



April 28, 2022

The Honorable Patrick Leahy
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510

The Honorable Richard Shelby
Vice Chairman
Committee on Appropriations
United States Senate
Washington, D.C. 20510

The Honorable Jeanne Shaheen
Chairwoman
Subcommittee on Commerce, Justice, Science
Committee on Appropriations
United States Senate
Washington, DC 20510

The Honorable Jerry Moran
Ranking Member
Subcommittee on Commerce, Justice, Science
Committee on Appropriations
United States Senate
Washington, DC 20510

The Aerospace Industries Association (AIA), representing over 300 aerospace manufacturers and suppliers and more than 2 million U.S. workers, urges Congress to continue the consistent, bipartisan support for NASA and NOAA funding with a FY23 appropriation no less than the President's requested levels for NASA of \$26 billion and \$6.9 billion for NOAA.

Congress has shown multi-year, bipartisan support for NASA and NOAA appropriations providing the continuity and stability required to enable groundbreaking science, exploration, and technology development. AIA supports funding for a balanced portfolio across NASA and NOAA that includes the following programs:

NASA

Aeronautics – Support an appropriation of no less than the President's budget request of \$972 million to invest in:

- Research and demonstration efforts to advance sustainable aviation, including subsonic aircraft, engine design and technology, high-rate composites for wings and fuselages, sustainable aviation fuels, future energy sources, and electric and hybrid-electric propulsion that will lead to emissions and noise reductions
- Development of experimental aircraft in partnership with industry, including a sustainable aviation subsonic demonstrator and the low-boom flight demonstrator
- NASA research and flight demonstration technologies needed to support U.S. global leadership in hypersonics
- Urban air mobility research and partnerships
- Supply chain modeling and simulation efforts to analyze gaps, needs, risks, and scalability considerations to ensure the future aeronautics industry will remain competitive and sustainable

Deep Space Exploration Systems – Support an appropriation of no less than the President’s \$7.48 billion request to invest in:

- NASA’s Artemis Moon to Mars program with the goal to send humans to the surface of Mars enabled by human exploration of the cis-lunar vicinity and lunar surface by 2025, including program elements Gateway, Orion Crew Vehicle, Space Launch System, and Exploration Upper Stage, Exploration Ground Systems, including VAB high bays for SLS and Mobile Launcher-2, Human Lander Systems, Exploration Space Suits, and required ground and communications systems
- Expanded Gateway Logistics Services to enable dissimilar redundancy for the provision of cargo to Gateway
- Development of dissimilar human lunar lander capabilities

Space Operations – Support an appropriation of no less than the President’s \$4.27 billion request to invest in:

- The International Space Station and accompanying transportation and research activities to 2030
- NASA’s Commercial Low Earth Orbit Destinations (CLD) program and NASA efforts to enable commercial activity in low Earth orbit
- NASA’s Space Communications and Navigation development of its next generation Direct-to-Earth and space-based relay systems, including leveraging commercial capabilities and purchasing commercial services
- Use of the Venture-Class Acquisition of Dedicated and Rideshare (VADR) program for all eligible smallsat launch procurements, providing new opportunities for science and technology payloads and fostering the U.S. commercial launch market

Science – Support an appropriation of no less than the President’s \$7.99 billion request to invest in:

- A balanced set of activities across space science disciplines, including research and analysis programs, technology development, small-, medium-, and large-sized space science missions, and suborbital research activities
- Decadal survey priorities, including the Roman/Wide-Field Infrared Survey Telescope, Mars Sample Return, Europa Clipper, Earth Systems Observatory, and recommendations for increased small satellite use in programs such as Astrophysics Pioneers
- NASA science and human spaceflight collaboration with the Lunar Discovery and Exploration Program and Commercial Lunar Payload Services programs
- A new Great Observatories Mission and Technology Maturation Program to formulate several major overlapping space missions to maintain U.S. leadership in space science, the first being a large infrared/optical/ultraviolet (IR/O/UV) space telescope capable of searching for life on planets orbiting stars in our galactic neighborhood
- Microgravity research aboard suborbital and orbital research platforms, including the use of human participants to support NASA-funded research
- Expand Earth science data use and applications, including leveraging commercial capabilities and partnerships to enhance data sets and data analysis
- A dedicated survey mission to accomplish the objectives of the George E Brown Near-Earth Object Survey Act

- The Planetary Defense office and development of a near-earth object and planetary defense roadmap
- A Space Weather Research and Applications Program to support research to operations and improve modeling, forecasting, and prediction of space weather phenomena
- Data science and management initiatives to expand data analytic capabilities

Space Technology – Support an appropriation of no less than the President’s \$1.4 billion request to invest in:

- Nuclear propulsion and surface power systems; solar electric propulsion demonstrations; small satellite technologies; large scale additive manufacturing; in-space servicing, assembly, and manufacturing; in-situ resource utilization; competitively selected technology demonstrations, and the Flight Opportunities Program
- Competitive Tipping Points solicitations that leverage industry investment in early- and mid-stage technologies in cislunar/lunar surface infrastructure and capabilities and in-space infrastructure and capabilities
- Development of high-assay low-enriched uranium in partnership with industry for nuclear propulsion and surface power activities.
- Fully fund NASA’s Nuclear Thermal Propulsion program within the Space Technology account at \$110 million and include language directing the administrator to conduct a flight demonstration of nuclear thermal propulsion by 2027
- Provide no less than \$50 million for the development of a lightweight fission surface power system to be demonstrated by 2028
- Support NASA’s On-orbit/In-orbit Servicing, Assembly, and Manufacturing (OSAM/ISAM) program and ensure continued partnership with industry to expand OSAM/ISAM technology development and demonstrations, recognizing the innovative commercial technologies and commercially available OSAM/ISAM services
- Research & development for debris remediation technologies, including for active debris removal (ADR) over all TRL levels in partnership with industry
- Expanded capacity and capability of the U.S. space solar cell, panel, and array industrial base, reducing the nation’s dependence on foreign suppliers
- Research and development, orbital debris measurement, tracking, modeling, mitigation, remediation, conjunction analysis, and collision avoidance to advance the sustainability of the space environment for the future of civil and commercial activities in space

STEM Engagement – Support an appropriation of no less than the President’s \$150 million request to invest an independent STEM engagement program.

Safety, Security, and Mission Services – Support an appropriation of no less than the President’s \$3.21 billion request to invest in long overdue maintenance and upgrades identified by NASA, including projects that will increase energy efficiency and protect against growing climate threats like hurricanes at NASA centers and facilities where key ISS, Artemis, aeronautics, and science systems are built, tested, processed, and launched.

NOAA Space Programs

- Support the President’s budget request for NOAA satellite systems of \$2.3 billion and require the release of a five-year budget plan

- Support the President's budget request of \$87.8 million for the Office of Space Commerce to procure commercial services to fulfill civil space situational awareness requirements and serve as an interagency U.S. space industry advocate.

AIA and our member companies thank you for your leadership and your consideration of our funding priorities to ensure a balance across all of NASA.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy McClees". The signature is fluid and cursive, with the first name "Timothy" written in a larger, more prominent script than the last name "McClees".

Timothy McClees
Aerospace Industries Association