

Bi-Weekly IOOS® Z-GRAM - 11 February 2011  
[www.IOOS.gov](http://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 to the IOOS website and view under program updates.

IOOS® - Our Eyes On Our Oceans, Coasts, and Great Lakes

**Budget Notice:** NOAA FY12 2010 Budget Briefing: February 16th from 1:30 to 3:00 pm at the Department of Commerce Auditorium, Dr. Lubchenco, Department of Commerce Under Secretary for Oceans and Atmosphere/NOAA Administrator, will host a briefing on the President's fiscal year 2012 NOAA Budget Request. NOAA senior leaders will join Dr. Lubchenco to answer questions and respond to comments. If you cannot attend in person, the toll-free teleconference number is (888) 234-7537 and the verbal passcode to provide the operator is "NOAA Budget." If you will attend in person, RSVP at the following link: <https://events.r20.constantcontact.com/register/eventReg?oeidk=a07e3b42ptna6effc4d&oseq=>. If you plan to phone in, please RSVP to [External.Affairs@noaa.gov](mailto:External.Affairs@noaa.gov)

**Programmatic:**

- **CORRECTION: System Advisory Committee** [ICOOS ACT: Section 12304 (d)] - **If you are interested in serving on or want to recommend someone to serve on this this FAC** please let Jessica Geubtner, [Jessica.Geubtner@noaa.gov](mailto:Jessica.Geubtner@noaa.gov), know.
  - We expect solicitation to be published in **Federal Register by end of Feb 2011** . Last week's Zgram had the incorrect year on the publishing of the FRN. We expect to publish the FRN in 2011 and solicit membership to the FACA. With the process of approving members, we expect the first meeting of the committee to be in 2012.
- **Certification:** There are 2 interagency working groups that have been set up. The Data Partner's working group has been meeting over the past several months and have a draft set of certification criteria. The next step in the process is to brief the IOOC which will be done at the February meeting. This will be followed on 1 March by consultations from interested parties such as the National Federation of Regional Associations (NFRA), NOS General Council and we have extended an invite to Weatherflow Inc. These two steps will allow for early feedback and adjustments. After that the draft criteria will be published in a Federal Register notice for full comments. A second working group looking at RICE certification has now been populated with interagency members and has tentatively scheduled their initial meeting the first week in March
- **U.S. Integrated Ocean Observing System: A Blueprint for Full Capability:** We have moved into the partner assessment phase of U.S. IOOS Blueprint Implementation. During this phase we are working with all of the federal agencies and regional IOOS partners to assess each partner's contributions to the functions and activities of U.S. IOOS as defined in the Blueprint. We completed testing and development of the assessment methodology in January by evaluating contributions from the U.S. IOOS office and the U.S. Army Corps of Engineers. Last week, we began scheduling assessments with

agency representatives. On February 9th, our team conducted the first introductory briefing with the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) to review process and the online assessment tool. Initial results will be tallied and combined into composite ratings of capability levels in the 37 functional areas of U.S. IOOS that will be viewable on the Web once the assessment phase is completed in late spring.

**Data Management and Communications (DMAC) V0.9 Subsystem of IOOS®**  
[http://ioos.gov/library/dmac\\_implementation\\_2010.pdf](http://ioos.gov/library/dmac_implementation_2010.pdf)

- **Data Providers:** To get on the IOOS System Status list which announces service changes, please contact Jeff ([Jeff.deLaBeaujardiere@noaa.gov](mailto:Jeff.deLaBeaujardiere@noaa.gov)) or Rob ([Rob.Ragsdale@noaa.gov](mailto:Rob.Ragsdale@noaa.gov)).
  - CO-OPS: The upgraded CO-OPS Sensor Observation Service (SOS) was released on February 3, 2011. The server is accessible at <http://opendap.co-ops.nos.noaa.gov/ioos-dif-sos/>. The upgrade brings the server up-to-date with respect to changes previously introduced on the NDBC SOS. The principal changes from the old version include: (1) the option to receive data in comma- or tab-separated format (CSV, TSV); (2) the adoption of CF/MMI URLs and names instead of IOOS-specific names; and (3) the adoption of the revised IOOS URN scheme for stations and sensor identifiers.
- **IOOS Biological Data Project:**
  - Data Integration: 80% complete (all data has been mapped, reviews to be completed and outstanding issues to be resolved). The team in charge of this task mapped the three data sets (CRED, PMNM, NPS/PACN) to the IOOS BDP terminology and distributed the resulting three draft documents to team to review. After the initial round of review and feedback, the team will then provide to CRED and NPS biologists/data managers to review. Following those reviews and updates, the revised mapping documents will be distributed to the IOOS project group for comment. The team also prepared and will continue to update a fourth document with a list of questions/issues to be addressed with the terminology. As part of this task, the project team will confirm that the current terminology will meet the requirements to allow users to calculate biomass or density per unit area from the data that will be provided through these services (to be calculated by the end user on the user's end, not to be calculated via any of the services provided by IOOS).
  - Metadata services: 10% complete: The team in charge of this task began discussions last week on the topic. The team will review existing metadata templates provided by CRED and NPS
- **IOOS Animal Telemetry Workshop:** (March 2-3, 2011; Santa Cruz, CA): In collaboration with NOAA's National Marine Fisheries Laboratory in Santa Cruz, US IOOS will host scientist from the various animal tracking program to explore the potential partnerships.
- **DMAC Services:**
  - Archiving: NDBC Obs: The team continues to work with NDBC on an archiving process for NDBC's operational systems as a foundation for archival processes

for other IOOS data. Testing phase for CMAN/Weather Buoys is now complete. Operational synchronization of monthly archive submissions to NODC for CMAN, TAO CTD data and TAO Buoys began on Feb 8th.

- **HFR Archiving:** OpsDiv staff continue to discuss options for enabling initial archiving for key components of the HFR data. This will also be a topic of discussion at the HFR Technical Working Group workshop this summer.
- **Regional archiving:** OpsDiv staff, led by Derrick, are exploring options to initiate a process for ensuring Regional obs are successfully archived and delivered to NODC. A work plan will be developed by early March and discussed at the Regional DMAC workshop in late April.
- **Metadata:** Derrick and Jeff met with Mario Tamburri of ACT to discuss using the ACT sensor database as a source of sensor/platform metadata. Additionally they discussed a partnership with sensor vendors that would lead to distribution of sensor metadata directly from the vendors.

**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.

- **High Frequency Radar/Radio (HFR): For more information on all US National HFR efforts please contact our US Project Manager - Jack Harlan, [Jack.Harlan@noaa.gov](mailto:Jack.Harlan@noaa.gov)**
  - **Korean Collaboration:** Project proposal submitted for NOAA-Korea coordination on high frequency radar has been accepted and funded by State Department at \$15K/year for FY2011 and FY2012. Funds will support 1-2 visiting scientists from Korea each year.
- **IOOS and Links to the National Water Quality Monitoring Network** - Zdenka and Charly met with Dr. Gary Foley (EPA, Director of the Executive Office of Earth Observations and Acting Deputy Director of the Office of the Science Advisor) to discuss a number of issues pertaining to observations, modeling and data management. Discussion topics included EPA's involvement in U.S. IOOS, participation in an IOOS Regional Water Quality Project and about an EPA detailee to the IOOS Program Office. Dr. Foley was very receptive to EPA's involvement in an integrative water quality project.
- **IOOS and The National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** Jeff (US IOOS Program) participated in a conference call for the review of the External Observatories Integration (EOI) component. EOI refers to the inclusion of data from sensors outside OOI into the OOI-CI Data Distribution Network (DDN).
- **Modeling Testbed and Related Modeling meetings:**
  - **Team Reports:** Cyberinfrastructure: Work on data standards, compliance and open-source tools is leading to optimal transferability of testbed framework to evaluate models in other regions and environmental questions. Estuarine Hypoxia: Simple models that largely neglect biology appear to predict the Chesapeake Bay seasonal dead zone variability as well as much more complex ecosystem models. Coastal Inundation: When run with consistent forcing and parameterization, all models being evaluated do a good job simulating the tides Conversion of SLOSH

model output to CF-standard NetCDF, available via community standard web services (OGC WMS, CF/OPeNDAP), viewable with a wide array of visualization and analysis applications (browser WMS clients, Matlab, R, IDL, Python, Ferret, Panoply) will result in much more feedback to developers and the ability to compare these models to other models.

- Related Meetings and Coordination:
  - Doug met with John Cortinas NOAA's Ocean and Atmospheric Research (OAR) -Office of Weather and Air Quality. John is the new Director of this Office and NOAA planning lead for environmental modeling to brief him on the Testbed. Doug and John discussed strategy for possibly combining ecosystem and physical modeling efforts. Consideration of including OAR in year 2 of the testbed was also discussed. John was invited to the March 2nd meeting at NCEP to discuss the facilitation of model transition into federal operating centers.
  - NOAA/OAR Climate Program Office: Doug and Charly met with Don Anderson, Program Manager, Climate Program Office. He provided a document describing the "Global Interoperability Program" which ostensibly calls for broad collaborations from many specialized teams of experts, in disciplines such as atmospheric science, oceanography, chemistry, computer science, and applied mathematics. The NOAA Global Interoperability Program (GIP) develops and supports the software infrastructure that is necessary for enabling U.S. and international programs in climate and weather research, operational forecasting, and assessments and impacts of environmental change.
  - NWS/Office of Science & Technology, OAR/Office of Weather and Air Quality (2/4): Doug met with NWS/OSTP's Paula Davidson and OAR/OWAR's John Gaynor to discuss their work for a NOAA Adhoc Committee for Testbeds and Proving Grounds per developing and strengthening model testbeds. Doug shared the draft "transitions to operations" plan emerging from the SURA Modeling Testbed activities.
- Transitions to Operations: Second draft of "Transitions of a Model to Federal Operations" was distributed to the co-contributors for review
- Coastal Zone '11: A proposed modeling testbed panel (abstract drafted by Doug and SURA's Liz Smith) has been accepted. Panel title is "Testbeds as a means to transition coastal environmental models from research to operations." Invited panelists include Frank Bub (NAVO), Eoin Howlett (ASA, Cyber Infrastructure Team Lead), John Harding (MSU, Shelf Hypoxia Team Lead), Bruce Ebersole (USACOE, Testbed Advisory Evaluation Group), Hendrik Tolman (NCEP), and Don Wright (SURA Testbed PI).
- NFRA Modeling and Analysis Committee Conf. Call (2/11): Doug participated a conference call of the NFRA Modeling and Analysis Committee that was led by USGS's Rich Signell. Rich updated the Committee (go to [www.usnfra.org/committees/modeling.html](http://www.usnfra.org/committees/modeling.html) for a list of Committee members) on the SURA Modeling Testbed and the IOOS modeling collaboration with NSF's OOI program.

## Other:

- **SECOORA in Action: Marine Weather Portal Transition:** The US IOOS Program met with NWS- Dave Soroka, Manager of the NWS Marine and Coastal Services Weather Branch to discuss the status of transitioning the Marine Weather Portal work completed by the UNCW group, lead by Jennifer Dorton, to NWS operations. Soroka identified several internal NWS issues that have delayed the transition. Follow ups with Dorton and Soroka are planned.
- **Ocean Tracking Network (OTN) Northwest Alliance Regional Workshop (2/7):** The workshop was held at the Bedford Institute of Oceanography (BIO), Dartmouth, Nova Scotia (Hassan attended via Webex). The purpose of the meeting was to improve communication and collaboration among the various components of ocean tracking science in the Northwest Atlantic region. The meeting was designed around the needs of the individuals that participate in ocean tracking science such as, the deployment operators, species taggers, and data managers. The discussion topics covered tracking technologies, data management, role of ocean observing and monitoring, and additional needs (e.g. new OTN lines in the NW Atlantic).
- **GCOOS in Action: Water Quality Support:** GCOOS has begun a pilot project to bring southwest Florida water quality from multiple sources into the US IOOS data management subsystem. GCOOS is engaging with a Non-Governmental Organization (NGO) that collects water quality data from river to estuary of Sanibel-Captiva, and who in turn are engaged with county and others providing water quality information along the coast. We are engaging with the Gulf of Mexico Alliance Water Quality Monitoring team to bring in data streams they recommend. We plan to extend the success of the SW FL pilot to the entire Gulf coast (~Miami, FL, to Brownsville, TX, and beyond) over the coming years as organizational capability and funding allow.
- **AOOS in Action: Alaska Marine Science Symposium** – Nearly 1,100 participants attended the 2011 AMSS in Anchorage January 17-21. AOOS Program Manager Darcy Dugan coordinated the more than 40 side meetings and workshops, and Molly McCammon chaired the Arctic plenary session. The AOOS data management team held a public workshop demonstrating some of the new tools available through the AOOS data portal. **Communicating Ocean Sciences Workshop** – AOOS, the North Pacific Research Board and COSEE Alaska hosted a half-day Communicating Ocean Science Workshop at the AMSS attended by more than 100 scientists and educators. The workshop was followed by a SEANET planning luncheon focused on the 2012 National Marine Educators Association Conference to be held in late June in Anchorage.
- **GREAT Lakes Commission Semi Annual meeting and Great Lakes Days in Washington (28 Feb-2 Mar):**Featured speakers at the Semiannual Meeting of the Great Lakes Commission, Feb. 28-March 1, include Congresswoman Candice Miller (R-MI); John Goss, federal Asian Carp director; and Cameron Davis, senior Advisor to U.S. EPA Administrator Lisa Jackson. As in past years, the Great Lakes Commission and the Healing Our Waters® - Great Lakes Coalition (HOW) will jointly host a Legislative Priorities Briefing Session on the afternoon of March 1 followed by an evening reception at the Canadian Embassy. Great Lakes Day, March 2, will feature the traditional Congressional Breakfast Reception, with remarks by members of Congress and other distinguished guests. Details can be found at [www.glc.org/greatlakesday](http://www.glc.org/greatlakesday)

- **NFRA board Meeting:** The National Federation for Regional Associations (NFRA) held their board meeting in Washington DC. They spent 1 day with the US IOOS office, they also had a number of Hill visits, visits with the Office of Management and Budget, White House Office of Science Technology and Policy (OSTP), and with the Interagency Ocean Observing Committee (IOOC) co-chairs.
- **NOAA's Cooperative Institute for Ocean Exploration, Research and Technology (CIEORT) Annual Review.** I am part of the advisory panel for this CI. The CI was set up to build capacity for NOAA's Ocean Exploration and Research. The CI has 4 goals: bring to together scientist and technologies from academia, NOAA, other-Federal partners and industry to incubate and transition technologies to operations, and discoveries to management needs (2) Affordable exploration, (3) Next Generation Sampling and (4) Sharing exploration experience. Some of the highlights of CIOERT is work on development and applies advanced underwater and modeling technologies – specifically Habitat mapping, Developing rapid assessment for Coral Health and Working on transitioning Homeland Security information technology of assessing ecosystem change from baseline. CIOERT explore shelf frontiers. The CI is looking at new natural products. HBOI-FAU and UNCW drug discovery programs use innovation approaches for discovery and development of marine-derived biomedicines and industrial products. The CI is developing a new coral technology to measure in situ Metabolism and Bioenergetics in Corals. The technology called CISME – Coral In Situ Metabolism and Energetics. The data management effort is of particular interest to US IOOS as it can both build off the data schemas we have already developed and provide new schema to US IOOS. The goal of the CI data management effort is focused on SOA concepts that allow a number of disparate ocean/coastal data to be than fused into decision support tools focused on ecosystem assessments.

### **Congressional:**

- Suzanne Skelley and other members of the US IOOS office met with Anna Marie Laura (Senator Whitehouse, D-RI. The discussion focused on the needs of observing in the North East and how the IOOS Regional Associations operate. Anna-Marie confirmed Senator Whitehouse's commitment to IOOS. The Senate is reengaging with an Ocean Caucus. Anna requested that we keep her updated on IOOS and we will do so through our quarterly meetings on the Hill.

### **Communications/Outreach and Website Updates:**

- Oceanographers on Billboards and sides of buses?! Rutgers launched a campaign around Dr. Scott Glenn and him being awarded Professor of the Year in New Jersey for 2010. The campaign includes Dr. Glenn and his students and they will be featured on billboards in New Brunswick, NJ Turnpike, Route 440 and Route 73 as well 40 NJ Transit buses covering New York-bound and local routes. I have attached an example of one of the billboards - credit - Rutgers University

JERSEY ROOTS, GLOBAL REACH

# The Ocean Is Our Classroom

Our students work alongside world-renowned scientists and researchers on campus and across the globe.

**RUTGERS**  
THE STATE UNIVERSITY OF NEW JERSEY

Scott Glenn  
Named 2010 New Jersey Professor of the Year  
by the Carnegie Foundation for the Advancement of Teaching  
and the Council for Advancement and Support of Education

- **MTS Journal - Part 2** now available. Go to <https://www.mtsociety.org/publications/>. Thank you to ALL the authors who contributed commentaries and papers.
- **Website updates:** RAs Websites Harmonization: Developed the common elements that were presented and agreed on at the Regional Workshop. They are now available with instructions and examples. Communicated with regional POCs for comments and changes. RAs are implementing them on their websites. Thank you to GCOOS, MARACOOS and SECOORA who have already implemented this.

**IOOS Conference Involvement:** This section will highlight those conferences where IOOS is a sponsor or has a session: No update.

- **GEOSS Support for Decision-Making in the Coastal Zone: Managing and Mitigating the Impacts of Human Activities and Natural Hazards in the Coastal Zone -A series of (regional) GEO Workshops organized by the GEO Coastal Zone Community of Practice - Earth Observation Support for Sustainable Tourism in Small Island States - March 9-11, 2011, Puerto Rico:** The Third Regional Workshop in the Workshop Series of the *GEO Coastal Zone Community of Practice (CZCP)* will focus on the Caribbean and will be organized in partnership with the *Caribbean Regional Association (CaRA)* for the *Caribbean Integrated Coastal Ocean Observing System (CarICOOS)*, the *Global Ocean Observing System (GOOS)*, the *Global Terrestrial Observing System (GTOS)*, the *United Nation Educational, Scientific, and Cultural Organization (UNESCO)*, and the *Intergovernmental Oceanographic Commission (IOC)*. The Third Regional Workshop of the series will focus on the specific needs, challenges and capabilities related to sustainable tourism in the small island states of the Caribbean. The workshop will bring together stakeholders in island tourism with Earth observation and service providers in order to investigate how Earth observation-based services could support decision making related to all facets of tourism and enable operational and planning practices for sustainable tourism.  
[http://www.czcp.org/workshops/Puerto\\_Rico/](http://www.czcp.org/workshops/Puerto_Rico/)
- **MTS/IEEE Oceans 2011:** The call for papers is now open. We are evaluating how best we can show case Ocean Observing at this meeting. One of the ideas that we are mulling over is going beyond just presenting papers to a coordinated Ocean Observing -

Delivering the Benefits display/room. Chris Ostrander, (US IOOS/PacIOOS) has confirmed that he has flat screens that we can use, and has access to a small science on the sphere. We could do this via booth space or even potentially coordinating this in one of the rooms where talks will be held and have a set of talks with the displays behind us. We are also evaluating ideas for town halls that are in concert with the Partnerships across the Pacific. If you are interested in participating please send me an email over the next several weeks.

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

- SURA Modeling Testbed Team Lead/ NCEP Meeting: Doug; NCEP; March 2
- National Ocean Telemetry Observation Workshop: March 2-3, 2011, Santa Cruz, CA: Zdenka, Charly, Hassan
- Unmanned Systems Common Lifecycle Infrastructure Workshop; Sam; Stennis, MS; March 29-31
- IOOS RA DMAC Workshop: Ops. Div.; Silver Spring, MD; April 27-28, 2011

Cheers,  
Zdenka

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