



Human Space Exploration Update (March – April 12-28, 2017)

FY18 Budget

- **NASA Fares Well:** [A Republican favorite, NASA escapes Trump's budget ax](#) NASA, a national engine for economic growth and innovation, has fared well in President Trump's proposed 2018 budget for the fiscal year that begins October 1. The \$19.1 billion proposed for NASA, represents a less than one percent reduction, much less than proposed reductions for other federal agencies. Supporters are optimistic about how the appropriations process will unfold, given bipartisan support for the agency's missions in states like Florida, Alabama, Mississippi, Texas and California.

International Space Station

- **Astronaut Breaks Record:** [Astronaut Peggy Whitson breaks NASA record for most days in space](#) Veteran U.S. astronaut Peggy Whitson broke the record of 534 days for most career time spent in space by a U.S. astronaut early Monday. Whitson, who launched to the Station in late November, is not scheduled to return to Earth until September. (See also: [Trump calls Space Station as astronaut Peggy Whitson sets record](#))
- **Space Food:** [NASA to build better salads in space on latest mission](#) Science experiments in route to the International Space Station aboard Orbital ATK's seventh NASA contracted re-supply mission include a new high tech space greenhouse. Goals of NASA's Advanced Plant Habitat include developing a source of nutrition for future human deep space explorers as well as a natural means of recycling breathing air and drinking water.

Orion and Space Launch System

- **Deep Space Gateway:** <https://www.nasa.gov/feature/deep-space-gateway-to-open-opportunities-for-distant-destinations>
- **Flying Crew on EM-1:** [NASA's study of adding crew to EM-1 is completed, awaiting response](#) NASA's assessment of whether it can add astronauts to EM-1, the first joint test flight of the Space Launch System and Orion crew exploration capsule, is complete and has been briefed to the White House as well as top agency leadership, though not yet been made public. The launch of EM-1 as an unmanned test flight of Orion around the moon and back had been planned for late 2018. In February, NASA Acting Administrator Robert Lightfoot requested that the agency study the feasibility of adding crew to EM-1, a step that had not been planned previously until EM-2, planned for 2021-23.
- **EFT-1 on Display:** [Orion EFT-1 flown spacecraft joins display in 'NASA Now' exhibit](#) NASA's Orion capsule launched its first uncrewed test flight in December 2014, Exploration Flight Test-1. The Lockheed Martin developed spacecraft circled the Earth twice and re-entered the Earth's atmosphere for an ocean splashdown. The capsule is now on public display at NASA's Kennedy Space Center Visitor Center on Florida's space coast.
- **Orion Monthly Update (March):** <http://bit.ly/OrionMarchMonthly2017>

- **“I Am Building SLS”:** <https://www.nasa.gov/exploration/systems/sls/faces-of-sls-Vander>

Commercial Space Transportation

- **Starliner Progress:** [Despite delays, Boeing's Starliner moving steadily toward the launch pad](#) Boeing is moving closer to a goal of re-establishing a U.S. human space launch capability with the CST-100 Starliner. Starliner and SpaceX's crewed Dragon are to provide commercial transportation to and from the International Space Station as soon as late 2018.
- **Crews to be Named:** [Commercial crew flight assignments could come this summer](#) NASA's Commercial Crew Program is overseeing the development of two spacecraft capable of transporting astronauts to and from the International Space Station, Boeing's CST-100 and SpaceX's crewed Dragon. NASA may be close to assigning astronauts to test flights planned for 2018.
- **Orbital Delivers Cargo to ISS:** [Supply ship named for John Glenn arrives at Space Station](#) Orbital ATK's seventh NASA contracted resupply capsule reached the International Space Station early Saturday. Astronauts Thomas Pesquet and Peggy Whitson grappled the capsule named for the late Mercury astronaut John Glenn using Canada's robot arm. The Orbital freighter delivered 7,600 pounds of crew supplies and scientific equipment.

Space Policy, Missions, Benefits, International ...

- **Outer Space Treaty:** [Cruz interested in updating Outer Space Treaty to support commercial space activities](#) Senator Ted Cruz, chair of the Senate's Space Subcommittee, indicated it may be time to seek changes to the 50-year-old UN Outer Space Treaty in order to encourage U.S. commercial space activities through ownership of recovered resources from the moon and asteroids. Changes could be reflected in an updated version of the U.S. Commercial Space Launch Competitiveness Act, passed in 2015.
- **China:** [China eyes international 'Moon Village'](#) China is pondering participation in the European Space Agency's proposed moon village, an international/commercial settlement on the moon. Construction would begin in the 2020s. However, one Peking University scientist believes his native country should follow its own course in the exploration of space, one that is focused on deep space exploration and that will establish China as a space power by 2030. (See also: [China takes another step towards permanent space station](#))
- **Lunar Exploration:** [Space agency heads see the moon on the path to Mars](#) As a destination beyond the International Space Station, the Earth's moon offers a place to gain experience and possibly obtain resources for the future human exploration of Mars and other deep space destinations, according to representatives from many of the world's space agencies gathered for the 33rd Space Symposium in Colorado Springs earlier this month. While NASA is more interested in a lunar-orbiting Deep Space Gateway, other nations are intrigued by the lunar surface. NASA, however, has not ruled out a lunar surface collaboration.
- **Mission Control – The Movie:** [Mission Control is a wonderful movie. Go see it now.](#) *Mission Control*, a new documentary combining historical footage with current day interviews examines the personnel behind the scenes that helped to drive the success of NASA's Apollo era. "They were always watching, running the missions, and ready to make split-second decisions," notes the review. "In our uncertain times, such a film serves as a marvelous tonic to remind us what America is capable of when we work together toward a common goal."

Citizens for Space Exploration – a pro-space, taxpayer, grassroots advocacy group (www.citizensforspace.org) – has travelled to Washington, D.C. the past 25 years to meet face-to-face with Members/staff of Congress to discuss the value of America's investment in space exploration. In order to sustain that dialogue on a regular basis, Citizens distributes "Space Exploration Update" to Congressional offices on a weekly basis. The intent is to provide an easy, quick way to stay abreast of key human space exploration program and policy developments.