

Bi-Weekly IOOS® Z-GRAM – 31 October 2014

The Z-Gram is an informal way of keeping you up-to-date on US IOOS® activities. Pass it on! Please reply with an e-mail with additional addresses or if you no longer want to receive the Z-Gram.

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IOOS® - Enables Decision Making Every Day; Fosters Advances in Science and Technology

From the IOOS Program Office:

- **Want to Influence the Future Direction of IOOS?** The IOOS Program is soliciting nominations to the IOOS Advisory Committee (IOOS AC) for Fall 2015. The IOOS AC has been well-served by having members with a variety of perspectives and viewpoints and we encourage the nomination of individuals who would contribute to the diversity and balance of the Committee. NOAA is seeking individuals with expertise in oceanographic data, products, and services; coastal management; fisheries management; coastal and marine spatial planning; geodesy; water levels; and other science-related fields. **Applications will be accepted through November 24, 2014.** Please refer to the [Federal Register notice](#) for more information. This is also posted on the IOOS website at www.ioos.noaa.gov. If making a nomination for someone else, please affirm whether or not you have some indication as to the candidate's willingness to serve.

Observation Subsystem and Sensor Technologies

- **High Frequency Radar/Radio** (Lead Jack Harlan, Jack.Harlan@noaa.gov):
 - GCOOS Press Release : "High-Frequency Radar Stations Could Save Lives, Track Spills in Gulf and Atlantic" – Nonprofit groups call for network of high frequency radar monitoring stations along the U.S. Gulf and Southeastern Atlantic coasts. Read More: http://gcoos.tamu.edu/?page_id=8298
- **Glider News:** NOAA's Atlantic Oceanographic and Meteorological Center (AOML) glider team successfully added their glider profiles to the IOOS DAC. They used the DAC process to put their files in the correct format and share them as one of the first external contributors to the DAC. Thank you to Gustavo Goni and his team.
- **Wave Glider Tracks Impacts of Tropical Storm Ana:** In Mid-October, the Hawaiian Islands experienced heavy rains, high surf, and strong winds due to tropical storm Ana. Wave glider "NC2" from [Liquid Robotics, Inc.](#) was utilized for a mission to measure wave heights, wave period, and wave direction along the Kohala coast off Hawai'i Island during the storm. Data were recorded every half hour and transmitted via satellite telemetry. The recorded measurements from glider NC2 can be accessed online in PaclOOS [Voyager](#).
- **Marine Sensor Innovation project update:** The Marine Sensor Innovation effort includes the following projects: Alliance for Coastal Technologies (ACT), US IOOS Coastal Ocean and Modeling Testbed, and the newly initiated Ocean Technology Transition. Information on Marine Sensor Innovation can be found here: http://www.ioos.noaa.gov/marine_sensors/welcome.html. All three topics will be reported on independently in future Zgrams.

- **Ocean Technology Transition:**
 - All Milestones for the FY13 award “Gulf of Maine Environmental Sensor Processor Deployment to support HAB” have been completed. CTD data is cataloged and available through NERACOOS via our ERDDAP server: <http://www.neracoos.org/erddap/search/index.html?page=1&itemsPerPage=1000&searchFor=ESP>.

- **AOOS: New Kenai River weather station now live; webcam coming soon:** Headed down to the mouth of the Kenai? Find out real-time conditions and get a view of the water before you go. A high-resolution webcam and weather station were installed in early October with the primary purpose of providing live footage of freshwater ice as it moves from the river into Cook Inlet. The weather data is being streamed through the AOOS real-time sensor map and also transmitted over the Automatic Information System (AIS) navigation display for mariners. The webcam should be up and running by November 1. The webcam and weather station are part of the Cook Inlet Forecasting Network, formed seven years ago by the Cook Inlet Regional Citizens Advisory Council, after a large pan of ice stripped the T/V Seabulk Pride from its Nikiski mooring. The Kenai River camera will be the first in the network to offer public access to live images, providing a view of freshwater ice movement. Because freshwater ice is denser than saltwater or brackish ice, the freshwater ice flushing from the Kenai River on the flood tide can move as far north as the Tesoro/KPL dock in Nikiski that services oil tankers transporting crude oil and refined petroleum. The installation of weather sensors and a transmitter to communicate directly with boaters on their AIS screens by the Marine Exchange of Alaska (MXAK) as a part of their WX/AIS project.

- **PacIOOS’ American Samoa wave buoy, named Aunu’u, was successfully deployed:** Access the data: <http://pacioos.org/wavebuoy/aunuubuoy.php>. NODC Surf Forecaster Pat Caldwell explains, ‘The wave sensor south of American Samoa will enhance surf forecasts along southern shores in Hawaii. During March through October, mid latitude low pressure systems south to east of New Zealand generate swell aimed northward, that at times can produce hazardous near-shore conditions in Hawaii. The great circle line between the Samoa buoy and Hawaii is near 190 degrees, which is the most frequent swell direction for high surf episodes. The wave period signature for high events in Hawaii is near 20 seconds. Such groups of waves travel roughly 700 nm per day. With the near 2200 nm distance from the buoy to Hawaii means a 3-day advanced notice to fine-tune expected arrival times and magnitudes.’

Observation Subsystem Data Management and Communications (DMAC) Subsystem and Tools Built on IOOS data (Contact Derrick or Rob to get on the listserve for changes, Derrick.Snowden@noaa.gov, Rob.Ragsdale@noaa.gov):

- **QARTOD:**
 - [Wind Data Manual](#) is posted to the [QARTOD Webpage](#) on the [U.S. IOOS Website](#). An article will be published in the MTS Currents in the Nov/Dec issue.
 - Optics: The Optics Committee met at the [Ocean Optics Conference](#). The committee meeting was attended by over 50 people from Navy, NASA, and industry. We are on track for a first draft before Thanksgiving.

- **Everglades National Park Data Now Available on the GCOOS Data Portal:** Data from the Everglades National Park (ENP) water monitoring network are now harvested by GCOOS on an hourly basis. In total, some fifty-seven sensors from 28 stations were added to the GCOOS Data Portal. All stations collect water level, salinity and water temperature. The station in Whipray Basin (WRBF1) also measures winds (i.e. speed and direction). On average, about 409 new daily records are added to the GCOOS Data Portal from the Everglades National Park stations. GCOOS is now monitoring and serving data for a total of 1,877 sensors from 314 stations in the Gulf of Mexico.

Modeling and Analysis Subsystem: No update.

For information on the US IOOS Coastal Ocean Modeling Testbed (COMT), contact our project manager, Becky Baltes, Becky.Baltes@noaa.gov

Interagency and International Collaboration/News:

- **IOOC Biological Integration and Observation Task Team (BIOTT):** The BIOTT is convening a workshop November 4-6 in Washington, D.C. The workshop will bring together regional and national representatives across biological and ecological marine observing sectors to formulate recommendations for the future planning of U.S. Integrated Ocean Observing System (IOOS) biological variables. There will be a focus on identifying and prioritizing cross-cutting biological and ecosystem observational needs beyond currently recognized core biological variables. The BIOTT conducted a survey of observational needs across federal agencies that collect and use aquatic biological data. The results of this survey will serve as a source of information for workshop participants to build on. **This workshop is by invitation only.**
- **OA in Cartoons:** Jim Toomey, famous for his Sherman's Lagoon series, covered ocean acidification in his cartoon strip between 10 Oct. and 21 Oct. <http://www.thecomicstrips.com/subject/The-Ocean+Acidification-Comic-Strips-by-Sherman's+Lagoon.php>

Delivering the Benefits:

- **National Weather Service in San Juan launched a new coastal condition forecast: “The Surf Zone Forecast”:** This effort is the result of the collaboration among NOAA partners including National Weather Service Forecast Office in San Juan (NWS-SJU), Caribbean Coastal Ocean Observing System (CariCOOS), and Sea Grant Puerto Rico. NWS San Juan began issuing Surf Zone Forecasts for 15 beaches in Puerto Rico and U.S. Virgin Islands. The first issuance of this product will be on November 1st, 2014. The swell season starts on November 1st and extends until April 30th, resulting in long period swells affecting regional waters several times each month. Although surfers love these swells, beach goers are threatened by rip currents. These wave induced currents result in at least 30 reported deaths a year in Puerto Rico and U.S. Virgin Islands. The Surf Zone Forecast (SRF) provides valuable and life-saving information pertaining to hazards in the surf zone to the beachfront community, including the general public and providers of beachfront safety services such as

lifeguards and emergency managers. The product uses inputs from NWS/SWAN model at 500 meters resolution and the high resolution CariCOOS models at 250 meters.

- **NOAA's National Geodetic Survey (NGS) 200 Million CORS Data Files**
Served: Users of the NGS-managed Continuously Operating Reference Station (CORS) network passed a notable milestone at the end of October, downloading the 200 millionth GPS data file from the network. These data enable users to determine centimeter-level positions consistent to the National Spatial Reference System (NSRS)—the coordinate system that defines latitude, longitude, height, scale, gravity, and orientation for the Nation. Via the CORS network, users are able to simultaneously process their own GPS data with data from the network to support three-dimensional positioning, meteorology, space weather, and geophysical applications. NGS dates back to 1807 when Thomas Jefferson signed legislation to establish the Survey of the Coast. The same basic techniques based on line-of-sight observations were used in geodetic surveying until GPS revolutionized the industry. This 200 millionth milestone exemplifies how NGS is steeped in tradition, while meeting the needs of its customers with accuracy and efficiency today and into the future.
- **CariCOOS Video on support to Pilots released:** This is the final version of a video (subtitled in English) of Port Pilot operations off the SW coast of Puerto Rico and the assistance to these provided by CariCOOS. Watch the video here:<http://youtu.be/ExqKs3zxP-4>

Congressional: No update.

Communications / Outreach / Education:

- **Press Releases on the Marine Bio Diversity:**
 - U.S. Initiates First National Network to Monitor Marine Biodiversity: <http://gisuser.com/2014/10/u-s-initiates-first-national-network-to-monitor-marine-biodiversity/>
 - “One Giant Step for Ocean Biodiversity,” UC SANTA BARBARA CURRENT- With 13 scientific investigators and 10 partner institutions, the marine biodiversity observation network (BON) centered on the Santa Barbara Channel is the epitome of collaboration. Funded with \$5 million by NASA, the Bureau of Ocean Energy Management (BOEM) and the National Oceanic and Atmospheric Administration (NOAA), the UC Santa Barbara-led project officially kicked off Thursday, Oct. 23, at UCSB's Marine Science Institute (MSI). <http://www.news.ucsb.edu/2014/014463/one-giant-step-ocean-biodiversity>
- **GLOS: Weather buoys ashore for winter after popular season - THE HOLLAND SENTINEL** <http://www.hollandsentinel.com/article/20141023/NEWS/141029519/10978/NEWS>
- **IOOS Web site update:**

- QARTOD Manual for Winds was added and notices were placed on Home page and in News Splash. <http://www.ioos.noaa.gov/qartod/welcome.html>
- Marine Sensor Innovation page was redesigned. http://www.ioos.noaa.gov/marine_sensors/welcome.html
- The San Pedro Buoy announcement: http://www.ioos.noaa.gov/ioos_in_action/stories/san_pedro_south_buoy.html
- Regional Glider table was updated. http://www.ioos.noaa.gov/glider/glider_days_2008-2013_web.pdf
- ATN Page added a link to the live map. http://www.ioos.noaa.gov/observing/animal_telemetry/welcome.html
- Zdenka's Eurogoos presentation: <http://www.ioos.noaa.gov/communications/presentations/welcome.html>

Upcoming Meetings with IOOS participation:

- **BlueTech & Blue Economy Summit 12-13 November:** IOOS and NOAA are sponsors of this conference put on by The Maritime Alliance, a cluster organizer for the San Diego maritime technology that fosters maritime business and technology innovation through collaboration around the U.S. and around the world. This year's conference will take place at the McMillin Companies Event Center in San Diego, CA. This year's theme is Promoting Sustainable, Science-Based Ocean Industries. Dr. Holly Bamford, NOAA Acting Assistant Secretary for Conservation and Management, will give the keynote. Dr. Rick Spinrad, NOAA's Chief Scientist, is the Dinner Speaker. I will chair the panel on Coastal Intelligence. Check out the impressive speakers Michael Jones has attracted. For more information and to register <http://themaritimealliance.org/2014/07/6th-annual-bluetech-summit/>. Hope to see you in San Diego.
- AOS 10th Anniversary Celebration - Anchorage Museum, 19 November: <http://www.aos.org/save-the-date-aos-10th-anniversary-celebration-nov-19th/>

View the IOOS

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

Cheers,

Zdenka

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Zdenka Willis

Director, US IOOS Program Office

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