HERA Campaign 3 Ends with Return of Mission XII Crew

The HERA Mission XII crew successfully "splashed-down" on Wednesday, Oct. 19, at NASA's Johnson Space Center (JSC) in Houston. This 30-day, on-Earth, simulation paves the way for future human research in the Human Exploration Research Analog (HERA). A spaceflight analog is a situation on Earth that mimics physical and mental effects on the body experienced in space. HERA is one of several research analogs used by the Human Research Program (HRP) to prepare NASA astronauts for deep space missions, such as missions to an asteroid or Mars.



The HERA XII crew - Todd Huhn, Ulyana Horodyskyj, Mark Kerr, and Jonna Ocampo - celebrate a successful mission after Oct 19 splashdown at NASA Johnson Space Center.

Credits: NASA

The returning HERA crew members are Ulyana Horodyskyj, Mark Kerr, Jonna Ocampo and Todd Huhn. This highly skilled crew includes an Air Force flight surgeon, a Fulbright scholar, a US Army Corps of Engineers project engineer, and a Team USA powerlifting competitor.

The crew was welcomed by friends, family and a large group of HRP team members who supported them during their mission. They celebrated their return with pizza and sparkling grape juice, which led one crew member to remark that it was "great not to have to rehydrate something"!

In an interview shortly before their return, the HERA XII crew agreed they enjoyed their mission. The virtual Extravehicular Activity (EVA) on an asteroid was a highlight of the mission and required extensive teamwork to execute successfully.

Each said they would love to participate in a similar and worthwhile mission again in the future, although one crewmember said it would be up to his "wife and three daughters". He said he missed one of his daughter's birthday and was anxious to get home to celebrate a belated birthday with her.

HRP required that the crew conduct the same experiments as the three previous HERA missions this year. This enables researchers to identify patterns and variances in the <u>research</u> data. Experiments included testing hardware prototypes, creating equipment with a 3-D printer, testing out a new concept for space food, flying a simulated exploration vehicle, and the virtual EVA on an asteroid.

While the HERA crew conducted their tasks inside the analog, the HERA analog team and researchers monitored them from the outside. They collected crew data on the physiological and psychological effects of extended isolation and confinement, team dynamics and conflict resolution.

HRP's Flight Analogs Project Manager Lisa Spence said, "The astronaut selection process has had great success. Keeping the astronauts in mind, we try to identify people for our missions who fit a similar profile. We also make our analog emulate real space missions as much as possible, which includes 16-hour crew work days, six days a week, with a real-life timeline of scheduled activities from the HERA Mission Control Center."

As this marks the end of HERA's Campaign 3, HRP is well underway in preparing for Campaign 4 which will begin in early 2017. Campaign 4 will extend the mission to 45 days.

The Test Subject Screening group is accepting curriculum vitaes (CV) for healthy, non-smoking volunteers, ages 30 to 55 for future missions. Volunteers will be compensated and must pass a physical and psychological assessment to qualify. Volunteers wishing to become test subjects should e-mail their CV to Jsc-hera@mail.nasa.gov or call 281-212-1492.

For more information on NASA's Human Research Program, visit: www.nasa.gov/hrp.

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