



## **Human Space Exploration Update (March 23 – April 3, 2015)**

### **Congress**

- **Senate Commerce Approves NASA Deputy Administrator:** [Newman nomination approved by Committee](#) The Senate Commerce, Science and Technology Committee approved Dava Newman's White House nomination as NASA deputy administrator. The vote was Mar. 25, setting the stage for the nomination's consideration by the full Senate. The deputy post at NASA has been vacant since September 2013.
- **Culberson Pushes for Interstellar Propulsion:** [U.S. lawmaker wants NASA working on interstellar propulsion](#) NASA's proposed Asteroid Redirect Mission makes sense if it fosters the development of an interstellar propulsion system, according to Rep. Culberson, who chairs a House appropriations panel responsible for NASA annual budget. Culberson's thoughts followed a visit to NASA's Jet Propulsion Laboratory.
- **Palazzo on Appropriations:** [Palazzo wins seat on key appropriations panel](#) Rep. Palazzo, of Mississippi, has been assigned to the House appropriations panel responsible for funding NASA and NOAA. His district includes NASA's Stennis Space Center, and in previous assignments Palazzo has proven a strong supporter of NASA's Orion crew exploration capsule and Space Launch System heavy lift rocket development, the website reports.

### **International Space Station**

- **One Year on ISS:** [Kelly, Kornienko settle in for marathon mission](#) Scott Kelly, launched on a near one year mission to the International Space Station, plans to pace his work schedule for the U.S. record setting venture. (See also: [NASA astronaut already feels at home in space as 1-year journey begins](#) and [One-year crew begins epic trip on International Space Station](#))
- **No New Space Station Plans:** [NASA denies it will build new Space Station with Russia](#) No deal has been reached between NASA and the Russian space agency to assemble a successor to the International Space Station, according to Sean Fuller, NASA's top official in Russia. Top NASA and Roscosmos officials met late last week for the launching of NASA's Scott Kelly, Russia's Mikhail Kornienko and Gennady Padalka to the International Space Station.

### **Orion and Space Launch System**

- **Lessons from EFT-1:** [What NASA learned from Orion space capsule's 1st test flight](#) Orion's successful Dec. 5 uncrewed test flight is providing engineers at NASA and contractor Lockheed Martin with plenty of information. "Orion opens the moon up, opens asteroids up. It opens [Mars' moons] Phobos [and] Deimos and eventually Mars," said Mark Geyer, NASA's Orion program manager. "And the human element is key." NASA intends to launch Orion atop the Space Launch System heavy lift rocket to start human voyages to the lunar environs, the asteroids and Mars.
- **Interview with Boeing SLS Program Manager:** [An interview with Boeing's outgoing SLS program manager](#) Boeing's Space Launch System program manager Ginger Barnes discusses the challenges of developing NASA's heavy lift rocket, designed to start humans on future

missions of deep space exploration. Boeing, working with other contractors, is confident the large rocket will lift off on its first test flight no later than November 2018. Barnes plans to retire in May.

### Commercial Space Transportation

- **Commercial Cargo Competitors:** [For commercial cargo, ideas old and new](#) In June, NASA is expected to award at least two contracts to support the re-supply needs of the International Space Station after 2017. The competition is attracting proposals from Orbital ATK and SpaceX as well as Boeing, Lockheed Martin and Sierra Nevada. All but Orbital ATK are drawing on experience and expertise from efforts to develop commercial crew vessels as well. The new market and the competition were initiated nearly a decade ago by previous NASA Administrator Mike Griffin with the introduction of the Commercial Orbital Transportation Services program.

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

- **Asteroid Retrieval Mission:** [NASA rearms in its battle with mission skeptics](#) NASA furthered its Asteroid Redirect Mission plans last week with a much anticipated decision over whether to capture an entire small asteroid or a boulder from a large asteroid. The latter, Option B, is favored. Once captured, the boulder would be maneuvered robotically into a stable lunar orbit that could be reached by U.S. astronauts in the 2025 time frame. Persistent skeptics question how the mission will advance efforts to explore Mars with humans. (See also: [The evolution of NASA's ambitious asteroid-capture mission](#), [Op-ed | Why the U.S. gave up on the Moon](#), [In praise of NASA's ambitious asteroid grab](#), and [Why so many people think NASA's asteroid mission is a waste](#))
- **Promoting STEM Education:** [Former NASA astronaut says we're all in a spaceship](#) Retired NASA astronaut Mae Jemison, the first female African American in space, urged a Boston area student audience to pursue careers in science and engineering and support diversity in the two fields. Jemison compared life on Earth to space travel. "We're on a spaceship now," said Jemison.

### Florida

- **Atlas Launch Plans:** [Mysterious mini space plane the next Atlas 5 payload](#) The Air Force prepares for the next launch of its reusable X-37B space plane atop an Atlas 5 rocket from Cape Canaveral Air Force Station, Fla., May 6 is the planned launch date. The payload has not been disclosed.
- **Crawler Transport Contract:** [Gillette company does work for NASA](#) L & H Industrial, of Gillette, Utah, gets its first U.S. government contract, upgrading the rollers on the massive crawler transporter that will position NASA's Space Launch System heavy lift rocket on a Kennedy Space Center launch pad. NASA is developing the big rocket to launch astronauts on future deep space missions.
- **ULA Plans for the Future:** [Era of reusable rockets](#) NBC receives an inside look at United Launch Alliance production facilities and reports the Boeing/Lockheed Martin joint venture plans to pursue a new lower cost reusable rocket. "I'm here to transform the company," says new CEO and president Tony Bruno.
- **Pad 39B:** [KSC pads continue preparations for future vehicles](#) At NASA's Kennedy Space Center, Launch pad 39B is undergoing an overhaul to prepare the structure for the first variants of the Space Launch System heavy lift rocket that is to start U.S. explorers on future missions of deep space exploration. The first launch, an uncrewed test flight of the Orion crew exploration capsule, is planned for the second half of 2018.

**Citizens for Space Exploration** – a pro-space, taxpayer, grassroots advocacy group ([http://www.bayareahouston.com/content/c\\_s\\_e/c\\_s\\_e](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.