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RELEASE

NASA CREW GOES UNDER WATER TO STUDY OUTER SPACE

Four NASA crewmembers will look to the deep seas this month to help prepare for journeys into deep space. They'll use an undersea laboratory to study what it may be like to live and work in other extreme environments such as the Moon and Mars.

Astronaut John Herrington will lead the crew in an undersea mission from July 12 - 21 that will field test equipment and technology for the International Space Station as part of the NASA Extreme Environment Mission Operations (NEEMO) project. Herrington, a veteran space flier and spacewalker, will be joined by Astronauts Doug Wheelock and Nick Patrick, and biomedical engineer Tara Ruttley for the mission in the Aquarius Underwater Laboratory off the coast of Key Largo, Fla.

University of North Carolina at Wilmington (UNCW) systems engineers Craig Cooper and Joe March will work side-by-side with the NASA crew in Aquarius. The facility is owned by the National Oceanic and Atmospheric Administration (NOAA), operated by UNCW and funded by NOAA's Undersea Research Program. The NEEMO missions are a cooperative project of NASA, NOAA and UNCW. Aquarius is similar in size to the International Space Station's living quarters.

This will be the sixth NASA mission to Aquarius to practice long-duration life in space. It will study life in extreme environments in support of future human exploration beyond Earth orbit, evaluate equipment that may be used on the International Space Station and perform scientific research on the human body and coral reefs. They'll also build undersea structures to simulate Space Station assembly.

The crew's schedule includes opportunities for media interviews during the undersea mission. Reporters should contact NASA's Johnson Space Center newsroom at 281/483-5111 no later than 1 p.m. EDT Wednesday, July 7.

As the current NEEMO "aquanauts" conduct their mission, a former Aquarius aquanaut is living on the Space Station. Mike Fincke arrived April 21 for a six-month tour as Expedition 9 flight engineer and science officer. Schedulers for both crews are looking for a ship-to-ship conversation opportunity.

"NEEMO is not a simulation. It's a real mission with real risks in a hazardous environment. If we're going to send humans back to the Moon and on to Mars, we're going to need economical ways to get our feet wet here on Earth," said NEEMO 6 Mission Director Marc Reagan. "With NEEMO we have an analog of such high fidelity that we can field test equipment and procedures before we try them in space. On this mission we'll focus on exercise equipment, anti-microbial technology, and wireless tracking technology that are likely to be found on the Space Station in the near future."

Aquarius is the world's only underwater habitat and research laboratory. The 45-foot long, 13-foot diameter complex is three miles off Key Largo in the Florida Keys National Marine Sanctuary. It rests about 62 feet beneath the surface.

Aquarius is supported by a buoy on the surface that provides power, life support and communications capabilities. A shore-based mission control for the Aquarius laboratory in Florida and a control room at the Johnson Space Center, known as the Exploration Planning Operations Center, will monitor the crew's activities.

For additional information about the NEEMO project, visit on the Internet:

<http://spaceflight.nasa.gov/shuttle/support/training/neemo/neemo6.html>

For more information about Aquarius, visit:

<http://www.uncw.edu/aquarius/>

In addition to research and construction, the NEEMO crew will participate in six educational videoconferences and one web cast/web chat. Students across the U.S. will have the opportunity to participate in these events. More information is available at:

http://www.nasa.gov/audience/foreducators/5-8/features/F_NEEMO_6_Webcast.html

Video to accompany this release will air on NASA Television today as part of the NASA Video File. NASA TV is available on AMC-9, transponder 9C, C-Band, located at 85 degrees west longitude. The frequency is 3880.0 MHz. Polarization is vertical, and audio is monaural at 6.80 MHz.

<http://www.nasa.gov/multimedia/nasatv/>

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