

Bi-Weekly Z-GRAM - 5 March 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

**Programmatics:**

- **Congressional Report:** We received comments from OMB and the NOAA IOOS Program responded to these comments.
- **FY10:** The following RA cooperative agreements have been accepted by the recipients: MACOORA, CeNCOOS, SCCOOS, NANOOS, CaRA, GCOOS, and NERACOOS -- CONGRATS! The effort is now working the descopes and earmarking awards with recommended recipients. These need to be turned in to the NOAA IOOS office on 18 March. Since the RCOOS awards are made up of many partners, I have asked all of the partners to be responsive to the leads in turning around their part of the descope. We are working with each of the PIs to understand everyone's issues and I appreciate the significant efforts on both your and my side to make the NOAA deadline of everything turned in by 31 March.

**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](http://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 at [Charles.Alexander@noaa.gov](mailto:Charles.Alexander@noaa.gov)**
  - **CUSTOMER PROJECTS:**
    - **Coastal Inundation:**
      - **IOOS SLOSH Display Enhancement Project - SUCCESS:** As a result of the project's success, NOAA's National Weather Service (NWS) has requested that the enhanced SLOSH be deployed to all SLOSH users for the 2010 hurricane season. This includes not only NWS WFOs but FEMA, USACE, and emergency managers. CO-OPS's verified that CO-OPS IOOS web services could support the likely increase in access to water level information during events, which was an original concern during the limited scope customer project. Several members of the NOAA Storm Surge team will work together to disseminate information on the SLOSH enhancements, including the creation of new training materials.
      - **IOOS Coastal Inundation (CI) Project Assessment Survey:** The final version is in the process of being written and is expected to be issued in the next week. The assessment will be for the currently-

funded regional IOOS CI projects from a DMAC-readiness and NOAA storm surge roadmap relevance perspective. The survey will be sent to relevant IOOS Regional Associations and NOAA Regional Teams for situational awareness and to follow up on previous conversations about the assessment.

- **TECHNICAL ENHANCEMENTS: DATA PROVIDERS** - National Data Buoy Center has CSV (comma-separated value) output format available on a development machine. NDBC will issue a beta-test URL and draft encoding specification by 9 March. NDBC is implementing CF (Climate & Forecast) standard names for variables on their SOS. (CO-OPS will also do same.) This will improve interoperability with THREDDS Data Servers and some international projects. Jeff is working with CF Metadata international group to agree on additional names as needed. Old names will still work until we ensure that any customers have migrated to the new names.
- **IOOS Data Portal (REGISTRY/CATALOG/VIEWER)**: Finalizing the high-level component architecture with collaborators. (Note: Components are based on existing IOOS, NOAA, and open-source code.)
- **IOOS Observation Registry**: Hassan Moustahfid (IOOS), Vembu Subramanian (USF), Gary Conley (Monterey Bay Sanctuary Program), Jeff De la Beaujardiere (IOOS), and Sam Walker (IOOS) discussed the status of the IOOS Obs Registry transfer to USF (Development and Production servers setup), discussion per the modifications necessary to the obs registry (i.e. adding WMO ID, Jeff DLB's e-mail dated 02/12/2010 7:50 PM) and NBDC and CO-OPS SOS parsing and creating a work plan to move forward.
- **Federal GeoCloud**: GSA solicitation canceled and will be restarted later. There were technical discussions with NASA NEBULA regarding possible role as host. It was hoped that the IOOS Data Portal could be hosted on the cloud in 2010, but that is now unlikely to happen.
- **IOOS REGIONAL DMAC COORDINATION**:
  - **IOOS Regional DMAC Workshop Planning**: A section of the meeting will focus on the tools and products developed or those being used in the regions. The demonstrations will be confined to products and tools using the IOOS web services and a follow-on discussion will reach beyond just the IOOS SOS Webservices and GML encoding format. This will permit time to discuss formats such as KML, which are of high interest in the regions.
  - **KML/ URN Platform ID Discussion**: In following up to the KML discussion from the regional call, Sam, Jeff and Rob met to talk about the current status of KML use in IOOS and our partnership with Google. Jeff presented options for implementing KML in the regions that we discussed and that he will present in the meeting. Jeff requested an approximate one-hour time slot to find a solution to the problem of incompatible station/platform IDs. The issue is that duplicate platforms are visible on the existing IOOS Obs Registry and will be on the new IOOS Data Portal unless we do something about it immediately. A problem arises when data are available from multiple sources (e.g. from RA, from NDBC SOS, and

over the GTS). This is important enough that other meeting agenda item(s) should be shortened or removed to make room.

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.

- **GEOSS Requests Your Support:** Dear Fellow Member of the Earth Observation Community: In 2005, the intergovernmental Group on Earth Observations initiated a ten-year plan to implement the Global Earth Observation System of Systems, GEOSS. GEOSS implementation is halfway through the first ten-year plan and an Evaluation Team has undertaken the task of developing the first progress assessment. Direct feedback from the users is necessary to support any conclusions because of the user-oriented and voluntary nature of GEO and GEOSS. In order to reach as broad a respondent pool as possible, the Evaluation Team has developed an online survey to assess the impacts that GEOSS has had on members of the Earth observation community. We invite you to contribute to the first evaluation of GEOSS by completing the survey, which can be found by visiting the following link -- GEOSS Evaluation Survey: <http://www.zoomerang.com/Survey/WEB22A7JHFECU4/?source=geoall>. The survey should take approximately 20 minutes, but may last longer depending on your previous involvement with GEO/GEOSS and the depth of your responses. Please submit your responses as soon as possible. The survey will close on **30 March**.
- **High Frequency Radar/Radio (HFR):** Jack and I met with the Regional HFR folks during the AGU Ocean Sciences meeting in Portland, OR (22-26 February) to talk about IOOS and HFR. Jack also coordinated extensively with Regional HFR personnel and meetings with US Coast Guard per developing a National Capability for search and rescue (SAROPS) using HFR data — a major HFR initiative in FY2010 in collaboration with the IOOS Regions.
- **IOOS and Links to the National Water Quality Monitoring Network:** No Update.
- **IOOS and National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** Charly had an extended call with USGS's Rich Signell and ASA's David Stuebe on the status and next steps for the IOOS modeling use case (framed by NWS's Arthur Taylor during his IOOS detail) that OOI-CI will use to "stress test" the function/capabilities of release one of their cyber-infrastructure. Excellent meeting and update. The modeling use case was very well received during the OOI-CI developers meeting in San Diego last week. A series of follow-ups were agreed to.
- **US IWGOO - DMAC Steering Team:** Sam is working extensively on drafting DMAC-ST "read-aheads" for the 19 March IWGOO meeting. These include a slide presentation on status/plans, a draft charter document, and a prepared acknowledgment letter for members of the former DMAC-ST. The primary objective is to lay the foundation for a re-chartering of the DMAC-ST to align with IOOC goals/responsibilities.

#### Other:

- **NOAA IOOS and Commander, Naval Meteorology and Oceanography Command (CNMOC) Sign an MOU:** On 2 March I signed an MOU with Rear Adm. Jonathan W.

White, Commander of the Naval Meteorology and Oceanography Command, to develop common data exchange software for sharing ocean data to enable the translation of data for use by all IOOS members.

- **My Visit to CNMOC and the Naval Oceanographic Office:** It was great to reconnect with my Navy friends at Stennis and it was great to catch up and also forge new partnerships for IOOS. In addition to signing the new MOU, RDML White confirmed Navy's support to the GODAE server, which gives the civilian community access to Navy observation and model output. Frank Bub, Naval Oceanographic Office, briefed me on the extensive work that Navy has done with ocean forecasting models. He conveyed the importance of the IOOS Regional Observations to the Navy's effort and Navy is looking to incorporate HFR currents into their modeling efforts and also to use them for verification. There are exciting collaboration efforts we can take advantage of with the Navy in this regard. I was joined by Dave McCarron, who recently joined NOAA to work the Navy, NOAA, Air Force modeling effort – National Unified Operational Prediction Capability (NUOPC). Dave is from the Navy METOC community and now works for Fred Toepfer under the Hurricane Forecast Intensity Program (HFIP) in NOAA. This will also be a key connection for US IOOS. I then received a briefing by Dan Berkshire, Glider Project Manager in the Navy Glider Operation Center. As the Navy brings their 150 gliders on line, they would very much like to continue the collaboration already in place through the Office of Naval Operations and our IOOS Partners. I was able to provide an IOOS brief to the CNMOC and NAVO staff, and they were impressed at the breadth of the US IOOS mission and the capabilities that we have put in place. I look forward to a strong relationship with the Navy METOC community.
- **My Visit to NDBC and NCDDC:** Two strong IOOS partners within NOAA are the National Data Buoy Center (NDBC) and the National Coastal Data Development Center (NCDDC). I had a chance to get caught up on the Data Assembly Center efforts through NDBC and the role they play in the QA/QC of the IOOS regional data and getting this data to the GTS, which is CRITICAL to modelers. I had a great opportunity to speak with Helmut Portmann, the new NDBC Director, who is focusing on improvements within NDBC and forging great partnerships across the NOAA family at Stennis and the Navy. We talked about the emerging new observation technologies and how we might best capitalize on this. Last, but certainly not least, I had a chance to catch up on the SIGNIFICANT progress NCDDC has made since I had the privilege of being the Director of NODC. I strongly urge you to go to their website and check out ECOHAB and Ocean NOMADS work they have done for the National Marine Sanctuaries - Flower Garden Banks, Metadata training through Mermaid 2; Ecosystem Data Assembly Center, bring data from NOAA ships through the Ocean Exploration Integrated Products team and much more. NCDDC works closely with GCOOS and the Gulf of Mexico Alliance but is nationally focused, so if you see something that could be applicable to your region or your efforts, contact NCDDC. Furthermore, NCDDC and the Northern Gulf Institute have teamed up nicely to support Integrated Ecosystems and have a wonderful Diversity Internship Program.
- **GCOOS Meeting of the Parties and Board Meeting:** Thank you so much for the invitation to attend and brief. I was joined by NDBC, NCDDC, USGS, and MMS as federal partners of GCOOS. Both Helmut and I had a chance to brief on US IOOS and both briefings were well received. Capturing the highlights of a two-day meeting in a few

sentences is always a challenge, but here goes: GCOOS is working hard on all fronts, from putting together a comprehensive business plan, communications, legislative, and marketing strategy, to delivering services through the data portal, education, and outreach and products and services committee. I continue to be in awe of their passion and of those who volunteer their time from the state and local government, academia, and the private sector. The GCOOS DMAC committee members are also part of the Gulf of Mexico Alliance -- a recently formed DMAC committee. GCOOS is working closely with NOAA and their Mexican counterparts through the Large Marine Ecosystem efforts, which are led by Bonnie Ponwith, NOAA's Southeast Fisheries Science Center. GCOOS is also looking at partnerships with SECOORA, CaRA, GOMA, and an oil and gas consortium called CASE JIP. Education and outreach has always been a strong focus of GCOOS and they have just launched a new education and outreach webpage. The portal is up and running and brings together over ten observing data sources and serves them in customer-driven formats.

- **NOAA Office of Coast Survey Navigation Managers Meeting (Baltimore - 25 February):** Sam and Dave (NOAA IOOS) brief managers on IOOS and joined a discussion on their needs. Highlights of discussion included:
  - Nav. mgrs focus remains primarily on ports/harbors and their interaction is mostly with local authorities and captains;
  - Data needs are bathy, currents, waves, winds, and fine-scale circulation;
  - Increasingly using autonomous platforms and adding current/tide meters to obs arrays; and
  - Interested in IOOS collaboration but hesitant to fully engage without clear data certification.
- **Ocean Tracking Network as a Fisheries Research Tool Workshop (Nova Scotia, Canada - 25 February):** Hassan (NOAA IOOS) was an invited presenter per his previous work with OTN data and research. Workshop objectives included exploring (a) benefits of OTN to sustainable fishing and research, and (b) identifying research priorities.
- **Alternative Energy: Ocean Thermal Energy Conversion:** Charly met with National Ocean Service/Office of Coastal Resource Management's (OCRM) John King and Kerry Kehoe to discuss their planning/coordination for an OTEC project plan for Hawai'i (off Pearl Harbor), which is currently a joint U.S. Navy/Lockheed-Martin activity that may exceed \$1B. John and Kerry were particularly interested in how IOOS could contribute via existing observations/analysis, potential future observations via new structures that would be erected in coastal waters, and Charly's personal experience planning activities in Hawai'i. Charly suggested several contacts in Hawai'i, including PacIOOS's Brian Taylor (whom they knew). OCRM's role is with respect to developing regulations and facilitating licensing. Apparently a workshop is planned in Honolulu for June per biological assessment/impacts. No specific follow-up is planned.
- **PEOPLE (Partnering Earth Observations for People Living Environmentally) – Joint Capability Technology Demonstration Project:** Charly and NOAA's Climate Observation Division's John Calder met with Marty Kress, Executive Director of the Von Braun Center for Science and Innovation (Huntsville, AL). The PEOPLE/JCTD project is focused on the Arctic and the integration of existing data from a wide array of sources for new customer products for this region. The meeting covered a wide range of topics and

issues (remote sensing, data interoperability, data sources, etc). Dr. Kress is a highly motivated, energetic scientist/manager/enabler who is focused on delivering innovative products and services for the Arctic. He was aware of AOOS (and I gave him Molly's contact info), particularly with respect to a data source and a potential customer for PEOPLE/JCTD products (John indicated that Molly and many other Arctic experts will be at the "State of the Arctic" conference in Miami, FL later this month, which Dr. Kress will also attend). I also suggested contacts at OOI-CI. We also exchanged information about data interoperability/integration. There may be a unique opportunity to collaborate on data interoperability and on Arctic products/services (via AOOS/McCammon and via COD/Calder).

### **Congressional:**

- **Successful IOOS and Industry Hill Event:** IOOS, along with the U.S. Army Corps of Engineers, Minerals Management Service, Office of Naval Research, National Science Foundation, National Federation of Regional Associations (NFRA), the Marine Technology Society, and the Alliance for Earth Observations, hosted an outreach event on 2 March entitled "Industry and Ocean Observations: Partners in the 21st Century Economy." The event, geared toward educating Congressional Staff about the importance of the partnership between IOOS and the private sector, was widely attended by representatives from various businesses as well. In total, fifteen staff members came to the events on both the House and Senate sides. Thank you so much to our panelists, Nancy Colleton (Alliance of Earth Observations), Jay Titlow (Weatherflow, Inc), Clayton Jones (Teledyne Webb Research), and Cort Cooper (Chevron), and to our sponsor who cast IOOS as a true collaboration that is supporting our economy through jobs, being integral to safe and efficient operation of business, and providing the next generation of the workforce.

### **Communications:**

- **New IOOS Emblem with Registered Markings: All we have gotten approval on the registration markings for the IOOS emblem. Please download the new emblem from the IOOS website and update your websites.**  
<http://ioos.gov/messaging/welcome.html> **As well, we request that when you are using the IOOS emblem that you download them from the website. Please do not use the banner on the front of the IOOS website.**
- NOAA Press Release, 22 February: Caribbean Surface Current Data Now Available to Rescuers, Hazmat Crews.

### **Upcoming Meetings: For more details on regional IOOS meetings, please visit:**

<http://www.usnfra.org/calendar.html>

- March 15-16: Ocean Research and Resources Advisory Panel Meeting, Washington, DC.
- March 16-18: State of the Arctic Conference, Miami, FL: AOOS is a sponsor and will attend for US IOOS.

- March 18: **Digital Coast & IOOS DMAC** -- Charly/Jeff/Sam/Rob, along with Coastal Services Center's Miki Schmidt and Tony LaVoi, and OAR's Alan Leonardi (per NOAA partnership with Google).
- March 22: Spill of National Significance Exercise, Portland, ME: NERACOOS significant partner and participant.
- March 23-24: IOOS Regional Data Management Workshop, Silver Spring, MD.
- March 29-31: International Conference on Marine Data and Information Systems and SeaDATANet meeting - Paris, France. Jeff De la Beaujardiere will attend to connect to both MyOcean and IMOS efforts in data management and represent US IOOS as an adviser to the EU SeaDATANet project.
- April 25-29: National Water Quality Monitoring Conference, Denver, CO: Rob to attend from NOAA IOOS and support from a number of IOOS regions.

Cheers,  
Zdenka