

Bi-Weekly IOOS® Z-GRAM – 13 July 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 [program updates](#).

IOOS® - A Partnership supporting Lives and Livelihoods

Highlights:

- **CONGRATS to the IOOS Federal Advisory Committee members:** It is my pleasure to congratulate the members of the new US IOOS Federal Advisory Committee: Rick Spinrad, Oregon State University, Chair; CJ Beegle-Krause, Environmental Research for Decision; Terence Browne, Collins Engineering; Tom Gulbransen, Battelle Memorial Institute; Ann Jochens, GCOOS Executive Director; Val Klump, Great Lakes WATER Institute, University of Wisconsin-Milwaukee, WI; Lynn Leonard, University of North Carolina at Wilmington; Justin Manley, Teledyne Benthos; LaVerne Ragster, University of the Virgin Islands; Tony MacDonald, Monmouth University Urban Coast Institute; Chris Ostrander, PacIOOS Executive Director; Emily Pidegon, Conservation International; and Eric Terrill, Scripps Institution of Oceanography. Many thanks to all of the outstanding candidates who applied and to the selection team comprised by members of the IOOC. All FAC members were then approved to serve by Dr. Lubchenco. The first IOOS Advisory Committee meeting will be held August 29-30 at the Consortium for Ocean Leadership, Washington DC.
- **IOOS Summit:** THANK YOU FOR YOUR FINAL WHITE PAPER SUBMISSIONS! We received an overwhelming response from the IOOS Community in a short period of time. We currently have over 100 papers with almost 500 contributing authors! The Chapter Leads are now meeting regularly to develop content for the IOOS Summit. Your papers, in addition to seminal IOOS documents produced over the last decade, will generate the basis for the IOOS Summit Proceedings. The final white paper submissions will be posted online early to mid-next week. Questions regarding the summit? Just email the IOOC at: iooc@oceanleadership.org

Governance and Management Subsystem:

- Career Opportunity - Senior Development Engineer, Coastal Data Information Program, UCSD - https://jobs.ucsd.edu/bulletin/job.aspx?jobnum_in=62451

Observation Subsystem:

- **High Frequency Radar/Radio:** For more information contact the US IOOS HFR Project Manager, Jack Harlan, Jack.Harlan@noaa.gov: No Update
- **NERACOOS in Action Bats and Buoys:** There is a growing interest in the development of offshore wind energy off of the Atlantic coast. Along with this interest comes the need to better understand the potential impacts of ocean based wind turbines on our offshore wildlife and fisheries resources. Several of the NERACOOS buoys in the Gulf of Maine owned and operated by the University of Maine are currently helping biologists detect bat activity over the ocean in the Northeast. Stantec, a private consulting company, is presently working with the US Department of Energy (DOE) to deploy bat sensors on coastal and offshore sites within the Gulf of Maine, Great Lakes, and mid-Atlantic coastal regions. The effort currently includes four NERACOOS buoys in the Gulf of Maine. This 3-year effort was initiated in April 2012 and is aimed at better understanding general bat and migration activity over ocean waters. Data gathered during the multi-year survey effort will ultimately help determine and overcome potential risks associated with offshore wind turbines. Prior to this study, Stantec had conducted a similar effort at 16 sites within the Gulf of Maine, including a test deployment on NERACOOS Buoy A, off of Gloucester, MA in 2011. The bat sensor detected bat activity approximately 25% of nights over the buoy during the four and a half month time period. More information about this project is available by contacting Steve Pelletier at steve.pelletier@stantec.com. Taken from the NERACOOS newsletter - <http://archive.constantcontact.com/fs071/1107753542352/archive/1110521152956.html>
- **NERACOOS Monitoring Ocean Acidification in the Northeast:** NERACOOS has received funding through the NOAA Ocean Acidification and IOOS programs to help monitor ocean acidification in Northeast ocean waters. This funding is going to the University of New Hampshire's (UNH) Ocean Process Analysis Laboratory (OPAL). For the past six years, UNH's sentinel buoy has bobbed about in waters northeast of Appledore Island in the Gulf of Maine taking 3-hourly readings of both atmospheric and oceanic carbon dioxide. It is one of just half a dozen such buoys nationwide making these crucial measurement that helps scientists know how much carbon the ocean is taking up globally as atmospheric carbon dioxide levels continue to rise. More specifically, the Gulf of Maine buoy measurements are aimed at better understanding the role complex coastal waters play in the increasing acidification of the global ocean. "The reason why these observations are important, and why NOAA is so focused on them, is that we don't yet have accurate predictive models for how carbon moves between the atmosphere and ocean, and the land and the ocean," says UNH scientist Dr. Joe Salisbury. Taken from the NERACOOS newsletter - <http://archive.constantcontact.com/fs071/1107753542352/archive/1110521152956.html>

- **Gliders**
 - **Waveglider Demonstration Project:** Plans are in place to recover the waveglider and fetch from the Northeast in early August. They will be almost immediately redeployed near the Pioneer Array as part of the MARACOOS portion of the demonstration.
 - **From the NERACOOS newsletter:** The group reported a successful demo, stating, "The Wave Glider is nearly finishing a successful first half of the mission in the Northeast. As expected, difficult environmental conditions - including strong tidal currents, abundant ship traffic, large amounts of commercial fishing and low sea state - made for demanding operational considerations. Over the last two months, the Wave Glider team learned a lot about running in the Gulf of Maine, especially during the busy summer months, and in the strong tidal current areas in the northern section. The Wave Glider team successfully accomplished both of their desired missions for this portion of the deployment - they've collected data from the subsea Fetch nodes multiple times, including gathering data in real time from the nodes. The other goal was to run a lawnmower pattern over the entire Gulf of Maine, which was accomplished by traveling over 1000 nautical miles."
 - **Glider Workshop:** The National Glider Strategy Development Workshop will be held August 1-3 at Scripps Institute of Oceanography, UCSD, La Jolla, CA. Presentations and follow-up information will be posted to our website, www.ioos.gov/glider/strategy/, following the workshop.

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:**
 - **IOOS Data Providers: CO-OPS:** CO-OPS has postponed an update to its IOOS SOS web page. The redesigned web page was planned to be transitioned from the CO-OPS test server to the operational server on July 19th. When a new date is selected, data providers will be notified one week in advance. To be notified of service changes, please contact Derrick (Derrick.Snowden@noaa.gov) or Rob (Rob.Ragsdale@noaa.gov) to be added to the IOOS system status list.
- **Wind and Currents Data in the Great Lakes:** You may find these two visualizations of Great Lakes surface currents (<http://www.glerl.noaa.gov/res/glcfs/currents/>) and U.S. winds (<http://hint.fm/wind/>) of interest. The data for the surface current visualization, developed by the Great Lakes Environmental Research Laboratory (GLERL), was acquired from the GLOS THREDDS data server. The wind data was provided by the National Digital Forecast Database. Both maps use copyrighted technology developed by Fernanda Viegas and Martin Wattenberg. You may have difficulty viewing the maps using Internet Explorer as your browser. Try Chrome, Firefox, or Safari instead.
- **AOOS in Action: Arctic Research Assets Map Expands:** A new version of the Arctic Research Assets Map has been released! The map has expanded to include assets in

western Alaska and Canada, and has new capabilities to help users personalize their view. Explore the new features of the assets map, and provide AOOS feedback and submit your instruments: New Features: Polar projection!, Browse by studies or station types, in addition to sensors and sources, New search bar: type in a search term to query the map, Ability to select and highlight specific assets, Transect lines and polygons are represented by a midpoint until highlighted, Option to change background base layer, Ability to add or subtract data layers for a personalized view, Save or share your own view by creating a bookmark link. New Studies Featured: Chukchi Sea Environmental Studies Program – 2012 baseline (joint industry funded), RUSALCA monitoring stations, RUSALCA cruise tracks, CCGS Sir Wilfrid Laurier – 2012-Three Oceans cruise tracks, Healy Cruise tracks, Bering Strait AON Moorings, O-Buoy Network of Chemical Sensors, Terrestrial linkage to climate and metazoan, COMIDA – Chukchi Sea Monitoring in Drilling, Monitoring Subsistence Fisheries in the Elson Lagoon, Canada's Three Oceans (C3O) – Distributed Biological Observatory (DBO) programs, The Western Arctic Boundary Current and its role in the Arctic ecosystem and climate change, Mapping in Nautilus Basin in Support of Delimiting an Extended Continental Shelf, CHAOZ – Chukchi Acoustic Oceanography and Zoo-plankton.

<http://www.aos.org/arctic-assets-update/>

- **NANOOS in Action – NVS now has data from Whiskey Creek Shellfish Hatchery:** Sensors are available in near-real-time. At this time it includes only the YSI 6600 sensor package, but the intent is to include other sensors later. The data are at 15-min frequency, and are sent to NVS and ingested in a batch once an hour, at 10min after the hour. Access the data: http://www.nanoos.org/nvs/nvs.php?section=NVS-Assets&infoWindow=action::auto_open|asset_class::siso|asset_id::WCSH_Whiskey1. NANOOS would like to thank Jesse Vance (OSU) for his great work and responsiveness in making this happen, Andy Suhrbier (PSI), regional YSI field data wrangler extraordinaire. The PCSGA shellfish water monitoring "network" now has four sites streaming data to NVS in near-real-time, including two at Willapa Bay (Andy/PSI), one at Dabob Bay (Benoit Eudeline, Taylor Shellfish), and now this one at Netarts Bay.

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 Collaboration:

- **IOOS Summit 2012 - A new Decade of Integrated and Sustained Ocean Observing, 13-16 November, Herndon, VA:** See above
- **DMAC Steering Team:** No update
- **USACE in Action:** No update
- **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**

Other:

- **US IOOS Program Office met with USGS and Navy:** Gabrielle, Carl, Derrick and myself (US IOOS Program Office) met with USGS –Cheryl Morris, Mike McDermott, Martha Garcia, and Mark Fornwall of the Core Science Systems and John Haines Director, Program Coordinator Coastal and Marine Geology Program. We were joined by Bob Gisinier of the Chief of Naval Operations staff to discuss the status of US IOOS and the integration of biological data. I had the chance to provide a briefing of the status of US IOOS. We received a briefing on the USGS data efforts through the Core Science Systems. We discussed our mutual cooperation and support for the OBIS program and our desires of integrating biological data into to US IOOS and OBIS.
- **NANOOS Participates in First Stewards: Coastal Peoples Address Climate Change:** First of its kind a national event to examine the impact of climate change on indigenous coastal cultures and explores solutions based on millennia of traditional ecological knowledge. It was held at the Smithsonian’s National Museum of the American Indian in Washington DC over 17-20 July, 2012. The event brought together hundreds of native leaders, witnesses and climate scientists join policy-makers and non-government organizations for groundbreaking dialogue at a climate change symposium. Four Regional Panels shared observations and climate adaptation strategies from coastal ecosystems nationwide: The West Coast panel, the host tribes of the workshop, addressed “Habitat of Culture: Maintaining Identify in the Face of Climate Change;” the Alaska Panel focused on “The Lands and Waters are Life: The Impact of Climate Change on Infrastructure, Food Security, and Community in Alaska;” the Pacific Islands Panel presented how “Little Changes Have Big Impacts on Little Islands: Relying on Tradition to Sustain Resources;” and the East Coast, Gulf of Mexico, and Great Lakes Panel discussed “Co-Management as an Adaptation to Climate Change.” A fifth panel, the Looking Forward panel, presented “The Hawk and the Whale:Lessons from the Past; a Vision for the Future.” Panelists were a mix of native leaders, policy makers, and scientists. The focus was on relaying their observations of how climate change is affecting their communities. The millennia that native peoples have occupied their lands bring with it a strong knowledge of recognizing change. Jan Newton, NANOOS Executive Director, was asked to moderate the West Coast panel. Her remarks stressed the immense value of these observations to all on the planet, including scientists, and the need for partnering in order to best understand the dynamics and impacts of climate change. The ability of IOOS to partner with tribes and native is important to highlight and work on. This symposium was an effective first step. The videos of all sessions are on line at <http://www.firststewards.org>
- **NOAA Scientists Featured at the Smithsonian:** Two NOAA scientists spoke with Smithsonian visitors about our changing ocean this week. They set up at different locations within the Smithsonian’s National Museum of Natural History’s Sant Ocean Hall to answer questions on ocean acidification and the Chesapeake Bay. A scientist

from NOAA's Pacific Marine Environmental Laboratory discussed her work modeling acidified water along the west coast, what it means for citizens, and what the U.S. Integrated Ocean Observing System and NOAA's Ocean Acidification Program are doing to help. At another station, a National Weather Service meteorologist and a colleague from the Whitaker Foundation delivered a stewardship message about the Chesapeake Bay and Atlantic Ocean.

- **US IOOS partners SCRIPPS Scientist Eric Terrill aids US Marines in Afghanistan:** Scientists hack ocean-buoy tech to aid Marines in Afghanistan. The Expeditionary Meteorology System gives Marines in Afghanistan accurate, real-time weather reports by way of a redesigned system originally used for ocean buoys. Read this fascinating story at: http://news.cnet.com/8301-17938_105-57480268-1/scientists-hack-ocean-buoy-tech-to-aid-marines-in-afghanistan/

Congressional: No update

Communications/Outreach:

- **New Posts on the US IOOS Website:**
 - [IOOS/NFRA Calendar](#) has been updated.
 - [HF radar](#) – reorganized and Summary of WRC-12 Radar Frequency Outcomes doc posted
 - 3 stories posted: [Nat'l Glider Strategy](#), [Scientist@Smithsonian Museum](#), [GLOS/GLERL partnership&water quality](#)
 - [Data](#) – Altered text to comply with the needs of [oceans.data.gov](#)
 - News and Stories from the Regions: [AOOS](#), [GLOS](#), [NERACOOS](#)
 - [Communications](#) – Info-Cards art and print files added to “Print and Art Resources” tab (to promote [ioos.gov](#) Data and Services from 11 regions)
 - [National Glider Strategy](#) - Details about the workshop added
 - [Library/Program Reference](#) – Link to Ocean.US archive
 - [Program Updates](#) - Zgram
- BERGEN RECORD (New Jersey)/ ASSOCIATED PRESS - Organization receives \$2 million for buoy program – Announcement of US IOOS/NERACOOS award
- [UNH ocean scientists get funds for continued coastal water monitoring](#): Foster's Daily Democrat – US IOOS/NERACOOS award.
http://www.fosters.com/apps/pbcs.dll/article?AID=/20120721/GJNEWS_01/707219935/-1/FOSNEWS
- European Project on Ocean Acidification picked up the US IOOS story on Scientist Is In - <http://oceanacidification.wordpress.com/2012/07/26/scientist-features-ioos-and-ocean-acidification-at-the-smithsonian-national-museum-of-natural-history/>

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

SEEKING ABSTRACTS by 1 AUG for AMS 2013 <http://ams.confex.com/ams/>: There are 4 sessions we are seeking IOOS participation with:

- "Climate Trends and Projections in the Coastal Environment." Joint session between the 11th Symposium on the Coastal Environment (CE) and the Conference on Climate Variability and Change (CVC). Organizers: Hyodae Seo (CE) and Aiguo Dai (CVC)
- "Ocean, Atmosphere, Hydrosphere, and Land Surface Interaction in the Coastal Environment." Joint Session between the 11th Symposium on the Coastal Environment: Frank Aikman, NOAA/NOS, frank.aikman@noaa.gov; 17th Conference on Integrating Observing and Assimilation Systems for the Atmosphere, Ocean and Land Surface, Ken Carey (Noblis), kenneth.carey@noblis.org; and Satellite Meteorology, Oceanography and Climatology, Philip Ardanuy (Raytheon) Philip_E_Ardanuy@raytheon.com.
- "Ocean operational, pre-operational and transition model-based and observationally-constrained forecast systems in the U.S. Exclusive Economic Zone." The 11th Symposium on the Coastal Environment: Frank Aikman, NOAA/NOS, frank.aikman@noaa.gov; Frank Bub, USN/NAVO, frank.bub@navy.mil; and Chris Mooers, CECS/PSU, cmooers@cecs.pdx.edu.
- "Pre-Operational, R&D Regional Coastal Ocean (EEZ) Circulation (&Related) Models Run in Real-Time in Academia and Industry." The 11th Symposium on the Coastal Environment: Chris Mooers, Portland State University, cmooers@cecs.pdx.edu; Becky Baltes, IOOS Program Office, Becky.Baltes@noaa.gov

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

Cheers,

Zdenka