



## **Human Space Exploration Update (July 6-10, 2015)**

### **International Space Station**

- **ISS Benefits to Humanity Report:** [http://www.nasa.gov/sites/default/files/atoms/files/jsc\\_benefits\\_for\\_humanity\\_tagged\\_6-30-15.pdf](http://www.nasa.gov/sites/default/files/atoms/files/jsc_benefits_for_humanity_tagged_6-30-15.pdf)
- **Japanese Resupply Mission:** [Japan shows off its space ambitions with upcoming HTV flight](#) Japan is preparing for the launching of its fifth unpiloted re-supply mission to the International Space Station. The Kounotori spacecraft will carry up to six metric tons of food, water, crew supplies and research hardware to the space station as it lifts off from the Tanegashima Space Center on Aug. 16. Docking to the station is expected Aug. 22.

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

- **Orion Monthly Program Update Report:** [http://www.nasa.gov/exploration/systems/mpcv/orion\\_reports\\_archive.html](http://www.nasa.gov/exploration/systems/mpcv/orion_reports_archive.html)
- **Orion Service Module Testing at Plum Brook:** <http://www.nasa.gov/feature/nasa-gears-up-to-test-orion-s-powerhouse>
- **SLS Monthly Program Update Report:** [http://www.nasa.gov/sites/default/files/atoms/files/sls\\_highlights\\_2015\\_06.pdf](http://www.nasa.gov/sites/default/files/atoms/files/sls_highlights_2015_06.pdf)

### **Commercial Space Transportation**

- **Commercial Crew Members:** [NASA names 4 pilots to test new space capsules](#) NASA astronaut veterans Robert Behnken, Sunita Williams, Eric Boe and Doug Hurley were named Thursday to train for the first flights of NASA's Commercial Crew Program partners, Boeing and SpaceX. Boeing's CST-100 and SpaceX's Dragon are to make their first crewed test flights in 2017, but after each spacecraft carries out an unmanned test voyage to the ISS. (See also: [NASA names cadre of commercial crew astronauts](#))

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

- **Mars Landing Sites:** [NASA seeks human landing site on Mars](#) NASA announces plans to gather scientists and other experts to advise the agency on prospective human landing sites on Mars. Experts will convene at the Lunar and Planetary Institute in Houston in October.
- **Virtual Reality for Deep Space Missions:** [How virtual reality is hitting the 'space workplace'](#) NASA intends to test new astronaut eyewear later this month aboard the Aquarius undersea lab. Based on Microsoft's HoloLens technologies, the devices could help astronauts exploring asteroids and Mars accomplish complex tasks, while possibly easing training requirements.

## **Florida**

- **"Forever Remembered":** [Challenger and Columbia crews memorialized in emotional new "Forever Remembered" exhibit at Kennedy Space Center Visitor's Complex](#) An exhibit and tribute to the 14 astronauts who perished aboard NASA's shuttle Columbia and Challenger tragedies in 2003 and 1986 opens at the Kennedy Space Center Visitor's Complex in Central Florida. The permanent memorial was formally opened on June 27 by NASA Administrator Charles Bolden and Kennedy Space Center Director Bob Cabana, both former shuttle astronauts.
- **RD-180 Engines:** [Congress considers easing ban on Russian engines](#) Last December's Congressional guidance to the Pentagon to phase out imports of Russia's RD-180 rocket engine by 2019 is under review, with the Obama administration and U.S. House prepared to ease the ban. The RD-180 powers the United Launch Alliance Atlas 5 first stage for the launching of U.S. National security missions. Plans by ULA to replace the Atlas with the new Vulcan equipped with domestic rocket engines is expected in 2022, leaving a launch gap. The ban on RD-180 imports came in response to Russian incursions into Ukraine. (See also: [BE-4 engine remains front runner for ULA's next rocket](#))
- **FL Space Hero:** [Jacksonville hero honored on anniversary of record-breaking space journey](#) July 7 marked the 20th anniversary of NASA astronaut Norm Thagard's 100 day visit to Russia's Mir space station. Honored in Jacksonville, Fla., Thagard urged U.S. policy makers and legislators to re-establish a U.S. astronaut launch capability. NASA turned to Russia for the launching of astronauts to the International Space Station after its shuttle fleet was retired four years ago.

**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.