

Bi-Weekly Z-GRAM - 5 February 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

So the biggest news for us was the 20-30 inches of snow that hit the Washington Metro area. I had nearly 30 inches at my home! IOOS team encountered this past weekend. Now another 10-20 inches are predicted for the mid-Atlantic so I am getting this Z-gram out between storms

Programmatic:

- **Congressional Report:** In review at OMB.
- **FY10:** Our recommendations for the RA cooperative agreements are being processed, these are based on the FY08 competitive process. Watch Grants on Line for notice to accept those agreements. Had a fabulous panel reviewing our FY10 FFO proposals. We are still working to decision this next week; however the snow storm might slow us up several days.

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

- **What the DIF:** For all documents and information, please visit the www.ioos.gov website.
- **IOOS DMAC: We always welcome your participation. If you want to be a part of the action, please contact Charly Alexander - Charles.Alexander@noaa.gov**
 - **CUSTOMER PROJECTS:** no updates
 - **TECHNICAL ENHANCEMENTS:**
 - Ocean Color - FY10 effort. NESDIS' Center for Satellite Applications and Research (STAR) and the IOOS Program Office have concluded discussions on a FY10 work that includes implementation of the latest THREDDS server functions, a monitoring/usage statistics function, and implementation of ocean color products for all CoastWatch regions (tied to implementation of the newest THREDDS server). Rich Signell (USGS) has agreed to help test the THREDDS capabilities once on line, and CO-OPS' Katie Fisher has agreed to review the THREDDS-based ocean color products for accuracy. Server implementation and testing is expected to be completed in the spring time frame.
 - **IOOS REGISTRY/CATALOG/VIEWER:** Major progress and summary on confirming the IOOS "RCV" user design group. Very positive responses have been received from the initial review team for the RCV product. This team will provide initial functional requirements, ideas/verification to a more comprehensive evaluation. Initial interviews to get specific needs and

suggestions from the review team will occur over the next few weeks. Team members selected will be able to provide technical and programmatic perspectives from how implementing the RCV will impact current operations to how the RCV might be used across a wide spectrum of users.

- **IOOS REGIONAL DMAC COORDINATION:** Good progress on developing an agenda for the workshop has been made and is close to being final. In the last call some additional topics for consideration were discussed such as a suggestion to allot time for code-sharing. In addition to participation from the Regional Data leads, Rich Signell, Ken Casey and Luis Bermudez will attend. Rich and Ken will provide briefings: Rich on the OOI-CI/ IOOS DMAC Collaboration and Ken on archives which the regions are particularly interested.

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):** Jack completed additions to GEO document on radio frequency allocations for environmental remote sensing to add HF radar; sent to Office of Radio Frequency Management (ORFM) for agreement. Jack also facilitated a conference call with ORFM and CODAR regarding responses to DoD request for possible interference mitigation methods for sharing frequencies; there will be another Interdepartmental Radio Advisory Committee (IRAC) representative meeting later in February, date TBD.
- **IOOS and Links to the National Water Quality Monitoring Network: IOOS Regional and Interagency workshop a SUCCESS.** Over fifty regional and interagency partners of the U.S. Integrated Ocean Observing System (IOOS®) attended the workshop. Science based solutions to water-quality issues in NERACOOS, MACOORA and SECOORA were explored. The regions briefed real-life examples of how integrated monitoring and modeling data has impacted decision making in response to adverse water conditions. A few of the gaps, needs and challenges mentioned in the workshop discussion included better communication between management and research communities and with the governor's alliances, enhanced/dynamic applications for forecasting, models to facilitate more effective placement of monitoring sensors. Breakout sessions were dedicated to discussion on dissolved oxygen, harmful algal blooms, nutrient enrichment and beach-water quality monitoring. Members of these sessions were charged with identifying specific issues in each area, to identify gaps, determine management strategies for resolving/mitigating identified issues and list actions that lead to specific outcomes. The outcomes from the workshop, particularly the information generated from the breakout sessions, will be presented in a dedicated session at the National Water Monitoring Conference to be held in Denver, CO, April 25 – 29.
- **IOOS and National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** no update

Other:

- **Nor'Ida Tests Chesapeake Inundation Prediction System:** The nor'easter that struck the Hampton Roads, Virginia area on November 11-13, 2009, caused extensive flooding

and property damage throughout the metropolitan region of 1.8 million people. The storm was dubbed Nor'Ida by some since a typical nor'easter was strengthened by the remnants of tropical storm Ida. The storm gave NOAA and our partners an opportunity to use the Chesapeake Inundation Prediction System (CIPS), a new demonstration project to improve coastal flooding forecasts for tropical storms and nor'easters. Although the system is currently used by NOAA meteorologists, the goal is to create visualization maps that can be easily used by emergency managers to protect lives and property at risk from flooding. Nor'Ida produced flooding in Norfolk of 7.75 feet above "mean lower low" water levels (the average of the lowest of the two daily low tides). This was only three inches below the historic 1933 hurricane, which produced the highest water levels on record for the region. CIPS demonstrated the ability to forecast the storm's inundation over land at high resolution. The development of CIPS was supported by funding provided by NOAA's Integrated Ocean Observing System. Key partners who are working to implement CIPS include the Chesapeake Bay Observing System/Old Dominion University, NOAA's Chesapeake Bay Office, Virginia Institute of Marine Science, University of Maryland, U.S. Geological Survey, WeatherFlow and Noblis. For more information contact NART Mid-Atlantic subregional team lead Anthony Siebers, with the National Weather Service at anthony.siebers@noaa.gov. (thanks to NOAA's North Atlantic Regional Team Winter 2010 newsletter)

- **National Federation of Regional Associations (NFRA) briefs NOAA's National Marine Fisheries' (NMFS) Science Directors:** On January 21, Josie Quintrell, Josh Kohut (MACOORA/Rutgers), John Manderson (NMFS/NEFSC) and Dan Rudnick (SCCOOS/Scripps) briefed the NMFS Science Directors. Many of the RAs have identified fisheries as a priority issue and are working with NMFS and other fisheries organizations in integrating oceanographic data with fisheries data. Some RAs are developing decision-support tools such as the NE Shrimp Interactive Mapping Tool that allows shrimp managers to access model and observing data along with their catch data while others are working on collaborative project with NMFS. Dan Rudnick discussed how scientists with SCCOOS are expanding work in the CalCOFI line and Josh Kohut and John Manderson discussed their project that analyzed the relationship between oceanographic data and fish distribution. Most of the Science Directors were aware of the RAs in their regions and were interested in further collaborations. (thanks to SECOORA's quarterly newsletter)
- **Stellwagen Bank National Marine Sanctuary Visit:** Ru Morrison (NERACOOS) and I had a chance to visit NOAA's Stellwagen Bank National Marine Sanctuary(SBNMS). Dan Basta, Director - Office of National Marine Sanctuaries. While visiting SBNMS we had dinner with Craig MacDonald (SBNMS-Superintendent). Leila Hatch (SBNMS-Marine Ecologist) set up a great day where we learned about the their efforts which used observing assets and GIS to actually move shipping lanes to protect the whales that migrate into the sanctuary. It is a great example of Coastal and Marine Spatial Planning in action. We were joined by Ben Haskell (SBNMS-Assistant Superintendent), David Wiley (SBNMS-Research Coordinator). Then we had a chance to take get underway on the RV Auk to actually see one of the buoys that listen for whales in the area and instantaneously transmit this information to ships in the area so they can steer clear. Appreciated David and Mike Thompson (SBNMS-GIS Specialist) who braved the cold and wind to watch for whales. We left on a clear, sunny day and came back in snow

squalls - fitting for being at sea off Massachusetts in January. We talked about future collaborations and NERACOOS and SBNMS are in the process of signing an MOU on their collaboration. My sincere thanks to Leila for setting this up and the CAPT and Mate of the RV Auk for taking us out underway.

- **NOAA's Heritage week features Earth observation science and technology!:** Jennie Lyons and Deanna Eastman (NOAA IOOS) have worked closely with organizers of Heritage week to showcase IOOS. This includes both Scarlet Knight, replicas of buoys, and drifters and an HFR. Scott Glenn was to give the key note speech to kick off Heritage week to talk about Scarlet Knight's historic voyage. Snow prevented him giving the talk, but thanks to technology - Scott was able to put the briefing and associated movie clips, and I was able to provide the briefing. We also showed a trailer for the documentary that is being produced. While the audience was sparse, those that were there enjoyed both the presentation and trailer.
- **Two HF radars in Puerto Rico are ONLINE:** The two HF radars in Puerto Rico are now delivering their data to the national HF radar data servers. These radars have separate origins: one is part of a Department of Homeland Security project that the University of Puerto Rico is involved with Rutgers and Stevens Tech; one is a loaner from our partner at Clarkson Univ/Beacon Institute. Fortunately, because of these two radars, we'll be delivering 2-D surface current maps of the Mona Passage for the first time ever. This has been a year in making and my thanks CaRA and to Jack Harlan for all the efforts that were required to get these sited and up and running.
- **AK and AOOS Marine Science Symposium:** What a great event! More than 700 attended the plenary talks and side meetings and workshops. The week began with an all day Prince William Sound (PWS) PI meeting, capped off with the SeaLife Center's Marine Gala. Carl Schoch gave the Gulf of Alaska Day keynote talk on the AOOS PWS Observing System project and field experiment. This was followed by a special session the next day highlighting the work of all the Field Experiment PIs. In addition, AOOS and NOAA hosted a workshop on the proposed Coastal and Marine Spatial Planning Initiative. Kate Moran from the White House Office of Science and Technology Policy and ASLC's Ian Dutton were featured speakers, followed by 2 panels discussing various issues, perspectives and concerns on CMSP and what science needs to be done for it in the Arctic. Presentations are available on the AOOS website.
- **MACOORA and Google Earth.** New! An interactive listing of the locations of the [different MARCOOS assets](#) can be found on google earth. Find HF radar waves and currents, sea surface salinity and temperature, bathymetry and more.

Congressional: No update

Communications:

- ***[Providing Coastal Information in a Changing Climate: The Regional Contribution to the National Integrated Ocean Observing System](#)*** is now available. This document, written by the [National Federation of Regional Associations](#), represents what the national network of RAs will contribute to IOOS in the coming years. The report addresses 5 key themes that have been identified as priorities by regional users and stakeholders: Marine Operations, Climate Variability and Change, Ecosystems, Fisheries, and Water Quality, Coastal Hazards and Coastal and Marine Spatial Planning

- Benefits podcast launched on NOS website on Jan 28 at <http://oceanservice.noaa.gov/podcast.html>
- Thomas Net News: Jan 28, 2010 - Electrochem Powers First Transatlantic Crossing of a Robotic Sea-Glider
- Government Computer News: by William Jackson, Jan 26, 2010 - Google to bring NOAA data to new heights
- Featured Image about the Scarlet Knight. <http://www.climatewatch.noaa.gov/Images>
- Federal Computer Week/Government Computer News: by Doug Beizer, Jan 25, 2010; NOAA, Google partner on data visualization project. Google software will be used to display National Oceanic and Atmospheric Administration data
- Directions Magazine: by Linda Joy, Jan 25, 2010; Picture This: NOAA, Google Join Forces to Visualize Scientific Data

Upcoming Meetings: For more detail on Regional IOOS meetings go to:
<http://www.usnfra.org/calendar.html>

- February 8-10: AOOS - Alaska Forum on the Environment: Alaska Forum on the Environment; includes 85 sessions, keynotes, and breakout groups on climate change, energy, environmental regulations, cleanup and remediation, fish & wildlife, solid waste, and special programs for Alaskan youth. AOOS is helping organize an ocean session focusing on ocean acidification, and impacts of a changing Arctic on marine transportation and fisheries.
- February 8: NERACOOS board meeting.
- February 8-10: GCOOS Freshwater Inflows, 2010 and Beyond, Corpus Christi, TX: <http://www.freshwaterinflows2010.org>
- February 17-18: SECOORA Rip Current Symposium; Miami, FL. Sponsored by FIU in partnership with Florida Sea Grant. The goal of the Rip Current Symposium is to identify advancements in rip current research that will lead to a better understanding about the dynamics, mechanisms, and predictability of rip currents. In addition, the Symposium will help identify psychological, anthropological, and behavioral factors that relate to rip current drownings on surf beaches. These two objectives will be combined to develop more effective methods of reducing the number of rip current drowning deaths.
- February 22-26: AGU Ocean Sciences Meeting; Portland, OR. <http://www.agu.org/meetings/os10/>
- March 23-24: IOOS Regional Data Management Workshop; Silver Spring, MD.

Cheers,
Zdenka



WHAT ARE THE BENEFITS OF OCEAN OBSERVING DATA?

JAN. 27, 2010
EPISODE



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