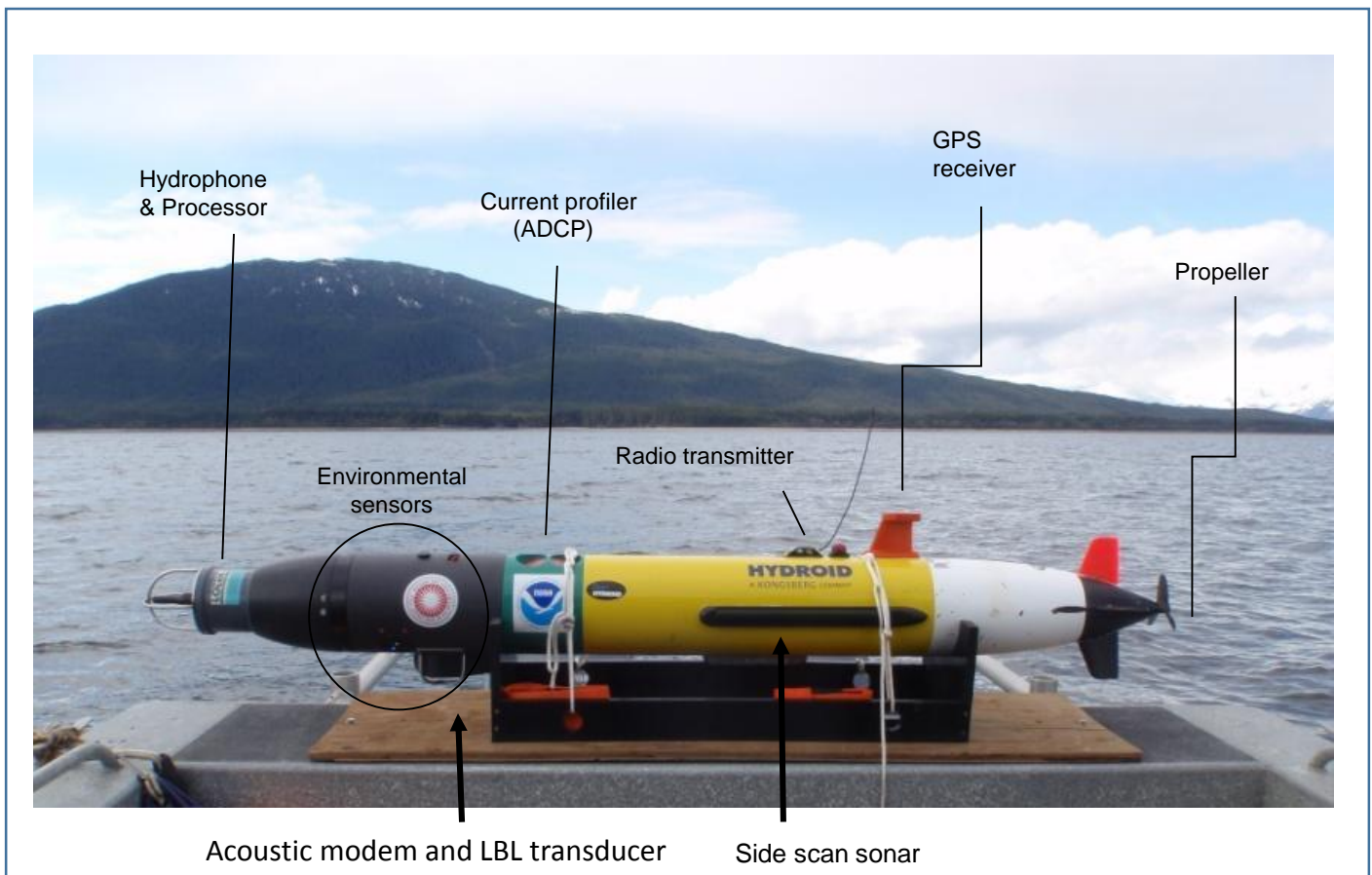


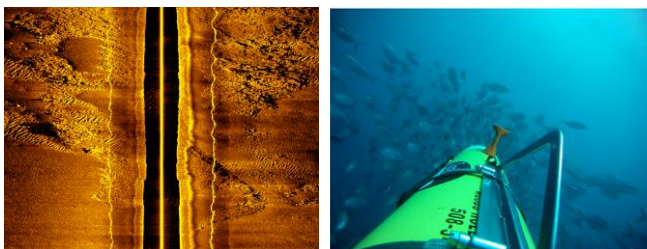
Rutgers University REMUS-100 Autonomous Underwater Vehicle

Overview – The REMUS-100 AUV has an 18-year history working for Rutgers’ and collaborating scientists. It has been upgraded to maintain current standards for cutting edge operability, including new sonar transducers, motherboard and CPU. A recent exciting addition is the implementation of RECON payload-control guest computer and architecture to allow users to implement reactive missions that respond in real time with maneuvers based on data streaming from onboard sensors.



Specifications

Manufacturer: Hydroid Inc.
Speed: 0.5 to 5 knots
Duration: To 12 hours
Depth: To 100 m
Power: 1.2 kW Li ion



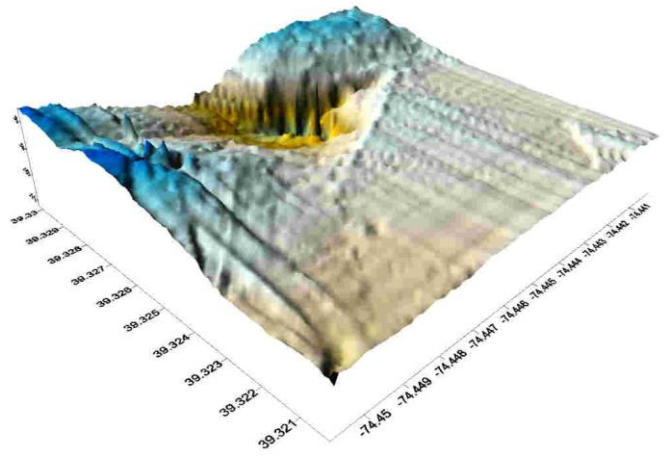
Sensors (Configurable)

- 600 kHz Marine Sonics side scan sonar
- Up and down-looking Teledyne ADCP/DVL
- Seabird Conductivity/Temperature/Depth
- Aanderaa Dissolved O₂ optode
- Wetlabs CDOM optode
- Wetlabs Chlorophyll a optode
- Lotek WHS-3050 acoustic tag hydrophone/processor
- Vemco VR2 acoustic tag hydrophone/processor
- GoPro Hero Video/Still Camera

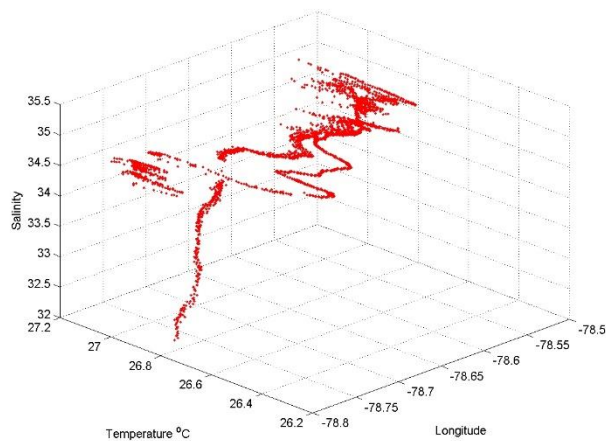
See reverse side for information on Applications, Access and Rates

Applications

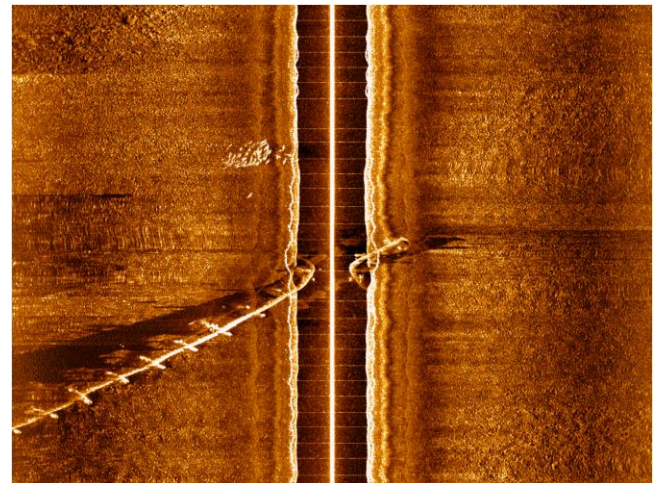
- Hydrographic Survey
- Fishery Acoustic Reconnaissance
- Bedform and Bathymetric Survey
- Fish Tracking
- Benthic Habitat Mapping
- Search in Support of Salvage



Surface Map of the Area around the Atlantic County Ocean Outfall



Temperature/Salinity trace of an AUV transect along Long Bay, NC pinpoints the position of and confirms ground water seepage into the bay suspected of causing eutrophication and hypoxia



Bathymetry (upper) and sidescan sonar image tile (lower) from AUV survey to pinpoint the position of a Combined Sewer Overflow off Atlantic City, NJ. A school of fish is also observed.

Access Overview

The REMUS 100 AUV is treated as a vessel of the Rutgers University research fleet. It is available at daily mission use rates with a programmer.

MISSION : \$2000 - Assessed for each planned splash

MISSION PLANNING: \$600/DAY - Assessed when new mission instructions to the AUV are written. Repetitive missions are not re-assessed.

MISSION DATA PREPARATION: \$400/DAY - Assessed for every mission in which a REMUS support technician downloads and prepares gathered data for a user.

BENCH Fee: \$50 per day - Assessed when the AUV is being activated on the bench to test programming

Contact rose.petrecca@marine.Rutgers.edu