

Bi-Weekly Z-GRAM - 2 April 2010

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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

Programmatic:

- **Farewell to Dr. Rick Spinrad:** In our last Z-Gram we said goodbye to Jack Dunnigan, and this week we bid Fair Winds and Following Seas to Rick. Rick has been with IOOS since its beginning in the early 1990s when he wrote the initial document that led to the formation of the National Ocean Partnership Program, which established the foundation for the federal agencies working together in support of ocean issues, of the Year of the Ocean, the early days of Ocean.US, as the Assistant Administrator of NOS and led the early efforts of IOOS in NOAA, and as the AA of OAR and the co-chair of the JSOST he continues to push the envelope on IOOS. He understood that the success of IOOS would only happen if there was strong, non-federal participation from both industry and academia. Had it not been for his tireless efforts in the founding of IOOS, we in the IOOS office at NOAA would not have been able to take this program to the levels we have today where we have made progress in a US DMAC, working with interagency partners on IOOS, and we now have a regional component that is operating as a network, which meets both regional and national needs, and we have industry partners supporting us in all aspects of IOOS. It was Rick who coined the phrase "IOOSian" and, as we say, "Once and IOOSian, always an IOOSian," and in Rick's case that is so true as his next job is VP for Research at Oregon State University. OSU is a strong partner in NANOOS, so we know that Rick will remain involved. From the entire IOOS community -- THANK YOU and BZ on a Job Well Done!
- **Thank You to My Team:** I do not use the Z-Gram often to thank my team, but I think it's important that you have a chance to see how the national office is working on behalf of the IOOS community to continue moving the entire program forward. Last week was particularly busy and I am going to take the liberty to say thank you. My team came together, with you, to process fifteen awards. Thirteen of fifteen awards were submitted by the 31 March deadline and those two were beyond our control (e.g. moving money from one federal agency to another); we answered FY12 questions from NOAA budget; we answered an Office of Management of Budget question on IOOS and Coastal Marine Spatial Planning; we answered a GAO question regarding the relationship of the NOAA IOOS program and the relationship with the regional components; we hosted the Regional DMAC conference (see below); we briefed the NOAA Scientific Advisory Board; we provided comments on the NOAA Ocean Acidification Plan, which includes the IOOS Regional Associations, and we closed out the second quarter on FY10 budget execution. My team put in the extra hours to accomplish all of this and I just want to say THANK YOU!

Initial Operating Capability - Data Management and Communications (DMAC) Subsystem of IOOS®:

- **DMAC Implementation Guidelines Posted on the IOOS Website:** As we move together to DMAC, we have posted Version 1 of Guidance for Implementation of the Integrated Ocean Observing System (IOOS®) Data Management and Communications (DMAC) Subsystem, NOAA IOOS® Program Office White Paper (v1.0), March 12, 2010. As we look forward to assessing RCOOS development, please use this white paper as guidance: http://ioos.gov/library/dmac_implementation_2010.pdf
- **Customer Projects:** **Contact Charly Alexander** at Charles.Alexander@noaa.gov if you want to be part of the action.
 - **Coastal Inundation:** All four assessment forms were received for the IOOS-funded Coastal Inundation projects. Marcia (IOOS) will be meeting with Jesse Feyen (NOAA Storm Surge Portfolio Manager) and a small tiger team from the NOAA Storm Surge Roadmap Planning and Action Team to discuss the results and next steps on Friday, 2 April and Monday, 5 April, respectively.
 - **IOOS Biological Data Observation Project:** The project is now officially launched. The “kickoff” project meeting was held on 1 April 2010.
- **Technical Updates:**
 - **IOOS Obs Registry:** The IOOS Obs Registry site transfer has been completed and it is now live, running from University of South Florida (USF) servers. There is no change in any of the URLs associated with the site. Thank you to Gary Conley and Oscar Garcia (Monterey Bay National Marine Sanctuary) and to Vembu Subramanian (USF) on this effort.
- **Integrated Products Team:** The IPT is being evaluated and options for how the team continues will be formulated and sent to the team for their consideration. In an upcoming IPT conference call, the feedback received on the options put forth for consideration will be discussed and then decisions can be made regarding in which direction to take this team.
- **IOOS Data Portal (Registry/Catalog/Viewer):** In addition to evaluating a technical solution, the IOOS program has been conducting a series of interviews on the different types of users need from this portal. Sam Walker (IOOS) conducted interviews with Ru Morrison, Judy Krauthamer, Josie Quintrell, Jeremy Cothran, Dan Ramage, April Black, and Mark Wiegardt. The initial functional requirements (with a focus on common threads) documents are being evaluated.
- **IOOS Regional Association Annual DMAC Workshop:** The workshop, once again, was a huge success. 35 people participated in the 2010 IOOS Regional DMAC Workshop. The 11 IOOS Regional Associations (RAs) DMAC leads attended with guests from NOAA, USACE, USGS, OOI-CI, OPeNDAP, Inc., SURA, NFRA, and the IOOS RAs. **This workshop was part review of the FY09 activities and present state and part technical discussion on several priority topics:** **IOOS Data Encoding and Web Services:** Review of the IOOS Web Services survey results, challenges, and issues with the current formats, and services implementation; **URN Identifiers:** A targeted discussion to try to resolve differences in how platforms are identified in data schema, which is relevant to their display in a viewer like Google Earth; **Registry/Catalog/Viewer:** An overview of the recent development of the data portal and

discussion on what information the regions can contribute; **OOI-CI/ National DMAC Project Coordination:** Status report on a collaborative project between IOOS and OOI and the regions' role; **Data Archiving:** Ken Casey briefed a synopsis of the NODC archive. The regions inquired as to the type of data, data formats, and channels for routing regional data into the archive in the follow-on discussion; and **Products and Tools:** Several of the RAs demonstrated products or tools that have been created or implemented to access or visualize data. A consensus list of priority activity areas was formulated in the latter part of the workshop with several of the regions volunteering to lead. In the next steps, the regional team will formulate an action plan and identify a schedule, for the remainder of FY2010, for accomplishing specific activities in each of the high-priority activity areas.

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.

- **IWGOO 3rd Industry Day - 25 May 2010 - La Jolla, CA:** The Interagency Working Group on Ocean Observations (IWGOO) is cosponsoring a stakeholder workshop on 25 May 2010 at the Scripps Institution of Oceanography in La Jolla, California. The workshop will explore how monitoring and understanding the ocean delivers economic and environmental benefits to industries, government, and the citizens of California. For more information, or to register for this workshop, please visit: www.oceanleadership.org/iwgoo/california.
- **NEW - IOOS and MPA Task Team Formed:** At the request of the MPA FACA, this team has been formed. Members include those from IOOS (at national level, and at the regional level through CeNCOOS and NERACOOS), EPA, Fish and Wildlife, National Parks Service, NOAA (NEERS, NMFS), and the National MPA Center. The "charge" for the Task Team over the next twelve months will include:
 - Identifying the end-user products that the MPA managers will need to be able to determine if the MPA network is operating as designed.
 - Identifying key environmental parameters and processes that are most important to MPA managers to enhance the understanding of dynamic marine ecosystems and ecosystem health at the national level.
 - Recommending steps to expand the climate reference network by adding marine sites.
- **NEW - NAVY/NOAA IOOS Collaboration Under the MOU:** NOAA's National Data Buoy Center (NDBC) and US Navy-Commander Navy Meteorology/Oceanography Command (CNMOC) al have begun the process of installing a copy of the Naval METOC Data Services Framework at NDBC as a test means to serve Navy model data to IOOS users.
- **High Frequency Radar/Radio (HFR):** No Update.
- **IOOS and Links to the National Water Quality Monitoring Network:** No Update.
- **IOOS and National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** No Update.
- **US IWGOO - DMAC Steering Team:** Congratulations to Dr. Sam Walker, our new DMAC Steering Team Chair! Sam is completing the draft of the Terms of Reference for

the new DMAC-ST and has initiated discussion with some of the long-term DMAC community members on how to reconstitute the DMAC-ST.

Other:

- **Mesonet Briefing:** NOAA IOOS met with senior NWS staff to review/discuss possible intersections between NWS "Mesonet" activities and NOAA IOOS ("Mesonet" refers to a network of intermediate-scale observations). Curtis Marshall, David Helms, and Tim McClung (NWS) briefed to the IOOS program to discuss synergies between these national efforts. The National Mesonet would like to assimilate ocean observing systems into the framework as part of work on an FY2010 contract. There is a focus to leverage metadata activities as much as possible and there was a strong desire to see the other federal agencies included in the system.
- **IOOS - Climate Meeting:** Charly led a conference call discussion on Wednesday 31 March to continue exploring an IOOS-Climate partnership with senior NOAA scientists and managers. This was part three of an extended discussion that began last fall with NCDC's Tom Karl and others to explore how IOOS can facilitate a climate "service" that involves ocean model products at a resolution that is meaningful and useful to coastal managers at a local (bay/estuary, regional) level. A short concept developed in October 2009 by PMEL's Steve Hankin, USGS's Rich Signell, and GFDL's Venkatramani Balaji was the original foundation for these discussions. The latest conference call included Tom Karl (NCDC), Margaret Davidson (CSC Director), Robert Hallberg (GFDL), Don Anderson (CPO), Chet Koblinsky (CPO Director), Scott Cross (NODC), Dave Eslinger (CSC), Howard Diamond (NCDC), and Diane Stanitski (OCO). Rob Ragsdale and Sam Walker also attended. Participants agreed to try to move forward with the development of a plan or strategy that transparently describes the needs and requirements of sea-level rise for key customers and how these needs would be addressed by a range of contributors.
- **MACOORA Industry Partners in Action:** MACOORA member WeatherFlow's new WindAlert iPhone app is a powerful mobile tool that allows users to find relevant wind stations by searching by zip codes, latitude/longitude, city names, beach names, or via the iPhone's GPS locator. WindAlert for iPhone is one of the first applications built using WeatherFlow's new weather engine software package, which allows the application to draw from a database that includes over 40,000 weather stations across the globe. Other WindAlert features include favorite lists of weather stations separated into unique user-generated profiles and customizable wind alerts delivered through the iPhone when conditions reach thresholds set by the user. More features and applications will be added as the weather engine continues to evolve in the coming months. WindAlert for iPhone can be downloaded at no charge through the iTunes store or by going to www.windalert.com/#iphone. MACOORA member YSI Inc. also introduced the NEW CastAway CTD Instrument on 9 March 2010. The new CastAway is an effortless and powerful profiler that provides oceanographers, hydrologists, and surveyors the ability to instantaneously view profiles of temperature, salinity, and sound speed from any dock, bridge, or boat.
- **MACOORA / MARCOOS in Action:** Researchers at the University of Massachusetts Dartmouth SMAST (School for Marine Science and Technology), a MACOORA member, have deployed a CODAR station at the National Park Service, Cape Cod

National Seashore site near Nauset, MA. Long-range CODAR on outer Cape Cod is paired with a similar Rutgers University CODAR on Nantucket to produce hourly surface maps of surface current vectors with a spatial resolution of about 6 km. Visualizations can be seen in [Google Maps](#), [SeaSonde](#), and [Matlab \(PNG\)](#). Oceanographers and other scientists are using Google Earth in a new way to view real-time data streams on everything from ocean temperature and currents to the movement of ships -- all at once. Known as the Global Visualization Lab and developed by MACOORA member, the University of Delaware CEOE (College of Earth, Ocean, and Environment), this technology is providing a completely new sense of the ocean. The data come from a wide variety of sources including satellites, autonomous underwater vehicles, and floating buoys. When viewed on the lab's large flat panel TVs and navigated with a 3-D mouse, the Google Earth globe, and any data illustrated on it, is seen with such high resolution and great detail that viewing the image feels more like a high-flying helicopter ride. To view a video of the University of Delaware Global Visualization Lab, please visit <http://www.youtube.com/watch?v=BbkeUZWSFdM>.

- **MTS / IEEE OCEANS'10 - Call for Papers:** OCEANS is the annual conference of your Marine Technology Society. This year's North American OCEANS Conference will be held in Seattle, WA, 20-23 September 2010. It is sponsored jointly by MTS and the Oceanic Engineering Society of IEEE. Further information on the conference can be found at www.oceans10mtsieeseattle.org. Dave Martin and Jan Newton (NANOOS) are leading the IOOS charge this year. I encourage everyone to submit your abstracts by **15 May**. The **IOOS session is SEA 01 - "Operational Ocean Observing Systems."** Having said that, there are also other sessions into which IOOS activities fit. I will ask that if you're a part of the IOOS community, please use the **IOOS PowerPoint template** so that IOOS is well-recognized at this meeting. Last year, forty papers were tied to IOOS and it did make a difference in folks' understanding that U.S. IOOS is really providing value to the nation.
- **NOAA's Science Advisory Board (SAB):** I had the opportunity to brief the U.S. IOOS Draft Roadmap to the SAB. The presentation was well-received and I enjoyed having the chance to discuss IOOS with the SAB members.
- **State of the Arctic Conference & SAON in Miami, FL:** AOOS' Executive Director, Molly McCammon, represented IOOS and AOOS at the NSF-sponsored SOA conference in Miami, 16-19 March 2010 and participated in the latest planning efforts for the Sustained Arctic Observing Network. Senator Lisa Murkowski (AK) spoke at the SOA meeting.
- **AOOS in Action - The Future of the Arctic Shorezone:** AOOS and the The Nature Conservancy hosted a teleconferenced meeting held on this issue. The program has grown with multiple partners and now needs more centralized coordination and staffing. AOOS' Darcy Dugan worked with TNC staff member Laura Baker to develop a white paper on the future funding needs for the shorezone program.
- **SECOORA in Action - BIOHAB GIS Website:** The FL Fish & Wildlife Research Institute developed the SECOORA Biological and Habitat GIS site to provide biological data to researchers who want to link biological data with oceanographic data. The specific datasets that were requested to create this prototype were habitats and species distribution models. Currently the site links the SECOORA asset inventory with individual asset inventory pages and is viewable in conjunction with biological data and

specific events (such as red tide or hurricanes). The effort to find, develop, and display appropriate datasets is ongoing. Biological datasets currently being examined for inclusion in the SECOORA portal include species distribution and recruitment data as well as water quality data. This requires reconciling differing scales and resolution, data processing, and formatting. The project team is looking for feedback and guidance on the site. Please view it at http://atoll.floridamarine.org/BioHab_GIS/ and email Kathleen O'Keife (kathleen.okeife@myfwc.com) with any comments and/or questions.

Congressional: No Update.

Communications:

- Number 1 Podcast downloaded from the NOS website - Salute to the Scarlet Knight (IOOS): 3,316 downloads, <http://oceanservice.noaa.gov/podcast/jan10/mw010610.mp3>

Upcoming Meetings: For more details on regional IOOS meetings, please visit:
<http://www.usnfra.org/calendar.html> or www.ioos.gov - WE HAVE ONE CALENDER

- April 14-15: Marine Renewables Conference - Seattle, WA: Jack Harlan (IOOS), NANOOS.
- April 25-29: National Water Quality Monitoring Conference, Denver, CO: Rob Ragsdale to attend from NOAA IOOS and support from a number of IOOS regions.
- April 22-23: Humboldt Bay Symposium, in Eureka, CA. CeNCOOS is sponsoring, presenting, and running a session.
- April 28-29: Oakville, Ontario: GLOS annual meeting (Zdenka and Dave Easter to attend).
- May 25: SMALL SEA CHANGES: BIG CALIFORNIA IMPACTS - La Jolla, CA (IWGOO, CeNCOOS, SCCOOS).

Cheers,
Zdenka