

James Cameron to explore Earth's deepest ocean trench

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Cameron would seek to accomplish his feat aboard a submersible "as futuristic as anything in his movies," the National Geographic scientific institution, which has partnered with the Canadian filmmaker for the Deepsea Challenge project, said Thursday.

During testing off Papua New Guinea on Tuesday, Cameron of "Avatar"



and "Abyss" fame dived deeper than any other human has on a solo mission at a record-breaking 5.1 miles (8.2 kilometers), according to National Geographic.

His goal is to become the first human to visit the Mariana Trench's Challenger Deep, which plummets 6.8 miles (11 kilometers) down in the Pacific Ocean, for more than 50 years, and bring back data and specimens.

Cameron acknowledged some concerns ahead of his journey.

"When you're making a movie, everybody's read the script and they know what's going to happen next," said Cameron.

"When you're on an expedition, nature hasn't read the script, the ocean hasn't read the script, and no one knows what's going to happen next."

In 1960, a two-person crew aboard the <u>US Navy</u> submersible Trieste -the only humans to have reached Challenger Deep -- spent just 20 minutes on the bottom, but their view was obscured by silt stirred up when they landed.

The Cameron-designed sub, however, is expected to allow the director to spend around six hours on the <u>seafloor</u> during which he plans to collect samples and film his journey with several 3-D, high-definition cameras and an eight-foot-tall (2.4-meter-tall) array of LED lights.

The Deepsea Challenger, which can sink upright, is 26 feet (eight meters) tall and took eight years to build. It uses specially designed foam to allow the new sub to weigh just 12 tonnes, about 12 times lighter than Trieste.

Cameron, 57, said he hopes his expedition will reveal more about ocean



trenches, such as whether fish can live so deep in the sea.

But he will be crammed into a 43-inch-wide (109-centimeter-wide) steel "pilot sphere" on his way down in which he won't be able to extend his arms or legs.

"It's like a clown car in there," Cameron said in a video statement. "You barely have room to get in, and then they hand you another 50 pounds (23 kilograms) of equipment."

Because of the extreme depth of Challenger Deep, it is cloaked in perpetual darkness and surrounded with near-freezing waters.

On the sea floor, Cameron's sub will experience water pressures approaching 16,000 pounds per square inch (11,250,000 kilograms per square meter).

Cameron is not alone in seeking to beat the diving record.

British magnate Richard Branson has built a two-seater sub he says can survive a <u>Challenger Deep</u> descent. And last year, the Triton submersible company unveiled the Triton 36000/3 model, which would reportedly allow a three-person crew to make the journey.

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