

Bi-Weekly Z-GRAM - 9 July 2010

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

The Z-Gram is an informal way of keeping you up-to-date on 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® - Our Eyes On Our Oceans, Coasts, and Great Lakes

**Programmatics:**

- Personnel Updates:
  - Welcome aboard to Marina Kraus, who joins the IOOS Regional and External Affairs Division as the Web Developer, responsible for updating and maintaining the IOOS.gov site. Marina brings a strong background in web development, education and outreach, and partnership building. Marina has been with NOAA as a contractor for the past 8 years, most recently with the NOS Communications and Education Division. She has been the webmaster for NOAA's "Planet Arcade" <http://games.noaa.gov> and has managed a partnership with Montgomery College to provide opportunities for their students to gain practical experience while providing NOAA with additional web development capacity. She would like to explore ways to continue to build on this partnership, and has a particular interest in coordinating the development of mobile device applications.
- FY10 RCOOS Awards: NANOOS is ready for recipient to pick up, CeNCOOS has been awarded. Our final award, SCCOOS, is being process through a NOAA Cooperative Institute as their award mechanism is bring processed by OAR.

**Initial Operating Capability - Data Management and Communications (DMAC) Subsystem of IOOS®** [http://ioos.gov/library/dmac\\_implementation\\_2010.pdf](http://ioos.gov/library/dmac_implementation_2010.pdf)

- **Customer Projects:** **Contact Charly Alexander** at [Charles.Alexander@noaa.gov](mailto:Charles.Alexander@noaa.gov) if you want to be part of the action.
  - Biological Observations Project:
    - Data Schema and Web service Conference Call (6/29): The objective of the call was to discuss data schema and web services concepts. Different suggestions were made: one of them is to use the concept used by the DIF project. IOOS Biological data project members from SWFSC, OBIS, PacIOOS, and Jeff De la Beaujardiere participated.

- National Park Service Conference Call (7/6): A call with the National Park Service (NPS) data management team and PIFSC was held to discuss the NPS's data structure and methods used to collect data.
  - Ocean Tracking Network (OTN) Conference Call (7/7): Hassan discussed the connection between OTN and IOOS biological observations with Ron O'Dor, Bob Brandon, and Sara Ellis from OTN. OTN's annual conference, planned for this November in Halifax, Nova Scotia, Canada, was mentioned as an opportunity to organize a workshop in the U.S. for planning a biological monitoring observing system on the Atlantic Coast.
- **Technical Updates:**
  - Conformance Testing: IOOS has begun using the OGC Compliance & Interoperability Testing & Evaluation (CITE) test suite to verify the IOOS SOS implementations. We have found some things that we want to fix on the servers, and other areas in which the test itself is either too strict (e.g. requiring all times to be precise to the second) or flawed (asking for something that is not in the OGC specification). We are working both of these aspects at once. Paul Daisey (Image Matters LLC) is helping us improve the test software (with permission from OGC). We are focusing on the NDBC server first to get them fully compliant with the corrected tests.
  - NDBC: NDBC modified the SOS test server on 8 July to address compliance test issues revealed by OGC CITE software. The modifications are available on the test server located at <http://sdfstest.ndbc.noaa.gov/sos/>. The modified software code will be moved to the production server on or after 15 July.
- **IOOS Data Catalog and Viewer Version 1.0 is now live at <http://ioos.gov/catalog/>.** Thanks to Eric Bridger & Tom Shyka (GMRI), and Ted Habermann & David Neufeld (NGDC) for all their work on this.
  - We have found that the IE7 browser is much slower to display the Catalog than Firefox, Safari, or Chrome (30+ seconds vs 5-10 seconds). We are investigating and will resolve if possible. I will add a little message above the map: "Service notice: We have found that Internet Explorer is slow to display this page, and we are investigating. Firefox, Safari, and Chrome browsers work well."
  - Several IOOS data providers are included at present (NOAA - NDBC, CO-OPS, CoastWatch; IOOS RAs - AOOS, NERACOOS, PacIOOS) and we will add more as soon as we can verify their compatibility and metadata.
  - *The following text went out via NOS Weekly (July 1)*: This week, the Integrated Ocean Observing System (IOOS) launched the first version of the IOOS Data Catalog to help people find ocean observations. The goal is to allow users to find the data they want, for the location and time period of interest, from all available IOOS partners without having to know in advance which partners actually operate

the observing systems and data servers. At launch, data are available from NOAA's National Data Buoy Center, NOAA's Center for Operational Oceanographic Products and Services, and NOAA CoastWatch, as well as several regional partners of IOOS. The U.S. Geological Survey and the U.S. Army Corps of Engineers will also be included in the near future, as their data services are available. The initial version of the catalog is available at <http://ioos.gov/catalog/>. This catalog is a work in progress. IOOS will add more features and more observing assets as available. **Comments and problem reports may be sent to [ioos.catalog@noaa.gov](mailto:ioos.catalog@noaa.gov).** For more information, contact Jeff De la Beaujardiere.

- *The following announcement was sent to IOOS Web Services working group, Regional DMAC Implementation WG, and NOAA EDMC:* The initial version of the IOOS Data Catalog is now available at <http://ioos.gov>. The direct link to the catalog is <http://ioos.gov/catalog/> and the Help Page is at <http://ioos.gov/catalog/about.html>. Excellent work by Eric Bridger and Tom Shyka from Gulf of Maine Research Institute (GMRI), and Ted Habermann and David Neufeld from NOAA's National Geophysical Data Center (NGDC), enabled us to meet the 30 June milestone for initial implementation. Our vision is that users will be able to find ocean observations for the location, time period, and phenomena of interest, from all available IOOS partners, without having to know in advance which partners actually operate the observing systems and data servers. The catalog is built by harvesting metadata from standardized IOOS services including SOS, DAP, and WCS. Thanks are also due to the IOOS data providers who have established these services. Several IOOS data providers are included at present (NOAA - NDBC, CO-OPS, CoastWatch; IOOS RAs - AOOS, NERACOOS, PacIOOS) and we would like to add more as soon as we can verify their compatibility and metadata. **Available features include:** Display location of in situ and gridded datasets; Link to data and metadata values for individual stations and grids; Filter for recent observations or specific date range; Filter for observed property; Filter of in situ obs by boundary of region or gridded dataset; Filter by data server or data provider; Web-based graphical user interface. **Future work includes:** Visualize current data values at each location; Application programming interface for automated queries; Clip-and-ship integrated search results and links to data; Clip-and-ship integrated data from search results; and more based on long list of functional requirements and desires. If you wish to be added to the IOOS System Status mailing list, which will inform you of changes to the IOOS Catalog or IOOS Data Access Services, please contact Jeff De la Beaujardiere at [Jeff.deLaBeaujardiere@noaa.gov](mailto:Jeff.deLaBeaujardiere@noaa.gov).
- **IOOS Regional DMAC Team Efforts:** No Update.

**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.

- **High Frequency Radar/Radio (HFR):** HF Radar Technical Steering Team: KICK-OFF meeting will be held on 28 July at the Consortium for Ocean Leadership (COL) in Washington, D.C.
- **IOOS and Links to the National Water Quality Monitoring Network:** Water Project Conference Call (7/12): A conference call is scheduled with water quality project principals to reengage on a plan for implementation of a project. The concept for a project that has been most widely discussed is the development of a product for forecasting water quality conditions near beaches, but also applicable around shellfish beds. Members have been invited from USGS, NOAA, and IOOS Regional Associations.
- **IOOS and National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** No Update.
- **DMAC Steering Team:** No Update.

#### **Other:**

- **Response to Deepwater Horizon:** The Joint Analysis Group is now evaluating the glider data that is being collected. We have seven gliders deployed and six HFR up in the region. Harvey Seim and Dick Crout have stepped in to relieve Sam Walker, which strengthens the IOOS bench in theater. Many thanks to Harvey and Dick. Keep up with the action by visiting <http://rucool.marine.rutgers.edu/deepwater> for IOOS support. Participate in the planning process by logging into the following Wiki site: <https://www.st.nmfs.noaa.gov/confluence/display/OOP/Home>. If you are in NOAA, use your NOAA LDAP credentials to access the site. Partners, please use: Username: oilspill.response; P-word: WikiWelcome!
- **NOAA's Atlantic Oceanographic and Atmospheric Laboratory (AOML) and the South East Fisheries Science Center (SEFSC) held a workshop entitled, "Gulf of Mexico Monitoring in Support of Oil Spill Efforts":** This workshop is part of NOAA's engagement with the non-Federal scientific community. The goal of the workshop was a first in the series of thematic workshops that will be organized by NOAA to gather members of the scientific and operational communities, governmental and university laboratories, and from private industry, all of whom are currently gathering observations, creating products, and/or performing analysis, in support of NOAA oil spill activities. This workshop was held in order to exchange knowledge and strategies, and to improve the monitoring of ocean conditions in the Gulf of Mexico and Straits of Florida in support of the Deepwater Horizon oil spill monitoring and mitigation efforts. This workshop builds on the Science Summit that was held in Baton Rouge on 3 June, 2010 and represents a continuation of the dialogue already begun. Future workshops will address

more specific themes highlighted in this workshop and will build towards a recommendation for a comprehensive monitoring plan. A total of 85 participants from 35 different institutions took part in this meeting. There were a total of 37 oral presentations. The format of the workshop included presentations, plenary discussions of common themes, and splinter groups dedicated to discussing specific topics. A copy of the agenda and the list of participants can be found at: <http://www.aoml.noaa.gov/phod/dhos>. A number of IOOS partners from SECOORA, GCOOS and our partners across NOAA. The meeting included summary presentations on the ongoing work of NOAA and collaborators within the scientific community in support of the oil spill efforts. Presentations included specific interdisciplinary efforts leading to the identification and monitoring of oil at the surface and subsurface using in situ and satellite observations; a review of analyses of surface and subsurface currents, the ocean thermal structure, biological and ecosystem response; the effect of hurricanes in surface particles; and data management and distribution. Participants emphasized that this is an interdisciplinary problem and that the most pressing issue for NOAA is to understand the current distribution of oil, its pathways and its impact on the marine ecosystems, with the objective of helping with recovery, restoration, and damage assessment efforts. In addition, knowledge acquired from this effort will serve to better monitor future oil spills in the Gulf of Mexico and their impact in far field areas, and that knowledge acquired from this experience will have important applications in other regions where oil spills may occur.

- **Ocean Observing Sensors Deployed in Multiple Regions:** Partners of the Integrated Ocean Observing System recently deployed various types of ocean data collection sensors. The Pacific Islands Ocean Observing System region deployed water quality systems in Guam, Palau, the Marshall Islands, and the Federated States of Micronesia to collect real-time and near real-time views of coastal and lagoon water properties. Two additional buoys will be deployed in Hawaii and the insular Pacific in the coming months. The Northwest Association of Networked Ocean Observing Systems deployed a buoy off the coast of Newport, OR with new sensors to measure dissolved oxygen so scientists can track the progression of the upwelling season. Additionally, the Mid-Atlantic Coastal Ocean Observing Regional Association, with the help of the U.S. Coast Guard Cutter James Rankin, deployed the historic Francis Scott Key buoy in the Patapsco River near the Francis Scott Key Bridge.
- **NOAA R2R (Rolling Deck To Repository) Workshop:** This project is to ensure that data collected from NOAA ships is routinely documented and transferred for archiving. The NOAA R2R is based on an NSF-funded R2R project for academic fleets. Zdenka and Jeff attend for IOOS.
- **Observations and Fisheries:** The International Council for the Exploration of the Sea (ICES) formed a working group to develop a Regional Sea Program for coordinating marine science in the Northwest Atlantic. The group has a focus on ocean observation

systems and ecosystem surveys to provide the infrastructure for an integrated approach to ecosystem science and management. Its report, [WGNARS REPORT 2010, Report of the Working Group on the Northwest Atlantic Regional Sea \(WGNARS\), 20–22 April 2010, Woods Hole, USA](#), has just been released. Variations in growth, survival, and reproduction are the consequences of variations in habitat selection. In a section entitled, "IOOS informed dynamic habitat models for integrated ecosystem assessment and space based management in the NW Atlantic Regional Sea" by John Manderson, Josh Kohut, Matthew Oliver, Laura Palamara, and John Goff, IOOS data are beginning to provide comprehensive descriptions of the physical forcing, primary productivity, and flows that subsidize and structure coastal ocean habitats. Their research indicates that as subsurface data from underwater gliders and output from broad scale assimilation physical oceanographic models become available, it may soon be possible to construct regional sea scale spatially explicit habitat simulation models that couple important life history processes and life cycle habitats.

- **Ocean Acidification Effects on the West Coast Shellfish Industry Workshop:** The Southern California Coastal Water Research Project hosted a workshop on 7-8 July in Costa Mesa, CA. Steve Weisberg, Executive Director of SCCWRP, moderated the workshop. Carl Gouldman, Jan Newton, and Steve Ramp attended the meeting to represent IOOS. The workshop met its goal of bringing together constituents from West Coast fisheries industries, scientists, and governmental representatives to address concerns related to the impacts of Ocean Acidification on the West Coast Shellfish and other fisheries industries. The workshop was sponsored by a mix of organizations including California Sea Grant, University of Southern California Sea Grant, Oregon Sea Grant, the California Ocean Science Trust, and the U.S. Integrated Ocean Observing System. Fifty people attended, including representatives from shellfish hatcheries operations, sea urchin fishermen, fisheries associations, Sea Grant offices, NOAA Ocean Acidification Working Group members, the National Science Foundation, IOOS Regional Associations, and leading scientists in the field of Ocean Acidification. The workshop focused on identifying near-term actions and recommendations that will create better coordinated scientific research, observing and monitoring data, and linkages between real-time information and longer term research questions. The group worked to develop strategies that link the immediate information needs of shellfish growers to longer term Ocean Acidification research needs. Results of the workshop will be summarized in two reports in the coming months and future meetings in other regions may follow this model. A short summary report is scheduled to be completed by early September prior to the California World Oceans Conference and a more detailed report will be available by late fall.
- **New Members Join IOOS Regional Associations:** Welcome to The Georgia Aquarium, represented by Dr. Greg Bossart, is the newest SECOORA member. Welcome to Battelle who joined MACOORA.

### **Congressional:**

- 20 July: Zdenka to meet with Congresswoman Madeleine Z. Bordallo (D-GU) during the PacIOOS trip.

### **Communications and Outreach:**

- NOAA Press Release - 28 June: NOAA, IOOS® Partners Employing Underwater Gliders and Surface Radar to Assist In Gulf Water Sampling
- Guam News - 11 July, Oceanographic Sensor Installed in Cetti Bay
- Michigan Tech News - 9 July - "Where the Buoys Will Be"  
<http://www.mtu.edu/news/stories/2010/july/story28822.html>
- Guam Pacific Daily News - July 8, 2010 - Ipan Buoy Has Been Redeployed -On June 29, the Ipan Guam wave buoy was returned to service by a team from Guam's Department of Agriculture, Cabras Marine, and the Coastal Data Information Program, or CDIP, based at Scripps Institution of Oceanography, UC San Diego.  
<http://www.guampdn.com/article/20100708/NEWS01/100708006/1002/%3CB%3E%3ENews+UPDATE+%3C/B%3E+Ipan+buoy+has+been+redeployed>

**IOOS Conference Involvement:** This section will highlight those conferences where IOOS is a sponsor or has a session: No Update.

**Upcoming Meetings:** We have merged our calendars and now there is single calendar that allows you to view the IOOS-related meetings. To see this calendar, please visit:

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

- PacIOOS Trip 13-23 July: Zdenka
- IEEE Geoscience and Remotes Sensing Society (IGARSS) 2010: Jeff; July 26-30; Honolulu, HI
- Bay and Estuarine Sensor Technologies (BEST) Workshop: Doug Levin, Rob Ragsdale; July 27 – 30; Oxford, MD
- IOOS MPA Task Team Workshop: Charly; week of August 30 (tentative); Monterey, CA

Cheers,  
Zdenka