



## **Human Space Exploration Update (Nov 10-21, 2014)**

### **Congress**

- **Rep. Culberson to Chair CJS Appropriations Subcommittee:** [Culberson to be next House C-J-S 'Cardinal'](#) Rep. John Culberson (R-TX-7) will chair the House Appropriations Subcommittee responsible for NASA funding. Culberson vowed Thursday to support U.S. leadership in space. His support extends to funding of NASA's Orion capsule, the Space Launch System heavy lift rocket and capabilities to resume the launch of U.S. astronauts aboard new domestic commercial launch vehicles.

### **International Space Station**

- **New Crew Members:** [All-Air Force crew from three nations ready for launch to Space Station \(part 1\)](#) NASA's Terry Virts, Italy's Samantha Cristoforetti and Russia's Anton Shkaplerov are prepped to lift off for the International Space Station to begin a five to six month stay. Their docking will restore the station's crew to six person operations.

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

- **Orion EFT-1:** [NASA, Lockheed To Use "Blended Teams" For Orion Test Flight](#) NASA and Lockheed Martin will blend their respective expertise to carry out Exploration Flight Test-1, the inaugural orbital test flight of the four-person Orion capsule. Orion was developed in a partnership to start humans on future missions of deep space exploration. EFT-1 is scheduled to lift off on a two-orbit uncrewed test flight early Dec. 4.
- **Orion and O&C:** [Guest column: Orion effort will come full circle with test flight](#) The Lockheed Martin/NASA Exploration Flight Test-1 represents a successful merging of spacecraft assembly and launch operations in Central Florida, writes Lynda Weatherman, president and chief executive officer of the Economic Development Commission of Florida's Space Coast.
- **I Am Building SLS:** <http://www.nasa.gov/sls/i-am-building-sls-key.html>

### **Commercial Space Transportation**

- **Commercial Spacecraft Progress:** [Myriad milestones completed and underway for NASA's commercial partners](#) Four NASA backed U.S. commercial space transportation companies are progressing to restore a U.S. human launch capabilities. The goal is an inaugural commercial crew launch by late 2017.
- **SpaceX Cargo Missions to ISS:** [Next SpaceX launch of ISS cargo set for Dec. 16](#) NASA schedules the launching of its next re-supply mission to the International Space Station for no earlier than Dec. 16. The flight will be the fifth for a SpaceX Dragon under a \$1.6 billion, 12 flight NASA contract. The mission will be launched from Cape Canaveral Air Force Station, FL.

- **Blue Origin and Commercial Crew:** [NASA extends commercial crew agreement with Blue Origin](#) NASA will extend unfunded support of Blue Origin's efforts to develop a U.S. commercial crew launch capability.

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

- **NASA Budget Challenges:** [NASA IG adds voice to chorus that NASA lacks adequate funding](#) NASA's inspector general finds the space agency facing seven top level challenges in carrying out its programs with a future of flat budgets.
- **Moon Missions:** [Return to the Moon](#) The Earth's nearest neighbor remains an object of intrigue and potential exploration by the U.S. commercial sector as well as Russia, China, India and possibly others.
- **Humans on Mars:** [Humans on Mars by 2035? NASA's sci-fi dream could be reality](#) NASA chief scientist Ellen Stofan finds an eager audience for her message, "In a sense, it's our destiny to move beyond this planet, and Mars is the logical choice." Exploring Mars will increase our understanding of the Earth, according to the NASA geologist.
- **Asteroid Redirect Mission:** [NASA's plan to visit an asteroid faces a rocky start](#) NASA should take a deeper look at its asteroid destination options before committing to the Asteroid Redirect Mission proposed by the White House, according to a report summarizing those who support ARM and those who believe it could be an expensive mistake.
- **China and the Moon:** [China is now positioned to dominate the moon: What are they up to?](#) China is following a deliberate course in its lunar missions that suggest it has plans to establish control over the Earth/Moon realm as well as advance human exploration of the moon, writes Paul Spudis, a veteran lunar scientist.
- **Houston Space Conference:** [Space conference coming to Houston in 2015](#) NASA joins with Houston convention planners to introduce business leaders to technologies developed for human space exploration. SpaceCom, planned for November 2015, will include representatives from energy and medicine as well as NASA and commercial space companies.
- **NASA Center Review:** [NASA bringing on 'capability leaders' in February in latest attempt at right-sizing](#) NASA is assembling a capabilities leadership team to trim costs, according to agency Associate Administrator Robert Lightfoot. Anticipated to be in place by February, the belt tightening could mean some facility closings or relocation, Space News reports.
- **Regulating Commercial Space:** [Industry doesn't expect consolidation of commercial space regulation](#) The U.S. regulation of emerging commercial space efforts is likely to remain fragmented, according to experts from the federal and private sectors. All participated in a recent University of Nebraska legal forum on the topic.

### **Florida Highlights**

- **KSC Countdown Clock to Visitors Complex:** [Countdown clock retired, poised to move to Kennedy Space Center Visitor Complex.](#) NASA is prepared to retire its iconic launch countdown clock as Exploration Flight Test-1 nears. The digital display that counted down space shuttle missions will be replaced with new flat screen electronics. The old clock will be preserved at the Kennedy Space Center Visitor Complex.
- **Morpheus Testing at KSC:** [Morpheus prototype lander ready for new series of flight tests at Kennedy Space Center](#) At NASA's Kennedy Space Center, engineers are readying the prototype planetary lander Morpheus for a series of year end test flights.

- **New Space Missions for ULA:** [ULA's Tory Bruno Vows To Transform Company](#) United Launch Alliance president and CEO says his company will thrive by carrying out new missions, including those with objectives no one has thought of before for government and private sector customers. ULA, a joint venture between Boeing and Lockheed Martin, is the leading provider of U.S. national security launches. Changes under way include the phase-out of Russian rocket engine imports in favor of a domestic replacement developed by Blue Origin.
- **RD-180 Rocket Engine:** [U.S. Defense Department balks at RD-180 replacement program](#) Pentagon documents suggest the Department of Defense favors a commercial rather than a domestic federal government alternative to imports of Russia's RD-180 rocket engines.

**Citizens for Space Exploration** – a pro-space, grassroots advocacy group, supported by the Melbourne Regional Chamber of Commerce, travels to Washington, D.C. to meet face-to-face with Members/staff of Congress to discuss the value of America's investment in space exploration. To sustain that dialogue on a regular basis, Citizens distributes "Human Space Exploration Update" to Congressional offices on a weekly basis and makes it available to our Chamber members as a quick-and-easy way to stay informed on developments impacting NASA and Space Coast Florida.

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