

Bi-Weekly IOOS® Z-GRAM - 23 March 2012

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The Z-Gram is an informal way of keeping you up-to-date on US IOOS® activities. Please advise of additional addressees, or if you are receiving and no longer want to receive. If you think others could benefit from the Z-Gram please pass it on. To see previous Z-Grams go the IOOS website and view under [program updates](#).

IOOS® - A Partnership supporting Lives and Livelihoods

New Splash: Ocean Observing Partners Launch Process for Quality Assurance of Marine Data:

There will soon be quality assurance and control standards for instruments that measure ocean conditions across the nation. The U.S. Integrated Ocean Observing System (IOOS®) is bringing the community together to agree on a sustainable process to establish such procedures for 26 ocean condition measurements, including detailed information about the sensors and procedures used to measure the variables. The IOOS process replaces, expands, and improves on an existing community-based process for this, known as Quality Assurance of Real-Time Oceanographic Data (QARTOD) and adapts the same name. A detailed work plan, developed in close collaboration with the U.S. IOOS community and previous QARTOD leadership, will guide activities. Dick Crout, NDBC, has been named the Project Manager and Ray Toll, on contract with NDBC, will be the Project Coordinator. The board has already been stood up and includes: Matt Howard, GCOOS, Julie Thomas, SCCOOS/CDIP, Jan Fredricks, WHOI, Chris Paternostros, NOAA/CO-OPS; Bob Jenson, USACE, Dan Sullivan, USGS; Julie Bosch, NOAA/NCDDC, and Derrick Snowden, US IOOS Program Office.

Governance and Management Subsystem:

- **Update on Certification:** In consultation with NOAA and DOC General Counsel last week, it has become clear that the promulgation of certification implementation guidelines by the Program Office to certify non-federal assets will need to follow informal (“notice and comment”) rulemaking procedures in accordance with the Administrative Procedure Act. Prior to these latest consultations, we had not expected the need to follow informal rulemaking procedures for these guidelines. As part of these procedures, we will evaluate the proposed guidelines’ impact through an economic impact review, Paperwork Reduction Act review, and Regulatory Flexibility Act review. We will post the draft guidelines for comment in a Federal Register Notice. The final guidelines will also be posted in the Federal Register. The effort of following the informal rulemaking procedure will be borne by the Program Office; there is no additional effort needed from the RAs. We expect that meeting these requirements will delay the date we can offer certification to the RAs. Currently we anticipate this delay may be as short as a matter of months. We will keep you posted as a revised timeline develops.

Observation Subsystem:

- **High Frequency Radar/Radio:** For more information contact the US IOOS HFR Project Manager, Jack Harlan, Jack.Harlan@noaa.gov: **Global HF Radar Initiative Launched:** Under the auspices of the Group on Earth Observations, the Global High Frequency Radar Initiative was launched during OI. The meeting co-chairs included Jack Harlan, U.S. IOOS Program Office; Lucy Wyatt, Australia Integrated Marine Observing System; and Enrique Alvarez-Fanjul, Physical Oceanography Department, Puertos del Estado (Spain). About 40 people attended, representing 11 countries from Europe, Asia, and North America. The US representatives were Jack Harlan, US IOOS Program Office; Scott Glenn and Hugh Roarty, MARACOOS; Lisa Hazard, SCCOOS and Don Barrick, CODAR. Jack provided an overview of U.S. uses of High Frequency Radar, and associated issues. From there, the discussion grew wide ranging. See Jack's presentation posted <http://www.ioos.gov/communications/welcome.html>. Draft High Level tasks include but are not limited to:
 - Inventory of the existing HF Radar systems
 - Set up working groups to address data management (including visualization and quality control), training and education (including outreach to governments), and network infrastructure development,
 - Set up a template to collect High Frequency Radar use stories,
 - Publish fact sheets on U.S. IOOS use of the CODAR SeaSonde High Frequency Radar system
- **US IOOS Demo with Liquid Robotics Wave Glider and Sonardyne Fetch Node:** We are finalizing the deployment, training and schedule for NERACOOS deployment. Expect Glider and Fetch nodes to be deployed on or about April 10th from the DELAWARE II. The 2 fetch nodes and wave glider will be deployed for operations for 6-8 weeks off the coast of Maine to collect data.
- **2nd Workshop on Establishing a National Animal Telemetry Observing Network (US ATN)– 3/15-16:** Hassan and Charly and key members of the workshop steering team successfully led the 2nd US ATN Workshop at the Consortium for Ocean Leadership offices. 36 people attended in person or via phone/WedEx including 10 members of the steering team and 26 invited stakeholders. Day one opened with brief updates on telemetry efforts across 10 of 11 US IOOS Regions, and a keynote presentation by Dr. Richard Merrick, NOAA Fisheries Director of Scientific Programs and Chief Science Advisor in which he challenged participants to use ATN system to better inform managers and integrate the ATN science into larger coastal and marine ecosystem management through Fisheries Management Councils and Commissions. Day two involved collaborating on a series of specific outputs which included drafting a vision statement for a national network, creating an outline for a strategic action plan, agreeing to a candidate set of demonstration projects, and listing action items for the next 90 days with one or more volunteers for each item. A meeting summary will be completed in the next 3-4 weeks. Meeting materials (agenda, presentations, draft notes, participants) will be posted to the US IOOS web site.

Data Management and Communications (DMAC) Subsystem: To get on the IOOS System Status list which announces service changes, please contact Derrick (Derrick.Snowden@noaa.gov) or Rob (Rob.Ragsdale@noaa.gov).

- **DMAC Planning and Implementation: No update**
- **IOOS BIOLOGICAL Data Activities:**
 - Implementation of IOOS DMAC biological services in SECOORA and GCOOS: Hassan held several conference calls with key partners from the Atlantic State Marine Fisheries Commission (ASFMC), Gulf States Marine Fisheries Commission (GSFMC), Fish and Wildlife Commission (FWC) and data managers from SECOORA and GCOOS over the past two weeks to provide an overview of the IOOS Biological project implementation plan in the RAs and to collect inputs on the SOW. The next step is to host a conference call with all partners identified for this project and to set a date for the kickoff meeting.
 - IOOS Animal Telemetry Observations: TOPP-ONR-IOOS Project: The TOPP team has established a test database with 14 elephant seal tracks, all of which have associated temperature profile data. This dataset is growing, with more elephant seal data in the process of being uploaded now. The TOPP team implemented an ERDDAP server on top of the database, enabling all standard data queries of the elephant seal datasets, as well as data download and graphic output capabilities. Additionally, they have developed and tested a suite of customizable, client-side scripts which will enable users to automatically access and download data without ever having to interact directly with the ERDDAP server interface. A set of sample URLs were provided during the meeting to allow everyone to access and test out the ERDDAP server. One issue that was identified during the meeting was the need for robust metadata associated with the datasets. Dan Costa (TOPP/UCSC) shared some sample data from a current deployment that is bringing in real time data. The Stanford-Hopkins team will be following up with Dan Costa's lab to explore what will be required to take **real time** data currently being delivered from SMRU via Access files, automatically ingesting them into the ERDDAP server and making them available to the IOOS community.
 - POST – NANOOS Project involving NERACOOS, MARACOOS and GLOS data managers: A project Kick Off meeting will be held at the University of Washington, Seattle, WA in March 29 at 1-3 PM EST. 20-25 partners have been invited. Hassan is attending via Webex.
- **IOOS NCCOS Water Quality Project:** The FIU water quality stations have been added to the SECOORA interactive map (<http://secoora.org/maps/>) with help from Dan Ramage and Jeremy Cothran. The data can be found under the 'archival' tab. The stations, presently, provide a link to a data query tool developed by UNCW, where the data is hosted, and the FIU site for additional information. The query tool provides searchable access to water quality data from the Florida Keys National Marine Sanctuary and surrounding waters collected by FIU.

Modeling and Analysis Subsystem: For information on the US IOOS Modeling Testbed, please contact the US IOOS Modeling Testbed Project Manager, Becky Baltes, Becky.Baltes@noaa.gov
No update

Interagency Collaboration:

- **IOOS Summit 2012 - A new Decade of Integrated and Sustained Ocean Observing, 13-16 November, Herndon, VA:** The 2002 Workshop, *Building Consensus: Toward an Integrated and Sustained Ocean Observing System*, set the stage for the Integrated Ocean Observing System (IOOS). Ten years later, IOOS has moved from concept to reality, though much work remains to meet the nation's ocean observing needs. Today, changes in congressional and executive leadership, new research and technologies, a challenging economic and funding environment, and diverse institutional mandates all influence the future growth and implementation of IOOS. In light of this new environment, the 2012 Summit will give voice to ocean observers, researchers, scientists, and policy experts charged with identifying practical solutions to refocus and enhance IOOS capabilities over the next decade. **WE NEED YOUR HELP** - Please visit <http://www.iooc.us/summit/ioos-summit/> to see how
- **DMAC Steering Team:** Will meet via conference call on March 27th to discuss the draft workshop report, recommendations from the IOOC brief, and the focus/format of the next in person meeting.
- **USACE in Action:**
 - Dr. Robert (Bob) Jensen, US Army Engineer Research and Development Center (ERDC), will represent the USACE on the IOOS Quartod Board of Advisors.
 - Jennifer Wozencraft, Director, ERDC Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX), was re-elected to the GCOOS Board of Directors
 - USACE participation at the GCOOS Board of Directors, GCOOS Annual Parties Meeting and Board of Directors Meeting: Dr Susan Rees, Program Manager, Mobile District Mississippi Coastal Improvements Program (MsCIP), and Jennifer Wozencraft, Director, JALBTCX, participated in the GCOOS Board of Directors meeting held 14-15 March in Gulfport, MS. Dr Rees presented the USACE missions and on-going projects in the Mobile, New Orleans, and Galveston Districts in an effort to improve collaboration and partnerships with USACE and GCOOS.
 - Dena Dickerson, ERDC Environmental Laboratory, participated in the IOOS Animal Telemetry Network Steering Committee Meeting held in Washington, DC 15-16 March
 - CariCOOS multi agency workshop, 29-30 March: ERDC and USACE Jacksonville District representatives will participate in the CariCOOS multi-agency workshop that will focus on development of a testbed for simulation of Hurricane wave, surge, and runoff for Puerto Rico. The USACE will present the SWIMS (Surge and

Wave Island Studies) work conducted in Hawaii combined with other modeling efforts.

- Bill Birkemeier and Linda Lillycrop continued to represent the USACE at the IOOC Bi-monthly meetings.
- **IOOS and Links to the National Water Quality Monitoring Network:** No update
- **IOOS and The National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** No update
- **Subcommittee on Unmanned Systems (SUS) Meeting (3/14):** Becky, US IOOS Program Office, attended the SUS meeting for US IOOS. One task item the SUS group has is to compile an inventory of the unmanned systems and develop a portal to display them. The IOOS Glider Asset Map was suggested as an alternative to developing a new portal and a follow-up meeting has been scheduled with the SUS POC, CDR John Caskey to discuss options

Other:

- **CaRA Annual Meeting:** On March 21, the Caribbean Regional Association for Coastal Ocean Observing (CaRA), held its annual general assembly meeting in La Parguera, Puerto Rico. Over 100 attendees traveled to La Parguera from Puerto Rico and the U.S. Virgin Islands. Opening remarks included Capt. Drew Pearson of U.S. Coast Guard Sector San Juan; the Honorable Barbara Peterson, Administrator of St. Thomas, USVI; Ernesto Diaz, Director of the Puerto Rico Coastal Zone Management Program; and distinguished University of Puerto Rico representatives. Participants represented federal and local governments, industry, non-governmental organizations and other stakeholders. Highlights of activities include the imminent signing of the CaRA-NWS WFO Puerto Rico MOU and a working group is forming to allow CaRA-USCG collaboration on an Environmental Impact Statement for Liquid Natural Gas development in the region. During the meeting, CaRA had active displays of their newly updated website, highlighting improved access to wind, wave and current data as well as a range of other CaRA products (<http://www.caricoos.org/drupal/>). Gabrielle Canonico represented the U.S. IOOS program office.
- **GCOOS Annual Meeting of the Parties and Board of Directors Meeting held 14-15 March 2012:** The Institute for Marine Mammal Studies in Gulfport, MS, was the site of the 7th Annual Meeting of the Parties to the GCOOS Regional Association Memorandum of Agreement. The Parties Meeting was held in conjunction with the 14th Meeting of the GCOOS-RA Board of Directors. Highlights of the meeting included active engagement of the Board with regional federal partners from the U.S. Army Corps of Engineers and the Bureau of Ocean Energy Management to identify and pursue common activities. Re-structuring of the GCOOS-RA organization was another major consideration. Activities include GCOOS incorporation into a non-profit organization, for which the certification of incorporation was filed in Texas on 24 February 2012. The Board approved the bylaws at the meeting. There are a number of additional steps necessary before the corporation will be fully operational, and these will be pursued over the coming months and year. Changes to the councils, committees, and task teams

also were considered with the goal of streamlining the structure to tailor it to the challenges being faced by GCOOS today. Next steps for development of the GCOOS build-out were discussed. The meeting report is in preparation and will be posted to the GCOOS web site sometime in April.

- **GLOS Annual Meeting 22-23 March:** It was a beautiful day in Cleveland for GLOS's annual meeting. GLOS's mission is to connecting data users with data providers in ways that are supportive of policy and decision making. This was exemplified with many examples during the annual meeting. Jen Reed said it best when she said no longer does she go to meetings and folks ask "What is GLOS?" but rather say "Can't GLOS do that for us?" GLOS has built exceptionally strong partnerships with NOAA's Great Lakes Environmental Research Laboratory (GLERL), the United States Geological Survey (USGS) and the Sea Grant Program. The partnership is definitely felt on both sides, with GLERL representatives Steve Ruberg and David Schwab, USGS's Norm Grannemann and Michigan Sea Grant's Elizabeth LaPorte all providing briefings on mutual activities. GLERL under the EPA's Great Lakes Restoration Initiative have produces an Great Lakes observing Enterprise Architecture that charts a clear course for design and implementation of the Great Lakes Observing. http://www.glos.us/sites/default/files/documents/!GLOSEA_design_document_final.pdf. It bridges GLOS' blueprint and the GLOS build out plan. Eric Linstrom, NASA and IOOC co-chair, Zdenka, US IOOS Program Office, and Josie Quintrell, Executive Director of the National Federation of Regional Associations presented on the certification process. During the discussions the following important reasons for certification emerged (1) affords US IOOS to have a seamless system between the Federal and Regional efforts (2) recognizes a young organization that it will be around for the long-term and thereby encouraging members and (3) conveys Federal Torte liability to the Regions. Our panel was followed by a user's panel. First up was Maggie Rodgers, Water Quality Manager, Cleveland Water District who relies on GLOS and GLERL daily for operations but one use in particular stood out. The water district needs to understand internal waves created after storms that causes hypoxic conditions in the water and requires the Water district to treat the water differently. Norm (USGS) followed by discussing the GLOS and USGS interactions on the GEOSS modeling testbed and its ability to strengthen the US and Canada observing ties. Batting cleanup, Jerome Popiel, Ninth Coast Guard District spoke on their use of the data every day from general operations to search and rescue. The USGC expressed the need for a "boatable day" forecast that will allow them to plan their resources more efficiently. Turning to the successes of GLOS this past year there are many. In the observing subsystem, Steve Ruberg, GLERL showed a diagram 17 buoys, 2 AUVs and 2 ships tracks that GLOS and partners leverage to support decision making. GLOS will for the first time in 2012 deploy a Slocum Glider. GLOS observation team, supported by the Cooperative Institute for Limnology and Ecosystem Research (CILER), has set up an Observation Community of Practice which further extends their reach to support companies and local communities deploy additional observations. On the topic of data delivery Tad Slawewski, LimnoTech Inc, has propelled GLOS' data portal significantly by updating the data catalog, registering GLOS services with the Group on Earth Observations (GEO) data portal, providing new functionality to the Huron-Erie

Corridor Waterways Forecast System and adding new observations to the GLOS Observations Explorer, <http://glos.us/data-tools/observations-explorer>. On the modeling front GLOS was asked to facilitate the Lake Michigan Ecosystem Modeling and Forecasting group. Thanks to the hard work of Sara Maples and Kelli Paige, Program Coordinators there were representatives from each of the relevant State, Federal and Tribal agencies. Two new products are imminent from GLOS. First in partnership with the Great Lakes Fishery Commission (GLFC), the Great Lakes Acoustic Telemetry Observation System (GLATOS) is scheduled to be released in April and in partnership with New York Sea Grant, and the Saint Lawrence River Board of Control a new St Lawrence River Boaters product is scheduled before the opening of boating season in May. On the Education front, Elizabeth LaPorte, Communications and Education Service Director, Michigan Sea Grant, discussed the Teaching with Great Lakes Data. GLOS supports Teaching with Great Lakes Data, which connects educators and student to data collected throughout the Great Lakes. www.GreatLakesLessons.com provides Great Lakes data sets, an overview of teaching methods, and ready-to-use lessons and activities. All of the materials on the web site are free to use.

- **Catch the Wave and Oceanology International:** The Royal Institution served as the venue for *Catch the Next Wave - Tomorrow's Solutions to Today's Ocean Challenges*, a one-day conference focused on taking a longer term view of the capabilities that will shape our future ability to explore, understand, predict, and exploit the oceans. The setting could not have been more fitting. The Royal Institution of Great Britain is the oldest independent research body in the world. The Royal Institution was founded in March 1799 with the aims of introducing new technologies and teaching science to the general public. It is where Michael Faraday, famed scientist, studied and lectured, and is now famous for its Christmas lectures which were started by Faraday in 1825. The “who’s who” of technology attended this conference on March 12, 2012, with Graham Hawkes, founder of Ocean Technologies, delivering the keynote speech. He started the day discussing his efforts to “fly” deep into the ocean, and all of us listening wanted to know when we could get a ride in his vehicle. The conference included global experts’ presentations on key disruptive technologies and where these technologies are emerging in the marine sector. The program included presentations in the topic areas of power sources, sensors, nanotechnology, materials, robotics, and cyber-infrastructure. The presentation format showcased an expert from outside the marine sector speaking on a topic, followed by a marine sector expert speaking on the same topic. This format fostered cross-sector discussions to generate innovative ideas for sampling the ocean. To stay engaged in this effort please visit <http://www.oceanologyinternational.com/page.cfm/Link=124/t=m/goSection=25>. The next 3 days centered on Oceanology International 2012, held at the ExCel exhibition and conference center in London’s Docklands. OI is the global forum where industry, academia, and government share knowledge and connect with the marine technology and ocean science community, improving their strategies for measuring, exploiting, protecting, and operating in the world’s oceans. OI 2012 broke records as the largest event to date, with more than 7,700 unique visitors from more than 70 countries. We launched the Global HF Radar Initiative - see above. On March 15, Zdenka Willis, U.S.

IOOS Program, chaired the Ocean Observing and Forecasting session. United States notables included keynote talks by Sam Walker, BP (but still an IOOSian), and Eric Lindstrom, NASA. Clayton Jones, Teledyne Webb Research, enthralled us with advances in glider technology. Liesl Hotaling, University of South Florida, gave an excellent presentation on Ocean Observing and how to convey this information in an understandable way, both through informal and formal education. The presentations will be posted at <http://www.oceanologyinternational.com/> in the next 10 days. On March 14, Scott Glenn, MARACOOS, provided the keynote speech in the Oil and Gas session, where he talked about U.S. IOOS contributions to Deepwater Horizon.

Download his presentation posted at

<http://rucool.marine.rutgers.edu/index.php/Presentations/>. We built and reinforced partnerships during these meetings. We met with David Mills, Centre for Environment, Fisheries and Aquaculture Science (UK), who is working to build the United Kingdom Integrated Marine Observing Network (UK-IMOM) and wants to coordinate with U.S. IOOS. We also met with Barbara Fogarty of Ireland's Marine Institute, who is national coordinator for Ireland's advanced marine technology program and is developing decision support tools, including SmartBay Ireland. SmartBay is Ireland's national test and demonstration facility for marine information and communications technology.

- **Alliance for Coastal Technologies (ACT) seek new partnerships:** Mario Tamburri, Executive Director ACT, met with Nicole Trenholm from the NOAA R/V Bay Hydro II to discuss a potential partnership. The R/V Bay Hydro conducts general hydrographic navigation surveys to ensure safety of navigation of the Chesapeake Bay, and also acts as an Emergency Response Survey Vessel – their primary mission is research and development. They test survey hydrographic systems prior to outfitting the Office Coast Survey's entire fleet and are interested in serving as an ACT evaluation platform.
- **NANOOS and Partners Launch the Pacific Northwest Tsunami Evacuation Zones online portal and apps:** NANOOS, Oregon Department of Geology and Mineral Industries and Washington State Department of Natural Resources launch the Pacific Northwest Tsunami Evacuation Zones' online portal and smartphone app provide an at-a-glance view of tsunami hazard zones along the coasts of Oregon and Washington. This tool was developed by the Northwest Association of Networked Ocean Observing Systems (NANOOS) program. The online portal can be found on the web at: <http://nvs.nanoos.org/tsunami>. The maps have also been integrated into a free smartphone app, TsunamiEvac-NW, which allows users to see whether they are in a tsunami evacuation zone, and plan their own evacuation routes. This free app is available from the iTunes App Store and Android Market:
 - iPhone: <http://itunes.apple.com/us/app/tsunamievac-nw/id478984841?mt=8>
 - Android: <https://play.google.com/store/apps/details?id=org.nanoos.tsunami&hl=en>
- **Congrats to MARACOOS/NEARACOOS Member:** Jim O'Donnell and his colleagues at UConn were awarded an NSF Major Research Instrumentation Program award in October 2011 to build a prototype testing site for underwater acoustic telecommunications and networking. This Spring, the team received an award to develop similar facilities in different environments with partners at Texas A&M

university, University of Washington, and University of California Los Angeles. This work builds on a human and technical infrastructure that has strong foundations in IOOS.

Congratulations!

- **Liquid Robotics Wave Glider Breaks Record:** Liquid Robotics Inc.'s (Sunnyvale, California) Wave Gliders have set a new Guinness Book world record for distance traveled by an unmanned wave-powered vehicle. The vehicles arrived in Hawaii after traveling more than 3,200 nautical miles, breaking the previous 2,500-nautical-mile record, the company said last week. The gliders were launched in November 2011 from San Francisco Bay and are on the first leg of a 9,000-nautical-mile route across the Pacific. They transmitted real-time ocean data during storms in up to 8-meter waves. One of the gliders made its way to Hawaii despite satellite communication disruption by using its programmed coordinates and navigating by the stars. The gliders will undergo a checkup before the first team travels on to Japan to complete its journey, crossing the Mariana Trench and the Kuroshio Current along the way. The second team will cross the equator to Australia. Their estimated arrivals will be in late 2012 or early 2013. Source Sea Tech eNews March 22.
- **AOOS and Partners Develop Historical Sea Ice Atlas:** How has sea ice in the Alaska marine environment been changing over the past 150 years? The answers may soon be more clear with the completion of a new project. The Alaska Center for Climate Assessment and Policy (ACCAP), the Alaska Ocean Observing System (AOOS), the National Weather Service Anchorage Office (Sea Ice Desk), the National Snow and Ice Data Center (NSIDC), and NOAA's Pacific Environmental Marine Laboratory (PMEL) are working together to produce a digital sea ice atlas by 2013. The atlas consists of digitally-stored sea ice concentration data on a grid covering all Alaska coastal waters to a distance of ~500 km (300 mi) from shore, with a spatial resolution of 25 km. The time resolution is monthly for the period 1850s-1950s, and weekly for the period from the early 1950s to 2010 with the allowance of subsequent updates. AOOS is looking for your input, If you have ideas or questions please email John Walsh, UAF, jwalsh@iarc.uaf.edu <http://www.aos.org/sea-ice-atlas/>

Congressional:

- National Association of Marine Laboratories (NAML: <http://www.naml.org>) gave earlier today before the House Appropriations Subcommittee on Commerce-Justice-Science (CJS). This included support for NOAA's National Ocean Service Programs, including US IOOS. Read Dr. Shirley Pomponi's testimony, http://appropriations.house.gov/UploadedFiles/03.22.12_CJS_-_Members_and_Outside_Witnesses_-_Dr._Shirley_Pomponi_-_Testimony.pdf
- **House Letter Supports IOOS:** Rep Capps (D-CA) and Rep Pingree (D-ME) recently co-sponsored a Dear Colleague Letter in the House for IOOS. 29 House members signed the letter.

Communications/Outreach:

- **The documentary on Scarlet Knight:** Atlantic Crossing has now been aired by PBS 474 times, in 34 states with a potential viewership of 180 million. Dena Seidel, Rutgers University is now working on another scientific documentary - "Antarctic Quest: Racing to Understand a Changing Ocean" follows Oscar Schofield and his scientific team to Antarctica to monitor climate change as part of an NSF funded Long Term Ecological Project. View the exciting trailer and get involved <http://antarcticquest.rutgers.edu> For more info contact Dena Seidel, denaseidel@masongross.rutgers.edu
- **PODCAST:** View the podcast produced by Adam Smith, UK, called *Oceans, Climate change and a pinch of Salt*. The pod cast features, Andy Pritchard, Eric Linstrom, Liesl Hotaling, Scott McLean and Zdenka talking about sustained ocean observing and the new NASA Aquarius mission. <http://podacademy.org/podcasts/oceans-climate-change-and-a-pinch-of-salt/>
- **HAB Sensor Aimed at Integrated Ocean Observing System (IOOS) Future Deployment:** <http://coastalscience.noaa.gov/news/habs/hab-sensor-aimed-at-integrated-ocean-observing-system-ioos-future-deployment/>

IOOS Conference Involvement: This section will highlight those conferences where US IOOS is a sponsor/or has a major footprint.

- **Preparations Underway for the 3rd GCOOS-GOMA HABIOS Workshop:** The 3rd GCOOS-GOMA HABIOS Workshop—HABIOS Workshop: Now, Next, and the Future—is being held 26-28 March 2012 in Pensacola, FL. The goal is to develop the implementation plan for a user-needs-based plan for a Harmful Algal Bloom (HAB) Integrated Observing System for the Gulf of Mexico that has three phases (and related product suites to service the user needs):
 - HABIOS-NOW, based on extant knowledge, tools, methodologies, and models;
 - HABIOS-NEXT, based on current, on-going, soon-to-be-completed research and technology development; and
 - HABIOS-FUTURE, based on knowledge and technology still to be defined and performed.

The Steering Team has designed a working meeting to focus on enhancing HABIOS-NOW, detailing the steps toward a HABIOS-NEXT, and outlining a way forward for HABIOS-FUTURE. Thanks are extended to the hard working Steering Team: Co-chairs Barb Kirkpatrick (GCOOS) and Steve Wolfe (GOMA), members Carol Dorsey, Ann Jochens, and Steve Lohrenz, and facilitator Mel Briscoe. The team looks forward to the ideas and work of the 30+ attendees from state and federal regulatory agencies and the research community. In addition, anyone with an interest in the Harmful Algal Bloom Integrated Observing System and its implementation plan is welcome to provide comments on the present and/or next draft document that will result (contact Ann Jochens to be added to the list, ajochens@tamu.edu).

- **OCEANS 2012 MTS/IEEE: “Harnessing the Power of the Ocean” A Unique Opportunity for Users of the Oceans:** OCEANS 2012 MTS/IEEE will be held at the Virginia Beach Convention Center, Hampton Roads, VA, October 14-19. 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. 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. OCEANS 2012’s 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, followed by President’s Bush’s Ocean Action Plan and President Obama’s Ocean Science Policy. Again US IOOS will have a strong showing - in addition to papers US IOOS will feature three items:
 - A US IOOS booth in conjunction with NOAA, MARACOOS, NEARACOOS and SECOORA at the entrance to the Exhibit Hall
 - A new event call IGNITE which will be held Tues afternoon (Oct 16) just before the technical exhibits are officially opened
 - A Town Hall currently planned for Wed (Oct 17) and will be focused on US IOOS Summit scheduled for Nov 2012

We are looking for a strong US IOOS showing and I encourage you to submit a paper. [The abstract submission is now open and close on 18 May 2012.](#)

Upcoming Meetings : To see the IOOS calendar, please visit:

<http://www.usnfra.org/calendar.html> or <http://www.ioos.gov/about/calendar.html>

Cheers,

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Zdenka Willis

Director, US IOOS Program Office

www.ioos.gov

