolster the domestic space technology in-
19 dustrial base, using existing tools and authorities,
20 particularly in areas central to competition between
21 the United States and the People's Republic of
22 China; and

23 (2) to mitigate threats and minimize challenges
24 to the superiority of the United States in space tech-

1 nology, including lunar infrastructure and lander ca-
2 pabilities.

3 (c) HUMAN LANDING SYSTEM PROGRAM.—

4 (1) IN GENERAL.—Not later than 60 days after
5 the date of the enactment of this division, the Ad-
6 ministrator shall maintain competitiveness within
7 the human landing system program by funding de-
8 sign, development, testing, and evaluation for not
9 fewer than 2 entities.

10 (2) REQUIREMENTS.—In carrying out the
11 human landing system program referred to in para-
12 graph (1), the Administrator shall, to the extent
13 practicable—

14 (A) encourage reusability and sustain-
15 ability of systems developed; and

16 (B) offer existing capabilities and assets of
17 NASA centers to support such partnerships.

18 (3) BRIEFING.—Not later than 60 days after
19 the date of the enactment of this division, the Ad-
20 ministrator shall provide to the appropriate commit-
21 tees of Congress a briefing on the implementation of
22 paragraph (1).

23 (4) AUTHORIZATION OF APPROPRIATIONS.—In
24 addition to amounts otherwise appropriated for the
25 Artemis program, for fiscal years 2021 through

1 2025, there is authorized to be appropriated
2 \$10,032,000,000 to NASA to carry out the human
3 landing system program.

4 (5) SAVINGS.—The Administrator shall not, in
5 order to comply with the obligations referred to in
6 paragraph (1), modify, terminate, or rescind any se-
7 lection decisions or awards made under the human
8 landing system program that were announced prior
9 to the date of enactment of this division.

10 (d) APPROPRIATE COMMITTEES OF CONGRESS DE-
11 FINED.—In this section, the term “appropriate commit-
12 tees of Congress” means—

13 (1) the Committee on Commerce, Science, and
14 Transportation and the Committee on Appropria-
15 tions of the Senate; and

16 (2) the Committee on Science, Space, and
17 Technology and the Committee on Appropriations of
18 the House of Representatives.

19 **SEC. 202. SPACE LAUNCH SYSTEM CONFIGURATIONS.**

20 (a) MOBILE LAUNCH PLATFORM.—The Adminis-
21 trator is authorized to maintain 2 operational mobile
22 launch platforms to enable the launch of multiple configu-
23 rations of the Space Launch System.

24 (b) EXPLORATION UPPER STAGE.—To meet the ca-
25 pability requirements under section 302(c)(2) of the Na-

1 tional Aeronautics and Space Administration Authoriza-
2 tion Act of 2010 (42 U.S.C. 18322(c)(2)), the Adminis-
3 trator shall continue development of the Exploration
4 Upper Stage for the Space Launch System with a sched-
5 uled availability sufficient for use on the third launch of
6 the Space Launch System.

7 (c) BRIEFING.—Not later than 90 days after the date
8 of the enactment of this division, the Administrator shall
9 brief the appropriate committees of Congress on the devel-
10 opment and scheduled availability of the Exploration
11 Upper Stage for the third launch of the Space Launch
12 System.

13 (d) MAIN PROPULSION TEST ARTICLE.—To meet the
14 requirements under section 302(c)(3) of the National Aer-
15 onautics and Space Administration Authorization Act of
16 2010 (42 U.S.C. 18322(c)(3)), the Administrator shall—

17 (1) immediately on completion of the first full-
18 duration integrated core stage test of the Space
19 Launch System, initiate development of a main pro-
20 pulsion test article for the integrated core stage pro-
21 pulsion elements of the Space Launch System, con-
22 sistent with cost and schedule constraints, particu-
23 larly for long-lead propulsion hardware needed for
24 flight;

1 (2) not later than 180 days after the date of
2 the enactment of this division, submit to the appro-
3 priate committees of Congress a detailed plan for
4 the development and operation of such main propul-
5 sion test article; and

6 (3) use existing capabilities of NASA centers
7 for the design, manufacture, and operation of the
8 main propulsion test article.

9 **SEC. 203. ADVANCED SPACESUITS.**

10 (a) SENSE OF CONGRESS.—It is the sense of Con-
11 gress that next-generation advanced spacesuits are a crit-
12 ical technology for human space exploration and use of
13 low-Earth orbit, cislunar space, the surface of the Moon,
14 and Mars.

15 (b) DEVELOPMENT PLAN.—The Administrator shall
16 establish a detailed plan for the development and manu-
17 facture of advanced spacesuits, consistent with the deep
18 space exploration goals and timetables of NASA.

19 (c) DIVERSE ASTRONAUT CORPS.—The Adminis-
20 trator shall ensure that spacesuits developed and manufac-
21 tured after the date of the enactment of this division are
22 capable of accommodating a wide range of sizes of astro-
23 nauts so as to meet the needs of the diverse NASA astro-
24 naut corps.

1 (d) ISS USE.—Throughout the operational life of the
2 ISS, the Administrator should fully use the ISS for testing
3 advanced spacesuits.

4 (e) SPACESUIT TECHNOLOGY PARTNERSHIPS TO
5 FULLY MEET NASA'S NEEDS.—

6 (1) IN GENERAL.—In developing an advanced
7 spacesuit, the Administrator shall, to the maximum
8 extent practicable, partner with leverage the capa-
9 bilities unique to Johnson Space Center's workforce
10 and pursue agreements for design, development, and
11 manufacturing of advanced spacesuits with 2 or
12 more industry partners who are able to demonstrate
13 design concepts at which meet all identified Agency
14 requirements for advanced spacesuits, providing
15 maximum consideration for the measurement of all
16 associated design, development, manufacturing, and
17 other costs weighted against EVA cadence and avail-
18 ability on ISS, future commercial platforms, and
19 cislunar needs.

20 (2) AGREEMENTS WITH PRIVATE ENTITIES.—In
21 carrying out this subsection, the Administrator may
22 enter into 2 or more agreements with 2 or more pri-
23 vate entities for the manufacture of advanced
24 spacesuits, as the Administrator considers appro-
25 priate.

1 (f) BRIEFING.—Not later than 180 days after the
2 date of the enactment of this division, and semiannually
3 thereafter until NASA procures advanced spacesuits
4 under this section, the Administrator shall brief the appro-
5 priate committees of Congress on the development plan
6 in subsection (b).

7 **SEC. 204. ACQUISITION OF DOMESTIC SPACE TRANSPOR-**
8 **TATION AND LOGISTICS RESUPPLY SERV-**
9 **ICES.**

10 (a) IN GENERAL.—Except as provided in subsection
11 (b), the Administrator shall not enter into any contract
12 with a person or entity that proposes to use, or will use,
13 a foreign launch provider for a commercial service to pro-
14 vide space transportation or logistics resupply for—

15 (1) the ISS; or

16 (2) any Government-owned or Government-
17 funded platform in Earth orbit or cislunar space, on
18 the lunar surface, or elsewhere in space.

19 (b) EXCEPTION.—The Administrator may enter into
20 a contract with a person or an entity that proposes to use,
21 or will use, a foreign launch provider for a commercial
22 service to carry out an activity described in subsection (a)
23 if—

24 (1) a domestic vehicle or service is unavailable;

25 or

1 (2) the launch vehicle or service is a contribu-
2 tion by a partner to an international no-exchange-of-
3 funds collaborative effort.

4 (c) **RULE OF CONSTRUCTION.**—Nothing in this sec-
5 tion shall be construed to prohibit the Administrator from
6 entering into 1 or more no-exchange-of-funds collaborative
7 agreements with an international partner in support of the
8 deep space exploration plan of NASA.

9 **SEC. 205. ROCKET ENGINE TEST INFRASTRUCTURE.**

10 (a) **IN GENERAL.**—The Administrator shall continue
11 to carry out a program to modernize rocket propulsion test
12 infrastructure at NASA facilities—

- 13 (1) to increase capabilities;
14 (2) to enhance safety;
15 (3) to support propulsion development and test-
16 ing; and
17 (4) to foster the improvement of Government
18 and commercial space transportation and explo-
19 ration.

20 (b) **PROJECTS.**—Projects funded under the program
21 described in subsection (a) may include—

- 22 (1) infrastructure and other facilities and sys-
23 tems relating to rocket propulsion test stands and
24 rocket propulsion testing;

1 (2) enhancements to test facility capacity and
2 flexibility; and

3 (3) such other projects as the Administrator
4 considers appropriate to meet the goals described in
5 that subsection.

6 (c) REQUIREMENTS.—In carrying out the program
7 under subsection (a), the Administrator shall—

8 (1) prioritize investments in projects that en-
9 hance test and flight certification capabilities for
10 large thrust-level atmospheric and altitude engines
11 and engine systems, and multi-engine integrated test
12 capabilities;

13 (2) continue to make underutilized test facilities
14 available for commercial use on a reimbursable
15 basis; and

16 (3) ensure that no project carried out under
17 this program adversely impacts, delays, or defers
18 testing or other activities associated with facilities
19 used for Government programs, including—

20 (A) the Space Launch System and the Ex-
21 ploration Upper Stage of the Space Launch
22 System;

23 (B) in-space propulsion to support explo-
24 ration missions; or

25 (C) nuclear propulsion testing.

1 (d) RULE OF CONSTRUCTION.—Nothing in this sec-
2 tion shall preclude a NASA program, including the Space
3 Launch System and the Exploration Upper Stage of the
4 Space Launch System, from using the modernized test in-
5 frastructure developed under this section.

6 (e) WORKING CAPITAL FUND STUDY.—

7 (1) IN GENERAL.—Not later than 180 days
8 after the date of the enactment of this division, the
9 Administrator shall submit to the appropriate com-
10 mittees of Congress a report on the use of the au-
11 thority under section 30102 of title 51, United
12 States Code, to promote increased use of NASA
13 rocket propulsion test infrastructure for research,
14 development, testing, and evaluation activities by
15 other Federal agencies, firms, associations, corpora-
16 tions, and educational institutions.

17 (2) MATTERS TO BE INCLUDED.—The report
18 required by paragraph (1) shall include the fol-
19 lowing:

20 (A) An assessment of prior use, if any, of
21 the authority under section 30102 of title 51,
22 United States Code, to improve testing infra-
23 structure.

24 (B) An analysis of any barrier to imple-
25 mentation of such authority for the purpose of

1 promoting increased use of NASA rocket pro-
2 pulsion test infrastructure.

3 **SEC. 206. PEARL RIVER MAINTENANCE.**

4 (a) IN GENERAL.—The Administrator shall coordi-
5 nate with the Chief of the Army Corps of Engineers to
6 ensure the continued navigability of the Pearl River and
7 Little Lake channels sufficient to support NASA barge op-
8 erations surrounding Stennis Space Center and the
9 Michoud Assembly Facility.

10 (b) REPORT TO CONGRESS.—Not later than 180 days
11 after the date of the enactment of this division, the Ad-
12 ministrator shall submit to the appropriate committees of
13 Congress a report on efforts under subsection (a).

14 (c) APPROPRIATE COMMITTEES OF CONGRESS DE-
15 FINED.—In this section, the term “appropriate commit-
16 tees of Congress” means—

17 (1) the Committee on Commerce, Science, and
18 Transportation, the Committee on Environment and
19 Public Works, and the Committee on Appropriations
20 of the Senate; and

21 (2) the Committee on Science, Space, and
22 Technology, the Committee on Transportation and
23 Infrastructure, and the Committee on Appropria-
24 tions of the House of Representatives.

1 **SEC. 207. VALUE OF INTERNATIONAL SPACE STATION AND**
2 **CAPABILITIES IN LOW-EARTH ORBIT.**

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

5 (1) it is in the national and economic security
6 interests of the United States to maintain a contin-
7 uous presence in low-Earth orbit, in perpetuity;

8 (2) low-Earth orbit should be used as a test bed
9 to advance human space exploration and scientific
10 discoveries to advance human space exploration, sci-
11 entific discoveries, and commercial development; and

12 (3) the ISS is a critical component of economic,
13 commercial, and industrial development in low-Earth
14 orbit.

15 (b) HUMAN PRESENCE REQUIREMENT.—The United
16 States shall continuously maintain the capability for a
17 continuous human presence in low-Earth orbit through
18 and beyond the useful life of the ISS.

19 **SEC. 208. EXTENSION AND MODIFICATION RELATING TO**
20 **INTERNATIONAL SPACE STATION.**

21 (a) POLICY.—Section 501(a) of the National Aero-
22 nautics and Space Administration Authorization Act of
23 2010 (42 U.S.C. 18351(a)) is amended by striking
24 “2024” and inserting “2030”.

25 (b) MAINTENANCE OF UNITED STATES SEGMENT
26 AND ASSURANCE OF CONTINUED OPERATIONS.—Section

1 503(a) of the National Aeronautics and Space Administra-
2 tion Authorization Act of 2010 (42 U.S.C. 18353(a)) is
3 amended by striking “September 30, 2024” and inserting
4 “September 30, 2030”.

5 (c) RESEARCH CAPACITY ALLOCATION AND INTE-
6 GRATION OF RESEARCH PAYLOADS.—Section 504(d) of
7 the National Aeronautics and Space Administration Au-
8 thorization Act of 2010 (42 U.S.C. 18354(d)) is amend-
9 ed—

10 (1) in paragraph (1), in the first sentence—

11 (A) by striking “As soon as practicable”
12 and all that follows through “2011,” and in-
13 serting “The”; and

14 (B) by striking “September 30, 2024” and
15 inserting “September 30, 2030”; and

16 (2) in paragraph (2), in the third sentence, by
17 striking “September 30, 2024” and inserting “Sep-
18 tember 30, 2030”.

19 (d) MAINTENANCE OF USE.—Section 70907 of title
20 51, United States Code, is amended—

21 (1) in the section heading, by striking “**2024**”
22 and inserting “**2030**”;

23 (2) in subsection (a), by striking “September
24 30, 2024” and inserting “September 30, 2030”; and

1 (3) in subsection (b)(3), by striking “September
2 30, 2024” and inserting “September 30, 2030”.

3 (e) TRANSITION PLAN REPORTS.—Section
4 50111(c)(2) of title 51, United States Code is amended—

5 (1) in the matter preceding subparagraph (A),
6 by striking “2023” and inserting “2028”; and

7 (2) in subparagraph (J), by striking “2028”
8 and inserting “2030”.

9 (f) ELIMINATION OF INTERNATIONAL SPACE STA-
10 TION NATIONAL LABORATORY ADVISORY COMMITTEE.—
11 Section 70906 of title 51, United States Code, is repealed.

12 (g) CONFORMING AMENDMENTS.—Chapter 709 of
13 title 51, United States Code, is amended—

14 (1) by redesignating section 70907 as section
15 70906; and

16 (2) in the table of sections for the chapter, by
17 striking the items relating to sections 70906 and
18 70907 and inserting the following:

“70906. Maintaining use through at least 2030.”.

19 **SEC. 209. DEPARTMENT OF DEFENSE ACTIVITIES ON**
20 **INTERNATIONAL SPACE STATION.**

21 (a) IN GENERAL.—Not later than 180 days after the
22 date of the enactment of this division, the Secretary of
23 Defense shall—

24 (1) identify and review each activity, program,
25 and project of the Department of Defense com-

1 pleted, being carried out, or planned to be carried
2 out on the ISS as of the date of the review; and

3 (2) provide to the appropriate committees of
4 Congress a briefing that describes the results of the
5 review.

6 (b) **APPROPRIATE COMMITTEES OF CONGRESS DE-**
7 **FINED.**—In this section, the term “appropriate commit-
8 tees of Congress” means—

9 (1) the Committee on Armed Services, the
10 Committee on Appropriations, and the Committee on
11 Commerce, Science, and Transportation of the Sen-
12 ate; and

13 (2) the Committee on Armed Services, the
14 Committee on Appropriations, and the Committee on
15 Science, Space, and Technology of the House of
16 Representatives.

17 **SEC. 210. COMMERCIAL DEVELOPMENT IN LOW-EARTH**
18 **ORBIT.**

19 (a) **STATEMENT OF POLICY.**—It is the policy of the
20 United States to encourage the development of a thriving
21 and robust United States commercial sector in low-Earth
22 orbit.

23 (b) **PREFERENCE FOR UNITED STATES COMMERCIAL**
24 **PRODUCTS AND SERVICES.**—The Administrator shall con-
25 tinue to increase the use of assets, products, and services

1 of private entities in the United States to fulfill the low-
2 Earth orbit requirements of the Administration.

3 (c) NONCOMPETITION.—

4 (1) IN GENERAL.—Except as provided in para-
5 graph (2), the Administrator may not offer to a for-
6 eign person or a foreign government a spaceflight
7 product or service relating to the ISS, if a com-
8 parable spaceflight product or service, as applicable,
9 is offered by a private entity in the United States.

10 (2) EXCEPTION.—The Administrator may offer
11 a spaceflight product or service relating to the ISS
12 to the government of a country that is a signatory
13 to the Agreement Among the Government of Can-
14 ada, Governments of Member States of the Euro-
15 pean Space Agency, the Government of Japan, the
16 Government of the Russian Federation, and the
17 Government of the United States of America Con-
18 cerning Cooperation on the Civil International Space
19 Station, signed at Washington January 29, 1998,
20 and entered into force on March 27, 2001 (TIAS
21 12927), including an international partner astronaut
22 (as defined in section 50902 of title 51, United
23 States Code) that is sponsored by the government of
24 such a country.

1 (d) SHORT-DURATION COMMERCIAL MISSIONS.—To
2 provide opportunities for additional transport of astro-
3 nauts to the ISS and help establish a commercial market
4 in low-Earth orbit, the Administrator may permit short-
5 duration missions to the ISS for commercial passengers
6 on a fully or partially reimbursable basis.

7 (e) PROGRAM AUTHORIZATION.—

8 (1) ESTABLISHMENT.—The Administrator shall
9 establish a low-Earth orbit commercial development
10 program to encourage the fullest commercial use and
11 development of space by private entities in the
12 United States.

13 (2) ELEMENTS.—The program established
14 under paragraph (1) shall, to the maximum extent
15 practicable, include activities—

16 (A) to stimulate demand for—

17 (i) space-based commercial research,
18 development, and manufacturing;

19 (ii) spaceflight products and services;

20 and

21 (iii) human spaceflight products and
22 services in low-Earth orbit;

23 (B) to improve the capability of the ISS to
24 accommodate commercial users; and

1 (C) subject to paragraph (3), to foster the
2 development of commercial space stations and
3 habitats.

4 (3) COMMERCIAL SPACE STATIONS AND HABI-
5 TATS.—

6 (A) PRIORITY.—With respect to an activity
7 to develop a commercial space station or habi-
8 tat, the Administrator shall give priority to an
9 activity for which a private entity provides a
10 significant share of the cost to develop and op-
11 erate the activity.

12 (B) REPORT.—Not later than 30 days
13 after the date that an award or agreement is
14 made to carry out an activity to develop a com-
15 mercial space station or habitat, the Adminis-
16 trator shall submit to the appropriate commit-
17 tees of Congress a report on the development of
18 the commercial space station or habitat, as ap-
19 plicable, that includes—

20 (i) a business plan that describes the
21 manner in which the project will—

22 (I) meet the future requirements
23 of NASA for low-Earth orbit human
24 space-flight services; and

- 1 (II) fulfill the cost-share funding
2 prioritization under subparagraph (A);
3 and
4 (ii) a review of the viability of the
5 operational business case, including—
6 (I) the level of expected Govern-
7 ment participation; and
8 (II) a list of anticipated non-
9 governmental an international cus-
10 tomers and associated contributions.

11 **SEC. 211. MAINTAINING A NATIONAL LABORATORY IN**
12 **SPACE.**

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

15 (1) the United States segment of the Inter-
16 national Space Station (as defined in section 70905
17 of title 51, United States Code), which is designated
18 as a national laboratory under section 70905(b) of
19 title 51, United States Code—

20 (A) benefits the scientific community and
21 promotes commerce in space;

22 (B) fosters stronger relationships among
23 NASA and other Federal agencies, the private
24 sector, and research groups and universities;

1 (C) advances science, technology, engineer-
2 ing, and mathematics education through use of
3 the unique microgravity environment; and

4 (D) advances human knowledge and inter-
5 national cooperation;

6 (2) after the ISS is decommissioned, the United
7 States should maintain a national microgravity lab-
8 oratory in space;

9 (3) in maintaining a national microgravity lab-
10 oratory in space, the United States should make ap-
11 propriate accommodations for different types of own-
12 ership and operation arrangements for the ISS and
13 future space stations;

14 (4) to the maximum extent practicable, a na-
15 tional microgravity laboratory in space should be
16 maintained in cooperation with international space
17 partners; and

18 (5) NASA should continue to support funda-
19 mental science research on future platforms in low-
20 Earth orbit and cislunar space, orbital and sub-
21 orbital flights, drop towers, and other microgravity
22 testing environments.

23 (b) REPORT.—The Administrator, in coordination
24 with the National Space Council and other Federal agen-
25 cies as the Administrator considers appropriate, shall

1 issue a report detailing the feasibility of establishing a
2 microgravity national laboratory federally funded research
3 and development center to carry out activities relating to
4 the study and use of in-space conditions.

5 **SEC. 212. INTERNATIONAL SPACE STATION NATIONAL LAB-**
6 **ORATORY; PROPERTY RIGHTS IN INVEN-**
7 **TIONS.**

8 (a) IN GENERAL.—Subchapter III of chapter 201 of
9 title 51, United States Code, is amended by adding at the
10 end the following:

11 **“§ 20150. Property rights in designated inventions**

12 “(a) EXCLUSIVE PROPERTY RIGHTS.—Notwith-
13 standing section 3710a of title 15, chapter 18 of title 35,
14 section 20135, or any other provision of law, a designated
15 invention shall be the exclusive property of a user, and
16 shall not be subject to a Government-purpose license, if—

17 “(1)(A) the Administration is reimbursed under
18 the terms of the contract for the full cost of a con-
19 tribution by the Federal Government of the use of
20 Federal facilities, equipment, materials, proprietary
21 information of the Federal Government, or services
22 of a Federal employee during working hours, includ-
23 ing the cost for the Administration to carry out its
24 responsibilities under paragraphs (1) and (4) of sec-
25 tion 504(d) of the National Aeronautics and Space

1 Administration Authorization Act of 2010 (42
2 U.S.C. 18354(d));

3 “(B) Federal funds are not transferred to the
4 user under the contract; and

5 “(C) the designated invention was made (as de-
6 fined in section 20135(a))—

7 “(i) solely by the user; or

8 “(ii)(I) by the user with the services of a
9 Federal employee under the terms of the con-
10 tract; and

11 “(II) the Administration is reimbursed for
12 such services under subparagraph (B); or

13 “(2) the Administrator determines that the rel-
14 evant field of commercial endeavor is sufficiently im-
15 mature that granting exclusive property rights to the
16 user is necessary to help bolster demand for prod-
17 ucts and services produced on crewed or crew-tended
18 space stations.

19 “(b) NOTIFICATION TO CONGRESS.—On completion
20 of a determination made under paragraph (2), the Admin-
21 istrator shall submit to the appropriate committees of
22 Congress a notification of the determination that includes
23 a written justification.

24 “(c) PUBLIC AVAILABILITY.—A determination or
25 part of such determination under paragraph (1) shall be

1 made available to the public on request, as required under
2 section 552 of title 5, United States Code (commonly re-
3 ferred to as the 'Freedom of Information Act').

4 “(d) RULE OF CONSTRUCTION.—Nothing in this sec-
5 tion may be construed to affect the rights of the Federal
6 Government, including property rights in inventions,
7 under any contract, except in the case of a written con-
8 tract with the Administration or the ISS management en-
9 tity for the performance of a designated activity.

10 “(e) DEFINITIONS.—In this section—

11 “(1) CONTRACT.—The term ‘contract’ has the
12 meaning giving the term in section 20135(a).

13 “(2) DESIGNATED ACTIVITY.—The term ‘des-
14 ignated activity’ means any non-NASA scientific use
15 of the ISS national laboratory as described in sec-
16 tion 504 of the National Aeronautics and Space Ad-
17 ministration Authorization Act of 2010 (42 U.S.C.
18 18354).

19 “(3) DESIGNATED INVENTION.—The term ‘des-
20 ignated invention’ means any invention, product, or
21 service conceived or first reduced to practice by any
22 person in the performance of a designated activity
23 under a written contract with the Administration or
24 the ISS management entity.

1 “(4) FULL COST.—The term ‘full cost’ means
2 the cost of transporting materials or passengers to
3 and from the ISS, including any power needs, the
4 disposal of mass, crew member time, stowage, power
5 on the ISS, data downlink, crew consumables, and
6 life support.

7 “(5) GOVERNMENT-PURPOSE LICENSE.—The
8 term ‘Government-purpose license’ means the res-
9 ervation by the Federal Government of an irrev-
10 ocable, nonexclusive, nontransferable, royalty-free li-
11 cense for the use of an invention throughout the
12 world by or on behalf of the United States or any
13 foreign government pursuant to a treaty or agree-
14 ment with the United States.

15 “(6) ISS MANAGEMENT ENTITY.—The term
16 ‘ISS management entity’ means the organization
17 with which the Administrator enters into a coopera-
18 tive agreement under section 504(a) of the National
19 Aeronautics and Space Administration Authorization
20 Act of 2010 (42 U.S.C. 18354(a)).

21 “(7) USER.—The term ‘user’ means a person,
22 including a nonprofit organization or small business
23 firm (as such terms are defined in section 201 of
24 title 35), or class of persons that enters into a writ-
25 ten contract with the Administration or the ISS

1 management entity for the performance of des-
2 ignated activities.”.

3 (b) CONFORMING AMENDMENT.—The table of sec-
4 tions for chapter 201 of title 51, United States Code, is
5 amended by inserting after the item relating to section
6 20149 the following:

“20150. Property rights in designated inventions.”.

7 **SEC. 213. DATA FIRST PRODUCED DURING NON-NASA SCI-**
8 **ENTIFIC USE OF THE ISS NATIONAL LABORA-**
9 **TORY.**

10 (a) DATA RIGHTS.—Subchapter III of chapter 201
11 of title 51, United States Code, as amended by section
12 212, is further amended by adding at the end the fol-
13 lowing:

14 **“§ 20151. Data rights**

15 **“(a) NON-NASA SCIENTIFIC USE OF THE ISS NA-**
16 **TIONAL LABORATORY.—**The Federal Government may not
17 use or reproduce, or disclose outside of the Government,
18 any data first produced in the performance of a designated
19 activity under a written contract with the Administration
20 or the ISS management entity, unless—

21 **“(1) otherwise agreed under the terms of the**
22 **contract with the Administration or the ISS man-**
23 **agement entity, as applicable;**

24 **“(2) the designated activity is carried out with**
25 **Federal funds;**

1 “(3) disclosure is required by law;

2 “(4) the Federal Government has rights in the
3 data under another Federal contract, grant, coopera-
4 tive agreement, or other transaction; or

5 “(5) the data is—

6 “(A) otherwise lawfully acquired or inde-
7 pendently developed by the Federal Govern-
8 ment;

9 “(B) related to the health and safety of
10 personnel on the ISS; or

11 “(C) essential to the performance of work
12 by the ISS management entity or NASA per-
13 sonnel.

14 “(b) DEFINITIONS.—In this section:

15 “(1) CONTRACT.—The term ‘contract’ has the
16 meaning given the term under section 20135(a).

17 “(2) DATA.—

18 “(A) IN GENERAL.—The term ‘data’
19 means recorded information, regardless of form
20 or the media on which it may be recorded.

21 “(B) INCLUSIONS.—The term ‘data’ in-
22 cludes technical data and computer software.

23 “(C) EXCLUSIONS.—The term ‘data’ does
24 not include information incidental to contract
25 administration, such as financial, administra-

1 tive, cost or pricing, or management informa-
2 tion.

3 “(3) DESIGNATED ACTIVITY.—The term ‘des-
4 ignated activity’ has the meaning given the term in
5 section 20150.

6 “(4) ISS MANAGEMENT ENTITY.—The term
7 ‘ISS management entity’ has the meaning given the
8 term in section 20150.”.

9 (b) SPECIAL HANDLING OF TRADE SECRETS OR
10 CONFIDENTIAL INFORMATION.—Section 20131(b)(2) of
11 title 51, United States Code, is amended to read as fol-
12 lows:

13 “(2) INFORMATION DESCRIBED.—

14 “(A) ACTIVITIES UNDER AGREEMENT.—
15 Information referred to in paragraph (1) is in-
16 formation that—

17 “(i) results from activities conducted
18 under an agreement entered into under
19 subsections (e) and (f) of section 20113;
20 and

21 “(ii) would be a trade secret or com-
22 mercial or financial information that is
23 privileged or confidential within the mean-
24 ing of section 552(b)(4) of title 5 if the in-
25 formation had been obtained from a non-

1 Federal party participating in such an
2 agreement.

3 “(B) CERTAIN DATA.—Information re-
4 ferred to in paragraph (1) includes data (as de-
5 fined in section 20151) that—

6 “(i) was first produced by the Admin-
7 istration in the performance of any des-
8 igned activity (as defined in section
9 20150); and

10 “(ii) would be a trade secret or com-
11 mercial or financial information that is
12 privileged or confidential within the mean-
13 ing of section 552(b)(4) of title 5 if the
14 data had been obtained from a non-Fed-
15 eral party.”.

16 (c) CONFORMING AMENDMENT.—The table of sec-
17 tions for chapter 201 of title 51, United States Code, as
18 amended by section 212, is further amended by inserting
19 after the item relating to section 20150 the following:

“20151. Data rights.”.

20 **SEC. 214. STEPPING STONE APPROACH TO EXPLORATION.**

21 (a) IN GENERAL.—Section 70504 of title 51, United
22 States Code, is amended to read as follows:

23 **“§ 70504. Stepping stone approach to exploration**

24 “(a) IN GENERAL.—The Administrator, in sustain-
25 able steps, may conduct missions to intermediate destina-

1 tions, such as the Moon, in accordance with section
2 20302(b), and on a timetable determined by the avail-
3 ability of funding, in order to achieve the objective of
4 human exploration of Mars specified in section 202(b)(5)
5 of the National Aeronautics and Space Administration Au-
6 thorization Act of 2010 (42 U.S.C. 18312(b)(5)), if the
7 Administrator—

8 “(1) determines that each such mission dem-
9 onstrates or advances a technology or operational
10 concept that will enable human missions to Mars;
11 and

12 “(2) incorporates each such mission into the
13 human exploration roadmap under section 432 of
14 the National Aeronautics and Space Administration
15 Transition Authorization Act of 2017 (Public Law
16 115–10; 51 U.S.C. 20302 note).

17 “(b) CISLUNAR SPACE EXPLORATION ACTIVITIES.—
18 In conducting a mission under subsection (a), the Admin-
19 istrator shall—

20 “(1) use a combination of launches of the Space
21 Launch System and space transportation services
22 from United States commercial providers, as appro-
23 priate, for the mission;

24 “(2) plan for not fewer than 1 Space Launch
25 System launch annually beginning after the first

1 successful crewed launch of Orion on the Space
2 Launch System; and

3 “(3) establish an outpost in orbit around the
4 Moon that—

5 “(A) demonstrates technologies, systems,
6 and operational concepts directly applicable to
7 the space vehicle that will be used to transport
8 humans to Mars;

9 “(B) has the capability for periodic human
10 habitation; and

11 “(C) can function as a point of departure,
12 return, or staging for Administration or non-
13 governmental or international partner missions
14 to multiple locations on the lunar surface or
15 other destinations.

16 “(c) COST-EFFECTIVENESS.—To maximize the cost-
17 effectiveness of the long-term space exploration and utili-
18 zation activities of the United States, the Administrator
19 shall take all necessary steps, including engaging non-
20 governmental and international partners, to ensure that
21 activities in the Administration’s human space exploration
22 program are balanced in order to help meet the require-
23 ments of future exploration and utilization activities lead-
24 ing to human habitation on the surface of Mars.

1 “(d) COMPLETION.—Within budgetary consider-
2 ations, once an exploration-related project enters its devel-
3 opment phase, the Administrator shall seek, to the max-
4 imum extent practicable, to complete that project without
5 undue delay.

6 “(e) INTERNATIONAL PARTICIPATION.—To achieve
7 the goal of successfully conducting a crewed mission to
8 the surface of Mars, the Administrator shall invite the
9 partners in the ISS program and other nations, as appro-
10 priate, to participate in an international initiative under
11 the leadership of the United States.”.

12 (b) DEFINITION OF CISLUNAR SPACE.—Section
13 10101 of title 51, United States Code, is amended by add-
14 ing at the end the following:

15 “(3) CISLUNAR SPACE.—The term ‘cislunar
16 space’ means the region of space beyond low-Earth
17 orbit out to and including the region around the sur-
18 face of the Moon.”.

19 (c) TECHNICAL AND CONFORMING AMENDMENTS.—
20 Section 3 of the National Aeronautics and Space Adminis-
21 tration Authorization Act of 2010 (42 U.S.C. 18302) is
22 amended by striking paragraphs (2) and (3) and inserting
23 the following:

1 “(2) APPROPRIATE COMMITTEES OF CON-
2 GRESS.—The term ‘appropriate committees of Con-
3 gress’ means—

4 “(A) the Committee on Commerce,
5 Science, and Transportation of the Senate; and

6 “(B) the Committee on Science, Space,
7 and Technology of the House of Representa-
8 tives.

9 “(3) CISLUNAR SPACE.—The term ‘cislunar
10 space’ means the region of space beyond low-Earth
11 orbit out to and including the region around the sur-
12 face of the Moon.”.

13 **SEC. 215. TECHNICAL AMENDMENTS RELATING TO**
14 **ARTEMIS MISSIONS.**

15 (a) Section 421 of the National Aeronautics and
16 Space Administration Authorization Act of 2017 (Public
17 Law 115–10; 51 U.S.C. 20301 note) is amended—

18 (1) in subsection (c)(3)—

19 (A) by striking “EM–1” and inserting
20 “Artemis I”;

21 (B) by striking “EM–2” and inserting
22 “Artemis II”; and

23 (C) by striking “EM–3” and inserting
24 “Artemis III”; and

1 (2) in subsection (f)(3), by striking “EM–3”
2 and inserting “Artemis III”.

3 (b) Section 432(b) of the National Aeronautics and
4 Space Administration Authorization Act of 2017 (Public
5 Law 115–10; 51 U.S.C. 20302 note) is amended—

6 (1) in paragraph (3)(D)—

7 (A) by striking “EM–1” and inserting
8 “Artemis I”; and

9 (B) by striking “EM–2” and inserting
10 “Artemis II”; and

11 (2) in paragraph (4)(C), by striking “EM–3”
12 and inserting “Artemis III”.

13 **TITLE III—SAFETY AND** 14 **TRANSPARENCY**

15 **SEC. 301. CREW TRANSPORTATION SAFETY.**

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

18 (1) ensuring the safety of American astronauts
19 is the top priority of NASA’s human spaceflight pro-
20 gram;

21 (2) in efforts to meet deadlines to return hu-
22 mans to the Moon, NASA should take all steps nec-
23 essary to mitigate any and all risk to crew; and

24 (3) it is the role of Congress to exercise pru-
25 dence in the use of taxpayer dollars and ensure

1 transparency to the taxpayer to the greatest extent
2 possible.

3 (b) IN GENERAL.—To ensure that NASA’s human
4 exploration systems comply with the direction in this Act
5 to have a shared safety standard that is consistent across
6 all elements of the architecture, the Administrator shall—

7 (1) implement a program to ensure that best
8 practices, lessons learned and other information is
9 shared across all elements of the human exploration
10 program, including public-private partnerships and
11 commercial service procurement;

12 (2) require that any entity receiving funding for
13 the development or operation of a human spaceflight
14 element or activity make all necessary information
15 available to NASA and the appropriate government
16 oversight entities, including the NASA Advisory
17 Committee and its subcommittees, the Aerospace
18 Safety Advisory Committee and the relevant commit-
19 tees of Congress; and

20 (3) produce a public report twice a year detail-
21 ing progress towards meeting or sustaining the
22 shared safety standards and identifying areas, pro-
23 grams, or services where these standards have not
24 been met or maintained, and the associated correc-
25 tive action to address these issues.

1 (c) REPORT.—Within 120 days of enactment, the Ad-
2 ministrator shall provide a report to the Committees on
3 the implementation of this direction and how it plans to
4 ensure these comparable safety standards are met
5 throughout the development, test and operation of such
6 systems.

7 (d) CONGRESSIONAL NOTICE.—

8 (1) Should any element of human exploration
9 system architecture, whether owned and operated by
10 NASA, developed and operated as a public-private
11 partnership or procured as a commercial service,
12 fails to meet the common safety standards estab-
13 lished, Congress shall be notified and receive a re-
14 port on corrective actions and options available to
15 improve safety and resiliency of such system(s) with-
16 in 30 days.

17 **TITLE IV—U.S. NATIONAL**
18 **SECURITY**

19 **SEC. 401. CYBERSECURITY.**

20 (a) IN GENERAL.—Section 20301 of title 51, United
21 States Code, is amended by adding at the end the fol-
22 lowing:

23 “(c) CYBERSECURITY.—The Administrator shall up-
24 date and improve the cybersecurity of NASA space assets
25 and supporting infrastructure.”.

1 (b) SECURITY OPERATIONS CENTER.—

2 (1) ESTABLISHMENT.—The Administrator shall
3 maintain a Security Operations Center, to identify
4 and respond to cybersecurity threats to NASA infor-
5 mation technology systems, including institutional
6 systems and mission systems.

7 (2) INSPECTOR GENERAL RECOMMENDA-
8 TIONS.—The Administrator shall implement, to the
9 maximum extent practicable, each of the rec-
10 ommendations contained in the report of the Inspec-
11 tor General of NASA entitled “Audit of NASA’s Se-
12 curity Operations Center”, issued on May 23, 2018.

13 (c) CYBER THREAT HUNT.—

14 (1) IN GENERAL.—The Administrator, in co-
15 ordination with the Secretary of Homeland Security
16 and the heads of other relevant Federal agencies,
17 may implement a cyber threat hunt capability to
18 proactively search NASA information systems for
19 advanced cyber threats that otherwise evade existing
20 security tools.

21 (2) THREAT-HUNTING PROCESS.—In carrying
22 out paragraph (1), the Administrator shall develop
23 and document a threat-hunting process, including
24 the roles and responsibilities of individuals con-
25 ducting a cyber threat hunt.

(d) GAO PRIORITY RECOMMENDATIONS.—The Administrator shall implement, to the maximum extent practicable, the recommendations for NASA contained in the report of the Comptroller General of the United States entitled “Information Security: Agencies Need to Improve Controls over Selected High-Impact Systems”, issued May 18, 2016, including—

- (1) re-evaluating security control assessments;
- and
- (2) specifying metrics for the continuous monitoring strategy of the Administration.

SEC. 402. EXEMPTION FROM THE IRAN, NORTH KOREA, AND SYRIA NONPROLIFERATION ACT.

Section 7(1) of the Iran, North Korea, and Syria Nonproliferation Act (Public Law 106–178; 50 U.S.C. 1701 note) is amended, in the undesignated matter following subparagraph (B), by striking “December 31, 2020” and inserting “December 31, 2030”.

SEC. 403. LIMITATION ON COOPERATION WITH THE PEOPLE’S REPUBLIC OF CHINA.

(a) IN GENERAL.—Except as provided by subsection (b), the Administrator, the Director of the Office of Science and Technology Policy, and the Chair of the National Space Council, shall not—

1 (1) develop, design, plan, promulgate, imple-
2 ment, or execute a bilateral policy, program, order,
3 or contract of any kind to participate, collaborate, or
4 coordinate bilaterally in any manner with—

5 (A) the Government of the People's Repub-
6 lic of China; or

7 (B) any company—

8 (i) owned by the Government of the
9 People's Republic of China; or

10 (ii) incorporated under the laws of the
11 People's Republic of China; and

12 (2) host official visitors from the People's Re-
13 public of China at a facility belonging to or used by
14 NASA.

15 (b) WAIVER.—

16 (1) IN GENERAL.—The Administrator, the Di-
17 rector, or the Chair may waive the limitation under
18 subsection (a) with respect to an activity described
19 in that subsection only if the Administrator, the Di-
20 rector, or the Chair, as applicable, makes a deter-
21 mination that the activity—

22 (A) does not pose a risk of a transfer of
23 technology, data, or other information with na-
24 tional security or economic security implications

1 to an entity described in paragraph (1) of such
2 subsection; and

3 (B) does not involve knowing interactions
4 with officials who have been determined by the
5 United States to have direct involvement with
6 violations of human rights.

7 (2) CERTIFICATION TO CONGRESS.—Not later
8 than 30 days after the date on which a waiver is
9 granted under paragraph (1), the Administrator, the
10 Director, or the Chair, as applicable, shall submit to
11 the Committee on Commerce, Science, and Trans-
12 portation and the Committee on Appropriations of
13 the Senate and the Committee on Science, Space,
14 and Technology and the Committee on Appropria-
15 tions of the House of Representatives a written cer-
16 tification that the activity complies with the require-
17 ments in subparagraphs (A) and (B) of that para-
18 graph.

19 **SEC. 404. COUNTERING CHINESE THREATS TO U.S. ACTIVI-**
20 **TIES IN SPACE.**

21 (a) FINDINGS.—

22 (1) The Government of the People's Republic of
23 China maintains, as a national priority, a global pro-
24 gram of theft and other misappropriation of intellec-
25 tual property, and unacceptable technology transfer

1 requirements, particularly in fields of high tech-
2 nology.

3 (2) China is taking steps to establish a com-
4 manding position in the commercial launch and sat-
5 ellite sectors relying in part on aggressive state-
6 backed financing that market-driven companies can-
7 not match.

8 (3) China has engaged in an aggressive cam-
9 paign to dominate sensitive markets such as germa-
10 nium wafer production, used for nearly all special-
11 ized satellite solar panels, allowing China ownership
12 of over 70 percent of global germanium mining, re-
13 fining, and production.

14 (4) China has begun focusing on the lunar sur-
15 face and cislunar space as priorities in its space pro-
16 gram, which is indistinguishable from its armed
17 forces.

18 (b) REPORT.—Not later than 90 days after the date
19 of enactment, the Executive Secretary of the National
20 Space Council shall submit to the appropriate committees
21 of Congress a report that includes:

22 (1) How China is harming the U.S. commercial
23 space industry's competitiveness and threatening
24 U.S. national security. Specifically, the Executive
25 Secretary shall investigate—

1 (A) theft of intellectual property through
2 technology transfer requirements or otherwise;

3 (B) Chinese efforts to seize control over
4 critical elements of the space industry supply
5 chain;

6 (C) Chinese efforts to seize control over
7 space industry companies, sister companies with
8 shared leadership, or supply chain; and

9 (D) U.S. cybersecurity weaknesses.

10 (2) Current steps the United States is taking to
11 protect its domestic space industry from Chinese in-
12 fluence.

13 (3) Recommendations to Congress on legislative
14 action necessary to address Chinese threats to the
15 U.S. domestic commercial launch and satellite indus-
16 tries and improve U.S. efforts to counter threats to
17 U.S. activities in space.

18 (4) Recommendations on how the U.S. Govern-
19 ment can best utilize existing Federal entities to in-
20 vestigate and act against potentially harmful Chi-
21 nese investment into the U.S. commercial space in-
22 dustry, and how the U.S. Government can bolster
23 domestic investment in critical U.S. space industry
24 technologies.

1 **SEC. 405. CONSIDERATION OF ISSUES RELATED TO CON-**
2 **TRACTING WITH ENTITIES RECEIVING AS-**
3 **SISTANCE FROM OR AFFILIATED WITH THE**
4 **PEOPLE'S REPUBLIC OF CHINA.**

5 In considering any response to a request for a pro-
6 posal, request for information, broad area announcement,
7 or any other form of request or solicitation, and in consid-
8 ering or undertaking any negotiation or conclusion of any
9 contract, agreement, or other transaction with any com-
10 mercial or non-commercial entity, the Administrator shall,
11 in consultation with appropriate Federal departments and
12 agencies, take into account the implications of any benefit
13 received by such commercial or non-commercial entity (or
14 any other commercial or non-commercial entity related
15 through ownership, control, or other affiliation to such en-
16 tity) as a result of a significant loan or other financial
17 assistance provided by—

18 (1) any governmental organization of the Peo-
19 ple's Republic of China; or

20 (2) any other entity that is—

21 (A) majority owned or controlled by, or
22 otherwise affiliated with, any governmental or-
23 ganization of the People's Republic of China; or

24 (B) organized under, or otherwise subject
25 to, the laws of the People's Republic of China.