# **Southeast Coastal Ocean Observing Regional Association - SECOORA**

SECOORA - Southeast Coastal Ocean Observing Regional Association - is the coastal ocean observing system for North Carolina, South Carolina, Georgia and Florida. Our mission is to observe, understand, and increase awareness of our coastal ocean; promoting knowledge, economic and environmental health through strong regional partnerships.

SECOORA provides critical ocean and coastal data and information to meet the needs of people who live and work along the coast of the Southeast U.S. SECOORA helps improve:

By supporting search and rescue operations and preparedness of SAFETY Southeasterners

**ECONOMY** By improving routing for maritime commerce and enabling private sector value-added products

**PUBLIC HEALTH** By monitoring ocean chemistry and water quality

### The timeliness of credible data is critical to the National Weather Service (NWS) and its mission to protect life and property... Data sources used by the NWS are diverse... However, it is the ground truth data from observational platforms such as the [SECOORA funded] USF COMPS buoys and coastal stations that provide us with necessary data to warn the public.



Brian LaMarre, Meteorologist-in-Charge, NOAA Gulf of Mexico Regional Collaboration Team Lead

# **Providing Vital Data During Hurricane Season**

Hurricanes Irma and Maria wreaked havoc on the Southeast U.S. and Caribbean regions. Storm surge flooded towns and high sustained winds removed roofs.

SECOORA supports observing infrastructure that provides real time and accurate data on storm conditions. This data is critical to keeping citizens in the path of hurricanes informed and safe.

Unfortunately, like other infrastructure in the storms' paths, SECOORA's ocean observing assets were damaged and must be repaired to keep people safe along coast and at sea.

High Frequency Radars are damaged or destroyed







The SECOORA footprint spans the eastern side of Gulf of Mexico to South Atlantic Bight. Pictured is Hurricane Irma's track overlaid on SECOORA observing assets. The dots represent moorings and coastal stations. The fans represent High-Frequency radar coverage. Over 45% of SECOORA assets survived back to back hurricanes





#### THEME AREAS

Working to connect stakeholders to the information they need to keep you safe.





Marine Operations



Ecosystems, Water Quality, and Living Marine Resources

Climate Variability

## **Investing in the Next Generation**

SECOORA is investing in the next generation of coastal and ocean scientists, managers, decision makers, and entrepreneurs to help tell a story with data. SECOORA's 2017 Data Challenge was a huge success. Applicants used their ingenuity to discover, integrate and provide access to coastal ocean data – biological, physical and more.

Each category was granted a \$2,500 prize. The projects chosen integrate social science data with physical data, increase use of pH data on the SECORA portal, and develops an exciting new way to utilize satellite oceanographic data. Congratulations to the winners!

## Undergraduate



SPLASSH into Ocean Acidification with SECOORA's pH Data

John Mwaniki, Kennesaw State University

#### Graduate



The Economics and Spatial Flexibility of Fisheries and Recreational Water Operations in Biscayne Bay, Florida

Samantha Dowdell, University of Miami

## Public / Other



Development of a 5-Year Daily, Cloud-Free Sea Surface Temperature and Chlorophyll-a Reconstruction Dataset Using the Data Interpolating Empirical Orthogonal Functions Method

Joseph B. Zambon, Ph.D.

## **Leveraging Public and Private Partnerships**

Web cameras are transforming how environmental monitoring is conducted. Video data is being used for applications related to transportation and commerce, preparedness and risk reduction, and stewardship of coastal resources.

The NOS Web Camera Applications Testbed (WebCAT) is a one year project that is installing web cameras in five locations for various purposes – counting right whales, spotting rip currents, validating wave run up models, understanding human use of natural resources and more. This unique project is a public-private partnership leveraging the expertise and capabilities of private, nonprofit and public sectors.



SECOORA is collaborating with Surfline for this project. Above is a picture of a camera at the Cherry Grove Pier in South Carolina. Surfline provides dependable and accurate surfing forecasts and high quality surf content, including live surf cams.

Image: Surfline

## **Assisting in Offshore Energy Research**

Four acoustic sensors were deployed on buoys off of North Carolina in partnership with Smithsonian Environmental Research Center and the FACT Network. The sensors will help provide baseline information on fish populations in advance of any offshore energy development.



Pictured left is the acoustic sensor on a buoy in North Carolina. Pictured right is a photo of the UNCW CORMP team preparing to deploy the buoy.

Images: Brett Bolton, UNCW

## **More Information**



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SECOORA is one of the eleven Regional Associations that partner with the NOAA led Integrated Ocean Observing System, U.S. IOOS<sup>®</sup>. U.S. IOOS is essentially the weather service for the coastal oceans and Great Lakes, providing the ability to "see" what is happening both above and below the ocean's surface and making that information readily available.