



Human Space Exploration Update (June 2-6, 2014)

Congress

- **Senate Appropriations Committee Recommends NASA Budget:** [Senate Appropriators increase NASA budget, save SOFIA, transfer two programs from NOAA to NASA](#) The U.S. Senate Appropriations Committee is recommending a \$17.9 billion top line for NASA in 2015, a \$439 million increase in the White House request and slightly more than the \$17.896 billion approved by the full House last week. The full Senate may consider NASA's budget for the coming year the week of June 16. The Senate version includes \$1.7 billion for development of the Space Launch System heavy lift rocket, \$1.2 billion for the Orion crew capsule.

International Space Station

- **Science on Station:** [New six-member crew ramps up science, familiarization work](#) Boosted last week from three to six members, the crew of the International Space Station gets down to science.
- **Astronaut's Perspective:** [Astronaut shares the thrill of his first week in space](#) NASA astronaut Reid Wiseman is clearly thrilled by his first journey to space. His first week aboard the International Space Station as part of Expedition 40 includes time behind the camera to share what he is experiencing.
- **US-Russian Cooperation on Station:** [Russia and U.S. boost Space Station cooperation, despite Earthly disputes](#) U.S., Russia work to make most of International Space Station research opportunities. Talks of an extension of space station operations beyond 2020 continue despite tensions over Ukraine. (See also: [ESA Chief says ties with Roscosmos remain strong](#))

Orion and Space Launch System

- **Orion Highlights:** http://www.nasa.gov/exploration/systems/mpcv/orion_reports_archive.html
- **Orion Heat Shield:** [NASA's 1st Orion spaceship gets world's largest heat shield \(Photos\)](#) NASA and its contractor Lockheed Martin complete the installation of the heat shield on the Orion capsule designated for Exploration Flight Test-1, a two orbit inaugural uncrewed test flight targeted for December.
- **SLS Highlights:** http://www.nasa.gov/exploration/systems/sls/sls_highlights.html
- **Budget for SLS:** [Shelby announces \\$1.7 billion for Space Launch System](#) U.S. Sen. Richard Shelby, of Alabama and ranking Republican on the Senate Appropriations Committee, announces \$1.7 billion for future development of NASA's Space Launch System heavy lift rocket as part of the \$17.9 billion 2015 space agency budget measure making its way through the U.S. Senate. The allocation should keep the SLS under development at the Marshall Space Flight Center on track for an uncrewed test flight in 2017.

Commercial Space Transportation

- **Commercial Crew Selection:** [Sierra Nevada, Boeing, SpaceX hit first benchmark on path to fly crews to ISS](#) With the first phase of NASA flight certification complete for Louisville, Colo., based Sierra Nevada's Dream Chaser, Houston-based Boeing's CST-100 and Hawthorne, Calif., based SpaceX's Dragon, NASA is ready to move to the final phase with a contract selection later this year that will include flights to the International Space Station. (See also: [NASA and industry complete first phase to certify new Crew Transportation Systems](#))
- **The Case for Commercial Crew:** [Why commercial crew is critical for future exploration: One-on-one interview with NASA Administrator Charles Bolden](#) NASA's administrator envisions commercial activities in Earth orbit beyond the International Space Station based on transportation systems fostered by the space agency's Commercial Crew Program and its private sector partners.

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

- **National Research Council Report on Human Space Flight:** [NASA should maintain long-term focus on Mars as "horizon goal" for human space exploration; A sustained national commitment will be needed, report says](#) "The United States has been a leader in human space exploration for more than five decades, and our efforts in low Earth orbit with our partners are approaching maturity with the completion of the International Space Station" writes Johnathan Lunine, the Cornell University scientist who chaired the NRC report. "We as a nation must decide now how to embark on human space exploration beyond low Earth orbit in a sustainable fashion." The NRC formula includes funding beyond inflationary increases and international cooperation.
- **Commentary on NRC Report:** [NASA statement on National Research Council report on human spaceflight; Key Congressional space leaders applaud NRC human spaceflight report; NASA and Congress like the NRC report, for very different reasons; Report says Mars landing is only justification for human spaceflight beyond low Earth orbit; The Coalition for Space Exploration Response to the National Research Council Report on Human Space Flight; Space: A new hope or an old dream?](#)
- **Mars Parachute Testing:** [NASA to test giant Mars parachute on Earth](#) Reaching the Martian surface with heavy cargoes for ambitious robotic and human missions will require larger parachutes.

Ground System Development & Operations

- **GSDO Progress Report:** http://www.nasa.gov/exploration/systems/ground/gsdo_newsletters.html

Florida Highlights

- **KSC Master Plan:** [Kennedy Space Center looks to the future](#) In two decades, NASA's Kennedy Space Center growth plan envisions new launch pads, sea ports and other key pieces of infrastructure. The plan was the topic of a Titusville, Fla., public hearing Tuesday.
- **Project Morpheus:** [Project Morpheus concludes successful flight test campaign with spectacular night launch](#) Morpheus, NASA's prototype for a precision autonomous planetary lander for future human as well as robotic missions, completed a six-month-long formal test flight campaign at NASA's Kennedy Space Center. The lander soared to an altitude of more than 800 feet in darkness before touching down on a simulated lunar scape.
- **Lockheed Martin Acquires Astrotech:** [Lockheed Martin to acquire Astrotech for \\$61 million](#) Astrotech Space Operations, of Titusville, Fla. specializes in prelaunch processing of satellites and has supported more than 300 missions since its 1981 founding.

- **RD-180 Engine:** [Stakeholders rally behind new U.S. rocket engine](#) The U.S. Congress, Pentagon reach consensus in recent weeks that the United States can no longer rely on Russian rocket engines to launch the military's national security satellites. The focus is a domestic alternative to Russian's RD-180 rocket engine imported for use by the Atlas V. Still to be resolved: details on funding, production and timing of introduction.
- **TX Spaceport:** [Spaceport hopes](#) Houston Chronicle editorial endorses prospects for a South Texas commercial launch complex in light of favorable environmental impact report.

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. (www.citizensforspaceexploration.org)