

Open Ocean Glider Contract for Ocean Observatories Initiative



Teledyne Webb Research has been selected to provide Open Ocean gliders for the Ocean Observatories Initiative (OOI). This award follows the recent award to Teledyne Webb Research of the Coastal Glider program for the OOI. The Open Ocean Slocum G2 gliders will support the high latitude Global Arrays of the OOI. The contract also includes a prototype vehicle to be delivered this year that will incorporate the specific sensor requirements of the Open Ocean program. Production units will be delivered beginning in September 2012.

The initial contract also includes an option to purchase up to 24 Open Ocean gliders.

Teledyne Webb Research was chosen by The Consortium for Ocean Leadership and the Woods Hole Oceanographic Institute (WHOI) to provide the gliders for this project that is funded by the National Science Foundation (NSF).

The Slocum G2 gliders are designed for long deployment endurance with the ability to manoeuvre and operate where the total water depth is up to 1,000 metres. The modular vehicle construction facilitates both swappable payload bays for a multitude of integrated sensor suites and optimised buoyancy control for various depth regimes. The high latitude ocean, where the gliders will operate, plays an important role in ocean dynamics, especially during climate variability and change. This area of the ocean has been sampled sparsely and the information provided by the gliders will improve scientist's understanding of the physics, chemistry, and biology of the ocean in the high latitude regions.

The Ocean Observatories Initiative is a multi-scale observatory that will utilise a network of sensor systems to collect physical, chemical, geological and biological data from the ocean and the seafloor on coastal, regional and global scales. A cyber infrastructure will make the data available to anyone with an internet connection. The information will increase understanding of climate change, ocean and coastal ecosystems, environmental health and climate, and biodiversity.

Glideres were first conceived by Douglas Webb, the founder of Webb Research and a former researcher at the Woods Hole Oceanographic Institution (WHOI). The Slocum G2 Glider is a torpedo-shaped autonomous underwater winged vehicle that measures two metres and uses changes in buoyancy along with its wings and tail-fin steering to move through the water.