Coastal Ocean Observing Systems in the Southeast

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• **SE Coastal Ocean Observations Regional Association**
  – Framework for collaboration between RCOOS and users within SE region
  – Focused on governance, priority setting, and implementation

• **SouthEast Atlantic Coastal Ocean Observing System**
  – Significantly increase the quantity & quality of envtl. information in the SE coastal ocean.
  – Facilitate its use in a wide range of societal, scientific, and educational applications.

• **Carolinas Coastal Ocean Observing & Prediction System**
  – Subregional COOS within SEACOOS/SECOORA region
Southeast Atlantic Coastal Ocean Observing System (SEA-COOS)

- **Observing Subsystem**
  - Multiple sources employing a variety of technologies (e.g. CODAR, ADCPs)
  - Merged with subregional COOS and preexisting infrastructure (e.g. SABSOON, NDBC, NWLON)

- **Modeling and Products Subsystem**
  - Charlton’s Presentation (coming soon)

- **Data Management Subsystem**
  - Metadata, dissemination
# SEACOOS Members (May 2004)

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<tr>
<th>Founding Members</th>
<th>Affiliates</th>
<th>Pending Affiliates</th>
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<tr>
<td>University of South Carolina</td>
<td>Beaufort TACTS/NSWC/USN</td>
<td>AOML/NOAA</td>
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<td>Skidaway Inst of Oceanography</td>
<td>CO-OPS/NOS/NOAA</td>
<td>Beaufort, NC Marine Lab/NOAA</td>
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<td>University of North Carolina</td>
<td>FKNMS/NOAA</td>
<td>Field Research Facility/USACE</td>
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<td>MMAB/EC/NCEP/NWS/NOAA</td>
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<td>Miami WFO/NWS/NOAA</td>
<td>CSC/NOAA</td>
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<td>NCDDC/NOAA</td>
<td>Caro-COOPS</td>
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<td>University of Georgia (Sea Grant)</td>
<td>NDBC/NOAA</td>
<td>Florida Marine Research Institute</td>
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<td>Southeast Fisheries Science Center/NMFS/NOAA</td>
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SEACOOS Year 3 Goals

1) Coastal ocean response to weather – observation/modeling of water level, currents, temperature, salinity, winds, and heat and precipitation flux from the atmosphere (ongoing)

2) Surface wave fields - (ongoing)

3) Fisheries Management – promoting information merger and sharing in support of those groups focused on measurement and management of fisheries stocks (e.g. circulation, hydrographic information)

4) Biogeochemical indicators - Assembly of information on primary producers, including existing satellite remote sensing capabilities and existing in-situ bio-optics measurement programs.

5) GIS coastal databases – Inventory and assemble efforts to support storm surge, surface wave, fisheries and bio-optics programs.
The Carolinas Coastal Ocean Observing and Prediction System (Caro-COOPS)

A partnership among the University of South Carolina, North Carolina State University, & the University of North Carolina-Wilmington

Funded by the National Oceanic And Atmospheric Administration
CARO-COOPS

A *user-driven* system of integrated coastal & ocean observations and information products:

- An array of instrumented moorings/stations
- A comprehensive data management system
- A suite of integrated models of coastal and ocean processes
- A system for product delivery to users
Instrumentation for Near Real-Time Observations...

**Instrumented moorings (5)**
Current velocity & direction, wave height & direction, temperature, salinity, pressure, chlorophyll

**Water level/meteorological stations (3)**
Supplement NOAA NWLON, NDBC, & C-MAN stations
Caro-COOPS
Carolinas Coastal Ocean Observing and Prediction System

A pre-operational system of integrated coastal observations and their application to user-driven research, societal, and economic needs.

A Partnership Among the University of South Carolina, North Carolina State University, and the University of North Carolina-Wilmington

FRP2 - Fripp Nearshore
Details | Graph day | Graph week | Graph year
Location: 35°15' 46.5"N, 80°24' 56.6"W
Last update: 03/31 18:00 GMT

Surface Conditions 0.6m Depth
Current direction: 122° true
Current speed: 0.3 knots

Bottom Conditions 9.1m Depth
Current direction: 122° true
Current speed: 0.4 knots
Temperature: 79.5°F
Salinity: 33.7 psu

Caro-COOPS Array Map Phase I

Latest Updates
- Moorings being redeployed - Updated

Developed GIS (Geographic Information System) Applications:
- A presentation demonstrating GIS combined with animation of model output

Remain up-to-date on Caro-COOPS news as well as online data additions and site enhancements. Click here to subscribe to our email list.

For general information, contact us at info@caro-coops.org

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This viewer will allow you to work with Caro-COOPS storm surge forecasts and real-time oceanographic and meteorological data in a GIS setting. Select visible GIS 'layers' in the panel to the right, and view data from Caro-COOPS buoys and water level stations using the tools listed below:

- Select this tool and click on a Station/ buoy to see Current Conditions. This tool requires the Stations/ buoy layer to be active.
- Click on the radio button next to the layer in layers list (Right Panel) to make it active.
- Allows the user to zoom in by either clicking in the view area or dragging the + cursor to create a boxed area that will determine the extent of the new view.
- This tool allows you to zoom to full extent of the Map.
- This button takes the user back to the scale and position of the last view.
- Click on help icon in toolbar to Show Help at any time.

Zoom In
Partnerships:

NOAA CSC
USC
NCSU
UNC at Wilmington
SCDNR
National Water Level Observation Network
National Data Buoy Center

With developing partnerships involving:

North Inlet-Winyah Bay NERR
ACE Basin NERR
Mote Marine Laboratory
Contact info

• Visit http://www.caro-coops.org/

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