

SECTION-BY-SECTION SUMMARY
NASA TRANSITION AUTHORIZATION ACT OF 2025

Sec. 1. Short Title; Table of Contents

This section would provide the short title of the bill, the “NASA Transition Authorization Act of 2025,” along with a table of contents.

Sec. 2. Definitions

This section would define the terms “Administrator,” “appropriate committees of Congress,” “cislunar space,” “commercial provider,” “continuous human presence,” “continuous presence,” “deep space,” “government astronaut,” “ISS,” “low-Earth orbit,” “NASA,” “Orion,” and “Space Launch System.”

TITLE I – AUTHORIZATION OF APPROPRIATIONS

Sec. 101. Authorization of NASA for Fiscal Year 2025

This section would authorize appropriations of \$25,507,540,000 for Fiscal Year 2025, including \$7,648,200,000 for the Exploration Systems Development Mission Directorate; \$4,473,500,000 for the Space Operations Mission Directorate; \$1,181,800,000 for the Space Technology Mission Directorate; \$7,575,700,000 for the Science Mission Directorate; \$965,800,000 for the Aeronautics Research Mission Directorate; \$143,500,000 for the Office of STEM Engagement; \$3,044,440,000 for Safety, Security, and Mission Services; \$424,100,000 for Construction and Environmental Compliance and Restoration; and \$50,500,000 for the Inspector General.

TITLE II – EXPLORATION

Sec. 201. Continuity of Purpose for Space Exploration

This section would direct NASA to continue the development of all space exploration elements under the Moon to Mars program and to leverage the private sector for logistical support.

Sec. 202. Artemis Program

This section would require continued Artemis missions with the Space Launch System (SLS) and Orion capsule, fostering international and commercial partnerships. It would authorize NASA to enter into agreements with U.S. commercial providers to procure capabilities and services to support the human exploration of the Moon and cislunar space.

Sec. 203. Reaffirmation of the Space Launch System

This section would reaffirm development of the SLS for the Moon to Mars program (51 U.S.C. § 20302) and direct NASA to brief Congress on progress towards achieving the flight rate set forth in section 10812(b) of the National Aeronautics and Space Administration Authorization Act of 2022 (Public Law 117–167; 51 U.S.C. § 20301 note).

Sec. 204. Human-Rated Lunar Landing Capabilities

This section would reaffirm development of human-rated landing systems to further the goals of the Moon to Mars program (51 U.S.C § 20302). This section would allow NASA to procure uncrewed lunar landing services, including crewed and uncrewed landers, from no fewer than two commercial providers.

Sec. 205. Advanced Spacesuit Capabilities

This section would direct NASA to obtain advanced spacesuits and associated extravehicular activity for human deep space exploration efforts, while maintaining in-house expertise. The section would require NASA to brief Congress within 180 days on future spacesuit capabilities and testing plans.

TITLE III – SPACE OPERATIONS***Sec. 301. Maximizing United States Presence in Low-Earth Orbit***

This section would require NASA to maintain a capability for continuous human presence in low-Earth orbit (LEO) through and beyond the life of the International Space Station. It would provide NASA with the authority to waive the requirement in the event of a critical issue endangering the ISS. It would require NASA to execute a managed transition from ISS to commercial providers, with the same rate of crew and cargo flights to one or more commercial space destinations.

This section would establish, within the Space Operations Mission Directorate, a Commercial Low-Earth Orbit Development Program with direction to procure one or more U.S. commercial destination providers.

This section would require NASA to develop a de-orbit vehicle for the decommissioning of the ISS and to provide an annual report to Congress until the ISS is decommissioned. The report would need to include the annual and lifecycle costs for activities related to the de-orbit of the ISS and cost-sharing among ISS partners.

Sec. 302. Commercial Low-Earth Orbit Development Program

This section would require NASA to use commercial LEO destinations to ensure the continuous presence of United States government crew to advance human space exploration, scientific discoveries, and commercial participation in LEO. The section would provide a timeline to NASA for the selection of one or more destinations to meet the statutory 2030 transition date.

Sec. 303. Transition to a Commercially Led Low-Earth Orbit Economy

This section would authorize commercial activities on the ISS and within NASA that develop infrastructure, hardware, processes, capabilities, technologies, and personnel to enable the development of commercial low-Earth orbit destinations and a United States-led LEO economy.

This section would further convey the sense of Congress that the U.S. government should facilitate partnerships with international partners and the commercial space sector to ensure the evolution to a LEO economy with private sector development of new technologies, hardware, processes, capabilities, and other commercial LEO service offerings.

Sec. 304. Nongovernmental Missions on the International Space Station

This section would allow the Administrator to enter into an agreement to conduct non-governmental missions to the ISS sponsored by commercial providers (e.g. private astronaut missions or PAMs).

Sec. 305. Brief on Suborbital Crew Missions

This section would direct NASA, no later than 180 days after the date of enactment, to brief the appropriate committees of Congress on the costs, benefits, risks, training requirements, and policy or legal implications of launching U.S. government personnel on commercial suborbital vehicles.

Sec. 306. Lunar Communications

This section would authorize NASA to develop and maintain a robust architecture for lunar communications and navigation to support human and robotic lunar exploration activities. It would further direct NASA to develop a study and prepare a plan to inform the development of the architecture.

Sec. 307. Celestial Time Standardization

This section would direct NASA to establish lunar time zone(s) for future exploration missions.

TITLE IV – SPACE TECHNOLOGY***Sec. 401. Space Technology Mission Directorate***

This section would authorize NASA to stand up a Space Technology Mission Directorate (STMD), consistent with section 702 of the NASA Transition Authorization Act of 2017.

Sec. 402. SBIR Phase II Flexibility

This section would provide NASA with flexibility to award Phase II Small Business Innovation Research (SBIR) contracts regardless of whether the applicant is a recipient of a Phase I award. This would ensure alignment with other federal agencies' SBIR procedures.

Sec. 403. Sense of Congress on Cryogenic Fluid Valve Technology Review.

This section would state the sense of Congress that advancing cryogenic fluid valve technology would improve cryogenic fluid management and space vehicle reliability.

TITLE V – AERONAUTICS***Sec. 501. Definitions***

This section would define the terms “advanced air mobility,” “AAM,” “regional air mobility,” “unmanned aircraft system,” and “urban air mobility.”

Sec. 502. Hypersonic Research

This section would direct NASA to carry out basic and applied hypersonic research. It would direct NASA to update the hypersonic research roadmap in coordination with the Federal Aviation Administration (FAA) and the Department of Defense (DoD) and in consultation with industry and academia. In the update, NASA would consider system-level design, analysis, and validation of hypersonic aircraft technologies; propulsion capabilities and technologies; vehicle technologies, including vehicle flow physics and thermal management; and advanced materials.

Sec. 503. Advanced Materials and Manufacturing Technology

This section would direct NASA to report and brief the appropriate committees of Congress on the status of NASA's activities related to the Advanced Materials and Manufacturing Technology Project, pursuant to section 10831(e) of the NASA Authorization Act of 2022.

Sec. 504. Unmanned Aircraft System and Advanced Air Mobility

This section would direct NASA to continue research on unmanned aircraft systems and advanced air mobility in coordination with the FAA, other federal agencies, academia, and industry.

Sec. 505. Advanced Capabilities for Emergency Response Operations

This section would direct NASA to continue to conduct research and development activities in response to wildfires under the Advanced Capabilities for Emergency Response Operations (ACERO) project and brief Congress on those efforts.

Sec. 506. Hydrogen Aviation

This section would direct NASA to carry out research on emerging technologies related to hydrogen aviation, subject to the availability of appropriations. It would also require a report on this research.

Sec. 507. High-Performance Chase Aircraft

This section would direct NASA to brief Congress biannually on its collaboration with the DoD on aircraft research and flight assessments. This would include maintaining NASA's current aircraft fleet, asset sharing, and the ability to use or acquire DoD aircraft.

Sec. 508. Collaboration with Academia

This section would provide the sense of Congress that NASA's collaboration with academia helps to inspire STEM careers and support development of the next generation aeronautics workforce.

TITLE VI – SCIENCE***Sec. 601. Maintaining a Balanced Science Portfolio***

This section would affirm the benefits of a balanced Science Mission Directorate portfolio and encourage NASA to follow the recommendations and guidance provided by the National Academies of Sciences, Engineering, and Medicine decadal surveys.

Sec. 602. Implementation of Science Mission Cost Caps

This section would direct the Comptroller General to conduct a review of NASA's practices related to the establishment of and compliance with cost caps of competitively selected, principal investigator-led science missions. The review would assess the appropriateness of existing cost caps for different classes of missions and consider their effectiveness; describe the information NASA requires as part of a proposal submission related to project cost estimates; and consider the processes that NASA uses to evaluate costs associated with mission proposals and determine cost caps on missions, including the accuracy of such assessments.

Sec. 603. Reexamination of Decadal Surveys

This section would update the mid-decadal review process to include an assessment of whether the prioritization of research and programmatic areas in the decadal survey should be reconsidered to account for significant changes to the NASA budget.

Sec. 604. Landsat

This section would direct NASA to report on compliance with preference for use of private sector data in the Landsat program. The report would assess trade-offs of using private sector data instead of Landsat Next or any other Landsat observations.

Sec. 605. Commercial Satellite Data

This section would expand on NASA's Commercial SmallSat Data Acquisition Pilot Program to

acquire and disseminate commercial remote sensing data and imagery for missions under the Science Mission Directorate. NASA would be directed to provide data access to users beyond those funded by NASA. This section would also require an annual report to Congress regarding the agreements, vendors, license terms, and uses of commercial Earth remote sensing data and imagery.

Sec. 606. Planetary Science Portfolio

This section would reaffirm the completion of a balanced set of Discovery, New Frontiers, and Flagship missions at the cadence recommended by the most recent Planetary Science Decadal Survey, pursuant to section 502(b)(1) of the NASA Transition Authorization Act of 2017.

Sec. 607. Planetary Defense

This section would direct NASA to maintain a Planetary Defense Coordination Office, pursuant to section 10825 of the NASA Authorization Act of 2022. It would clarify the Office's responsibilities, including development of a program to survey threats posed by near-Earth objects; issuing warnings of the effects of potential impacts of such objects; investigating strategies and technologies for mitigating the potential impacts of such objects; and coordinating government planning in response to a potential impact of a near-Earth object.

Sec. 608. Lunar Discovery and Exploration

This section would authorize NASA to carry out a program to support scientific exploration of the Moon, including instrument development for lunar exploration as recommended in the most recent decadal survey for planetary science and astrobiology.

Sec. 609. Commercial Lunar Payload Services

This section would authorize NASA to continue the Commercial Lunar Payload Services (CLPS) program to procure delivery services for NASA payloads to the surface of the Moon from one or more commercial providers. It would also require NASA to assess the agency's role in the commercial lunar delivery market.

Sec. 610. Planetary and Lunar Operations

This section would direct NASA to develop a plan to ensure ongoing Moon and Mars observational and operational capabilities, including opportunities to engage both private and international partners.

Sec. 611. Mars Sample Return

This section would direct NASA to lead a program, subject to the availability of appropriations, to enable the return of selected samples from Mars to Earth. It would also require NASA to enter into at least one firm fixed-price agreement with one or more United States industry partners as part of mission implementation.

Sec. 612. Heliophysics Research

This section would encourage NASA to maintain a balanced heliophysics portfolio based on the decadal survey for solar and space physics.

Sec. 613. Geospace Dynamics Constellation

This section would direct NASA to report to Congress on the schedule and budget to launch the Geospace Dynamics Constellation mission by the end of the decade, in accordance with the

heliophysics decadal survey. Additionally, this section would establish that it is the sense of Congress that seeking commercial partnerships for this mission could help NASA fulfill the recommendations of the heliophysics decadal survey.

Sec. 614. Nancy Grace Roman Telescope

This section would direct NASA to continue developing the Nancy Grace Roman Telescope, pursuant to section 10823(b) of the NASA Authorization Act of 2022.

Sec. 615. Chandra X-Ray Observatory

This section would direct NASA to take no action to reduce or otherwise preclude operations of the Chandra X-ray Telescope until the next triennial review of astrophysics mission extensions.

TITLE VII – STEM EDUCATION

Sec. 701. National Space Grant College and Fellowship Program

This section would update NASA’s National Space Grant College and Fellowship Program to a solicitation-based system for awards. Along with updates in administration of the matching requirements, this section would raise the cap for administrative funds allocated from 5 percent to 10 percent. This section would also direct NASA to conduct an external audit of the Program and submit the results to the appropriate committees of Congress.

Sec. 702. Skilled Technical Workforce Education Outreach

This section would authorize NASA to conduct or support STEM engagement activities focused on expanding opportunities for students to pursue skilled technical workforce occupations in space and aeronautics.

TITLE VIII – NASA POLICY

Sec. 801. NASA Advisory Council

This section would expand the NASA Advisory Council’s duties to include direct reporting to Congress. This requirement would sunset in 2028.

Sec. 802. NASA Assessment of Early Cost Estimates

This section would direct the Comptroller General to review the development, application, and assessment of early cost estimates made prior to preliminary design review for NASA missions.

Sec. 803. Authority For Production Contracts Following Other Transaction Prototype Projects

This section would authorize NASA to award follow-on production or service contracts resulting from prototype projects executed as other transactions, without the use of competitive procedures, provided that competitive procedures were used for the underlying prototype transaction. This would enable NASA to pursue a direct contract if prototype testing of a technology is successful, consistent with existing DoD authority under Title 10 U.S.C § 4022.

Sec. 804. Role of the National Aeronautics and Space Administration in Commercial Space Activities

This section would convey the sense of Congress that NASA’s expertise in human space flight is vital as commercial human space flight activities extend into Earth’s orbit, the lunar surface, and beyond. This section would direct NASA to brief the relevant congressional committees on its

activities to support federal agencies regulating the commercial space industry.

Sec. 805. Restriction on Federal Funds Relating to Certain Chinese Space and Scientific Activities

This section would prevent funds from being obligated to Chinese-related activities without FBI consultation and certification to Congress that these activities pose no risk of harmful technology transfer and do not involve Chinese officials involved in human rights violations. (This is an annual appropriations rider known as the “Wolf Amendment.”)

Sec. 806. Findings Relating to Contract Flexibility

This section would allow for contract adjustments for the period that NASA facilities were not accessible to contracting employees.

Sec. 807. GAO Report

This section would direct the Comptroller General to report to Congress on fire and emergency services at NASA launch and reentry facilities.

Sec. 808. NASA Public-Private Talent Program

This section would assign NASA employees to temporary industry posts and welcome aerospace industry professionals to NASA for short-term positions. The Comptroller General would be required to review and report on NASA’s implementation of this program.

Sec. 809. Mentoring

This section would require NASA to brief Congress on existing agency-wide mentoring programs and the merits of consolidating existing programs.

Sec. 810. Drinking Water Well Replacement for Chincoteague, Virginia

This section would authorize NASA to enter into an agreement with the Town of Chincoteague, Virginia, to reimburse the cost of replacing drinking water wells currently located on NASA property. This section would direct NASA to provide Congress with a plan to replace the drinking water wells within 18 months of enactment.

Sec. 811. Passenger Carrier Use for Astronaut Transportation

This section would enable NASA to provide government-owned or leased transportation for astronauts and spaceflight participants for official post-mission needs, such as medical assessments. It would require transportation to be used for official purposes and approved by the Chief of the Astronaut Office, subject to reimbursement to the Treasury for non-U.S. personnel.

Sec. 812. Rule of Construction

This section would state that nothing in this Act may be construed to alter or limit NASA’s scientific integrity policies.