

Ocean Observing Demo: A collaboration between Sonardyne, Liquid Robotics and NOAA



The Fetch and Tsunami sensors are deployed on the seabed

A team from Sonardyne International Ltd., Liquid Robotics and Rutgers University launched a Liquid Robotics® Wave Glider along with a Sonardyne Fetch logging node and a Sonardyne Tsunami Sensor as part of the second leg of an extensive ocean observation technology demonstration project. The deployment occurred in early September 2012 from Point Pleasant NJ. The project is being performed by MARACOOS (Mid-Atlantic Regional Association Coastal Ocean Observing System) and NOAA NDBC and managed by NOAA IOOS. The objective of the project is to demonstrate a new and highly effective low cost ocean observing system. This system was recently developed and deployed for offshore oil and gas interest and has since has been transitioned and reconfigured for ocean observing applications.

The Fetch node was deployed in 550 feet of water to measure ocean temperature and pressure, and the Tsunami Sensor in 8,000 feet for detecting tsunamis. The Fetch unit is being deployed at the site of the Ocean Observing Initiatives Pioneer Array. The Fetch will record pressure and temperatures at this site prior to the actual deployment of the Pioneer Array. The Tsunami sensor is deployed near the existing NDBC DART buoy off of Fire Island, NY. The Wave Glider records data on the wind, water temperature and salinity as it transits between the nodes. Once the Wave Glider is stationed above the location of each instrument, it

will wirelessly upload both real-time and logged sensor data which is then transmitted onwards via satellite to shore-based operators for analysis

Sonardyne's Fetch and Tsunami Sensors are long-life subsea sensor logging nodes that enable data to be extracted on demand from platforms such as Waved Glider via their integrated high speed acoustic modems. Fetch can be configured with an array of different sensors dependent on the monitoring application with standard sensors including high accuracy pressure, temperature and sound velocity.

The Wave Glider is an autonomous ocean observing platform designed to support a wide variety of sensor payloads. Capable of travelling long distances and monitoring vast areas without refuelling, Wave Gliders can transmit data via radio satellite without ever requiring a ship to leave port.

Multi Sector Partnership

This project is collaboration between industry, academia and government and is being funded through the internal resources of each entity. This type of collaboration represents a highly expedient method of implementing new technologies



The Liquid Robotics Wave Glider

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Present Site Locations

