

Bi-Weekly Z-GRAM 20 February 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: Remains with the Department of Commerce
- FY09: NOAA remains on a CR until 6 March.
- FY10: **No Change**
- 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 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 Project - Center for Operational Oceanographic Products and Services (CO-OPS) delivered a series of major enhancements to its DIF water level service last week: 1. Inclusion of quality flags with the data so that it emulates the quality of the data currently available to users on Tides On-Line; 2. Early delivery of water level data in multiple datums (MLLW and NAVD88) - original milestone was end of Q2; 3. Early delivery of water level predictions - original milestone was end of Q2; 4. Next step is for NWS Meteorological Development Lab (MDL) to incorporate these enhancements into the SLOSH display enhancement.
 - Hurricane Intensity Project Update: NOAA's Oceanic and Atmospheric Research (OAR)/CoastWatch has delivered the T-S profiles for the 3 hurricane test cases in BUFR format to NCEP. NCEP personnel are reviewing the datasets and will convert the data into "NCEP BUFR" for assimilating into the NCEP coupled

model system. Once the data is made available to the model, then work will begin to analyze the model output (pressure field) for the before and after DIF data cases. The milestone for this phase is June 30, 2009. OAR/CoastWatch also reported that the T-S profiles are now available on a THREDDS server as netCDF files, WCS and as OPeNDAP implementations (previously only as OPeNDAP).

- Harmful Algal Blooms: The HABs team reported that model hindcasts have been completed for an initial data set under the selected HAB event period (Nov. 2004-Jan. 2006). The performance metrics developed for this project are being used to quantify the model output results.
- DMAC “**Industry Day**”: The goal of this industry day is provide a program status to industry and set the stage for follow-on market research by the program. The Announcement published: NOAA/NOS Grants & Acquisition posted an official announcement on Dec 30th on the Federal Business Opportunities (FedBizOps) website for the public meeting we will conduct on March 12, 2009 in the NOAA Auditorium. The announcement can be accessed at:
https://www.fbo.gov/spg/DOC/NOAA/AGAMD/IOOS_DMAC_Briefing/listing.html
 - NOAA along with Senior Staff from Environmental Protection Agency (EPA), United States Army Corps of Engineers (USACOE), United States Geological Survey (USGS), and US Navy will provide briefings on IOOS and related activities.
 - The High-Level Functional Requirements & DMAC Con-Ops reports are now available on the IOOS website: <http://ioos.noaa.gov/dif/> under the header Data Management and Communications Documents.

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.

- **Army Corps of Engineers collaboration on a National Waves Plan:** Final version will be sent to the Alliance for Coastal Technology on 23 Feb.
- **GODAE Server MOA:** The GODAE server Determination and Findings (D&F) was signed by the NOAA Acquisition and Grants Office. The signed D&F was forwarded to Martin Freeman (NOS Agreements) who then transmitted to DOC/GC. The signed D&F is required by DOC/GC before they will clear the MOA.
- **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, health care, 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:** Rich Signell has been working with Jim Churchill (WHOI) and Jim Manning (NMFS) on extracting surface currents from native staggered grid ocean model output in the NERACOOS region via OPeNDAP, for the purpose of surface drift skill assessment using near-surface float measurements. This highlighted the need for CF standards for staggered grid model output.
- **Interagency Working Group on Ocean Observing (IWGOO) met with the Oceans Research and Resources Advisory Panel (ORRAP) - subcommittee on Ocean Observing joint meeting:** The ORRAP sub panel on ocean observing met in Silver Spring on 18 February. They had a morning session dedicated to ocean observing from space. The second session was dedicated to understanding the land to sea interaction. Representatives from United States Geological Survey (USGS), Environmental Protection Agency (EPA), and NOAA briefed on their respective agencies involvement with the National Water Quality Monitoring Network. We had good dialog on how this network is interacting with IOOS and how we can collaborate to a greater extent in the area of data management. The final session, which was joint with the IWGOO, started with a presentation I gave regarding IOOS updates from the NOAA IOOS program, interagency contributions, and regional efforts. I was followed by Nina Young giving members a Hill update. Shelby Walker provided an outstanding briefing on OOI and the OOI-IOOS collaboration. The ORRAP panel strongly endorsed IOOS as a national effort and the importance of all agencies to support the IOOS program. The panel also acknowledged the good collaboration between OOI and IOOS. Both the IWGOO and ORRAP found this combined venue to be very helpful to both. This meeting was public and I will ask the Consortium for Ocean Leadership if they plan to make these briefings available.

Other:

- **Inter-institutional Glider collaborations:** Another successful glider mission ended with a perfect rendezvous with the Environmental Protection Agency's (EPA) OSV Bold in the Caribbean. Driven from the COOL room in Rutgers, the glider popped up right next to the EPA's OSV Bold. RU 25 was funded by the Moore Foundation. This first test flight was launched at the ONR deepwater glider test bed at University of the Virgin Islands (UVI), included a rendezvous with the EPA research vessel, and will be recovered by the DHS Center of Excellence for Port Security partner at University Puerto Rico at Mayaguez (UPRM). The inter-island mission is a test for future flights between the U.S. and British bases within the National Science Foundation (NSF) Long-Term Ecological Research (LTER) project in Palmer, Antarctica. A Rutgers-UPRM-UVI collaboration through NOAA IOOS ties and EPA (an IOOS partner) through its Caribbean Initiative. Both RU25 and EPA's OSV BOLD documented internal wave activity in the northeastern Caribbean. This joint effort attests to the value of ocean observing through inter-institutional collaboration.

- **Harmful Algal Bloom (HAB) - Summit in support of the West Coast Governors Agreement:** NOAA IOOS Program, NANOOS, CeNCOOS and SCCOOS met with the HAB community and had the chance to exchange information on needs and capabilities for each program. This conference - sponsored by National Centers for Coastal Ocean Sciences (NCCOS) Center for Sponsored Coastal Ocean Research (CSCOR), CeNCOOS and SCCOOS, and Sea Grant - Oregon was in response to an action under the West Coast Governor's Agreement. We had more than 80 folks that spanned managers to researchers and we had effective dialog this ever growing issue within the United States. I will provide the results of the summit when they are available.
- **Northeastern Regional Association of Coastal Ocean Observing System (NERACOOS):** I, along with Betsy Nicholson (NOAA/Coastal Services Center), John Cannon (NOAA's National Weather Service - Portland, ME Weather Forecast Office), Jon Hare (NOAA's National Marine Fisheries Service, North East Fisheries Science Center), and Rich Signell (United States Geological Survey (USGS) and detail to NOAA IOOS)) attended the program review of the NERACOOS projects on 19 February, followed by the board meeting on 20 February. There were also representatives from US Army Corps, Environmental Protection Agency, and Coast Guard for the project presentations. The new NERACOOS board is off to a great start under the leadership of Malcom Spalding. Josie and I provided an update on the IOOS program. Betsy Nicholson provided a slide that tied NERACOOS to the other Regional efforts - that was very well received. I am very pleased that John Hare was accepted as Ex-officio on the NERACOOS board, Betsy Nicholson will provide support to the Strategic Planning team, John Cannon will provide support to the Communications and Outreach working group and Rich Signell will participate on the DIF working group. Further our NOAA reps and other Federal partners have agreed to look at other opportunities to remain engaged with NERACOOS as they build upon the great capacity that this region brings to IOOS.
- **Hurricane Surge Workshop (St Pete Beach, FL, February 11-12, 2009):** My sincere thanks to the NOAA/FEMA/University of South Florida (USF) College of Marine Science for a very successful Hurricane Surge workshop which was attended by Federal partners, storm surge scientists and state representatives. Plenary talks focused on each agency's role in storm surge along with key gaps, and highlights of the current "state of the art" in surge modeling. Breakout groups focused on management and science issues. In the final session, the workshop attendees agreed to the following actions:

 - Launch a collaboration web site and agreement to share information about surge/inundation projects - NOAA Coastal Services Center (CSC) will host initially
 - Launch a listserv for surge/inundation - CSC has the lead
 - Support a proposal to form a team under the National Science and Technology Council (NSTC) Subcommittee for Natural Disasters, co-chaired by Margaret Davidson, Director, CSC. This would be a national level coordination body for coastal inundation that would execute the priorities in the SDR Coastal Inundation "Grand Challenge" along with developing an inventory of projects, etc.
 - Jaamie Rhome, Tropical Prediction Center (TPC) Storm Surge Program Lead on detail to the Office of Science and Technology Policy (OSTP), is working this action with Margaret Davidson.
 - USF will prepare a workshop report and access to the briefings given.

- **National Oceanographic Partnership Program (NOPP) seeks research proposals:** NOPP and the President's Interagency Committee on Ocean Science and Resource Management Integration (ICOSRMI) are currently seeking proposals meeting the goal of partnerships between at least two of the following three sectors: academia, industry (including NGOs), and government. Research proposals are being solicited for three topics:
 - Improving Wind Wave Predictions: Global to Regional Scales
 - Sensors for measurement of Biological, Bio-Optical, Optical or Chemical Properties of the Ocean
 - Improving Cyclone Intensity Forecasting

Submission deadline is April 10, 2009. For more information, refer to the full Broad Agency Announcement: <http://www.onr.navy.mil/02/baa/> - BAA # 09-012. Up to \$21.5 M over four years may be available for this solicitation, subject to appropriation and final approval by the Interagency Working Group on Ocean Partnerships of the ICOSRMI. For more info: NOPPO@oceanleadership.org.

- **HEADS UP - REQUEST YOUR SUPPORT: Oceans 2009 – Biloxi, MS (October 26-29, 2009):** We began coordination with Dick Crout, heading the Technical Program about having a IOOS track during this meeting. We will be working with Dick and Bill Burnett on the details but I would like to ask as many of the Regions who are able to consider providing a paper on the IOOS products, services you are providing within your region. Details to follow soon.

Congressional:

- S22: Remains on the House schedule.
 - On February 12, Dr. Jane Lubchenco, Undersecretary-Designate of Commerce for Oceans and Atmosphere in the U.S. Department of Commerce, provided testimony for her nomination before the full Senate Commerce Committee. The Committee also heard testimony from Dr. John Holdren, Director-Designate of the Office of Science and Technology in the Executive Office of the President. The Committee has yet to vote on the nominations. To read the testimony of Dr. Lubchenco: http://commerce.senate.gov/public/files/Lubchenco_opening_statement_final211.pdf.

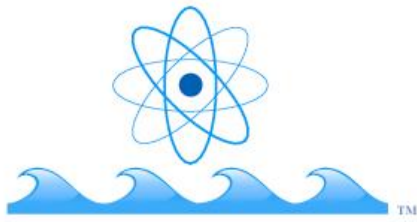
Communications:

- Check out the IOOS website for the new outreach materials. We have posted our IOOS in Action papers. Soon to follow will be IOOS linked to a number of Federal Agencies.
- Check out the attached Press Release from Down East Instrumentations - delivery of buoy system to SECOORA
- DHS released the following story on USAIR Flight 1549: <http://www.newswise.com/articles/view/549358/?sc=dwhp>. DHS also posted a Eurekalert - http://www.eurekalert.org/pub_releases/2009-02/udoh-sah021909.php

Upcoming Meetings:

- 24 February: SCCOOS Senior Advisory Committee Meeting: Zdenka will attend
- 25-26 February: GCOOS meeting: Suzanne Skelley will attend
- 25 February: Great Lakes Shipping Stakeholders Forum: Zdenka will support Jack Dunnigan, Assistant Administrator, NOAA's National Ocean Service (NOS)
- 4 March: NFRA/IOOS user day on Capitol Hill
- 10-11 March: NOAA IOOS Regional DMAC Workshop, Silver Spring, MD
- 12 March: IOOS Industry Day - Silver Spring, MD - see above for details
- 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>

Cheers,
Zdenka



20 Feb. 2009

PRESS RELEASE

For immediate distribution

Down East Instrumentation, LLC Delivers 2nd Real-Time Monitoring Buoy System to Client

Down East Instrumentation, LLC of Cary, NC has recently announced the delivery and installation of a second real-time meteorological & oceanographic monitoring buoy system to the Carolinas Regional Coastal Ocean Observing System (Carolinas RCOOS). The first system was delivered and deployed off the coast of Wilmington, NC in May 2008 and has been continually operating since then at their ILM2 site. This latest system complements their array of real-time monitoring buoys and coastal platforms that comprise the observational component of the RCOOS. Carolinas RCOOS is a sub-regional component of the Integrated Ocean Observing System (IOOS); a federal-regional partnership working to provide new tools and forecasts to improve safety, enhance the economy, and protect our environment. The buoy system is also an addition to the inventory of monitoring assets maintained by the Southeast Coastal Ocean Observing Regional Association (SECOORA), of which Down East is a member. The Carolinas RCOOS supports the mission of SECOORA (www.secoora.org) to meet geographically specific needs and enhance the nation's ability to observe and understand US waters.

The system was successfully deployed in Feb. from the R/V Savannah, operated by the Skidaway Institute of Oceanography. It is currently situated at the FRP2 site off the coast of Hilton Head Island, SC. The buoy is outfitted with Down East's Automated Buoy Weather Station, a turnkey atmospheric sensor package designed and built specifically for the harsh conditions associated with coastal and deep water buoy moorings. Atmospheric parameters measured include air temperature, barometric pressure, relative humidity and wind speed and direction. An on-board GPS receiver tracks the buoy's watch circle and keeps its controller/data logger real time clock synced to UTC (Universal Coordinated Time). Additionally, a Sea-Bird Electronics (Bellevue, WA) SBE-37 Micro Cat is integrated into the system to provide sea surface temperature and salinity. All of the sensors are sampled once an hour and the data is telemetered to shore using the Iridium (Bethesda, MD) satellite communications network. Data received is posted to the Carolinas RCOOS website (www.carolinasrcoos.org).