

## OceanGate gears up for deep-sea dives with a crew that'll pay for the privilege

By Alan Boyle  
April 5, 2019



**OceanGate's Titan submersible is designed to withstand deep-sea pressures at Titanic depths.** [OCEANGATE]

Everett, Wash.-based OceanGate is heading back down to the Bahamas next week to practice deep-sea dives of Titanic proportions with its next-generation Titan submersible — and this time, team members are bringing along paying customers.

About 10 mission specialists will accompany OceanGate's team for rehearsals that will involve sending Titan down to depths of nearly 4,000 meters (13,000 feet). That's as far down as the famous wreck of the Titanic lies in the North Atlantic.

This month's rehearsal follows up on a series of deep dives done by OceanGate last year. The plan doesn't call for mission specialists to climb into the submersible this time around,

OceanGate marketing manager Dana Hall told GeekWire. Instead, they'll be on the R/V Angari, the expedition's tracking and communications ship.

The goal is to familiarize at least some of OceanGate's customers with the duties they'll be performing when Titan and its support vessels head up to Newfoundland for 10-day voyages to the Titanic site that are due to start in June.

"They'll be getting to learn what their potential roles will be," Hall said.

The mission specialists will be paying as much as \$125,000 to take a seat on the submersible for a trip to the Titanic. OceanGate shies away from calling them "tourists," however, because part of the deal is that they'll be helping out with topside chores as well as witnessing the wonders of the deep.

Next week's dives in the Bahamas will also serve to test techniques that will be used on Titan to document the Titanic site. No one has seen the site up close since 2012, when a series of submersible expeditions marked the 100th anniversary of the luxury liner's sinking, but OceanGate intends to conduct an expedition every year to keep tabs on the Titanic.

A Wisconsin-based company called Virtual Wonders will use an array of cameras mounted onto the Titan submersible and a remotely operated underwater vehicle to capture imagery of the shipwreck site. Titan will also be equipped with an underwater laser scanner from 2G Robotics. The laser scans will provide a "digital skeleton" on which imagery can be draped, creating a high-definition, virtual 3-D model of the debris field.

During the dives in the Bahamas, Virtual Wonders' technology will target a deep-sea site for practice. "It may be a rock, which may not be very exciting," Hall joked. After several rounds of rehearsal dives, the OceanGate team will have the Titan transported to the North Atlantic for staging. Six 10-day missions are scheduled this summer, running from June 27 to Aug. 16. Each voyage will have nine mission specialists, which adds up to 54 spots in all. Hall said only two places are left on this year's roster, but there are still openings for the 2020 expedition season.

OceanGate will be bringing along a team of diving experts for this year's expedition — including explorer Corey Jaskolski, who pioneered the 3-D scanning technology to be used by Virtual Wonders; medical director and diver Marc Burdick; and Rory Golden and David Concannon, who have been involved in past Titanic surveys as well as the Apollo-Saturn rocket recovery project funded by Amazon billionaire Jeff Bezos in 2013. They'll be joined by a team of researchers to be named later.

Deep-sea exploration isn't cheap, and that's why OceanGate is in the midst of a \$5 million debt financing round for the venture. The round was described this week in documents filed with the Securities and Exchange Commission, but the filing indicates that no money had yet been raised. Hall said she couldn't provide further information about the filing.

## OceanGate deep-sea submersible makes record-breaking dive in The Bahamas; R/V ANGARI provides surface support

By Angela Rosenberg

Posted 05/14/2019

The Bahamas (April 25, 2019) – Approximately 10 nautical miles offshore of Great Abaco, OceanGate broke a deep-sea diving record by transporting a crew of four on an abyssal descent to 3,760 meters onboard its *Titan* submersible. R/V *ANGARI* and her crew were on site, serving as the main tow and surface support vessel for the dive.



**R/V ANGARI docked in Little Harbour** [OCEANGATE]

“This dive was another important step toward deep-sea exploration to more people and places,” OceanGate CEO Stockton Rush, who served as *Titan*’s chief pilot for the trip, said in a news release. “We are developing technologies and designing submersibles and infrastructure that is making underwater exploration more accessible than ever before.” OceanGate said it took

two hours for *Titan* to descend to the ocean floor, outside Little Harbor near Great Abaco Island in the Bahamas. Accompanying Rush on this journey to the deep were Joel Perry, president of OceanGate Expeditions; Karl Stanley, owner of Roatan Institute of Deepsea Exploration; and Petros Mathioudakis, field technician for 2G Robotics. *Titan*'s crew members spent an hour capturing 4K video imagery and testing 2G Robotics' underwater laser scanner as they surveyed the ocean floor.

With only a handful of submersibles in the world that can reach these depths, OceanGate's *Titan* is the only submersible capable of carrying five people beyond a depth of 3,000 meters. OceanGate is improving submersible safety with its proprietary Real Time Monitoring system that constantly monitors hull integrity throughout every dive and its patented launch and recovery platform that permits the use of smaller vessels and eliminates the need for divers in the water during launch and recovery. *Titan*'s carbon fiber hull means it can accommodate up to five crew members, while being lighter than any other deep diving submersible. A smaller and lighter sub allows OceanGate to use smaller topside support vessels and means the submersible, its platform, and support systems can be transported anywhere in the world in standard shipping containers.

During the weeklong expedition, the OceanGate crew and R/V *ANGARI* were based out of Little Harbour served as an optimal hub for on-site operations and maintenance procedures in between dive days due to its close proximity to deep waters offshore. Various systems testing and submersible dives were conducted throughout the week in preparation for OceanGate's 2019 Titanic Survey Expedition, which will take place later this summer.