

# OCEAN INFORMATION for PLANNING, SAFETY and STEWARDSHIP

## PROVIDING VITAL DATA

In the northeastern United States and Maritime Canada, people in economically valuable industries such as fishing, shipping, and tourism rely on ocean and weather data every day for their livelihoods. To meet this need, the Northeastern Regional Association of Coastal and Ocean Observing Systems (NERACOOS) was established in 2008 as part of the United States Integrated Ocean Observing System. NERACOOS is the regional ocean observing system designed to serve those who use and manage our coastal waters in the northeast.

## ADDRESSING SOCIETAL PRIORITIES in the NORTHEAST

NERACOOS focuses on priority themes:

- **MARITIME OPERATIONS**  
Helping to improve efficiency and safety of shipping and other maritime industries, and enhancing search-and-rescue and spill response efforts.
- **COASTAL HAZARDS RESILIENCY**  
Equipping managers and property owners with forecasts and observations to help save lives and property.
- **OCEAN AND COASTAL ECOSYSTEM HEALTH**  
Providing critical information for forecasting and management of red tides, beach closures, and water quality.
- **OCEAN ENERGY PLANNING AND MANAGEMENT**  
Delivering essential data for energy development.
- **CLIMATE VARIABILITY**  
Detecting and predicting changes in key ocean properties such as sea level and ocean acidity.
- **COASTAL AND MARINE SPATIAL PLANNING**  
Supplying critical ocean and weather data for more effective coastal and marine spatial planning.
- **EDUCATION AND OUTREACH**  
Contributing to increased knowledge and understanding of the ocean.



NERACOOS provides vital data and information used by fishermen, mariners, emergency responders, the offshore wind industry, resource management agencies, weather forecasters, and many other constituents in the northeastern United States and Canadian Maritimes.

“ These buoys and model information will improve the viability of the Gulf of Maine as a strong candidate for offshore wind farm developments. ”  
Habib Dagher, DeepCwind Consortium

## TARGETED DATA AND FORECASTS

At the core of the ocean observing system is an array of sensors that measure characteristics of the ocean. The sensors are mounted on buoys, satellites, and other platforms, and the data are transmitted wirelessly to land. NERACOOS also uses coastal radar stations to monitor surface currents and computer models to generate forecasts.

- **REAL-TIME BUOY DATA ON THE WEB**

Interactive map shows wind speed, direction, and gust; wave height and period; air pressure and temperature; water temperature; and right whale presence.

- **DIAL-A-BUOY**

Buoy observations are available 24 hours a day over a touch-tone or cell phone at 888-701-8992.

- **WAVE HEIGHT AND DIRECTION FORECAST**

Maps depict wave conditions across the Gulf of Maine 48 hours in the future.

- **COASTAL FLOODING AND EROSION FORECAST**

Decision support tool uses forecasts of water level and waves to predict coastal damage.

- **OCEAN SURFACE CURRENTS**

Maps show speed and direction of currents based on data from high-frequency radar.

- **HISTORICAL DATA: GRAPHING AND DOWNLOAD**

Data on past conditions can be viewed and analyzed.

## PARTNERSHIPS

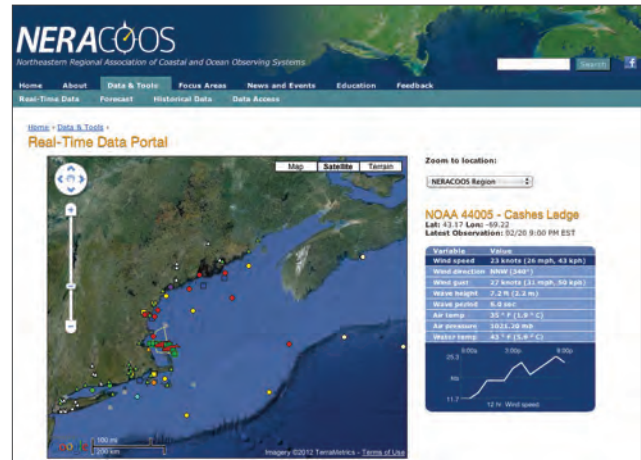
NERACOOS is a partnership composed of more than 35 universities, businesses, non-profit organizations, and government agencies. These diverse partners contribute to the scientific, technological, resource management, and educational components of the NERACOOS mission, and they help ensure that NERACOOS serves the needs of the full range of people who benefit from ocean information.

### CONTACT NERACOOS

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“ I would like you to know that information you are providing us not only aids us in our work, it almost certainly has saved lives. ”

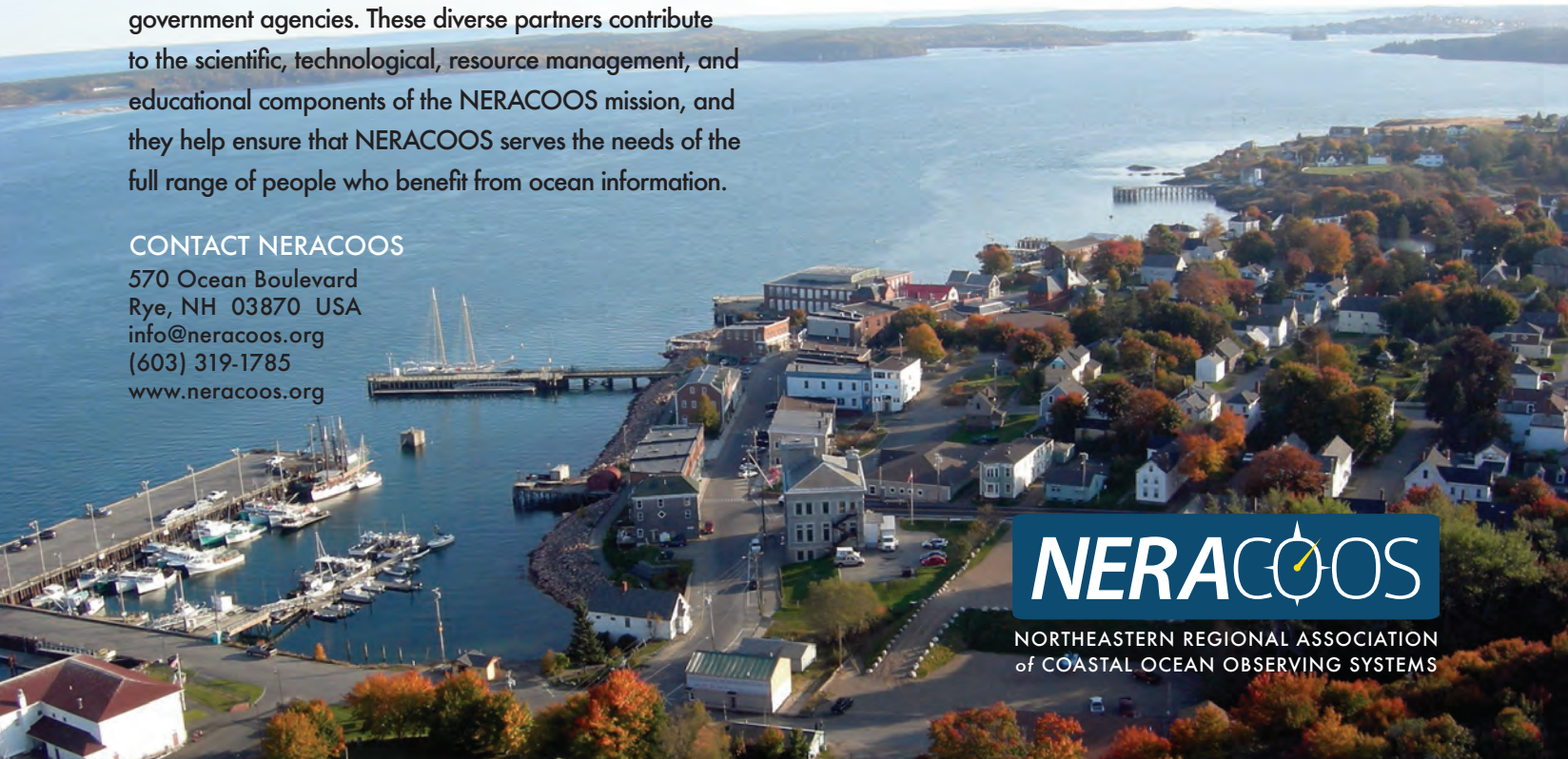
Roy Atkinson, Fisherman



NERACOOS.org makes it easy for commercial and recreational mariners, fishermen, harbor pilots, emergency responders, and other users to get real-time information about ocean conditions. In this example, the graph at right shows 12 hours of wind speeds at a selected buoy.



Using the NERACOOS interactive map, people can see where right whales are being detected by underwater listening stations. Red whale symbols on the map indicate recent right whale activity.



**NERACOOS**

NORTHEASTERN REGIONAL ASSOCIATION  
of COASTAL OCEAN OBSERVING SYSTEMS