

IOOS® in Action: The Southeastern U.S.

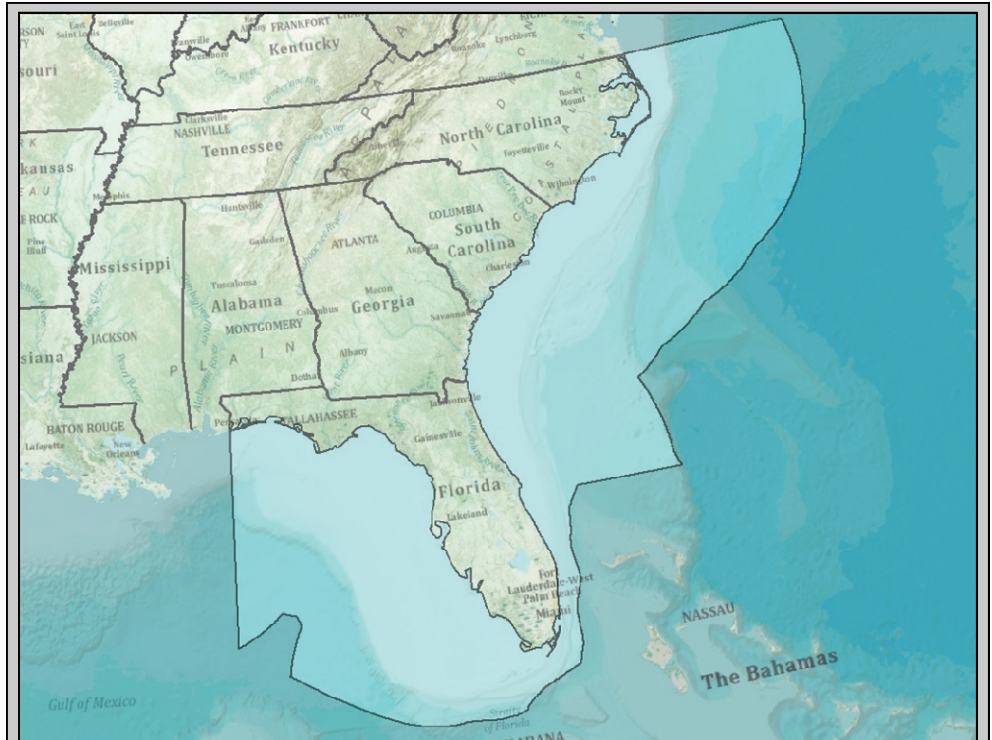
Improving Lives and Livelihoods in the Southeast

Overview:

Thousands of tools – from satellites above Earth to sensors below the water – continuously collect ocean and coastal data. The Integrated Ocean Observing System (IOOS) is expanding this network of data and making it easier to access and use.

The Southeast Coastal Ocean Observing Regional Association (SECOORA) includes coastal states from North Carolina to Florida. The ocean and coastal waters of the southeast U.S. drive regional weather and climate conditions, support ecologically and economically significant ecosystems and provide tourism, boating and other recreational opportunities. Oceans and coasts in the southeast provide more than \$675 billion worth of economic impact annually.

SECOORA coordinates with ocean and coastal information and data from more than 200 ocean observing platforms. Making this information more readily available to the public is improving marine weather forecasts, harmful algae bloom predictions, beach swimming advisories, understanding of rip currents, search and rescue operations, and inundation maps.



The southeast region North Carolina, South Carolina, Georgia, and Florida.

Improving Swimming Advisories:

A new model that indicates the presence of a harmful bacterium is helping health officials decide with more accuracy when it is unsafe to head to the beach.

IOOS partners at the University of South Carolina paired up with the South Carolina Department of Health and Environmental Control, Raytheon, NOAA and the University of Maryland to improve the timeliness of data used to determine whether to issue swimming advisories.

Prior to the formation of this partnership, routine water quality samples at ocean beaches testing

for the bacterium were based on data at least 24 hours old. This made timely decisions impossible and errors did occur.

Now, data including wind, weather, current, and salinity, tell decision makers when the hazard is actually present to improve public health protection.

Expanding Coastal Radar:

Southeast partners of IOOS are working to expand a network of high frequency radar systems along the Georgia-South Carolina border. These systems measure surface current speed and direction to improve things like search and rescue and oil spill response,

harmful algal bloom monitoring and water quality assessments.

One example of regional expansion of such data is the most recent installation of a radar system on Jekyll Island, Georgia. This radar works together with two others at that location to create a detailed surface current map across an area stretching more than 125 miles offshore from South Carolina to North Florida.

Aiding Offshore Wind Energy: IOOS partners at the University of North Carolina at Chapel Hill recently completed a study that confirms that large areas off the North Carolina coastline are potentially well-suited for wind energy development and worthy of further investigation.

The North Carolina General Assembly requested this 9-month study to assess the feasibility of installing wind turbines in the sounds and off the coast of North Carolina. Observing systems, including offshore buoys, provided critical wind data for this study. To view the full report, brochures, or maps, visit the UNC Energy Services Web site at <http://www.climate.unc.edu/coastal-wind>.

Supporting Recreation: The southeast region plays a critical role in keeping beachgoers safe. Data supplied near Fred Howard Park, located on the Gulf of Mexico in the City of Tarpon Springs, Florida, is an example. IOOS partners fund water level, temperature, and conductivity sensors for the area, which serves as a popular destination for kite surfers, wind surfers, kayakers, and beachcombers.

Knowing weather and wind conditions helps visitors plan their activities in the park. These data



Supporting Recreation: IOOS funds the Fred Howard Park meteorological tidal station in Florida (above) to help visitors plan activities.

Photo: Cliff Marz, University of South Florida

Expanding Coastal Radar: The antennas in the image below are among seven antennas mounted on a public boardwalk along the Georgia-South Carolina border. Coastal radar systems tell scientists how ocean currents are traveling. Knowing this can help identify where other things—such as pollutants, lost boats, or winter storms—might be headed as well. Photo: Trent Moore, Skidaway Institute of Oceanography.



are valuable to emergency managers as well.

Educating the Next Generation: A series of interactive workshops are introducing students, scientists and educators to the importance of ocean data. The workshops focus on a scaled-down floating platform known as the Basic Observation Buoy.

This buoy contains the capacity to carry a suite of environmental sensors that collect water conditions and chemistry for use in educational settings.

The buoys can be moored to the bottom or to a dock in quiet waters.

Workshops teach attendees how to build and deploy these tools, trouble shoot data collection issues and how to teach others about what they learn.

More than ten university scientists, as well as informal and formal educators, now showcase this buoy to students in at least five states.

For More Information:

NOAA IOOS:
1100 Wayne Ave
Suite 1225
Silver Spring, MD 20910
Phone: (301) 427-2420
www.ioos.gov



The National Federation of Regional Associations
205 Oakledge Rd
Harpwell, ME 04079
Phone: (207) 725-8143
<http://usnfra.org>



Southeast Coastal Ocean Observing Regional Association
P.O. Box 13856
Charleston, SC 29422
Phone: (843) 906-8686
www.secoora.org

