



Human Space Exploration Update (Sept 21-25, 2015)

International Space Station

- **Scott Kelly Talks Mars Exploration Aboard ISS:** [How a NASA astronaut is paving the way to Mars](#) Earlier this month, U.S. astronaut Scott Kelly passed the halfway point in his near yearlong mission aboard the International Space Station, just one of the activities NASA is engaged in to prepare for the future human exploration of Mars. Asked occasionally if he would like to make the long trip to the red planet, Kelly says yes -- if he could return to Earth. As an astronaut on the station, or en route to Mars, Kelly must be a scientist, medical officer, farmer and at times a plumber.

Orion and Space Launch System

- **Orion Manufacturing:** <http://space.io9.com/it-takes-just-seven-welds-to-assemble-the-newest-orion-1732488838> Engineers on Orion have reduced the # of welds from 33 in the original design, to 19 in EFT-1, to just 7 for EM-1. That change drops 700 pounds off of Orion's mass.
- **SLS – Mars Missions:** [SLS manifest options aim for Phobos prior to 2039 Mars landing](#) Space agency planning accommodates launches of NASA's Space Launch System heavy lift rocket on human missions to the Martian moon Phobos ahead of a landing on Mars by 2039.

Commercial Space Transportation

- **CST-100 Landing Sites:** [Boeing identifies CST-100 prime landing sites](#) Boeing's CST-100, one of two U.S. spacecraft under development through NASA's Commercial Crew Program, will aim for parachute assisted landings in New Mexico and Utah, according to a Boeing manager and former NASA astronaut involved in the development. The Commercial Crew Program is leading the development of U.S. crew transportation services to and from the International Space Station and other orbital destinations.

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

- **NASA on Mars Exploration:** [NASA Administrator says agency closer to ever to landing humans on Mars](#). Administrator Charles Bolden, speaking at an event spotlighting the soon to open film *The Martian*, proclaimed NASA closer than ever to reaching Mars with human explorers. At the Washington gathering, Bolden pointed to progress with the development of the Lockheed Martin Orion crew exploration capsule and the Space Launch System heavy lift rocket. The administrator also noted that NASA astronaut Scott Kelly has reached the midpoint of a yearlong mission aboard the International Space Station. Medical experiments with Kelly as a subject are examining the challenges of sending future explorers on month's to year's long missions to deep space destinations, including Mars. (See also: [Marshall Space Flight Center turns science fiction into science fact](#))

- **ESA on Moon – Mars Exploration:** [Reiter: 'Man could return to Moon in second half of next decade'](#) Astronaut Thomas Reiter, the European Space Agency's director of human spaceflight and operations, outlines the agency's strategy for future human spaceflight. After the International Space Station, it's the moon in the second half of next decade, then Mars, all as a global endeavor.
- **International Astronautical Congress:** [World space leaders to attend Jerusalem outer space convention](#) The 66th International Astronautical Congress (IAC) will bring the leaders of the world's top space agencies together Oct. 12-16 in Jerusalem. Representatives from the U.S., Russia, Japan, China, Europe and more are expected to attend. Discussions will focus on the latest advances in human exploration and international cooperation and include topics like medical care, safety and the growing popularity of small satellite missions.
- **The Martian:** [Capturing NASA's mindset is key to *The Martian's* success](#) *The Martian*, the intense film drama set to open in theaters Oct. 2, has exploited NASA's enthusiasm for future human deep space exploration well, conjuring up habitats, spacesuits, spacecraft and launch vehicles that merge with NASA's vision. "But it's more than a love letter to science," according to the New Science report. "It is an entertaining depiction of a way of behaving that keeps people alive in extreme circumstances: love your job; embrace the little you can do and do it; like it or not, death is always coming, so to hell with it."

Florida

- **Aerojet Rocketdyne Ups Bid for ULA:** [Exclusive: Aerojet weighs higher offer for Lockheed-Boeing venture - sources](#) Aerojet Rocketdyne Holdings may increase its reported \$2 billion offering for the purchase of United Launch Alliance, the Boeing/Lockheed Martin joint venture that provides U.S. military and national security rocket launches, according to the Reuters report. ULA publicly rejected a reported \$2 billion offer from Aerojet earlier this month. (See also: [ULA rocket boosters deal moves it away from Aerojet Rocketdyne](#))
- **Space Museum in Titusville:** [An alternative space pilgrimage](#) A new museum and tribute to NASA's early human space activities at the Kennedy Space Center has opened in Titusville, Fla., The U.S. Space Walk of Fame is a companion to the museum at the Kennedy Space Center Visitor Complex.

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.