

Bi-Weekly IOOS® Z-GRAM - 2 December 2011

[www.IOOS.gov](http://www.IOOS.gov)

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

### **Governance and Management Subsystem:**

- **US IOOS Congressional Report Delivered:** Required by the IOOS Act of 2009, the US IOOS Program Office completed the first biennial U.S. IOOS Report to Congress (2011). The report was transmitted to Congress by the National Ocean Council, on 10 November 2011. The report provides the status of the current implementation of US IOOS. The report can be accessed from the [ioos.gov](http://ioos.gov) website at: [www.ioos.gov/about/governance/ioos\\_report\\_congress2011.pdf](http://www.ioos.gov/about/governance/ioos_report_congress2011.pdf)
- **Funding Opportunity:** NOAA Ocean Acidification extramural research request for proposals has been published. You can find it by searching [grants.gov](http://grants.gov) for the CFDA number 11.478. Letters of Intent are due Dec 15, and are required. Full proposals due Jan 30. This request is soliciting proposals for research under its Regional Ecosystem Prediction Program theme focused on the impacts of ocean acidification on key fish and shellfish species and their supporting ecosystems in US coastal and estuarine waters. Eligible applicants are institutions of higher education, other non-profits, state, local, Indian Tribal Governments, commercial organizations, US Territories and Federal agencies that possess the statutory authority to accept funding for this type of research. Proposals must include collaborations among researchers from outside NOAA and from NOAA or NOAA-funded programs - the list includes IOOS Regional Associations.
- **Certification - Requesting your comments by Jan 6, 2012:** For the Federal Register Notice and information on RICE certification go to: <http://www.iooc.us/committee-news/certification-standards/>

**Observation Subsystem:** No update

**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](mailto:Derrick.Snowden@noaa.gov)) or Rob ([Rob.Ragsdale@noaa.gov](mailto:Rob.Ragsdale@noaa.gov)).

- **AOOS in Action: New version of the AOOS real-time sensor map released:** Link: <http://data.aos.org/maps/sensors> New capabilities include:
  - Ability to see the latest observations from multiple sensors housed on a single station at the same time
  - Ability to "Deep Link" into a user's current view by clicking the star at the top left of the screen. This means you can bookmark a specific view to return to, or send it to a friend.

- View wind vectors on the main map, showing wind direction and magnitude (soon wave vectors will be added as well)
- View a visual representation of relative differences in temperature, precipitation, or other parameter of your choosing across stations
- Other interface updates
- **GLOS in Action - Fishing for Information: Making Acoustic Telemetry Projects More Accessible:** Understanding the complex interactions of the expansive Laurentian Great Lakes fish community can be a challenge for managers charged with the rehabilitation and propagation of the region's fisheries. Acoustic telemetry curtains and arrays have the potential to unravel these mysteries and provide management support by increasing understanding of migration, ecology, and spawning behaviors of key species. GLOS is working with the Great Lakes Fishery Commission to develop a web tool to support management of their Great Lakes Acoustic Telemetry Observing System (GLATOS). [www.glos.us](http://www.glos.us).

### Modeling and Analysis Subsystem:

- **US IOOS Modeling Testbed:** No update
- **Community Surface Dynamics Modeling System (CSDMS) Meeting:** The National Science Foundation (NSF) hosted this meeting. Attendees from CSDMS, NSF and several agencies gathered to hear updates on the past year and to discuss future funding options and opportunities to continue to grow the program, based at The University of Colorado. There were prospects for the CSDMS efforts to overlap with the IOOS Modeling Testbed, and these will be explored in more detail as the framework for the Testbed comes together.
- **GLOS in Action: New Point Query Tool Available for the Great Lakes Coastal Forecasting System and Facilitates Lake Michigan Modeling and Forecasting Working Group:** The new Point Query Tool provides quick access to the NOAA Great Lakes Coastal Forecasting System (GLCFS) input data and model outputs for a given location and time period. The more user-friendly interface was created in coordination with the launch of the new GLOS website. The Point Query Launch page allows users to access the new Point Query Tool, or obtain THREDDS data through organized links. Lake Michigan Modeling and Forecasting Working Group: The shared management responsibility of Great Lakes ecosystems has an established tradition of collaboration among the state/provincial and various U.S. and Canadian federal agencies. As ecosystem modeling and forecasting efforts in the Great Lakes become more sophisticated, it is essential that federal and state agencies, as well as other relevant Great Lakes entities, better coordinate modeling activities. We will be more efficient and effective in supporting resource management decisions if we avoid unnecessary duplication, and leverage resources to meet these critical information needs. [www.glos.us](http://www.glos.us)

**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.
- **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):** No Update

## Other:

- **NERACOOS in Action:** NERACOOS provides more than 50% of the surface and 90% of the underwater observing assets in the North Eastern part of the United States. In a survey of users, greater than 75% of people surveyed indicated that the services that NERACOOS provides are critical to their daily lives. These services and NERACOOS' new achievements were discussed at the annual NERACOOS meeting held on November 29, 2011. Zdenka and Gabrielle Canonico, US IOOS Program Office, provided a national overview of the US IOOS during the meeting. The meeting was attended by over 60 stakeholders who were very positive about the efforts of NERACOOS last year. The discussion also centered around the buoys in NERCAOOS' region, which are vital observing assets and are widely used. Routine users include the Federal government, John Cannon of the NOAA's National Weather Service - Weather Forecast Office Gray, Maine - talked about the importance of the visibility sensor on the buoys, and explained the significance of this new sensor. NERACOOS' data users and collaborators continues to expand as NERACOOS continues to develop meaningful partnerships. Ru Morrison, NERACOOS Executive Director, highlighted several accomplishments that came from successful partnerships during his State of NERACOOS address. See below for the results of the Press event that highlighted the 5 year partnership we kicked off with the FY11 award. Last but not least CONGRATS to Dr. Neal Pettigrew, who was recognized by NERACOOS for his dedicated efforts to the Gulf of Maine Buoy array and the efforts of his team in developing coastal buoys used not only by NERACOOS but also by CaRICOOS. My presentation will be posted this week and for more information on NERACOOS please go to: <http://www.neracoos.org/>
- **Liquid Robotics launches PacX: Four Wave Gliders. 300 Days. 25,000 Miles. 2,250,000 Discrete Data Points.:** You can follow the Wave Gliders at: <http://pacxdata.liquidr.com/>. On November 17th, at San Francisco's St. Francis Yacht Club, Liquid Robotics launched four [Wave Gliders](#) on a record-setting journey across the Pacific Ocean – the longest distance ever attempted by an unmanned ocean vehicle. The purpose of this unprecedented Pacific crossing is to foster new scientific discoveries in ocean science by making available vast amounts of ocean data collected and transmitted globally during the Wave Gliders' yearlong journey. Liquid Robotics and Ocean in Google Earth are providing a platform for the world to follow the expedition virtually, while Virgin Oceanic and Liquid Robotics will jointly explore the Mariana Trench. The four Wave Gliders are expected to collect approximately 2.25 million discrete data points, and take more than 300 days to complete their voyage. During their voyage, they will transmit valuable ocean data on salinity, water temperature, waves, weather, fluorescence, and dissolved oxygen. Throughout their journey, the Wave Gliders will build an enormous data set, provided free of charge and in real-time, to the world's scientists, educators, students, and the general public. Liquid Robotics is making

this data available to anyone who [registers](#). During their combined journey of 34,000 nautical miles (the Australia gliders will travel 8000 miles each, and the Japan Gliders will travel 9000 miles each), the Wave Gliders will travel across some of the world's most challenging environments. The Wave Gliders will begin their journey together to Hawaii, and then split into pairs, one pair continuing to Japan (over the Mariana Trench, where Virgin Oceanic will complete the first of its Five Deep Dives) and the other pair to Australia. When they reach their final destinations, the Wave Gliders will have earned a Guinness World Record for the longest voyage completed by an unmanned ocean vessel. Liquid Robotics has made this investment to not only demonstrate the endurance of Wave Gliders, but more importantly, to ignite everyone's imagination on what can be discovered and explored when the ocean is networked with sensors. We encourage everyone who has a passion for the ocean to participate in the journey. Liquid Robotics has had participation from US IOOS partners, CeNCOOS and PacIOOS in the project, and they are featuring this mission on their sites: CeNCOOS

[http://www.cencoos.org/sections/news/Pacific\\_glider\\_crossing.shtml](http://www.cencoos.org/sections/news/Pacific_glider_crossing.shtml)

PacIOOS:<http://oos.soest.hawaii.edu/pacioos/> The following sensors are installed on all four Wave Gliders. The sampling interval for all sensors is 10 minutes.

- Seabird GPCTD with Dissolved Oxygen Sensor — measures water conductivity, temperature, depth, and dissolved oxygen just below the float of the Wave Glider.
  - Datawell MOSE-G Directional Wave Sensor — measures significant wave height, average period, peak period, and peak direction.
  - Airmar PB200 WeatherStation — measures air temperature, barometric pressure, wind speed, wind gust speed, and wind direction one meter above the deck of the Wave Glider.
  - Turner Designs C3 Submersible Fluorometer — measures chlorophyll-A and crude oil fluorescence, as well as turbidity and water temperature just below the float of the Wave Glider.
- **Challenger 1 - Silbo- Glider Mission - temporarily on hold:** From the Blog: "After 164 days at sea, covering a total of 3,940 km, Silbo is now safely on board ship on his way back to shore in the Azores. In the middle of last week, Silbo aborted due to a low voltage reading in his batteries, meaning that we did not have much time left on this mission. Our team sprung into action and we were able to get out to the Azores in just a few days. We then lucked out with a nice window of clear skies for this past weekend that allowed for us to plan to leave port. On Saturday, as the team prepared to leave, the ship that was to take our team out on the recovery mission suffered some mechanical failures resulting in the need to find a new vessel. Soon after, the team boarded the Shanghai and left port. Then at 23:47 GMT (6:47pm local), "undercover of darkness," Silbo was pulled from the water where they are now on their way back to Ponta Delgada where Silbo will take a long deserved rest. In the meantime, new battery packs will be shipped to the Azores and after a few weeks rest Silbo will be back on his way continuing the legendary Challenger Mission."
  - **Meeting with Bill Woodward President and CEO of CLS America, inc:** Several members of the US IOOS Program Office met with Bill Woodward, President and CEO of CLS America, inc. The purpose for Bill's visit was due to interest in the IOOS Program's Animal Telemetry work and possible cooperative efforts between CLS and IOOS. CLS (Collected Localisation Satellites) was created by CNES, the French Space

Agency; CLS America, inc., is a subsidiary company to CLS responsible for supplying Argos service to users from North America. Argos is the satellite data collection system used for satellite-based animal tracking applications world-wide

**Congressional:** No update

### **Communications/Outreach:**

- **GLOS Awarded \$1.4 Million:** The \$1.4 Million IOOS award supports GLOS data management, observation, modeling, outreach and education activities. GLOS was awarded \$1.4 Million in funding from the U.S. Integrated Ocean Observing System (IOOS) for 2011-2012. This is the largest amount that GLOS has received from the national program office to date. The award will support GLOS data management, observation, modeling, outreach and education activities.  
<http://www.glos.us/sites/default/files/documents/GLOS%20%241.4%20Million%20Award.pdf>
- **NERACOOS Press Event announces the 5 year Partnership with US IOOS.** The event garnered both TV and Print Media:
  - The video that aired on WCSH6: <http://www.wcsh6.com/news/article/180882/314/Ocean-weather-buoy-system-gets-five-year-funding>
  - Other Press Links:<http://www.pressherald.com/news/Nearly-18M-given-to-ocean-research-effort-.htm>,  
<http://www.seacoastonline.com/apps/pbcs.dll/article?AID=/20111130/NEWS/111300336/-1/NEWSMAP>, <http://www.digitaljournal.com/pr/505259>,  
[http://articles.boston.com/2011-11-29/news/30455399\\_1\\_atmospheric-administration-nova-scotia-dartmouth](http://articles.boston.com/2011-11-29/news/30455399_1_atmospheric-administration-nova-scotia-dartmouth),<http://mainebusiness.mainetoday.com/newsdirect/release.html?id=10641>
- **Liquid Robotics PacX effort garners National Attention:** There have been well over 100 republications of these stories in local media all around the world. Liquid Robotics got over 10,000 hits to their website in the week following the launch, coming from almost every country except Mongolia and some in central Africa. For the list of articles and stories please go to:<http://liquidr.com/press/media-and-trade-press/>

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

**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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Director, US IOOS Program Office

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