

NASA's undersea mission submerges in the Atlantic

June 12 2012

An international crew of aquanauts is settling into its home on the ocean floor, where the team will spend 12 days testing concepts for a potential asteroid mission. The expedition is the 16th excursion of the NASA Extreme Environment Mission Operations (NEEMO). The crew of four began its mission in the National Oceanic and Atmospheric Administration's Aquarius Reef Base undersea research habitat off the coast of Key Largo, Fla., at 11:04 a.m. EDT Monday.

NEEMO sends groups of astronauts, engineers and scientists to live in the Aquarius lab, 63 feet below the surface of the Atlantic Ocean. The laboratory is located in the Florida Keys National Marine Sanctuary. For NASA, Aquarius provides a convincing simulation to space exploration, and NEEMO crew members experience some of the same tasks and challenges under water that they would in space.

The NEEMO 16 mission will focus on three areas related to asteroid missions. The crew of aquanauts will investigate communication delays, restraint and translation techniques, and optimum crew size.

The isolation and microgravity environment of the ocean floor allows the NEEMO 16 crew to study and test concepts for how future exploration of asteroids might be conducted. NASA's [Orion spacecraft](#) and the Space [Launch System](#) rocket, which currently are in development, will allow people to begin exploring beyond the boundaries of Earth's orbit. The first human mission to an asteroid is planned for 2025.

NEEMO 16 Commander Dottie Metcalf-Lindenburger of NASA will be joined by [European Space Agency](#) astronaut Timothy Peake; Japan Aerospace Exploration Agency astronaut Kimiya Yui; and Steven W. Squyres, Goldwin Smith professor of astronomy at Cornell University and chairman of the NASA Advisory Council. Squyres also was a member of NEEMO 15.

The NEEMO crew members will be chronicling their mission using several social media outlets, blogs and live video streams from the crews' helmets, the air lock and outside the habitat. For additional information on the mission and links to the various ways to connect with NEEMO, visit: www.nasa.gov/neemo

Provided by JPL/NASA

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