



## NEWSLETTER OF THE GULF OF MEXICO COASTAL OCEAN OBSERVING SYSTEM

### GCOOS NEWS AND UPDATES FOR 6 APRIL 2012

#### GULF OF MEXICO REGIONAL NEWS

##### **University of South Florida's College of Marine Sciences Launches Tavros02**

The GCOOS-RA congratulates its data partner, the University of South Florida (USF) College of Marine Science, on the successful launch and data retrieval from the newest glider in its fleet, Tavros02 (see <http://www.marine.usf.edu/systems/q?=tavros>). The mission in the Gulf of Mexico, implemented by the USF Center for Ocean Technology (COT), was the first to post data to Twitter in near-real time. The twenty-minute updates include information about the time and location of data collection, glider heading, water depth, temperature, and conductivity. COT marine systems engineer Dave Fries says that he and his team have been working nearly a decade developing the underwater sensing technology. A recent grant from the National Science Foundation in the months following the 2010 *Deepwater Horizon* Oil Spill allowed them to boost efforts and launch Tavros02. Powered by solar energy, hence the designation Solar Autonomous Underwater Vehicle (SAUV), Tavros02 can travel for months in the Gulf. In addition to its ability to collect data remotely and to transmit them via a popular form of social media in near-real-time, the SAUV has the ability to collect water samples. Those interested can find the Tavros02 Twitter feed at <https://twitter.com/-!/tavros02>

##### **GCOOS-RA Welcomes New Members**

The GCOOS-RA is pleased to welcome the International SeaKeepers Society, a 501(c)3 nonprofit, to its growing network of Regional Association members. Started in 1998 by a small group of yacht owners concerned about the deteriorating health of the seas, its original mission was to develop compact, automated, and cost-effective ocean and atmospheric monitoring capabilities that could be installed on their vessels to provide data to scientists. Nearly 15 years later, the innovative SeaKeeper 1000TM monitoring system has been deployed in approximately 90 locations around the world, including on yachts, cruise ships, ferryboats, government buoys, freight ships and piers. The monitoring system is endorsed by the United Nations' World Meteorological Organization (WMO) and Intergovernmental Oceanographic Commission (IOC) and used by three divisions of NOAA - its National Marine Fisheries Service, National Marine Sanctuaries Program, and National Weather Service. Dean Klevan, President and CEO since 2010, reminds us that because SeaKeepers allows us to gain critical knowledge on the state of our seas at no cost to the global scientific community, it is a prime example of the selfless contribution of its members—a reminder that a few can make the world better for many. The GCOOS-RA is currently collaborating with the International SeaKeepers Society on an exhibit to raise awareness about priority issues in the Gulf of Mexico. The exhibit, one of six being developed, will be on display at the new Secrets of the Sea Marine Exploration Center and Aquarium (formerly The Pier Aquarium), St. Petersburg, Florida.

The GCOOS-RA also is pleased to welcome the Secrets of the Sea Marine Exploration Center and Aquarium. This new project of The Pier Aquarium, St. Petersburg, Florida, is a 12,500 square foot marine science center housed at the John's Pass Village shopping complex in Madeira Beach, Florida. Led by President and CEO E. Howard Rutherford, the project is a collaboration designed to feature the technology being developed by members of the St. Petersburg Ocean Team, a consortium of 14 marine science-related groups including national, state, regional and local governmental agencies, environmental organizations, R&D businesses, educational institutions and The Pier Aquarium. Using a fun 'mystery-solving approach,' the visitor experience is designed to make marine science accessible and understandable to people who

benefit from it every day. The new visitor attraction is scheduled to open by the end of the year.

### **Farewells and Welcomes**

Several changes in the personnel representing the Parties to the GCOOS-RA MOA have occurred recently. Neil Trenaman left Liquid Robotics, Inc. to return to Australia; we thank him for his participation on our Observing System Committee. We welcome Brian Anderson who has replaced Neil as the representative for Liquid Robotics, Inc. Farewell and thanks to Douglas Meffert who left Tulane University to join the National Audubon Society. Welcome to Shelley Maeux who is the new representative of the Tulane/Xavier Center for Bioenvironmental Research and LEAG.

### **Board Officers elected at Board of Director's Meeting**

Under the Bylaws of GCOOS-RA, Inc., passed by the Board at the March meeting, the Board elects five officers from among the members of the Board. Those officers are President, First Vice President, Second Vice President, Secretary, and Treasurer. Those Officers constitute the Corporate Executive Committee. The Board has a five-member Executive Committee under the MOA. These members were nominated to form the slate of Officers of the Corporation. When the Board's vote was concluded on 4 April 2012, the slate of officers were elected unanimously. The following Board members were elected to serve in the stated capacity: Terry McPherson – President; Jennifer Wozencraft - First Vice President; Alfredo Prelat - Second Vice President; Joe Swaykos – Secretary; and Worth Nowlin - Treasurer.

### **GCOOS-GOMA HABIOS Workshop a Success**

"We have successfully mapped a course for HABIOS: NOW, NEXT, and FUTURE", reports Ann Jochens, Executive Director, GCOOS-RA, on the 3rd GCOOS-GOMA HABIOS Workshop held 26-28 March 2012 in Pensacola, FL. The workshop brought together managers, scientists, and researchers from U.S. federal agencies; resource, health, and environmental protection agencies of the five U.S. Gulf States and two Mexican States; the Mexico-U.S. Gulf of Mexico Large Marine Ecosystem Project; and academic institutions throughout the Gulf. The participants worked very hard to address a way forward to a HAB Integrated Observing System (HABIOS) for the Gulf based on the user-needs projected for each of the three phases (NOW ~1 year out; NEXT 1-5 years out; FUTURE beyond 5 years). "Much work remains to be done to complete the document that will come out of the workshop, but it promises to be ground-breaking in its innovative and creative approaches to advancing our abilities to predict, detect, track, and forecast HAB events," says Jochens. Anyone with an interest in the Harmful Algal Bloom Integrated Observing System is welcome to provide comments on the present and/or next draft document(s) that will result (contact Ann Jochens to be added to the list, [ajochens@tamu.edu](mailto:ajochens@tamu.edu)).

### **Vandals Destroy Premier HAB Monitoring Station Located at the UTMSI Port Aransas Pier**

Over the weekend of 10-11 March, vandals climbed over an 8-foot locked gate and broke into an instrument building located at the end of the University of Texas Marine Science Institute (UTMSI) pier in Port Aransas, Texas. They used the dry chemical fire extinguisher to spray the inside of the building and destroy thousands of dollars in equipment used for research. Among the losses was the strategically placed Imaging FlowCytobot, deployed by Dr. Lisa Campbell of Texas A&M University. The GCOOS-RA had assisted her in developing a web page for project results and is hosting the data on the GCOOS web pages at <http://gcoos.tamu.edu/products/section/phytoplankton.html>. The instrument provided continuous snapshots of phytoplankton entering the Port Aransas Channel and consequently allowed for early detection of HABs events. Since 2007, this instrument successfully monitored the water for the presence of a broad array of harmful algae species, including *Dinophysis* and *Karenia brevis*. In 2008, the instrument provided early detection of a bloom of *Dinophysis* which resulted in the first shellfish bed closure in the U.S. from this species and the prevention of illness. The Imaging FlowCytobot also provided an early warning of a *Karenia brevis* bloom event for the Port Aransas region in the fall of 2009 and detected *Karenia brevis* early in the 2011-2012 bloom that severely impacted the Texas coast and coastal bays for some 5 months. Without a backup instrument ready to install, the Port Aransas Channel will remain unprotected until funding for a new instrument can be raised. .

### **NOAA Leads National Workshop on GoM Dead Zone**

NOAA led the third annual Gulf of Mexico Research Coordination Meeting, which was held 27-28 March 2012 in Bay St. Louis, Mississippi. All NOAA line offices and numerous state, federal, and academic partners updated each other on the science behind hypoxic or "dead" zones and identified remaining

research and management gaps. Nutrient pollution has driven most of the 300-plus hypoxic " zones recorded nationwide for several decades. Nutrients feed large blooms of algae that eventually die and sink; their decay consumes large amounts of oxygen from the water. The largest U.S. dead zone forms every summer in the northern Gulf of Mexico, where NOAA has led research for more than 20 years that has provided an Interagency Hypoxia Task Force with the actionable science to support two management plans.

#### **Alabama Reserve Protects 570 Acres of Critical Coastal Wetlands (from NOS News Feed)**

The Alabama Department of Conservation and Natural Resources in partnership with NOAA, The Conservation Fund, and the Weeks Bay Foundation, recently acquired 570 contiguous acres of coastal wetland habitat adjacent to Weeks Bay Reserve. NOAA provided a \$500,000 federal grant through the NERR land acquisition program, matched with funding from Forever Wild, to purchase the property. Leveraging the federal investment, another 260 adjacent acres were purchased by Baldwin County. The acquired property, known locally as the "Meadows", represents one of the largest contiguous areas of forested wetlands in coastal Alabama that remains undeveloped.

#### **First Regional Operational Forecast System Available for the Northern Gulf of Mexico (from NOS News Feed)**

On 5 April the Center for Operational Oceanographic Products and Services unveiled the new Northern Gulf of Mexico Operational Forecast System (NGOFS; <http://tidesandcurrents.noaa.gov/ofs/ngofs/ngofs.html>) developed in a joint partnership with the Office of Coast Survey's Coast Survey Development Laboratory, the NWS' National Centers for Environmental Prediction and the University of Massachusetts-Dartmouth. NGOFS is NOAA's first regional ocean model, encompassing the shelf and coastal areas from Pensacola, Florida, to Corpus Christi, Texas. The model provides water level, currents, temperature and salinity nowcast and forecast guidance four times per day, as well as wind nowcast and forecast guidance derived from the NWS North American Mesoscale system. Spatial animations of the entire Northern Gulf of Mexico domain, as well as time series at 93 stations or points of interest are available for the five parameters - water level, winds, currents, temperature, and salinity.

#### **Registration open for Metocean Awareness Courses in Houston**

The Society for Underwater Technology has announced that the next Houston METOCEAN Awareness course, organized by the Institute of Marine Engineering, Science and Technology, is scheduled from 8-10 May in Houston, TX. The course is aimed at those who require a greater understanding of metocean conditions worldwide and how these might impact the effectiveness of their work. Please share this information with your colleagues who may be interested.. For all offshore industries, the effects of meteorology and oceanography (metocean) have a major impact on design and operations. The events of 2005 emphasized the impact weather can have on offshore oil industry activities in the Gulf of Mexico and elsewhere. Project engineers need to understand the implications that weather, waves, currents and water levels can have on their operations and design work to maximize safety and efficiency. Register at <http://www.SUTHouston.com> under the "Events" Calendar. For more information you may call 832.875.3463.

## **LEGISLATIVE NEWS**

#### **Save the Date: Hill Briefing on the Coastal Economy (18 April 2012)**

The Coastal States Organization, American Association of Port Authorities, Restore America's Estuaries, and the National Estuarine Research Reserve Association will be sponsoring a Congressional briefing on the coastal economy from 3:00-4:00pm on April 18, 2012 (Capitol Hill, room TBD). Speakers - including representatives from state and federal governments, nonprofits and ports - will provide insight into the coastal economy and what makes this special area of land and sea so unique and vital to the nation's economy. The briefing is one of many events planned throughout 2012 to celebrate the 40th anniversary of the Coastal Zone Management Act.

## **IOOS/NATIONAL NEWS**

## OCEANS 2012 MTS/IEEE

The OCEANS 2012 MTS/IEEE <<http://www.oceans12mtsieeehamptonroads.org/>> will be held at the Virginia Beach Convention Center in Hampton Roads, VA, on 14-19 October 2012. OCEANS 2012 Hampton Roads brings together the technology, people, and ideas that will help to expand the understanding of the earth's largest natural resource—Our Ocean. The Hampton Roads maritime heritage, combined with its strategic location near key decision makers from the U.S. Government, make this venue a perfect opportunity to address the challenges facing the world's users of the ocean. The OCEANS 2012 theme, *Harnessing the Power of the Ocean*, has as its foundation a conceptual National Ocean Enterprise and its seven societal benefits as identified by the National Ocean Partnership Program's legislation in 1999:

- Improving predictions of climate change and weather, their effects on coastal communities and the nation
- Improving the safety and efficiency of marine operations
- Mitigating the effects of natural hazards
- Improving national and homeland security
- Reducing public health risks
- Protecting and restoring healthy coastal marine ecosystems
- Enabling the sustained use of marine resources

and supported by President Bush's Ocean Action Plan and President Obama's Ocean Science Policy. As with past OCEANS meetings, US IOOS will have a strong showing. In addition to papers presented by our partners, US IOOS will feature a US IOOS booth at the entrance to the Exhibit Hall; a new event called IGNITE, which will be held Tuesday afternoon (Oct 16) just before the technical exhibits are officially opened; and a Town Hall, currently planned for Wed (Oct 17), that will be focused on the US IOOS Summit scheduled for November 2012. The U.S. IOOS Office is looking for a strong US IOOS showing and encourages you to submit a paper. **Submit your abstracts now through 18 May 2012** at <http://www.oceans12mtsieeehamptonroads.org/abstractsubmission.cfm>

## Marine Weather Portal Moves to SECOORA Web Site

Please visit <http://secoora.org/data/applications> to view the functionalities and marine weather data layers of the recently integrated Marine Weather Portal. This application compliments the data and maps portal by adding layers such as marine hazards, weather radars and links to National Weather Service marine forecasts. The Marine Weather Portal was developed by UNC Wilmington, Second Creek Consulting, the University of South Carolina, and the University of South Florida, in cooperation with NOAA's National Weather Service (NWS) and the Southeast Coastal Ocean Observing Regional Association (SECOORA). Funding for the project was provided by NOAA's Integrated Ocean Observing System. The product was developed with input from NWS Eastern and Southern regions.

## BOEM Ocean Science Magazine Available Online

*Ocean Science* is the science and technology journal of the Bureau of Ocean Energy Management (BOEM). The theme of the current issue is renewable energy. Access the current edition of Ocean Science online at <http://www.boem.gov/BOEM-Newsroom/Library/Ocean-Science/Ocean-Science.aspx>

## Report: NOAA's Coastal Mapping Program Benefit to Taxpayers

According to a recent independent socio-economic scoping study by Leveson Consulting, for every dollar American taxpayers spend on NOAA's National Geodetic Survey (NGS) Coastal Mapping Program, they receive more than \$35 in benefits. Direct economic benefits of the program were estimated at \$100 million, 15 times program costs. The study also estimated that NGS's Coastal Mapping Program supports 1,500 jobs outside of the program. The Coastal Mapping Program provides critical baseline data for accurately mapping the nation's official shoreline and provides geographical reference data needed to manage, develop, conserve and protect coastal resources. To learn more, see NOAA's official press release: [http://www.noaanews.noaa.gov/stories2012/032812\\_coastalmapping-economicvalue.html](http://www.noaanews.noaa.gov/stories2012/032812_coastalmapping-economicvalue.html).

## SeaWeb 2012 Seafood Champions Nominations Now Being Accepted

Nominations are now open for the 2012 Seafood Champion Awards, an accolade recognizing those making significant progress toward sustainability in the seafood industry. The nomination deadline is

11:59pm on 30 April, 2012. Learn more about the Seafood Champion Awards and the nominations process at <http://www.seafoodchoices.org/whatwedo/champions.php>

## COMING EVENTS & MEETINGS

### April

Meeting: "8<sup>th</sup> Annual Texas Bays and Estuaries Meeting", 11-12 April 2012, Port Aransas, TX.  
<https://webspace.utexas.edu/kmm3495/tbem/>

**Webinar:** "State of Sea Level Rise Science," Dr. Virginia Burkett, 11 April 2012 at 9:00-10:00 AM Central Time. There is no fee to register for this event. Parties can register at <https://masgc.webex.com/masgc/j.php?ED=13174373&UID=39210648&PW=NY2M1MDFmNzQz&RT=MiM3>. To join the audio conference only, call 1.408.600.3600, access code 857671202.

Conference: "[30<sup>th</sup> Conference on Hurricanes and Tropical Meteorology](http://www.ametsoc.org/meet/fainst/201230hurricane.html)" 15-20 April 2012, Ponte Vedra Beach, FL.  
<http://www.ametsoc.org/meet/fainst/201230hurricane.html>

Meeting: "[2012 Defense Security + Sensing](http://spie.org/x6765.xml)" 23-27 April 2012, Baltimore Convention Center, Baltimore, MD. This meeting is sponsored by SPIE, the International Society for Optics and Photonics.  
<http://spie.org/x6765.xml>

Conference: "[Inaugural AGU Science Policy Conference](http://sites.agu.org/spconference/)" 30 April-3 May 2012, Ronald Regan Building and International Trade Center, Washington, DC.  
<http://sites.agu.org/spconference/>

Conference: "[Offshore Technology Conference](http://www.otcnet.org/)" 30 April – 3 May 2012, Reliant Park, Houston, TX.  
<http://www.otcnet.org/>

Summit: "[Coastal Cities Summit](http://www.coastalcities-ioi.org/)", 30 April – 3 May, St. Petersburg, FL.  
<http://www.coastalcities-ioi.org/>

### May

Meeting "[National Water Quality Monitoring Council's 8<sup>th</sup> National Monitoring Conference – Water: One Resource – Shared Effort – Common Future](http://acwi.gov/monitoring/conference/2012/index.html)" 30 April – 4 May 2012, Portland, OR.  
<http://acwi.gov/monitoring/conference/2012/index.html>

Meeting: "[SECOORA Annual Meeting](http://secoora.org/news/2012annualmeeting)", 7-9 May 2012, Miami, FL.  
<http://secoora.org/news/2012annualmeeting>

Conference: "[METOCEAN Awareness Course](http://www.southouston.com/Events)", 8-10 May 2012, MCS Kenny 15115 Park Row, 3<sup>rd</sup> Floor, Houston, TX.  
<http://www.southouston.com/Events>

Meeting: "[From Stem to Stern](http://www.flseagrant.org/boating/StemtoStern/)", 15-17 May 2012, Clearwater Beach Marriott Suites on Sand Key, Clearwater, FL.  
<http://www.flseagrant.org/boating/StemtoStern/>

### June

Meeting: "[The Coastal Society's 23<sup>rd</sup> International Conference](http://thecoastalsociety.org/conference/tcs23/index.html)", 3-6 June 2012, Hyatt Regency, Miami, FL.  
<http://thecoastalsociety.org/conference/tcs23/index.html>

Meeting: "[Capitol Hill Ocean Week 2012](http://www.nmsfocean.org)" 5-8 June, Washington, DC  
<http://www.nmsfocean.org>

Meeting: "[Risk and Response: Sea Level Rise Summit, the Future of Florida and the Coast](http://www.nmsfocean.org)" 21-22 June 2012, Marriott Boca Town Center, Boca Raton, FL.

<http://www.ces.fau.edu/SLR2012>

Conference: "[National Marine Educators Conference](#)" Co-Hosted by AOOS, 24-28 June 2012, University of Alaska Anchorage Campus, Anchorage, AK.  
<http://www.coseealaska.net/nmeaconference2012/>

### July

Meeting: "2012 ASLO Summer Meeting" 8-13 July 2012, Lake Biwa, Otsu, Japan.

Workshop: "[EARTH Workshop](#)" University of North Carolina, Wilmington, North Carolina.  
<http://www.mbari.org/earth/>

Symposium: "[12<sup>th</sup> International Coral Reef Symposium](#)", 9-12 July 2012, Cairns, Australia.  
<http://www.icrs2012.com>

Conference: "[5<sup>th</sup> Annual International Ecosystem Services Partnership \(ESP\) Conference](#)" 31 July – 4 August 2012, Portland, OR.  
[http://www.esconference.org/ESP\\_Conference/78852/5/0/60](http://www.esconference.org/ESP_Conference/78852/5/0/60)

### September

Meeting: "GCOOS-RA Board of Directors Meeting" 26-27 September 2012, Corpus Christi, TX.

### October

Meeting: "[Restore America's Estuaries 6<sup>th</sup> National Conference on Coastal and Estuarine Habitat Restoration](#)" 20-24 October 2012, Tampa, FL.  
<http://www.estuaries.org/conference/>

Meeting: "[OCEANS '12 MTS/IEEE](#)" 15-19 October 2012, Hampton Roads, VA.  
<http://www.oceans12mtsieeehamptonroads.org/>

### November

**Meeting:** "[IOOS Summit 2012 - A new Decade of Integrated and Sustained Ocean Observing](#)" 13-16 November 2012, Herndon, VA. WE NEED YOUR HELP - Please visit <http://www.iooc.us/summit/ioos-summit/> to see how you can help.

## EMPLOYMENT

### **Environmental Communications Specialist, NOAA Office of Response and Restoration**

I.M. Systems Group, Inc. (IMSG), a Federal Government Contractor located in Rockville, Maryland is currently seeking to hire an [Environmental Communications Specialist](#) to provide outreach and communications support to NOAA's Office of Response and Restoration's Assessment and Restoration Division (ARD) (<http://response.restoration.noaa.gov/>). ARD's mission is to protect and restore coastal and marine resources injured by the release of oil or hazardous substances or direct physical impacts such as vessel groundings. This full-time position will be located in Silver Spring, Maryland. Routine domestic travel of up to approximately 25% will be required.

<http://www.imsig.com/index.php/careers/current-opportunities/environ-comm-splst/>

### **EDF International Climate Policy Associate**

The Policy Associate with the Environmental Defense Fund's (EDF) International Climate Program will play a key role in the development and execution of EDF's international climate strategy, working towards a comprehensive market-based system of carbon reduction policies. Primary responsibilities will include coordinating and performing a wide range of economic, financial, technical, legal or environmental

analyses oriented toward building momentum in favor of such policies, as well as international advocacy based on that work. This position requires strong internal and external communications skills, in-depth knowledge of international climate change policy, experience with climate negotiators and/or government officials, and strong lobbying and advocacy skills. To learn more about the position responsibilities, desired qualifications, and how to apply, visit: <http://www.edf.org/jobs/policy-associate-climate-and-air-program>.

### **Staff Biologist, Mote Marine Lab**

Applications are being accepted to fill a [Staff Biologist Position](#) shared between two research programs at Mote Marine Laboratory: the Marine Biomedical and Marine Immunology Programs. This position requires knowledge of an advanced type, including basic lab techniques, biochemistry, immunology, and physiology acquired through specialized college-level instruction and study, as well as advanced skills in the laboratory. View the details.

<http://www.mote.org/index.php?src=gendocs&link=JobOpportunities&category=JOBS>

## **FUNDING OPPORTUNITIES**

### **2012 Ocean Education Partnership Grants Funding Opportunity**

The NOAA Office of Education (OEd) has issued a request for [applications](#) for projects designed to expand or develop professional development and other capacity-building activities for informal science educators and volunteers. A successful project will utilize the resources of multiple institutions to enhance the capacity of informal science educators and volunteers to engage visitors and promote public understanding and stewardship of coastal, marine, and/or freshwater environments. Eligible applicants are collaborative teams that include at least three non-profit U.S. aquariums, of which at least one must be accredited by the Association of Zoos and Aquariums (AZA). Collaborative teams should involve applicants from multiple U.S. states and are strongly encouraged to include at least one aquarium that has not previously received a grant from NOAA's Office of Education. There is special interest in collaborative teams that include aquariums representing a wide range of annual operating budgets, total visitorship numbers, and/or physical sizes.

<http://www.oesd.noaa.gov/grants/elg.html>



GCOOS is the Gulf of Mexico regional component of the U.S. Integrated Ocean Observing System (IOOS). Our mission is to provide timely, reliable, and accurate information on the open and coastal ocean waters of the Gulf of Mexico to ensure a healthy, clean, productive ocean and resilient coastal zone. Your input, guidance, support, and membership are important to the development of the data, products and services that you need.

Contact GCOOS Executive Director, Ann Jochens ([ajochens@tamu.edu](mailto:ajochens@tamu.edu)), to become a GCOOS member and for more information.

We welcome your feedback. If you have an item that you would like to share with others, please email that item to Laura Caldwell ([lcaldwell@geos.tamu.edu](mailto:lcaldwell@geos.tamu.edu)).