



Human Space Exploration Update (Feb 23-27, 2015)

Congress

- **No to China:** [NASA spending panel chairman keeps focus on China](#) Rep. Culberson, chair of the House appropriations panel with jurisdiction over NASA, vows to continue a ban on bilateral cooperation in space between the U.S. and China. China remains the security threat characterized by his predecessor, the retired Virginia congressman Frank Wolf, Culberson says.
- **Senate Commerce Space Hearing:** [First Cruz space hearing inquisitive, not confrontational](#) Senator Cruz, Chairman of the Space, Science and Competitiveness Subcommittee, hosts the panel's first space policy hearing on a nonpartisan note. The panel looked into NASA's deep space exploration objectives as well as its commercial space launch strategies for Earth orbit activities. (See also: [Ted Cruz advocates for human space exploration](#))

International Space Station

- **Russia Extends ISS Commitment:** [Russia and its modules to part ways with ISS in 2024](#) Russia announces it will remain active in International Space Station operations through 2024, an objective sought by President Obama early last year. However, then Russians intends to depart with its newest modules to establish an independent human presence in Earth orbit.
- **Spacewalk Photos:** [Photos from this weekend's spacewalk](#) NASA astronauts Barry "Butch" Wilmore and Terry Virts kicked off a series of three spacewalks outside the International Space Station on Saturday. The second and third excursions are planned for Wednesday and Sunday to initiate the installation of two docking ports for future U.S. commercial crew vehicles. Saturday's photos illustrate the grand scale of their work.

Orion and Space Launch System

- **Orion/EFT-1:** [Engineers finding lessons in nearly flawless Orion test flight](#) The Lockheed Martin managed orbital launch of NASA's new Orion crew capsule on Dec. 5, Exploration Flight Test-1, was almost flawless. Data gathered and recorded during the 4 1/2 hour flight that peaked at an orbital altitude of 3,600 miles is providing a fertile source of information for improvements. A final report from Lockheed Martin on EFT-1 will be submitted to NASA in early March. Orion is a key part of NASA's plans to resume human deep space exploration.
- **SLS Testing:** [NASA, Orbital ATK to debut 'flight-like avionics' during upcoming SLS booster firing](#) The ground test firing of an Orbital ATK five segment booster for NASA's Space Launch System heavy lift rocket is scheduled for Mar. 11 in Utah. Flight like avionics will participate in the milestone test. NASA and its team of contractors are developing the SLS to start U.S. astronauts on future missions of deep space exploration.
- **Crawler Transport Upgrades to support Orion/SLS:** [Crawler Transporter-2 upgraded in preparation for SLS](#) NASA's Kennedy Space Center recently rolled out the heavy duty Crawler Transporter-2. CT-2, with its long heritage, is under development to usher the Space Launch

System heavy lift rocket from hangar to launch pad. Coupled with Orion, the SLS is to start U.S. explorers on future missions of deep space exploration.

Commercial Space Transportation

- **CST-100 Crew Access Tower:** <http://www.nasa.gov/content/ceremony-kicks-off-crew-access-tower-construction/> Boeing and United Launch Alliance teams held a ceremonial groundbreaking Feb. 20 to begin construction on the first new crew access structure at Cape Canaveral Air Force Station in decades.

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

- **Moon or Mars?:** [Why astronaut Ron Garan thinks we should colonize the moon before Mars](#) The Earth's moon offers the best fit for humanity's next destination in space, says the former NASA astronaut Ron Garan. The moon has natural resources, including water that can be used to explore deeper in space. [U.S. needs a Mars colony, Buzz Aldrin tells Senators](#) Apollo 11's Buzz Aldrin urged the U.S. Senate Space, Science and Competitiveness Subcommittee to place Mars at the top of the nation's human space exploration agenda with a plan to settle the red planet. "In my opinion, there is no more convincing way to demonstrate American leadership for the remainder of this century than to commit to a permanent presence on Mars," said Aldrin.
- **Asteroid Retrieval Mission:** [Let's fix the Asteroid Retrieval Mission](#) Washington space policy veteran Marcia Smith assesses the status of NASA's proposed Asteroid Retrieval Mission, the good and the bad. The opportunity to demonstrate Solar Electric Propulsion earns praise. But U.S. policy makers should embrace another strategy for reaching Mars with humans on an affordable timescale rather than to attempt the capture of a small asteroid or a bolder from a large asteroid to steer into orbit around the moon, she writes. The lunar orbiting asteroid material would become an interim destination for U.S. astronauts. "The problem is explaining how that relates to the original intent of using a journey to an asteroid as a stepping stone to Mars, where the distance from Earth is a critical element," writes Smith. In 2010, President Obama directed NASA to plan for the human exploration of an asteroid by 2025, with a journey to the Martian environs a decade later. Money is an obstacle.
- **European Space Plane:** [Europe's newly tested space plane aims for next launch in 2019](#) After a successful suborbital test flight of the uncrewed Intermediate eXperimental Vehicle earlier this month, European Space Agency managers are looking to 2019-20 for a second test flight. Their goal is to develop a reusable launch vehicle.

Florida

- **Crawler Upgrades at KSC:** [Crawler-Transporter celebrates 50 years of KSC service](#) Built to move the Saturn V moon rockets, then the fully assembled space shuttles to their Florida launch pads, NASA's giant Crawler-Transporter is marking a half century of service at the Kennedy Space Center. Weighing six million pounds, the Crawler Transporter has a top speed of 1 mile per hour.
- **RD-180 Engines:** [AF Secretary James not sure 2019 is doable for RD-180 replacement](#) The U.S. is 7-to-10 years from introducing a replacement for Russia's RD-180 rocket engine, U.S. Air Force Secretary Deborah Lee James told a U.S. Senate appropriations panel recently. The U.S. would like to end its reliance on the Russian rocket engine used by the United Launch Alliance Atlas 5 to place national security payloads in orbit. Her time estimate includes development and integration.

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.

http://www.bayareahouston.com/content/c_s_e/c_s_e