

Bi-Weekly IOOS® Z-GRAM - 8 April 2011

www.IOOS.gov

The Z-Gram is an informal way of keeping you up-to-date on US 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:

- **WE NEED YOU: System Advisory Committee** [ICOOS ACT: Section 12304 (d)]: The FRN for membership is now out, please apply by **16 May**. We are looking for all sectors of IOOS to apply: State, Local, Tribal government; Academia, Industry, NGO. For the FRN visit: <http://federalregister.gov/a/2011-6063>.
- **CONGRATS to Jeff de La Beaujardière - Jeff DLB** : Jeff was selected to be NOAA's Data Management Architect. This is a significant promotion. Of course the bad news for US IOOS is he will be leaving our office. This transition will take place May 20. Charly and Jeff are working on a “transition plan” to ensure a smooth departure and subsequent recruit to backfill this position. Jeff will continue to collaborate (Zdenka has already provided him tasking) with IOOS in his new role, because the NOAA DM Architect has traditionally viewed IOOS DMAC as an exemplar of the target architecture in NOAA's Global Earth Observing Integrated Data Environment (GEO-IDE) vision. Jeff will also be involved from NOAA on the GEOSS data management efforts and will continue to represent US IOOS in that areana as well.
- **IOOS Oservation Asset Inventory**: Sam has organized a tiger team and POCs from the Regions to focus on a non-federal asset inventory design/process. Sam is ensuring this is being coordinted wit the other efforts ongoing in the US IOOS office - i.e. the Blueprint assessments and the Independent Cost Estimate.
- **Benthic Gliders**: Sam has continued to contact non-federal experts in preparation for community-wide planning. If you have not heard from Sam and have thoughts and contributions - please contact Sam at Sam.Walker@noaa.gov

Data Management and Communications (DMAC) V0.9 Subsystem of IOOS® To get on the IOOS System Status list which announces service changes, please contact Jeff (Jeff.deLaBeaujardiere@noaa.gov) or Rob (Rob.Ragsdale@noaa.gov).

- **CO-OPS DMAC Services**: “Collections” services have now been established at CO-OPS (allowing selection of data/observations from multiple locations via a single query) and have been placed on their developmental services for testing and assessment. CO-OPS's Andrea Hardy anticipates the services will soon be available on their operational server.
- **REMINDER: IOOS Data Catalog & Service Registry - Kick-off Meeting 4/25 in Silver Spring**: This will include technical partners from NOAA/NESDIS National Geophysical Data Center (Ted Habermann) and Gulf of Maine Research Institute (Eric

Bridger). The Catalog is built by harvesting metadata from compatible data access services.

- **IOOS RA DMAC Workshop (April 26-28):**
 - Metadata Training Session (scheduled for Tues., April 26th): NGDC's Ted Habermann and NODC's Chris Paver (NODC) will start with concepts and data types, followed by a discussion of the NODC NetCDF templates and the NetCDF metadata and ISO metadata standards, and mechanisms to move data to NODC.
 - IOOS RA DMAC "Readiness" Survey: Alex B. and Rob ensured the survey was distributed to the RA DMAC Coordinators and workshop participants. The survey will be used to guide a workshop discussion on the present and near-term status of the RA's collective implementation of key DMAC functions. The survey questions were based on the IOOS DMAC guidance provided in the most recent FFO and the results will also be provided to Carl G. as supplemental material for the Regional component of the on-going Blueprint Assessment.
- **Coastal and Marine Spatial Planning:** NOAA CMSP Data and Tools Team - Charly and Jeff met with CSC's Tony LaVoi and NOS/Special Project Office's Robbie Wilson and John Hayes to discuss potential IOOS/CMPS collaboration on a data registry/catalog and the types of data services CMSP is considering enabling for key NOAA data sets. There are a number of opportunities to leverage existing work – particularly via the IOOS Data Catalog and discussions will continue.

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.

- **DMAC Steering Team:** The DMAC-ST Roster has been finalized and planning continues for the first meeting now scheduled for mid-May. New additions include a range of non-federal participants including representatives from OBIS/IODE, IMOS (Australia), OGC, and the ESIP Federation. Currently the Federal Members are: Sam Walker (Chair/US IOOS Program); Jeff de La Beaujardiere (NOAA); Eric Lindstrom (NASA); Rich Signell (USGS); Jeff Lillycrop (USACE); Walter Johnson (BOEMRE); Jon Andrechik (USCG); Ken Casey (NOAA) – invited; EPA – awaiting confirmation ; Erica Key (NSF); Jeffrey Smart (JHU/APL/USN) – awaiting confirmation ; Samantha Simmons (MMC); Erik Stabenau (NPS); Charly Alexander (US IOOS Program) – ex officio : Non-Federal Participants: Kathleen O'Keife (FWRI) - state agency rep and remote sensing - awaiting confirmation ; Edward Vanden Berghe (OBIS) - intl. rep and IODE rep; Mark Trice (MD-DNR) - state agency rep, water quality, data manager: Nadine Alameh (OGC) - standards body rep, (Alt: Luis Bermudez) ; Ru Morrison (NERACOOS) - RA ExDir; Julie Thomas (SCCOOS) - RA ExDir; Pete Giencke (Google) - industry rep; Janet Fredericks (WHOI) - QARTOD and academic rep; Eoin Howlett (ASA) - RA/industry rep; Krish Narasimhan (Lockheed Martin) - industry rep; Steve Uczekaj (Boeing/NANOOS) Pacific/RA/industry rep, (Alt: Rick Blair) ; David Mann (USF) - Observation subsystem rep and academic rep; Roger Proctor (IMOS Representative) and Carol Meyer (ESIP Federation).
- **High Frequency Radar/Radio (HFR):** For more information on all US National HFR efforts please contact the US Project Manager - Jack Harlan, Jack.Harlan@noaa.gov

- Frequency Allocation: Continue to support NOAA leadership meeting with the Assistant Secretary of the Navy and other DOD officials in regards to securing frequency licenses.
- Radio Operators Working Group (ROWG) Meeting: Logistics are being finalized for the upcoming ROWG Meeting in Santa Barbara, CA (4/25-28)
- **IOOS and Links to the National Water Quality Monitoring Network: No update**
- **IOOS and The National Science Foundation (NSF) - Ocean Observatories Initiative (OOI): No update**
- **IOOS Modeling Testbed and Related Modeling efforts:**
 - Cyberinfrastructure Team: Dr. Sara Graves (University of Alabama – Huntsville, Information Technology and Systems Center) has been leading development of the Modeling Testbed website (<http://testbed.sura.org>), which facilitates communications among the modeling and cyberinfrastructure teams and the Advisory group; Will be the project's "calling-card" to add value to the science goals by communicating results, societal and broader impacts of the work to the scientific community and beyond. They have done a stellar job of listening to the needs of the Testbed community.
 - Justin Davis has completed the conversion of SLOSH output from Dr. Slinn to CF-compliant NetCDF. Justin has joined the National Hurricane Center (Arthur Taylor, Jesse Feyen) to implement these tools for operational SLOSH.
 - Skill Assessment Toolbox: Jeff Hansen and Andy Bird have continued to work on the skill assessment toolbox, IMEDS. They have recently added target diagrams as output for model-observation comparisons of elevation data. The toolbox is available for download on the SURA Model Testbed site (<http://testbed.sura.org>).
 - Prototype Model Viewer Website: Charlton Galvarino has been developing a prototype model viewer web site that exercises the back end services including web services for the catalog, model visualization (OGC WMS), split map model-model comparisons, and is working with Eric Bridger to add SOS support for NetCDF-based observation data.
 - Estuarine Hypoxia Team: Chesapeake Bay Model Comparisons: Inter-comparisons for multiple hydrodynamic and hypoxia models of Chesapeake Bay have been completed: hindcasts of salinity, temperature and stratification for 5 hydrodynamic models (ChesROMS, UMCES-ROMS, CBOFS2, EFDC, CH3D), for the year 2004, have been completed. Multiple hypoxia formulations of varying complexity in conjunction with ChesROMS and EFDC (i.e., holding hydrodynamics "constant") have also been completed. The similarities reinforce the overall quality of the hindcasts and provide ensemble confidence bounds. The more subtle differences provide very useful insight into the pros and cons of various modeling approaches.
 - Chesapeake Hydrodynamic Modeling Workshop (6/9-10): The Estuarine Hypoxia Team will assist with a June 9-10 Chesapeake Hydrodynamic Modeling Workshop at the Smithsonian Environmental Research Center in Edgewater, MD. A white paper will be provided to the Chesapeake Bay

Program recommending a pathway for transitioning additional models for use in federal operational/scenario forecasting.

- Transition of Estuarine Hypoxia modeling to operations: A transition is well underway through NOAA/NOS/CSDL. A version of the one-term oxygen model developed by Malcolm Scully has already been incorporated into CBOFS2 at CSDL by Lyon Lanerole. Rich Patchen of NOAA/NOS/CSDL highlighted this very successful collaboration as part of his presentation at the Shelf Hypoxia "Face-to-Face" meeting at SURA in DC on Mar. 2, 2011.
- Testbed White Paper: A paper titled: "Establishing a Testbed to Evaluate and Improve Coastal Oceanographic Environmental Models" has been prepared with contributions from Chris Mooers (Portland State University) and editorial suggestions contributed by Ming Ji and Barry Choy (NCEP). The document will be more thoroughly reviewed next week.
- Terms of Reference for a Coastal Ocean Modeling Testbed: A draft has been written and distributed for internal review. The document will distributed to modeling testbed partners next week for further comments.

Other:

- **Call For Small Business Innovative Research (SBIR) grants - DEADLINE 16 May 2011**: NOAA is soliciting topics from small business concerns for FY2012. Initial grants, called Phase 1, are for \$95K with a six month period of performance. The National Ocean Service leadership has also suggested that program offices consider the following four areas of focus when developing their submissions: (1) Regional resiliency, (2) GIS visualization tools in support of CMSP, (3) Arctic research and investments and (4) Water quality related to HABs and ocean health. Additionally, the broader federal SBIR program is emphasizing technology transfer into commercialization rather than topics that simply fill data gaps. The NOAA SBIR website is <http://www.oar.noaa.gov/orta/>. Send your topics or questions to Jack Harlan jack.harlan@noaa.gov by COB Monday May 16.
- **IOOS Regional Project Status/ Review Briefs (FA2/FA3 briefs)**: Woods Hole Oceanographic Institute's Dr. Scott Gallager, Amber York and Massimo DiStefano briefed an excellent presentation and results of the Northeast Benthic-Pelagic Observatory to Support Fisheries, an Ecosystem Approach to Management, and Marine Spatial Planning Project to IOOS headquarter on March 30th.
- **GLOS Annual Meeting**: Dave and I joined GLOS for their annual meeting and as always it is GREAT to be in the regions seeing all the wonderful work. GLOS is able to meet the challenges outlined by their stakeholders through a combination of funding that has come from US IOOS and from the Environmental Protection Agency's (EPA) - Great Lakes Restoration Initiative (GLRI). GLOS has a new Blueprint that is a business and strategic planning document developed to establish a framework and guidelines for the GLOS planning process and approach. The blueprint aims to deliver transparent, informative and inclusive documentation about GLOS operations, planning and management to provide consistent guidance for the GLOS board, staff, members, contractors, partners, and stakeholders. I recommend you read this document, posted on

www.glos.us. One of my favorite statements of the meeting came from Dr. Val Kemp who stated that the folks from the Universities were all putting in buoys but it was GLOS who brought them together - as we say "Integration" on many levels. There was a good discussion on the operation and maintenance of the buoys and I was pleased to see the statistics that are showing the buoys are up greater than 82% of the time. Stuart Eddy discussed the Data management and one of the points he made was the creative tension between working on the availability of the data (schema, metadata etc) and the desire for the focus on products and services. I am sure this topic will come up during the Regional IOOS DMAC meeting in late April. Stuart talked about the power of the synergy throughout the 11 DMAC coordinators and the importance with working with the National office to collectively provide capability across all of US IOOS - music to my ears! GLOS released in Jan 2011 the Model inventory, which is a database of physical, ecosystem and related models which was developed by LimnoTech. GLOS was also asked to lead the set up of a Modeling Community of Practice within the Great Lakes

- **Atlantic Estuarine Research Society - Spring Meeting 2011:** Scott Glenn, MARACOOS and I both had the honor of being key note speakers at the AERS meeting. The theme of the meeting was "Our Changing Coasts: From Observations to Restoration." The sessions focused on Technology, Observations, and Restoration/Ecology. It was a great meeting for us to connect with those focused on the estuaries and make new friends. I was particularly pleased to see a number of students who attended and had the chance to read a number of very good posters. Thank you to Chris Heyer, YSI, INC and Mario Tamburri, ACT for the invitation.

Congressional: No updates

Communications/Outreach and Website Updates:

- "Pacific Oysters Gain from IOOS Data." Article featured on the NOAA's homepage - www.noaa.gov

IOOS Conference Involvement: This section will highlight those conferences where US IOOS is a sponsor/has a session/relevant sessions of interest to US IOOS:

- **MTS/IEEE Oceans 2011:** The call for papers is now open. I have asked Carl Gouldman of my office to take the lead on our additional participation - with everything that has been going on with regard to the FY11 budget, we have been unable to turn our attention to this effort. We will look to do so over the next several weeks.
- **Coastal and Estuarine Research Federation: Biennial Conference in Daytona Beach, Florida, 6-10 November 2011.** Julia Bos, jbos461@ecy.wa.gov; Kimberle Stark, kimberle.stark@kingcounty.gov and Stephanie Moore, stephanie.moore@noaa.gov, will co-chair the session - SCI-040; Integrating Automated Ocean Observing Systems with Traditional Monitoring. Please consider contributing an oral or poster presentation to a session they are convening titled “*Integrating Automated Ocean Observing Systems with Traditional Monitoring*”. This session builds upon the CERF 2009 session on Automated Monitoring which was very successful in showcasing examples of data from automated sampling systems being applied to ecosystems assessments and sharing some important "lessons learned". **ABSTRACTS due on-line by *May 12*** Please note the

session title and number (#SCI-040; Technology and Methods Advancement and Application; Monitoring) when you submit your abstract. A description of the session can be found at <http://www.sgmeet.com/cerf2011/Monitoring.asp> .

- **New: Poster Session at the WCRP Open Science Conference - Reserach in Service to Society:** Eric Linstrum, NASA and IOOC co-chair will be co-chairing the session on Sustained ocean and sea-ice observations (C-14). Abrstracts are due 30 April. The meeting will take place in Denver, CO - 24-28 Oct. For more information on the conference please see: <http://conference2011.wcrp-climate.org/abstracts.html>. If you have questions on the session please contact, Eric Lindstrom, eric.j.lindstrom@nasa.gov.

Upcoming Meetings: To see the IOOS calendar, please visit: <http://www.usnra.org/calendar.html> or <http://ioos.gov/calendar/>

- DMAC ST: 10-11 May - change to date
- CaRA General Assembly and Buoy Commissioning: 12, 14 April
- IOOS RA DMAC Workshop: Ops. Div.; Silver Spring, MD; April 27-28, 2011
- Radio Operators Working Group Meeting (4/25-28): Jack; Santa Barbara, CA
- IOOS Biological Data Project Workshop 18-19 May: Hassan, Charly; Honolulu, Hawai'i
- IOOS Modeling Testbed: Storm Surge 5-6 May; First Year Program Results and Review (22-23 June – tentative); Doug; Washington, DC
- International Oil Spill Conference (5/22-27): Sam; Portland, OR
- Northeast Coastal and Ocean Data Partnership Annual Meeting and Metadata Workshop (6/8-9): Charly (tentative); Rye, NH

Cheers,
Zdenka