

## Bi-Weekly IOOS® Z-GRAM – 1 June 2012

[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 the IOOS website and view under [program updates](#).

### IOOS® - A Partnership supporting Lives and Livelihoods

**Highlight: US IOOS Summit – PLEASE SUBMIT YOUR WHITE PAPERS by 30 June:** 5 pages to help us set the future course of US IOOS are all we ask. The deadline for community white papers is June 30, so put your best recommendations forward through the white paper process. Links to the most recent Summit updates are as follows: For more information please visit: [www.iooc.us/summit](http://www.iooc.us/summit)

- To submit an expression of interest: <http://www.iooc.us/summit/expression-of-interest-form/>
- IOOS Summit brochure and flyer are now available at: [www.iooc.us/summit/ioos-summit/](http://www.iooc.us/summit/ioos-summit/)
- White paper guidelines are now available at: <http://www.iooc.us/summit/white-paper-guidelines/>
- Chapter Leads should be posted to the IOOC's Summit Web site soon <http://www.iooc.us/summit/organizer-roles/>

#### Governance and Management Subsystem:

- **Personnel News:** Kate (Haber) Lambert will remain with the IOOS Program Office through June, 2013. Kate will assist with additional workload associated with the US IOOS Summit and with establishing the IOOS Advisory Committee. Kate has been backfilling for Jessica Snowden during her maternity leave. Jessica returns on June 12 and will resume her normal portfolio of duties. At that time Kate will transition to focus primarily on Summit preparations, assisting Carl with federal partner engagements, and assisting Jessica with establishing the IOOS Advisory Committee. The IOOS website will be updated to include Kate's focus areas on June 5.
- **Program Environmental Assessment (PEA):**
  - The project manager briefed the regions on the status of the PEA during the monthly call on May 22.

- The regions were also reminded that they are required, per the NEPA special award condition on their 5-year cooperative agreements, to submit documentation regarding environmental compliance whenever a new activity occurs.
- The contractor has agreed to support including animal telemetry in the draft PEA document with no further cost to the program. Next meeting with the contractor will take place the week of June 4. During the Regional monthly call, regions were asked to relay to the program office if they are engaging in activities that support the actual tagging of animals.
- Regions were advised during the monthly call that their input may be needed in order for the program office to be responsive to questions raised by NMFS OPR.
- **Certification:** Dave Easter, IOOS Program Office, met with Marine Sanctuaries staff to discuss the rule-making process. Outcome was a better understanding of the details of NOAA and DOC review of the proposed rule. There are two documents being developed for the rulemaking process. The first document is the Technical Guidelines; these detailed guidelines list how the certification criteria will be implemented. The second document is the proposed rule itself, which includes the Technical Guidelines as one sub-section along with other sub-sections for background information, descriptions of the application and decision process, and discussions on certification and de-certification. Continued to revise the Technical Guidelines. Significant changes included formatting the Technical Guidelines to fit into the format of the proposed rule and revising the text so that there is consistency across the different sub-sections.

### Observation Subsystem:

- **High Frequency Radar/Radio:** For more information contact the US IOOS HFR Project Manager, Jack Harlan, [Jack.Harlan@noaa.gov](mailto:Jack.Harlan@noaa.gov):
  - **Group on Earth Observations – HF Radar component:** As a direct result of the introduction of the Global HF Radar effort in London and at the request of Total Oil and Actimar, Jack Harlan, Zdenka (IOOS Program Office) and Eric Terrill (SCCOOS/Scripps) provided technical insight onto the United State’s HF Radar network and shared experiences on the deployment of HF Radar on offshore oil platforms to support their potential efforts off the coast of Africa.
  - **Follow up to SECOORA meeting:** NWS Weather Forecast Office requested that HF Radar be made available into their desktop system called AWIPS. Jack Harlan has begun discussions with NWS Science and Technology and the National Data Buoy Center to figure out best way to accomplish this request.
  - **First announcement to the ROWG meeting to be held Nov 2012 was sent out.**
- **Gliders:**
  - Becky disseminated the plan for developing a national glider strategy, including a summary of work completed to date, plans for an August workshop at Scripps, and anticipated workshop participants, to the RA Executive Directors and answered questions during the last monthly NFRA call.

- The steering team is working on the workshop goals (scheduled for Aug 1-3 at Scripps), agenda and list of attendees, and expects invitations to go out next week.
  - Becky engaged with glider operators from iRobot and AOOS to incorporate their glider missions into the glider asset map.
- **Wavegliders:** The waveglider demonstration group has started coordinating logistics for the second part of the demo, including some coordination with OOI. In order to assist in capturing this year's unusually high surface and subsea temperature and other measurements that are relevant to the OOI east coast deployment of the coastal Pioneer Array, one of the fetches (bottom-mounted instrument to measure ocean conditions; data is collected by the waveglider at the surface) assigned to the MARACOOS deployment will be deployed further north near where the array will be deployed to augment the data collection.
- **IOOS Animal Telemetry Observations: TOPP-ONR-IOOS project:** Elephant seal data is now exposed in ERDDAP (<http://dataxfer.stanford.edu/erddap/tabledap/xfertestONR.html>). The requirement to serve data in CSV and netCDF formats is done. Additionally, the TOPP team has converted the elephant seal data into the M2K format specific to the MOODS NAVO observation archiving system. Data from two elephant seals are on the GTS and Frank Bub (Navy) is accessing the data.

**Data Management and Communications (DMAC) Subsystem: To get on the IOOS System Status list which announces service changes, please contact Derrick ([Derrick.Snowden@noaa.gov](mailto:Derrick.Snowden@noaa.gov)) or Rob ([Rob.Ragsdale@noaa.gov](mailto:Rob.Ragsdale@noaa.gov)).**

- **National DMAC:**
  - **Implementing DMAC for biological observations in U.S. IOOS regions: IOOS Biological Observations Project (GCOOS/SECOORA):**
    - GCOOS-RA implementation (5/25): Charly and Hassan had a conference call with Russ Beard (Director, NCDDC), Bonnie Ponwith (Director NMFS SEFSC, Miami), Lisa Desfosse (NMFS SEFSC, Pascagoula lab), Roger Zimmerman (NMFS SEFSC, Galveston Lab), and Kristen Laursen (NMFS/OAA, Gulf of Mexico) to discuss IOOS Biological data project implementation in the GCOOS-RA and select datasets for this project. The group agreed the Comparative Assessment of Gulf Estuarine ecoSystems (CAGES) datasets will be good start for this project. This data is hosted by NMFS Galveston Lab. Hassan prepared an addendum to the IOOS BDP SOW to specify the tasks and responsibilities and resources that will be undertaken and required by the Galveston Lab.
    - SCOOORA-RA Implementation (5/30): Vembu and Hassan convened a conference call with Marcel Reichert (NOAA-SCDNR), Mitchell Roffer (Roffers Ocean Fishing Forecasting Service, Inc.), and Tracey Smart

(SCDNR) to discuss data to use for this project in the South Atlantic Region. The group agreed to share the Marine Resources Monitoring, Assessment and Prediction (MARMAP) data to be used for this implementation. Hassan and Vembu will write another addendum to the original SOW to identify specific tasks that will be performed by the South Carolina DNR.

- **SOS Reference Implementation:** Derrick and Carmel have spoken to 9 of the 11 regional DMAC teams and have begun to map out the implementation plan for deploying SOS in every region. They will be preparing a set of materials to illustrate overall execution status more clearly, particularly for the RA Directors.
  - ncSOS, being developed by ASA, should be ready to test in late June and interaction with the regions can proceed as soon as the next version of THREDDS data server is released by Unidata.
  - 52North progress has also been steady and the Axiom team has begun altering the 52North stock server to address IOOS specific requirements. Completion is anticipated later this summer.
- **QARTOD:** NDBC's Dick Crout has been working closely with the IOOS Regions to evaluate existing QA/QC for IOOS core variables. NDBC/SAIC's Ray Toll has been establishing a list of subject matter experts to support establishing QA/QC protocols for the next round of core variables for QARTOD-approved procedures (22 identified so far). The anticipated schedule is to convene the SMEs in late July/early August, begin writing later that month, complete the first draft of the procedures document by the end of September, receive all edits/suggestions by late November and finalize the draft by mid-December 2012.
- **IOOS Vocabularies:** Sara Haines from SECOORA is supporting the IOOS parameter vocabulary development task. SECOORA has allocated 2 months of Sara's time (over 4 - 6 months) to create mappings between the IOOS parameter vocabulary and other identified vocabularies, specifically the CF standard names table vocabulary. A work plan covering the tasks that Sara will be leading has been provided. The ontologies created will be hosted at the Marine Metadata Initiative Web site and this work is applicable to the SOS reference implementation development.
- **IOOS NCCOS Water Quality Project:** The IOOS NCCOS Water Quality Project has been completed. A query tool ([http://cormp2.das.uncw.edu/ndbcsos/data\\_access.php](http://cormp2.das.uncw.edu/ndbcsos/data_access.php)) was developed to access water quality data collected in the Florida Keys National Marine Sanctuary and stations have been added to the SECOORA Data Portal (<http://secoora.org/maps/>). This project also resulted in a reconciliation of the FIU water quality terms used in the CF standard names table and the IOOS Parameter Vocabulary hosted at MMI.
- **CMSP Data and Tools Team:**
  - **5/24 Meeting:** Charly attended the regular CMSP/DTT meeting which included updates on coordination with NOAA Regional Planning Teams (these discussions have revealed that IOOS Regional data portals are among the few regional examples of significant tools/services for accessing/distributing relevant data for

coastal planners) and planning for a Regional Data Workshop in Charleston, SC (at CSC) the end of June (three Regional IOOS DMAC folks will be present – PacIOOS’s Jim Potemra, AOOS’s Rob Bochenek and either Vembu Subramanian or Jeremy Cothran from SECOORA).

- **5/30 Meeting:** Charly and Derrick met with a subset of the CMSP DTT to discuss technical issues associated with exposure of Regional and National US IOOS data services to [Data.ocean.gov](http://Data.ocean.gov). A number of important issues were agreed to including strategies that complement and support parallel discussions emerging from the Regions and from NOS Deputies discussions with CMSP Chair and NOAA GIO Tony LaVoi.

**Modeling and Analysis Subsystem:** For information on the US IOOS Coastal Ocean Modeling Testbed, please contact the US IOOS Modeling Testbed Project Manager, Becky Baltes, [Becky.Baltes@noaa.gov](mailto:Becky.Baltes@noaa.gov)

- **PacIOOS in Action - New Operational Marianas Wave Model (WW3 and SWAN):** With IOOS funding, PacIOOS has developed, tested, and deployed an operational wave model for the Mariana Islands, with two nested grids focused on Guam and Apra Harbor. These models were developed in response to requests from folks (including the Navy) in the region to increase the resolution of our operational forecasts to finer spatial scales. To see the model outputs: **Visualization of data** (click maps to query a point and download data, change location and/or variable plotted on the left hand margin):
  - **Marianas :** <http://goo.gl/sGdWn>
  - **Guam :** <http://goo.gl/s69cE>
  - **Apra Harbor :** <http://goo.gl/gpA3L>
  - **ERDDAP catalog for all PacIOOS model data:**  
<http://oos.soest.hawaii.edu/erddap/info/index.html?page=1&itemsPerPage=1000>
- **Modeling Testbed:**
  - **Inundation team update:** NOAA will evaluate an ensemble of ADCIRC+SWAN model runs in the Gulf of Mexico as part of the Hurricane Forecast Improvement Program during the 2012 hurricane season. Distribution and visualization of model results will utilize the cyber-infrastructure methodology and tools developed as a part of the Testbed.
  - **Storm Surge Roadmap Team:** Members of the storm surge roadmap have been participating in the inundation team of the Testbed and they have just launched a new website to get information on storm surge. It can be found at [www.stormsurge.noaa.gov](http://www.stormsurge.noaa.gov)

### Interagency Collaboration:

- **IOOS Summit 2012 - A new Decade of Integrated and Sustained Ocean Observing, 13-16 November, Herndon, VA:** See above
- **DMAC Steering Team:** Focused on submitting papers for the IOOS summit.

- **USACE in Action: MARACOOS and NERACOOS collaboration with USACE North Atlantic Division (NAD):** Representatives from MARACOOS and NERACOOS will participate in a USACE NAD coastal meeting to be held in June. The goal is to learn more about each organization and explore opportunities for collaboration in the Maine to Virginia region.
  - **USACE IOOS Participation:** USACE representatives continue to participate in activities regarding the Modeling Testbed, QARTOD Committee, Animal Telemetry Network, DMAC, Waves Plan Update, IOOC, IOOS Summit Planning, USACE-IOOS Water-Level Pilot, and coordinating Districts with the Regional Associations.
- **IOOS and Links to the National Water Quality Monitoring Network:** The vision set forth for the Eye on the Earth project is to seamlessly bring together global data sets for anyone and at the same time invite other interested people to upload data to the same system. To test the process for integrating global data sets, the variables salinity, temperature and water level will be the first to be integrated into Eye on Earth because they are the least difficult to compare. Emilio Mayorga (NANOOS) and Dan Ramage (SECOORA) will be leading the technical integration of IOOS data with Eye on Earth.
- **IOOS and The National Science Foundation (NSF) - Ocean Observatories Initiative (OOI): Bi-Weekly Conf Call 6/1 (Make-up):** Participants included Charly, Derrick, OOI-CI's Matt Arrott, ASA's Eoin Howlett and Chris Mueller and USGS's Rich Signell. Focus of this call was a short update on OOI-CI's progress on R2 (Release 2 of their software) and a more extended discussion on continued planning to ensure OOI-CI's external representation will be based on the IOOS DMAC tools/technologies being developed with the IOOS Regions (i.e. OOI will expose their data externally using a combination of SOS and Climate and Forecast compliant OPeNDAP services as the IOOS Regions are doing. This continues to clarify the IOOS/OOI discussions and validates the IOOS architectural choices.

#### Other:

- **ACT engagement of new partners:** Gabrielle, IOOS Program Office, joined ACT and the Chesapeake Bay Laboratory for discussion of collaboration between the NOAA R/V Bay Hydro II team and ACT/CBL. Outcomes include anticipated move of the Bay Hydro II to CBL dock, availability of the vessel for ACT evaluations, and routine sharing of expertise among ACT/CBL, OCS/HSTP, and CO-OPS/OSTEP.
- **MARACOOS Partner Rutgers University in Action: Successful Silbo (glider Mission):** The term for the recovery of a glider is "The Bear is in the Igloo", quoted from the Rutgers International Cool Room Blog - "THE BEAR IS IN THE IGLOO!!!! On 22 May at about 11am Canary time, Silbo was picked out of the water thus completing the mission he set forth on nearly 11 months ago. Although there were some complications near the Azores which led to a hiatus as we waited upon new batteries, Silbo spent 238 days at sea covering 5555km as he bravely made the journey from the arctic waters of Iceland to the subtropical waters of the Canaries." For the full story on the recovery, I recommend you read the full blog: <http://www.i-cool.org/?p=11955>. **Congrats to the entire Silbo team.** Background on the mission: At the recovery ceremony for Scarlet

Knight - the glider that crossed the Atlantic - Dr. Spinrad issued a second challenge to the team - repeat the HMS Challenger mission as an international science and education collaboration. It was Dr. Spinrad who issued the original challenge for the Atlantic crossing mission. This mission is the first test for the HMS Challenger mission. Silbo's mission was to fly from Iceland to the Canaries. An extremely important part of this effort is the participation by the undergraduate students. As part of the Atlantic crossing mission, Rutgers began an undergraduate class, open to all students at Rutgers, focused on the building of the glider, planning and execution of the mission. The first class in 2008 was 10 students, the class is now capped at 75 students. So this mission was planned and executed by the students. Equally import to this entire project is the international cooperation; this mission was done in collaboration with PLCON University. This is also a great cooperation with Teledyne Webb Inc., as they are providing the platform and the funding for this test mission. Teledyne Webb Inc. sees this as an opportunity to test out longer range gliders.

- **In Zdenka's Role as NOAA Principal to the US Group on Earth Observations:** NOAA USGEO Roundtable was held with Dr. Sullivan on 1 June. The purpose of this meeting was to discuss NOAA's contributions to USGEO and the new GEO workplan. Additionally the meeting was the first in a series to determine NOAA's input to the US strategy on "GEO next" as the original mandate for GEO is completed in 2015. The meeting brought together 40 folks from each of the NOAA line offices and we had presentations from those who are identified as contributors or leaders of tasks, as well as discussions on GEO's interaction with WMO, CEOS and GCOS. The discussions raised both opportunities and issues associated with GEO and this discussion will be used to write up NOAA's value proposition to GEO.
- **GCOOS members to participate in Gulf of Mexico Alliance All Hands Meeting:** Dr. Matthew Howard, Dr. Chris Simoniello, and Mrs. Ruth Mullins-Perry will participate in the Gulf of Mexico Alliance 2012 All Hands Meeting in Corpus Christi, TX, from 19-21 June 2012. Keynote speakers Jerome Zeringue, Director, Coastal Restoration and Protection Authority, David Kennedy, Assistant Administrator, NOAA National Ocean Service, Eileen Sobek, Deputy Assistant Secretary, Department of the Interior, and Ben Scaggs, Directory, EPA Gulf of Mexico Program, will share their vision for GOMA. Four sessions are planned to 1) integrate GOMA with regional initiatives such as Gulf Restoration; 2) integrate better with business and industry; 3) explore examples of successful public-private industry partnerships; and 4) discuss monitoring efforts in the Gulf, particularly hypoxia monitoring. Dr. Quenton Dokken, GCOOS Party Member from the Gulf of Mexico Foundation, will discuss public-private industry partnerships and the Gulf Restoration Center. Dr. Porfirio Alvarez-Torres of the United Nations Industrial Development Organization will present on monitoring related to the GOM Large Marine Ecosystem Collaboration.
- **2012 NOAA Student Scholarship Orientation Program and Career Fair (May 30th & June 1st):** On May 30th, Rob gave an IOOS overview in a presentation to the 2012 Hollings and Educational Partnership Program (EPP) scholarship recipients. Around 130 undergraduate students from colleges and universities from across the country were in attendance.

- **Mapping Cetaceans and Sound: Modern Tools for Ocean Management Symposium (May 23rd & 24th; Washington D.C.):** This symposium attended by Hassan focused on mapping tools developed by two working groups: the Underwater Sound Field Working Group (SFWG) and the Cetacean Density and Distribution Working Group (CetMap). The goal of the effort behind the symposium, was on the developing of tools and soliciting stakeholders input to help comprehensively address the cumulative impacts of human induced sound on marine mammals. There was an interest in seeking management applications of these tools independently, together and in conjunction with other emerging risk assessment methodologies. Potential activities for IOOS to engage in include: developing standards for representation and standards access to bioacoustics observations; and exploring use of testbed tools for standardizing models used by bioacoustics working groups. Some initial connections were made during this meeting with NMFS, BOEM, NAVY, MMC, OBIS-SEAMAP to explore using IOOS as a model to develop data standards for Marine mammals data (aerial and sea surveys, passive acoustic data).

#### Congressional:

- Response was written to Representative Castor (11<sup>th</sup>, FL) concerning the reduction of funding for the University of Florida’s Coastal Ocean Monitoring and Prediction System program.
- IOOS Program Office will begin the next round of ICOOS Act updates to the Hill. The first briefing will be with Senator Inouye’s staff on June 4<sup>th</sup>.

#### Communications/Outreach:

- **GLOS in Action:**  
<https://indianamichiganpower.com/info/news/viewRelease.aspx?releaseID=1258>  
**New Release by Indiana Michigan Power - LAKE MICHIGAN WATER AND WEATHER CONDITIONS AVAILABLE ONLINE - Innovative sensing buoy deployed by Cook Nuclear Plant provides real-time data**
- [Goodbye Fish and Shellfish? Meet the Biggest Threat to Our Oceans](#) – Posted on Alert net, this talks about the importance of IOOS buoys and support to the West Coast Shellfish Industry. This is in partnership with NOAA’s Ocean Acidification program.
- **IOOS website Content and Website Updates:**
  - [Home](#) – new link to the “First ORCA” story
  - [New Feature Story](#) - ORCA and SECOORA Annual Meeting
  - [IOOS Training](#) – new section added
  - [Modeling Testbed](#) – redesigned
  - [Glider](#) – National Glider Strategy Draft posted in Right-hand column
  - [Communication](#) – 1 PPTs added: Nat’l Water Quality Monitoring Network (Jan Newton)



**IOOS Conference Involvement:** This section will highlight those conferences where US IOOS is a sponsor/or has a major footprint.

- **Encouraging talks at AMS 2013:** Dr. Louis Uccellini, NOAA National Center for Environmental Prediction, asked me to be on his steering team for the upcoming AMS meeting to attract a more interdisciplinary theme. He very much understands the importance of the oceans, coasts, Great Lakes and their impact on our Earth's resources. Quoted from Louis "The theme this year is "Taking Predictions to the Next Level: Expanding Beyond Today's Weather, Water and Climate Forecasts and Projections", is one that is very relevant, given the opportunities we have as a weather, water and climate enterprise, to impact decision makers and our varied and important stakeholder who increasingly require more accurate, relevant, and value-added data, products, applications and services. They look to the academic, public, and private sector members of the AMS as leaders in this area. To increase our relevance and connectedness I also want to attract professionals of other fields (e.g., social scientists, geographers, health professionals) who don't normally attend the AMS annual meeting to join us in this worthwhile endeavor." Please consider submitting an abstract by August 1: <http://ams.confex.com/ams/>

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

Cheers,

Zdenka

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