

Bi-Weekly IOOS® Z-GRAM - 7 October 2011

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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

Check out the NEW IOOS web site: We hope you like the new website, we still want your suggestions and CONTENT. Please contact Marina Kraus (Marina.Kraus@noaa.gov) with website related questions and requests.

Governance and Management Subsystem:

- **Please join me in welcoming the new Gulf of Mexico Ocean Observing System (GCOOS) - Executive Director.** No stranger to GCOOS - Ann has been serving as the GCOOS Regional Coordinator - CONGRATS!

Observation Subsystem:

- **High Frequency Radar/Radio (HFR):** For more information contact Jack Harlan, Jack.Harlan@noaa.gov - the US IOOS HFR Program Manager - No update
- **IOOS Animal Telemetry Observing Network:** The U.S. IOOS Toward Animal Telemetry Observing Network Workshop Synthesis Report is now available on the IOOS web site http://www.ioos.gov/observing/animal_telemetry/welcome.html

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) or Rob (Rob.Ragsdale@noaa.gov).

- **Regional Priority Activities:** An overview of the OOSTethys effort was led by Eric Bridger (NERACOOS) and Luis Bermudez (OGC). A pragmatic discussion evolved from the OOSTethys synopsis that was open and detailed on the pressing technical challenges and priorities for bringing the regions into a common working environment that will simplify access to the RAs data holdings visible in the IOOS Data Catalog. In this discussion, Charly challenged the group to accelerate their development discussions and proposed a core group meet face-to-face for several days in January or February 2012. He added an approximate 12-month timeline to develop a plan for development of an executable reference implementation. The acceleration, timeframe, and suggested next steps were embraced by the implementation working group. The reference implementation working group is a subset of the RA DMAC Coordinators and includes NDBC and NCBO staff. The RA DMAC Coordinators

that have volunteered to participate include Kyle Wilcox (MARACOOS), Eric Bridger (NERACOOS), Rick Blair and Emilio Mayorga (NANOOS), Rob Bochenek (AOOS) and Vembu Subramanian (SECOORA) together with staff from NOAA's NDBC (Mike Garcia, Kevin Kern and Bill Burnett) and NCBO (CJ Pellerin) to make up this working groups.

- **SECOORA Data Management In Action:** UNC Chapel Hill recently completed an update to the SECOORA Vocabulary. This vocabulary, now expanded to nearly 200 terms, improves the accessibility and understanding of data and observations of winds, tides, currents, water quality, and chemistry of our coastal waters and oceans. The Vocabulary is based on the IOOS Parameter Vocabulary (130 terms). However, terms on fish and zooplankton species and abundance were not included in this version. The [SECOORA Vocabulary](#) and the [IOOS Parameter Vocabulary](#) are both registered with Marine Metadata Initiative's Ontology Registry and Repository.
- **AOOS in Partnership, EVOS projects:** Two five-year monitoring projects approved September 15 by the Exxon Valdez Oil Spill Trustee Council include AOOS participation. McCammon will serve as the Long Term Monitoring Program's management lead. AOOS also will provide data management services for the LTM project, as well as the Herring Research and Monitoring Program, in collaboration with the National Center for Ecological Analysis and Synthesis. Both projects are anticipated to be 20 years in length, but developed and funded in five-year increments.

Modeling and Analysis Subsystem:

- **Phase 2 Kick-off Meeting:** A two-hour kick-off teleconference call was held for the Coastal Modeling Testbed. Attendees included each of the team leads, several members of the Testbed Advisory and Evaluation Group, Don Wright and Liz Smith from SURA, Mary Erickson and Charly and Becky for IOOS. The teams each provided brief status reports on Phase 1 and the status of their no cost extension as well as their plans for Phase 2 and what they will do if the Testbed is extended beyond that. Each team has made good progress through the last quarter and expects to meet all their milestones by the end of the no cost extension. There was a good discussion led by Rich Signell and Mary regarding some of the important decision points for the Testbed leadership over the next phase, to ensure a seamless transition to an operational status.

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.

- **DMAC Steering Team:** Charly, Acting DMAC ST Chair, hosted a conference call with the DMAC ST and a number of stakeholders to discuss follow-up to May 2011 workshop and candidate agenda topics and logistics for the next face-to-face meeting. The call included short WebEX briefings on the progress of OOI's Cyber-infrastructure (John Graybeal, OOI-CI Product Manager) and CMSP's

National Information Management System (Tony LaVoi, Chair of NOAA's CMSP Data and Tools Team). Charly is working with COL staff on the logistics (date, FRN, location) for the next meeting which is currently anticipated for late-November. Suggested focus for at least part of the meeting is strengths/weaknesses of OGC standards based on the experience of DMAC ST members.

- **IOOS and Links to the National Water Quality Monitoring Network: Coordination with EPA:** No Update
- **IOOS and The National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** Held routine conference call with the team to review status and next steps on collaboration. Agreed to an extended, 2 hour, conference call on 10/14 to review in more detail follow-up/close-out for Release 1 collaboration (including demonstrations of the "dispatcher" tool for accessing ocean modeler-defined priority data sets) and a more specific discussion of candidate priorities for Release 2 (proposed are expansion of ocean modeler engagement, high frequency radar data and glider data).

Other:

- **Fifth Global Ocean Observing System (GOOS) Regional Alliance (RA) Forum and EUROGOOS meeting:** The US team was comprised of Eric Lindstrum, NASA, in his role as co-chair of the Integrated for Sustaining Ocean Observing Task Team, and Co-Chair of the IOOC, Zdenka Willis, NOAA, Director US IOOS Program Office; chair US GOOS Regional Alliance; Paul Diagacomo, NOAA in his role as co-chair of the Panel for Integrated Coastal Observations (PICO); Doug Wilson, NOAA co-chair IOCARIBE-GOOS; Scott Glenn, Josh Kohut, Hugh Roraty – Rutgers University and US IOOS/MARACOOS; Laura Pederson, CODAR Ocean Sensors. On 3 Oct; Eric, Paul, Doug and I were part of the GOOS RA meeting. Eric, briefed the new OceanObs Framework; Paul discussed the PICO generated – draft GOOS Coastal Module Implementation Plan; Doug and I represented 2 of the GOOS RAs. As had been informally discussed at the previous meeting, the United States offered to host the next meeting in 2013 and with that offer, Zdenka takes over as the Chairman of the GOOS RA council. While we were in the GOOS RA meeting, our Rutgers/MARACOOS/CODAR team met with the Polish Institute of Meteorology for a training session on High Frequency (HF) Radar and the development of an HF Radar network in the Baltic Sea. From 4-6 October, we all attended the EUROGOOS meeting. Eric and Zdenka spoke during plenary. Eric presented the Framework for Ocean Observations, more information see: <http://www.oceanobs09.net/blog/?p=1520>. Zdenka, presented "US IOOS – Delivering the Benefits". This presentation will be available on the IOOS website under a new Presentations tab. We all participated in the session devoted to the GOOS RA presentations. Scott Glenn was featured in one of the sessions, and spoke on the US IOOS role in Deep Water Horizon. His presentations can be found at: <http://rucool.marine.rutgers.edu/index.php/Presentations/>

- SCCOOS In Action: September 2011: Red Tide in San Diego County:** This past week, red to brownish-red discolored waters became more evident as the bloom of *Lingulodinium polyedrum* continues along the coast of San Diego County. Areas where the red waters are observed during the day can bioluminesce at night, producing a striking blue color when agitated from breaking waves, swimming fishes, and even the movement of your hands and feet. Sampling efforts by SCCOOS Harmful Algal Bloom researchers at Scripps Institution of Oceanography have found cell abundances of this dinoflagellate to be over 1 million cells/liter and chlorophyll values at 43.92 mg/m³ at Scripps Pier in La Jolla (average values range from 0-1,000 cells/L of *L. polyedrum* and 2.49 mg/m³ for chlorophyll). This bloom began near the end of August and could last for several weeks to a couple of months. To read more about *Lingulodinium polyedrum* and our monitoring efforts visit: <http://www.sccoos.org/data/habs/species.php?specie=Lingulodinium%20polyedrum>
- Connecting the US IOOS Regions to the Interagency Working Group on Facilities and Infrastructure Task Force on Unmanned Systems (Washington, D.C):** Rob attended and provided an update on the Non-Federal IOOS Observing Assets Inventory that was recently completed by the IOOS RAs. Prior to the meeting, a list of the unmanned systems (e.g. gliders, AUVs, drifting buoys) in the inventory was provided to the task force. The task force co-chairs: Dr. Reginald Beach (NOAA) and Kim Curry (Navy) were impressed by the number of unmanned systems in the US IOOS Regions. One of the activities of the task force is development of an interagency strategy for unmanned systems that covers vision/ mission, research to operation, and operational use. The takeaway from the meeting was the under utilization that exists of assets and the opportunity to leverage resources through sharing of assets when possible.
- Statoil-NOAA Workshop (Silver Spring; 9/27-29):** Charly and AOOS's Molly McCammon attended this meeting on behalf of US IOOS (Zdenka joined for the morning session on 9/29 as did NOAA/OAR Acting Director Craig McLean and NOAA/PPI Director Paul Doremus) sponsored by NOAA/OAR and the Norwegian Royal Embassy. Chaired by NOAA/OAR International Affairs Director Rene Eppi and NOAA/AOIML Deputy Director Alan Leonardi, discussions focused on candidate ocean research and monitoring activities NOAA could conduct jointly with Statoil, Norway-based international energy company with operations worldwide including extensive experience in northern oceans and emerging exploration in Alaska. Several senior science and business staff from Statoil attended as did a number of senior science staff from NOAA. Day 1 (1-5pm) was a series of PowerPoints from NOAA and Statoil for orientation, Day 2 (9-4) focused on opportunities for collaboration, Day 3 (9-Noon) discussions focused on candidate action items and next steps. Per shared ideas on data access and management, Charly will be exchanging ideas with Statoil's Enterprise Architect Harald Wesenberg in the weeks ahead. A follow-up meeting with many of the participants is anticipated in approximately six months.
- NASA Biodiversity and Ecological Forecasting Meeting (Alexandria, VA; 10/5-6):** Hassan attended and presented two posters. One poster addressed the

IOOS Biological Data Project and the second poster covered IOOS activities toward an Animal Telemetry Observing Network. Hassan met with several individuals while at the conference including Brian Wells (SWFSC), Woody Turner (NASA), and Pat Halpin (Duke Univ. – OBIS SEAMAP) conducting ocean observing work. He also talked with individuals from [movebank.org](http://www.movebank.org) (<http://www.movebank.org>). Movebank.org is an organization that provides a platform to scientist to publish their animal tracking data (for both terrestrial and marine animals). The meeting agenda can be found at the URL: http://cce.nasa.gov/cce/biodiversity_2010agenda.html

- **Earth System Prediction Capability (ESPC) Data Assimilation Conference (University of Maryland; 9/27-29):** Becky attended and was able to meet with several testbed leaders and participate in valuable discussion of the data assimilation issues modelers are facing today. This included extensive discussion of expanding observation resources or finding ways to access more of what is available and various model coupling challenges.
- **Dedication of UMCES Mobile Test Platform:** On Sept. 27, Gabrielle Canonico attended a ceremony at the Port of Baltimore to dedicate a unique 155' barge, or Mobile Test Platform, into the University of Maryland Center for Environmental Science (UMCES) research fleet. This unique barge will be used to test ballast water treatment technologies that would be employed to reduce the risk of introducing invasive species through the maritime shipping industry. The dedication ceremony was led by Congressman Cummings (Maryland's 7th District) and included leadership from the US Maritime Administration, Maryland Port Authority, and UMCES (Don Boesch and Mario Tamburri). The barge is part of UMCES' Maritime Environmental Research Center, which was established in partnership with the Maryland Port Administration, with additional support from the US Maritime Administration, NOAA, and American Bureau of Shipping, to provide test facilities, expertise, information, and decision tools to address key environmental issues facing the international maritime industry. U.S. IOOS colleague and Alliance for Coastal Technologies partner Mario Tamburri is also the Director of UMCES-MERC.
- **Congratulations! to Nick Shay of RSMAS: Recognized for Research on Hurricane Intensity Changes** -University of Miami (UM) Professor, Lynn "Nick" Shay, Ph.D., has been elected a Fellow of the American Meteorological Society (AMS), the nation's leading professional society for scientists in the atmospheric and related sciences. Shay teaches meteorology and physical oceanography at the UM Rosenstiel School of Marine & Atmospheric Science. He serves on the GCOOS Observing Systems Committee. The honor of Fellow is given to an individual for recognition of outstanding contributions to the atmospheric or related oceanic or hydrologic sciences, or their applications, during a substantial period of years. Dr. Shay is a part of a select group of individuals who have been awarded this honor. For more on Dr. Shay's many accomplishments, please see this press release. http://www.eurekaalert.org/pub_releases/2011-10/uomr-urs100611.php

Congressional: It is time for our quarterly updates to the Hill. The following meetings have been scheduled with NOAA Office of Legislative affairs.

10/19, 10:00 am - Anna Marie Laura (Whitehouse, D-RI)
10/19, 11:00 am - Senate Commerce Committee (Majority & Minority)
10/19, 12:00 pm - Whit Saumweber & Anthony Ching (Inouye, D-HI)
10/19, 1:00 pm - Dave Jansen (House T&I Sub.on Coast Guard & Maritime Commerce)
10/19, 1:30 pm - House Natural Resources Committee (Minority Staff)
10/19, 2:30 pm - Jennifer Salerno (Capps, D-CA)
10/19, 3:30 pm - Kristen Bor (Farr, D-CA)

10/20, 1:00 pm - Hannah Dean (Pingree, D-ME)

Communications/Outreach:

- NOS Article on IOOS - PacIOOS partnership on Monk Seal Research now live at:<http://oceanservice.noaa.gov/news/weeklynews/sept11/ioos-wildlife.html>
- OAR/IOOS press release out on 21 SEPT -
http://www.noaanews.noaa.gov/stories2011/20110921_paccoral.html
 - Picked up by OURAMAZINGPLANET -
<http://www.ouramazingplanet.com/when-corals-are-in-peril-new-sensors-send-a-warning-2047/>
 - Saipan Tribune:
<http://www.saipantribune.com/newsstory.aspx?cat=1&newsID=112844>
 - Summit County Citizen's Voice:
<http://summitcountyvoice.com/2011/09/27/noaa-expands-coral-reef-early-warning-system-to-saipan/>

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

Upcoming Meetings: To see the IOOS calendar, please visit:

<http://www.usnfra.org/calendar.html> or <http://www.ioos.gov/about/calendar.html>

Zdenka Willis
Director, US IOOS Program Office
www.ioos.gov

