



**National Weather Service Forecast Office
5777 South Aviation Avenue
North Charleston, SC 29406**



September 14, 2010

To Whom it may Concern,

I strongly support the proposal "A Regional Realtime Forecasting System for Water Level, Coastal Inundation, and Circulation in the SECOORA Region"

The NOAA/National Weather Service Forecast Office in Charleston, SC (CHS) is responsible for issuing timely and accurate watches and warnings for flood events along portions of the South Carolina and Georgia coastlines. The majority of the area is low lying with a large population living in flood-prone areas, including significant parts of the cities of Charleston, SC and Savannah, GA, as well as the tourist areas of Isle of Palms, Folly Beach, Kiawah Island (Host to the 2010 PGA Tournament), Hilton Head Island, and Tybee Island. These areas can receive flooding from both coastal inundation and fresh water runoff, and often a combination of both. Sometimes the flooding can be significant, as was the case on December 18, 2009 when the entire peninsula of Charleston, SC was closed to traffic, essentially immobilizing the city for a couple of hours on a Friday evening during rush hour. Several water rescues also occurred during the evening.

Unfortunately, we have limited computer model guidance in helping the forecasters in the office to make warning decisions that are either solely or partially based on coastal inundation. Many times the warnings are issued based solely on forecaster experience and locally developed "rules of thumb". While this method has served us reasonably well over the years, we still need to improve lead time and accuracy of these warnings and advisories. For example, often times we over/under estimate the tidal anomaly and make forecasts based solely on extrapolating the current tidal anomalies to the time of high tide during the next tidal cycle. Improved real-time guidance, which this proposal plans on developing and deploying, would be greatly beneficial to our efforts in this area and undoubtedly lead to more accurate forecasts of flood events related, either partially or completely, to coastal inundation.

A handwritten signature in black ink, appearing to read "Frank Alsheimer".

Frank Alsheimer
Science and Operations Officer
NOAA/National Weather Service
Charleston, SC 29406

Email Support for Nearshore Circulation Model for Rip Current Forecasting

From: Mark Willis <Mark.Willis@noaa.gov>
Date: Sat, Aug 14, 2010 at 5:40 AM
Subject: Re: Fwd: Reference
To: George Voulgaris <gvoulgaris@geol.sc.edu>
Cc: Scott.Kennedy@noaa.gov

George,
Absolutely.
Thanks,
Mark

On 8/7/2010 9:44 AM, George Voulgaris wrote:

Mark,

I am intending to write an LOI for developing this model for rip current prediction further May I indicate that the Morehead City WFO is interested and in support of this as a potential user if verified to work?

George

----- Forwarded message -----

From: randy.lascody <Randy.Lascody@noaa.gov>
Date: Sat, Aug 7, 2010 at 8:08 PM
Subject: Re: rip current modeling
To: George Voulgaris <gvoulgaris@geol.sc.edu>

Hi George,

As I mentioned in my talk, I think we should be moving towards utilizing near shore wave models for Day 2-3 rip forecasts. So by all means feel free to include WFO Melbourne in your LOI.

Randy

George Voulgaris wrote:

Dear Dr. Lascody

We did meet briefly at the rip current symposium at the FIU. My student made a presentation of a model for rip currents and you did express some interest

I am writing an LOI to the Regional Coastal Observing association for developing the model and methodology further. I need to show that there is a "market" or a constituency that can benefit from that and from the symposium it was obvious that NWS/WFOs that make the rip forecasts (Miami, Melbourne, Morehead city, Charleston and Wilmington) might be interested to integrate it with their SWAN implementation.

Thus the reason of this email is to see if I could indicate this in my LOI. Also as part of this I am considering to suggest annual meetings of the PIs working on this with the WFO forecasters for some direct feedback and integration.

I look forward to your response.

best regards
George

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September 15, 2010

Peter Sheng
Civil and Coastal Engineering Department
University of Florida
Gainesville, FL 32611-6580

RE: Your proposal for "An Integrated, Quasi-Operational 24/7 Nowcasting/Forecasting System for Nearshore Water Level, Inundation and circulation"

Dear Dr. Sheng,

Pinellas County is a small peninsular county (approximately 280 square miles), but one of the most densely populated counties in the State of Florida, with close to one million people. The County is virtually built-out, and therefore has the potential for significant infrastructure and asset loss from coastal inundation events. Because of our geography, and as part of our long range planning and disaster planning initiatives, the Pinellas County Planning Department supports the idea of developing tools that allow for better modeling of coastal inundation events. In particular it appears that this initiative will enable real-time forecasting and modeling which can be used as one of several emergency management tools during times of expected and real storm events. This will not replace the range of existing long and short range storm and disaster planning tools, but instead will add an additional tool for emergency managers, planners and engineers to use in responding to storm events.

As a vulnerable peninsular coastal county, the Planning Department supports the development of tools like this that enhance the ability to forecast and manage disaster events and better protect local infrastructure, property and citizens. We look forward to participating in this project as a stakeholder and are interested in the applicability of the end products to our local conditions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian K. Smith", written over a white background.

Brian K. Smith, Director
Pinellas County Planning Department

CC: Peter Yauch, Assistant County Administrator
Sally Bishop, Pinellas County Emergency Management Director
Andrew Squires, Coastal Manager

PLEASE ADDRESS REPLY TO:
600 Cleveland Street
Suite 750
Clearwater, Florida 33755
Phone: (727) 464-8200
Fax: (727) 464-8201
Website: www.pinellascounty.org





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

September 13, 2010

Peter Sheng
Civil and Coastal Engineering Department
University of Florida
Gainesville, FL 32611-6580

RE: Your proposal "A Regional Real-time Forecasting System for Water Level, Coastal Inundation, and Circulation in SECOORA Region"

Dear Professor Sheng,

Thank you for sharing your proposal to NOAA, Integrated Ocean Observing System Program with us. As Director of the Department of Hydrologic and Environmental System Modeling at the South Florida Water Management District, I and my staff support our Operations department by providing hydrologic modeling support during major storms such as hurricanes.

As you are aware, South Florida has one of the highest risks for hurricanes and coastal inundation in the US due to storm surges. Your goal is to setting up a real-time forecasting system of water level, inundation, and circulation for the Southeast and the forecasts the Florida coasts will be extremely valuable for water management and operations of coastal structures during storm emergencies.

Although SFWMD cannot offer any financial support to your project at this time, I strongly endorse your proposal and agree to serve as a collaborator/stakeholder from the South Florida Water Management District.

I wish you success in acquiring funding from NOAA and look forward to working with you.

Sincerely,

A handwritten signature in blue ink that reads "Jayantha Obeysekera".

Jayantha Obeysekera, Ph.D, P.E., D.WRE
Department Director, Hydrologic & Environmental Systems Modeling
South Florida Water Management District
Phone: 561-682-6503, E-mail: jobey@sfwmd.gov



St. Johns River Water Management District

Kirby B. Green III, Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
On the Internet at floridaswater.com.

September 13, 2010

Peter Sheng
Civil and Coastal Engineering Department
University of Florida
Gainesville, FL 32611-6580

RE: Your NOAA proposal "A Regional Realtime Forecast System for Water Level, Coastal Inundation, and Circulation in SCOORA Region"

Dr. Sheng,

The St. Johns River Water Management District has a strong interest in your NOAA proposal to set-up a real-time forecast system for coastal areas within our District. Our District has previously cooperated with NOAA and FDEP to fund real-time tidal water level observations in the St. Johns River, Northern Coastal Basin, and Indian River Lagoon. These gauges were relied upon heavily by District staff and other agencies particularly during periods of tropical storms. Recent state funding constraints have severely reduced our network, which was already limited in scope. Having a comprehensive real-time system as described by your proposal would give us an important tool for planning, preparation, response, and mitigation for coastal storms.

Thank you in advance for supporting our efforts to protect Florida's water resources by providing leading-edge research products.

We wish you success in obtaining funding from the NOAA IOOS Program, and look forward to working with you by participating in the stakeholder/user group.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter Sucsy'.

Peter V. Sucsy, Senior Engineer Scientist
Division of Engineering
psucsy@sjrwmd.com
386-329-4455

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DIRECTOR

To Whom It May Concern –

I am writing this letter in support for the Cooperative Research Program proposal "SECOORA Regional Glider Observatory in the South Atlantic Bight". The information generated by this project would provide a wealth of physical oceanographic data that may be used to help model biological activities such as species distribution and larval transport mechanisms on the U.S. southeast coast. The proposed glider technology could also provide enhancement of acoustic receiver arrays used to track marine fishes from numerous research projects. The proposed work is of considerable value and should receive the highest consideration.

Sincerely,

Patrick Geer
Chief, Marine Fisheries
Coastal Resources Division
Georgia Department of Natural Resources
Patrick.geer@dnr.state.ga.us; 912.262.7218



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Gray's Reef National Marine Sanctuary
10 Ocean Science Circle
Savannah, Georgia 31411

17 September 2010

To Whom It May Concern

Gray's Reef National Marine Sanctuary supports the proposal submitted by Dr. Catherine R. Edwards of the Skidaway Institute of Oceanography, through the Southeast Coastal Ocean Observing Regional Association (SECOORA) to the Integrated Ocean Observing System (IOOS) implementation program. The proposed work will be invaluable to understanding reef fish behavior and fishery recruitment in the southeast. At this critical time, many species are overfished and/or undergoing overfishing, and understanding the oceanographic parameters that affect movements, spawning and larval survival and recruitment is essential for development of management plans for sustainable fisheries. In addition, many of these species utilize shallow reef habitats such as Gray's Reef National Marine Sanctuary, particularly during postlarval settlement and juvenile stages. Understanding the processes that transport larvae from spawning grounds to other habitats, particularly protected areas like the SAFMC Deepwater Snapper-Grouper MPAs and National Marine Sanctuaries can help us understand MPA design and how MPAs might be used for management of sustainable fisheries. Understanding hydrographic and circulation processes will help us understand patterns of biodiversity that are associated with recruitment of invertebrate and fish larvae from tropical water masses in the region. The AUV system that is proposed will also provide us the opportunity to track migratory, resident and spawning fishes in Gray's Reef National Marine Sanctuary and the region, as there are a number of programs that are tagging fishes with acoustic transmitters that can be detected with suitably outfitted AUVs.

Gray's Reef can provide support staff and vessel time to support the logistics of the proposed work.

Gray's Reef National Marine Sanctuary supports the proposed work and would find the results helpful to our mission of resource protection. Thank you for your consideration, and if you have any questions, please contact me.

Sincerely,

George R. Sedberry, Ph.D.
Superintendent, Gray's Reef National Marine Sanctuary
10 Ocean Science Circle
Savannah GA 31411
office: 912-598-2439
mobile: 912-247-0637





United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Fisheries Science Center
NOAA Beaufort Laboratory
101 Pivers Island Road
Beaufort, NC 28516 USA

12 September 2010

To Whom It May Concern -

Please accept this letter of support for the Cooperative Research Program proposal “SECOORA Regional Glider Observatory in the South Atlantic Bight”. The principal investigators are interested in building a cooperative glider capability that will generate information to inform oceanographic and ecosystem models and improve our understanding of physical and biological processes in southeast US continental shelf waters. The proposed glider program could provide a platform for collection of fisheries data (e.g., acoustic receivers) that would be of considerable benefit to applied fisheries research efforts. I believe the proposed work is of considerable value and strongly support its consideration.

Sincerely,

Todd Kellison, Ph.D.
Chief, Fisheries Ecosystems Branch
Beaufort Laboratory
NOAA Fisheries / Southeast Fisheries Science Center
todd.kellison@noaa.gov; 252.838.0810



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Ocean Observing Supports Recreational Opportunities at Local Florida Park

Fred Howard Park, located on the Gulf of Mexico in the City of Tarpon Springs, Pinellas County, Florida, is a popular destination for kite surfers, wind surfers, kayakers, and beachcombers. Visitors come from an hour or more away on a regular basis to use this unique area for its recreational opportunities. Knowing the weather and wind conditions in the area is a big deciding factor that helps them to plan their activities in the park. In addition, its physical location, jutting into the Western Gulf of Mexico, provides valuable advance water level and coastal inundation information to local emergency management personnel during extreme weather events.



The Fred Howard Park meteorological/tidal station is a part of the University of South Florida's (USF) [Coastal Ocean Monitoring and Prediction System \(COMPS\)](#). Initial site funding was via a cooperative effort between USF/COMPS, a State of Florida Emergency Management Preparedness and Assistance Trust Fund (EMPATF) competitive grant, the Pinellas County Park System, and the City of Tarpon Springs Office of Emergency Management. Physically located on the southwest corner of the second causeway bridge, it became an operational COMPS weather station in June 2004.

In September 2008, the causeway bridges needed replacement, and the station was removed during construction for over a year. During the down time, COMPS Program Director Cliff Merz received many inquiries about the status of the station and when/if it would be back online. The information from this station was used by a variety of people who wanted to know water and air temperature to determine if conditions were safe for water sports, and the wind speed and gusts guide when conditions will be peak for wind and kite surfing. The users were able to access the data through the COMPS web site and it was also linked to and accessed frequently from a local water sports store Web site. Bruce Snyder, the head of the non-profit [Friends of Fred Howard Park](#), estimates between 500-600 users accessed the information from the station to plan their trips to the park. Water level data was used by local emergency management offices for flooding and inundation purposes and after event analysis.

Merz understood the demand for the data, but was not certain there would be funding available to reinstall the station when the bridge repairs were complete. Fortunately, through selective reuse of suitable original site equipment, USF College of Marine Science funding support, availability of limited EMPATF/COMPS instrument sparing, and Pinellas County support, the site's meteorological measurement capability was able to be restored. Unfortunately, limited follow-on operation and maintenance funds exist. The Friends of Fred Howard Park heard of this and decided to help. The group raised over \$1,500 through donations of profits from wind surfing lessons held at the park to support continued station operation.

The Fred Howard Park COMPS station is now back online with a full suite of meteorological sensors, providing the public with wind speed and air temperature (among other parameters). Emergency managers remain interested in restoring the in-water water level and temperature/conductivity sensors. Through funding from SECOORA, the Southeast Coastal Ocean Observing Regional Association, these in-water sensors will be added in the near future.

Ocean observing data supports a variety of uses from recreation to emergency management. Having the most reliable marine data will ensure protection of people and property, a healthy marine economy, and sustainable natural coastal and ocean resources. SECOORA and member organizations like USF are working together with stakeholders to provide these critical services.

For more information about the Fred Howard Park meteorological/tidal station, please contact [Cliff Merz](#), COMPS Program Director.

For more information about SECOORA, please contact [Debra Hernandez](#), Executive Director.

The image is the Fred Howard Park meteorological/tidal station.

[Contact SECOORA](#) | [Site Map](#)

SECOORA is one of 11 Regional Associations established nationwide through the Integrated Ocean Observing System (IOOS®). IOOS is a multi-agency, cooperative effort based on a continuously operating network of buoys, ships, satellites, underwater vehicles, and other platforms that routinely collect real-time data and manage historical information. These data are needed for rapid detection and timely prediction of changes in our nation's ocean and coastal waters.



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