



# Caribbean Integrated Coastal Ocean Observing System (CARICOOS)

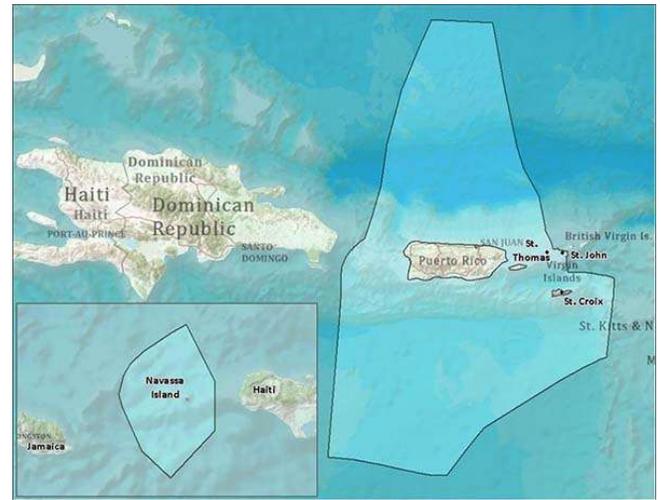
*CARICOOS aims to bring together coastal ocean data and forecasts from a variety of sources including satellites, ocean instruments and numerical models to give the user an integrated view of past, present and forecasted ocean conditions in the US Caribbean region*

## Ocean Data Types:

- Biological- chlorophyll
- Chemical- pH, CO<sub>2</sub>, dissolved oxygen
- Physical- wind speed and direction, wave height and period, air temperature, water temperature, salinity, air pressure, as well as tides and currents.

## Relevant Tools:

- Real Time Portal, <http://www.caricoos.org/explorer>  
Description: Data portals integrate real-time observations with historical records, revealing climate variability and long-term trends. Ocean temperatures, sea level, and the saturation state (ocean acidification) are among the many climate variables that can be accessed through coastal ocean data portals. Using real-time observations, teachers can link their curricula and lesson plans to events in the news.
- Data Download, <http://www.caricoos.org/data-download>  
Description: Download real time and historical data from CARICOOS's buoys.
- Educational Resources, <http://www.caricoos.org/education-&-outreach>  
Description: This site describes some of CARICOOS's activities and outreach programs.



*The region includes Puerto Rico and surrounding islands within the U.S. Caribbean and the associated water bodies.*



*A workshop for students where teachers illustrate and explain impacts of climate change.*

## Regional Example:

In close collaboration with various agencies, programs and private companies and products CARICOOS provides data visualization of waves, winds, currents, water quality and coastal flooding in real time to the various users of coastal waters such as recreational and commercial fishermen, surfers, swimmers, sailors, students, researchers, government regulatory agencies, and emergency management agencies, among others.

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Waves



Temperature



Wind



Currents



Water Level



# U.S. Integrated Ocean Observing System (IOOS®)

## Our Eyes on the Ocean, Coasts, and Great Lakes

### Ocean Data Types:

- Biological- chlorophyll
- Chemical- pH, CO<sub>2</sub>, dissolved oxygen
- Physical- wind speed and direction, ocean currents, wave height and period, air temperature, water temperature, salinity, air pressure, and water level.
- Biodiversity – Species presence/absence/abundance: phytoplankton, zooplankton, fish, coral, marine mammal, sea turtles, and more.

### Relevant Tools:

- Data Catalog: <http://data.ioos.us/>

Data portals integrate real-time observations with historical records, revealing climate variability and long-term trends. Ocean temperatures, sea level, and the saturation state (ocean acidification) are among the many climate variables that can be accessed through coastal ocean data portals. Using real-time observations, teachers can link their curricula and lesson plans to events in the news.

- Data Tools: <http://www.ioos.us/>

Access the IOOS Data Catalog and data tools, such as the Data Assemble Centers (DACs), the Environmental Sensor Map, the Coastal and Ocean Modeling Testbed, and much more.

- Educational Resources:

<https://ioos.noaa.gov/community/education/>

Description: Access to ways to use real data in the classroom, lesson plans, and links to regional resources.

### Description:

IOOS is our eyes on the ocean, coasts, and Great Lakes. We are an integrated network of people and technology gathering observing data and developing tracking and predictive tools to benefit the economy, the environment, and public safety at home, across the nation, and around the globe.



*U.S. IOOS is the national integrated ocean observing system, working with Regional Associations across the U.S., Caribbean, and Pacific.*



*U.S. IOOS Director Zdenka Willis talks to ocean observing students about their presentations while visiting Rutgers University.*

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