

A coastal landscape featuring a body of water in the foreground, a marshy area in the middle ground, and a line of trees in the background under a blue sky with scattered white clouds.

Coastal Ocean Observing Systems in the Southeast

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SE Observing Systems in Context

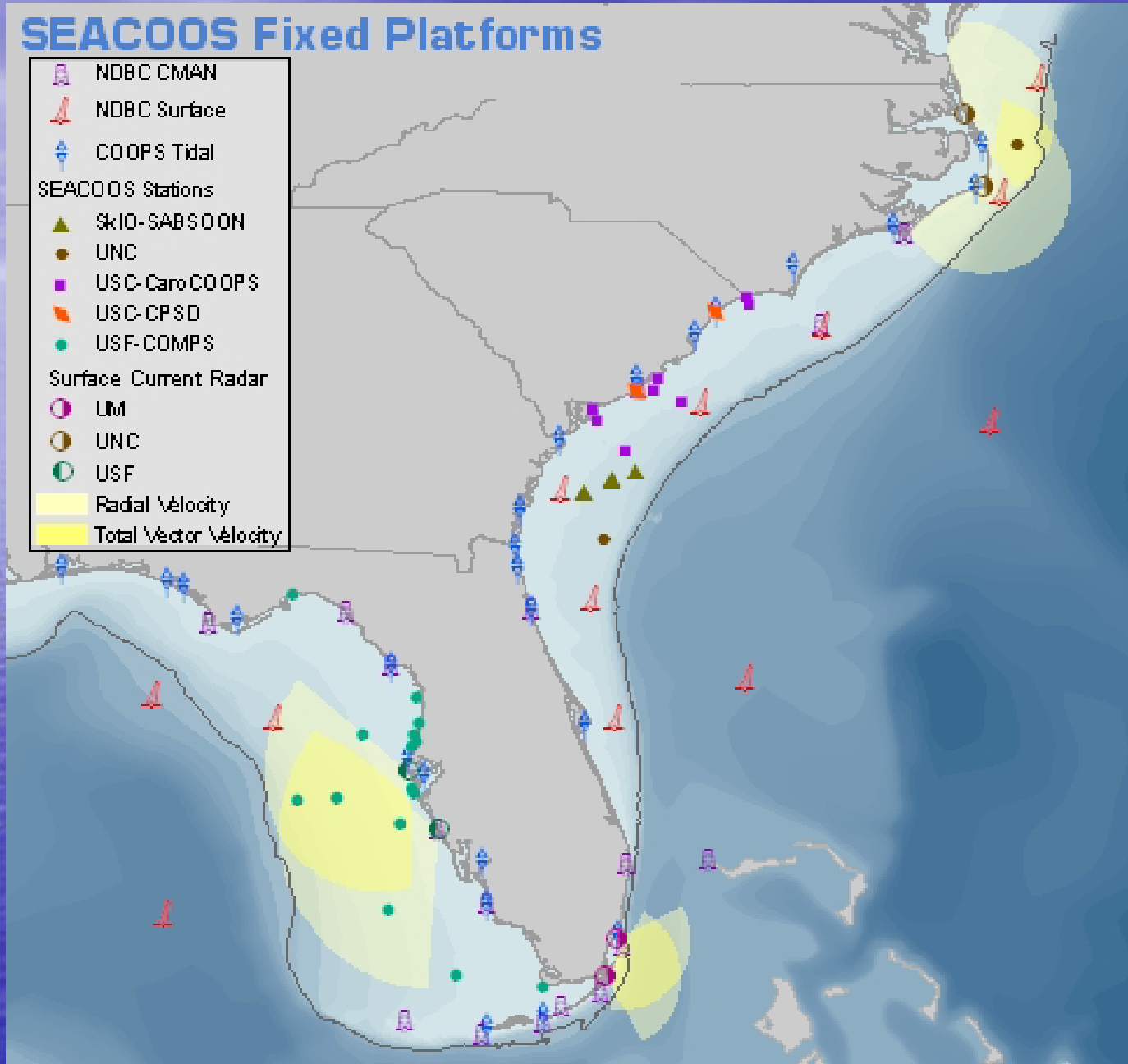
- **SE Coastal Ocean Observations Regional Association**
 - Framework for collaboration between RCOOS and users within SE region
 - Focused on governance, priority setting, and implementation
- **SouthEast Atlantic Coastal Ocean Observing System**
 - Significantly increase the quantity & quality of envtl. 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 Fixed Platforms

- NDBC CMAN
- NDBC Surface
- COOPS Tidal
- SEACOOS Stations
 - Skid-SABSDON
 - UNC
 - USC-Caro COOPS
 - USC-CP&D
 - USF-COMPS
- Surface Current Radar
 - UM
 - UNC
 - USF
- Radial Velocity
- Total Vector Velocity



SEACOOS Members (May 2004)

Founding Members	Affiliates	Pending Affiliates
University of South Carolina	Beaufort TACTS/NSWC/USN	AOML/NOAA
Skidaway Inst of Oceanography	CO-OPS/NOS/NOAA	Beaufort, NC Marine Lab/NOAA
University of North Carolina	FKNMS/NOAA	Field Research Facility/USACE
University of South Florida	MMAB/EC/NCEP/NWS/NOAA	CLION/DOD
University of Miami	Miami WFO/NWS/NOAA	CSC/NOAA
NCSU (Sea Grant)	NCDDC/NOAA	Caro-COOPS
University of Georgia (Sea Grant)	NDBC/NOAA	Florida Marine Research Institute
University of Florida (Sea Grant)	SeaKeys/FIO	Florida Spaceport
South Carolina Sea Grant	Southeast Fisheries Science Center/NMFS/NOAA	GRNMS/NOAA
SCDNR		Jacksonville WFO/NWS/NOAA
		NAMOC/USN
		SAFMC
		SOFMC
		CORMP
		NRL/USN

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



NC STATE UNIVERSITY

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



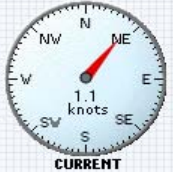
Caro-COOPS Carolinas Coastal Ocean Observing and Prediction System

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

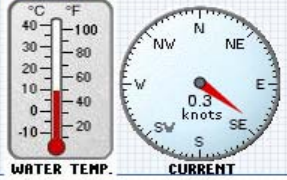
Home	About Caro-COOPS	Data & Metadata	Modeling Applications	Instrumentation	News & Updates	Links
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FRP2 - Fripp Nearshore
 Details | [Graph day](#) | [Graph week](#) | [Graph year](#)
 32° 16' 48" N, 80° 24' 36" W
Last update: 03/31 18:00 GMT

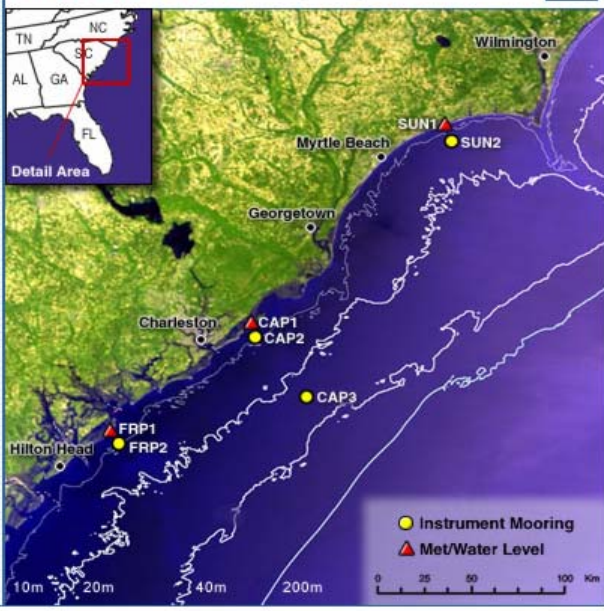
Surface Conditions 0.6m Depth
Current direction: 122 deg true
Current speed: 0.3 knots



Bottom Conditions 9.1m Depth
Current direction: 152 deg true
Current speed: 0.4 knots
Temperature: 59.5 F
Salinity: 33.7 ppt



Caro-COOPS Array Map Phase I



Latest Updates

- [Moorings being redeployed - Updated](#)



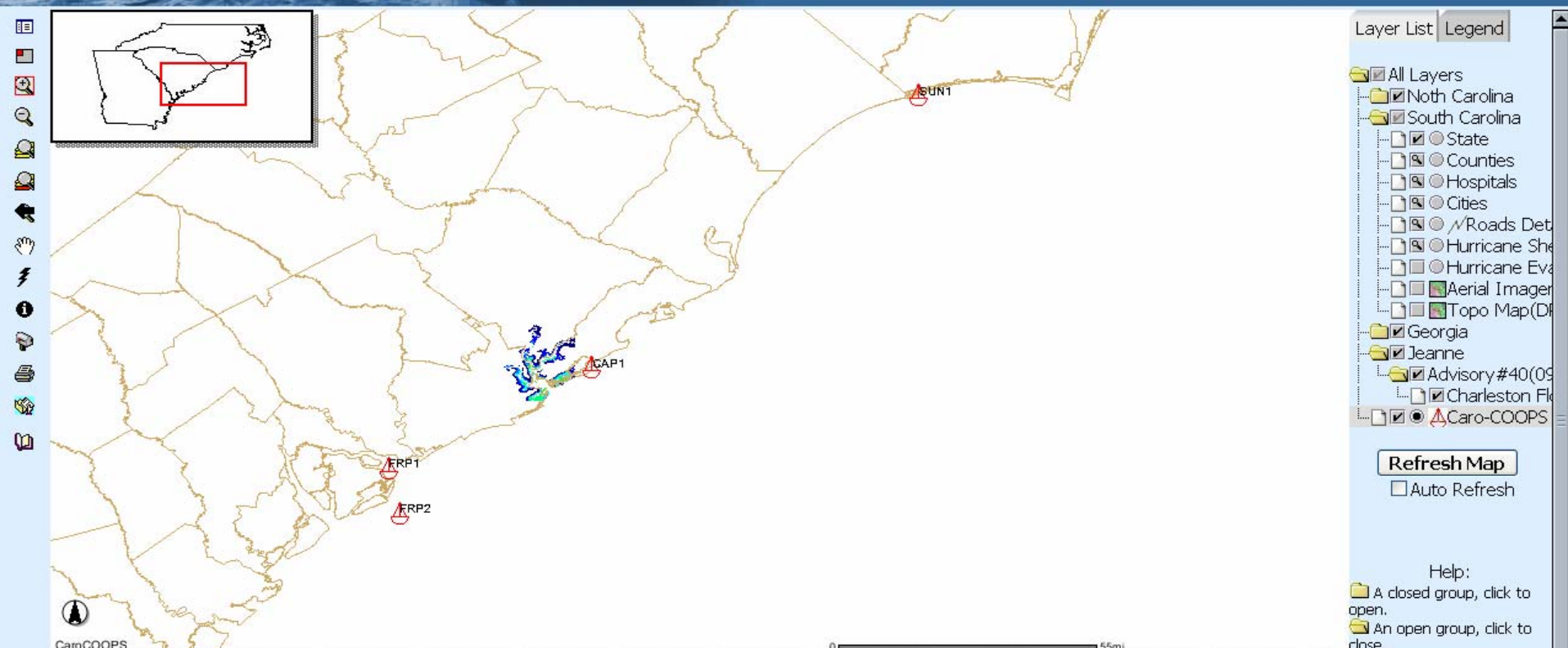
Developed GIS (Geographic Information System) Applications:
 A [presentation](#) demonstrating GIS combined with animation of model output

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



a supporting partner



Layer List Legend

- All Layers
 - North Carolina
 - South Carolina
 - State
 - Counties
 - Hospitals
 - Cities
 - Roads Det
 - Hurricane She
 - Hurricane Eva
 - Aerial Imagery
 - Topo Map(D
 - Georgia
 - Advisory #40(09
 - Charleston Fl
 - Jeanne
 - Caro-COOPS

Refresh Map
 Auto Refresh

Help:

- A closed group, click to open.
- An open group, click to close.
- A map layer.
- A hidden group/layer, click to make visible.
- A visible group/layer, click to hide.
- A visible layer, but not at this scale.
- A partially visible group, click to make visible.
- An inactive layer, click to make active.

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 a 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.

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

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