Coastal Observing Systems & the Need for Sustained Measurements of Water Level within Pamlico Sound

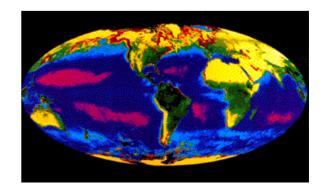
by Robert R. Christian Biology Department, East Carolina University Jennifer Dorton CORMP, University of North Carolina – Wilmington



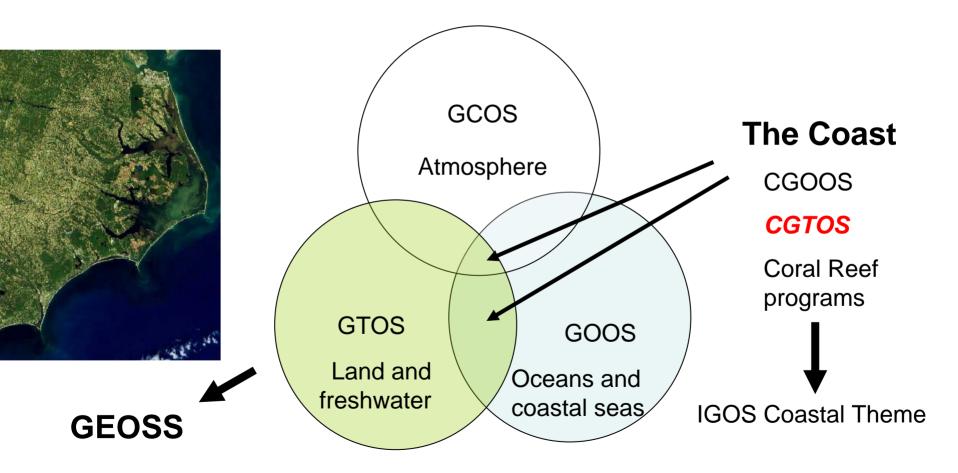
Global Observing Systems

Characteristics of activities

- Produce validated products (e.g., predictive models) with known accuracies
- Stimulate advances in working with large datasets
- Promote common standards and methods
- Support both research and operational activities
- Strengthen links between satellite and *in situ* data
- Identify and resolve gaps and overlaps in current and planned earth observation programs



Global Observing Systems through UN



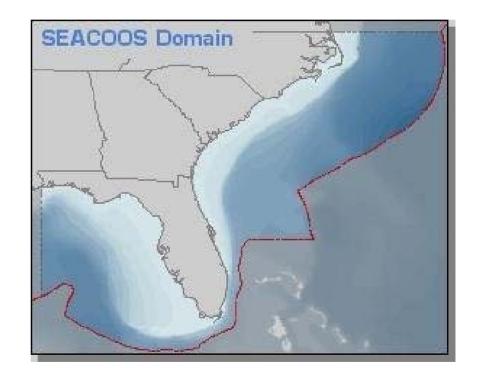
US Integrated Ocean Observing System (US contribution to GOOS)





SouthEast U.S. Atlantic Coastal Ocean Observing System

SEACOOS is a collaborative university partnership that collects, manages, and disseminates integrated regional ocean observations and information products for the coasts of North Carolina, South Carolina, Georgia, and Florida. Funding for this effort has been provided by the Office of Naval Research.



North Carolina Coastal Ocean Observing System

- Observing platforms established and maintained.
- Data provided through a DODS (Distributed Ocean Data System) / OPeNDAP server interface.
- Observations collected in real-time and presented in a series of graphics.
- Forecasts made available in real time.





Program Mission

To establish a regional observing network

that will provide observations of oceanographic core variables in near real-time.

To develop and implement a permanent data management and delivery system that is consistent with national recommendations proposed by IOOS Data Management and Communications. **To provide operationally useful information** on the state of living marine resources based on user-defined research needs.

To establish partnerships and to provide products and programs that meet both identified and anticipated needs of regional data user-groups.

Sites of NOAA COOPS Sites

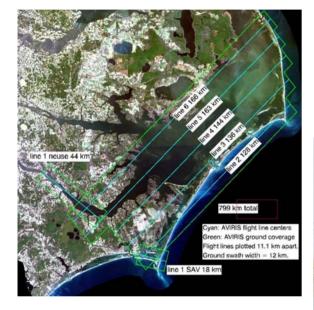


Coastal-Global Terrestrial Observing System

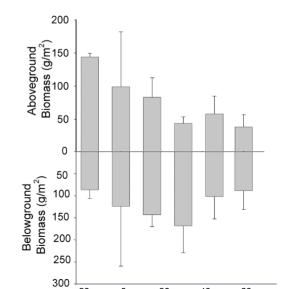
User driven, end-to-end system of sustained observations addressing large scale regional and global issues associated with land-based, wetland and freshwater (and when appropriate transitional waters) ecosystems along coasts.



NOAA SLR Project







Potential site at or near Cedar Island Ferry Dock



Contacted and signs of support

- The Sea Grant Program of The University of North Carolina (R. Hodson),
- The Nature Conservancy (J. LeBleu),
- US Army Corps of Engineers (W. Birkemeier),
- US Geological Survey (J. Bales),
- NC-COOS/SEACOOS (Harvey Seim),
- Coastal Studies Institute (N. White),
- NC Flood Plain Mapping Program (Eric Kaiser),
- NC Geodetic Survey (G. Thomspon),
- NOAA COOPS itself (R. Bassett, S. Gill, C. Zervas, C. Tronvig and A. Stolz).

What's needed

- Water level station: \$70,000 including a meteorological station for materials, installation and proper calibration.
- Maintenance and operations: \$20,000 per year.
- Our proposal: fund the original investment from the various sources within the State on the stipulation that NOAA provide the sustained commitment for maintenance and operations.
- Your help!