

MEDIA RELEASE

NEWS FROM THE UNIVERSITY OF TASMANIA

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ATTENTION: Chiefs of Staff, News Directors



World Oceans Day marked by successful maiden voyage of a Southern Ocean glider

The Australian Integrated Marine Observing System (IMOS) is celebrating the first successful deployment and retrieval of a Seaglider in the Southern Ocean.

IMOS is supported by the Australian Government, through the National Collaborative Infrastructure Strategy and the Super Science Initiative. It is led by the University of Tasmania on behalf of the Australian marine and climate science community.

The first Southern Ocean Seaglider was successfully launched from the Marine National Facility Research Vessel *Southern Surveyor* in late March some 680 kilometres from Tasmania.

IMOS Scientific Officer Dr Katy Hill said the Seaglider was at sea for 76 days before staff from CSIRO retrieved it off the continental shelf near Southport last Friday.

“This first voyage has successfully demonstrated the Seaglider’s capacity in the harsh conditions of the Southern Ocean,” Dr Hill said.

“The observations from the Seaglider will allow researchers to better understand the currents and ocean parameters such as temperature and salinity in the Southern Ocean that influence the Australian climate and marine ecosystems.”

“This is very important as the vast Southern Ocean plays a prominent role in the global climate system and ocean gliders are an ideal platform to observe oceanographic conditions in this region.”

The celebration comes as the University of Tasmania focuses on the importance of the Southern Ocean as part of World Oceans Day 2010.

Ocean gliders are autonomous vehicles designed to operate in water depths up to 1000 metres. By changing its buoyancy, the Seaglider is able to descend and ascend. They have wings that allow them to move horizontally while profiling across strong currents, which means they are easier to control.

Seaglider fix their positions via the Global Positioning System (GPS) when they surface and communicate with the onshore laboratory via Iridium satellite, relaying collected data and receiving any new commands from the scientists.

The Seaglider is one of 17 in the Australian National Facility for Ocean Gliders (ANFOG) fleet, which is operated and managed from the University of Western Australia.

Currently there are ocean gliders deployed off south-west Australia and the Coral Sea.

Dr Hill said the Seaglider was launched at the Southern Ocean Time Series (SOTS) site which is a multidisciplinary ocean observatory at the Sub-Antarctic Zone.

“The SOTS site is collecting sustained observations of the atmospheric surface layer, upper and deep-ocean to understand the transfer of heat, moisture, energy and CO2 between the atmosphere and ocean, and improve our knowledge of climate, carbon processes and the role of the ecosystem,” Dr Hill said.

“In the period from September this year to March next year, it is expected that Seagliders will be deployed off Tasmania, traverse to the SOTS site and then return.”

“We hope that at least three Seagliders will be in the water at any given time, with one traversing towards the SOTS site, one at the SOTS site and the other returning to Tasmania.”

This current Seaglider deployment is an excellent example of scientists working together across a number of institutions including: University of Western Australia, CSIRO, the Bureau of Meteorology and the Antarctic Climate and Ecosystems Cooperative Research Centre at the University of Tasmania.

IMOS has successfully deployed a range of observing equipment in the oceans around Australia, and is making all of the data freely and openly available through the IMOS Ocean Portal - <http://imos.aodn.org.au/webportal/>



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