

Bi-Weekly Z-GRAM 22 February 2008

[www.IOOS.NOAA.gov](http://www.IOOS.NOAA.gov)

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: NOAA IOOS office has made funding recommendations to our Grants Office for FY08 dollars that will be provided to our external partners. NOAA CSC has provided letters to each of the PI's on the decisions. This includes PI's for those awarded multi-year awards base on the IOOS FY07 FFO and NOAA wide FY07 BAA and for FY 2008 funds, two competitive opportunities were initiated under federal register notice #030602141-7123-50; I.D. 051906D on July 2, 2007 – NOAA/National Ocean Service projects 9 and 10. Please work with NOAA CSC on the required updates so that we can meet our deadline of March 26 to have all the paperwork into Grants. All of the funding is recommended until they are awarded by Grants. We will update you on the anticipated awards dates as we know them. I want to thank NOAA Coastal Service Center who again ran an outstanding process and our reviewers who once again came from a number of Federal agencies, state agencies and representatives from some of NOAA's Federal Advisory Committees. Like last year we have complied lessons learned from the competition and we will be meeting with NFRA executive board on 26 February to discuss this and the Regional business model study that we are in the midst of.
- Congressional Report: NOAA IOOS Program began informal reviews of this report through the NOAA councils and line offices. We anticipate submitting the report through the formal clearance process next week. I will report when the report cleared for release.
- FY09: We have been providing answers back to a number of questions as a result of the FY09 briefings. These require quick turn around but many are in depth answers that take time to respond correctly.
- FY10-14: **No change**
- FY11-15: **No change.**

Initial Operating Capability - Data Integration Framework (DIF)

- Bumper sticker: Data Integration Framework - First 12 months effort focused on integrating core variables has begun. The clock started 1 Feb 2007.
- IOOS DMAC Standards Process: We need everyone's participation - get linked into the DMAC process by visiting [www.ioos.noaa.gov](http://www.ioos.noaa.gov) - top left hand corner links you to the interagency DMAC website - request registration and you are involved.

- Time is running out to comment on the first standards through the "proposed" phase of the US IOOS DMAC Process. The Federal Registry notice was published in Volume 73, No 21/ Thursday, January 31. Comments are due by 29 February.
- What the DIF?: The DIF documents are NOW on the Web site
  - DIF Design Meeting - 2/15: The DIF Team met with NOAA IT architecture experts to discuss requirements and goals for initiating the design phase of the DIF. Attendees included Jim Sargent, NMFS Information Architect; Jennifer Frye, NESDIS Enterprise Architect; John Ulmer NOS CSC Data Transfer Lab/IT Specialist; David Layton, Chief Enterprise Architect for NOAA; and members of the DIF Team. Charly Alexander facilitated the meeting which included an overview of DIF progress to date and detailed discussions on key considerations for DIF design. In general, these experts agreed that now is the appropriate time for executing the design, particularly to document design decisions being made, what the endpoint is for the DIF and what the remaining gaps are. Next steps will include identifying expertise needed on the design team, launching a design team working group, and a follow-up meeting with the NOAA IT architecture experts.
  - Web Services and Data Encodings for IOOS DIF: Led by Dr. Jeff deLaBeaujardiere, Senior Systems Architect for the DIF, the NOAA IOOS Program Office has developed technical recommendations for the next phase of DIF execution that will move us towards demonstrating improved data interoperability. A detailed e-mail message was sent to the DIF Integrated Products Team on Feb 15th. These recommendations are the result of recent discussions with the Program Office, with many members of the DIF Integrated Products Team, and with participants at a very successful IOOS Regional Grantees workshop organized by NOAA CSC. In summary we are recommending the establishment of OGC Sensor Observation Services for accessing in-situ data and OGC Web Coverage Services for gridded data. We will be selecting, and refining if necessary, data encodings based on OGC Observations and Measurements for in-situ data and on NetCDF with CF Conventions for gridded data. A new working group, chaired by Jeff, is being formed to review and execute this approach. We hope to have this step completed by late Spring 2008.
  - Fourth IPT Conference Call - 2/21: The DIF Integrated Products Team or IPT had their fourth conference call on 2/21. More than 20 persons from across NOAA participated as well as the DIF Team at the IOOS Program Office. Agenda items included detailed discussions on the recent technical recommendations for DIF web services and data encodings, and on the process for initiating the design phase of the DIF project. Prospective members for a working group to review and implement the recommended web services and data encodings were identified. The next call is scheduled for Thursday March 20th.

IWGGO: Next meeting 4 March:

- IWGOO IOOS Strategic Plan: NOAA, in the Exec Sec capacity, submitted the necessary paperwork for the Federal Registry Notice to NOAA correspondence process with the anticipation that it will be published by the first week of March.
- 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: Army Corps is working with ACT to finalize the initial set of comments. This document will then go to the IWGOO and NFRA for agency and NFRA comments. .
- NOAA-Navy collaboration on the GODAE server: **No Change.** .
- Waves in PORTS@: **No change**

Other:

- USGS and OBIS: I and several of our Silver Spring IOOS team met with staff from the USGS Biological Informatics Division who hosts the National Biological Information Infrastructure (NBII) and also the U.S. Node of the International Ocean Biogeographic Information System (OBIS) to discuss joint efforts to better incorporate biological ocean observations into the IOOS framework. This meeting was organized as a follow-up action to the Census of Marine Life – OBIS workshop on Biological Ocean observing held in the end of January.
- 2nd IOOS Regional Coordination Workshop in St. Petersburg: Summary is completed and available on the website at <http://www.csc.noaa.gov/IRCW/> along with the report out presentations. Please contact Dave Easter, NOAA/CSC if you have any questions.
- NOAA Marine Protected Areas (MPA) Center: Ami and I met with Joe Uravitch and Lauren Wenzel of NOAA's MPA Center. We discussed the National Framework that they are working on which bases the management of MPA on three goals: Natural Heritage, Cultural Heritage and Sustainable Production. The national system of MPAs is a voluntary program without funding. They are planning a series of workshops around the design of this national framework. We will provide Joe and Lauren a list of RA points of contact so that they can make you aware of efforts in their areas and that they can benefit for all of the work you have done with local constituents. They briefed us on the A prototype *Condition Report for Marine Protected Areas (MPAs) in the Baja to Bering Region (B2B)* is being prepared as part of the continued development of the North American Marine Protected Area Network (NAMPAN). The U.S., Canada, and Mexico are testing the feasibility of developing a marine protected area (MPA) transboundary marine monitoring program to be reported on in “stoplight report” format. We agreed to ensure that our DIF plans were provide to them so that as they build the database and portal we will have access to the data. MPA also has a FACA which will have their next meeting in April. The MPA Center has expressed interest in having the IOOS program be understood by this FACA.

Congressional:

- 13 February: The House Resources Subcommittee on Fisheries, Wildlife, and Oceans marked up 6 bills, including IOOS legislation. The markup included an amendment, which essentially deleted the text of Sen. Allen's underlying bill (H.R. 2342) and replaced it with language formerly included in H.R. 3221, the House-passed energy bill. This was unanimously approved for full committee consideration

Communications:

- Shell Oil – NOAA partnership: The signing event between VADM Lautenbacher and Mr. John Hofmeister (President, Shell Oil Co.) was completed on 13 FEB. The NOAA press release on this collaboration was sent through Associated Press (AP) wire and picked up by local print press (over 63 AP stories nation-wide) and TV media. See attached for collaboration detail

Upcoming Meetings:

- 28 February: I will participate in Consortium of Ocean Leadership Public Forum.
- 29 February: I will participate in the Consortium of Ocean Leadership Public Forum semi-annual meeting of their Board of Trustees
- 29 February: GLOS program assessment – Washington DC
- 3-7 March: NFRA Annual meeting; AGU Sciences meeting
- 7 March: Public meeting HSRP FACA - Miami, Florida
- 23-24 April: GCOOS, CARA, SECORA program assessment - Houston
- 30 April: MACORA, NERA - New Brunswick, NJ
- 27-29 May: Joint Assembly for AGU: Please go to the web site for submission of abstracts.

Cheers,  
Zdenka

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Zdenka Willis  
Director, NOAA Integrated Ocean Observing System (IOOS) Program Office  
1100 Wayne Ave  
Silver Spring, MD 20910  
(301) 427-2420  
cell: 240-676-4747  
[Zdenka.S.Willis@noaa.gov](mailto:Zdenka.S.Willis@noaa.gov)  
web site: [www.ioos.noaa.gov](http://www.ioos.noaa.gov)

**Shell Oil and NOAA Agreement to Enhance Meteorological and Oceanographic Observations in the Gulf of Mexico:** On Wednesday, February 13 2008 VADM Conrad. Lautenbacher, U.S.

Department of Commerce, Undersecretary of Commerce for Oceans and Atmosphere and the National Oceanic and Atmospheric Administration (NOAA) Administrator and Mr. John Hofmeister, President of Shell Oil Company signed a Collaborative Agreement to enhance meteorological and oceanographic observations in the Gulf of Mexico.

Shell Oil will acquire and install sensor packages on five off-shore platforms and three near shore stations. NOAA will provide in-kind technical expertise in High Frequency Radar (HFR) and in data formatting, data distribution, and quality assurance and control of new data.

This partnership is envisioned as a long-term collaboration for the collection, processing and distribution of atmospheric and oceanographic data as part of the on-going development of the U.S. Integrated Ocean Observing System (IOOS). The goal of this partnership is to advance observational quantity, quality and diversity to meet shared interests in improving operational forecasts and understanding of the Gulf of Mexico environment.

This agreement goes above and beyond current oil and gas industry observing and data sharing requirements set forth by the Department of Interior's Minerals Management Service. Shell Oil is trailblazing new and innovative approaches to ocean and atmospheric observation and industry-government partnerships. NOAA's National Ocean Service (NOS) and National Weather Service (NWS) share responsibility for this partnership: the IOOS program is the overall project manager and the National Data Buoy Center is the technical lead.

**Project List:**

1. Upgrade weather stations on 5 Shell Tension-Leg Platforms (TLP) to include GOES transmission and battery backup. Currently these platforms are powered down and evacuated approximately 3 days before a projected storm. At the time of evacuation communications are shut down. GOES transmission and battery backup will enable delivery of meteorological data to the National Weather Service (NWS) global telecommunications system at the onset of a storm and during evacuations and is a critical step forward in ensuring the flow of in-situ weather information when it matters most. The continuous flow of these data in the days leading up to and during the onset of tropical storm and hurricane conditions will enable NOAA forecasters to better evaluate storm intensity, monitor changes in trends, and assess the accuracy of forecasts and warnings as the storms approach the coast. The forecast impacts will be especially important for convective storms that develop over the Gulf of Mexico and nearby Coastal Regions. Such storms not only pose a threat to operations on the rigs, but are also a significant weather hazard for coastal communities.

Target completion: December 2008

2. Install, collect and share meteorological information from two new Shell Oil continental-shelf locations off the Louisiana coast. Currently, there are no meteorological packages (wind speed/direction, barometric pressure and air temperature) at these Shell sites and no existing NOAA observations. The addition of the two new Shell stations in Louisiana's coastal waters will help fill gaps in the observing network in the western Gulf of Mexico. These stations will provide the "ground truth" necessary to capture the local effects of the continental shelf and marine-coastal interface, enabling NOAA forecasters to improve forecast and warning specificity and accuracy.

Target completion: April 2008.

3. Upgrade existing instrumentation to include the collection of wave data, and the transmission of Acoustic Doppler Current Profile (ADCP) data through GOES on one Shell Oil TLP located off

the Louisiana coast. This upgrade will enable the reliable and routine supply of oceanographic information through established NOAA communication paths. ADCP data can be assimilated into operational ocean circulation models.

Although still years away, wave data are ultimately expected to improve forecasts of total water levels on landfall. The sharing and distribution of these reliable, real-time observations also improves the safety and efficient operation of the marine industry. Commercial and recreational fisherman use this information to validate the forecasts and plan their voyages, and tug and towing operations use the information to calculate transit times to save on fuel costs. Waves data may also be useful for coastal restoration efforts in Louisiana. Target completion: June 2008

4. Collect ocean heat measurements of upper thermocline from one of the Shell Oil TLPs. Although thermistor technology is not new, the installation of thermistor strings on a fixed oil rig platform to a depth of 100m and without the use of a diving team is novel. NOAA's National Weather Service is exploring ways to use ocean current data (surface or subsurface) in ocean models. Research to operations transition efforts will be aimed at developing service products (nowcasts), as well as potential ways to incorporate these data into ocean models. Target completion: Fall 2008

5. Install High-Frequency Radar (HFR) bistatic transmitters off the Texas coast to expand ocean surface current measurements. The expansion and increase of the number of current measurements along the Texas (Galveston) coast will be integrated with local radars (funded by the Texas General Land Office and operated by Texas A&M) and delivered to the national server at NOAA's National Data Buoy Center for use by NOAA Office of Response and Restoration Hazmat, US Coast Guard search & rescue and other applications. Target completion: Spring 2009.

6. Conduct a feasibility study to assess the scientific value of installing an atmospheric microwave profiler on a Shell TLP. Atmospheric profiler data could impact model performance for depicting timing, position, and intensity of the formation of storm centers over the Gulf. NOAA estimates that potential profiler data could result in as much as 30% improvement in model performance for short term (12-24 hr) forecasting of these episodic significant weather events. This data would also be useful in modeling for longer term predictions of cyclones developing in the Gulf of Mexico and affecting the Gulf Coast and the Eastern Seaboard. The rate at which the winds change with height (wind shear) is a major factor in tornado development. Profiler data from the Shell platforms will give forecasters an entirely new data source to observe wind shear and thus improve the quality of tornado watches and warnings in coastal areas. Target completion: Spring 2009.