

Ocean Glider sets sail for Sri Lanka

November 4 2016, by David Stacey

An ocean glider christened Challenger will set sail for Sri Lanka in the longest journey ever attempted by an autonomous underwater vehicle.

The Challenger Glider Mission will capture and communicate unprecedented undersea data and help determine how changes in currents, temperatures and salinity affect weather patterns and give scientists a deeper understanding into the mysteries of a changing climate.

University of Western Australia Professor of Coastal Oceanography Charitha Pattiaratchi is part of the team navigating the Challenger glider and says the research will help gain better ocean literacy.

"The research will be able to assist in predicating ocean trends in the future. This will be helpful for mariners and shipping routes, but most importantly it's to look at how the ocean climate is changing," Professor Pattiaratchi said.

"We want to collect data across the [ocean basins](#) and see how the temperature and salinity changes with depth. We are then able to compare previous measurements taken 40 years ago and see how the ocean has changed."

"It is also aimed at pioneering this type of technology where we can measure over long distances using an autonomous vehicle and gather the same data we have previously been gathering with ships. This offers a more efficient and cost effective system."

Professor Scott Glenn from Rutgers University is a collaborating partner on the mission and said the research will be looking at creating better predicting models for storms.

"The heat content of the upper ocean has a big impact on storms like typhoons and hurricanes. Ultimately we hope to better improve our forecasts of storm intensity," Professor Glenn said.

The world-class ocean glider is the Teledyne Webb Slocum electric glider: a 2.2 metre [autonomous underwater vehicle](#), which collects data as it moves through the ocean in a saw-tooth shaped trajectory, achieving a forward speed of 25 to 35 kilometres per day.

The ocean glider will capture continuous ocean readings and transmit it to researchers in near real-time via satellite network when the glider surfaces.

Challenger is expected to take 12 months to travel from Fremantle to Galle, Sri Lanka before it attempts to circumnavigate the rim of the Indian Ocean, taking a further two years.

Provided by University of Western Australia

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