



Human Space Exploration Update (April 28 – May 2, 2014)

Congress

- **House Science Committee:** [Amended NASA Authorization Bill headed for vote on House floor](#)
The space agency's first authorization measure since 2010 cleared the House Science, Space and Technology Committee this week and headed for the House floor.
- **House Appropriations:** [House appropriations subcommittee approves NASA funding bill, with hints about other provisions](#) House appropriations subcommittee approves \$17.9 billion NASA funding bill for 2015, \$400 million more than President Obama requested. (See also: [Panel approves \\$785 million for NASA shuttle replacement program](#))
- **Senate Appropriations:** [Senate Appropriations chairwoman "deeply troubled" by proposed NASA budget](#) During a hearing Thursday on NASA's proposed 2015 budget, U.S. Sen. Barbara Mikulski, of Maryland, who chairs the Senate Appropriations Committee, expressed frustration over space spending priorities. She listed declines for the development of the Space Launch System heavy lift rocket, Orion crew exploration capsule and a host of science programs administered by the Goddard Space Flight Center in her home state. [U.S. Sen. Richard Shelby rips NASA over Space Launch System funding](#) U.S. Sen. Richard Shelby, vice chair of the U.S. Senate Appropriations Committee, criticizes NASA for underfunding the Space Launch System heavy lift rocket.

International Space Station

- **Astronaut Twins:** [Astronaut twins to separate for the sake of space travel](#) wins Scott and Mark Kelly explain their medical research plans. Scott, a NASA astronaut, is training for a year-long flight to the International Space Station, the longest by an American. Twin Mark, a retired NASA astronaut, will serve as a ground based "control" for a range of medical tests investigating changes that can be attributed to spaceflight.

Orion and Space Launch System

- **Orion Progress:** <http://www.nasa.gov/content/orion-feels-the-vibe-during-tests-at-kennedy-space-center/> Testing designed to simulate the vibrations NASA's Orion will experience during its first trip to space successfully wrapped up inside the Operations and Checkout Building high bay at NASA's Kennedy Space Center in Florida. The completion of the testing marks another step forward toward Orion's uncrewed December flight that will put to the test the spacecraft that will send astronauts to an asteroid and eventually Mars on future missions.

Commercial Space Transportation

- **CST-100 Update:** [Boeing reveals future CST-100 commercial spacecraft Interior](#)

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

- **Benefits of Space Investment:** [NASA Spinoff 2013 shows how much space is in our lives](#) NASA's annual report *NASA Spinoff 2013* illustrates the ways in which space exploration pays

dividends on Earth in fields as diverse as health care, water purification and automobile design. (See also: [Congress must fund deep space travel for U.S. economy's sake](#))

- **Mars Exploration:** [NASA Exploration Forum details human path to Mars](#) NASA Exploration Forum outlines NASA's Mars mission planning. Key goals of future human exploration of the red planet include search for evidence of past life. [NASA Mars plan on course](#) In testimony before U.S. Senate Commerce, Science and Transportation panel, NASA associate administrator William Gerstenmaier outlines U.S. plans for human deep space missions, including exploration of Mars.
- **Asteroid Mission:** [Asteroid-capture mission will pave way for manned flight to Mars, NASA says](#) A near Earth asteroid is the stepping stone to Mars, NASA officials conclude in presentations this week before a Washington forum. [NASA's proposal to lasso an asteroid snares skepticism](#) Influential members of the U.S. Congress express doubts about NASA's Asteroid Retrieval Mission as an essential point on the road to Mars.
- **Lunar Lander:** [NASA announces partners for lunar lander program](#)
- **Space Suit:** [NASA unveils futuristic Z-2 spacesuit: Mars-tough duds that glow \(photos\)](#) Space agency designers turn to public for direction in development efforts for futuristic space suit.

Florida Highlights

- **National Security Launches and Russian Engines:** [Injunction bars ULA from buying Russian engines](#) U.S. Court of Federal Appeals enjoins United Launch Alliance temporarily from purchasing Russian rocket engines for the Atlas 5 in response to a complaint lodged by SpaceX over a U.S. government contract award. [Pentagon says it cannot replace imported Russian rocket engines](#) The U.S. may find it difficult to deal with the absence of Russian rocket engines, say Russian officials. The RD-180 is used to launch U.S. national security missions as well as science payloads. "We don't have a great solution," says one U.S. defense official. [Lawmakers propose U.S. alternative to Russian engine](#) Legislation in the U.S. House would direct the Pentagon to spend \$220 million to initiate development of an alternative to Russia's RD-180 rocket engine for the Atlas 5. New rocket engine would be ready by 2019
- **Morpheus Lander:** [Morpheus lander completes test flight at KSC](#) NASA prototype automated planetary lander completes another test flight at NASA's Kennedy Space Center. The methane fueled Morpheus lander would deliver humans as well as supplies, science experiments or equipment to the surface of a planetary body.

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)