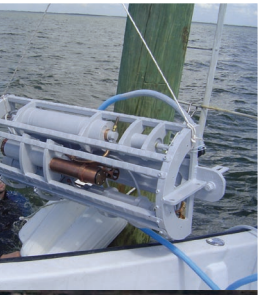
LAND/OCEAN BIOGEOCHEMICAL OBSERVATORY (LOBO)



MAJOR BREAKTHROUGHS DEMAND COMPLETE SOLUTIONS

SATLANTIC

HIGH QUALITY SENSORS WITH MULTI-TIERED ANTI-BIOFOULING

LOBO is an integrated real-time, water quality-monitoring package developed by Dr. Ken Johnson's team at the Monterey Bay Aquarium Research Institute (MBARI). LOBO provides routine, robust, and accurate water quality measurements, particularly in sensitive and diverse ecological areas such as estuaries and inland waters.

LOBO houses a suite of high quality, high temporal resolution in situ sensors to measure water properties including:

- **Physical:** temperature, depth, salinity (optional), current profiler (optional) and turbidity.
- **Chemical:** chromophoric dissolved organic matter (CDOM), nitrate, and dissolved oxygen.
- **Biological:** chlorophyll fluorescence with options for additional ancillary pigments.

LOBO comes complete with a floating platform, power and wireless telemetry system, integrated sensor suite, automated processing and archiving software, and web based data visualization and display software. Just deploy the platforms, install the software, configure the system using our custom software and your data is live on the web.

LOBO uses robust, high accuracy, high stability sensors with integrated anti-biofouling systems to maximize deployment time, minimize operational costs and provide high quality data sets.

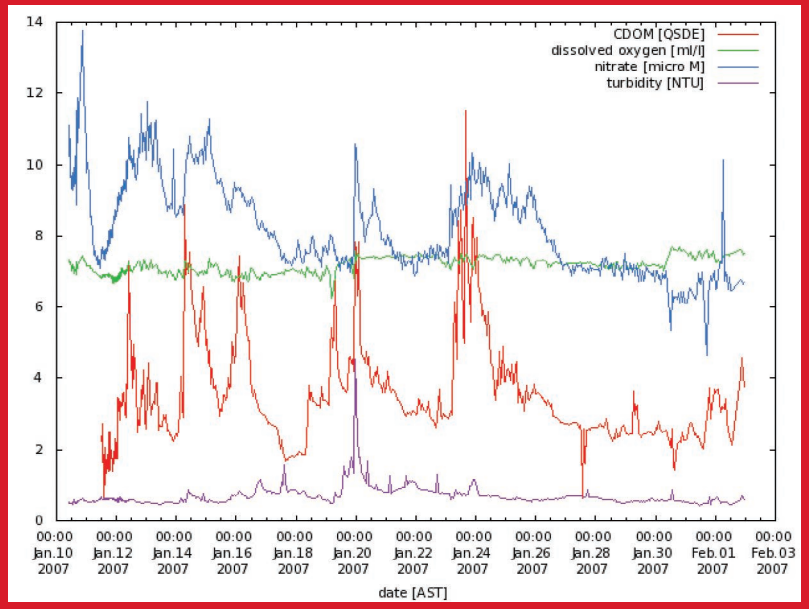
The LOBO sensor suite options include:

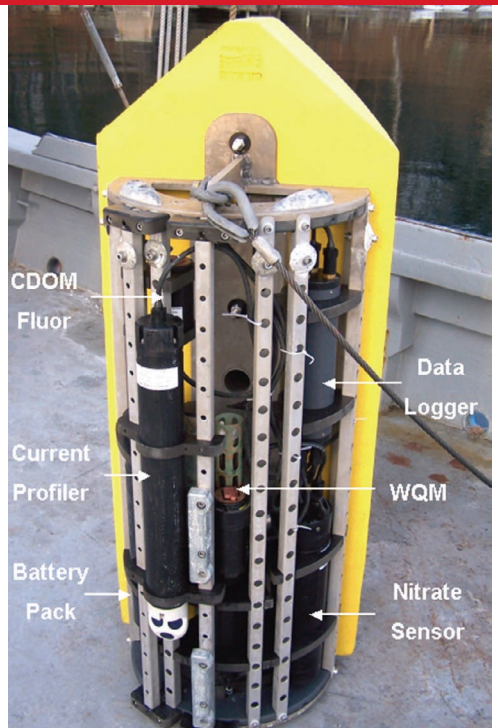
- **Satlantic's chemical free nitrate sensor**
- **WET Labs WQM system with**
  - **Chlorophyll fluorescence and Turbidity with integrated Bio-Wiper™**
  - **Sea-Bird conductivity, temperature and depth sensors**
  - **Sea-Bird dissolved oxygen**
- **ECO series fluorometers**
- **Nortek Aquadopp**
- **GPS tracking device**
- **Meteorological station**

LOBOViz DATA MANAGEMENT SOFTWARE

A significant, value-added component of the LOBO system is LOBOviz, an integrated data visualization and display package for an entire network of monitoring sites. This powerful tool automatically collects, processes, archives, and publishes sensor data, enabling the user to compare multiple sensors at multiple sites simultaneously through a simple web interface.

- Automated data processing and data quality control
- Remote access to biogeochemical sensor measurements from multiple LOBO platforms
- Plot sensor data through a powerful data query interface on an easy-to-use web page
- Export tabular data to spreadsheet applications
- View latest measurements in Google Earth and from mobile wireless devices
- Integrate with existing web applications or your own custom web site

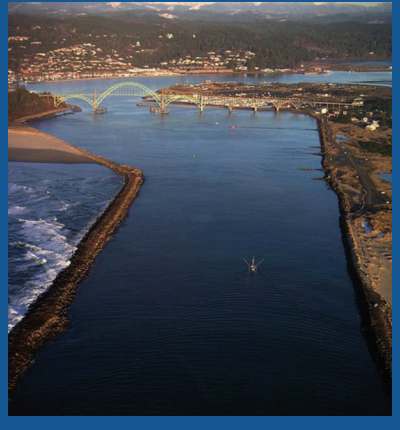




RECENT LOBO DEPLOYMENTS

Elkhorn Slough National Estuarine Research Reserve
A network of five systems has been deployed in the Elkhorn Slough National Estuarine Research Reserve for over four years.
www.mbari.org/lobo/loboviz.htm

North West Arm, Halifax, Nova Scotia
The North West Arm LOBO, deployed midway from the head to the mouth of the arm, has been online continuously since January 2007.
http://lobo.satlantic.com/



Yaquina Bay, Newport, Oregon
The Yaquina Bay LOBO has been capturing key seasonal events since October 2007.
http://yaquina.satlantic.com/

SCCF River Estuary and Coastal Observing Network (RECON)
(RECON) is a network comprised of seven fixed DockLOBOs and one mobile RiverLOBO system deployed at sites throughout the Caloosahatchee system and the Gulf of Mexico.
http://recon.sccf.org