

## NASA Authorization Act of 2022

### in the CHIPS and Science Act of 2022, H.R. 4346

The NASA Authorization Title in Division B includes a core set of provisions that provide direction across NASA's science, exploration, aeronautics, space technology, and STEM activities to support NASA in continuing to lead, inspire, discover, explore, and carry out ambitious and challenging missions.

#### Subtitle on Exploration

- **Establishes a Moon to Mars Office, Moon to Mars Program, directs appointment a director, and establish roles and responsibilities for the Director.** Establishes elements of the Program; establishes a Program-wide systems engineering and integration function.
- Ensures the ground system infrastructure to enable the preparation and use of upgraded Space Launch System configurations and authorizes the Administrator to maintain 2 operational mobile launch platforms.
- Continues a program to modernize rocket propulsion test infrastructure and requires the Administrator coordinate with the Army Corps of Engineers on a plan for the continued navigability of the Pearl River to support barge operations surrounding the NASA Stennis Space Center (MS) and Michoud Assembly Facility (LA).
- **Amends Title 51 U.S. Code to extend ISS operations through September 30, 2030.**
- Requires an assessment of ISS research priorities and requires the Administrator to prioritize human research, exploration technologies, and advancement of basic and applied life and physical sciences.

#### Subtitle on Science

- Directs the Administrator to **pursue the goal of establishing annual funding for Research and Analysis to reach a level of not less than 10 percent of the total annual funding of relevant divisions of the Science Mission Directorate by FY 2025.**
- Directs continuation of a multidisciplinary science and technology development program to search for evidence or historical evidence of life beyond Earth.
- Provides sense of Congress on the Next Generation of Astrophysics Great Observatories and **directs continued development of Nancy Grace Roman Telescope.**
- Reaffirms the goal of the Earth science and applications program in Title 51, **directs the Administrator to pursue an Earth System Observatory of Earth science missions to address decadal survey priorities;** requires a survey on the use of Earth observation data by States, tribes and territories, and a climate action plan.
- Maintains a Planetary Defense Coordination Office and **continues the NEO Surveyor mission for a launch readiness date of March 2026, or the earliest practicable date.**

#### Subtitle on Aeronautics

- Directs the Administrator to maintain fundamental aeronautics research and carry out **experimental aircraft demonstrations,** including a subsonic demonstrator to related to

advanced, ultra-efficient and low emissions designs, a low-boom supersonic flight demonstrator, and a flight research demonstrator to test net-zero emissions aircraft concepts.

- Directs Administrator to research and test capabilities and concepts related to unmanned aerial systems (UAS)
- **Requires NASA to establish an R&D initiative on reducing greenhouse gas and noise emissions from aircraft, with additional requirements on test flights, technology focus areas, and partnerships with industry, academia, and research organizations, among other activities (*Cleaner, Quieter Airplanes*)**

#### Subtitle on Space Technology

- **Establishes a space nuclear propulsion program** to include R&D on nuclear thermal and nuclear electric propulsion, ground base testing and an in-space demonstration by the late 2020s. Requires a plan and cost estimate. **Establishes nuclear surface power program.**
- Requires the prioritization of low-enriched uranium in R&D activities.

#### Subtitle on STEM Engagement

- **Authorizes NASA's Office of STEM Engagement** and its responsibilities, including Space Grant, EPSCoR, Minority University Research and Education Program (MUREP), among other activities.

#### Subtitle on Miscellaneous

- **Requires reports on the industrial base and supply chain for NASA.**
- **Requires the Administrator to arrange for a National Academies review of the workforce, skills-base, and modeling and test facilities of the Administration;** requires development of a policy and procedure for assessing the strategic capabilities of the Administration, including infrastructure and facilities.
- **Establishes an Independent Program Analysis and Evaluation Office to assess program performance, perform cost estimates, and conduct strategic planning activities.**
- **Extends NASA's authority to enter into leases of non-excess property (enhanced-use lease authority) for 10 years,** and requires additional reporting related to the leases.