



Human Space Exploration Update (June 26 – July 7, 2017)

Executive Branch

- **Visits NASA KSC:** [Pence: 'We will put American boots on the face of Mars'](#) Vice President Mike Pence's pledge to put American boots on Mars as part of a new era of space exploration fired up workers during a visit to NASA's Kennedy Space Center. "Here from this bridge to space, our nation will return to the moon and we will put American boots on the face of Mars." (See also: [Insider Q & A: From concept to reality, KSC as a multi-user spaceport](#))
- **Space Council:** [Trump reestablishes National Space Council](#) An executive order from President Trump has re-established the National Space Council, a cabinet level group of administrative personnel responsible for coordinating U.S. space policy. In its new iteration, the panel will also have a user's advisory panel with representation from the U.S. aerospace industry. The council has been impaneled and dismantled since the late 1950s. The council was last functional during the George H. W. Bush administration. Vice President Mike Pence will chair.

NASA Budget

- **HAC Subcommittee:** [House spending bill would boost NASA funding](#) House appropriators have introduced a measure calling for \$19.872 billion for NASA for the 2018 fiscal year, \$780 million more than the Trump White House sought in a budget measure submitted to Congress on May 23 and \$218 million more than the agency received in 2017. The House measure includes \$616 million more for space exploration initiatives than the \$4.55 billion sought by the administration. (See also: [Senate follows House lead in criticizing NASA budget cuts](#))

International Space Station

- **Dragon Returns to Earth:** [Dragon capsule returns home with animals and Space Station equipment](#) A cargo rich in science experiments returned to Earth early Monday, splashing down in the Pacific Ocean off the California coast to conclude the 11th NASA contracted SpaceX cargo mission to the International Space Station

Orion and Space Launch System

- **Orion EM-1 Vehicle Progress:** [Orion deep in processing for EM-1, planning for following missions](#) As Vice President Mike Pence visited the Kennedy Space Center (KSC), one of the welcoming party, the Orion crew module, is fast taking shape ahead of its Exploration Mission-1 (EM-1) flight. With major processing milestones - such as the mating of the heatshield with the Crew Module, NASA managers are already thinking ahead to future flights involving Orion.
- **SLS Structural Testing Cleared:** [Problems aside, NASA moves toward SLS structural testing at Marshall](#) Engineers from NASA Marshall Space Flight Center in Alabama and prime contractor Boeing have now cleared the SLS liquid oxygen tank dome for use and completed repairs to the MAF's specialized friction stir welding assembly.

Commercial Space Transportation

- **Commercial Crew Progress:** [Commercial Crew providers making "significant progress" toward first flights](#) NASA's Commercial Crew Program partners, Boeing and the CST-100 Starliner and SpaceX and the Crewed Dragon, are progressing toward uncrewed test flights in late 2017 and

2018. Updates on the Commercial Crew program development efforts were presented to NASA's Aerospace Safety Advisory Panel last month.

Space Policy, Missions, Benefits, International ...

- **Deep Space Gateway:** [ASAP on board with NASA's DSG as stepping stone to Mars](#) NASA's Aerospace Safety Advisory Panel has expressed support for the agency's Deep Space Gateway, a lunar orbiting, human tended space station planned for the 2020s. The gateway would help to prepare astronauts for the next steps, the human exploration of Mars in the 2030s. The gateway would look to commercial and international partners to advance technologies for missions further from Earth.
- **Space Telemedicine for Astronaut Care:** [How NASA uses telemedicine to care for astronauts in space](#) Telemedicine has become a staple of health care for the astronauts assigned to five to seven month missions aboard the International Space Station. In the absence of gravity, the body's bones and muscles weaken. Fluids redistribute differently and the immune system degrades. The astronauts correspond with health care specialists on Earth using long distance diagnostics and prestaged medications and interventions. (See also: [Sleeping in space](#))
- **Japan and Moon Exploration:** [Japan plans to land astronauts on moon around 2030](#) The Japan Aerospace Exploration Agency (JAXA) revealed its ambitious plan for a Japanese astronaut to set foot on the moon around 2030. According to the outline presented June 28 at an education ministry committee meeting, JAXA wants to investigate the possible presence of deposits of water or ice around the moon's south pole. (See also: [MHI says H3 rocket development on track for 2020](#))
- **Solar Electric Propulsion:** [The future of deep space propulsion may soon be radically altered](#) Solar electric propulsion is emerging as a key technology for the future human exploration of deep space. Experts from NASA and the agency's commercial partners in the development endeavor discussed their efforts before the U.S. House Space Subcommittee last week.
- **Lunar Exploration:** [Whittington: Lunar exploration is a path to 'something wonderful'](#) Op-ed notes NASA's selection of a dozen men and women for astronaut training on June 7 and urges policy makers to use their skills for human exploration of the moon, an inspiring goal that can fall within their career spans while achievable to the nation financially and technically.
- **Mars:** [Why no one under 20 has experienced a day without NASA at Mars](#) In the 20 years since Pathfinder's touchdown, eight other NASA landers and orbiters have arrived successfully, and not a day has passed without the United States having at least one active robot on Mars or in orbit around Mars.

Citizens for Space Exploration – a pro-space, taxpayer, grassroots advocacy group (www.citizensforspace.org) – has travelled to Washington, D.C. the past 26 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 to provide an easy, quick way to stay abreast of key human space exploration program and policy developments.