S.933 Cruz-Cantwell Substitute, as modified

MCC26199 KF6 S.L.C.

AMENDMENT NO._____ Calendar No._____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—119th Cong., 2d Sess.

S. 933

To authorize programs for the National Aeronautics and Space Administration for fiscal year 2025, 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 and Ms. CANTWELL)

Viz:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "NASA Authorization Act of 2026".

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

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

TITLE I—AUTHORIZATION OF APPROPRIATIONS

Sec. 101. Authorization of NASA.

TITLE II—EXPLORATION

Sec. 201. Continuity of purpose for space exploration.
Sec. 202. Artemis program.
Sec. 203. Space launch system.
Sec. 204. Human-rated lunar landing capabilities.
Sec. 205. Advanced spacesuit capabilities.
Sec. 206. Briefing on lunar outpost.
Sec. 207. Lunar Terrain Vehicle element.
Sec. 208. Exploration ground systems.
Sec. 209. Commercial Lunar Payload Services program.
Sec. 210. Moon Base.

TITLE III—SPACE OPERATIONS

Sec. 301. Maximizing United States presence in low-Earth orbit.
Sec. 302. Commercial low-Earth-orbit development program.
Sec. 303. Managed transition from ISS to commercial low-Earth-orbit destinations.
Sec. 304. Extension of International Space Station.
Sec. 305. Reporting and oversight.
Sec. 306. Transition to a commercially led low-Earth-orbit economy.
Sec. 307. Nongovernmental missions on the International Space Station.
Sec. 308. Briefing on use of commercial suborbital vehicles for crewed missions.
Sec. 309. Lunar communications.
Sec. 310. Report on space communications upgrades.
Sec. 311. Lunar time standardization.
Sec. 312. Lunar surface power.
Sec. 313. Commercial lunar data acquisition.
Sec. 314. Crew rescue capabilities.
Sec. 315. Commercial launch services.

TITLE IV—SPACE TECHNOLOGY AND STEM EDUCATION

Sec. 401. Space Technology Mission Directorate.
Sec. 402. Small Business Innovation Research and Small Business Technology Transfer.
Sec. 403. Sense of Congress on cryogenic fluid valve technology.
Sec. 404. Space nuclear power and propulsion systems.
Sec. 405. Study on establishment of an aerospace power systems laboratory.
Sec. 406. National space grant college and fellowship program.
Sec. 407. Skilled technical workforce education outreach.
Sec. 408. Active orbital debris remediation demonstration.

TITLE V—AERONAUTICS

Sec. 501. Hypersonic research.
Sec. 502. Advanced materials and manufacturing technology.
Sec. 503. Unmanned aircraft systems and advanced air mobility.
Sec. 504. Hydrogen aviation.
Sec. 505. High-performance chase aircraft.
Sec. 506. Electrified powertrain flight demonstration.
Sec. 507. Study on modernization of T–38 flight trainer aircraft fleet.
Sec. 508. Subsonic thin-wing flight technologies.
Sec. 509. Advanced capabilities for airspace management.

TITLE VI—SCIENCE

Sec. 601. Maintenance of balanced science portfolio.

Sec. 602. Implementation of science mission cost caps.
Sec. 603. Modification of National Academies decadal surveys.
Sec. 604. Report on Landsat mission.
Sec. 605. Commercial satellite data.
Sec. 606. Planetary science portfolio.
Sec. 607. Planetary defense.
Sec. 608. Lunar discovery and exploration program.
Sec. 609. Plan for planetary and lunar operations.
Sec. 610. Restructuring of Mars Sample Return program.
Sec. 611. Heliophysics research.
Sec. 612. Report on Geospace Dynamics Constellation mission.
Sec. 613. Sense of Congress on Nancy Grace Roman Space Telescope.
Sec. 614. Plan for Apophis science mission.
Sec. 615. Plan to launch Volatiles Investigating Polar Exploration Rover.
Sec. 616. Dedicated science rideshare pilot program.
Sec. 617. Continuation of Chandra X-ray Observatory.
Sec. 618. Great Observatories Mission and Technology Maturation project.
Sec. 619. Flight opportunities.
Sec. 620. Annual report on Hubble Space Telescope and the James Webb Space Telescope.
Sec. 621. Sense of Congress on Earth science data.
Sec. 622. Support for astrophysical observatories and national high-energy astrophysics hubs.
Sec. 623. Studies on Mars-focused missions using commercial heavy-lift systems.

TITLE VII—POLICY

Sec. 701. NASA Advisory Council.
Sec. 702. Assessment of early cost estimates.
Sec. 703. Role of NASA in commercial space activities.
Sec. 704. Relationships with the People's Republic of China.
Sec. 705. Findings relating to contract flexibility.
Sec. 706. GAO report.
Sec. 707. Public-private talent program.
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Sec. 710. Physical security modernization.
Sec. 711. NASA agreements with private and commercial entities and State governments to provide certain supplies, support, and services.
Sec. 712. Aerospace infrastructure modernization.
Sec. 713. Enhanced use leases.
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Sec. 715. Identification of and justification for redactions.
Sec. 716. Commercial activity at Wallops Flight Facility.
Sec. 717. Continuity of purpose for NASA activities.
Sec. 718. Transmission of data to Congress.
Sec. 719. Timely responses to Congress.
Sec. 720. Transparency in firm-fixed-price contracts.
Sec. 721. Chief Scientist.
Sec. 722. Chief Economist.
Sec. 723. Chief Technologist.
Sec. 724. Report on indemnification framework for civil and commercial space nuclear technologies.
Sec. 725. Confidentiality of medical quality assurance records.

Sec. 726. Reports to Congress.
Sec. 727. Rule of construction.

SEC. 2. DEFINITIONS.

In this Act:

(1) ADMINISTRATION.—The term "Administration" means the National Aeronautics and Space Administration.

(2) ADMINISTRATOR.—The term "Administrator" means the Administrator of the National Aeronautics and Space Administration.

(3) APPROPRIATE COMMITTEES OF CONGRESS.—The term "appropriate committees of Congress" means—

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

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

(4) CISLUNAR SPACE.—The term "cislunar space" means the region of space beyond low-Earth orbit out to and including the region around the surface of the Moon.

(5) COMMERCIAL LUNAR PAYLOAD SERVICES PROGRAM.—The term "Commercial Lunar Payload Services program" means the multiple-award, indefinite-delivery, indefinite-quantity NASA contracting

vehicle that enables end-to-end commercial lunar payload delivery services to the lunar surface.

(6) COMMERCIAL PROVIDER.—The term "commercial provider" means any person providing space services or space-related capabilities, primary control of which is held by persons other than the Federal Government, a State or local government, or a foreign government.

(7) CONTINUOUS HUMAN PRESENCE.—The term "continuous human presence" means the maintenance by the United States of the presence, in low-Earth orbit on 1 or more space stations on a permanent, ongoing basis, of not fewer than—

(A) 1 government astronaut; or

(B) 1 astronaut sponsored by the United States Government.

(8) DEEP SPACE.—The term "deep space" means the region of space beyond low-Earth orbit that includes cislunar space.

(9) GOVERNMENT ASTRONAUT.—The term "government astronaut" has the meaning given such term in section 50902 of title 51, United States Code.

(10) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the

meaning given the term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).

(11) ISS.—The term "ISS" means the International Space Station.

(12) LOW-EARTH ORBIT.—The term "low-Earth orbit" means the area encompassing Earth-centered orbits at an altitude of not more than 1,200 miles (2,000 kilometers).

(13) NASA.—The term "NASA" means the National Aeronautics and Space Administration.

(14) ORION.—The term "Orion" means the multipurpose crew vehicle described in section 303 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18323).

(15) SPACE LAUNCH SYSTEM.—The term "Space Launch System" means the Space Launch System authorized under section 302 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18322).

(16) COMMERCIAL MARKET ESTIMATES.—The term "commercial market estimates" means rigorous quantitative estimates of the current and most-likely future revenues that commercial providers may capture from sources other than the Administration, with appropriate sensitivity analyses, and assess-

ments of the ability of such providers to sustainably provide services to the Administration.

TITLE I—AUTHORIZATION OF APPROPRIATIONS

SEC. 101. AUTHORIZATION OF NASA.

(a) FISCAL YEAR 2026.—For fiscal year 2026, there is authorized to be appropriated to NASA $24,670,515,000 as follows:

(1) For the Exploration Systems Development Mission Directorate, $7,783,000,000.

(2) For the Space Operations Mission Directorate, $4,175,000,000.

(3) For the Space Technology Mission Directorate, $975,000,000.

(4) For the Science Mission Directorate, $7,300,000,000.

(5) For the Aeronautics Research Mission Directorate, $950,000,000.

(6) For the Office of STEM Engagement, $147,500,000.

(7) For Safety, Security, and Mission Services, $3,107,079,000.

(8) For Construction and Environmental Compliance and Restoration, $185,336,000.

(9) For Inspector General, $47,600,000.

(b) FISCAL YEAR 2027.—For fiscal year 2027, there is authorized to be appropriated to NASA $25,287,277,875 as follows:

(1) For the Exploration Systems Development Mission Directorate, $7,977,575,000.

(2) For the Space Operations Mission Directorate, $4,279,375,000.

(3) For the Space Technology Mission Directorate, $999,375,000.

(4) For the Science Mission Directorate, $7,482,500,000.

(5) For the Aeronautics Research Mission Directorate, $973,750,000.

(6) For the Office of STEM Engagement, $151,187,500.

(7) For Safety, Security, and Mission Services, $3,184,755,975.

(8) For Construction and Environmental Compliance and Restoration, $189,969,400.

(9) For Inspector General, $48,790,000.

TITLE II—EXPLORATION

SEC. 201. CONTINUITY OF PURPOSE FOR SPACE EXPLORATION.

(a) FINDINGS.—Congress makes the following findings:

(1) NASA continues to make progress in developing and testing the Space Launch System, Orion, and associated ground systems, including through—

(A) the successful completion of the Artemis I mission in November 2022; and

(B) continued preparations for the Artemis II crewed flight demonstration mission.

(2) The number of spacefaring countries is increasing, and foreign countries have expanded activities for space exploration efforts, including efforts to explore and use the Moon through human and robotic missions in partnership with the United States, independently, or with adversaries of the United States through alternative arrangements such as the International Lunar Research Station (ILRS) of the People's Republic of China.

(3) A strong and ambitious space exploration program conducted with international and commercial partners is important to maintaining United States leadership in space and enhancing the international competitiveness of the United States, especially with respect to space exploration efforts of adversaries.

(4) The development of clear mission objectives, tied to concrete long-term programmatic and na-

tional policy goals, is a method for ensuring accountability, enhancing public support for exploration missions, and providing a clear signal of commitment to both international and domestic partners.

(b) CONTINUITY OF EXISTING CAPABILITIES AND PROGRAMS.—

(1) SPACE EXPLORATION.—As part of the human exploration activities of the Administration, including progress on Artemis missions and activities, the Administrator shall continue development of space exploration elements pursuant to section 10811 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20302 note; Public Law 117–167).

(2) LOGISTICAL SERVICES.—The Administrator shall leverage the private sector for logistical services to the extent practicable, consistent with the Moon to Mars architecture requirements and in accordance with section 50131 of title 51, United States Code.

(3) CONTINUITY OF PURPOSE.—Congress reaffirms the need to maintain continuity of purpose as described in section 201 of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (Public Law 115–10; 131 Stat. 21).

(c) MARS EXPLORATION COORDINATION.—

(1) IN GENERAL.—In carrying out exploration missions to and around Mars, including science missions and infrastructure development missions for future human exploration missions, the Administrator shall establish and maintain a robust process for collaboration and coordination across all NASA mission directorates and the Moon to Mars Program Office for the unified implementation of activities required by law.

(2) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the process required by paragraph (1) and the manner in which such process has been applied to authorized Mars programs, including with respect to the following:

(A) The Mars Relay Network.

(B) The Mars Telecommunications Orbiter.

(C) Commercial Mars payload services.

(D) Mars future missions within the Science Mission Directorate.

SEC. 202. ARTEMIS PROGRAM.

(a) FINDINGS.—Congress makes the following findings:

(1) Exploration of outer space, including exploration of the lunar surface and cislunar space, provides economic, scientific, technological, security, and societal benefits and economic opportunity, including by inspiring future generations and expanding the science, technology, engineering, and mathematics workforce needed to sustain United States leadership in science, space, and technology.

(2) The lunar south pole is home to shadowed craters that may contain water ice and other volatiles. Understanding the nature of lunar polar volatiles, such as water ice, would advance science related to the origin and evolution of volatiles in the inner solar system and could facilitate the long-term future of space exploration. Water ice lunar resources have the potential to become an enabling component of future space exploration missions throughout the solar system, including crewed missions to Mars.

(3) Other countries have demonstrated technological advances and successful robotic missions for lunar exploration and have announced credible plans for long-term human exploration of the Moon that include the intent to establish lunar bases. Such countries are forming alternative organizational enti-

ties to structure their efforts, such as the ILRS of the People's Republic of China.

(4) United States leadership of, and measurable progress on, the exploration of deep space is essential for guiding development of norms related to operations on and around the Moon and for other space destinations.

(5) It is in the national interest of the United States to maintain a leadership role in the establishment of future norms governing activities in space, including such activities on the lunar surface and in cislunar space.

(b) REQUIREMENTS.—In carrying out activities to enable Artemis missions under the Moon to Mars Program set forth in section 10811 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20302 note; Public Law 117–167), the Administrator shall—

(1) use relevant elements set forth in subsection (b)(2)(B) of that Act under the direction of the Moon to Mars program manager;

(2) continue to ensure that such elements enable the human exploration of Mars, consistent with subsection (b)(2)(C)(i) of that Act;

(3) include scientific objectives as integral components of Artemis missions and coordinate with the Science Mission Directorate and the Space Technology Mission Directorate to ensure that opportunities for lunar science are incorporated throughout the Artemis and Moon to Mars architectures;

(4) engage with international partners, as appropriate, including through the Artemis Accords to guide the development of norms of behavior in a manner that—

(A) is consistent with subsection (b)(2)(C) of that Act; and

(B) increases redundancy, efficiency, and cost savings;

(5) leverage capabilities provided by United States commercial providers, as appropriate and practicable; and

(6) certify that each existing and future contract entered into for NASA exploration activities conducted by commercial partners includes provisions—

(A) to ensure the preservation of mission continuity and adherence to initial operating capability timeline requirements; and

(B) to preclude cessation of contract activities before completion of the contract, as appropriate.

(c) UNITED STATES COMMERCIAL PROVIDER CAPABILITIES IN SUPPORT OF LUNAR EXPLORATION EFFORTS.—The Administrator may enter into agreements with United States commercial providers or engage in public-private partnerships to procure capabilities and services to support the human exploration of the Moon or cislunar space.

(d) BRIEFINGS.—Not later than 30 days after the date of the enactment of this Act, and quarterly thereafter, the Administrator, in coordination with the Moon to Mars management entity, shall provide the appropriate committees of Congress with a briefing on—

(1) the status of the elements set forth in subsection (b)(2)(B) of section 10811 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20302 note; Public Law 117–167) to enable lunar operations and the human exploration of Mars, consistent with subsection (b)(2)(C)(i) of that section; and

(2) the readiness of such elements to meet the respective Artemis missions.

SEC. 203. SPACE LAUNCH SYSTEM.

(a) FINDINGS.—Congress makes the following findings:

(1) The Space Launch System—

(A) represents a national capability for super-heavy lift space launch that may support a range of unique commercial, civil, and military mission opportunities;

(B) is the only vehicle ready to support human flights to the Moon; and

(C) has not met the flight rate of the integrated Space Launch System and Orion crew vehicle missions set forth in section 10812(b) of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20301 note; Public Law 117–167).

(2) The Space Launch System Exploration Upper Stage was conceived to increase Space Launch System launch cargo capacity in an era before the emergence of competitive lunar payload delivery capabilities.

(3) The report of the Inspector General of NASA entitled "NASA's Management of Space Launch System Block 1B Development" issued on August 8, 2024, noted that the current Exploration

Upper Stage technology is behind schedule and over budget.

(4) Alternative technologies exist that may be used within the current Space Launch System architecture.

(b) EXPLORATION UPPER STAGE ALTERNATIVES.—Subject to the availability of appropriations, the Administrator may seek to identify and fund an alternative technology to replace the Exploration Upper Stage if the Administrator determines that the Exploration Upper Stage efforts under section 10812(b) of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20301 note; Public Law 117–167) are unlikely to achieve the mission goals of the Artemis campaign.

(c) BRIEFING.—

(1) IN GENERAL.—Not later than 60 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the challenges of the Administration in achieving the flight rate set forth in section 10812(b) of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20301 note; Public Law 117–167).

(2) ELEMENTS.—The briefing required by paragraph (1) shall include an assessment of methods for reducing the complexity and cost of production and operation of the Space Launch System, including—

(A) a standardization of the design of the Space Launch System;

(B) the simplification of contracts;

(C) a balancing of government and industry workforce components, roles, and responsibilities; and

(D) the optimization of the use of Administration infrastructure.

SEC. 204. HUMAN-RATED LUNAR LANDING CAPABILITIES.

(a) IN GENERAL.—The Administrator shall continue to support the development and demonstration of, and shall obtain, human-rated lunar landing capabilities to further the goals of the human exploration roadmap under section 432 of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (51 U.S.C. 20302 note; Public Law 115–10) and the Moon to Mars Program set forth in section 10811 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20302 note; Public Law 117–167).

(b) RELEVANT REQUIREMENTS.—The Administrator shall ensure that such human-rated lunar landing capabilities meet all relevant human rating and certification requirements, including the requirements of the Moon to Mars Program and requirements for human rating and certification.

(c) UNITED STATES COMMERCIAL PROVIDER.—Any commercial provider from which the Administrator obtains human-rated lunar landing capabilities must be a United States commercial provider.

(d) DUTIES OF THE ADMINISTRATOR.—In carrying out subsection (a)—

(1) the Administrator may include uncrewed lunar landing services; and

(2) the Administrator shall—

(A) subject to the availability of appropriations for such purpose, seek to obtain capabilities from not fewer than 2 commercial providers;

(B) submit to the appropriate committees of Congress a report that assesses the development milestones of human-rated lunar landing systems developed by commercial providers.

(e) REPORT.—

(1) IN GENERAL.—Not later than 90 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report on the status of human-rated lunar lander development and key enabling technologies, including cryogenic propellant transfer and storage.

(2) PUBLIC AVAILABILITY.—Not later than 30 days after the date on which the Administrator submits the report required by this subsection, the Administrator shall make such report available to the public.

(f) MOON TO MARS LANDING CAPABILITIES.—The Administrator shall, to the extent practicable, use existing Human Landing Systems technology in developing Mars and deep space exploration landing capabilities.

SEC. 205. ADVANCED SPACESUIT CAPABILITIES.

(a) FINDINGS.—Congress makes the following findings:

(1) Spacesuits and associated extravehicular activity (referred to in this sections as "EVA") technologies are critical-path exploration technologies that are necessary for future human deep space exploration efforts, including crewed missions to low-Earth orbit, the Moon, and Mars.

(2) NASA is currently contracted with a single commercial provider for the development of extravehicular spacesuits to be used on the lunar surface and in deep space as part of the Artemis program.

(3) While NASA's commercial services approach to acquiring advanced spacesuit capabilities has resulted in the private sector making substantial investments in the research, development, and testing of advanced spacesuit capabilities and the related supply chain, reliance on a single spacesuit provider creates strategic, operational, and technical vulnerabilities that may threaten mission continuity and United States leadership in human spaceflight.

(4) As the United States competes with the People's Republic of China to maintain leadership in exploration beyond low-Earth-orbit operations, it is critical to ensure redundancy and resilience in all mission-critical systems, including spacesuits.

(5) The NASA workforce at the Johnson Space Center provides unique experience and capabilities for designing, integrating, and validating spacesuits and associated EVA technologies.

(6) Maintaining a strong NASA core competency in the design, development, manufacture,

and operation of spacesuits and related technologies allows the Administration to be an informed purchaser of competitively awarded commercial spacesuits and subcomponents.

(7) Testing spacesuits and related technologies on the ISS could reduce risk and improve the safety of spacesuits and related technologies.

(b) CAPABILITIES REQUIREMENT.—

(1) IN GENERAL.—The Administrator shall obtain the advanced spacesuit capabilities necessary to achieve the goals of NASA's human spaceflight exploration programs.

(2) DEVELOPMENT BY NASA.—If advanced spacesuit capabilities from a commercial provider are not reasonably available to meet NASA mission requirements with respect to cost, schedule, and performance, the Administrator may pursue development by NASA of advanced spacesuit capabilities to ensure United States access to and use of such capabilities.

(c) ELIGIBILITY.—Any commercial provider from which the Administrator obtains advanced spaceflight capabilities shall—

(1) be a United States commercial provider; and

(2) be required to ensure that such capabilities comply with applicable NASA safety and performance requirements.

(d) PRESERVING SPACESUIT EXPERTISE.—

(1) IN GENERAL.—In carrying out subsection (b), and while maintaining a strong partnership with United States industry, the Administration shall maintain the internal expertise necessary to certify and develop spacesuits for extravehicular activity and surface operations, including through partnerships with the private sector.

(2) ROLE OF JOHNSON SPACE CENTER.—The Johnson Space Center shall continue to manage the spacesuit and extravehicular activity programs of NASA.

(e) BRIEFING.—

(1) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the plans of the Administration for in-space testing of advanced spacesuit capabilities.

(2) ELEMENTS.—The briefing required by paragraph (1) shall include—

(A) a detailed justification of compliance with section 30301 of title 51, United States Code; and

(B) a detailed certification and justification of compliance with section 50503 of title 51, United States Code.

SEC. 206. BRIEFING ON LUNAR OUTPOST.

Not later than 60 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on plans for the Gateway outpost.

SEC. 207. LUNAR TERRAIN VEHICLE ELEMENT.

(a) FINDINGS.—Congress makes the following findings:

(1) Artemis lunar human exploration is essential to maintaining United States leadership in influencing norms and responsible behavior in the conduct of scientific and economic activities on the lunar surface.

(2) Human surface mobility and the establishment of infrastructure and technology that enable long-term lunar habitation and exploration are essential to United States leadership.

(3) The completed Phase 1 of the Lunar Terrain Vehicle element has successfully engaged mul-

tiple contractors, each of which has conducted a year-long study to develop a capable human surface mobility system through the preliminary design maturity project phase.

(4) A robust domestic industrial base will support the longevity and success of United States space missions and allow the Administration to leverage the rapid pace of commercial innovation while providing value to taxpayers.

(b) REQUIREMENTS.—In carrying out activities to enable Artemis missions under the Moon to Mars Program set forth in section 10811 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20302 note; Public Law 117–167), subject to the availability of appropriations, the Administrator shall—

(1) enter into an agreement a United States commercial entity or entities, or engage in public-private partnerships, to procure capabilities and services to support the human exploration of the lunar surface; and

(2) seek to obtain capabilities from not fewer than 2 commercial providers to execute Phase 2 of the Lunar Terrain Vehicle element.

SEC. 208. EXPLORATION GROUND SYSTEMS.

(a) FINDINGS.—Congress finds that space exploration ground system infrastructure is critical for future human deep space exploration missions described in section 10812 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 20301 note; Public Law 117–167).

(b) INVESTMENT.—The Administrator shall ensure that all taxpayer-funded infrastructure at the Kennedy Space Center, including the Exploration Ground System, is used to the extent practicable in support of space exploration missions and activities.

SEC. 209. COMMERCIAL LUNAR PAYLOAD SERVICES PROGRAM.

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

(1) the encouragement and support of the Administrator for competitive commercial services for lunar surface delivery capabilities and other related services is in the national interest of the United States; and

(2) commercial providers benefit from an approach that places low-cost, noncritical instruments on initial lunar deliveries using small- and medium-sized commercial landers of various sizes before proceeding to more complex payloads.

(b) COMMERCIAL LUNAR PAYLOAD SERVICES PROGRAM.—

(1) IN GENERAL.—The Administrator is authorized to continue the Commercial Lunar Payload Services program for the purpose of procuring from multiple United States commercial providers services for the delivery of NASA science, space technology, and human exploration payloads, and the payloads of other NASA mission directorates, as appropriate and practicable, to the lunar surface.

(2) OBJECTIVES.—The objectives of the Commercial Lunar Payload Services program shall be—

(A) to advance lunar science through a continual cadence of low-cost robotic lunar landing missions; and

(B) to establish a pathway for the use of commercial services for cislunar space communications.

(3) IMPLEMENTATION.—In carrying out activities pursuant to the Commercial Lunar Payload Services program, the Administrator shall—

(A) conduct updated independent market research, including commercial market estimates on the commercial lunar economy, and

identify any changes since the date of any preceding market analysis;

(B) conduct an assessment of the role of NASA in the commercial lunar delivery market;

(C) based on research and assessments required by subparagraphs (A) and (B)—

(i) conduct an assessment on the effectiveness of the task order and block buy approach in advancing commercial development of lunar delivery services, including an assessment of the appropriate number of providers necessary to support NASA commercial lunar delivery needs and the development of a sustainable lunar presence; and

(ii) identify any challenges and recommendations for improvement;

(D) strengthen procedures related to the selection, manifesting, interfaces, and requirements of payloads and other relevant factors that could contribute to minimizing future NASA-directed changes to projects after the date of the award of commercial lunar payload service contracts, including adherence to financial and technical milestones; and

(E) follow best practices and lessons learned, as applicable and appropriate, from other Administration commercial services programs, such as the Commercial Crew program and the Commercial Resupply Services Program.

(4) COORDINATION.—In implementing the Commercial Lunar Payload Services program, the Administrator shall ensure coordination of such program with the NASA mission directorates and the Moon to Mars Program so as to ensure the alignment of Administration goals for lunar delivery services, including such goals related to cislunar space communications and Mars exploration.

(c) MANAGEMENT PLAN.—

(1) IN GENERAL.—Not later than 90 days after the date of the enactment of this Act, the Administrator shall develop and implement a management plan that—

(A) is informed by the activities conducted under the Commercial Lunar Payload Services program; and

(B) sets forth clear leadership authority and responsibility for such program.

(2) BRIEFINGS.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the implementation of the management plan required by paragraph (1).

SEC. 210. MOON BASE.

(a) FINDINGS.—Congress makes the following findings:

(1) The National Aeronautics and Space Administration, through the Artemis program, is advancing United States leadership in space exploration by developing the capabilities necessary for sustained human presence on the Moon and beyond, reinforcing the role of the United States as the global leader in space science and technology.

(2) The lunar south pole is a strategically important region due to its unique resources, making it a critical location for establishing a sustainable presence on the Moon, as well as a departure point for missions deeper into the solar system, including crewed missions to Mars.

(3) Establishing a lunar base ensures that the United States can explore from the ultimate high ground of the Moon, providing strategic advantages for science, technology, international cooperation,

and national interests, while ensuring peace and freedom of exploration beyond Earth.

(4) Through the Commercial Lunar Payload Services program and Lunar Terrain Vehicle procurements, NASA is laying the foundation for logistics and mobility capabilities necessary for a sustainable lunar base.

(5) Meaningful and robust scientific research on the lunar surface is essential to the success, justification, and long-term sustainability of a permanent lunar presence, including investigations in planetary science, heliophysics, astrophysics, life sciences, in-situ resource utilization, and other disciplines enabled by sustained access to the lunar environment.

(6) A lunar base that is designed to enable and be supported by high-priority scientific objectives will maximize return on investment, strengthen United States leadership in space science, and generate knowledge necessary for future missions to Mars and other destinations.

(b) LUNAR BASE.—

(1) IN GENERAL.—As soon as practicable, the Administrator shall undertake activities necessary to establish a Lunar Surface Moon Base to develop a permanent crewed United States presence on the

Moon capable of long-duration habitation, robotic, and industrial operations to advance science, technology, and strategic interests.

(2) TRANSITION.—The Administrator shall procure an incremental transition from continuous capability to a permanently occupied or continuously inhabited lunar surface presence, conducted in coordination with cislunar infrastructure, as applicable, to achieving long-term exploration objectives beyond low-Earth orbit.

(3) REQUIREMENTS AND STANDARDS.—As of the date of the enactment of this Act, Government expertise is required to define requirements and standards and maximize the opportunities for partners of all sizes and abilities to participate.

(4) SCIENCE INTEGRATION.—In carrying out this subsection, the Administrator shall ensure that—

(A) in its final form, the lunar base is designed, constructed, and operated to enable meaningful and robust scientific research and technology demonstrations on the lunar surface;

(B) science objectives inform site selection, infrastructure development, habitation design,

power systems, mobility systems, communications architecture, and logistics planning; and

(C) sustained human and robotic presence at the lunar base supports priority scientific investigations identified through the National Academies' decadal surveys and other relevant strategic science planning processes.

(c) ENDURING LUNAR PRESENCE.—

(1) IN GENERAL.—The Administrator may establish a United States lunar base, consistent with sections 20302 and 70505 of title 51, United States Code.

(2) INITIAL ELEMENTS.—In establishing the lunar base under paragraph (1), the Administrator may prioritize sustainability, affordability, long-term viability, and scientific utility, and shall ensure, to the maximum practical extent, that capabilities are scalable to Mars missions and adaptable to evolving national exploration and science needs.

(d) UTILIZATION OF COMMERCIAL INFRASTRUCTURE.—In carrying out this section, the Administrator may, to the maximum extent practicable, leverage any commercial infrastructure or capacity already emplaced on the lunar surface and incorporate planned viable commercial infrastructure or capacity into the development and

operation of the lunar presence to reduce costs, enhance resiliency, and improve capacity.

(e) USE OF EXISTING HARDWARE.—The Administrator may repurpose, reprogram, reconfigure, or reassign existing programs, platforms, modules, or hardware originally developed for other programs.

(f) UTILIZATION OF COMMERCIAL LUNAR PAYLOAD SERVICES AND CARGO LANDERS.—

(1) COMMERCIAL LUNAR PAYLOAD SERVICES PROGRAM.—In carrying out subsection (b), the Administrator may utilize the Commercial Lunar Payload Services Program contracting vehicle to deliver instruments, infrastructure components, communication and power systems, scientific payloads, and other logistics packages to the outpost and designated staging sites.

(2) CARGO LANDERS.—The Administrator may procure, through the Commercial Lunar Payload Services Program or other competitive solicitations, cargo lunar lander services to deliver cargo, vehicles, science instruments, technology demonstrations, habitats, power systems, elements of the lunar outpost, or any other infrastructure elements to the lunar surface.

(g) PRECURSOR AND ENABLING ACTIVITIES.—The Administrator may carry out precursor surface missions and demonstrations necessary for lunar outpost establishment, including—

(1) delivery and emplacement of power generation and energy storage systems;

(2) precision landing, hazard avoidance, and site preparation;

(3) autonomous assembly and berthing systems;

(4) communications, navigation, and timing infrastructure; and

(5) early scientific investigations and technology demonstrations that inform long-duration habitation and infrastructure development utilizing the Commercial Lunar Payload Services Program and other commercial lunar services, as appropriate.

(h) MANAGEMENT AND ORGANIZATIONAL RESPONSIBILITY.—

(1) IN GENERAL.—The Administrator shall designate as the lead NASA center for the Lunar Surface Moon Base activities a NASA center that is institutionally responsible for—

(A) human spaceflight operations and crewed mission execution;

(B) astronaut training and crew operations development;

(C) integration of human spaceflight systems across multiple programs and mission directorates; and

(D) operational control of missions involving sustained human presence beyond low-Earth orbit.

(2) RESPONSIBILITIES.—The designated center shall be responsible for overall program management, systems integration, crew operations planning, and logistics coordination for the Lunar Surface Moon Base activities.

(3) EXPLORATION SYSTEMS DEVELOPMENT MISSION DIRECTORATE.—The Lunar Surface Moon Base shall be conducted under the Exploration Systems Development Mission Directorate.

(i) COORDINATION AND INTEGRATION.—In carrying out this section, the Administrator shall—

(1) ensure coordination between the Lunar Surface Moon Base and other NASA exploration and science activities;

(2) promote interoperability between lunar surface systems and cislunar infrastructure to support safe, efficient, and sustained operations;

(3) ensure that lunar surface systems are designed to enable long-term expansion and integration with future exploration architectures; and

(4) coordinate with the Science Mission Directorate to align lunar surface infrastructure, operations planning, and crew utilization with high-priority scientific objectives.

(j) LIMITATIONS.—The Administrator may not fund the development of any landers under this section.

TITLE III—SPACE OPERATIONS

SEC. 301. MAXIMIZING UNITED STATES PRESENCE IN LOW-EARTH ORBIT.

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

(1) it is in the national and economic security, foreign policy, and scientific interests of the United States to maintain a continuous human presence in low-Earth orbit;

(2) capabilities in low-Earth orbit should include a mix of crewed and uncrewed commercial platforms;

(3) platforms in low-Earth orbit should transition from government-only enterprises to commercially led enterprises; and

(4) low-Earth orbit should be used to advance human space exploration, scientific discoveries, and United States leadership, economic competitiveness, and commercial participation.

(b) CONTINUOUS HUMAN PRESENCE REQUIREMENT.—

(1) IN GENERAL.—The Administrator shall maintain a continuous human presence in low-Earth orbit to advance human space exploration, scientific discoveries, international cooperation, and United States economic competitiveness and commercial participation in low-Earth orbit through and beyond the useful life of the ISS.

(2) WAIVER.—

(A) IN GENERAL.—The Administrator may waive the application of paragraph (1) if the Administrator determines that technical or safety issues exist that—

(i) would put the lives of United States astronauts in jeopardy; or

(ii) prohibit the continued safe operation of the ISS or other low-Earth-orbit destinations operating under contracts, cooperative agreements, or other arrangements with the Federal Government.

(B) NOTIFICATION.—The Administrator shall notify the appropriate committees of Congress of the exercise of the waiver authority under subparagraph (A).

SEC. 302. COMMERCIAL LOW-EARTH-ORBIT DEVELOPMENT PROGRAM.

(a) FINDINGS.—Congress makes the following findings:

(1) The ISS has been the cornerstone of United States human spaceflight in low-Earth orbit for over 2 decades.

(2) The planned retirement of the ISS necessitates a transition to commercial destinations so as to maintain continuous United States human presence in low-Earth orbit.

(3) Relying on a single commercial destination provider risks programmatic, operational, and strategic vulnerabilities.

(4) Strategic competition with countries such as the People's Republic of China requires the United States to maintain a resilient and redundant space infrastructure in low-Earth orbit.

(b) CONTINUOUS CREW PRESENCE AND ACTIVITY.—The Administrator shall use commercial low-Earth-orbit destinations to ensure the continuous presence of United

States Government crew to advance human space exploration, scientific discoveries, the national defense, and United States economic competitiveness and commercial participation in low-Earth orbit.

(c) COMMERCIAL LOW-EARTH-ORBIT DEVELOPMENT PROGRAM.—

(1) IN GENERAL.—The Administrator shall—

(A) establish a Commercial Low-Earth-Orbit Development Program; and

(B) designate the Johnson Space Center as the lead NASA center responsible for coordinating all NASA activities related to commercial low-Earth-orbit space destinations, including crew operations, mission integration, and astronaut training.

(2) CONSOLIDATION.—In establishing the Commercial Low-Earth-Orbit Development Program, the Administrator may, as appropriate and practicable, consolidate programs of other Administration centers that support activities described in subsection (b).

(3) SYSTEMS INTEGRATION.—The Johnson Space Center shall lead efforts to integrate the operations of commercial destinations into NASA human

spaceflight programs in order to ensure interoperability, safety, and mission success.

(d) DEVELOPMENT OF COMMERCIAL LOW-EARTH-ORBIT DESTINATIONS.—

(1) SOLICITATION.—

(A) IN GENERAL.—The Administrator shall issue a solicitation using full and open competition, informed by commercial market estimates and industry feedback, to identify commercial entities capable of providing services to the Administration to support activities described in subsection (b).

(B) REQUIREMENTS.—Not later than 60 days after the date of the enactment of this Act, the Administrator shall make available to the public a document that sets forth the requirements for a commercial destination in low-Earth orbit for the purpose of facilitating the development of a request for proposal for services to be provided to the Administration to support activities described in subsection (b).

(C) FINAL REQUEST FOR PROPOSALS.—Not later than 90 days after the date of the enactment of this Act, the Administrator shall make available the final request for proposals to

solicit industry proposals to support activities described in subsection (b).

(2) SELECTION.—

(A) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall enter into contracts, cooperative agreements, or other arrangements with 2 or more commercial providers that have submitted a proposal in response to the solicitation under paragraph (1).

(B) USE OF FUNDS.—Funds provided by the Administrator to the Commercial Low-Earth-Orbit Development Program shall be used to support the selection described in subparagraph (A).

SEC. 303. MANAGED TRANSITION FROM ISS TO COMMERCIAL LOW-EARTH-ORBIT DESTINATIONS.

(a) TRANSITION PROCESS.—

(1) INITIATION.—Beginning on the date on which 1 or more commercial low-Earth-orbit destinations have commenced operations, the Administrator shall commence the process of an orderly, managed transition of operations from the ISS to 1 or more commercial providers in a manner that maintains a continuous human presence.

(2) VEHICLE CERTIFICATION.—As part of the process described in paragraph (1), the Administrator shall develop and initiate a process for the certification of a commercial destination capable of providing services to the Administration so as to enable continuous, safe crew operations.

(3) DEMONSTRATION OF CAPABILITIES.—In order to be considered for the transition of operations under this section, a commercial low-Earth-orbit destination shall demonstrate, based on requirements set forth in accordance with section 302(d)(1)(B), capabilities sufficient to support scientific research, technology development, national laboratory functions, and commercial activities previously conducted aboard the ISS.

(4) AUTHORITY TO TRANSFER OPERATIONS.—

(A) IN GENERAL.—The Administrator may transfer operations from the ISS to a commercial low-Earth-orbit destination that has successfully demonstrated capabilities sufficient to support scientific research, technology development, national laboratory functions, and commercial activities previously conducted aboard the ISS.

(B) NOTIFICATION.—Not later than 7 days after the date on which the Administrator makes a decision to initiate the transfer of operations under this subsection, the Administrator shall notify the appropriate committees of Congress of the intent to initiate such transfer.

(C) MIXED PORTFOLIO.—In transferring operations under subparagraph (A), the Administrator shall seek to maintain the same average number of commercial crew and frequency of cargo flights to low-Earth orbit and the same tempo of operations, crew size, and research throughput in low-Earth orbit as existed before the date on which the transfer commenced.

(5) DURATION OF MANAGED TRANSITION.—A transition under this subsection shall, to the extent practicable, occur in a manner that ensures an overlap between ISS operations and commercial low-Earth-orbit destination operations, during which both platforms may support continuous human presence for not less than 180 days.

(b) DE-ORBIT OF THE ISS.—The Administrator shall not initiate the de-orbit of the ISS until the date on which a commercial low-Earth-orbit destination has reached an

initial operational capability to support crew in low-Earth orbit.

(c) WAIVER.—

(1) IN GENERAL.—The Administrator may waive the application of subsections (a) and (b) if the Administrator determines that technical or safety issues exist that—

(A) would put the lives of United States astronauts in jeopardy; or

(B) prohibit the continued safe operation of the ISS.

(2) NOTIFICATION.—Not later than 7 days after the date on which the Administrator makes a determination under paragraph (1), the Administrator shall notify the appropriate committees of Congress of the intent of the Administrator to exercise the waiver authority pursuant to that paragraph.

SEC. 304. EXTENSION OF INTERNATIONAL SPACE STATION.

(a) FINDINGS.—Congress makes the following findings:

(1) The United States has maintained a continuous human presence in low-Earth orbit since November 2000, through operations aboard the ISS.

(2) It is the current policy of the United States to support full and complete utilization of the ISS, in consultation with the international partners of the United States.

(3) It is the intent of Congress to ensure an orderly transition from the ISS to commercial low-Earth-orbit destinations without a gap in continuous United States human presence in low-Earth orbit.

(4) Pursuant to chapter 501 of title 51, United States Code, and related authorities, NASA has undertaken efforts to transition from the ISS to commercial low-Earth-orbit destinations.

(5) The successful development of commercial destinations capable of maintaining continuous human presence in low-Earth orbit depends upon timely, stable, and transparent Federal acquisition strategies, clearly defined operational requirements, and predictable transition timelines.

(6) Over the course of the effort to transition from the ISS to commercially owned and operated low-Earth-orbit destinations, NASA has issued programmatic direction and planning guidance that materially altered previously communicated acquisition approaches, operational requirements, funding assumptions, and transition schedules.

(7) NASA has repeatedly delayed the release of a request for proposals for sustained commercial low-Earth-orbit services, and such delays, coupled with shifting requirements and inconsistent programmatic direction, have introduced substantial uncertainty into the development planning, financing, workforce scaling, and infrastructure investment decisions of commercial providers.

(8) As a result of such uncertainty and delayed procurement action, commercial providers have been unable to scale development and private investment at a pace aligned with the previously articulated NASA objective of de-orbiting the ISS in or around 2030.

(9) The risk of a gap in continuous United States human presence in low-Earth orbit between the retirement of the ISS and the availability of at least 1 fully operational commercial destination capable of demonstrating sustained continuous human presence has been exacerbated by delayed and inconsistent Federal acquisition actions, rather than solely by technical or industrial base challenges of commercial providers.

(10) Maintaining uninterrupted United States human presence in low-Earth orbit is a matter of

national interest, scientific continuity, workforce stability, international leadership, industrial base preservation, and strategic competition.

(b) SENSE OF CONGRESS.—It is the sense of Congress that until the date on which NASA has certified a commercial low-Earth orbit destination to which the operations of the ISS may be transferred, it is in the national and economic security, foreign policy, and scientific interests of the United States to maintain and support the ISS.

(c) PROPER SUPPORT.—To adequately maintain the effective use of the ISS, until the date on which 1 or more commercial destinations are capable of providing services to the Administration, the Administrator shall seek to maintain the same average number of commercial crew and frequency of cargo flights as before the date of the enactment of this Act, including exploring opportunities for private cargo missions to build commercial operational experience, maintain crew size or maintain or increase tempo of operations, completion of regular maintenance and procurement of critical spare parts, and research throughput.

(d) EXTENSION OF THE ISS.—Section 501(a) of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18351(a)) is amended by

striking "September 30, 2030" and inserting "September 30, 2032".

(e) WAIVER.—

(1) IN GENERAL.—The Administrator may waive the application of subsection (c) if the Administrator determines that technical or safety issues exist that would put the lives of astronauts in jeopardy.

(2) NOTIFICATION.— The Administrator shall notify the appropriate committees of Congress of the exercise of the waiver authority under paragraph (1).

SEC. 305. REPORTING AND OVERSIGHT.

Section 50111 of title 51, United States Code, is amended by striking subsection (c) and inserting the following:

"(c) LOW-EARTH ORBIT TRANSITION BRIEFING.—Not later than 60 days after the date of the enactment of the NASA Authorization Act of 2026, and semiannually thereafter, the Administrator shall provide the appropriate committees of Congress with a briefing that includes—

"(1) the status of commercial low-Earth-orbit destination procurement, development, and certification, including a description, schedule, and status of major milestones for each provider;

"(2) an evaluation of crew and cargo vehicles needed to ensure access to commercial low-Earth-orbit destinations, including the projected availability and cost of commercially available systems;

"(3) an evaluation of the service life of the International Space Station, including—

"(A) an inventory of spares or replacements for elements, systems, and equipment necessary to maintain continuous human presence;

"(B) the status of extra vehicular mobility units;

"(C) projected timelines for achieving an overlap between International Space Station operations and operations of a commercial low-Earth-orbit destination of not less than 1 year, during which both platforms shall support continuous human presence for not less than 180 days;

"(D) an assessment of risks to maintaining continuous human presence prior to the transition to commercial low-Earth-orbit destinations; and

"(E) certification of compliance with the full crew requirement under section

303(a)(4)(C) of the NASA Authorization Act of 2026; and

"(4) the status of the de-orbit of the International Space Station, including—

"(A) a description and the schedule and status of major milestones;

"(B) the status of the development of a United States de-orbit vehicle and other space station equipment necessary for a successful de-orbit of the International Space Station; and

"(C) a description of the life-cycle expenditures for the preceding year and expenditures for the upcoming year on activities related to the de-orbit of the International Space Station and any impacts to the tempo of operations, crew size, and research throughput in low-Earth orbit as were conducted before the date of the enactment of the NASA Authorization Act of 2026.".

SEC. 306. TRANSITION TO A COMMERCIALLY LED LOW-EARTH-ORBIT ECONOMY.

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

(1) the transition from the ISS to commercial destinations to support a continuous human pres-

ence in low-Earth orbit is in the national and economic security interests of the United States;

(2) using commercial low-Earth-orbit destinations for a wide range of contemplated missions will facilitate the economic, national defense, science, and exploration objectives of the United States;

(3) the United States should—

(A) facilitate partnerships among the Federal Government, international partners, and the commercial space sector, including through the purchase of commercial low-Earth-orbit services, to ensure the evolution of an ecosystem with private sector development of new technologies, hardware, processes, capabilities, and other commercial low-Earth-orbit service offerings; and

(B) continue to consider private sector proposals that further the development of the low-Earth-orbit economy in which the Administration is 1 of many customers; and

(4) the managed transition under section 303 is necessary to enable the transition from the ISS to commercial destinations.

(b) NASA ACTIVITIES FOR DEVELOPMENT OF COMMERCIAL LOW-EARTH-ORBIT DESTINATIONS.—The Ad-

ministrator shall authorize activities, on the ISS and within the Administration, that develop infrastructure, hardware, processes, capabilities, technologies, and personnel to enable—

(1) the development of commercial low-Earth-orbit destinations; and

(2) a United States-led low-Earth-orbit economy.

(c) COMMERCIAL ACTIVITIES.—The Administrator may permit the use of the ISS, in a manner consistent with the policy and purpose set forth in section 20102 of title 51, United States Code—

(1) to carry out the activities described in subsection (b); and

(2) to conduct—

(A) science and technology research with commercial applications; and

(B) marketing and sponsorship of services and products on a cost-reimbursable basis.

SEC. 307. NONGOVERNMENTAL MISSIONS ON THE INTERNATIONAL SPACE STATION.

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

(1) nongovernmental missions on the ISS carried out, as appropriate, pursuant to Federal law

and NASA policies and procedures can provide lessons and learning experiences for governmental and nongovernmental entities to inform the development of future commercial low-Earth-orbit platforms and a low-Earth-orbit economy; and

(2) the Administrator should share lessons learned from nongovernmental missions on the ISS—

(A) to advance the commercial human spaceflight industry;

(B) to promote the safety of future commercial low-Earth-orbit platforms; and

(C) to inform the evolution of policies guiding such activities in low-Earth orbit.

(b) AGREEMENTS FOR NONGOVERNMENTAL MISSIONS ON THE ISS.—The Administrator may enter into 1 or more agreements to enable 1 or more United States commercial providers to conduct nongovernmental missions on the ISS pursuant to Federal law and NASA policies and procedures.

SEC. 308. BRIEFING ON USE OF COMMERCIAL SUBORBITAL VEHICLES FOR CREWED MISSIONS.

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

(1) there should be assured access to suborbital microgravity environments for United States Government personnel; and

(2) commercial suborbital vehicles should be used as a low-cost option for training, experimentation, research, and testing purposes.

(b) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on—

(1) the costs, benefits, risks, training requirements, and policy or legal implications, including liability matters, of launching United States Government personnel on commercial suborbital vehicles; and

(2) the maximum flight cadence and current availability of such vehicles.

SEC. 309. LUNAR COMMUNICATIONS.

(a) FINDINGS.—Congress makes the following findings:

(1) Reliable communication and navigation capabilities are essential for sustainable human and robotic exploration of the Moon.

(2) Fostering the development of commercial capabilities may accelerate the deployment of lunar communication and navigation services.

(b) AUTHORITY TO DEVELOP ARCHITECTURE FOR LUNAR COMMUNICATIONS AND NAVIGATION.—The Administrator may develop a robust and resilient architecture for lunar communications and navigation to support the human and robotic lunar exploration activities of the Administration.

(c) STUDY AND PLAN.—To inform the development of the architecture described in subsection (b), the Administrator shall—

(1) conduct a study on the need for a lunar communications and navigation architecture, which shall include the development of commercial market estimates; and

(2) develop a plan—

(A) to enable interoperable communications and navigation services for cislunar space missions;

(B) to collaborate with the private sector, other Federal agencies, and, as appropriate, international partners to establish technical standards, consistent with section 12(d) of the National Technology Transfer and Advance-

ment Act of 1995 (15 U.S.C. 272 note; Public Law 104–113), protocols, and interface requirements for cislunar space communications and navigation services and systems;

(C) to support NASA lunar activities;

(D) to leverage the space technology research, development, and demonstration activities of NASA relating to space communications and navigation; and

(E) to evaluate the opportunities, benefits, feasibility, and challenges of the potential use of commercial cislunar space communication and navigation services, as appropriate, by United States commercial providers.

(d) ROLE OF GLENN RESEARCH CENTER.—The Administrator shall designate the Glenn Research Center as the lead NASA center for the conduct of the study and the development of the plan required by subsection (c).

SEC. 310. REPORT ON SPACE COMMUNICATIONS UPGRADES.

Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report that includes the following:

(1) An identification of the projected space communications needs of the Administration, including needs relating to necessary upgrades to existing infrastructure and new capabilities for future missions.

(2) A description of the upgrades required to meet the needs identified under paragraph (1).

(3) A summary of the actions taken by the Administrator to carry out such upgrades.

(4) A discussion of the manner in which the Administrator is taking an integrated approach to upgrading space communications infrastructure, including whether the Administrator is considering infrastructure that may be extended to other needs of the Administration, such as the Moon to Mars Program.

(5) An analysis of the manner in which commercial solutions may be leveraged to fulfill the needs identified under paragraph (1).

SEC. 311. LUNAR TIME STANDARDIZATION.

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

(1) the establishment of a resilient, interoperable, and precise United States-led lunar positioning, navigation, and timing architecture is critical to the

success of civil, commercial, and national security operations in cislunar space and on the lunar surface;

(2) a unified interagency approach, supported by strong public-private partnerships and international coordination, is necessary to ensure United States leadership in space standards and infrastructure; and

(3) open and interoperable standards must underpin all lunar positioning, navigation, and timing systems in order to enable seamless coordination across government, commercial, and international missions.

(b) STATEMENT OF POLICY ON PROMOTION OF DOMESTIC CAPABILITY.—It is the policy of the United States to support the development of a domestic, commercially scalable, high-accuracy timekeeping infrastructure to complement Government capabilities and reduce reliance on foreign or legacy systems.

(c) NASA AS LEAD AGENCY FOR LUNAR POSITIONING, NAVIGATION, AND TIMING ARCHITECTURE.—

(1) IN GENERAL.—The Administrator shall—

(A) continue leading the development and deployment of a lunar positioning, navigation,

and timing architecture that is resilient, scalable, and interoperable;

(B) coordinate with the Department of Defense, the National Geospatial-Intelligence Agency, the Navy, the National Institute of Standards and Technology, the Department of Transportation, and other relevant agencies to define and implement a unified, secure, and high-precision lunar time standard consistent with United States space policy;

(C) encourage and integrate commercial capabilities into the NASA Space Communications and Navigation infrastructure, including through support of commercial lunar clock data centers and related services; and

(D) ensure that any lunar geodetic reference frame developed by the United States is interoperable with international standards.

(2) REPORT.—Not later than 180 days after the date of the enactment of this Act, the Administrator, in coordination with interagency partners, shall submit to the appropriate committees of Congress a report that includes the following:

(A) A description of existing and planned United States lunar positioning, navigation, and timing capabilities.

(B) Identified gaps with respect to such capabilities or the coverage of such capabilities.

(C) With respect to such capabilities—

(i) defined roles and responsibilities of Federal agencies and commercial stakeholders;

(ii) a description of interagency coordination mechanisms and any barriers that prevent the alignment of such mechanisms; and

(iii) plans for engagement by the Administrator with international standards bodies and space agencies.

(D) A proposed roadmap and timeline for the deployment of an integrated lunar positioning, navigation, and timing system.

(3) BRIEFING.—Not later than 90 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the development and deployment of a lunar positioning, navigation, and tim-

ing architecture that includes, with respect to such architecture, information on the following:

(A) Lunar relay and surface navigation infrastructure.

(B) Interoperability with allied and international partner capabilities.

(C) Integration of commercial partnerships and data services.

SEC. 312. LUNAR SURFACE POWER.

(a) FINDINGS.—Congress makes the following findings:

(1) It is in the national interest of the United States to achieve a sustained presence on the Moon for human exploration, scientific discovery, and commercial economic activity.

(2) Abundant reliable power is required to carry out robust human and robotic exploration of the Moon and commercial economic activity in space.

(3) Establishing a reliable power infrastructure on the lunar surface near key areas of interest is vital to—

(A) continued United States leadership in space;

(B) the next phase of the Artemis campaign; and

(C) enabling a sustained United States presence on the Moon.

(4) NASA has sponsored research to demonstrate solar and fission surface power on the surface of the Moon.

(5) Commercial entities seek to deploy solar arrays and nuclear reactors to the surface of the Moon for the purpose of providing power for lunar activities.

(6) NASA has successfully leveraged commercial capabilities for Commercial Lunar Payload Services and other programs.

(7) Leveraging commercially developed power infrastructure may increase efficiency, reduce costs, and accelerate the deployment of sustainable lunar power sources.

(b) REPORT ON POWER REQUIREMENTS.—

(1) IN GENERAL.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall issue a report that forecasts the power needs of the Administration on the lunar surface during the 10-year period beginning on such date of enactment.

(2) ELEMENTS.—The report required by paragraph (1) shall include an identification of the pro-

jected power needs for human missions, robotic operations, and commercial activities supported by the Administration.

(3) FORM.—The report required by paragraph (1) shall be submitted in unclassified form but may include a classified annex.

(c) PILOT PROGRAM.—

(1) AGREEMENTS.—Not later than 1 year after the date of the enactment of this Act, subject to the availability of appropriations, the Administrator, through an open and competitive solicitation process, shall enter into an agreement with not fewer than 2 private entities for the purpose of acquiring power on the lunar surface based on the Administration's forecasted needs for power set forth in the report issued under subsection (b).

(2) TERMINATION.—The Administrator may terminate an agreement entered into under paragraph (1) if the private entity concerned is unable to commence the delivery of power by the date that is 4 years after the date on which the agreement is entered into.

SEC. 313. COMMERCIAL LUNAR DATA ACQUISITION.

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

(1) advancements in commercial imagery and sensing technology are capable of supporting scientific progress; and

(2) the Administrator should—

(A) take advantage of all sources of innovation; and

(B) leverage capabilities from outside government in order to accomplish the science and exploration missions of NASA.

(b) PILOT PROGRAM.—

(1) ESTABLISHMENT.—The Administrator shall establish a pilot program to assess the viability of acquiring commercially available data from the lunar and cislunar space environments and integrating such data into NASA activities and missions, including—

(A) planetary science research;

(B) exploration missions; and

(C) space traffic coordination in lunar orbit.

(2) PUBLICATION OF STANDARDS.—Not later than 60 days after the date of the enactment of this Act, the Administrator shall publish in the Federal Register standards and specifications for data and

metadata to be acquired from the lunar and cislunar space environments under the pilot program.

(3) CONTRACTS AND AGREEMENTS.—

(A) AUTHORITY.—The Administrator may enter into such multi-year contracts or agreements as may be necessary to carry out the pilot program established under this subsection.

(B) CONTRACTS.—

(i) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator, through an open and competitive solicitation process, shall enter into 1 or more contracts or agreements with 1 or more private entities for the provision of data that meets the standards set forth under paragraph (2) for use in any applicable NASA program or research effort.

(ii) DATA-SHARING PRACTICES.—As part of the contract negotiation process, the Administrator shall negotiate data-sharing agreements on a case-by-case basis with each private entity selected for participation in the pilot program.

(4) REPORT.—Not later than 3 years after the date on which the Administrator enters into a contract or agreement under paragraph (3), the Administrator shall submit to the appropriate committees of Congress a report that assesses the extent to which—

(A) the data acquired under the contract or agreement was leveraged within NASA; and

(B) the pilot program has demonstrated the viability of acquiring and assimilating data collected by private entities from the lunar and cislunar space environments into NASA programs and research efforts.

SEC. 314. CREW RESCUE CAPABILITIES.

(a) EVALUATION.—

(1) IN GENERAL.—To maintain the safe and effective operation and use of the ISS and future commercial low-Earth-orbit platforms, not later than 120 days after the date of the enactment of this Act, the Administrator shall evaluate existing and evolvable crew rescue capabilities for the return of astronauts in emergency and non-emergency scenarios.

(2) ELEMENTS.—The evaluation required by paragraph (1) shall include a comprehensive assessment of the following:

(A) The number of commercial human-rated spacecraft, available from United States providers, with the capability to carry out potential crew rescue.

(B) The similarities and dissimilarities among such spacecraft, and the number of astronauts each such spacecraft can accommodate.

(C) The maximum flight cadence and current availability of crew rescue capabilities for the emergency and non-emergency return of astronauts.

(D) The evolvability of current commercial cargo vehicles to support emergency and non-emergency return of astronauts from the ISS and future commercial low-Earth-orbit platforms.

(3) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the results of the evaluation required by paragraph (1).

(b) EVOLUTIONARY DEVELOPMENT OF CREW RESCUE CAPABILITIES.—Subject to the availability of appropriations, the Administrator may contract with United States commercial crew, cargo, or human-rated spacecraft providers for the evolutionary development of additional crew rescue capabilities.

SEC. 315. COMMERCIAL LAUNCH SERVICES.

(a) FINDINGS.—Congress finds the following:

(1) Launch service providers have a long and reliable history of working with NASA to successfully deliver civil, scientific, and exploration payloads into space.

(2) NASA's commercial launch service providers have maintained an extremely safe operational record, demonstrating high standards of mission assurance and reliability.

(3) Encouraging healthy competition among launch services providers promotes innovation, affordability, and redundancy.

(4) Launch capabilities of varying sizes provide discrete advantages to NASA, such as access to unique orbits, fast turnaround, and responsive launch opportunities.

(5) Having access to multiple launch services providers can support the health and viability of the

broader domestic supply chain, including small- and medium-sized aerospace manufacturers, propulsion suppliers, avionics developers, and ground systems integrators.

(6) United States commercial launch services are helpful to national competitiveness, workforce development, and economic prosperity.

(b) POLICY.—It is the policy of the United States to enhance American leadership in space by—

(1) enabling a competitive United States commercial launch marketplace capable of delivering NASA payloads;

(2) substantially increasing commercial space launch cadence and novel space activities by 2030; and

(3) streamlining Federal Government processes, including commercial license and permit approvals for United States-based operators, to facilitate growth in the commercial space sector.

(c) BRIEFING.—NASA shall provide a briefing to the appropriate committees of Congress on the Administrator's plans and strategy for continuing to procure commercial launch services, including an assessment of the supply chain and domestic industrial base supporting such serv-

ices and any associated risks to cost, schedule, or mission assurance.

TITLE IV—SPACE TECHNOLOGY AND STEM EDUCATION

SEC. 401. SPACE TECHNOLOGY MISSION DIRECTORATE.

(a) SENSE OF CONGRESS.—It is the sense of Congress that an independent Space Technology Mission Directorate is critical to ensuring continued investment in the development of technologies for missions across the portfolio of NASA, including science, aeronautics, and human exploration.

(b) SPACE TECHNOLOGY MISSION DIRECTORATE.—The Administrator shall maintain a Space Technology Mission Directorate consistent with section 702 of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (51 U.S.C. 20301 note; Public Law 115–10).

SEC. 402. SMALL BUSINESS INNOVATION RESEARCH AND SMALL BUSINESS TECHNOLOGY TRANSFER.

(a) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the following:

(1) Active awards made by the Administrator under a Small Business Innovation Research Pro-

gram or a Small Business Technology Transfer Program (as those terms are defined in section 9(e) of the Small Business Act (15 U.S.C. 638(e))) as of the date of the enactment of this Act.

(2) The manner in which the awards described in paragraph (1) are apportioned to each mission directorate of NASA.

(b) SBIR PHASE II FLEXIBILITY.—Section 9(cc) of the Small Business Act (15 U.S.C. 638(cc)) is amended by striking "and the Department of Education" and inserting "the Department of Education, and the National Aeronautics and Space Administration".

SEC. 403. SENSE OF CONGRESS ON CRYOGENIC FLUID VALVE TECHNOLOGY.

It is the sense of Congress that advancing cryogenic fluid valve technology would support the Administration's efforts to improve cryogenic fluid management and improve the reliability and efficiency of space vehicles.

SEC. 404. SPACE NUCLEAR POWER AND PROPULSION SYSTEMS.

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

(1) domestically developed fusion energy technologies have matured significantly over the last sev-

eral years as a result of surging private sector investment;

(2) such technologies could provide a safe, reliable, and long-duration power source for a range of cislunar, lunar, and Martian operations, and could offer certain advantages over fission power systems by mitigating radiation risk, improving fuel security, and limiting non-proliferation concerns;

(3) advancing nuclear thermal propulsion and nuclear electric propulsion systems would support the Administration's efforts to ensure technological readiness for Moon and Mars missions and other deep space exploration; and

(4) NASA and the Department of Energy have long collaborated on the development of space nuclear power and propulsion systems.

(b) ACTIVITIES.—

(1) IN GENERAL.—As a complement to the lunar surface power program described in section 312, the Administrator shall continue development and demonstration activities for space nuclear power and propulsion, in collaboration with other relevant Federal agencies and with industry.

(2) ELEMENTS.—The activities described in paragraph (1) shall include the following:

(A) An assessment of the potential near-term use cases of nuclear systems for NASA missions.

(B) A roadmap for incorporating commercially developed nuclear systems into future science and exploration partnerships and funding opportunities of NASA.

(C) The use of previously developed NASA hardware, as appropriate.

SEC. 405. STUDY ON ESTABLISHMENT OF AN AEROSPACE POWER SYSTEMS LABORATORY.

(a) FINDINGS.—Congress finds the following:

(1) NASA's Glenn Research Center has long served as one of the Nation's leading centers for research, development, and testing of aerospace power and propulsion systems.

(2) Glenn Research Center's expertise in power generation, energy storage, propulsion technologies, and in-space power management is critical to enabling NASA's Artemis program and future crewed missions to Mars.

(3) Establishment of a dedicated aerospace power systems laboratory at Glenn Research Center would strengthen United States leadership in aerospace power innovation, support the development of

advanced spaceflight systems, and ensure mission success for lunar and Mars exploration.

(b) STUDY.—

(1) IN GENERAL.—The Administrator shall commission an independent study, to be conducted by a qualified nongovernmental entity with expertise in aerospace systems research and facility development, to assess the feasibility, requirements, and potential benefits of establishing an aerospace power systems laboratory at NASA's Glenn Research Center.

(2) ELEMENTS.—The study described in paragraph (1) shall include the following:

(A) An assessment of current and projected mission needs for power and propulsion systems in support of the Artemis program, Mars exploration, and other NASA missions.

(B) An evaluation of Glenn Research Center's existing facilities, workforce capabilities, and infrastructure gaps related to power systems research and testing.

(C) An identification of potential partnerships with industry, academia, and other government agencies for the purpose of power systems research.

(D) Cost estimates, schedules, and potential funding profiles for the establishment of a laboratory described in paragraph (1).

(E) An analysis of how the laboratory could accelerate technology readiness for power and propulsion systems critical to deep space missions.

(3) REPORT TO CONGRESS.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report detailing the results of the study described in paragraph (1).

SEC. 406. NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM.

(a) AMENDMENTS.—Title 51, United States Code, is amended—

(1) in section 40303, by striking subsections (d) and (e); and

(2) in section 40304—

(A) by striking subsection (c) and inserting the following:

"(c) SOLICITATIONS AND AWARDS.—

"(1) SOLICITATIONS.—The Administrator may issue a solicitation to space grant regional consortia

for the award of grants or contracts under this section.

"(2) APPLICATIONS.—A lead institution of a space grant regional consortium that seeks a grant or contract under this section shall submit, on behalf of such space grant regional consortium, an application to the Administrator at such time, in such manner, and accompanied by such information as the Administrator may require.

"(3) AWARDS.—The Administrator may award 1 or more multi-year grants or contracts, disbursed in annual installments, to the lead institution of a space grant regional consortium comprised of institutions of any of the following:

"(A) 1 or more of the 50 States of the United States.

"(B) The District of Columbia.

"(C) The Commonwealth of Puerto Rico."; and

(B) by adding at the end the following:

"(e) ALLOCATION OF FUNDING.—

"(1) PROGRAM IMPLEMENTATION.—To carry out the purposes set forth in section 40301, each fiscal year, the Administrator may allocate the funds appropriated for the national space grant college and

fellowship program for the fiscal year to each space grant regional consortium awarded a grant or contract under subsection (c)(3) in an equal amount.

"(2) PROGRAM ADMINISTRATION.—

"(A) IN GENERAL.—Each fiscal year, of the funds made available for the national space grant college and fellowship program, the Administrator shall allocate not more than 10 percent for the administration of the program.

"(B) COSTS COVERED.—The funds allocated under subparagraph (A) shall cover all costs of the Administration associated with the administration of the national space grant college and fellowship program, including—

"(i) direct costs to the program, including costs relating to support services and civil service salaries and benefits;

"(ii) indirect general and administrative costs of centers and facilities of the Administration; and

"(iii) indirect general and administrative costs of Administration headquarters.".

(b) ANALYSIS AND REPORT.—

(1) ANALYSIS.—The Administrator shall make arrangements for the conduct of a multi-year analysis of the independent external reviews under development in the national space grant college and fellowship program established under section 40303 of title 51, United States Code—

(A) to evaluate the program's management, accomplishments, approach to funding allocation as described in subsection (e) of such section, and responsiveness to the purposes set forth in section 40301 of such title;

(B) to consider the benefits that partnerships with local education agencies, including those in underserved and rural areas, may provide; and

(C) to propose any statutory updates that may be needed to implement recommendations of the analysis.

(2) BRIEFING.—Not later than 270 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the results of the analysis conducted under paragraph (1).

SEC. 407. SKILLED TECHNICAL WORKFORCE EDUCATION OUTREACH.

(a) IN GENERAL.—The Administrator may conduct or support STEM engagement activities that focus on expanding opportunities for students to pursue skilled technical workforce occupations in space and aeronautics, with the objective of strengthening the United States space and aeronautics industrial base and ensuring the availability of a mission-ready workforce to support current and future NASA programs.

(b) LEVERAGING EXISTING PROGRAMS.—In conducting or supporting activities under subsection (a), the Administrator—

(1) shall leverage, as appropriate, existing NASA education, workforce, and outreach programs; and

(2) may coordinate with or leverage Federal programs, interagency initiatives, and public-private partnerships, including the Manufacturing USA Program established under section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s), to address workforce needs across the domestic space and aeronautics supply chain, as appropriate.

(c) INCLUSIONS.—Activities conducted or supported under subsection (a) may include outreach activities that—

(1) engage secondary and post-secondary students, including students—

(A) at institutions of higher education, 2-year colleges, and high schools; and

(B) enrolled in vocational, apprenticeship, or career and technical education programs;

(2) expose students to—

(A) careers that require career and technical education, skills, and training relevant to NASA missions; and

(B) the competitiveness and resiliency of the United States space and aeronautics industrial base;

(3) encourage students to pursue high-demand technical careers supporting spaceflight, aeronautics, science, research, manufacturing, propulsion, avionics, testing, materials, operations, and sustainment; and

(4) provide students with hands-on learning opportunities to observe or participate in—

(A) the manufacturing, assembly, integration, and testing of NASA-funded space and

aeronautical systems (consistent with mission requirements);

(B) workplace safety;

(C) mission requirements; and

(D) the protection of sensitive or proprietary information.

(d) BRIEFING.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on the following:

(1) Activities conducted or supported under this section.

(2) Any planned activities to be conducted or supported.

(3) The manner in which such activities support the long-term health, resiliency, and competitiveness of the United States space and aeronautics industrial base.

(e) DEFINITIONS.—In this section:

(1) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(2) SKILLED TECHNICAL WORKFORCE.—The term "skilled technical workforce" has the meaning

given that term in section 4(b)(3) of the Innovations in Mentoring, Training, and Apprenticeships Act (42 U.S.C. 1862p note; Public Law 115–402).

SEC. 408. ACTIVE ORBITAL DEBRIS REMEDIATION DEMONSTRATION.

(a) IN GENERAL.—Subject to the availability of appropriations, the Administrator may establish a demonstration program to make competitive awards for the research, development, and demonstration of technologies leading to the active remediation of orbital debris.

(b) PURPOSE.—The program authorized under subsection (a) may enable eligible entities to pursue the phased development and demonstration of technologies and processes required for active debris remediation and to mature capabilities necessary for potential future remediation missions.

(c) PRIORITIZATION OF ORBITAL DEBRIS.—

(1) LIST.—Not later than 90 days after the date of the enactment of this Act, the Administrator, in collaboration with the Secretary of Commerce, and in consultation with relevant Federal departments and agencies and representatives of the commercial space industry, academia, and nonprofit organizations, shall publish a list of selected identified orbital debris that may be remediated to improve the

safety and sustainability of orbiting satellites and on-orbit activities.

(2) CONTENTS.—The list required under paragraph (1)—

(A) shall be developed using appropriate sources of data and information derived from governmental and nongovernmental sources, including space situational awareness data obtained by the Office of Space Commerce, to the extent practicable;

(B) shall include, to the extent practicable—

(i) a description of the approximate age, location in orbit, size, mass, tumbling state, post-mission passivation actions taken, and national jurisdiction of all orbital debris identified; and

(ii) data required to inform decisions regarding potential risk and feasibility of safe remediation;

(C) may include orbital debris that poses a significant risk to terrestrial people and assets, including risks resulting from potential environmental impacts from the uncontrolled reentry of the orbital debris identified; and

(D) may include collections of small debris that, as of the date of the enactment of this Act, are untracked.

(d) DEMONSTRATION PROJECT AUTHORITY.—

(1) ESTABLISHMENT.—Not later than 180 days after the date of the enactment of this Act, subject to the availability of appropriations, the Administrator, in consultation with the head of each relevant Federal department or agency, shall establish a demonstration project to make competitive awards for the research, development, and demonstration of technologies leading to the remediation of selected orbital debris identified under subsection (c)(1).

(2) PURPOSE.—The purpose of the demonstration project shall be to enable eligible entities to pursue the phased development and demonstration of technologies and processes required for active debris remediation.

(3) PROCEDURES AND CRITERIA.—In establishing the demonstration project, the Administrator shall—

(A) establish—

(i) eligibility criteria for participation;

(ii) a process for soliciting proposals from eligible entities;

(iii) criteria for the contents of such proposals;

(iv) project compliance and evaluation metrics; and

(v) project phases and milestones;

(B) identify government-furnished data or equipment;

(C) develop a plan for NASA participation, as appropriate, in technology development and intellectual property rights that—

(i) leverages NASA centers that have demonstrated expertise and historical knowledge in measuring, modeling, characterizing, and describing the current and future orbital debris environment; and

(ii) develops the technical consensus for adopting mitigation measures for such participation;

(D) assign a project manager to oversee the demonstration project and carry out project activities under this subsection; and

(E) in assigning such project manager, leverage NASA centers and the personnel of NASA centers, as practicable.

(4) RESEARCH AND DEVELOPMENT PHASE.—With respect to orbital debris identified under paragraph (1) of subsection (c), the Administrator shall, to the extent practicable and subject to the availability of appropriations, carry out the additional research and development activities necessary to mature technologies, in partnership with eligible entities, with the intent to close commercial capability gaps and enable potential future remediation missions for such orbital debris, with a preference for technologies that are capable of remediating orbital debris with a broad range of characteristics described in paragraph (2) of that subsection.

(5) DEMONSTRATION MISSION PHASE.—

(A) IN GENERAL.—Subject to the availability of appropriations, the Administrator shall evaluate proposals for a demonstration mission and select and enter into a partnership with an eligible entity with the intent to demonstrate technologies determined by the Administrator to meet a level of technology readiness sufficient to carry out on-orbit remediation of select orbital debris.

(B) EVALUATION.—In evaluating proposals for the demonstration project, the Administrator shall—

(i) consider the safety, feasibility, cost, benefit, and maturity of the proposed technology;

(ii) consider the potential for the proposed demonstration to successfully remediate orbital debris and to advance the commercial state of the art with respect to active debris remediation;

(iii) carry out a risk analysis of the proposed technology that takes into consideration the potential casualty risk to humans in space or on the Earth's surface;

(iv) in an appropriate setting, conduct thorough testing and evaluation of the proposed technology and each component of such technology or system of technologies; and

(v) consider the technical and financial feasibility of using the proposed technology to conduct multiple remediation missions.

(C) CONSULTATION.—The Administrator shall consult with the head of each relevant Federal department or agency before carrying out any demonstration mission under this paragraph.

(D) SENSE OF CONGRESS ON ACTIVE DEBRIS REMEDIATION DEMONSTRATION MISSION.—It is the sense of Congress that the Administrator should consider maximizing competition for, and use best practices to engage commercial entities in, an active debris remediation demonstration mission.

(6) BRIEFING AND REPORTS.—

(A) INITIAL BRIEFING.—Not later than 30 days after the establishment of the demonstration project under paragraph (1), the Administrator shall provide the appropriate committees of Congress with a briefing on the details of the demonstration project.

(B) ANNUAL REPORT.—Not later than 1 year after the initial briefing under subparagraph (A), and annually thereafter until the conclusion of 1 or more demonstration missions, the Administrator shall submit to the appro-

priate committees of Congress a status report on—

(i) the technology developed under the demonstration project;

(ii) progress toward the accomplishment of 1 or more demonstration missions; and

(iii) any duplicative efforts carried out or supported by NASA or the Department of Defense.

(C) RECOMMENDATIONS.—Not later than 1 year after the date on which the first demonstration mission is carried out under this subsection, the Administrator, in consultation with the head of each relevant Federal department or agency, shall submit to Congress a report that provides legislative, regulatory, and policy recommendations to improve active debris remediation missions, as applicable.

(D) TECHNICAL ANALYSIS.—

(i) IN GENERAL.—To inform decisions regarding the acquisition of active debris remediation services by the Federal Government, not later than 1 year after the date on which an award is made under

paragraph (1), the Administrator shall submit to Congress a report that—

(I) summarizes the cost effectiveness, and provides a technical analysis of, technologies developed under the demonstration project;

(II) identifies any technology gaps addressed by the demonstration project and any remaining technology gaps; and

(III) provides, as applicable, any further legislative, regulatory, and policy recommendations to enable active debris remediation missions.

(ii) AVAILABILITY.—The Administration shall make the report submitted under clause (i) available to the Secretary of Commerce, the Secretary of Defense, and the head of any other relevant Federal department or agency, as determined by the Administrator

(7) SENSE OF CONGRESS ON INTERNATIONAL COOPERATION.—It is the sense of Congress that, in carrying out the demonstration project, it is critical that the Administrator, in coordination with the Sec-

retary of State, cooperate with 1 or more partner countries to enable the remediation of orbital debris that is under their respective jurisdictions.

(c) ACQUISITION OF SERVICES.—To foster the competitive development and commercial availability of active debris remediation services, the Administrator may acquire such services, whenever practicable, through fair and open competition using well-defined milestone-based contracts in accordance with the Federal Acquisition Regulation.

TITLE V—AERONAUTICS

SEC. 501. HYPERSONIC RESEARCH.

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

(1) basic and applied hypersonic research—

(A) is critical for enabling the development of advanced high-speed aeronautical and space systems; and

(B) can improve understanding of technical challenges related to high-speed and reusable vehicle technologies, including those related to—

(i) propulsion;

(ii) noise;

(iii) advanced materials; and

(iv) entry, descent, and landing operations;

(2) investments in, and NASA efforts to study, hypersonic research are critical to sustaining United States global leadership in space and aeronautics;

(3) the Department of Defense should not duplicate, and may complement, such NASA efforts;

(4) NASA hypersonic research tunnels at Neil Armstrong Test Facility should immediately be refurbished to full non-vitiated hypersonic capability, in full coordination with the Department of Defense;

(5) the Department of Defense should use NASA capabilities to the maximum extent practicable so as to avoid duplication of costly facilities; and

(6) efforts to study hypersonic research supported by the Department of Defense and NASA should be conducted in partnership with universities and industry, as appropriate.

(b) HYPERSONIC RESEARCH.—The Administrator, in coordination with the Administrator of the Federal Aviation Administration and the Secretary of Defense, as appropriate, and in consultation with industry and academia, shall continue to carry out basic and applied hypersonic research.

(c) ROADMAP.—

(1) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator, in consultation with the Administrator of the Federal Aviation Administration, the Secretary of Defense, industry, and academic institutions, shall update the roadmap for hypersonic research required by section 603 of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (Public Law 115–10; 131 Stat. 55).

(2) CONSIDERATIONS.—In updating the roadmap under paragraph (1), the Administrator may consider—

(A) advancements in—

(i) system-level design, analysis, and validation of hypersonic aircraft technologies;

(ii) propulsion capabilities and technologies;

(iii) vehicle technologies, including vehicle flow physics and vehicle thermal management associated with aerodynamic heating;

(iv) advanced materials, including materials capable of withstanding high temperatures;

(v) demonstrating durable materials;

(vi) efforts to apply such materials; and

(vii) other areas of hypersonic research as determined appropriate by the Administrator; and

(B) data trends regarding sonic boom overpressures associated with hypersonic aircraft.

(d) REPORT AND BRIEFING.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall—

(1) submit to the appropriate committees of Congress the roadmap updated under subsection (c); and

(2) provide the appropriate committees of Congress with a briefing on the research carried out under subsection (b), including with respect to the manner in which such research aligns with such updated roadmap.

SEC. 502. ADVANCED MATERIALS AND MANUFACTURING TECHNOLOGY.

(a) REPORT.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report on the status of NASA activities relating to subsections (e) and (f) of section 10831 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 40102 note; Public Law 117–167).

(b) UPDATE AND BRIEFING.—Not later than 2 years after the date on which the report required by subsection (a) is submitted, the Administrator shall—

(1) submit to the appropriate committees of Congress an update to the findings contained in such report; and

(2) provide the appropriate committees of Congress with a briefing on such update.

SEC. 503. UNMANNED AIRCRAFT SYSTEMS AND ADVANCED AIR MOBILITY.

(a) IN GENERAL.—The Administrator shall continue research, as appropriate and necessary, in collaboration with the Administrator of the Federal Aviation Administration, the heads of other relevant Federal agencies, and appropriate representatives of academia and industry, on unmanned aircraft systems and advanced air mobility.

(b) DEFINITIONS.—In this section:

(1) ADVANCED AIR MOBILITY.—The term "advanced air mobility" means a transportation system that is composed of urban air mobility and regional air mobility using manned or unmanned aircraft.

(2) REGIONAL AIR MOBILITY.—The term "regional air mobility" means the movement of passengers or property by air between 2 points using an airworthy aircraft that—

(A) has advanced technologies, such as distributed propulsion, vertical takeoff and landing, powered lift, nontraditional power systems, or autonomous technologies;

(B) has a maximum takeoff weight of greater than 1,320 pounds; and

(C) is not urban air mobility.

(3) UNMANNED AIRCRAFT SYSTEM.—The term "unmanned aircraft system" has the meaning given that term in section 44801 of title 49, United States Code.

(4) URBAN AIR MOBILITY.—The term "urban air mobility" means the movement of passengers or property by air between 2 points in different cities or 2 points within the same city using an airworthy aircraft that—

(A) has advanced technologies, such as distributed propulsion, vertical takeoff and landing, powered lift, nontraditional power systems, or autonomous technologies; and

(B) has a maximum takeoff weight of greater than 1,320 pounds.

SEC. 504. HYDROGEN AVIATION.

(a) IN GENERAL.—Subject to the availability of appropriations for such purpose, the Administrator may carry out research on emerging technologies related to hydrogen aviation.

(b) REPORT.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on ongoing research carried out under subsection (a) that includes the following:

(1) An identification of any agency with which NASA has partnered on such research.

(2) A description of anticipated further actions and activities related to hydrogen aviation.

SEC. 505. HIGH-PERFORMANCE CHASE AIRCRAFT.

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

(1) NASA programs benefit from and rely upon high-performance chase aircraft for providing research and mission support; and

(2) NASA currently faces maintenance challenges related to its aging high-performance aircraft fleet, which is resulting in increased program costs.

(b) BRIEFING.—Not later than 60 days after the date of the enactment of this Act, and biannually thereafter, the Administrator shall provide the appropriate committees of Congress with a briefing on the strategy of NASA relating to the following:

(1) Collaboration with the Department of Defense on efforts for research and flight asset sharing to support NASA's research and mission support and pilot training requirements.

(2) Efforts to seek aircraft parts and engines to keep NASA's current fleet of chase aircraft operational, including potential use of 3D additive manufactured parts.

(3) Strategies for acquiring or using through loan, sharing, or other agreements, as appropriate, Department of Defense aircraft to support NASA's research and mission support activities, as required.

SEC. 506. ELECTRIFIED POWERTRAIN FLIGHT DEMONSTRATION.

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

(1) hybrid-electric powertrain systems and component technology show great promise for improving the efficiency and cost effectiveness of next-generation commercial subsonic aircraft; and

(2) NASA, in partnership with commercial industry, has made significant progress in demonstrating the practical application of such systems and technology.

(b) CONTINUATION.—The Administrator shall—

(1) continue the Electrified Powertrain Flight Demonstration project to mature electrified aircraft propulsion technologies for commercial aircraft; and

(2) ensure that partnerships with industry in effect as of the date of the enactment of this Act continue through the successful completion of flight demonstrations under such project.

SEC. 507. STUDY ON MODERNIZATION OF T–38 FLIGHT TRAINER AIRCRAFT FLEET.

(a) FINDINGS.—Congress finds the following:

(1) The NASA astronaut corps has historically relied on the T–38 flight trainer aircraft to develop

and maintain critical skills in high-performance, high-risk environments.

(2) Such high-performance training remains essential as the United States undertakes increasingly complex and dangerous deep space exploration missions, including crewed missions to the Moon and Mars.

(3) The T–38 flight trainer aircraft fleet, currently managed, housed, and maintained at Ellington Field Joint Reserve Base in Texas, provides essential operational readiness for astronauts and must continue to be based there to sustain the proficiency of the astronaut corps.

(b) STUDY REQUIRED.—

(1) IN GENERAL.—The Administrator shall conduct a study evaluating the following:

(A) The costs, benefits, and requirements of modernizing or replacing NASA's T–38 flight trainer aircraft fleet with new aircraft of similar or superior performance capability.

(B) The resources needed and requirements to continue operating and maintaining the T–38 flight trainer aircraft fleet in a safe and mission-effective manner.

(C) Options for establishing a dedicated NASA maintenance program for the T–38 flight trainer aircraft fleet at Ellington Field Joint Reserve Base.

(D) The training, operational, and safety implications for the astronaut corps under each such option.

(2) CONSULTATION.—In conducting the study required by paragraph (1), the Administrator shall consult with relevant Department of Defense and commercial aviation experts.

(c) REPORT REQUIRED.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report on the findings of the study required by subsection (b), including recommendations for future action.

(d) CONTINUATION OF T–38 FLEET.—The Administrator may not divest, retire, or otherwise reduce the number of T–38 flight trainer aircraft until the Administrator has—

(1) procured and fielded not fewer than 10 high-performance trainer aircraft of similar or superior capability to the existing T–38 flight trainer aircraft; and

(2) ensured that such high-performance trainer aircraft are operationally available for astronaut training at Ellington Field Joint Reserve Base.

SEC. 508. SUBSONIC THIN-WING FLIGHT TECHNOLOGIES.

(a) IN GENERAL.—Section 40112 of title 51, United States Code, is amended—

(1) by redesignating subsections (b) through (g) as subsections (c) through (h), respectively; and

(2) by inserting after subsection (a) the following:

"(b) THIN-WING FLIGHT TECHNOLOGIES.—The Administrator may establish an initiative to research, develop, integrate, and test new flight technologies that will enable thin-wing architecture on subsonic commercial aircraft, including a ground-based, full-scale wing demonstration and other advanced technologies necessary to enable the use of thin-wing technology on subsonic commercial aircraft.".

(b) CONFORMING AMENDMENTS.—Section 10833 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 40112 note; Public Law 117–167) is amended—

(1) in subsections (b) and (c), by striking "section 40112(b) of title 51" each place it appears and inserting "section 40112(c) of title 51"; and

(2) in subsections (c) and (d), by striking "subsection (b) of section 40112" each place it appears and inserting "subsection (c) of section 40112".

SEC. 509. ADVANCED CAPABILITIES FOR AIRSPACE MANAGEMENT.

(a) IN GENERAL.—The Administrator may continue to conduct research and development activities under the Advanced Capabilities for Emergency Response Operations project managed by the Airspace Operations and Safety Program (or the appropriate successor project or projects) to develop advanced airspace management technologies.

(b) BRIEFING.—

(1) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on ongoing research and development activities related to improving airspace management in complex environments.

(2) ELEMENTS.—The briefing required by paragraph (1) shall include the following:

(A) An identification of any topic related to improvement of aerial responses to wildfires that could benefit from further research.

(B) A description of collaboration with other relevant Federal agencies.

(C) A description of any continuing efforts under this section.

(D) A description of the applicability of technologies developed through the project for the integration of new airspace entrants.

(E) Any other information the Administrator considers appropriate.

TITLE VI—SCIENCE

SEC. 601. MAINTENANCE OF BALANCED SCIENCE PORTFOLIO.

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

(1) a balanced and adequately funded set of activities consisting of research and analysis grant programs, technology development, suborbital research activities, and small, medium, and large space missions, contributes to a robust and productive science program and serves as a catalyst for innovation and discovery; and

(2) the Administrator should set science priorities by considering the recommendations and guidance provided by the scientific community through

the National Academies of Sciences, Engineering, and Medicine decadal surveys.

(b) POLICY REAFFIRMATION.—Congress reaffirms the policy of the United States set forth in section 501(c) of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (51 U.S.C. 20302 note; Public Law 115–10), which states, "It is the policy of the United States to ensure, to the extent practicable, a steady cadence of large, medium, and small science missions.".

SEC. 602. IMPLEMENTATION OF SCIENCE MISSION COST CAPS.

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

(1) NASA science missions address compelling scientific questions prioritized by the National Academies of Sciences, Engineering, and Medicine decadal surveys, and often such missions exceed expectations in terms of performance, longevity, and scientific impact;

(2) the Administrator should continue to pursue an ambitious science program while also seeking to avoid excessive cost growth that has the potential to affect the balance across the Science Mission Direc-

torate portfolio and within the science missions of NASA;

(3) audit reports by the Inspector General of NASA and the Government Accountability Office have revealed that—

(A) early cost estimates for missions in the preliminary phases of conception and development are unreliable; and

(B) the cost of a mission typically is not well understood until the project is further along in the development process;

(4) cost growth of a mission beyond its early cost estimates is a challenge for budget planning and has the potential to affect other missions in the Science Mission Directorate portfolio, including through delays to future mission solicitations; and

(5) relying on early cost estimates made prior to preliminary design review for science missions that later experience cost growth may disincentivize program and cost discipline moving forward.

(b) REQUIREMENT.—To the extent practicable, the Administrator shall ensure that, unless overwhelmingly necessary to do otherwise, NASA—

(1) minimizes changes to requirements, capabilities, and mission objectives under fixed-price contracts with commercial providers; and

(2) otherwise adheres to the requirements, capabilities, and mission objectives of such contracts.

(c) REPORT.—

(1) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act, the Comptroller General of the United States shall submit to the appropriate committees of Congress a report on NASA practices related to the establishment of and compliance with cost caps of competitively selected, principal investigator-led science missions.

(2) ELEMENTS.—The report required by paragraph (1) shall include the following:

(A) An assessment of current cost cap values and a determination as to whether existing cost cap amounts are appropriate for different classes of missions.

(B) Consideration of the effectiveness of cost caps in maintaining a varied and balanced portfolio of mission types within the Science Mission Directorate.

(C) A description of the information relating to project cost estimates and proposal com-

pliance with cost caps that NASA requires for proposal submissions, and an assessment as to whether such information provides sufficient insight or confidence in cost estimates.

(D) Consideration of NASA processes for assessing proposed cost estimates and an evaluation of the accuracy of such assessments for past competitively selected, principal investigator-led science missions.

(E) For the period beginning on January 1, 2000, and ending on the date of the enactment of this Act—

(i) a list of competitively selected, principal investigator-led science missions for which costs have exceeded the associated cost cap, including the reason the mission costs exceeded the cost cap;

(ii) an assessment of NASA's role in predicting, preventing, or managing competitively selected, principal investigator-led science mission cost increases; and

(iii) a description of the impact of increased competitively selected, principal investigator-led science mission costs beyond the cost caps on—

(I) the missions for which the cost cap has been exceeded; and

(II) other missions within the applicable division and within the Science Mission Directorate.

SEC. 603. MODIFICATION OF NATIONAL ACADEMIES DECADAL SURVEYS.

Section 20305 of title 51, United States Code, is amended—

(1) in subsection (a), by striking "The Administrator shall enter into agreements on a periodic basis" and inserting "Not less frequently than every 10 years, the Administrator shall enter into agreements";

(2) in subsection (c), by inserting ", significant changes to the budget of NASA," after "cost growth"; and

(3) by adding at the end the following:

"(d) MID-DECADAL REVIEWS.—

"(1) IN GENERAL.—Not later than 5 years after the date on which each decadal survey report under this section is issued, the Administrator shall enter into an agreement with the National Academies to conduct a mid-decadal review.

"(2) ELEMENTS.—Each review required by paragraph (1) shall assess the following:

"(A) The effectiveness of the manner in which the programs of NASA address the strategies, goals, and priorities outlined in the most recent decadal survey and other relevant National Academies reports.

"(B) The progress made by NASA toward realizing such strategies, goals, and priorities, including consideration of significant scientific discoveries, technical advances, and relevant programmatic changes since the date on which the decadal survey was published.".

SEC. 604. REPORT ON LANDSAT MISSION.

(a) FINDINGS.—Congress makes the following findings:

(1) Since 1972, the Landsat mission has served as the definitive data reference network that continuously informs how landscapes and associated natural resources are changing at local, regional, and global scales.

(2) Continuation of the Landsat mission will not only ensure the continuity of the longest space-based record of Earth's land surface but will also fundamentally transform the breadth and depth of

actionable data and information through significantly enhanced temporal, spatial, and spectral resolution.

(b) REPORT.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report describing—

(1) efforts made by the Administrator to comply with section 60134 of title 51, United States Code;

(2) aspects of Landsat observations that could be provided by private sector data buys or service procurements; and

(3) aspects of Landsat observations that could—

(A) meet associated science and technical requirements while maintaining or exceeding the quality, integrity, and continuity of Landsat observational capabilities and performance as of the date of the enactment of this Act, including the requirements necessary to ensure high-quality calibrated data continuity and traceability with the 50-year Landsat data record; and

(B) comply with nondiscriminatory availability of unenhanced data and public archiving

of data pursuant to section 60141 and 60142 of title 51, United States Code, and all other relevant Federal laws, regulations, and policies related to open science and data accessibility;

(4) any potential tradeoffs or other impacts of the requirements described in paragraph (3) that could reduce the benefit of Landsat data for scientific and applied uses or reduce the Federal Government's ability to make such data available for the widest possible use; and

(5) recommendations with respect to opportunities for the Federal Government to mitigate potential tradeoffs or impacts identified under paragraph (4) or to otherwise facilitate private sector data buys or service procurements.

SEC. 605. COMMERCIAL SATELLITE DATA.

(a) FINDINGS.—Congress makes the following findings:

(1) Section 60501 of title 51, United States Code, states that the goal for the Earth Science program of NASA shall be to pursue a program of Earth observations, research, and applications activities to better understand the Earth, how it supports life, and how human activities affect its ability to do so in the future.

(2) Section 50115 of title 51, United States Code, states that the Administrator shall, to the extent possible and while satisfying the scientific or educational requirements of NASA, and where appropriate, of other Federal agencies and scientific researchers, acquire, where cost effective, space-based and airborne commercial Earth remote sensing data, services, distribution, and applications from a commercial provider.

(3) After the completion of the Private-Sector Small Constellation Satellite Data Product Pilot launch in 2017, the Administrator established the Commercial SmallSat Data Acquisition Pilot Program in 2019 to identify, evaluate, validate, and acquire from commercial sources data that support the Earth science research and application goals.

(4) The Administrator has—

(A) determined that the pilot program described in paragraph (3) has been a success, as described in the final evaluation entitled "Commercial SmallSat Data Acquisition Program Pilot Evaluation Report" issued in 2020;

(B) established a formal process for evaluating and onboarding new commercial vendors in such pilot program;

(C) increased the number of commercial vendors and commercial data products available through such pilot program; and

(D) expanded procurement arrangements with commercial vendors to broaden user access to provide Earth remote sensing data and imagery to federally funded researchers.

(b) COMMERCIAL SATELLITE DATA ACQUISITION PROGRAM.—

(1) IN GENERAL.—Chapter 603 of title 51, United States Code, is amended by adding at the end the following:

"§ 60307. Commercial Satellite Data Acquisition Program

"(a) IN GENERAL.—The Administrator shall establish within the Earth Science Division of the Science Mission Directorate a program, to be known as the 'Commercial Satellite Data Acquisition Program', to cost-effectively acquire and disseminate commercial Earth observation data and imagery in order to complement the scientific, operational, and educational requirements of the Administration, and where appropriate, of other Federal agencies and scientific researchers.

"(b) DATA PUBLICATION AND ACCESSIBILITY.—The terms and conditions of commercial Earth remote sensing

data and imagery acquisitions under the program described in subsection (a) shall not prevent—

"(1) the publication of commercial data or imagery in academic or scientific articles, papers, or other similar publications for scientific purposes; or

"(2) the publication, in academic or scientific articles, papers, or other similar publications, of information that is derived from, incorporates, or enhances the original commercial data or imagery of a vendor.

"(c) AUTHORIZATION.—

"(1) IN GENERAL.—In carrying out the program under this section, the Administrator may—

"(A) procure commercial Earth remote sensing data and imagery from commercial vendors to advance scientific research and applications for the purpose set forth in subsection (a); and

"(B) establish or modify end-use license terms and conditions to allow for the widest possible use of procured commercial Earth remote sensing data and imagery by individuals other than NASA-funded users, consistent with the goals of the program.

"(2) ACQUISITION FROM UNITED STATES VENDORS.—The commercial Earth remote sensing data and imagery procured under this subsection shall be procured, to the maximum extent practicable, from United States vendors.

"(d) REPORT.—Not later than 180 days after the date of the enactment of this section, and annually thereafter, 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 the following:

"(1)(A) In the case of the initial report, a list of all vendors that are providing commercial Earth remote sensing data and imagery to NASA as of the date of the report.

"(B) For each subsequent report, a list of all vendors that have provided commercial Earth remote sensing data and imagery to NASA during the reporting period.

"(2) A description of the end-use license terms and conditions for each such vendor.

"(3) A description of the manner in which each such vendor is advancing scientific research and applications, including priorities recommended by the

National Academies of Sciences, Engineering, and Medicine decadal surveys.

"(4) Information specifying whether the Administrator has entered into an agreement with a commercial vendor or a Federal agency that permits the use of data and imagery by Federal Government employees, contractors, or non-Federal users.

"(e) DEFINITION OF UNITED STATES VENDOR.—In this section, the term 'United States vendor' means a commercial or nonprofit entity incorporated in the United States.".

(2) CLERICAL AMENDMENT.—The table of contents for chapter 603 of title 51, United States Code, is amended by adding at the end the following new item:

"60307. Commercial Satellite Data Acquisition Program.".

SEC. 606. PLANETARY SCIENCE PORTFOLIO.

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

(1) planetary science missions advance the scientific understanding of the solar system and the place of humans in it while also advancing the design and operation of spacecraft and robotic engineering;

(2) multiple countries, including countries that are partners of the United States and countries that

are competitors of the United States, have set forth plans, allocated commensurate budgets, and performed precursor activities to enable ambitious planetary science missions across the solar system during the next decade;

(3) the Discovery, New Frontiers, and Flagship missions allow the Administration to carry out a range of missions that vary in size, cost, and complexity; and

(4) maintaining balance among such missions allows for a broad scope of discoveries and scientific advances.

(b) MISSION PRIORITIES REAFFIRMATION.—Congress reaffirms the direction in section 502(b)(1) of the National Aeronautics and Space Administration Transition Authorization Act of 2017 (51 U.S.C. 20301 note; Public Law 115–10) that—

(1) in accordance with the priorities established in the Planetary Science and Astrobiology Decadal Survey 2023–2032 of the National Academies of Sciences, Engineering, and Medicine, the Administrator shall ensure, to the greatest extent practicable, the completion of a balanced set of Discovery, New Frontiers, and Flagship missions at the cadence recommended in such decadal survey; and

(2) consistent with the missions described in paragraph (1), and while maintaining the continuity of scientific data and steady development of capabilities and technologies, the Administrator may seek, if necessary, adjustments to mission priorities, schedule, and scope in light of changing budget projections.

SEC. 607. PLANETARY DEFENSE.

(a) NEAR-EARTH OBJECT SURVEY AND POLICY.—Section 808 of the National Aeronautics and Space Administration Authorization Act of 2010 (42 U.S.C. 18387), is amended in subsection (b) by striking "shall implement, before September 30, 2012," and inserting ", in coordination with the Administrator, shall maintain and regularly update".

(b) POLICY ON NEAR-EARTH OBJECTS AND RESPONSIBLE FEDERAL AGENCY.—Section 71103 of title 51, United States Code, is amended to read as follows:

"§ 71103. Policy on near-Earth objects and responsible Federal agency

"The Director of the Office of Science and Technology Policy, in coordination with the Administrator, shall—

"(a) maintain and regularly update a policy for notifying Federal agencies and relevant emergency response

institutions of an impending near-Earth object threat, if near-term public safety is at risk; and

"(b) provide recommendations for a Federal agency or agencies to be responsible for—

"(1) protecting the United States from a near-Earth object that is expected to collide with Earth; and

"(2) implementing a deflection campaign, in consultation with international bodies, should one be necessary.".

(c) PLANETARY DEFENSE COORDINATION OFFICE.—Chapter 711 of title 51, United States Code, is amended by adding at the end the following:

"§ 71105. Planetary Defense Coordination Office

"(a) OFFICE.—The Administrator shall maintain an office within the Planetary Science Division of the Science Mission Directorate, to be known as the 'Planetary Defense Coordination Office', as required by section 10825 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 71101 note; Public Law 117–167).

"(b) RESPONSIBILITIES.—Consistent with section 10825 of the National Aeronautics and Space Administration Authorization Act of 2022 (51 U.S.C. 71101 note;

Public Law 117–167), the Planetary Defense Coordination Office under subsection (a) shall—

"(1) plan, develop, and implement a Near-Earth Object Surveyor and associated data modeling and analysis program to survey threats posed by near-Earth objects equal to or greater than 140 meters in diameter, as required by section 321(d)(1) of the National Aeronautics and Space Administration Authorization Act of 2005 (51 U.S.C. 71101 note prec.; Public Law 109–155);

"(2) identify, track, and characterize potentially hazardous near-Earth objects, issue warnings on the effects of potential impacts of such objects, and investigate strategies and technologies for mitigating the potential impacts of such objects; and

"(3) assist in coordinating Government planning for a response to a potential impact of a near-Earth object.".

(d) CONFORMING AMENDMENT.—The table of contents for chapter 711 of title 51, United States Code, is amended—

(1) by striking the item relating to section 71103 and inserting the following:

"71103. Policy on near-Earth objects and responsible Federal agency.";

and

(2) by adding at the end the following:

"71105. Planetary Defense Coordination Office.".

SEC. 608. LUNAR DISCOVERY AND EXPLORATION PROGRAM.

(a) IN GENERAL.—The Administrator may carry out, within the Science Mission Directorate, a program to accomplish science objectives for the Moon, with an organizational structure that aligns responsibility, authority, and accountability, as recommended in the Planetary Science and Astrobiology Decadal Survey 2023–2032 of the National Academies of Sciences, Engineering, and Medicine.

(b) OBJECTIVES AND REQUIREMENTS.—In carrying out the program under subsection (a), the Administrator shall set forth the following:

(1) High-priority lunar science objectives, informed by decadal and other scientific consensus recommendations.

(2) Related requirements for an integrated Artemis science strategy for human and robotic missions to the Moon that—

(A) encourages industry, academia, and international participation; and

(B) considers opportunities for Artemis Accords signatories to participate in the overall lunar science program of the United States.

(c) INSTRUMENTATION.—The program under subsection (a) shall assess the need for and facilitate the development of instrumentation to support the scientific exploration of the Moon.

SEC. 609. PLAN FOR PLANETARY AND LUNAR OPERATIONS.

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

(1) existing NASA lunar and Martian orbital missions, and other long-duration science observatories, are operating well beyond their planned mission lifespans;

(2) NASA relies on such aging infrastructure for observations, communications relay, and other operations to support critical NASA missions; and

(3) the United States plans to increase its activities on and around both the Moon and Mars in coming years.

(b) PLAN.—

(1) IN GENERAL.—The Administrator shall develop a plan to ensure the continuity of operations and sufficient observational and operational capabilities on and around the Moon and Mars necessary to continue to enable a robust science program and human exploration program for the Moon and Mars well into the future.

(2) ELEMENT.—The plan required by paragraph (1) shall take into consideration opportunities for the Administration to engage private and international partners in future operations, with consideration given to relevant past performance commensurate with the complexity of each endeavor.

(c) ANNUAL BRIEFING.—

(1) IN GENERAL.—Not later than 90 days after the beginning of each fiscal year, the Administrator shall provide the appropriate committees of Congress with a briefing on aging and extended NASA planetary, lunar, and space science programs and missions, including flagship observatories such as the Hubble Space Telescope and the Chandra X-ray Observatory.

(2) ELEMENTS.—Each briefing required by paragraph (1) shall address—

(A) each planetary, lunar, or space science program or mission with an anticipated end-of-operational or end-of-useful lifespan during the 2-year period after the date on which the briefing is provided;

(B) each such program or mission that has continued operations beyond its originally approved baseline lifespan; and

(C) a detailed plan for—

(i) decommissioning;

(ii) servicing each such program to extend its lifespan; or

(iii) establishing a new program to continue the objectives of such program or mission.

SEC. 610. RESTRUCTURING OF MARS SAMPLE RETURN PROGRAM.

(a) TERMINATION OF EXISTING PROGRAM.—Not later than 30 days after the date of the enactment of this Act, the Administrator shall terminate the Mars Sample Return program in effect on such date of enactment, including all related contracts, task orders, and project structures associated with such program that are in place on such date.

(b) ESTABLISHMENT OF NEW MARS SAMPLE RETURN PROGRAM.—

(1) IN GENERAL.—The Administrator shall establish within the Science Mission Directorate a new Mars Sample Return program (referred to in this section as the "Program") for the purpose of returning scientifically curated samples from Mars to Earth.

(2) REQUIREMENTS.—The Program shall—

(A) be limited to a total life-cycle cost not to exceed $8,000,000,000;

(B) use contract structures for the development and delivery of flight systems and associated mission elements that are most likely to lead to the lowest total life-cycle cost;

(C) to the extent practicable, leverage existing flight-proven technologies and heritage systems, such as radar, spectroscopy, power, entry, and descent and landing systems so as to reduce cost, risk, and schedule;

(D) provide for the safe return of samples from Mars to Earth, appropriate screening for purposes of planetary protection, and delivery to the Johnson Space Center, which shall be responsible for the long-term curation, scientific access, and United States ownership of all returned materials; and

(E) allow for the participation of international partners only if such participation—

(i) does not unduly increase the overall cost of, or risk associated with, the program;

(ii) is consistent with the cost limitation under subparagraph (A); and

(iii) preserves United States leadership and custodianship of returned samples.

(3) MANAGEMENT.—

(A) IN GENERAL.—The Program shall be led and managed by the Science Mission Directorate, in coordination with and with the support of the Exploration Systems Development Mission Directorate to ensure the alignment of the Program with relevant launch, propulsion, and Earth entry technologies.

(B) PLAN.—

(i) IN GENERAL.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a comprehensive management plan for the Program.

(ii) ELEMENTS.—The plan required by clause (i) shall include the following:

(I) A statement of program objectives and a description of the manner in which such objectives align with priorities set forth in the National Academies decadal surveys.

(II) A technical and acquisition strategy that includes—

(aa) the intended contracting structure for each major contract or subcontract, and a justification for such structure;

(bb) a schedule of major program milestones; and

(cc) a plan to leverage existing and proven flight systems.

(III) A life-cycle cost estimate and funding profile that is consistent with the cost limitation under paragraph (2)(A).

(IV) An integrated master schedule.

(V) A risk management strategy, including mitigation approaches for international coordination, Earth reentry, and planetary protection.

(VI) A governance structure detailing the roles of relevant NASA directorates and partner institutions.

(VII) A plan for science integration and sample science objectives, in-

cluding coordination with international scientific communities, as appropriate.

(VIII) A requirement for the provision of a quarterly briefing to the appropriate committees of Congress on program status.

(c) PRESERVATION OF MARS TELECOMMUNICATIONS ORBITER PROGRAM.—

(1) IN GENERAL.—The Administrator shall ensure that the development of the Mars Telecommunications Orbiter remains independent from the restructuring and implementation of the Mars Sample Return program.

(2) RULE OF CONSTRUCTION.—Nothing in this section may be construed to modify, delay, or otherwise affect the planning, funding, development, or schedule of the Mars Telecommunications Orbiter program.

SEC. 611. HELIOPHYSICS RESEARCH.

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

(1) NASA heliophysics research advances the scientific understanding of the Sun, the impact of the Sun on the Earth and near-Earth environment,

and the interactions of the Sun with other bodies in the solar system, the interplanetary medium, and the interstellar medium;

(2) fundamental science supported by the Heliophysics Division is critical to improving the forecasting capabilities of space weather observations, which contribute to—

(A) fortifying national security and other critically important space-based and ground-based assets;

(B) improving the resilience of the energy infrastructure of the United States; and

(C) protecting human health in space; and

(3) the Heliophysics Division should continue to maximize the scientific return on investment of its portfolio through maintaining a balanced portfolio that includes research and analysis, including multidisciplinary research initiatives, technology development, space-based missions, and suborbital flight projects that include both directed and strategic missions and principal investigator-led, competitively solicited missions, informed by the science priorities and guidance of the most recent National Academies decadal survey in solar and space physics.

(b) PROGRAM MANAGEMENT.—The Administrator shall seek—

(1) to maintain a regular Explorer Announcement of Opportunity cadence and to alternate between small and mid-sized missions; and

(2) to enable a regular selection of Missions of Opportunity.

SEC. 612. REPORT ON GEOSPACE DYNAMICS CONSTELLATION MISSION.

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

(1) the Geospace Dynamics Constellation mission may enable scientific discoveries that will transform the understanding of the processes that govern the dynamics of the upper atmospheric envelope of the Earth, which surrounds and protects the planet;

(2) seeking commercial partnerships to provide the technology to understand the phenomena and use the scientific knowledge gained by such mission may assist in identifying solutions that may benefit United States industry and the people of the United States; and

(3) the scientific return of the Geospace Dynamics Constellation will be enhanced by simultaneous observations from the satellites that comprise

the Dynamical Neutral Atmosphere-Ionosphere Coupling mission.

(b) REPORT.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report on the schedule and budget to launch the Geospace Dynamics Constellation mission by 2030 in order to fulfill the recommendations of the National Academies heliophysics decadal survey.

SEC. 613. SENSE OF CONGRESS ON NANCY GRACE ROMAN SPACE TELESCOPE.

It is the sense of Congress that—

(1) the Nancy Grace Roman Space Telescope team has done an exemplary job in executing its mission within cost and schedule parameters; and

(2) the Administrator shall continue development of the Nancy Grace Roman Space Telescope under section 10823(b) of the National Aeronautics and Space Administration Authorization Act of 2022 (Public Law 117–167; 136 Stat. 1742).

SEC. 614. PLAN FOR APOPHIS SCIENCE MISSION.

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

(1) the close approach of the asteroid Apophis in April 2029 will present an opportunity to acquire unique scientific and technical data; and

(2) acquiring data about Apophis is critical to improving the planetary defense capabilities of the United States.

(b) PLAN.—Not later than 90 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a plan for gathering science data from the asteroid Apophis, including—

(1) efforts to collaborate, coordinate, or otherwise support efforts by Federal, industry, and international partners that are or will be studying Apophis; and

(2) a strategy to use infrastructure already in space to carry out rendezvous missions with Apophis.

SEC. 615. PLAN TO LAUNCH VOLATILES INVESTIGATING POLAR EXPLORATION ROVER.

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

(1) the Volatiles Investigating Polar Exploration Rover mission was designed to map the distribution and concentration of water ice and other lunar volatiles at the south pole of the Moon to help

determine the manner in which lunar resources may be used for future human space exploration;

(2) the People's Republic of China plans to launch its Chang'e 7 mission in 2026, which is also designed to map resources at the south pole of the Moon; and

(3) collection of lunar volatile data at the south pole of the Moon is essential for continued United States leadership in cislunar space.

(b) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a plan for launching the Volatiles Investigating Polar Exploration Rover not later than December 31, 2027.

SEC. 616. DEDICATED SCIENCE RIDESHARE PILOT PROGRAM.

(a) ESTABLISHMENT.—The Administrator shall establish a rideshare pilot program to purchase dedicated launch or reentry services for the transport of multiple NASA instruments and other science and technology instruments funded by other Federal agencies.

(b) ANNOUNCEMENT OF OPPORTUNITY.—As part of the pilot program required by subsection (a), the Administrator shall—

(1) regularly fund the development of payloads for scientific research and technology development; and

(2) provide flight opportunities for such payloads to orbital environments on dedicated rideshare missions.

SEC. 617. CONTINUATION OF CHANDRA X-RAY OBSERVATORY.

The Administrator, to the extent practicable, shall not take any action to reduce or otherwise preclude the continuation of the science operations of the Chandra X-ray Telescope before the completion and consideration of the next triennial review of mission extensions for the Astrophysics Division conducted pursuant to section 30504 of title 51, United States Code.

SEC. 618. GREAT OBSERVATORIES MISSION AND TECHNOLOGY MATURATION PROJECT.

(a) ESTABLISHMENT.—The Administrator may establish a Great Observatories Mission and Technology Maturation project (referred to in this section as a "Project") to mature the large-scale space-based mission concepts and technologies needed for a future astrophysics mission, which shall be based on the recommendations of the most recent decadal survey of the National Academies

of Sciences, Engineering, and Medicine relating to astronomy and astrophysics.

(b) PURPOSE.—The purpose of a Project shall be to inform the design and development of future large-scale space-based astrophysics missions, including the Habitable Worlds Observatory.

(c) ACTIVITIES.—The following activities may be carried out under a Project:

(1) An assessment of the appropriate scope for a future large-scale space-based astrophysics mission.

(2) A determination of the range of capabilities and technology readiness of such capabilities needed for such a mission.

(3) The provision of information for the development and maturation of science and technologies needed for such a mission.

(4) Any other activity the Administrator considers appropriate.

(d) COSTS.—The Administrator shall conduct an independent life-cycle cost estimate for a large-scale space-based astrophysics mission.

(e) REPORT.—Not later than 1 year after the date of the enactment of this Act, and annually thereafter, the Administrator shall submit to the appropriate committees

of Congress a report on the status of any Project established under subsection (a).

SEC. 619. FLIGHT OPPORTUNITIES.

(a) FINDINGS.—Congress finds that low-cost suborbital flight opportunities provide key access to high altitude and microgravity environments for Government employees, students, university and institute researchers, and commercial organizations.

(b) CONTINUING AUTHORIZATION.—As part of the Flight Opportunities Program that includes opportunities for access to orbit, the Administrator may continue providing flight opportunities to microgravity environments and suborbital altitudes under section 907 of the National Aeronautics and Space Administration Act of 2010 (42 U.S.C. 18405).

(c) BRIEFING.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on progress in carrying out the suborbital flight opportunity activities under this section.

SEC. 620. ANNUAL REPORT ON HUBBLE SPACE TELESCOPE AND THE JAMES WEBB SPACE TELESCOPE.

(a) IN GENERAL.—The Administrator, to the greatest extent practicable, shall not take any action to reduce or otherwise preclude the continuation of the science oper-

ations of the Hubble Space Telescope or the James Webb Space Telescope before the completion and consideration of the next triennial review of mission extensions for the Astrophysics Division conducted pursuant to section 30504 of title 51, United States Code.

(b) REPORT.—Not less frequently than annually, the Administrator shall submit to the appropriate committees of Congress a report on—

(1) the operational status of the Hubble Space Telescope and the James Webb Space Telescope;

(2) any plan or assessment regarding repairs, servicing missions, or upgrades of such telescopes; and

(3) any donation received for the operation of such telescopes and intended use of the donation.

SEC. 621. SENSE OF CONGRESS ON EARTH SCIENCE DATA.

It is the sense of Congress that—

(1) NASA research on instrumentation for the observation of the Earth improves sensors and analysis techniques that drive advances in weather forecasting;

(2) such advances in Earth science data and computing systems are vitally important for measuring the intensity and extent of natural disasters;

(3) the use of such data and systems additionally supports sustainable management of natural resources;

(4) NASA should maintain its strategic objective to understand the Earth system and its climate;

(5) advancements in Earth science research, including remote sensing, modeling, and data analytics, directly contribute to the success of human exploration missions in low-Earth orbit and deep space by improving understanding of radiation environments, atmospheric dynamics, life-support systems, and planetary surface conditions;

(6) the technologies and scientific methods developed for Earth observation, such as high-resolution imaging, data compression, and autonomous environmental monitoring, enhance the design, safety, and operational performance of spacecraft and habitats used in human exploration; and

(7) investments in Earth science research and applications produce measurable benefits to the United States economy by—

(A) supporting sectors such as agriculture, energy, insurance, transportation, and infrastructure planning;

(B) fostering innovation; and

(C) maintaining United States leadership in the global commercial remote sensing and environmental data markets.

SEC. 622. SUPPORT FOR ASTROPHYSICAL OBSERVATORIES AND NATIONAL HIGH-ENERGY ASTROPHYSICS HUBS.

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

(1) the United States should maintain its global leadership in high-energy astrophysics;

(2) in order to maintain such leadership, the United States should support X-ray flagship missions based on the recommendations of the most recent and future decadal Surveys in Astronomy and Astrophysics issued by the National Academies of Sciences, Engineering, and Medicine;

(3) the workforce associated with high-energy astrophysics constitutes a national strategic asset that will be critical to the development and eventual operation of any such flagship mission; and

(4) proactive steps should be taken to ensure that the capabilities of current high-energy astrophysics facilities continue to serve the scientific, educational, and commercial interests of the United

States long beyond the duration of the current high-energy astrophysics flagship mission.

(b) DESIGNATION.—

(1) IN GENERAL.—The Administrator shall designate as a national high-energy astrophysics hub each eligible facility described in paragraph (2).

(2) ELIGIBLE FACILITY DESCRIBED.—An eligible facility described in this paragraph is an entity that—

(A)(i) is party to a contract with NASA; and

(ii) plans and operates missions that conduct activities for purposes of—

(I) ensuring continued United States leadership in high-energy astrophysics and related space sciences;

(II) supporting training and workforce development in data-intensive high-energy astrophysics, aerospace engineering, and spacecraft operations;

(III) advancing United States capabilities in high-performance scientific software, spaceflight operations, and technology transfer;

(IV) enabling future high-energy astrophysics missions through mission design, planning, and scientific coordination; or

(V) serving as a collaborative national resource for academic, governmental, and commercial partners; and

(B)(i) is an institution of higher education;

(ii) is an appropriate State or Federal entity, including a federally funded research and development center; or

(iii) is a nongovernmental organization with expertise in advanced energy technology research, development, demonstration, or commercial application.

SEC. 623. STUDIES ON MARS-FOCUSED MISSIONS USING COMMERCIAL HEAVY-LIFT SYSTEMS.

(a) IN GENERAL.—Not later than 120 days after the date of the enactment of this Act, the Administrator shall complete studies on the feasibility, cost, schedule, and mission design concepts for Mars-focused missions using commercially developed heavy-lift launch systems with fully reusable architectures, including the studies described in subsection (b).

(b) STUDIES DESCRIBED.—The studies described in this subsection are as follows:

(1) HUMAN TISSUE EXPOSURE MISSION.—

(A) IN GENERAL.—A study to assess the feasibility, cost, and potential scientific value of a mission to transport and deploy human tissue samples to the surface of Mars for the purpose of studying biological and environmental effects on human tissue in the Martian environment in preparation for future human missions to Mars under the Artemis program.

(B) ELEMENTS.—The study shall evaluate the following:

(i) Methods for safe transport, preservation, and controlled exposure of human tissue samples.

(ii) The technical and operational requirements for landing, deployment, and sample monitoring.

(iii) Opportunities to leverage commercial heavy-lift launch capabilities developed through NASA's public-private partnerships.

(iv) The manner in which a commercial heavy-lift vehicle may—

(I) address the need for expediency in delivering sensitive biological payloads to the surface of Mars; and

(II) enable data collection on vehicle performance and reliability for future human-rated Mars missions.

(v) The schedule for such a mission.

(2) SPACE WEATHER AND PHYSICAL AND LIFE SCIENCES FOR LONG-DURATION EXPLORATION MISSIONS.—

(A) IN GENERAL.—A study to assess the feasibility, cost, and potential integration of—

(i) use of a commercially developed heavy-lift launch system to support space weather measurements for advanced solar storm warnings; and

(ii) physical and life science missions that advance understanding of topics, such as flammability and space crop science, that would enable eventual human Mars missions.

(B) ELEMENTS.—The study shall evaluate the following:

(i) Mission architecture, vehicle performance, and integration requirements.

(ii) Opportunities to reduce cost and schedule risk through commercial launch systems.

(iii) Compatibility with NASA's science and exploration objectives for Mars.

(iv) The benefits of employing a heavy-lift launch vehicle capable of supporting future human exploration of Mars to expedite the delivery of scientific instruments and collect data on system performance in deep space conditions.

(v) The schedule for such a mission.

(c) MARS-FOCUSED MISSIONS.—Subject to the findings of the studies conducted under subsection (a) and the availability of appropriations, the Administrator may fund 1 or more missions described in subsection (b).

(d) BRIEFING.—Not later than 30 days after the date on which the studies described in subsection (b) are completed, the Administrator shall provide the appropriate committees of Congress with a briefing on the findings of the studies and recommendations of the Administrator based on such findings.

TITLE VII—POLICY

SEC. 701. NASA ADVISORY COUNCIL.

(a) BALANCED MEMBERSHIP.—In making appointments to the NASA Advisory Council (referred to in this subsection as the "Council"), the Administrator shall ensure, to the maximum extent practicable and consistent with the Federal Advisory Committee Act (5 U.S.C. App.), that the Council reflects a balance of viewpoints and expertise and an equal distribution of members from each of the following categories:

(1) Individuals representing the commercial space industry.

(2) Individuals representing traditional aerospace and spaceflight contractors.

(3) Individuals from institutions of higher education or the academic community with expertise relevant to the mission of the Administration.

(4) Former officials or employees of Federal, State, or local government with relevant experience in space policy, space operations, or related fields.

(5) Individuals representing nonprofit organizations with expertise relevant to the mission of the Administration.

(b) LIMITATION ON ORGANIZATIONAL REPRESENTATION.—Not more than 1 member of the Council may rep-

resent the same company, institution, or organization at any given time.

(c) CHAIR ELIGIBILITY.—The Chair of the Council—

(1) shall be appointed from among the members of the Council; and

(2) may not be an individual who, during the period of service as Chair—

(A) is serving as an officer, employee, or agent of a private entity that holds a contract, grant, cooperative agreement, or other funding agreement with the Administration;

(B) is actively representing or providing support to a private entity that holds a contract, grant, cooperative agreement, or other funding agreement with the Administration; or

(C) is actively representing or providing support to an entity seeking to obtain a contract, grant, cooperative agreement, or other funding agreement with the Administration.

(d) RULE OF CONSTRUCTION.—Nothing in this subsection shall be construed to prohibit an individual from serving as Chair solely on the basis of prior employment with, or prior representation of, an entity described in subsection (c)(2) if the individual is not engaged in any activ-

ity described in that paragraph during the period of service as Chair.

(e) SUBMISSION OF REPORTS TO CONGRESS.—The Administrator shall submit to the appropriate committees of Congress any report, recommendation, finding, or other formal written product issued by the Council not later than 30 days after the date on which such report, recommendation, finding, or written product is provided to the Administrator.

SEC. 702. ASSESSMENT OF EARLY COST ESTIMATES.

(a) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act, the Comptroller General of the United States shall submit to the appropriate committees of Congress a review of the development, application, and assessment of early cost estimates made prior to preliminary design review for NASA missions.

(b) ELEMENTS.—The review required by subsection (a) shall include—

(1) an assessment of NASA processes related to the formation and evaluation of proposed and early-stage cost estimates;

(2) an evaluation of NASA's monitoring and management of cost estimates throughout mission development, in accordance with section 10861(b)(4) of the National Aeronautics and Space Administra-

tion Authorization Act of 2022 (51 U.S.C. 20113 note; Public Law 117–167); and

(3) any recommendations the Comptroller General considers appropriate.

SEC. 703. ROLE OF NASA IN COMMERCIAL SPACE ACTIVITIES.

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

(1) NASA and the commercial space sector complement each other in maintaining the leadership role of the United States in outer space activities;

(2) as more outer space activities are conducted by private industry, it is vital to define the appropriate role of NASA; and

(3) the expertise and experience of NASA in human spaceflight is especially important as commercial human spaceflight activities extend into Earth's orbit, to the lunar surface, and beyond.

(b) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on—

(1) the current activities of NASA, including the detail of any NASA personnel, to assist the Secretary of Commerce, the Secretary of Transpor-

tation, the Federal Communications Commission, or the head of any other relevant Federal agency with the regulation of the United States commercial space enterprise;

(2) a general breakdown of the types of NASA expertise, including scientific, technical, and engineering expertise, most used in support of other Federal agencies; and

(3) expected future growth in the workload of NASA as it relates to the support described in paragraph (1).

SEC. 704. RELATIONSHIPS WITH THE PEOPLE'S REPUBLIC OF CHINA.

(a) IN GENERAL.—Except as provided in subsection (b), no funds authorized to be appropriated by this Act may be obligated or expended—

(1) for NASA, the Office of Science and Technology Policy, or the National Space Council to develop, design, plan, promulgate, implement, or execute a bilateral policy, program, order, or contract of any kind to participate, collaborate, or coordinate bilaterally in any way with the People's Republic of China or any Chinese-owned company unless such activities are specifically authorized by a law enacted after the date of the enactment of this Act; or

(2) to effectuate the hosting of official Chinese visitors at facilities belonging to or used by NASA.

(b) CERTIFICATION.—

(1) IN GENERAL.—The limitations under subsection (a) shall not apply to activities with respect to which NASA, the Office of Science and Technology Policy, or the National Space Council, after consultation with the Federal Bureau of Investigation, has certified that such activities—

(A) pose no risk of resulting in the transfer of technology, data, or other information with national security or economic security implications to the People's Republic of China or a Chinese-owned company; and

(B) will not involve knowing interaction with officials who have been determined by the United States to have direct involvement with violations of human rights.

(2) SUBMISSION.—

(A) IN GENERAL.—Any certification made under subsection (b) shall be submitted to the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate and the Committee on Science, Space, and Technology and the Committee on

Appropriations of the House of Representatives, not later than 30 days before the activity concerned is intended to be carried out.

(B) ELEMENTS.—Any such certification shall include, with respect to such activity, the following:

(i) A description of the purpose and agenda.

(ii) An identification of major participants.

(iii) The location and timing.

(c) CONSIDERATION OF CHINESE INFLUENCE IN CONTRACTING AND GRANTS.—In considering any response to a solicitation, request for proposal, broad agency announcement, contract, contract modification, grant, cooperative agreement, or any other binding agreement with a commercial or noncommercial entity, the Administrator, in consultation with relevant Federal departments and agencies, shall require disclosure as to whether the entity, or any affiliate of such entity, has received loans, equity investments, or other financial assistance from—

(1) any governmental organization of the People's Republic of China;

(2) any entity owned or controlled by, or affiliated with, such governmental organizations; or

(3) any entity organized under, or subject to, the laws of the People's Republic of China.

(d) MANDATORY BACKGROUND CHECKS.—

(1) REQUIREMENT.—The Administrator, or a designee of the Administrator, shall implement a security vetting and background check process for all entities awarded NASA funding, including—

(A) current and prospective first- and second-tier contractors; and

(B) current and prospective grantees and other partners that have agreements with the Administration.

(2) ELEMENTS.—Each background check conducted under paragraph (1) shall assess—

(A) any direct or indirect financial ties between the entity and the Government of the People's Republic of China, or any affiliated organization described in subsection (c)(1);

(B) shared ownership or control between the entity and any organization organized under, or subject to, the laws of the People's Republic of China;

(C) any past or present involvement by the entity in technology transfer activities or cooperative research agreements with governmental

entities or state-owned enterprises of the People's Republic of China; and

(D) whether any individual serving in an executive, board, or advisory capacity for the entity has known affiliations with the Government of the People's Republic of China, the Chinese Communist Party, or the Chinese military.

(e) REVIEW OF EXISTING CONTRACTS, GRANTS, AND AGREEMENTS BY THE COMPTROLLER GENERAL.—

(1) IN GENERAL.—The Comptroller General of the United States shall conduct a comprehensive review of existing contracts, grants, and agreements of NASA to assess potential risks related to the unauthorized transfer of intellectual property or sensitive technologies to the People's Republic of China.

(2) ELEMENTS.—The review conducted under paragraph (1) shall include an assessment of—

(A) whether any contractor, grantee, partner, or other recipient of NASA funding has received assistance or investment from the Government of the People's Republic of China or affiliated entities;

(B) whether any Chinese-affiliated actors may be leveraging shared ownership or control

of contractors to gain access to United States space technology;

(C) the adequacy of safeguards and internal controls to protect mission-critical and dual-use technologies; and

(D) whether supply chains include components, software, or services originating from entities owned or controlled by the Government of the People's Republic of China.

(3) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Comptroller General shall submit to the Administrator and the appropriate committees of Congress—

(A) a report on the findings of the review conducted under this subsection; and

(B) recommendations for mitigating potential risks associated with future contracting and partnership agreements.

(f) AGENCY IMPLEMENTATION PLAN.—Not later than 180 days after the date on which the report required under subsection (e)(3) is submitted, the Administrator shall—

(1) develop a comprehensive risk mitigation and compliance plan based on the recommendations provided by the Comptroller General;

(2) submit such plan to the appropriate committees of Congress; and

(3) begin implementing enhanced security protocols for contracts, grants, and agreements, consistent with the findings of the review and the risk mitigation plan.

SEC. 705. FINDINGS RELATING TO CONTRACT FLEXIBILITY.

Congress finds that NASA Federal Acquisition Regulation Supplement (NFS) 1852.242–72 entitled "Denied Access to NASA Facilities" instructs that, for the period during which NASA facilities were not accessible to contractor employees, the contracting officer may adjust the contract performance or delivery schedule, forgo the work, reschedule the work, or consider requests for equitable adjustment to the contract.

SEC. 706. GAO REPORT.

Not later than 1 year after the date of the enactment of this Act, the Comptroller General of the United States shall submit to the appropriate committees of Congress a report on fire and emergency services at NASA launch and reentry facilities that assesses the following:

(1) Current capabilities and projected demand for NASA-provided fire and emergency services.

(2) The manner in which demand for NASA-provided fire and emergency services has been impacted by the following:

(A) An increased rate of launch and reentry operations.

(B) An increased number of leases with commercial launch and reentry service providers for use of NASA property.

(3) Current fire and emergency services provided by commercial providers to support launch and reentry operations that are conducted—

(A) to fulfill a contractual obligation with NASA; or

(B) for non-NASA purposes using NASA-leased property.

(4) Whether NASA-provided and commercially provided fire and emergency services are able to meet current and projected demand and support all fire response areas on NASA property.

SEC. 707. PUBLIC-PRIVATE TALENT PROGRAM.

Section 20113 of title 51, United States Code, is amended by adding at the end the following new subsection:

"(o) PUBLIC-PRIVATE TALENT PROGRAM.—

"(1) ASSIGNMENT AUTHORITY.—Under policies and procedures prescribed by the Administrator, the Administrator may, with the agreement of a private sector entity and the consent of an employee of the Administration or of such entity, arrange for the temporary assignment of such employee of the Administration to such private sector entity, or of such employee of such entity to the Administration, as the case may be.

"(2) AGREEMENTS.—

"(A) IN GENERAL.—The Administrator shall provide for a written agreement among the Administration, the private sector entity, and the employee concerned regarding the terms and conditions of the employee's assignment under this subsection.

"(B) ELEMENTS.—An agreement under subparagraph (A) shall—

"(i) require that the employee of the Administration, upon completion of the assignment, serve in the Administration, or elsewhere in the civil service if approved by the Administrator, for a period equal to twice the length of the assignment;

"(ii) provide that if the employee of the Administration or of the private sector entity (as the case may be) fails to carry out the agreement, such employee shall be liable to the United States for payment of all expenses of the assignment, unless such failure was for good and sufficient reason, as determined by the Administrator; and

"(iii) contain language prohibiting such employee of the Administration or of the private sector entity (as the case may be) from improperly using pre-decisional or draft deliberative information that such employee may be privy to or aware of related to Administration programing, budgeting, resourcing, acquisition, or procurement for the benefit or advantage of the private sector entity.

"(C) TREATMENT.—An amount for which an employee is liable under subparagraph (B)(ii) shall be treated as a debt due the United States.

"(D) WAIVER.—The Administrator may waive, in whole or in part, collection of a debt described in subparagraph (C) based on a de-

termination that the collection would be against equity and good conscience and not in the best interests of the United States, after taking into account any indication of fraud, misrepresentation, fault, or lack of good faith on the part of the employee concerned.

"(3) TERMINATION.—An assignment under this subsection may, at any time and for any reason, be terminated by the Administration or the private-sector entity concerned, as the case may be.

"(4) DURATION.—

"(A) IN GENERAL.—An assignment under this subsection shall be for a period of not less than 90 days and not more than 2 years, renewable up to a total of 3 years. An employee of the Administration may not be assigned under this subsection for more than a total of 3 years inclusive of all such assignments.

"(B) EXTENSION.—An assignment under this subsection may be for a period in excess of 2 years, but not more than 3 years, if the Administrator determines that such assignment is necessary to meet critical mission or program requirements.

"(5) POLICIES AND PROCEDURES.—

"(A) IN GENERAL.—The Administrator shall establish policies and procedures relating to assignments under this subsection.

"(B) ELEMENTS.—Policies and procedures established pursuant to subparagraph (A) shall address the following:

"(i) The nature and elements of written agreements with participants in assignments under this subsection.

"(ii) Criteria for making such assignments, including the needs of the Administration relating to such assignments.

"(iii) The manner in which the Administration will oversee such assignments, in particular with respect to paragraphs (2)(B)(iii), (7)(C), and (7)(D).

"(iv) Criteria for issuing waivers.

"(v) The manner in which expenses under paragraph (2)(B)(ii) would be determined.

"(vi) Guidance for participants in such assignments.

"(vii) Mission Directorate, Office, and organizational structure to implement and manage such assignments.

"(viii) Any other necessary policies, procedures, or guidelines to ensure that such assignments comply with all relevant statutory authorities and ethics rules, and effectively contribute to 1 or more of the Administration's missions.

"(C) INHERENTLY GOVERNMENTAL ACTIVITIES.—An employee of a private sector entity assigned to the Administration under this subsection shall not have responsibilities or perform duties or decision making regarding Administration activities that are inherently governmental, pursuant to section 7.500 of title 48, Code of Federal Regulations, and Office of Management and Budget review.

"(6) STATUS OF FEDERAL EMPLOYEES ASSIGNED TO PRIVATE SECTOR ENTITIES.—

"(A) IN GENERAL.—An employee of the Administration who is assigned to a private sector entity under this subsection shall be considered, during the period of such assignment, to be on detail to a regular work assignment in the Administration for all purposes. The written agreement established under paragraph (2)(A) shall address the specific terms and conditions

related to such employee's continued status as a Federal employee.

"(B) CERTIFICATION.—In establishing a temporary assignment of an employee of the Administration to a private sector entity, the Administrator shall certify that such temporary assignment shall not have an adverse or negative impact on the mission of the Administration or organizational capabilities associated with such assignment.

"(7) TERMS AND CONDITIONS FOR PRIVATE SECTOR EMPLOYEES.—An employee of a private sector entity who is assigned to the Administration under this subsection—

"(A) shall continue to receive pay and benefits from the private sector entity from which such employee is assigned and shall not receive pay or benefits from the Administration, except as provided in subparagraph (B);

"(B) is deemed to be an employee of the Administration for the purposes of—

"(i) chapters 73 and 81 of title 5;

"(ii) sections 201, 203, 205, 207, 208, 209, 603, 606, 607, 643, 654, 1905, and 1913 of title 18, except that such sec-

tion 209 does not apply to any salary, or contribution or supplementation of salary made pursuant to subparagraph (A) of this paragraph;

"(iii) sections 1343, 1344, and 1349(b) of title 31;

"(iv) chapter 171 of title 28 (commonly known as the 'Federal Tort Claims Act') and any other Federal tort liability statute;

"(v) the Ethics in Government Act of 1978 (Public Law 95–521) ; and

"(vi) chapter 21 of title 41;

"(C) shall not have access to any trade secrets or any other nonpublic information which is of commercial value to the private sector entity from which such employee is assigned;

"(D) may not perform work that is considered inherently governmental in nature, in accordance with paragraph (5)(C); and

"(E) may not be used to circumvent—

"(i) section 1710 of title 41, United States Code; or

"(ii) any limitation or restriction on the size of the Administration's civil servant workforce.

"(8) ADDITIONAL REQUIREMENTS.—The Administrator shall ensure that—

"(A) the normal duties and functions of an employee of the Administration who is assigned to a private sector entity under this subsection can be reasonably performed by other employees of the Administration without the permanent transfer or reassignment of other personnel of the Administration;

"(B) normal duties and functions of such other employees of the Administration are not, as a result of and during the course of such temporary assignment, performed or augmented by contractor personnel in violation of section 1710 of title 41; and

"(C) not more than 2 percent of the Administration's civil servant workforce participates in an assignment under this subsection at the same time.

"(9) CONFLICTS OF INTEREST.—The Administrator shall implement a system to identify, mitigate, and manage any conflicts of interest that may arise

as a result of an employee's assignment under this subsection.

"(10) PROHIBITION AGAINST CHARGING CERTAIN COSTS TO THE FEDERAL GOVERNMENT.—A private sector entity may not charge the Administration or any other agency of the Federal Government, as direct or indirect costs under a Federal contract, the cost of pay or benefits paid by the entity to an employee assigned to the Administration under this subsection for the period of the assignment concerned.

"(11) CONSIDERATIONS.—In carrying out this subsection, the Administrator shall take into consideration—

"(A) the question of the manner in which assignments under this subsection might best be used to help meet the needs of the Administration with respect to the training of employees; and

"(B) as applicable, areas of particular private sector expertise, such as cybersecurity.

"(12) NASA REPORTING.—

"(A) IN GENERAL.—Not later than April 30 each year, 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 summarizing the implementation of this subsection.

"(B) ELEMENTS.—Each report required by subparagraph (A) shall include, with respect to the annual period to which such report relates, the following:

"(i) Information relating to the total number of employees of private sector entities assigned to the Administration and the total number of employees of the Administration assigned to private sector entities.

"(ii) A brief description and assessment of the talent management benefits evidenced from such assignments and any identified strategic human capital and operational challenges, including the following:

"(I) An identification of the names of the private sector entities to and from which employees were assigned.

"(II) A complete listing of positions to and from which such employees were assigned.

"(III) An identification of assigned roles and objectives of such assignments.

"(IV) Information relating to the duration of such assignments.

"(V) Information relating to associated pay grades and levels.

"(iii) An assessment of impacts of such assignments on the Administration workforce and workforce culture.

"(iv) An identification of the number of Administration staff and budgetary resources required to implement this subsection.

"(13) FEDERAL ETHICS.—Nothing in this subsection shall affect existing Federal ethics rules applicable to Federal personnel.

"(14) GAO REPORTING.—

"(A) IN GENERAL.—Not later than 3 years after the date of the enactment of this subsection, the Comptroller General of the United States shall submit to the Committee on Com-

merce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report summarizing the implementation of this subsection.

"(B) ELEMENTS.—The report required by subparagraph (A) shall include the following:

"(i) A review of the implementation of this subsection, according to law and the Administration policies and procedures established for assignments under this subsection.

"(ii) Information relating to the extent to which such assignments adhere to best practices relating to public-private talent exchange programs.

"(iii) A determination as to whether there should be limitations on the number of individuals participating in such assignments.

"(iv) Information relating to the extent to which the Administration complies with statutory requirements and ethics rules, and appropriately handles potential conflicts of interest and access to non-

public information with respect to such assignments.

"(v) Information relating to the extent to which such assignments effectively contribute to 1 or more of the Administration's missions.

"(vi) Information relating to Administration resources, including employee time, dedicated to administering such assignments, and whether such resources are sufficient for such administration.".

SEC. 708. MENTORING.

(a) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall provide the appropriate committees of Congress with a briefing on existing NASA-wide mentoring programs that are focused in whole or in part on ensuring a robust pipeline for NASA's civil servant workforce, for early-career, mid-level, and senior-level employees at all NASA centers and at NASA headquarters.

(b) CONSIDERATIONS.—As part of the briefing required by subsection (a), the Administrator may consider the merits of consolidating existing, disparate programs into a single unified employee development program.

SEC. 709. PASSENGER CARRIER USE FOR ASTRONAUT TRANSPORTATION.

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

"§ 20150. Passenger carrier use for astronaut transportation

"(a) DEFINITIONS.—In this section:

"(1) GOVERNMENT ASTRONAUT; INTERNATIONAL PARTNER ASTRONAUT; SPACE FLIGHT PARTICIPANT; SPACE SUPPORT VEHICLE.—The terms 'government astronaut', 'international partner astronaut', 'space flight participant', and 'space support vehicle' have the meanings given such terms in section 50902.

"(2) MISSION.—The term 'mission' means an assignment to a space support vehicle of 1 or more—

"(A) government astronauts in the course of their employment; or

"(B) space flight participants.

"(3) OFFICIAL PURPOSE.—With respect to transportation, the term 'official purpose' means transportation necessary for post-mission activities, including medical research, monitoring, diagnosis, and treatment of a government astronaut or space

flight participant before receiving post-mission medical clearance to operate a motor vehicle.

"(4) PASSENGER CARRIER.—The term 'passenger carrier' means a passenger motor vehicle, aircraft, boat, vessel, or other similar means of transportation that is owned or leased by the United States Government.

"(b) AUTHORITY.—

"(1) IN GENERAL.—The Administrator may authorize the use of a passenger carrier to transport a government astronaut or space flight participant between the residence of the individual and various locations if—

"(A) such transportation is provided for an official purpose; and

"(B) the Chief of the Astronaut Office has approved, in writing, post-mission transportation of government astronauts and space flight participants under this section.

"(2) MAINTENANCE, OPERATION, AND REPAIR.—The Administrator may maintain, operate, and repair 1 or more passenger carriers for the purpose of providing transportation pursuant to the authority provided in paragraph (1).

"(c) REIMBURSEMENT.—Transportation under subsection (b)(1) of an international partner astronaut or a space flight participant who is not an employee of the United States Government shall be subject to reimbursement to the Treasury of the United States.

"(d) REGULATIONS.—The Administrator shall promulgate such regulations as are necessary to carry out this section.

"(e) APPLICABILITY OF SECTION 1344 OF TITLE 31.—In carrying out subsection (b), the Administrator may expend funds available to the Administration, by appropriation or otherwise, notwithstanding section 1344(a) of title 31.".

(b) CLERICAL AMENDMENT.—The table of contents for chapter 201 of title 51, United States Code, is amended by inserting after the item relating to section 20149 the following:

"20150. Passenger carrier use for astronaut transportation.".

SEC. 710. PHYSICAL SECURITY MODERNIZATION.

(a) MODIFICATION OF PERMISSION TO CARRY FIREARMS.—Section 20133(2) of title 51, United States Code, is amended by striking "of property owned" and all that follows through "to the United States," and inserting "of personnel and of property owned or leased by, or under the control of, the United States".

(b) MODIFICATION OF ARREST AUTHORITY.—Section 20134 of title 51, United States Code, is amended—

(1) by striking "protecting property" and inserting "protecting personnel, or property"; and

(2) by striking ", at facilities owned by or contracted by the Administration".

SEC. 711. NASA AGREEMENTS WITH PRIVATE AND COMMERCIAL ENTITIES AND STATE GOVERNMENTS TO PROVIDE CERTAIN SUPPLIES, SUPPORT, AND SERVICES.

(a) IN GENERAL.—Section 20113 of title 51, United States Code, as amended by this Act, is further amended by adding at the end the following:

"(p) AGREEMENTS WITH COMMERCIAL ENTITIES AND STATE GOVERNMENTS.—The Administrator—

"(1) may enter into an agreement with a private or commercial entity or a State government to provide the entity or State government with supplies, support, and services related to private, commercial, or State government space activities carried out at a property owned or operated by the Administration; and

"(2) on request by such an entity or State government, may include such supplies, support, and

services in the requirements of the Administration if—

"(A) the Administrator determines that the inclusion of such supplies, support, or services in such requirements—

"(i) is in the best interests of the United States;

"(ii) does not interfere with the requirements of the Administration; and

"(iii) does not compete with the commercial space activities of other such entities or State governments; and

"(B) the Administration has full reimbursable funding from the entity or State government requesting such supplies, support, and services before making any obligation for the delivery of the supplies, support, or services under an Administration procurement contract or any other agreement.".

SEC. 712. AEROSPACE INFRASTRUCTURE MODERNIZATION.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Administrator shall develop and submit to the appropriate committees of Congress a comprehensive proposal for the establishment and

implementation of an Infrastructure Capital Fund for NASA (referred to in this section as the "Fund").

(b) ELEMENTS.—The proposal required by subsection (a) shall include, at a minimum, the following:

(1) A detailed description of the purposes and objectives of the Fund, including the manner in which the Fund would support the modernization, recapitalization, maintenance, and sustainment of NASA infrastructure and facilities.

(2) The proposed structure and governance of the Fund, including criteria for project eligibility and prioritization.

(3) The mechanisms for capitalization of the Fund, including potential sources of appropriations, reprogramming authority, cost savings, enhanced use leasing receipts, or other authorized funding mechanisms.

(4) A description of the manner in which projects financed through the Fund would be evaluated, selected, and overseen, including applicable reporting and auditing requirements.

(5) A plan for ensuring transparency, accountability, and measurable outcomes associated with expenditures from the Fund.

(6) An assessment of statutory authorities required to establish and operate the Fund, including any recommended legislative changes.

(7) A spend plan and notional 5-year projection of anticipated projects and funding levels.

(8) An analysis of the manner in which the Fund would improve life-cycle cost management, reduce deferred maintenance, and enhance mission assurance.

(9) A description of the policies and procedures that would govern unobligated balances in the Fund.

(10) A comprehensive inventory of all infrastructure projects included in NASA's deferred maintenance and construction backlog as of the date of the enactment of this Act, including—

(A) a description of each project;

(B) the location of each project;

(C) the estimated total life-cycle cost of each project;

(D) the estimated cost to complete each project; and

(E) the prioritization status assigned by NASA.

(c) CONSULTATION.—In developing the proposal under subsection (a), the Administrator shall consult with

the Office of Management and Budget and the head of any other relevant Federal agency, as appropriate.

SEC. 713. ENHANCED USE LEASES.

(a) IN GENERAL.—Section 20145 of title 51, United States Code, is amended—

(1) in subsection (b)(1)(B), by inserting "or expanding the rocket propulsion test infrastructure capacity of the United States" after "facilities"; and

(2) in subsection (h), in the first sentence, by striking "December 31, 2032" and inserting "December 31, 2035".

(b) REPORT.—Not later than 180 days after the date of the enactment of this Act, and consistent with section 20145 of title 51, United States Code, the Administrator shall submit to the appropriate committees of Congress a report that—

(1) indicates the total number of lease agreements entered into under that section since the date of the enactment of that section;

(2) identifies the NASA centers and facilities (and the respective locations of such centers and facilities) that have entered into such agreements; and

(3) describes economic and other benefits to each party to such agreements.

SEC. 714. NASA SUPPLEMENTAL LEASE AUTHORITY.

(a) SUPPLEMENTAL LEASE AUTHORITY.—

(1) IN GENERAL.—The Administrator may, using existing lease authorities available to the Administrator and on such terms as the Administrator considers appropriate to protect the interests of the United States, lease, for a term not to exceed 50 years, real property under the jurisdiction of the Administrator to 1 or more entities described in subsection (c) for the purpose of the construction and operation on such real property of 1 or more facilities the purposes of which shall be—

(A) to conduct aeronautical and space research;

(B) to educate and train individuals for careers in the space industry;

(C) to carry out the transfer of aeronautical and space technology between the United States public and private sectors;

(D) to conduct space and aeronautics-related scientific, engineering, medical, or academic activities; and

(E) to conduct any other space-related activity relevant to the mission of the National Aeronautics and Space Administration.

(2) RENEWAL.—The Administrator may renew a lease under this subsection for 1 or more additional periods.

(b) ADMINISTRATIVE, MAINTENANCE, AND INSTRUCTIONAL SUPPORT.—Subject to the availability of appropriations, the Administrator may—

(1) enter into 1 or more agreements, on such terms as the Administrator considers appropriate, with 1 or more entities described in subsection (c) to lease back real property described in subsection (a), including such real property that has been subleased to a third party by an entity described in subsection (c);

(2) enter into 1 or more contracts, grant agreements, cooperative agreements, or other authorized transactions with an entity described in subsection (c) with respect to such property; and

(3) provide administrative, instructional, and other appropriate support, with or without reimbursement, to the 1 or more entities described in subsection (c) that are a party to such a contract, agreement, or transaction.

(c) ENTITY DESCRIBED.—An entity described in this subsection is any of the following:

(1) The State in which the real property described in subsection (a) is located.

(2) A subdivision, agent, or agency of such a State.

(3) A corporation or foundation organized exclusively for education or scientific purposes that is exempt from taxation under section 501(c)(3) of the Internal Revenue Code of 1986 (26 U.S.C. 501(c)(3)).

(4) An institution of higher education (as defined in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1001)).

(d) DELEGATION.—The Administrator may delegate the authorities under subsections (a) and (b) to subordinate officers and employees of the National Aeronautics and Space Administration, as the Administrator considers appropriate.

(e) EFFECT OF OTHER LAW.—The authority provided by this section shall apply—

(1) regardless of the existing authority used by the Administrator to lease the real property described in subsection (a) to entities described in subsection (c); and

(2) notwithstanding—

(A) section 1302 of title 40, United States Code;

(B) subsections (b)(1) and (e)(1) of section 20145 of title 51, United States Code; or

(C) section 306121 of title 54, United States Code.

(f) ANNUAL REPORT.—Not later than January 31 each year, the Administrator shall submit to the appropriate committees of Congress a report that includes the following:

(1) MISSION RELEVANCE.—Information that explains the importance of each lease and leaseback agreement to the accomplishment of 1 or more of the mission requirements of NASA.

(2) VALUE OF ARRANGEMENTS AND EXPENDITURES OF REVENUES.—Information that identifies and quantifies the value of the arrangements and expenditures of revenues received under this section.

(3) AVAILABILITY AND USE OF FUNDS FOR OPERATING PLAN.—The availability and use of funds received under this section for the Administration's operating plan.

(4) ANNUAL AND CUMULATIVE NUMBER OF LEASES.—The annual and cumulative number of leases entered into under this section, by National

Aeronautics and Space Administration center and facility.

(5) ESTIMATED COST SAVINGS.—For each active lease agreement under this section, the estimated cost savings to the Administration resulting from reduced maintenance, operating, and associated costs in the previous fiscal year.

(6) OTHER QUANTIFIABLE BENEFITS.—Other quantifiable benefits, including additional cost savings not included under paragraph (4), to the Administration resulting from the use of leases under this section.

SEC. 715. IDENTIFICATION OF AND JUSTIFICATION FOR REDACTIONS.

If the Administration redacts any portion of a document produced to another person, the Administration shall cite a specific statute authorizing the withholding of the information redacted.

SEC. 716. COMMERCIAL ACTIVITY AT WALLOPS FLIGHT FACILITY.

(a) FINDINGS.—Congress makes the following findings:

(1) Maintaining multiple NASA launch sites contributes to assured access to space for NASA, researchers, and industry, and supports broader

United States Government interests in assured access to space.

(2) The Wallops Flight Facility is a critical launch complex for NASA, national security space organizations, and commercial industry. The Wallops Flight Facility is the only national launch site capable of providing assured access to space on the east coast other than the Kennedy Space Center and Cape Canaveral launch complexes.

(3) As the commercial space sector continues to expand, driven in part by increasing NASA and Department of Defense use of commercial launch services, the Wallops Flight Facility and other Federal and non-Federal launch ranges must continue to support affordable, flexible, and responsive access for commercial space launch service providers and their customers.

(b) REQUIREMENT.—Given the role of the Wallops Flight Facility in supporting NASA missions and the global economic competitiveness and national security of the United States, the Administrator shall—

(1) enable the public-private partnership among the Wallops Flight Facility, the Mid-Atlantic Regional Spaceport of the Virginia Spaceport Authority, and other private entities in order to use the full

potential of the Wallops Flight Facility, including by—

(A) reviewing and updating agreements between NASA and the Federal Aviation Administration relating to operations at NASA launch sites to ensure reciprocal approval of flight and range safety analysis for operators; and

(B) reviewing NASA's approach to compliance with Occupational Safety and Health Administration regulations and oversight of such compliance by private sector partners and customers;

(2) request needed investments for the Wallops Flight Facility in budgeting and appropriations requests, the 21st Century Launch Complex account, and in NASA's Construction and Environmental Compliance and Restoration account, and specifically identify construction, revitalization, recapitalization, or other infrastructure projects and improvements needed for the Wallops Flight Facility, taking into account the needs of commercial launch and reentry users of the Wallops Flight Facility, as appropriate; and

(3) not later than 30 days before implementing any change to fees assessed by NASA on the Vir-

ginia Spaceport Authority in connection with the activities at the Wallops Flight Facility, provide written notice to the Virginia Spaceport Authority that includes—

(A) a detailed description of the proposed fee changes;

(B) the rationale and cost basis for such changes; and

(C) an explanation of the manner in which the fees relate to services provided or costs incurred by the Administration.

(c) REPORT.—Not later than 180 days after the date of the enactment of this Act and annually thereafter for 5 years, the Administrator shall submit to the appropriate committees of Congress a report, and provide the appropriate committees of Congress with a briefing, on—

(1) efforts made under paragraphs (1) and (2) of subsection (b);

(2) challenges faced by the Wallops Flight Facility that might reasonably impede the growth of commercial activity;

(3) recommendations for any necessary legislative action; and

(4) the fee structure imposed by NASA on the Virginia Spaceport Authority.

SEC. 717. CONTINUITY OF PURPOSE FOR NASA ACTIVITIES.

(a) CONSISTENCY IN OPERATING PLANS.—Consistent with the Commerce, Justice, Science, and Related Agencies Appropriations Act, 2026 (Public Law 119–74), the Administrator shall produce a spending, expenditure, or operating plan for fiscal year 2026 that provides funding at levels commensurate with the applicable joint explanatory statement or committee report language incorporated by reference in such joint explanatory statement for the pertinent appropriations Act for fiscal year 2026.

(b) APPLICABILITY TO FUTURE FISCAL YEARS.—In any fiscal year in which appropriations for the Administration are provided by a full-year or partial-year continuing resolution, the Administrator shall produce and adhere to a spending, expenditure, or operating plan that provides funding at levels commensurate with the previous full fiscal year.

(c) NOTICE OF REPROGRAMMING.—If any funds authorized by this Act are subject to a reprogramming action that requires notice to be provided to the Committee on Appropriations of the Senate and the Committee on Appropriations of the House of Representatives, notice of such action shall be provided to the appropriate committees of Congress.

(d) NOTICE OF REORGANIZATION.—The Administrator shall provide notice to the appropriate committees

of Congress, not later than 30 days before any major reorganization of any program, project, or activity of the Administration, including the cancellation of a specific program, project, or activity, and the termination of an operational spacecraft and mission.

SEC. 718. TRANSMISSION OF DATA TO CONGRESS.

(a) IN GENERAL.—The Administrator shall use electronic technology resources to submit all reports, briefings, and requests to the applicable committees of Congress in a timely manner.

(b) WAIVER.—The Administrator may waive the electronic submission requirement under subsection (a) in any case in which the submission of a physical copy of a report, briefing, or request is required by law.

SEC. 719. TIMELY RESPONSES TO CONGRESS.

(a) IN GENERAL.—Not later than 30 days after the date on which a request is made by Congress, the Administrator shall respond to the request.

(b) BRIEFING.—Beginning on the date that is 60 days after the date of the enactment of this Act and quarterly thereafter, the Administrator shall provide to the appropriate committees of Congress a briefing that—

(1) identifies each request made by Congress to which the Administrator has not responded, and

provides an estimated date on which a response will be provided; and

(2) identifies each report due to Congress that has not been submitted, and provides an estimated date on which the report will be submitted.

SEC. 720. TRANSPARENCY IN FIRM-FIXED-PRICE CONTRACTS.

(a) TRANSPARENCY REQUIREMENTS FOR FIRM-FIXED-PRICE CONTRACTS.—Notwithstanding any other provision of law, for any contract entered into by NASA on or after the date of the enactment of this Act, in which the contract is structured as a firm-fixed-price contract with a value exceeding $500,000,000, the Administrator shall ensure that such contract is subject to similar reporting, audit, and transparency requirements as are applied to cost-type contracts, including the following:

(1) OTHER-THAN-COST AND PRICING DATA.—The contractor shall provide NASA with relevant other-than-cost data or pricing data to support milestone payments, schedule-risk assessments, and earned value tracking, including actual costs incurred and estimates to completion, consistent with the practices required under cost-type contracts.

(2) SUBCONTRACTOR VISIBILITY.—The contractor shall report on first-tier subcontractor com-

position, roles, performance status, and any significant changes in subcontractor scope or responsibility, including replacement of key subcontractors, and schedule or performance issues that could materially affect contract outcomes.

(3) SCHEDULE AND PERFORMANCE REPORTING.—The contractor shall provide quarterly performance updates on schedule progress, technical performance metrics, and key risk assessments using standardized performance reporting formats such as the Integrated Program Management Data and Analysis Report, or equivalent, as determined by the Administrator.

(4) AUDIT AUTHORITY.—The Inspector General of NASA and the Comptroller General of the United States shall have the authority to audit firm-fixed-price contracts under the same terms and conditions as cost-type contracts to ensure accountability and value to the taxpayer.

(5) CONGRESSIONAL OVERSIGHT.—Upon request, NASA shall make available to the appropriate committees of Congress relevant documentation, with applicable markings, for fixed-price contracts exceeding the applicable threshold, including executed contracts, milestone schedules, payment

records, and the quarterly performance updates under paragraph (3) to support congressional oversight responsibilities.

(b) IMPLEMENTATION GUIDANCE.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall issue guidance and update the NASA Federal Acquisition Regulation Supplement as necessary to implement this section.

SEC. 721. CHIEF SCIENTIST.

(a) REINSTATEMENT.—To ensure that NASA research programs are scientifically well founded, not later than 60 days after the date of the enactment of this Act, the Administrator shall—

(1) reinstate, within the Office of the Administrator, the position of the Chief Scientist, who shall report to the Associate Administrator of NASA; and

(2) ensure that the Office of the Chief Scientist is adequately staffed and is provided the resources necessary—

(A) to provide independent assessment and advice to the Administrator on matters related to NASA science, including technical, programmatic, and policy reviews, in order to ensure that NASA science programs are of the

highest scientific and technologic merit and integrity;

(B) to encourage and foster science integration and cooperation across NASA, including the mission directorates and the NASA centers;

(C) to lead the development of NASA science strategy and ensure that NASA's overarching strategic plan properly incorporates science goals and objectives;

(D) to promote, communicate, and advocate for NASA's science portfolio and strategy to the broad external community, and to facilitate the widest practical and appropriate dissemination of information concerning science and space activities;

(E) to direct and oversee the Agency nomination process for Agency-wide external and internal scientific awards; and

(F) to direct and oversee a Science Innovation Fund to promote the conduct of highly innovative, exploratory, and high-risk and high-return scientific research at NASA centers in support of the strategic direction of NASA and NASA centers.

SEC. 722. CHIEF ECONOMIST.

(a) IN GENERAL.—Not later than 60 days after the date of the enactment of this Act, the Administrator shall—

(1) reinstate an independent position of Chief Economist, who shall report to the Associate Administrator of NASA; and

(2) provide the Office of the Chief Economist with the internal expertise, staffing, and resources necessary to develop—

(A) rigorous quantitative economic assessments of United States commercial space providers, competition in United States commercial space markets, and the labor and capital markets that support United States commercial space providers; and

(B) agency-level commercial market estimates for any NASA commercial acquisition program with a total annual budget exceeding $100,000,000 or that aims to develop a commercial market for space-related goods and services.

(b) BIANNUAL REPORT.—Not less frequently than biannually, the Administrator shall submit to Congress the NASA Economic Impact Report on the economic impact of NASA on State-level economic output and jobs.

SEC. 723. CHIEF TECHNOLOGIST.

To ensure that NASA programs are technologically well founded, not later than 60 days after the date of the enactment of this Act, the Administrator shall—

(1) reinstate, within the Office of the Administrator, the position of the Chief Technologist, who shall report to the Associate Administrator of NASA; and

(2) ensure that the Office of the Chief Technologist is adequately staffed and is provided the resources necessary—

(A) to provide independent assessments and advice to the Administrator on matters related to NASA-wide technology policy and programs;

(B) to develop and implement plans that address technology and innovation goals, objectives, technical challenges, and investment;

(C) to engage the internal and external technology community (including other Government agencies, industry, academia, and advisory groups) to identify needs and recommend priorities that NASA should pursue, consistent with the national space policy, NASA's mission, and national needs; and

(D) to ensure that data and information from NASA's technology programs and projects are openly available and accessible in a timely and affordable manner, as appropriate.

SEC. 724. REPORT ON INDEMNIFICATION FRAMEWORK FOR CIVIL AND COMMERCIAL SPACE NUCLEAR TECHNOLOGIES.

(a) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator, in consultation with the head of any other appropriate Federal agency, shall submit to the appropriate committees of Congress a report on the need for and value of potential frameworks for indemnification of civil and commercial space nuclear technologies.

(b) ELEMENTS.—The report required by subsection (a) shall include the following:

(1) An evaluation of the existing statutory and regulatory authorities under which NASA or another appropriate Federal agency may provide indemnification or other liability protection related to the use of space nuclear systems.

(2) An identification of gaps in the current indemnification framework for activities involving civil missions or commercial activities partners or civil

missions using nuclear technologies in space, including—

(A) radioisotope power systems;

(B) fission surface power systems; and

(C) nuclear electric or thermal propulsion systems.

(3) An identification and assessment of pathways to address such gaps, including—

(A) indemnification under section 20138 of title 51, United States Code;

(B) the applicability of authorities under section 440 of title 14, Code of Federal Regulations, for nuclear systems launched on commercially procured launch vehicles;

(C) extension of coverage under section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210); and

(D) development of such new statutory authorities or risk-sharing mechanisms as the Administrator may require.

(4) Recommendations for legislative or regulatory changes to ensure appropriate indemnification mechanisms for the deployment of space nuclear technologies in support of NASA missions or NASA-partnered commercial missions.

(c) SCOPE.—The report required by subsection (a) shall address indemnification considerations for—

(1) United States Government-sponsored missions; and

(2) missions conducted through public-private partnerships and commercially procured services, including technology demonstrations and operational capability deployments in cislunar space, on the lunar surface, or beyond low-Earth orbit.

(d) FORM.—The report required by subsection (a) shall be submitted in unclassified form but may include a classified annex.

SEC. 725. CONFIDENTIALITY OF MEDICAL QUALITY ASSURANCE RECORDS.

(a) IN GENERAL.—Chapter 313 of title 51, United States Code, is amended by adding at the end the following:

"§ 31303. Confidentiality of medical quality assurance records

"(a) IN GENERAL.—Except as provided in subsection (b)(1)—

"(1) a medical quality assurance record, or any part of a medical quality assurance record, may not be subject to discovery or admitted into evidence in a judicial or administrative proceeding; and

"(2) an individual who reviews or creates a medical quality assurance record for the Administration, or participates in any proceeding that reviews or creates a medical quality assurance record, may not testify in a judicial or administrative proceeding with respect to—

"(A) the medical quality assurance record; or

"(B) any finding, recommendation, evaluation, opinion, or action taken by such individual or in accordance with such proceeding with respect to the medical quality assurance record.

"(b) DISCLOSURE OF RECORDS.—

"(1) IN GENERAL.—Notwithstanding subsection (a), a medical quality assurance record may be disclosed to—

"(A) a Federal agency or private entity, if the medical quality assurance record is necessary for the Federal agency or private entity to carry out—

"(i) licensing or accreditation functions relating to Administration healthcare facilities; or

"(ii) monitoring of Administration healthcare facilities required by law;

"(B) a Federal agency or healthcare provider, if the medical quality assurance record is required by the Federal agency or healthcare provider to enable Administration participation in a healthcare program of the Federal agency or healthcare provider;

"(C) a criminal or civil law enforcement agency, or an instrumentality authorized by law to protect the public health or safety, on written request by a qualified representative of such agency or instrumentality submitted to the Administrator that includes a description of the lawful purpose for which the medical quality assurance record is requested;

"(D) an official of the Department of Justice who is investigating a claim or potential claim against the Administration or investigating in response to litigation or potential litigation involving the Administration when the records are deemed relevant and necessary;

"(E) healthcare personnel, to the extent necessary to address a medical emergency affecting the health or safety of an individual;

"(F) any committee, panel, or board convened by the Administration to review the

healthcare-related policies and practices of the Administration; and

"(G) pursuant to the order of a court of competent jurisdiction.

"(2) SUBSEQUENT DISCLOSURE PROHIBITED.—An individual or entity to whom a medical quality assurance record has been disclosed under paragraph (1) may not make a subsequent disclosure of the medical quality assurance record.

"(e) PERSONALLY IDENTIFIABLE INFORMATION.—

"(1) IN GENERAL.—Except as provided in paragraph (2), the personally identifiable information contained in a medical quality assurance record of a patient or an employee of the Administration, or any other individual associated with the Administration for purposes of a medical quality assurance program, shall be removed before the disclosure of the medical quality assurance record to an entity other than the Administration.

"(2) EXCEPTION.—Personally identifiable information described in paragraph (1) may be released to an entity other than the Administration if the Administrator makes a determination that the release of such personally identifiable information—

"(A) is in the best interests of the Administration; and

"(B) does not constitute an unwarranted invasion of personal privacy.

"(d) EXCLUSION FROM FOIA.—A medical quality assurance record may not be made available to any person under section 552 of title 5, United States Code (commonly referred to as the 'Freedom of Information Act'), and this section shall be considered a statute described in subsection (b)(3)(B) of such section 522.

"(e) REGULATIONS.—Not later than 1 year after the date of the enactment of this section, the Administrator shall promulgate regulations to implement this section.

"(f) RULES OF CONSTRUCTION.—Nothing in this section shall be construed—

"(1) to withhold a medical quality assurance record from a committee of the Senate or the House of Representatives or a joint committee of Congress if the medical quality assurance record relates to a matter within the jurisdiction of such committee or joint committee; or

"(2) to limit the use of a medical quality assurance record within the Administration, including use by a contractor or consultant of the Administration.

"(g) DEFINITIONS.—In this section:

"(1) MEDICAL QUALITY ASSURANCE RECORD.—The term 'medical quality assurance record' means any proceeding, discussion, record, finding, recommendation, evaluation, opinion, minutes, report, or other document or action that results from a quality assurance committee, quality assurance program, or quality assurance program activity.

"(2) QUALITY ASSURANCE PROGRAM.—

"(A) IN GENERAL.—The term 'quality assurance program' means a comprehensive program of the Administration, the purpose of which is—

"(i) to systematically review and improve the quality of medical and behavioral health services provided by the Administration to ensure the safety and security of individuals receiving such health services; and

"(ii) to evaluate and improve the efficiency, effectiveness, and use of staff and resources in the delivery of such health services.

"(B) INCLUSION.—The term 'quality assurance program' includes any activity carried out by or for the Administration to assess the

quality of medical care provided by the Administration.".

(b) TECHNICAL AND CONFORMING AMENDMENT.—The table of sections for chapter 313 of title 51, United States Code, is amended by adding at the end the following:

"31303. Confidentiality of medical quality assurance records.".

SEC. 726. REPORTS TO CONGRESS.

(a) CONGRESSIONAL REPORTS AND NOTICES.—Any final report or notification required by law that is provided to Congress by NASA shall be submitted to the appropriate committees of Congress not later than 10 days after the date on which such report or notification is submitted to any other committee or office.

(b) PRIVILEGED REPORTS AND REPROGRAMMING REQUESTS.—Nonpublic reports, including privileged reports, reprogramming requests, and spend plans provided to the appropriate committees of Congress pursuant to subsection (a) shall be treated as confidential committee documents and shall not to be disclosed publicly.

(c) REPORTS ON INTERNATIONAL AGREEMENTS.—If the United States becomes a signatory to an international agreement or nonbinding instrument concerning activities in outer space involving NASA, the Administrator shall, not later than 15 days after the date on which the United States becomes a signatory, submit to the Committee on

Commerce, Science, and Transportation and the Committee on Foreign Relations of the Senate and the Committee on Science, Space, and Technology and the Committee on Foreign Affairs of the House of Representatives a report containing a copy of such agreement or instrument.

SEC. 727. RULE OF CONSTRUCTION.

Nothing in this Act may be construed to alter or limit the scientific integrity policies of NASA.