



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Funding Highlights:

- The National Aeronautics and Space Administration (NASA) is responsible for leading an innovative program of exploration that would return American astronauts to the Moon by 2024 and build a sustainable presence on the lunar surface as the first steps on a journey that will take America to Mars.
- The Budget increases funding for innovative programs that would land astronauts on the Moon and support precursor missions and advanced technologies that would enable further exploration. The Budget also supports a broad range of high-performing NASA programs that are not directly supporting the Moon to Mars program, and includes reductions to some lower-performing programs.
- The Budget eliminates the Stratospheric Observatory for Infrared Astronomy (SOFIA) telescope, saving taxpayers more than \$80 million per year. SOFIA is an expensive telescope mounted on a 747 airplane that is less scientifically productive than other missions with similar costs.
- The Budget provides \$25.2 billion for NASA, a 12-percent increase from the 2020 enacted level.

The President's 2021 Budget:

NASA's top-priority mission is to return American astronauts to the Moon by 2024 and build a sustainable presence on the lunar surface as the first step on a journey that will take America to Mars. The Budget provides robust funding for the programs that support this goal, including \$3.4 billion for the development of lander systems, over \$700 million to support lunar surface activities, and \$233 million for robotic precursor missions to Mars that would also conduct cutting-edge science. The Budget also funds a broad range of other NASA programs, including supporting enhanced commercial activities in Earth orbit, exciting space science missions, and research to improve air travel and remotely piloted aircraft. The Budget redirects funds from lower priority programs to fulfill the President's promise to get Americans back to the Moon.

Invests in the Systems that Would Send Astronauts to the Moon and Beyond. The Budget funds key components of NASA's Moon to Mars campaign, including: the Space Launch System (SLS) and the Orion crew capsule to support a first uncrewed test launch and a steady crewed launch cadence thereafter; the Lunar Gateway, a small way station around the Moon; commercial launch capabilities to enable regular, low-cost access to the lunar vicinity and surface; and commercial lunar landers to enable cargo delivery and human access to the lunar surface. The Gateway and landers would be launched on competitively procured vehicles, complementing crew transport

flights on the SLS and Orion. The Budget defers funding of upgrades—known as “Block 1B”—for the SLS, and instead focuses the program on completing the initial version of the SLS and ensuring a reliable SLS and Orion annual flight cadence. While a potentially beneficial future capability, the costly Block 1B upgrades are not needed to land astronauts on the Moon.

“This time, we will not only plant our flag and leave our footprint, we will establish a foundation for an eventual mission to Mars. And perhaps, someday, to many worlds beyond.”

President Donald J. Trump
December 11, 2017

Funds the Development of Technologies and Early Missions Needed to Make Exploration Missions Sustainable. The Budget funds the Lunar Surface Innovation Initiative to pioneer new approaches for sustainable human exploration, including technologies to generate power, excavate and construct structures on the Moon, and help astronauts live off the land. In addition, the Budget supports an array of new prizes and challenges, research grants, and public-private partnerships to develop new technologies that would make future missions to Mars more affordable and capable. The Budget also funds the robotic exploration of Mars, in cooperation with international partners,

as a precursor to human exploration. In addition to performing cutting-edge scientific investigations, a new Mars Ice Mapper mission would provide data for potential landing sites, and a Mars Sample Return mission would demonstrate the ability to launch from Mars’ surface.

Supports a Long-Term American Presence in Low Earth Orbit. The Budget continues support for operations in low Earth orbit, including for new space stations that would ensure America has access to affordable space stations in the future. The Budget also funds continued use of commercial services to deliver cargo to space, American crew transportation services that would launch from American soil starting in 2020, and a range of launch, communications, rocket testing, and astronaut training capabilities that support human spaceflight.

Funds Research to Make Air Travel Faster and Cheaper and Safely Integrate Drones into the Nation’s Airspace. The Budget supports aeronautics research that contributes to the Nation’s technological leadership and supports high-quality jobs. The Budget funds the X-59 Quiet Supersonic Technology flight demonstrator, which would fly for the first time in 2022. The Budget also increases funding for investments in ultra-fast hypersonic flight, hybrid-electric jet engine systems that could power future passenger airliners, and research on the safe integration of remotely-piloted aircraft into U.S. airspace.

“[A]t the President’s direction...we’ve put an end to decades of budget cuts and decline. And we’ve renewed America’s commitment to human space exploration, vowing to go further into space, farther and faster than ever before.”

Michael R. Pence
Vice President
August 20, 2019

Redirects Funds from Lower Priority Science and Education Programs to Higher Priorities. Consistent with prior budgets, the Budget provides no funding for the Wide Field Infrared Survey Telescope, two Earth science missions, and the Office of Science, Technology, Engineering, and Mathematics (STEM) Engagement. The Budget continues to support education activities such as internships and fellowships funded outside of the Office of STEM Engagement. The Budget also proposes to terminate the SOFIA telescope, which has not proven to be as scientifically productive as other missions.

Improves NASA's Mission Support Services. The Budget realigns budget authority and lines of reporting to free up resources for reinvestment in facilities, information technology, and other key mission support areas. The new structure supports a more efficient operating model by integrating mission support functions across geographic locations to standardize services and eliminate duplicative capabilities among NASA Centers.