

Bi-Weekly IOOS® Z-GRAM – 17 October

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

NEWS FLASH:

IOOS Announces the Release of a New Catalog: I am pleased to announce the latest version of the IOOS Catalog is now available at catalog.ioos.us. This version provides a landing page for users to explore the national and regional observing assets, models, and data services. IOOS is seen as a model by many agencies as a data management success story – a number of US and international agencies now look to the IOOS DMAC standards and implementation as a blueprint on how disparate data providers can share data using open standards. The Catalog provides the ability to discover distributed data services, datasets, and assets. Currently, the Catalog indexes hundreds of terabytes of data spread across over 4000 data access services that are available to anyone with an internet connection. It also provides basic service monitoring and can be used as a tool for improving the service metadata. The Catalog will be used for on-going DMAC system improvement, e.g. identifying datasets with poor or incomplete metadata, or non-compliant web services. Finally, it is a landing page that connects to each Regional Association's data portal and can be used to visualize the vast amount of data and services available from the federated system and highlight the value of IOOS Regional Associations and Federal Partners. We need your feedback! You may provide feedback through the "help" page in the upper right corner of the navigation bar, or by going to <http://catalog.ioos.us/help/feedback> directly.

NASA/BOEM/NOAA Announce Marine Bio Diversity Awards: From BOEM's Press Release: The Bureau of Ocean Energy Management (BOEM) plans to join NASA and the National Oceanic and Atmospheric Administration (NOAA) in supporting an initiative that will lay the foundation for the first national network to monitor marine biodiversity at scales ranging from microbes to whales. The projects, funded at approximately \$17 million over the next five years, subject to the availability of funds, will demonstrate how a nationally operational marine biodiversity observation network could be developed. Such a network would serve as a marine resource management tool to conserve existing biodiversity and enhance U.S. biosecurity against threats such as invasive species and infectious agents." Three demonstration marine biological observation networks will be established in four locations: the Florida Keys; Monterey Bay and the Santa Barbara Channel in California; and in the Chukchi Sea in Alaska. The United States has also been a leader in developing GEOBON, and this represents the first Marine BON projects. See the communications section below for the extensive press coverage.

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 for membership to the Committee 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.

- **2015 NOAA Student Scholarships Is Open:** NOAA's Office of Education is accepting applications for the 2015 class of undergraduate scholars. Applications must be submitted by January 30, 2015. Over 100 students are selected each year to participate in the Ernest F. Hollings and Educational Partnership Program (EPP) scholarship programs.

These generous scholarships include support for two years of study in the junior and senior year and summer internship opportunities at NOAA facilities, including IOOS Regional Associations, across the country. For information on these programs and how to apply:

Ernest F. Hollings Undergraduate Scholarship Program:
<http://www.oesd.noaa.gov/scholarships/hollings.html>

Educational Partnership Program Undergraduate scholarship:
http://www.epp.noaa.gov/ssp_undergrad_page.html.

Observing Subsystem and Sensor Technologies

- **High Frequency Radar/Radio** (Lead Jack Harlan, Jack.Harlan@noaa.gov): **No update.**

- **GliderPalooza 2014:** Last year's Gliderpalooza was a success with a total of 17 deployments from 14 different gliders. But Gliderpalooza 2014 is bigger and better. The number of gliders (20) and the 27 glider deployments so far this year has nearly doubled those from last year! This is a direct result of the increased number of participating groups, 17 this year compared to 12 last year, which has greatly expanded the spatial coverage of glider data collection from Newfoundland to the Gulf of Mexico, boosted the number of sensors and types of data being collected, and increased the amount of data available to the participating glider and modeling groups. There are currently 10 active deployments, <http://marine.rutgers.edu/cool/auvs/sfmc/>, with at least 12 more planned through the end of November.

- **Other Glider News:**

- MARACOOS/Rutgers, NJDEP, and Coast Guard Coordinate to Recover Glider Monitoring Water Quality. The Rutgers/NJDEP glider was recovered using the Coast Guard Cutter Finback, led by Officer in Charge, BMCS M.D. Buckman. The U.S. Coast Guard is evaluating what autonomous underwater vehicles (AUVs; Slocum gliders; Wave Gliders; etc.) will be of use to them in their operations and assessing whether their current assets (cutters, patrol boats, helicopters) can accommodate these AUVs (see article here: <http://www.uscg.mil/acquisition/>).
- Glider Deployed for Hurricane Gonzalo: Posted on: October 15, 2014 3:09 PM by: *Bermuda Institute of Ocean Sciences* - See more at: <http://www.bios.edu/news/glider-deployed-for-hurricane-gonzalo/#sthash.2u8vhzHS.dpuf>. While most items were being tied down in Bermuda this week as Hurricane Gonzalo took aim at the island, a yellow undersea glider named "Anna" will swim straight into the storm, piloted by a

BIOS scientist taking advantage of a rare opportunity to learn what happens below the ocean surface during a hurricane.

- **Under Keel Clearance (UKC) for the Port of Long Beach:** NOAA is working with the Long Beach pilots to providing a number of standardized environmental observations and forecast products that are within its operational portfolio. On October 15, 2014, the Coastal Data Information Program (CDIP) based at the Scripps Institution of Oceanography, deployed a wave buoy located in the separation zone of the San Pedro south bound shipping lane. The newly deployed San Pedro South Buoy, funded by the IOOS will be used by Jacobsen Pilot Service, Inc. for validating oceanographic conditions to ensure the safe transport of vessel traffic transiting at the Port of Long Beach. Data from this buoy is available through the CDIP website (<http://cdip.ucsd.edu/?&nav=recent&sub=observed>), the NOS PORTS website (<http://tidesandcurrents.noaa.gov/ports/index.html?port=ll>) and NWS National Buoy Data Center (NDBC) website (<http://www.ndbc.noaa.gov/>).

This buoy is one component of a larger project to ascertain the Under Keel Clearance (UKC) of commercial vessels. In collaboration with federal, state and industry partnerships, the Dutch company PROTIDE will develop a model that provides the UKC information. With funding from the Oil Spill Prevention and Response (OSPR) and the Port of Long Beach (POLB) for the initial assessment, The Marine Exchange of Southern California in San Pedro will serve as the management entity for this project.

- **Buoy for Catalina Sea Ranch:** The NOMAD buoy, transferred from NOAA, and facilitated by IOOS, arrived from Kodiak Alaska today! Catalina Sea Ranch expressed their appreciation. This platform will be used for remote and real-time monitoring over the Verizon network for the advancement of sustainable offshore mariculture and marine spatial planning.

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

- **QARTOD:** Thank you to the NOAA, IOOC, and International community for reviewing the Wind Speed and Director manual. We got great comments. We are updating now and expect to publish by the next Zgram.
- **System Integration Test:** Software development is winding down and expected to end this month. An initial outline of the findings is [available here](#) and will be refined over the course of the next 6-8 weeks.
- **IOOS DMAC Webinar:** Discussion continued on implementing [QARTOD](#) procedures at RA DACs. We have narrowed down the topic to QC test that could be applied for different parameter data sets. Tad Slawewski led the call and Dwayne Porter (NERRS CDMO Director/ SECOORA) gave an overview on the CDMO quality control procedures and the importance of having the data providers involved in the data review process. Next topic - writing a QC test specification document. The [next Webinar is November 19th at 3:00 PM ET](#). This month's webinar recording can be accessed [here](#).

Modeling and Analysis Subsystem

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

- **NOAA's Ecological Forecast (EF) Roadmap:** The [strategic vision document for the EF Roadmap](#) has been approved by the NOAA Line Office Deputy Assistant Administrators. Becky joined the EF Roadmap Infrastructure and Process (I&P) Team as the NOS co-chair. She will be representing IOOS, the COMT, and the Hypoxia Team on the I&P team to continue to connect the COMT and RAs to the EF.
- **West Coast Ocean Forecast System:** A kick off call was held this past week. The oversight teams have all met now and approved the work plans going forward. Alex Kurapov has begun developing the grid that will be tested and applied to the WCOFS after testing is complete. This is a joint project between NOAA's National Ocean Service (IOOS, CO-OPS and OCS) and NESDIS Line Offices.
- **NOAA's National Center for Environmental Prediction (NCEP) Strategic Planning Workshop:** NCEP is seeking stakeholder input for their next 5 year plan, Becky attended for IOOS. The plan is expected to be drafted by the end of 2014.

Interagency and International Collaboration/News:

- **New NOS Hypoxia Webpage:** Check [here](#) for National Ocean Services' new hypoxia page.
- **NOAA Initiates New Data Acquisition System for Creating Nautical Charts:** NOAA will use a unique source of data to create a new nautical chart requested by commercial pilots at the Port of Palm Beach, Florida. Hydrographic survey data acquisition by one of NOAA's navigation response teams will be supplemented—for the first time in NOAA charting history—by airborne topographic/bathymetric light detection and ranging (LiDAR) data collected by National Geodetic Survey (NGS). NOAA will use both types of data to create a chart with more information than the current chart, thereby helping to increase navigational safety and improve port operations. This project inaugurates a new and efficient data source for creating and updating more nautical charts, faster.

Delivering the Benefits:

- **PacIOOS Governors Council Meeting:** Inundation, streamlining data delivery, new sensors and sharks were all part of the discussions during the PacIOOS meeting. Over the past year, PacIOOS deployed new nearshore and water quality sensors. They redeployed the wave buoy in Majuro and unveiled a new inundation forecast in Majuro just in time to predict an event a week after the forecast went live. The good news is that PacIOOS has done an outstanding job of compiling data sets – now the challenge is how to optimize the Voyager portal. PacIOOS also has developed an impressive set of high resolution ocean models - the high resolution ROMS model was credited with saving 3 lives in a US Coast Guard rescue. The PacIOOS team and I also provided an IOOS update to DOD's Pacific Command and

hope to increase collaborations with PACOM. Read the full story and see my presentations

at: http://www.ioos.noaa.gov/ioos_in_action/stories/pacioos_gov_council14.html, http://www.ioos.noaa.gov/communications/presentations/pacioos_willis_oct2014.ppt, <http://www.ioos.noaa.gov/communications/presentations/pacom.pptx>

- **2015 Tide Tables are Available:** Did you know that since World War II, U.S. Coast Guard regulation 33 CFR 164.33 requires that all commercial vessels operating in U.S. waters must have copies of the annual tide and tidal current tables for their area? Read more on the NOS site at <http://oceanservice.noaa.gov/news/oct14/tide-tables.html>.
- **Improvements to NOAA's Center for Operational Products and Services (CO-OPS) Sea Level Trends Products:** The newly-redesigned Sea Level Trends section of the CO-OPS website is now online (<http://tidesandcurrents.noaa.gov/sltrends/>) which includes automated generation and updating of the graphics on the site. Improved navigation will make the site more useful to the public. All data displayed on graphs and tables can be downloaded in formats which can be easily read into spreadsheets.

Congressional:

- **Hill Visit:** Carl, Jen, and Mike Jarvis (OLA) met with staff from Representative Bonamici's Office (D-OR) and the House Science Committee, Environment Subcommittee (Minority).

Communications / Outreach / Education:

- **NERACOOS - New England Ocean Science Education Collaborative (NEOSEC) Ocean Literacy Summit:** The summit will take place on November 6 and 7 at the Woods Hole Oceanographic Institution. This year's focus is "the oceans and humans are inextricably connected" ocean literacy principle. Register by October 28, <http://www.neosec.org/>
- **Press Releases on the Marine Bio Diversity:**
 - BOEM Press Release on Marine Bio-Diversity
Awards: http://www.noaanews.noaa.gov/stories2014/20141006_boem.html
 - [U.S. Initiates Prototype System to Gauge National Marine Biodiversity](#) Scientific Computing-Oct 7, 2014 Marine biodiversity is a key indicator of ocean health and critical to ... project, Channel Islands National Marine Sanctuary, which surrounds California's Channel ...
 - [U.S. to Gauge National Marine Biodiversity](#) The Maritime Executive-Oct 7, 2014 Marine biodiversity is a key indicator of ocean health and critical to ... project, Channel Islands National Marine Sanctuary, which surrounds California's Channel ...

- [NOAA, NASA & BOEM to Monitor Biodiversity](#) MarineLink-Oct 7, 2014 Marine biodiversity is a key indicator of ocean health and critical to ... project, Channel Islands National Marine Sanctuary, which surrounds California's Channel ..
- [NOAA, NASA Fund Foundation Projects for National Operational ...](#) AZoCleantech-Oct 7, 2014 Marine biodiversity is a key indicator of ocean health and critical to ... project, Channel Islands National Marine Sanctuary, which surrounds California's Channel...
- The Ocean's Future: <http://www.edhat.com/site/tidbit.cfm?nid=141775>. Picked up a UC Santa Barbara press release touting a team of researchers, including NOAA Fisheries scientists, creating a comprehensive observation network that looks at a broad spectrum of marine organisms.
- Phys.org – Oct. 7, 2014: US initiates prototype system to gauge national marine biodiversity. <http://phys.org/news/2014-10-prototype-gauge-national-marine-biodiversity.html>
- U.S. begins planning for nationwide marine biodiversity monitoring system, CLIMATEWIRE: <http://www.eenews.net/climatewire/2014/10/08/stories/1060007047>
- [ROFFS™ Fishy Times Newsletter 39th Edition: NASA/NOAA Marine Biodiversity Grant, Still More on Sargassum & Great White Shark Battle](#)
- Santa Cruz Sentinel News, http://www.santacruzsentinel.com/news/ci_26698834/monterey-bay-part-u-s-marine-biodiversity-observation, Monterey Bay part of U.S. Marine Biodiversity Observation Network prototype.
- **AOOS announces Short Film Contest Winners:** Film topics ranged from focusing on species such as loons or sea otters, to conducting research in Alaska waters, to the realities of running a fishing boat in Bristol Bay, to the impacts of climate change through the eyes of students in Barrow. AOOS staff and contest judges were extremely impressed by the 32 films (including 8 youth films) submitted to the AOOS 10th Anniversary Short Film Contest. Entries were 10 minutes or less and could address any aspect of Alaska's marine environment, issues, or inhabitants.
 - Youth Division:
 - Winner: Wilderness Explorers Day Cruise, Arina Filippenko and Calesia Monroe
 - Best treatment of a complicated subject: Kodiak Crab Divers and Hatchery Red King Crab, Marina Cumminskey
 - Overall
 - Judges Choice: Siblings at Sea, Charlie Ess
 - Honorable Mention: Grateful for Salmon, Margaret Bursch
 - Best treatment of a complicated subject: Gyre: Art from a Plastic Ocean, JJ Kelly
 - Best Editing: The Science Behind Managing Shark Populations in Alaskan Waters, DeAnna Morris
 - Best Videography: Spring Passage, Patrick Farrell

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.
- **AOOS 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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