

Bi-Weekly Z-GRAM 3 April 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:

- Congressional Report: My team provided me their changes and I will read over the weekend and resubmit back through the approval chain by 7 April.
- FY09: Work continues on inputs of the recommended awards for FY09. Due date into Grants on-line remains 10 April.
- FY10: **No change**
- FY11-15: Budgeting phase has begun. This is internal discussions but just wanted to give you a feel for the timing of these various pieces of the process. Within NOAA we begin now for FY11 to meet the February 2010 date for the Administration to provide its budget to Congress.
- FY12-16: We are developing our planning alternatives for IOOS and working across NOAA to partner with other alternatives on how the IOOS program can contribute to and support those alternatives.

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 Inter Agency Working Group on Ocean Observations (IWGOO), to the IOOS DMAC Standards Process and working with the DMAC Steering team and the first 5 areas

- IOOS DMAC Standards Process: DMAC Steering Team meeting will be held in May 2009: 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 hit the button that says IOOS Data.
 - **Coastal Inundation key milestones met:** The excitement for these efforts continues to grow with additional WFOs asking for the **IOOS button on SLOSH**. NOAA's National Weather Service (NWS) forecasters and emergency managers can now call up time series graphs and display along with surge information from the SLOSH program. In addition, improvements were made to

provide additional GIS capabilities and options for displaying roads, populated areas and city boundaries, which will assist the NWS Tropical Prediction Center to make better use of the SLOSH display for media briefings. National Ocean Service Center of Operational Oceanographic Products and Services (CO-OPS) delivered 2 additional water level datum's for display enhancement - highest astronomical tide (HAT) and lowest astronomical tide (LAT).

- **Coastal Inundation Collaboration Site:** Went LIVE on April 1, 2009, at <http://community.csc.noaa.gov/IMC/>. The site is designed to share information about coastal inundation projects, plans, workshops and meetings, and to allow threaded discussion. Dave Eslinger (NOAA/National Ocean Service/Coastal Services Center (CSC)) is the lead for site administration.
- **USF Hurricane Storm Surge Workshop Report available:** The executive summary, agenda, presentations and attendee list from the NOAA/FEMA Hurricane Storm Surge Workshop is now available at: http://www.marine.usf.edu/events/hurricane_surge_workshop/. The workshop was held at St. Pete Beach February 4 and 5, 2009 and was hosted by the University of South Florida, College of Marine Sciences.
- **DIF IPT Updates:** Four working groups (IT Security, Metadata, Archives, Catalogs/Registries) are now in motion preparing findings/recommendations for the annual IPT workshop tentatively scheduled for mid-July or mid-August
 - IT Security Working Group: Charly and Jeff briefed the DIF to IT Security leads John Parker and John Dandy (NOS/CIO's office). As a result of this brief, John P. and John D. said among the tasks they will explore will be analyzing SOS and THREDDS data server code for vulnerabilities
 - Metadata Working Group: Kickoff Meeting 3/25: NOAA's National Geophysical Data Center's (NGDC) Ted Haberman chaired the first meeting with experts from NOAA National Climatic Data Center (NCDC), National Ocean Service (NOS)/CIO, CO-OPS, NOAA's National Marine Fisheries Services (NMFS), CSC, and NOAA's Oceanic and Atmospheric Research (OAR) to discuss goals/objectives and schedule over the next 4 months. Next call/meeting will focus on metadata "requirements."
 - Registry Working Group: A work plan for the registry working group has been developed. A Registry IPT working group pre-kickoff meeting with CSC staff was held to discuss overall approach for the group.
 - Archives Working Group: NOAA's National Oceanographic Data Center's (NODC) Ken Casey kicked this working group off last week to establish a consensus approach and schedule.
- **DIF ENHANCEMENTS:**
 - SOS Output format ("DIF XML"): Revise to allow for "epoch" on Vertical Datum, allow LAT/HAT information in water level predictions; and allow certain metadata fields not available from NDBC to be "nil".
 - Google: Kicked off conference call with Google to discuss KML. The first goal is KML/KMZ output format for hourly harvesting by Google Oceans. Jeff has established a Google Group page to facilitate discussion on KML encodings. See <http://groups.google.com/group/ioos-kml>.

- OGC Oceans Interoperability Phase 2 (OIE2): NOAA IOOS is a participant in this activity. Topics of interest: <http://www.oostethys.org/ogc-oceans-interoperability-experiment/topics/topicsfromPlan>
- **DIF-DMAC/NATIONAL DMAC:**
 - Industry Day (March 12): Final report with summary materials and documentation of questions/answers has been completed and sent (as a pdf) to all meeting participants. The pdf file will soon be posted to the IOOS Program web site as well.
 - RFI (Request for Information): Will be posted no later than April 24.

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 all of them have project leads.

- **GODAE Server MOA:** Awaiting signature from the Naval Research Laboratory
- **Interagency Working Group on Ocean Observations (IWGOO) Sponsoring "Small Sea Changes: Big Business Impacts" Workshop:** The IWGOO is sponsoring a workshop in Silver Spring, Maryland on 14 April 2009 entitled Small Sea Changes: Big Business Impacts. The purpose of this workshop is to engage private industry and communicate the value of ocean science and ocean observations to business decision-making. The target audience is senior decision makers from the agriculture, aviation, construction, energy, finance, fishing, healthcare, insurance, leisure and tourism, manufacturing, mining, retail, transportation and utility sectors. This workshop will explore the improved business decision support that the IOOS can facilitate. For the ocean science community, this workshop provides an opportunity to identify a cadre of industry professionals willing to support the need for ocean science and the Integrated Ocean Observation System. For industry, this workshop will explore the opportunities for better business decisions through examining the connection between weather forecasts, climate projections and ocean observations. The workshop flyer, registration and additional information are available at: <http://www.oceanleadership.org/iwgoo>.
- **Interagency Modeling Activities:** No update
- **High Frequency Radar:** Next draft will be sent for comment in mid-May.
- **IOOS and Links to the National Water Quality Monitoring Network:** No change.
- **US GEO:** The United States will host the GEO IV Plenary in Washington DC - November 2009. Planning is underway.

Other:

- **Christening The Scarlet Knight- Preflight continues for a 13 April launch:** On 23 March we traveled to Rutgers University and christened RU27. Joining the Rutgers leadership, faculty and students was the Rutgers alumni board - whose support was instrumental in making this happen. This is an exciting venture as the students involved are undergraduate students who are having the chance to apply their class theories to a practical application. Further the improvements they are making to the glider can then be used by Agencies such as NOAA, US Navy and National Science Foundation (NSF). It cuts across many of the disciplines and departments from oceanography, computer science, engineering and english. Dena Seidel, a recognized documentary producer, is

chronicling this through the class she teaches. The best part of the day was hearing from the students and the excitement regarding this experience and the knowledge that they have gained. I was honored to speak and lead the Christening - where we Christened RU27 as The Scarlet Knight and wished her Fair winds and Following currents. As a reminder Rutgers lost contact with a first glider attempting this last year, so this vehicle includes the following upgrades: dives twice as deep, to 200 meters, incorporates an upgraded surface material to reduce marine growth, new tools to measure battery life to gauge endurance and software improvements to how the glider samples the ocean.

- **Alliance for Coastal Technologies (ACT) releases of Verification Statements for the performance of eight different in situ salinity sensors.** Instrument performance verification is necessary so that effective existing technologies can be recognized and so that promising new technologies can become available to support coastal science, resource management, and environmental observing efforts. ACT has therefore completed an evaluation of eight different in situ, coupled conductivity and temperature sensors designed to estimate salinity. The Performance Verification of the various sensors was conducted in the laboratory and under diverse field conditions, in both moored and profiling applications. A total of five different field sites were used for testing including coral reef, estuary, open ocean, and freshwater lake environments. Testing protocols and final reports as Verification Statements for each of the eight instruments can be downloaded at www.act-us.info. Within the first three days ACT counted 200 downloads of the Salinity Verification Protocols, 120 downloads EACH of the eight individual sensors tested (> 1000 total) - these stats are from 31 March so I am sure they have increased significantly since. Great stats for the first three days!!
- **Digital Coast:** Digital Coast is an excellent tool focused on the output of digital data (land and sea) critical to inundation and understanding impacts of sea level rise. The lead is NOAA Coastal Services Center. NOAA IOOS (Charly) and NOAA CSC (Miki) have been coordinating on linking these two programs together.
- **IOOS spin off products:** Bombora Brings NOAA Buoy Data to the iPhone for Surfers, Boaters, and Ocean-Goers. From sunny Southern California comes Bombora the ultimate surf and ocean forecasting tool for Apple's iPhone. Bombora is an elegant, informative, and comprehensive ocean data application — built specially for surfers, boaters, and everyone else that loves the ocean. Bombora contains a wide selection of tools that provide an arsenal of information for the amateur forecasting tool-belt. Access to recent NDBC & CDIP buoy data provides wave, wind, and atmospheric conditions, tidal information and predictions, directional swell data, National Weather Service marine text forecasts, and more, all bundled together into a single app. Browse buoys, C-MAN, and tidal stations by region, add them easily to a favorites page, or use the convenient 'nearby' function to find stations closest to you. View historical charts for buoy data and trends for any number of measurements, wave, wind, or conditions related. Integrated support for directional swell information brings a new level of surf forecasting sophistication to the iPhone. Bombora taps directly in to the National Data Buoy Center's federally funded network of buoys, in addition to the advanced buoy network of the California Data Information Project. These oceanographic agencies provide important data and support for commerce and recreation in US waters. Bombora's development was featured in the Santa Barbara Independent's 'Winter Surf Blowout' issue, and the article has generated considerable interest among surfers and other buoy aficionados.

Independent journalist Ethan Stewart writes of Bombora: “While somewhat similar applications already exist in the iPhone universe, when Bombora hits the streets for mass consumption . . . , it will be in a league of its own. Besides basic buoy info, it gives users ever important swell direction information, tide readings, trend graphs (i.e. is the surf building or dropping?), and allows you to tailor your experience to whatever break or beach you call home.” Now available through Apple’s iTunes App Store. (<http://www.itunes.com/apps/bombora/>). I have heard from a number of folks that this is great, Suzanne Skelly, IOOS Deputy, downloaded this to her phone and loves it as she gets ready for upcoming sailing season which she hopes will start soon!!

Congressional:

- **IOOS legislation passed!** We celebrated a virtual toast that stretched across two continents, thanks to Josie for setting this up and to all of you who were able to join us and/or sent your congratulatory notes to us as it is greatly appreciated. A long time in coming there have been many who have worked very hard for the passage of the legislation and saw the initial vision of IOOS. While always risky to call out individuals by name since there have been and continue to be many strong supporters of IOOS but I would be remiss if I did not say thank you to, Worth Nowlin, Tom Malone, Margaret Davidson, Rick Spinrad, Mel Briscoe, Paul Gaffney, Nina Young, Molly McCammon, Josie Quintrell, Jim Baker and Dave Martin who have been there from the start and worked hard for many years to make this a reality. Many thanks to Jack Dunnigan who has support this over the past 2 years.
- **Briefing to Congresswoman Pingree:** We had the wonderful opportunity to brief Congresswoman Pingree and Nick Battista, staffer, on NOAA and IOOS. Congresswoman Pingree was very gracious with her time and engaged us in a good dialog on IOOS. Her office sponsored a Dear Colleague letter in support of US IOOS.
- **Briefing to Jamie Krauk, staffer Senator Inouye:** We provided Jamie with an overview on the progress of US IOOS and efforts of PacIOOS. The briefing went well and appreciated Jamie taking time to meet with us.

Communications:

- CBS San Diego featured SCCOOS researcher Eric Terrill in a story about beach water quality testing in San Diego. You can view the video clip [:http://www.cbs8.com/Global/story.asp?S=9988705](http://www.cbs8.com/Global/story.asp?S=9988705)
- USA Today/AP:NEW YORK TIMES/ WASHINGTON POST/ AP ONLINE; Monday, March 23, 2009 - "New England lobster traps are nabbing dinner, data" By Jay Lindsay, Associated Press - features the EOLT — short for Environmental Monitors on Lobster Traps - project
- HONOLULU ADVERTISER, April 1, 2009, "Integrated Ocean Observing Bill Passes Congress" Tara Hicks Johnson, Reader Submitted. Nice article on the important of this legislation.

Upcoming Meetings:

- 6-8 April: GLOS annual meeting and site visit to Duluth sponsored by Dale Bergeron, MN Sea Grant. Zdenka attending/briefing
- 14 April: Small Sea Change: Big Business Impacts - IWGOO IOOS sponsored workshop. Silver Spring - A workshop to explore how enhanced understanding of the oceans improves weather and climate prediction enabling better informed business decisions. For more information: <http://www.oceanleadership.org/iwgoo>
- 5-6 May: University of Florida: Second Annual Workshop of the IOOS/SECOORA Regional Storm Surge and Inundation Model test bed - Marcia Weaks to attend from NOAA IOOS
- 11-12 May: The Marine Board of the Transportation Research Board will be holding its 2009 Spring Meeting at the Aquarium of the Pacific in Long Beach, California. Zdenka will provide an IOOS brief.
- 12-13 May: SECOORA board meeting - Zdenka attending/briefing
- 26-28 May: Visit to Humboldt State University
- 28-29 May: GODAE High Resolution Sea Surface Temperature Project meeting - CA: Zdenka will provide kick off the conference
- 27-29 May: 11th Annual Harbor Safety Committee Conference - Tampa, FL. Zdenka will join others from NOAA to participate in a panel on 29 May.

Cheers,
Zdenka