Bi-Weekly IOOS® Z-GRAM – 16 June 2012

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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 <u>program updates</u>.

IOOS - A Partnership supporting Lives and Livelihoods

Retirement of MG Bo Temple, USACE: I was privileged to attend MG Temple's retirement ceremony on 11 June where he was honored for 33 years of faithful service to our nation. His accomplishments are many but equally moving were the stories on his deep personal commitment to people. When MG Temple spoke, he talked about the importance of those of us in public service to keep the public's trust. He keeps 3 "R's in mind: Do the Right thing, For the Right reason, in the Right way. From an IOOS perspective, the USACE has certainly embraced these concepts. From the start of NOAA setting up the NOAA IOOS program office in 2007, the USACE has been there to support our effort and led the community to write the National Waves plan, which has resulted in the deployment of new buoys in PaclOOS, CaRICOOS, AOOS and others through CDIP. When the ICOOS legislation was signed, MG Temple responded to the call of an US IOOS program office with interagency personnel by assigning a liaison to the IOOS Program Office and continues to support that partnership. From a personal perspective, I am extremely grateful for his support and kind words of encouragement he often sent after reading the Zgrams. So on behalf of the entire IOOS community, we wish you and your family all the best as you transition to a new phase in your life and a heartfelt thank you for your support. As a reminder – Once an IOOSian, Always an IOOSian.

Highlight: US IOOS Summit – PLEASE SUBMIT YOUR WHITE PAPERS by 30 June: Thank you for the efforts ongoing to support the White paper process. Even if you can't write a full white paper, please provide us your thoughts on key reference documents you want the steering team to review to ensure that as we write the next development plan we take into account the key documents that outline the requirements for ocean observing.

Governance and Management Subsystem:

 Program Environmental Assessment (PEA): Thanks to PaclOOS' Chris Ostrander and Kim Holland, who participated in a call with the PEA contractor to provide specifics about the animal telemetry activities taking place in their region. EAEngineering will submit the revised draft on June 29, 2012. IOOS has 5 days to review and respond. IOOS website: Check out "Meet the IOOS Program Office Staff" http://www.ioos.gov/about/meet_staff.html

Observation Subsystem:

- **High Frequency Radar/Radio:** For more information contact the US IOOS HFR Project Manager, Jack Harlan, Jack. Harlan@noaa.gov:
 - Group on Earth Observations HF Radar component: We have launched the Global HF Radar website – we ask those who want to participate to sign up at the website and please provide information on your HF Radars and location of your data. Visit: http://www.ioos.gov/globalhfr/welcome.html to become involved.
 - Jack attended the semi-annual review meeting for the Small Business Innovation Research (SBIR) project awarded to Codar Ocean Sensors and UC-Santa Barbara (Sep 2011-Sep 2013). The project has successfully implemented a real-time AIS data ingest and radar antenna pattern analysis software suite at a site in the San Francisco Bay area. This software, when operational, could provide automated antenna pattern measurement for any radar type at a significant cost-saving over conventional boat measurements.
- IOOS Animal Telemetry Observations: MAJOR SUCCESS: TOPP-ONR-IOOS project:
 TOPP-ONR-IOOS project: Frank Bub (NAVOCEAN) and Avichal Mehra (NOAA NCEP)
 informed the US IOOS Program that this project has been a major success in making
 data from elephant seal tags (350 historic tags, 2 live/active tags) from the Tagging of
 Ocean Pelagic Predator's (TOPP) Program accessible to ocean modelers at the US Navy
 NAVOCEAN and NOAA NCEP. This week Frank reported that NAVOCEAN successfully
 downloaded and processed 8,138 observations from the Stanford University ERRDAP
 site. This success is the result of a partnership between US IOOS, ONR, and the TOPP
 team

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).

National DMAC:

- Refining existing web services for access/delivery of ocean observation data: Carmel, IOOS Program Office, has drafted a simple dashboard or visual that illustrates the relative status of SOS services implementation across the IOOS regions. As she refines this for an initial presentation to the Regional Executive Directors (Tues 6/26) she will ask READ staff and the SOS execution team for input. The goal is to use this tool to subsequently provide regular status reports on the project, particularly to the Regions.
- QARTOD BOA Meeting 6/11: About half of the BOA met and agreed that dissolved oxygen will be the focus of the next QA/QC procedures to be published by QARTOD. Dick and Ray are reviewing the long list of candidate subject matter experts for key individuals with expertise on DO and others who will be invited

to be reviewers once the procedure reaches draft form. The SME workshop at NDBC is planned for mid-July. The BOA determined that temperature, salinity and turbidity had adequate QA/QC details available and they will examine IODE and NODC's GTSPP (Global Temperature-Salinity Profile Program) for what are anticipated as publishable procedures.

- THANKS: Moving Parameter Vocabulary Work Forward: From the National Program Office we wanted to thank SECOORA who is playing an important role in moving IOOS Parameter Vocabulary work forward. Realizing the importance to improve discovery, accessibility and use of IOOS observations by end users and the benefits to the Ocean Observing community, the IOOS Program office approached SECOORA to discuss a strategy to leverage and advance the earlier vocabulary efforts of SECOORA and GCOOS-RA. As a result SECOORA has graciously offered for Sara Haines, who has been the lead in SECOORA vocabulary efforts, to devote time to help the IOOS community.
- NCCOS Collaboration: Charly and Rob gave a short report to the NCCOS Center Directors and Branch Chiefs to highlight our recent collaboration and other opportunities that might exist. We offered to give a more in-depth brief on IOOS to the NCCOS Directors sometime in the near future in order to have time for a more detailed discussion on potential and future collaboration opportunities. Meeting with Tom Mcgrath (NCCOS Biogeography Branch): Rob and Hassan met with NCCOS Biogeography Branch's Tom Mcgrath to discuss the Reef Fish database he manages and possible collaborations. The database contains water quality, habitat and fisheries data from the U.S. Virgin Islands and Puerto Rico accessed by numerous academic institutions and federal agencies. Hassan gave a brief on the biological data project. We discussed possible collaboration efforts that apply the standards and services implemented in the biological data project to serve users of this data.
- AOOS data updates: The AOOS Ocean Workspace was rolled out to both the EVOS Long Term Monitoring Program and the Herring Research Program during May. Additionally, several improvements were made to the user interface in response to feedback from the user community. The AOOS data management team has been hard at work developing aspects of the AOOS Ocean Portal, a customizable web based mapping framework for use in planning, emergency response, and research synthesis efforts. AOOS will be releasing 2 instances of the Ocean Portal in June. The first will be the Cook Inlet Response Tool (CIRT) and the second will be the first version of the STAMP Arctic Planning tool later in the month.

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 No Update

• Interagency Working Group on Ocean Partnership (Tues 6/9): Charly gave an informational presentation on the IOOS Coastal and Ocean Modeling Testbed to the IWGOP encouraging participation in the upcoming FFO by other federal agencies. Good discussions following the meeting with DOI/BOEM and Department of Energy

Interagency Collaboration:

- IOOS Summit 2012 A new Decade of Integrated and Sustained Ocean Observing, 13-16 November, Herndon, VA: See above
- DMAC Steering Team: The ST is making progress towards at least one and possibly 2-3
 white papers to be completed by June 29 in support of this fall's IOOS Summit. Priority
 topics have been nominated and detailed suggestions on paper organization have been
 provided.
- USACE in Action: Joint Strategic Advisory Committee (JSAC) participation: Michael Dillabough, US Army Corps of Engineer, San Francisco District, participated in the JSAC meeting held June 4. Mr. Dillabough presented in the session on Maritime Operations and Coastal Hazards.
- IOOS and Links to the National Water Quality Monitoring Network: No update
- IOOS and The National Science Foundation (NSF) Ocean Observatories Initiative (OOI): No update
- EPA launches Rhode Island State Water Interactive Map (SWIM): The Rhode Island
 Beach Program has completed phase I of the SWIM. The application shows beach
 openings and closings, water quality data, uploaded photos of the beaches and beach
 imagery. RI SWIM Viewer: https://welltesting.health.ri.gov/swim/

Other:

CariCOOS Data Buoys Successfully Refurbished: CariCOOS data buoys A, B and C, located respectively off Ponce, PR, San Juan, PR and St. John USVI were successfully removed from their moorings, transported to land, refurbished and redeployed over the month of May. The last buoy (buoy B) was redeployed June 4. A team of specialist from the University of Maine Physical Oceanography Group removed and replaced oceanographic instruments, refurbished the anemometers and reinitialized buoy functions. CariCOOS data buoy A, which had been offline since January, was restored to service. An independent contractor, Commercial Divers, was chosen to perform the buoy recoveries and redeployments. CariCOOS data buoys are now prepared for another year of service; just in time for the 2012 hurricane season that officially began June 1. With a refurbished data buoy array, CariCOOS stands ready to provide instrumental data to our National Weather Service partners at the San Juan Weather office, to the USCG in its mission for safety and security at sea, to local mariners, to recreational users, and to all other stakeholders requiring coastal ocean data in the US Caribbean region. These operations take a large team effort so we express our appreciation to the enthusiastic, high quality technical support who assured the success of a complex operation entailing recovery, overhaul, instrument and hardware replacement and redeployment. The University of Maine Physical Oceanography Group replaced or refurbished instruments, updated and reinitialized software and telemetry, provided mooring hardware and deployment specifications. Commercial Divers performed buoy recovery and redeployment, including in one case a new mooring deployment, all under very adverse weather conditions. On site operational support,

- port facilities, personnel and equipment were generously provided by local hosts Port of Ponce, US Coast Guard at La Puntilla CG base, and the West Indian Company at St. Thomas VI. Administrative oversight and operational support was provided by CariCOOS personnel.
- AOOS in Action: Arctic Curriculum Development Workshop: AOOS was one of four organizations that sponsored a 5-day workshop in Barrow bringing together teachers and scientists from around the country to make creative Arctic lesson plans. Coastal Hazards Workshop AOOS co-hosted and facilitated a workshop on Coastal Hazards May 30-31 with the Western Alaska Landscape Conservation cooperative and the USGS Alaska Climate Science Center. Workshop participants included a broad array of technical experts and stakeholders interested and involved in coastal issues, especially for western Alaska. They focused on identifying near-shore and marine processes most likely to affect coastal landforms and associated human and biological use of these areas and reviewed existing stakeholder needs and critical information gaps for use in refining the AOOS draft 10-year buildout plan.
- AOOS in Partnership to Predict Salmon Run Timing: A joint research project between NOAA's Auke Bay Lab and Alaska Department of Fish & Game (ADFG) has shown a strong correlation over the past 51 years between certain oceanographic conditions and salmon run timing. Over the past year, AOOS, ADFG and NOAA have partnered to help share data to further explore the ability of this relationship to provide fisheries biologists with the best possible oceanographic information to manage the run. What's Happening This Year? Biologists have been hard at work making predictions for the 2012 run. Using percent spring ice cover between St. Lawrence Island and the Yukon delta, April air temperatures in Nome, and marine surface temperatures just offshore of the delta in May, the members of the team predicted the timing of the run in the last two seasons to within three days of the actual timing before the start of each run. The forecast for 2012 is for a late run similar to that experienced in 2010, the first year of the pre-season forecast. So far this is unfolding as expected. http://www.aoos.org/adfg-uses-aoos-data-to-help-predict-salmon-runs/
- CeNCOOS and SCCOOS held their annual Joint Strategic Advisory Committee (JSAC)
 meeting on Jun 4: Thanks to Toby Garfield who hosted the meeting at the San Francisco
 State University facility at Tiberon, CA. There were 34 attendees with representation
 from Federal, State and local agencies. The meeting consisted of member presentations
 and discussions regarding our four focus areas of maritime operations, coastal hazards,
 climate and ecosystems and water quality.
- GCOOS Welcomes Pierre Yves Cousteau and Cousteau Divers: The GCOOS-RA is pleased to welcome Cousteau Divers to its growing network of Regional Association members. Cousteau Divers is a recently launched international not-for-profit organization fostering scientific programs that monitor and conserve marine biodiversity around the world. The program brings the legacy of Jacques-Yves Cousteau to life, by uniting a community of divers concerned about the marine environment, and educating them so that each diver can become an agent engaged in the study and conservation of the ocean. To participate, snorkelers and SCUBA divers use program course materials to learn about simple methods to observe and record information. After they conduct

their underwater investigations, observing physical, geological, and biological conditions, they upload the information and any photos or videos to the online site (http://www.cousteaudivers.org/science). Collectively, the community of divers is helping to gather a near real-time diagnosis of the ocean's health—allowing researchers to visualize problems as they arise and targeting expeditions to help understand and respond to problems. Here in the Gulf of Mexico, Cousteau Divers recently opened the first Cousteau Divers School in North America. Partnering with GCOOS-RA member the Canterbury School of Florida, students will be trained to catalog and track biodiversity, and monitor water quality through data loggers. The GCOOS-RA is working with Ms. Jenna Cummings, Director of Marine Studies at the Canterbury School of Florida, to explore the feasibility of having the GCOOS Data Portal host some of the student-collected data. For more information about Cousteau Divers activities in the Gulf of Mexico or to learn how to become a Cousteau Diver participant, please contact Ms. Stephanie Stefanski, U.S. Coordinator, Cousteau Divers at s.stefanski@cousteaudivers.org.

NOAA/OAR AUV Working Group (6/8): Charly is the US IOOS Program office
representative. Discussion focused on an AUV "workshop" to be convened during the
MTS/Oceans 2012 meeting in October and documenting emerging NOAA requirements
for these types of technologies. Charly briefed the group on the IOOS summit white
papers and the IOOS meeting on gliders with useful sources of "requirements" for this
"MTS workshop."

Congressional:

Suzanne, Jen (IOOS Program Office) and Mike Jarvis (NOAA OLA) participated in four congressional briefings June 4 - 11 for staffers for Senators Inouye, Whitehouse, and Begich, as well as majority and minority staff for the Senate Commerce Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard. IOOS was very well received at these meetings, and support for IOOS continues on the Hill. Staff were highly interested in the Certification Process and Independent Cost Estimate. We explained that the Interagency Ocean Observation Committee has received the Independent Cost Estimate and is socializing it with the Subcommittee on Ocean Science and Technology (SOST).

Communications/Outreach:

- "Exploring the oceans 20,000 colleagues under the sea Fleets of robot submarines will
 change oceanography" Jun 7th 2012. Story in the Economist talks about the use of
 gliders in support of ocean observing and mentions Scarlet Knight's Atlantic Crossing
 mission. http://www.economist.com/node/21556551
- Ocean News Interactive, the industry's first interactive communication method through business publication! The new offering gives ON&T digital readers the ability to interact with the articles' authors and other readers in the industry, bridging the gap between static information resources and digital communication that furthers education, clarification, and provides wide participation. Jennie and Marina, IOOS Program Office

worked with MTS member Donna Kocak in her annual update of ocean observing worldwide – read about US IOOS - http://virtual.ocean-news.com/publication/?i=114319&utm_source=Digital+Subscription-June2012&utm_campaign=ONT+Digital-June+12&utm_medium=email

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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Zdenka Willis Director, US IOOS Program Office

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