

radio frequency spectrum policies, regulation, and United States activities at the International Telecommunication Union and other multilateral forums.

SEC. 6. *Review of Export Licensing Regulations.* The Executive Secretary of the National Space Council, in coordination with the members of the National Space Council, shall:

(a) initiate a review of export licensing regulations affecting commercial space flight activity;

(b) develop recommendations to revise such regulations consistent with the policy set forth in section 1 of this memorandum and with applicable law; and

(c) submit such recommendations to the President, through the Vice President, no later than 180 days from the date of this memorandum.

SEC. 7. *General Provisions.* (a) Nothing in this memorandum shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This memorandum shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(d) The Secretary of Transportation is authorized and directed to publish this memorandum in the Federal Register.

DONALD J. TRUMP.

SUBCHAPTER II—PROMOTION OF COMMERCIAL SPACE OPPORTUNITIES

§ 50111. Commercialization of Space Station

(a) **POLICY.**—Congress declares that a priority goal of constructing the International Space Station is the economic development of Earth orbital space. Congress further declares that free and competitive markets create the most efficient conditions for promoting economic development, and should therefore govern the economic development of Earth orbital space. Congress further declares that the use of free market principles in operating, servicing, allocating the use of, and adding capabilities to the Space Station, and the resulting fullest possible engagement of commercial providers and participation of commercial users, will reduce Space Station operational costs for all partners and the Federal Government's share of the United States burden to fund operations.

(b) **USE OF UNITED STATES COMMERCIALY PROVIDED SERVICES.**—

(1) **IN GENERAL.**—In order to stimulate commercial use of space, help maximize the utility and productivity of the International Space Station, and enable a commercial means of providing crew transfer and crew rescue services for the International Space Station, the Administration shall—

(A) make use of United States commercially provided International Space Station crew transfer and crew rescue services to the maximum extent practicable, if those commercial services have demonstrated the capability to meet Administration-specified ascent, entry, and International Space Station proximity operations safety requirements;

(B) limit, to the maximum extent practicable, the use of the Crew Exploration Vehicle to missions carrying astronauts beyond low Earth orbit once commercial crew transfer and crew rescue services that meet safety requirements become operational;

(C) facilitate, to the maximum extent practicable, the transfer of Administration-developed technologies to potential United States commercial crew transfer and rescue service providers, consistent with United States law; and

(D) issue a notice of intent, not later than 180 days after October 15, 2008, to enter into a funded, competitively awarded Space Act Agreement with 2 or more commercial entities for a Phase 1 Commercial Orbital Transportation Services crewed vehicle demonstration program.

(2) **CONGRESSIONAL INTENT.**—It is the intent of Congress that funding for the program described in paragraph (1)(D) shall not come at the expense of full funding of the amounts authorized under section 101(3)(A) of the National Aeronautics and Space Administration Authorization Act of 2008 (Public Law 110-422, 122 Stat. 4783), and for future fiscal years, for Orion Crew Exploration Vehicle development, Ares I Crew Launch Vehicle development, or International Space Station cargo delivery.

(3) **ADDITIONAL TECHNOLOGIES.**—The Administration shall make International Space Station-compatible docking adaptors and other relevant technologies available to the commercial crew providers selected to service the International Space Station.

(4) **CREW TRANSFER AND CREW RESCUE SERVICES CONTRACT.**—If a commercial provider demonstrates the capability to provide International Space Station crew transfer and crew rescue services and to satisfy Administration ascent, entry, and International Space Station proximity operations safety requirements, the Administration shall enter into an International Space Station crew transfer and crew rescue services contract with that commercial provider for a portion of the Administration's anticipated International Space Station crew transfer and crew rescue requirements from the time the commercial provider commences operations under contract with the Administration through calendar year 2016, with an option to extend the period of performance through calendar year 2020.

(c) **ISS TRANSITION PLAN.**—

(1) **IN GENERAL.**—The Administrator, in coordination with the ISS management entity (as defined in section 2 of the National Aeronautics and Space Administration Transition Authorization Act of 2017), ISS partners, the scientific user community, and the commercial space sector, shall develop a plan to transition in a step-wise approach from the current regime that relies heavily on NASA sponsorship to a regime where NASA could be one of many customers of a low-Earth orbit non-governmental human space flight enterprise.

(2) **REPORTS.**—Not later than December 1, 2017, and biennially thereafter until 2028, the Administrator shall submit to the Committee

on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report that includes—

(A) a description of the progress in achieving the Administration’s deep space human exploration objectives on ISS and prospects for accomplishing future mission requirements, space exploration objectives, and other research objectives on future commercially supplied low-Earth orbit platforms or migration of those objectives to cis-lunar space;

(B) the steps NASA is taking and will take, including demonstrations that could be conducted on the ISS, to stimulate and facilitate commercial demand and supply of products and services in low-Earth orbit;

(C) an identification of barriers preventing the commercialization of low-Earth orbit, including issues relating to policy, regulations, commercial intellectual property, data, and confidentiality, that could inhibit the use of the ISS as a commercial incubator;

(D) the criteria for defining the ISS as a research success;

(E) the criteria used to determine whether the ISS is meeting the objective under section 301(b)(2) of the National Aeronautics and Space Administration Transition Authorization Act of 2017;

(F) an assessment of whether the criteria under subparagraphs (D) and (E) are consistent with the research areas defined in, and recommendations and schedules under, the current National Academies of Sciences, Engineering, and Medicine Decadal Survey on Biological and Physical Sciences in Space;

(G) any necessary contributions that ISS extension would make to enabling execution of the human exploration roadmap under section 432 of the National Aeronautics and Space Administration Transition Authorization Act of 2017;

(H) the cost estimates for operating the ISS to achieve the criteria required under subparagraphs (D) and (E) and the contributions identified under subparagraph (G);

(I) the cost estimates for extending operations of the ISS to 2024, 2028, and 2030;

(J) an evaluation of the feasible and preferred service life of the ISS beyond the period described in section 503 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18353), through at least 2030, as a unique scientific, commercial, and space exploration-related facility, including—

(i) a general discussion of international partner capabilities and prospects for extending the partnership;

(ii) the cost associated with extending the service life;

(iii) an assessment on the technical limiting factors of the service life of the ISS, including a list of critical components and their expected service life and availability; and

(iv) such other information as may be necessary to fully describe the justifica-

tion for and feasibility of extending the service life of the ISS, including the potential scientific or technological benefits to the Federal Government, public, or to academic or commercial entities;

(K) an identification of the necessary actions and an estimate of the costs to deorbit the ISS once it has reached the end of its service life;

(L) the impact on deep space exploration capabilities, including a crewed mission to Mars in the 2030s, if the preferred service life of the ISS is extended beyond 2024 and NASA maintains a flat budget profile; and

(M) an evaluation of the functions, roles, and responsibilities for management and operation of the ISS and a determination of—

(i) those functions, roles, and responsibilities the Federal Government should retain during the lifecycle of the ISS;

(ii) those functions, roles, and responsibilities that could be transferred to the commercial space sector;

(iii) the metrics that would indicate the commercial space sector’s readiness and ability to assume the functions, roles, and responsibilities described in clause (ii); and

(iv) any necessary changes to any agreements or other documents and the law to enable the activities described in subparagraphs (A) and (B).

(3) DEMONSTRATIONS.—If additional Government crew, power, and transportation resources are available after meeting the Administration’s requirements for ISS activities defined in the human exploration roadmap and related research, demonstrations identified under paragraph (2) may—

(A) test the capabilities needed to meet future mission requirements, space exploration objectives, and other research objectives described in paragraph (2)(A); and

(B) demonstrate or test capabilities, including commercial modules or deep space habitats, Environmental Control and Life Support Systems, orbital satellite assembly, exploration space suits, a node that enables a wide variety of activity, including multiple commercial modules and airlocks, additional docking or berthing ports for commercial crew and cargo, opportunities for the commercial space sector to cost share for transportation and other services on the ISS, other commercial activities, or services obtained through alternate acquisition approaches.

(Pub. L. 111–314, §3, Dec. 18, 2010, 124 Stat. 3396; Pub. L. 115–10, title III, §303(c), Mar. 21, 2017, 131 Stat. 27; Pub. L. 117–167, div. B, title VII, §10815(e), Aug. 9, 2022, 136 Stat. 1738.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
50111(a)	42 U.S.C. 14711(a).	Pub. L. 105–303, title I, §101(a), Oct. 28, 1998, 112 Stat. 2845.
50111(b)	42 U.S.C. 17801.	Pub. L. 110–422, title IX, §902, Oct. 15, 2008, 122 Stat. 4805.

In subsection (b)(1)(D), the date “October 15, 2008” is substituted for “the date of enactment of this Act” to

reflect the date of enactment of the National Aeronautics and Space Administration Authorization Act of 2008 (Public Law 110-422, 122 Stat. 4779).

Editorial Notes

REFERENCES IN TEXT

Section 101(3)(A) of the National Aeronautics and Space Administration Authorization Act of 2008, referred to in subsec. (b)(2), is section 101(3)(A) of Pub. L. 110-422, Oct. 15, 2008, 122 Stat. 4783, which was not classified to the Code.

The National Aeronautics and Space Administration Transition Authorization Act of 2017, referred to in subsec. (c)(1), (2)(E), (G), is Pub. L. 115-10, Mar. 21, 2017, 131 Stat. 18. Section 2 of the Act is set out as a note under section 10101 of this title, section 301(b)(2) of the Act is set out in a note under this section, and section 432 of the Act is set out in a note under section 20302 of this title.

AMENDMENTS

2022—Subsec. (c)(2). Pub. L. 117-167, §10815(e)(1), substituted “2028” for “2023” in introductory provisions.

Subsec. (c)(2)(J). Pub. L. 117-167, §10815(e)(2), substituted “2030” for “2028” in introductory provisions.

2017—Subsec. (c). Pub. L. 115-10 added subsec. (c).

Statutory Notes and Related Subsidiaries

MAXIMIZING UTILIZATION OF ISS

Pub. L. 115-10, title III, §§301-303, Mar. 21, 2017, 131 Stat. 22-26, provided that:

“SEC. 301. OPERATION OF THE ISS.

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

“(1) after 15 years of continuous human presence in low-Earth orbit, the ISS continues to overcome challenges and operate safely;

“(2) the ISS is a unique testbed for future space exploration systems development, including long-duration space travel;

“(3) the expansion of partnerships, scientific research, and commercial applications of the ISS is essential to ensuring the greatest return on investments made by the United States and its international space partners in the development, assembly, and operations of that unique facility;

“(4) utilization of the ISS will sustain United States leadership and progress in human space exploration by—

“(A) facilitating the commercialization and economic development of low-Earth orbit;

“(B) serving as a testbed for technologies and a platform for scientific research and development; and

“(C) serving as an orbital facility enabling research upon—

“(i) the health, well-being, and performance of humans in space; and

“(ii) the development of in-space systems enabling human space exploration beyond low-Earth orbit; and

“(5) the ISS provides a platform for fundamental, microgravity, discovery-based space life and physical sciences research that is critical for enabling space exploration, protecting humans in space, increasing pathways for commercial space development that depend on advances in basic research, and contributes to advancing science, technology, engineering, and mathematics research.

“(b) OBJECTIVES.—The primary objectives of the ISS program shall be—

“(1) to achieve the long term goal and objectives under section 202 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18312); and

“(2) to pursue a research program that advances knowledge and provides other benefits to the Nation.

“(c) CONTINUATION OF THE ISS.—[Amended section 18351 of Title 42, The Public Health and Welfare.]

“SEC. 302. TRANSPORTATION TO ISS.

“(a) FINDINGS.—Congress finds that reliance on foreign carriers for United States crew transfer is unacceptable, and the Nation’s human space flight program must acquire the capability to launch United States government astronauts on vehicles using United States rockets from United States soil as soon as is safe, reliable, and affordable to do so.

“(b) SENSE OF CONGRESS ON COMMERCIAL CREW PROGRAM AND COMMERCIAL RESUPPLY SERVICES PROGRAM.—It is the sense of Congress that—

“(1) once developed and certified to meet the Administration’s safety and reliability requirements, United States commercially provided crew transportation systems can serve as the primary means of transporting United States government astronauts and international partner astronauts to and from the ISS and serving as ISS crew rescue vehicles;

“(2) previous budgetary assumptions used by the Administration in its planning for the Commercial Crew Program assumed significantly higher funding levels than were authorized and appropriated by Congress;

“(3) credibility in the Administration’s budgetary estimates for the Commercial Crew Program can be enhanced by an independently developed cost estimate;

“(4) such credibility in budgetary estimates is an important factor in understanding program risk;

“(5) United States access to low-Earth orbit is paramount to the continued success of the ISS and ISS National Laboratory;

“(6) a stable and successful Commercial Resupply Services Program and Commercial Crew Program are critical to ensuring timely provisioning of the ISS and to reestablishing the capability to launch United States government astronauts from United States soil into orbit, ending reliance upon Russian transport of United States government astronauts to the ISS which has not been possible since the retirement of the Space Shuttle program in 2011;

“(7) NASA should build upon the success of the Commercial Orbital Transportation Services Program and Commercial Resupply Services Program that have allowed private sector companies to partner with NASA to deliver cargo and scientific experiments to the ISS since 2012;

“(8) the 21st Century Launch Complex Program has enabled significant modernization and infrastructure improvements at launch sites across the United States to support NASA’s Commercial Resupply Services Program and other civil and commercial space flight missions; and

“(9) the 21st Century Launch Complex Program should be continued in a manner that leverages State and private investments to achieve the goals of that program.

“(c) REAFFIRMATION.—Congress reaffirms—

“(1) its commitment to the use of a commercially developed, private sector launch and delivery system to the ISS for crew missions as expressed in the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109-155; 119 Stat. 2895) [see Tables for classification], the National Aeronautics and Space Administration Authorization Act of 2008 (Public Law 110-422; 122 Stat. 4779) [see Tables for classification], and the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18301 et seq.); and

“(2) the requirement under section 50111(b)(1)(A) of title 51, United States Code, that the Administration shall make use of United States commercially provided ISS crew transfer and crew rescue services to the maximum extent practicable.

“(d) USE OF NON-UNITED STATES HUMAN SPACE FLIGHT TRANSPORTATION CAPABILITIES.—[Amended section 18311 of Title 42.]

“(e) COMMERCIAL CREW PROGRAM.—

“(1) OBJECTIVE.—The objective of the Commercial Crew Program shall be to assist in the development and certification of commercially provided transportation that—

“(A) can carry United States government astronauts safely, reliably, and affordably to and from the ISS;

“(B) can serve as a crew rescue vehicle; and

“(C) can accomplish subparagraphs (A) and (B) as soon as practicable.

“(2) PRIMARY CONSIDERATION.—The objective described in paragraph (1) shall be the primary consideration in the acquisition strategy for the Commercial Crew Program.

“(3) SAFETY.—

“(A) IN GENERAL.—The Administrator shall protect the safety of government astronauts by ensuring that each commercially provided transportation system under this subsection meets all applicable human rating requirements in accordance with section 403(b)(1) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18342(b)(1)).

“(B) LESSONS LEARNED.—Consistent with the findings and recommendations of the Columbia Accident Investigation Board, the Administration shall ensure that safety and the minimization of the probability of loss of crew are the critical priorities of the Commercial Crew Program.

“(4) COST MINIMIZATION.—The Administrator shall strive through the competitive selection process to minimize the life cycle cost to the Administration through the planned period of commercially provided crew transportation services.

“(f) COMMERCIAL CARGO PROGRAM.—[Amended section 18341 of Title 42.]

“(g) COMPETITION.—It is the policy of the United States that, to foster the competitive development, operation, improvement, and commercial availability of space transportation services, and to minimize the life cycle cost to the Administration, the Administrator shall procure services for Federal Government access to and return from the ISS, whenever practicable, via fair and open competition for well-defined, milestone-based, Federal Acquisition Regulation-based contracts under section 201(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18311(a)).

“(h) TRANSPARENCY.—

“(1) SENSE OF CONGRESS.—It is the sense of Congress that cost transparency and schedule transparency aid in effective program management and risk assessment.

“(2) IN GENERAL.—The Administrator shall, to the greatest extent practicable and in a manner that does not add costs or schedule delays to the program, ensure all Commercial Crew Program and Commercial Resupply Services Program providers provide evidence-based support for their costs and schedules.

“(i) ISS CARGO RESUPPLY SERVICES LESSONS LEARNED.—Not later than 120 days after the date of enactment of this Act [Mar. 21, 2017], the Administrator shall submit to the appropriate committees of Congress a report that—

“(1) identifies the lessons learned to date from previous and existing Commercial Resupply Services contracts;

“(2) indicates whether changes are needed to the manner in which the Administration procures and manages similar services prior to the issuance of future Commercial Resupply Services procurement opportunities; and

“(3) identifies any lessons learned from the Commercial Resupply Services contracts that should be applied to the procurement and management of commercially provided crew transfer services to and from the ISS or to other future procurements.

“SEC. 303. ISS TRANSITION PLAN.

“(a) FINDINGS.—Congress finds that—

“(1) NASA has been both the primary supplier and consumer of human space flight capabilities and services of the ISS and in low-Earth orbit; and

“(2) according to the National Research Council report ‘Pathways to Exploration: Rationales and Approaches for a U.S. Program of Human Space Exploration’ extending ISS beyond 2020 to 2024 or 2028 will have significant negative impacts on the schedule of crewed missions to Mars, without significant increases in funding.

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

“(1) an orderly transition for United States human space flight activities in low-Earth orbit from the current regime, that relies heavily on NASA sponsorship, to a regime where NASA is one of many customers of a low-Earth orbit commercial human space flight enterprise may be necessary; and

“(2) decisions about the long-term future of the ISS impact the ability to conduct future deep space exploration activities, and that such decisions regarding the ISS should be considered in the context of the human exploration roadmap under section 432 of this Act [set out in a note under section 20302 of this title].

“(c) REPORTS.—[Amended this section.]”

[For definitions of terms used in sections 301 to 303 of Pub. L. 115–10, set out above, see section 2 of Pub. L. 115–10, set out as a note under section 10101 of this title.]

§ 50112. Promotion of United States Global Positioning System standards

In order to support and sustain the Global Positioning System in a manner that will most effectively contribute to the national security, public safety, scientific, and economic interests of the United States, Congress encourages the President to—

(1) ensure the operation of the Global Positioning System on a continuous worldwide basis free of direct user fees;

(2) enter into international agreements that promote cooperation with foreign governments and international organizations to—

(A) establish the Global Positioning System and its augmentations as an acceptable international standard; and

(B) eliminate any foreign barriers to applications of the Global Positioning System worldwide; and

(3) provide clear direction and adequate resources to the Assistant Secretary of Commerce for Communications and Information so that on an international basis the Assistant Secretary can—

(A) achieve and sustain efficient management of the electromagnetic spectrum used by the Global Positioning System; and

(B) protect that spectrum from disruption and interference.

(Pub. L. 111–314, § 3, Dec. 18, 2010, 124 Stat. 3397.)

HISTORICAL AND REVISION NOTES

Revised Section	Source (U.S. Code)	Source (Statutes at Large)
50112	42 U.S.C. 14712(b).	Pub. L. 105–303, title I, §104(b), Oct. 28, 1998, 112 Stat. 2852.

Statutory Notes and Related Subsidiaries

FINDING

Pub. L. 105–303, title I, §104(a), Oct. 28, 1998, 112 Stat. 2852, provided that: “The Congress finds that the Global