

NASA, US Navy to test space capsule recovery (Update)

August 15 2013, by Brock Vergakis



In this image provided by the U.S. Navy, sailors assigned to the amphibious transport dock ship USS Arlington practice recovering an Orion capsule Tuesday Aug. 13, 2013 into the well deck of the USS Arlington as part of NASA's first key Orion stationary recovery test at Naval Station Norfolk. NASA is partnering with the U.S. Navy to develop procedures to recover the Orion capsule and crew after splashdown. (AP Photo/U.S. Navy, Seaman Andrew Schneider)

The U.S. Navy and NASA are testing out how they'll recover astronauts

once they splash down in the ocean following future missions to deep space, something a Navy crew hasn't had to do in nearly 40 years.

On Thursday, a team of Navy divers and the crew of the USS Arlington planned to practice retrieving a mock-up of the Orion space capsule from the waters at Naval Station Norfolk in southeastern Virginia.

While commonplace in the early years of manned space flight, the Navy hasn't been used to recover astronauts since 1975, when the USS New Orleans recovered the Apollo spacecraft. That mission was the first time a U.S. and Russian spacecraft docked together in space and marked the final flight of the Apollo program. From 1961 to 1975, teams of Navy ships tracked and recovered Mercury, Gemini and Apollo spacecraft after they re-entered the Earth's atmosphere and splashed down in oceans.

After that, astronauts began flying and returning to Earth via the space shuttle.

Once the space shuttle program was shuttered, U.S. astronauts began hitching rides from Russia aboard its Soyuz rocket, whose spacecraft lands in a Kazakhstan desert. The U.S. wants to turn to private companies to begin ferrying astronauts to the International Space Station and back, but NASA intends to use its Orion spacecraft, still under development, for deep space exploration. Ultimately, NASA plans to use Orion to get to an asteroid and then Mars.

"Of course, Arlington's crew of sailors and Marines and I are thrilled to be a part of this," Cmdr. Darren Nelson, the Arlington's commanding officer, said in a statement.

"As the captain of a Navy warship, and for virtually every member of my crew, this opportunity to work with NASA is a once-in-a-lifetime

opportunity."



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A test flight of the capsule is planned for September 2014. It will fly 3,600 miles (5,800 kilometers) away and then return to the Pacific Ocean. But first, the Navy and NASA have to dust off the cobwebs from their old recovery playbook and update several parts of it.

Unlike past spacecraft recovery efforts, the Navy doesn't plan to use

helicopters to retrieve Orion and place it on the flight deck of a ship. Instead, small boat teams will attach a winch line and tow it into an amphibious ship's well deck. The Arlington is an amphibious transport dock that carries Marines and their equipment, and its well deck can intentionally be flooded. Once inside the ship, the well deck will be drained and the crew module will be placed into a positioning stand known as a cradle that will eventually allow astronauts to step out of the spacecraft and into the ship.

In practice, it will be several more years before an astronaut steps onto a ship following a mission.

Orion's first trip is an unmanned mission in 2017. The first manned mission of Orion is planned for 2021.

A more detailed recovery test will occur in open waters off the coast of California in January.

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