

Bi-Weekly IOOS® Z-GRAM - 18 November 2011

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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 to the IOOS website and view under [program updates](#).

IOOS® - A Partnership supporting Lives and Livelihoods

Governance and Management Subsystem:

- **Certification** comment period open until 6 Jan 2012: On November 7th the National Science Foundation published a Federal Register Notice inviting public comment on the IOOC- approved certification criteria for RICEs. A link to information on the IOOC website is provided here: <http://www.iooc.us/committee-news/certification-standards/>
- **Fact Sheets for each of the Regions and ACT:** The US IOOS Program Office awarded 22M to extramural partners. If you would like to see what each of the regions are doing please visit the IOOS website, each Fact Sheet is associated with the individual region - I have included 2 of the 11 links:
http://www.ioos.gov/regions/factsheets/factsheet2011_aaos.pdf,
http://www.ioos.gov/regions/factsheets/factsheet2011_cara.pdf.
If you would like to see 1 file of the all the regional factsheets please see the Regional Home Page <http://www.ioos.gov/regional.html>.
- **Welcome Aboard:** Jenifer Rhoades joined the US IOOS Program Office on 7 November. Jenifer will have the duties of Regional POC as well as legislative activities. Jenifer, joined us from the National Weather Service, and has a great background in observing and partner relationships from her experience in the Tsunami Program.
- **New PacIOOS Partner:** PacIOOS welcomes the Government of Guam as a partner of PacIOOS. Mr. Joseph Artero-Cameron will represent the Honorable Governor Eddie Baza Calvo, Governor of Guam, on the PacIOOS Governing Council.

Observation Subsystem:

- **High Frequency Radar/Radio (HFR): For more information contact the US IOOS HFR Project Manager, Jack Harlan, Jack.Harlan@noaa.gov: No Update**
- **GCOOS In Action: Glider Successfully Operated Through a Florida Red Tide:** Two GCOOS data partners, the University of South Florida (USF) College of Marine Science and Mote Marine Lab (MML), on their support to the cooperative project to study Florida red tide. The mission's goal, implemented by the USF Center for Ocean Technology and MML, was to coordinate glider missions through a *Karenia brevis* bloom. The USF glider *Bass* was retrieved after a 28-day deployment, traveling 385 km and reaching a depth of 39.1 meters in the northeastern Gulf of Mexico. The survey track of the glider, from start of the deployment on 12 October 2011 to its retrieval on November 8th when its batteries were low, can be viewed at <http://ooma.marine.usf.edu/CROWChartsSync/>. Many of the approximately 1700

parameters available from the glider, including glider status, physical and biological data, and passive acoustic data, are available at <http://cotprojects.marine.usf.edu/data/plots.html> (see Mission 54). COT research engineer Chad Lembke (clembke@marine.usf.edu) can be contacted to request specific data sets.

- **Service Restored to NDBC NY Bight Buoys:** After a terrible 2010 winter, The [National Data Buoy Center](#) (NDBC) faced numerous necessary repairs of weather buoys across the eastern seaboard. Through collaboration amongst MARACOOS stakeholders including commercial fishermen, recreational anglers and mariners, the 44066 Texas Tower 4 was re-deployed at the Hudson Canyon and the important coastal 44025 buoy was upgraded to full functionality as of November 10. Montauk buoy 44017 and Nantucket buoy 44008 are currently on the NDBC repair schedule. Offshore data from all of these buoys are critical to fishermen from Massachusetts to New Jersey when planning daily and weekly trips offshore.

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).

- **RA DMAC Reference Implementation Working Group and Bi-Weekly Conference:** There has been an active discussion on Regional SOS services and response formats on the Google IOOSTech_Dev Wiki. The topic of comparing SOS services and beginning to utilize Google Fusion tables were part of the working group conference call discussion. These discussions encompass the work necessary leading up to a face-to-face meeting scheduled for January/February 2012. Micah contributed suggestions for how to utilize SensorML metadata to represent IOOS RA affiliation and other information in IOOS SOS service responses to the IOOSTech wiki, alongside other material contributed by members of the IOOS RA DMAC working group. The IOOSTech site is a central location for sharing knowledge in support of advancing DMAC and RA reference implementation activities. The wiki is available at: <http://code.google.com/p/ioostech/w/list>
- **New Capabilities at the PacIOOS Data visualization system:** Depth Plots in Model Overlays: Plots of variables through depth have been added to our Hawaiian regional circulation model overlays within the [PacIOOS data visualization system](#). By clicking a point on the map and choosing 'profile' you can examine the plotted variable (temperature, salinity, current velocity) from the surface the seafloor. From the same window you can download and subset data for that, and all locations within the model. Seafloor Infrastructure: Layers have been added detailing the location of subsea cables, sewer outfalls, explosive dumping zones, and other seafloor and coastal infrastructure. These data, presently available for Hawaii, are being identified and will be included in the insular Pacific where available in the coming months.

Modeling and Analysis Subsystem:

- **US IOOS Modeling Testbed:**
 - Conferences attended by Testbed Partners:

- Rick Luettich and Rich Signell each presented Testbed results at The 12th Estuarine and Coastal Modeling Conference, St Augustine, FL, November 7-9, 2011.
- Rick also presented at The 12th International Workshop on Wave Hindcasting & Forecasting & 3rd Coastal Hazard Symposium, Hawaii's Big Island, October 30 - November 4, 2011.
- Katja Fennel presented at the CERF 21st Biennial Conference, in Daytona Beach, FL, November 6-10, 2011
- **CenCOOS in Action: New California Current Ocean Model webpage:** A CenCOOS funded effort led by the University of California Santa Cruz resulted in modeled views of the sea surface temperature, salinity and height along the U.S. West Coast from near shore to approximately 1000 km offshore. The model views are updated regularly on the webpage, displaying data up to two days before the present.
http://www.cencoos.org/sections/models/UCSC_ROMS.shtml

Interagency Project Collaboration: The Z-Grams are certainly focused on providing information on IOOS® connections to these projects and it is not intended to provide programmatic updates of these specific projects because they all have project leads.

- **DMAC Steering Team:** The next meeting will occur on Jan 18-19 Jan 2012. The required Federal Register Notice has been submitted for NOAA clearance and publication is imminent.
- **IOOS and Links to the National Water Quality Monitoring Network: Coordination with EPA:** No Update
- **IOOS and The National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** Charly has reengaged OOI-CI leadership on emergent focus areas for the next phase of IOOS-OOI collaboration. The focus areas emerging include HFR data, glider data, expanded collaboration with ocean modelers. Discussions continued during the IOOS Regional workshop where Charly met with Applied Science Associates' (ASA) Eoin Howlett on next steps and a specific meeting with Eoin and SCCOOS's Eric Terrill to discuss options for an HFR data focus.

Other:

- **GEO Plenary Meeting:** The US delegation was led by Dr. Steve Fetter, White House - Office of Science Technology and Policy; and Dr. Sullivan, Assistant Secretary for Environment Observations and Predictions, and included representatives from the State Department, the Smithsonian Institution, NASA, NOAA, USGS, EPA and the US Department of Agriculture. I am privileged to be NOAA's lead representative for the Group on Earth Observations (GEO), and was joined by another NOAA representative, Yana Gevorgyan who is my alternate. The US strongly supports GEO through initiatives such as the NPOESS Preparatory Project, 8,000 unique entries to GEOSS Data-CORE, CEOS, SilvaCarbon as a US contribution to the GEO Forest Carbon Tracking task, GEONETCAST, US IOOS, Global Drought Monitoring, AIRNOW, and SERVIR. From the US, a statement which nicely captures our focus on GEO: "As we bring the sixth

year of GEOSS to a close, we can see that our collective goal of a system of systems is being met. And while there is still a lot to do to make data accessible, open, timely, and usable, we can look back on the beginning of GEO with satisfaction. The implementation of the data sharing principles, the creation of the GEOSS Data-CORE, the advances in the development of the GEOSS Architecture, including the new functionality of the GEOSS Common Infrastructure, and the collaborations and partnerships in the many tasks at the local, regional, and substantive levels move us forward. Within the United States, we continue to work to make our data free and open, accessible to all in a timely manner and with analytic tools which make use easier, assist with analysis, help us understand processes and trends on earth, and indeed, open up more research questions. The U.S. is working internationally to develop standards and communities of practice to share and utilize data; Data from space, from airborne sensors, from the ground, and the oceans." I had the chance to brief US IOOS at the User Engagement Workshop and US IOOS was featured as one of the presentations that was included in the US GEO booth. Madelyn Appelbaum, NOAA, led the development of the US GEO booth and she did an outstanding job, as the US booth was very well received! The US IOOS presentations will be available on www.ioos.gov this week.

- **2011 Regional Build Out Plan Workshop, Nov 16-17.** Representatives from all 11 Regions, NFRA, the U.S. IOOS program office and two IOOC co-chairs, Eric Lindstrom and Bob Houtman, attended the two day workshop hosted by NERACOOS at the Gulf of Maine Research Institute in Portland, Maine. The IOOC co-chairs provided valuable insight and the US IOOS program office offered context for the completion of a national report that synthesizes the 11 individual regional build out plans. The Regional participants were very successful in articulating a set of common products and services delivered to the American people along with the assets needed to deliver those products and services. Based on discussion and agreement at the workshop, the Regions will refine their summary level plans by Dec 2. The Regional Build Out Plan Steering Committee will review an outline of the national report on beginning on Dec 16, with the first draft available for review on Jan 20, 2012. Review of the final draft is targeted for Feb 29, 2012 which coincides with the annual US IOOS review meeting in D.C. The final report will be available by March 30, 2012.
- **Smithsonian MarineGEO workshop November 16-17.** Gabrielle and Hassan, US IOOS Program Office, represented IOOS. The objective was for Smithsonian to hear and learn from multiple observing networks as they work to develop a network for understanding and sustaining biodiversity, starting with 5 initial Smithsonian sites. There was much discussion about partnership and coordination among existing networks and MarineGEO as their planning advances. MarineGEO is the top priority for Smithsonian capital funding efforts in the coming year(s). The US IOOS Program Office attended to evaluate how US IOOS and IOOS Regional partners can be part of this effort.
- **IWG-OP meeting:** Gabrielle represented IOOS at this meeting. IWG members are interested in seeing the draft marine sensor plan that is circulating, and we will work to accommodate that request. There was some discussion about Arctic activities, related research and operational interests – the group concluded that more detailed discussion is needed among agencies about plans and interests and partnership opportunities. Gabrielle raised the presence of AOOS in the region and their expertise in Arctic science, partnership development, and data management, and the importance of making that

connection in any partnership discussions. Further discussion on this topic will take place at the January IWG-OP meeting, when Erica Keyes from NSF presents on that agency's Arctic plans.

- **Challenger 1 - Silbo- Glider Mission** - On 16 November, Challenger was successfully recovered off the Northern shore of Sao Miguel! This brave little robot flew an astonishing 3,412 km in just 143 days. Not only is the distance covered an amazing feat, but Challenger was the first glider to fly from Arctic waters up by Iceland to the warmer waters down in the Azores. Soon the team will arrive back on shore where they will run a number of diagnostic tests to try and find out what has been causing the leak. Finally, weather and test permitting, we hope to get the glider back in the water this weekend. As of 18 Nov, the team was still working to get Challenger redeployed, after putting the glider back in the water on 17 Nov, the glider began flying peculiarly. After running some diagnostics, it was determined that the pitch battery, which can be manipulated to change the angle the glider dives and climbs, had come loose and was causing the strange flight pattern. After amazing efforts by the team, Silbo is now back underway as of 21 November.

Congressional: No update

Communications/Outreach:

- **NOAA Press Release: "NOAA awards grant to advance harmful algal bloom warnings to protect public and animal health in coastal California"**
http://www.noaaneews.noaa.gov/stories2011/20111110_santacruz.html. A new NOAA grant to total more than \$4M will investigate methods that could provide early warning of toxic algae outbreaks off southern and central California. The research will investigate harmful algal bloom "hot spots" as part of a partnership between researchers funded by NOAA's Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) program and two U.S. Integrated Ocean Observing System partners—the Central and Northern California Ocean Observing System and the Southern California Coastal Ocean Observing System. The teams will combine the detection and monitoring of the toxic blooms with ocean models that can forecast ocean conditions, potentially leading to bloom predictions, thus protecting public and animal health in the area.

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

- **EARTH 2012 Hosted by MBARI & SECOORA 8-13 July at University of North Carolina, Wilmington:** The Monterey Bay Aquarium Research Institute (MBARI) and SECOORA are currently soliciting applications for the 2012 EARTH workshop to be held at UNCW. The focus of the 2012 workshop will be on ocean observatories and South East Coastal Research. If you have an interest and would like to be contacted about the 2012 workshop, please send an email to George Matsumot, mage@mbari.org. A requirement of the application process is to trial an EARTH activity, complete the rubric, and mail the rubric to George. Ten of the twenty participants will be from SECOORA states (North Carolina, South Carolina, Florida, Georgia); if you are from one of these states, please send your application to [Lisa, Adams \(Ladams@knewsaw.edu\)](mailto:Lisa.Adams@knewsaw.edu) - you can contact Lisa if you have any questions. Applications are due by March 21, 2012 and selections will be made by early April.

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

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