



Human Space Exploration Update (July 20-24, 2015)

International Space Station

- **Operations to 2024:** [Russia extends life of International Space Station until 2024](#) Russia joins Canada among the International Space Station partner nations to join the U.S. in agreeing to extend operations from 2020 to 2024. The European and Japanese space agencies continue to consider the space station extension proposed by the Obama Administration in early 2014.
- **ISS Crew Restored to Six:** [Meet Kjell Lindgren, NASA's newest guy in space](#) Kjell Lindgren floated aboard the International Space Station after lifting off from Kazakhstan with Russian Oleg Kononenko and Japan's Kimiya Yui. Lindgren, a U.S. Air Force veteran, is a medical doctor trained in aerospace and emergency medicine. Lindgren, Kononenko and Yui have trained for a five month stay aboard the Space Station. Their presence restored the Space Station to six person operations.

Orion and Space Launch System

- **Orion Crew Module Testing:** <https://blogs.nasa.gov/orion/2015/07/24/engineers-begin-testing-elements-for-orion-service-module/>
- **SLS Critical Design Review:** [NASA nears milestone approval for its new Space Launch System](#) NASA's Space Launch System exploration rocket is closing in on a key milestone, Critical Design Review. The result of the review should be available by the end of September. The SLS is moving toward its first uncrewed flight test in 2018. The launch will power NASA's Orion Crew exploration vehicle on a loop around the moon and a return to Earth.
- **SLS Payloads:** [NASA developing solar-sailing CubeSats for inaugural SLS launch](#) NASA is preparing a pair of solar sailing CubeSats as part of the first test launch of the Space Launch System heavy lift rocket, now planned for 2018. One of the small satellites, Near Earth Asteroid Scout, or NEA Scout, would conduct a 2020 flyby of asteroid 1991 VG. The second CubeSat, Lunar Flashlight, will use sensors to search for the presence of water ice in the polar regions of the moon.

Commercial Space Transportation

- **Support for Commercial Crew:** [Op-ed | Commercial Crew deserves our full support](#) An op-ed outlines the most important reasons for backing NASA's Commercial Crew Program, the initiative to establish two new means of launching astronauts from the U.S. to the International Space Station. The merits include efficient redundancy and ending reliance on Russia for the launches, writes Tom Marotta, a longtime member of the National Space Society.
- **Falcon 9 Failure:** [Falcon 9 failure linked to upper stage tank strut](#) SpaceX CEO Elon Musk points to a failed strut in the second stage of the Falcon 9 rocket as the likely trigger of a June 28

launch failure of a NASA contracted commercial re-supply mission bound for the International Space Station. When the strut failed, helium escaped from a container in the second stage oxygen propellant tank that caused the tank to over pressurize and burst.

Space Budgets, Policy, Missions, Benefits, International ...

- **Apollo 11 Anniversary:** [Our spaceflight heritage: Apollo 11's fading light](#) July 20 marked the 46th anniversary of Apollo 11, humanity's first moon landing. Apollo 11 commander Neil Armstrong and Lunar Module pilot Buzz Aldrin made history as they strolled the surface of the moon and beamed back their activities in real time. Five more crewed Apollo missions would follow their lead by the end of 1972. (See also: [Moonwalkers: Stunning photos from Apollo 11 Discovery.com](#))

Florida

- **Delta IV Launch:** [Delta IV rocket delivers powerful military satellite into orbit](#) A United Launch Alliance Delta 4 rocket lifted off with an Air Force communications satellite, the Wideband Global SATCOM spacecraft, the seventh in a series of 10 spacecraft..

Citizens for Space Exploration – a pro-space, taxpayer, grassroots advocacy group (http://www.bayareahouston.com/content/c_s_e/c_s_e) – has travelled to Washington, D.C. the past 23 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.