

## April 11, 2023

The Honorable Jeanne Shaheen Chair Senate Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies S-128, The Capitol Washington, D.C. 20510

The Honorable Jerry Moran Ranking Member Senate Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies S-146, The Capitol Washington, D.C. 20510 The Honorable Hal Rogers Chairman House Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies H-310, The Capitol Washington, D.C. 20515

The Honorable Matt Cartwright Ranking Member House Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies 1036 Longworth House Office Building Washington, D.C. 20515

Dear Chair Shaheen, Chairman Rogers, Ranking Member Moran, and Ranking Member Cartwright:

The Aerospace Industries Association (AIA), representing over 320 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 FY24 appropriation no less than the President's requested levels for NASA of \$27.185 billion and \$2.1 billion for NOAA's satellite and Office of Space Commerce programs. The President's FY24 budget requests for NASA and NOAA propose *essentially flat inflation-adjusted funding* necessary to carry out the aeronautics, exploration, science, technology, and weather programs that will maintain U.S. and U.S. industry's leadership in aeronautics and space capabilities.

As Administrator Nelson has emphasized, failure to maintain these funding levels will have "devasting and potentially unrecoverable impacts," while funding NASA and NOAA at no less than the President's requested funding levels will directly benefit U.S. industry, its current and future workforce, and America's economic competitiveness, including:

- Funding NASA's Artemis Program budgets will immediately impact tens of thousands of workers across the United States and thousands of small business suppliers important to the civil, commercial, and national security supply chains at a time of increased supply chain pressure;
- Continuing investments in cutting-edge aviation technologies to increase speed, efficiently, and safety of air travel, and significantly reduce emissions are important to maintaining U.S. commercial aerospace leadership, the largest U.S. export sector;
- Supporting NASA technology development with commercial partners will increase U.S. capabilities, stimulate the U.S. economy, and create jobs; and
- Maintaining STEM-related programs will avoid, according to NASA, decreased participation by an estimated *one million* students and educators in NASA's STEM-related programs, directly impacting the future workforce at a time of growing workforce constraints.

Congress has consistently shown multi-year, bipartisan support for NASA and NOAA appropriations and AIA's urges the continuation of this support to enable the groundbreaking science, exploration, and technology accomplishments we are on the path to achieve. AIA support for the President's budget request includes funding for a balanced portfolio across NASA and NOAA as outlined further below.

## NASA

*Aeronautics* – Support an appropriation of no less than the President's budget request of \$995.8 million, including:

- Support the Sustainable Flight National Partnership that incorporates 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.
- Support a range of technology demonstrators to advance aircraft, systems and structures, and engine designs to prepare for the next generation of aircraft, including the recently announced Sustainable Flight Demonstrator.
- NASA research and flight demonstration technologies needed to support U.S. global leadership in hypersonics, including the development of endothermic fuels for High-Mach Turbine Engine aircraft.
- Urban air mobility, autonomy, and airspace integration research and partnerships.

*Deep Space Exploration Systems* – Support an appropriation of no less than the President's \$7.971 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, deep space life support systems, 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 \$4.535 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's goal to migrate the Near Space Network away from government-owned assets by using commercial space communications services and capabilities to provide new technology and capacity for NASA missions.
- 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 \$8.261 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 Space 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 the Habitable

Worlds Observatory 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 \$1.392 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 at \$80 million within the Space Technology account and support the joint flight demonstration with DARPA's DRACO program.
- Provide no less than \$50 million for the development of high-power nuclear electric propulsion demonstration.
- Provide no less than \$50 million for the development of a lightweight fission surface power system to be demonstrated by 2028.
- 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 \$158 million request to invest an independent STEM engagement program.

*Safety, Security, and Mission Services* – Support an appropriation of no less than the President's \$3.369 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 \$2.1 billion to enable NOAA's next generation weather satellite programs.

• Support the President's budget request of \$88 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 for NASA and NOAA. For further information, please reach out to <u>Jeffrey.Wilson@aia-aerospace.org</u>.

Respectfully,

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Jeffrey Wilson Senior Director of Legislative Affairs Aerospace Industries Association