

Bi-Weekly Z-GRAM 29 May 2009

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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 under program updates

IOOS® - Our Eyes On Our Oceans, Coasts and Great Lakes.

Programmatic:

- **Marine Biologist ZP-401-3/4 Recruit Action:** The vacancy announcement is now on www.usajobs.gov. This announcement will close on June 15, 2009.
- Congressional Report: No change
- FY09: **No change.**
- FY10: Both the House and Senate will take up the President's Budget in the next several weeks and that means we are standing by for quick turnaround questions.
- FY11-15: **No change.**
- FY12-16: **No change.**

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

In FY09 we are focused on 6 areas for this subsystem: (1) Data Integration Framework (DIF) support to Customer Applications: Harmful Algal Blooms forecast system (HAB-FS); Integrated Ecosystem Assessments (IEAs); Coastal Inundation; Hurricane Intensity; (2) DIF Regional Implementation; (3) DIF Evolution & Enhancements; (4) Development of the best approach to DMAC (5) High Frequency Radar (HFR) – A National Network; and (6) Continue strong support, with the Interagency Working Group on Ocean Observations (IWGOO), to the IOOS DMAC Standards Process and working with the DMAC Steering team.

- IOOS DMAC Standards Process - Get Involved:
<http://ioosdmac.fedworx.org/ioos/dmac.nsf/WhatsNew?OpenForm>
- **What the DIF:** For all documents and information, please visit the www.ioos.noaa.gov website and select the button that says 'IOOS Data.'
 - **Coastal Inundation: SUCCESSFUL LOAD TEST.** A limited load test of the CO-OPS server involving WFOs Slidell and Wakefield, TPC, was completed. Minor delays were encountered when retrieving and displaying CO-OPS water level observations and predictions, but the users said they were acceptable. CO-OPS did not report any issues with DIF web services. Based on this test, SLOSH Display Program v1.60 will go **operationally** beginning June 1. We are coordinating with Tim Schott, NWS Hurricane Program Manager, Jamie Rhome, NWS Storm Surge Team lead, and Arthur Taylor, NWS SLOSH programmer, on formal notification for this new capability.

- **REGIONAL DIF IMPLEMENTATION:** Met with 8 of 11 RA DMAC leads to review the updated implementation tracking/status table to document progress by standard services and core variables. There was discussion on how to reach DIF implementation in 50% of the regions and review the actions agreed to in the Workshop. Service Implementation Options: We discussed the possibility of NDBC's Mike Garcia visiting RAs to assist with implementation of SOS schema/tools in the same manner that Rich Signell is providing to sites per modeling output tools. There is also the possibility of RA DMAC leads (e.g. AOOS's Rob Cermak) traveling to other sites to assist with implementation of tools/schema.
- **DIF ENHANCEMENTS:**
 - **DAP/SOS alignment:** Jeff had discussions with Steve Hankin & Roy Mendelsohn about enabling and serving DAP/NetCDF data from SOS, and how to get a reference implementation that supports both DAP and SOS. Future WSDE conference calls will be devoted to this discussion as a possible FY2010 activity.
 - **IOOS DIF Data Provider Guide:** Posted to the GEO-IDE Guidelines and Best Practices Wiki, this information will serve as "cookbooks" to provide guidance on the different flavors of DIF implementation underway at the IOOS Data Providers and IOOS Regional Associations.

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.

- **GODAE Server MOA:** The GODAE MOA cleared the NRL review process after several changes, per Naval Research Laboratory and NOAA (Mike Johnson provided input in response to NRL added text), were made. The plan is now with Martin Freeman (NOS Agreements) to determine if a re-review through the NOAA clearance process is required.
- **Interagency Modeling Activities:** Rich attended the symposium hosted by Woods Hole about ocean observing efforts at WHOI and in the US, as well as in Spain and Europe. Speakers were drawn from the Woods Hole community and from a visiting Spanish delegation charged with developing ocean observing in Spain. Rich presented a talk on IOOS and modeling, and followed up with Joaquin Tintore and Guillermo Vizoso from UIB-SCIS, both members of the TMOOS/IMEDEA team. They already have an impressive coastal observing and modeling system for the east coast of Spain, and are using OpenDAP with CF-Conventions (IOOS DMAC approved standard) via the THREDDS Data Server to distribute both model and observational data. See their impressive web site at: <http://imedea.uib-csic.es/tmoos>
- **High Frequency Radar:** The next draft has been circulated to NOAA's Ocean and Observation councils, the Interagency Working Group on Ocean Observing, the Hydrographic Services Panel, the IOOS Regional Associations, and a number of NOAA offices. Comments are due June 8, 2009.
- **IOOS and Links to the National Water Quality Monitoring Network:** The interagency water quality talks that NOAA IOOS has been leading and participating in have been folded into the Hydrology Domain Working Group, hosted by the OGC. This is because in our water quality discussions, the NOAA IOOS DIF Format and WaterML format

developed by CUAHSI and adopted by USGS were found to be similar. CUAHSI, as the owner of the WaterML data format, is playing a lead role in the HydroWG and we realize this WG was a better forum for collaboration. The HydroWG will meet as part of the next OGC Technical Planning and Committee Meeting in Boston, MA, June 22-26, 2009. Jeff DLB will attend for the NOAA IOOS Program.

- **National Science Foundation (NSF) Oceans Observatory Initiative (OOI) - CONGRATS:** From Tim Cowles, OOI Project Director: "On May 15, 2009, National Science Board authorized NSF Director Arden Bement to make awards toward the construction of the Ocean Observing Initiative. We are excited by the NSB endorsement of this innovative ocean observing infrastructure, as it represents the final step in several years of planning and investment by the ocean sciences community and the National Science Foundation. The OOI is a bold and transformative step forward in documenting changes in ocean processes and phenomena at many locations on a variety of time scales, including decadal. Once the contractual and funding details have been finalized with the National Science Foundation, OOI construction will commence. We will be able to provide additional details about the construction of the observing system following the completion of the contractual process."
- **DMAC Steering Team "Review":** The IWGOO has decided to take a fresh look at the current DMAC Steering Team (goals, objectives, membership, etc). Charly participated in a conference call with COL staff (Nick Rome), Alex Isern (NSF), and Lucia Tsaoussi (NASA) on Friday, May 29 to begin framing a recommended approach for this "review." CSC's Anne Ball (current DMAC ST chair) was unable to participate in this first call. The group will have a follow-up conference call the week of June 8 with the goal of presenting an initial recommendation to the IWGOO for its June 18 meeting.

Other:

- **The Scarlet Knight (RU27) underway:** It has been in and around the Gulf Stream for Scarlet Knight. The team has been making use of both SST and Altimeter data to help navigate. Scarlet Knight is just under 300 km from 50 W, a longitude that marks the Tail of the Grand Banks. It is the eastern boundary of the Gulf Stream meander and ring region. After passing the Grand Banks, the navigational strategy changes. Instead of looking for a steady Gulf Stream current, we start navigating the eddy field of the Gulf Stream extension region, flying eddy to eddy to eddy. <http://www.i-cool.org/?cat=38>
- **Visit to Humboldt State University:** Last week I started with a wonderful visit to HSU, an IOOS partner within CeNCOOS. I was joined by Steve Ramp, the Executive Director CeNCOOS. Frank Shaughnessy put together an agenda that gave us a chance to see R/V Coral Sea - HSU vessel, meet with the members of the Humboldt Bay Ecosystem Based Management project, tour the HSU Telonicher Marine Lab and NOAA's Baseline Atmospheric Observatory, meet with NOAA NMFS and the local WFO, get underway and up close to Coast Seafood's oyster long lines, and then followed that up by meeting with the mayors of Arcata and Trinidad, the Humboldt County Board of Supervisors, and legislative staff and associates for Representative Mike Thompson and Assemblyman Wesley Chesbro. I was very impressed with the community involvement and collaborative role HSU plays in the area. HSU is a key IOOS partner, increasing observing sites and modeling efforts. They are also a key member of the Humboldt Bay

EMB initiative and they work closely with Nancy Dean at the WFO on new oceanographic models for ocean bar forecasting, as well as with Eric Bjorkstedt, NMFS - PACOOS, to extend key biological observation lines. I really enjoyed interacting with the students and the members of the CeNCOOS team at HSU. They bring their passion and intellect to IOOS®. It is nice to see that we keep things in the family and I appreciate that Dave Hankin (yes, Steve's brother) and Dave Hoskins opened up the lab for a tour and discussion of additional ongoing efforts. I was treated to a number of presentations from the professors at HSU, including the deployment of current meters in support of tsunami forecasting. Greg Crawford, HSU, talked about how initially the observations were put into place for research but as the data became available the customer based has grown, specifically Greg Dale, Manager of Coast Seafoods INC, who critically depends on temperature and chlorophylla for his oyster business.

- **GHRSSST (Group on High Resolution Sea Surface Temperature) International Users Meeting:** On Wednesday I had the chance to join Eric Linstrom, NASA, as part of the kick-off session for the GHRSSST meeting. Eric talked about the widespread use of SST and the important role of GHRSSST. He discussed the challenges associated with understanding errors and commented that although we have been measuring SST for a long time there is still research that must be done. I gave an overview of IOOS and like the IOOS DMAC effort, GHRSSST has put together a coherent data management effort for worldwide SST collected by space-based instruments. I invited GHRSSST to think about a partnership with IOOS and asked the users and science team to come up with some next steps for a partnership. MyOcean and IMOS already have strong partnerships with GHRSSST.
- **Harbor Safety Committee Meeting:** By Friday I made my way back to Tampa, FL where I joined Mike Szabados (NOS - CO-OPS) on a navigation services panel for this meeting. We were the last panel of the conference, just ahead of the closing remarks by the Admiral Allen, Commandant of the United States Coast Guard. I talked about our efforts on data management (a theme throughout the conference on getting the right information into the hands of the mariner) and on specific support to the marine community. National Ocean Service was there in force over the three days, with Jack Dunnigan, NOS AA, kicking things off. My colleagues in the Office of Coast Survey and Office of Response and Restoration also provided presentations during the various panels.
- **National Maritime Day:** On May 22 Jamie (NOAA IOOS) participated in the event at Nauticus in Norfolk, VA, representing IOOS with the banner and one-pagers, and partnered with Old Dominion University's Larry Atkinson who displayed the MACOORA-IOOS glider.
- **US IOOS (IOOS and OOI) at MTS/IEEE Oceans '09 - Biloxi, MS Oct 26-29:** I sent out a request for support to the IOOS RA Ex-Directors and IWGOO members but want to encourage wide participation for this track. This is being coordinated by me and Shelby Walker, National Science Foundation. We are looking to have a dedicated US IOOS (IOOS/OOI) track at Oceans '09. Here are the details: Sessions have 5 papers, our track will include as many papers as are submitted, so we are not limited to a session length. There are 4 sessions per day and we are shooting for 20 papers. If we get more we will extend over multiple days. We are looking for papers from the Global and Coastal components of IOOS, which includes both the National (Federal Agencies) and the

Regional Components. We are looking for papers that span the three subsystems and the 2 crosscuts. We are looking for papers on how IOOS is delivering benefits to users. We are looking for papers from all participants, government, academia, and industry.

Abstracts need to be submitted by June 1. Our track is BIX2.2 and you may use my name for requesting submitter. <http://www.oceans09mtsieebiloxi.org>. Paper format will be posted this week.

- **CONGRATS to our colleagues in Australia on funding for their Integrated Marine Observing System (IMOS):** Within IOOS we have been trying to develop stronger links to similar programs around the world. IMOS, under Gary Meyers, has been doing a wonderful job and we congratulate them on their success. In its 2009 budget statement on May 12, the Australian government substantially increased its support for marine science at the national level. Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research, announced a \$387.7 million Super Science Marine and Climate Initiative. The IMOS (Australian Integrated Marine Observing System) www.imos.org.au runs, in its initial 5-year phase to mid-2011, under \$50M AUD funding. In the May 12 federal budget announcement, IMOS was explicitly highlighted as receiving a further \$52M AUD, taking it to 2013. The funding will enhance and extend Australia's marine observing network, including new observational infrastructure for the Southern Ocean and the northern Australian coast. IMOS is an initiative of the Australian government through the National Collaborative Research Infrastructure Strategy. IMOS makes a tangible Australian contribution to GOOS. IMOS enhances the nature and amount of data relevant for specification and assimilation into ocean models, and forecasting systems such as Australia's Bluelink (www.bom.gov.au/bluelink). The Super Science initiative will enhance and extend IMOS as a more comprehensive national marine observing system and could most closely be described as a Regional Ocean Observing System in the IOC's Ocean Observations and Services framework. Further information can be found at:
<http://minister.innovation.gov.au/Carr/Pages/SUPERSCIENCEMARINEANDCLIMATE.aspx> and
<http://www.innovation.gov.au/General/Corporate/Pages/SuperScienceMarineandClimate.aspx>
- **NOAA Climate Program 2010 Funding Opportunity:** The NOAA Climate Program Office (CPO) is adopting a different procedure for soliciting proposals this year. Published on the CPO website (<http://www.cpo.noaa.gov/opportunities/>) are the program information sheets which outline the topics for which each program will be soliciting proposals. While not required, Letters of Intent will be accepted until June 12, 2009. In early July, NOAA will publish the FY2010 funding opportunity announcement, which will provide more details about the actual required proposal, including the due date. One of the CPO Programs that will be soliciting grants for 2010 is the Sectoral Applications Research Program (SARP). SARP supports interdisciplinary projects on the effects and responses to climate variability and change within specific sectors of society through the establishment of sector-focused projects. Currently, SARP focuses on the coastal and water sector and is part of a consortium of several CPO programs supporting drought impacts research through the National Integrated Drought Information System (NIDIS) "Coping with Drought" effort. In addition, as described in the SARP Information Sheet, SARP will begin to explore the possibility of expanding to include one or more new

sectors (e.g. ecosystems, transportation, energy, agriculture, health). For FY 2010, SARP is looking into supporting initial efforts that investigate the societal need and readiness of other potential sectors that meet NOAA's climate mission, the priorities of the NOAA Climate Program Office, and the goals of NOAA's climate service efforts. Examples of activities that will be supported for this effort include scoping meetings and stakeholder requirement workshops. Information specific to the 2010 SARP solicitation is available at the bottom of the page found on:

http://www.cpo.noaa.gov/index.jsp?pg=/opportunities/opp_index.jsp&opp=2010/program_elements.jsp

- **EPA System of Registries Conference, Washington D.C:** Carmel, NOAA IOOS, attended. Of particular interest was EPA's Geospatial Data Gateway (GDG) and associated EPA Metadata Editor (EME). GDG is EPA's master metadata catalog, available to internal and external users. Geospatial One-Stop harvests metadata from GDG. The EME is a downloadable desktop tool that integrates with GIS software and allows EPA contributors to easily create, publish, and validate metadata bound for the GDG. In addition, the briefing on institutional/organizational use of "social bookmarking" was intriguing. This web-based method for saving and managing URLs could be used to create and share links to resources for a specific community of interest such as IOOS. Each link can be tagged using terms from a controlled vocabulary for ease of browsing.
- **Committee for Integrated Observing Systems (CIOS):** The Office of Federal Coordination for Meteorology (OFCM) hosted the first CIOS meeting. This is a new federal working group based on the National Research Council's report, "Observing Weather and Climate from the Ground Up: A Nationwide Network of Networks." The NOAA representative is Don Berchhoff, NOAA's National Weather Services. Marcia represented IOOS. OFCM has asked NWS's Don Berchhoff, Navy's Bob Winokur, Air Force's Col. Ralph Stoffler, and NASA's Jack Kaye to co-chair the CIOS, and to be responsible for hosting future meetings. The next meeting will be scheduled for mid-July. IOOS, along with other program/agencies, will be asked to present a briefing at that meeting.

Congressional:

- IOOS Program provided an update briefing to Jeremy Weirich (Senate Appropriations Majority Staff). Jack Dunnigan (NOS AA), Chris Cartwright (NOS CFO), Shawna Carlson (NOAA budget), and Suzanne Skelley (NOAA IOOS) provided the programmatic overview to Jeremy.

Communications:

- EUREKA TIMES-STANDARD - *Eyes on the ocean* by John Driscoll of The Times-Standard: http://www.times-standard.com/localnews/ci_12467281
- Sea Technology, May 2009: The First National Operational Wave Observation Plan. Authors Zdenka Willis, Dr. Bill Burnett (NOAA National Data Buoy Center), and Dr. Bob Jensen (US Army Corps of Engineers)

- SAN FRANCISCO CHRONICLE *-Team tracks bay currents, hopes to aid cleanups* by Justin Gillett, Chronicle Staff Writer: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2009/05/27/BAFE17HUNG.DTL>

Upcoming Meetings:

- 2 June: Meeting with SCCOOS/Scripps visit
- 3-4 June: US Army Corps of Engineers - Coastal Engineering Research Board.
- 31 May - 4 June: Radio Operators Working Group (ROWG) Meeting: Jack Harlan.
- 8 June: CaRA Buoy Commissioning Ceremony scheduled for June 8 in Puerto Rico. Congressman Pierluisi is scheduled to attend.

Cheers,
Zdenka