

Bi-Weekly Z-GRAM 7 March 2008

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The Z-gram- IOOS is an informal way of keep you up on what's going on in our NOAA IOOS Office and NOAA IOOS activities. Please advise of additional addrees, 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. If you want to see previous Z-grams go the IOOS website under program updates

Programmatic:

- FY08: Please work with NOAA CSC on the FY08 recommendations for awards so they can provide the necessary paperwork to NOAA Grants Office. Since these are recommendations at this point, I can discuss specific awards until they are actually made.
- Congressional Report: **No Change**
- FY09: **No change**
- FY10-14: We provided budget narratives for the FY10 submission. We are in the process of formulating NOAA's request to the Department of Commerce and in easy terms the narrative is articulating what we would buy if we were fortunate enough to receive our budget request.
- FY11-15: **No change.**

Initial Operating Capability - Data Integration Framework (DIF)

- IOOS DMAC Standards Process: The acceptance period for IOOS Data Standard Submissions to be considered at the Spring IOOS DMAC Steering Team meeting (May 6-8, Silver Spring, MD) closed March 1. There was one standard submitted by Mark Fornwall, USGS, titled "Standards package for the representation and transport of biodiversity data".

The Data Standard process continuously accepts Submissions at <http://IOOSDMAC.fedworx.org>. The submission period closes in order to allow for internal review and consideration by the DMAC Steering Team that oversees the process at their semi-annual meetings. If you are using a standard and are part of IOOS, please visit the website and submit your standard.

- Submitted Standards: During the Fall review of submitted IOOS DMAC standards, several were tabled for further review: Real-Time Quality Control Tests for In Situ Ocean Surface Waves, Quality Control Standards for Real-Time, In-Situ Currents Measured by Teledyne RD Instruments, High Frequency Radar Surface Currents. A DMAC Steering Team working group consisting of Kurt Schnebele, Julie Bosch, Landry Bernard has been formed and is working to resolve outstanding issues and move these submissions through to a proposed status.
- Vocabulary and ontologies: DMAC Steering Team Chair, Anne Ball, is coordinating with Matt Howard and Julie Bosch looking at the pros and cons of multiple vocabularies vs. technical issues with ontologies. DMAC

is soliciting for additional technical input on this issue. Please contact Anne Ball at anne.ball@noaa.gov.

- Lessons Learned: Carroll Hood is leading a group to better define standards acceptance criteria and more formal definitions of standards and best practices that can be submitted to the IOOS DMAC Standards Process.
- GEOSS and IODE coordination: GEOSS ISWG member, Siri Jhoda Singh Khalsa and Steve Browdy, are working to coordinate the IOOS DMAC standards adoption process with IODE and GEOSS.
- IOOS DMAC Website: Based on the execution of the first round of standards, the ioosdmac.fedworx.org website has been reviewed and modified to become more efficient and useful to submitters and reviewers. As of 29 February, there were 112 registered users for the ioosdmac.fedworx.org website. **If you are involved in IOOS, you are highly encouraged to submit your standards to this website or at the very least register, comment, and participate in developing these standards.**
- What the DIF?: In order to support a key project goal of demonstrating improved interoperability, NOAA's IOOS Program Office we are providing more explicit technical guidance to data providers and other IOOS participants in addition to the data content standards already available. This guidance is the result of recent discussions within the program office, with NOAA IOOS IPT, and the participants at the Regional 2007 Grantees workshop. Several Regional Associations are already using SOS and/or other OGC web services, and we believe that moving in that direction cooperatively will represent a major step towards national interoperability.
- **WEB SERVICES AND DATA ENCODINGS** :We have decided to recommend specific service types for the DIF to adopt or develop encoding specifications for those services. Other service types and formats may also be offered by data providers, but these are the recommended minimum. Not all service types and formats are appropriate to all providers. Some providers may not be able to follow these recommendations, in which case we would like to help find third-party "gateway" services to translate what you can offer.
 - For serving feature data such as in-situ measurements from buoys, we recommend the Open Geospatial Consortium (OGC) Sensor Observation Service (SOS), version 1.0.0 ("core operations profile" only). Note that this differs from our candidate recommendation of OGC Web Feature Service (WFS) at the Charleston meeting; we believe that SOS is the better choice for IOOS.
 - For encoding feature data we will adopt, refine or develop OGC Geography Markup Language (GML) application schemas and corresponding sample XML instances, based on the OGC Observations and Measurements (O&M) specification version

1.0.0, for the feature types and physical variables of relevance to the DIF. We have established a working group on web services and data encoding within the IPT to address these schema issues.

- For serving coverage such as gridded observations and model outputs, we recommend the OGC Web Coverage Service (WCS). We realize there is broad adoption of OPeNDAP within NOAA, and hope to also be able to recommend that service after the IT Security MOU between NOAA and OpenDAP, Inc has been developed and put in place.
- For encoding gridded coverage, we recommend that NetCDF with the Climate and Forecast (CF) conventions be used. IOOS may need to further constrain those conventions.
- For serving images of data, we recommend the use of OGC Web Map Service (WMS). We may wish to adopt stylistic conventions for data portrayal.
- **WSDE Activities:** The Web Service and Data Encoding (WSDE) working group met with the author of Climate Science Modeling Language (CSML), Dr Andrew Woolf. He discussed with us the approach and benefits of using CSML to encode in-situ data. The discussion included examination of a non-CSML data record; Woolf generated an example of what the same record would look like using CSML. The WG is presently evaluating whether to use CSML or not. The target date for completion of the GML work is May 1, 2008. We wish to define reasonable "version 1" XSD and XML in short order, not necessarily to account for all possible future needs of a fully operational global IOOS. The goals of the WG include eventually considering matters such as WMS styling and KML for Google Earth.
- **Waves Data Content Standards:** Julie Thomas, Manager, Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography, is coordinating the wave observation and modeling community to develop a DIF compliant Waves Data Content Standard (DCS). Delivery of this DCS will allow the NOAA IOOS WSDE to develop the schema to be implemented at Data Provider sites to allow interoperability between different Wave data providers. Target completion date of this effort is March 15, 2008.
- **Ocean Color update:** The DIF Team continues to work closely with NESDIS Coast Watch, NODC/NCDDC, and NOAA Fisheries/SWFSC to define the overall way forward on establishing IOOS standards for ocean color and a methodology for producing associated ocean color products to support the DIF harmful algal blooms customer. These partners are working together to define tasks and resource requirements that will ensure delivery of a data

IWG00:

- IWGOO IOOS Strategic Plan: You should see the Federal Registry Notice for the public comment period within days. This will be done through the www.Ocean.US. Please keep a look out for this effort, we really need your input.
- NFRA will address the IWGOO on Regional Associations/Regional Coastal Ocean Observing Systems at the 27 March meeting
- OOI-IOOS white paper: **No update.**

Collaboration:(projects will stay on the email through to completion)

- Bathymetric collection California and Interagency Partners: **No change.**
- Army Corps of Engineers collaboration on a National Waves Plan: **No change**
- NOAA-Navy collaboration on the GODAE server: **No Change.**
- Waves in PORTS®: Here are the talking points I used when I briefed the HSRP FACA: NOAA (CO-OPS and IOOS) is entering into an agreement with the US Army Corps of Engineers (USACE) to offer a real-time (every 30 minutes), quality-controlled wave product tailored for PORTS® partners and the marine navigation community. This new wave product leverages an IOOS funded demonstration project with Scripps's Coastal Data Information Program (CDIP) and the SCCOOS to integrate regional wave observations and model forecasts for Los Angeles/Long Beach pilots where an operational PORTS® is already in place. This partnership will result in the integration of proven, high-quality, sustainable, wave technology and associated products into PORTS® operations and products. This collaborative effort supports the goals and objectives for wave observations as outlined in the National Operational Wave Observation Plan being coordinated by the NOAA Integrated Ocean Observing System (IOOS) Program and the USACE in partnership with NOAA (NDBC) . The collaboration demonstrates the mutual benefits of integrating regional scientific expertise and data to enhance Federal capabilities in support of National missions. In turn, PORTS® will facilitate a wider dissemination of USACE/CDIP data to the maritime community via its established networks (web, text, voice) as well as incorporation in the USCG Automated Information System (AIS). While the wave product will initially utilize proven buoy technology, there are plans to test and validate emerging research technologies including bottom mounted acoustic profilers for transition to operations. The CDIP Waves demonstration project in LA/LB has begun and several meetings with the pilots have been held.

Other:

- 26 February, NOAA IOOS Program Office, NOAA CSC met with NFRA executive board to review initial recommendations of our regional business model effort. The draft recommendations were well received by all the participants, now this report is being reviewed by all the RA's through NFRA.
- 27 February: I had a chance to accompany VADM Lautenbacher to the Great Lakes Commission meeting where he spoke on the range of activities NOAA is

engaged in the Great Lakes region. His talk was well received. I also had the chance to attend the evening reception and was able to talk with our GLOS partners.

- 28-29 February: I participated in the Consortium of Ocean Leadership's Public Forum and board meeting. On 28 February, I spoke on the US IOOS efforts both our global and coastal component. We talked about the continued importance to identify outcome based metrics. I was joined on the panel by Julie Morris, NSF; Molly McCammon, NFRA, and Kris Lynch – Senate Commerce committee. On 29 Feb – I spoke at the board meeting. I want to highlight the briefing that Scott Glenn gave looking at the complementary efforts between IOOS and OOI. It was a very well done briefing.
- 29 February: Gabrielle, CAPT Chris Moore, Dave Easter (NOAA CSC) and I conducted our first Regional Association baseline assessment. Thank you to Roger and Christian of GLOS for their efforts. We had a good discussion session that will allow us to better understand the unique situations in each of the regions.
- 2 -6 March: Geno Olmi and I participated in the final part of the NFRA bi-annual meeting. From there many of us participated at the Oceans Sciences meeting in Orlando. It was great to have a chance to be with you. At the kind invite of Janice McDonnell I led off a very good session on Ocean Observing in support of Education.
- 7 March: I participated in the HSRP FACA meeting and provided an update on IOOS. One of their focuses on IOOS is that we are responsive to the users needs in the Maritime Sector. They were pleased with the efforts that we have shown since I briefed them last September and will continue to work with us to ensure stronger ties. I will provide feedback to the NFRA response to the HSRP letter through the NFRA executive board..

Congressional:

- **Topic:** Full Committee Markup - HR 2342 (IOOS Reauthorization) & HR 3352 (HSIA Reauthorization); **When:** TBD, Wednesday, March 12th; **Where:** LHOB 1334; **Who:** House Natural Resources Committee

Communications: Nothing new to Report

Upcoming Meetings:

- 18 March: NOAA IOOS Program will meet with ACT to review their program
- 23-24 April: GCOOS, CARA, SECORA program assessment - Houston
- 30 April: MACORA, NERA - New Brunswick, NJ

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