

Bi-Weekly IOOS® Z-GRAM – 13 June 2014

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

From the IOOS Program Office:

- **Certification PUBLISHED:** I am pleased to announce that the final rule to certify Regional Information Coordination Entities was published 7 June. This is the last step in a long process that began with the development and approval of the Interagency Ocean Observing System Committee (IOOC) Certification Criteria, and opens the opportunity for Regional Associations to become certified entities of the U.S. IOOS®. View the final rule at: <https://www.federalregister.gov/articles/2014/06/05/2014-13034/us-integrated-ocean-observing-system-regulations-to-certify-and-integrate-regional-information>. There is a 30 day waiting period, starting on the publishing date, before the final rule goes into effect. This means the IOOS Office will officially accept applications to become certified starting on July 7, 2014. We are revising the certification webpage <http://www.ioos.noaa.gov/certification> to post the final rule, the application form and instructions, and a document that provides guidance on meeting each of the requirements in the rule. Throughout this effort, my team, and specifically Dave Easter as lead, worked closely with the IOOS Association, the Regional Associations, the IOOC, National Ocean Service, NOAA and DOC General Council offices to get to this point – thank you to all for their hard work in making this possible.
- **New GCOOS Executive Director:** Congrats to Dr. Barbara Kirkpatrick who was named as the new GCOOS Executive Director. Dr. Kirkpatrick has been a member of the GCOOS-RA, representing Mote Marine Laboratory, since 2005 and has been serving in her second term on the GCOOS-RA Board of Directors. Dr. Kirkpatrick brings a wealth of expertise on Gulf of Mexico public health issues such as Harmful Algal Blooms and water quality monitoring.
- **Congratulations to SCCOOS:** SCCOOS was an honored recipient of a San Diego Coastkeeper's Coastal Champion Award! SCCOOS received the award for their support of the Areas of Special Biological Significance online portal. The Annual Coastal Champion Awards are given annually to people, businesses, and organizations that protect San Diego County's water. "Thanks to SCCOOS, we will soon have top-notch technology powering a data portal to provide the time, date and myriad other information about our [Areas of Special Biological Significance](#) to support data-driven decisions in their management. State law requires we prevent all--yes 100 percent of--pollution from finding its way to these special places." More information about this year's award recipients can be found at <http://www.sdcoastkeeper.org/blog/other-green-thoughts/item/462-allow-us-to-introduce-our-2014-coastal-champions.html>

Observation Subsystem and Sensor Technologies:

- **High Frequency Radar/Radio:** (Lead Jack Harlan, Jack.Harlan@noaa.gov):

o **Training on New San Francisco Navigation Tools:** NOAA's Center for Operational Oceanographic Products and Services (CO-OPS), in coordination with the local Navigation Manager, CenCOOS, and NOAA's Regional Coordinator spent last week promoting and providing training on many new tools available to the San Francisco region. They met with the San Francisco Bar Pilots, the Marine Exchange of the San Francisco Bay Region, the Monterey NWS Weather Forecast Office, and San Francisco Harbor Safety Committee. The products discussed included: San Francisco Physical Oceanographic Real-Time System (PORTS), San Francisco Operational Forecast Model, Surface Currents measured by High Frequency Radar, Updated Tidal Current Predictions from recent two year survey, NOAA Current Predictions Tool

o **Mona Island Sentry Experiment 2014:** Rutgers University and the University of Puerto Rico Mayaguez, CariCOOS, conducted their second High Frequency Radar Experiment in the Mona Passage as part of the Department of Homeland Security National Center for Secure and Resilient Maritime Commerce. The team installed and tested a 13 MHz bistatic transmitter from the cliffs of Mona Island and aboard the M/V Mariangie. Different deployment configurations were tested to determine which were optimal for increased radar coverage. The signal from the transmitter was received by two SeaSonde HF radar stations deployed on the west coast of Puerto Rico. The 2014 experiment focused on detecting vessels that were visible to both radars simultaneously. See pictures

at: https://www.flickr.com/photos/rutgers_cool/sets/72157645092525005/

- **US IOOS Marine Sensor Innovation Project at Work:** We funded two projects in FY13: (1) Ocean Acidification support to the shellfish industry - under that effort, the beta aragonite saturation state prototype monitoring equipment ('Burke-O-Lators') are currently being installed in California and Alaska. NANOOS has almost completed the OA data portal, which will make ocean acidification data from SCCOOS, CeNCOOS, PacIOOS, AOOS, and NOAA Pacific Marine Environmental Laboratory (PMEL) available online; (2) Through NERACOOS and WHOI, the Environmental Sampling Processors (ESP) have now been working superbly in their 6th week of deployment. This is the first time we have been able to deploy an array of these sensors. It is great to see that they continue to operate in superb fashion.
- **Gliders at work:** Scripps Institution of Oceanography/University of California, San Diego issued a press release on their researchers tracking of El Niño and its impacts on the Southern California climate. An autonomous underwater glider known as 'Spray' is monitoring water temperature and other parameters off Dana Point, Calif. Scripps physical oceanographer Dan Rudnick said the [Southern California El Niño Index](#) produced from Spray data so far strongly agrees with the [El Niño/ Southern Oscillation Diagnostic Discussion](#), a measure of El Niño published by NOAA based on temperature data collected at the equator. Currently NOAA forecasts a probability of El Niño conditions 70 percent during the Northern Hemisphere summer and reaching 80 percent during the fall and winter. The Spray data are distributed by ([SCCOOS](#)). The official press release and accompanying images can be found at: <https://scripps.ucsd.edu/news/el-niño-shaping-southern-california>

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:**

- The Wind Speed and Direction committee is finalizing their comments on the first draft of the new manual on this subject. Heads up: 2 month RA review will start in early July.
 - Preliminary work has begun to organize the new Optics Committee, which will formally kickoff in October when the Ocean Optics work gets underway.
 - Marine Technology Society (MTS) published a QARTOD report on the new Water Level manual recently released. The article will appear in the summer issue of Currents. LinkedIn has also been updated to reflect the new Water Level manual.
- **Want to understand what underpins ALL Earth Observations? The National Geodetic Survey (NGS) will present NGS 101 Webinar: "A Conversation with the National Geodetic Survey."** In collaboration with the GeoCue Group, Brett Howe, NGS Geodetic Services Division Chief, will conduct the webinar on June 26 at 4:00 pm (EDT). Brett will outline how NGS fulfills its mission to "define, maintain, and provide access to the National Spatial Reference System to meet our nation's economic, social, and environmental needs" and how NGS is, for the United States and its territories, the Federal authority for precise positioning information. You may register for the webinar at GeoCue's website at <https://www4.gotomeeting.com/register/836355767>. For more information, contact: Brett.Howe@noaa.gov
 - **Past DMAC Webinars:** Rob Bochenek, Information Architect at Axiom Consulting & Design presented an overview of their system approach to integrating data in AOOS and CeNCOOS and demonstrated web portals that integrate data and visualization techniques, which they have applied. The Webinar recording is accessible [here](#).
 - **Future DMAC Webinars:** We are scheduling future Webinars now. If you have an idea for a data management or information topic that you would like to see or present yourself, please contact Rob.Ragsdale@noaa.gov.
 - **Animal Telemetry Activity:** GCOOS and SECOORA co-sponsored a workshop on Integrated Tracking of Aquatic Animals in the Gulf of Mexico (or iTAG). The workshop was organized and hosted (May 29-30, 2014) by Florida Fish and Wildlife Research Institute (FWRI) in St. Petersburg, FL. This event brought together approximately 40 participants (technologists, scientists, data managers and administrators) from National State and Federal government agencies, academic, NGOs and private industries and international partner Ocean Tracking Network (OTN)-Canada. The goals of the workshop were to bring together these groups involved in animal telemetry, fisheries science and coastal ocean observing to address the needs, advance science, establish data sharing and exchange policies, and to improve coordination and increase spatial infrastructure in the Gulf of Mexico, neighboring Southeast and Caribbean. The participants discussed the benefits of such coordination of iTAG efforts in the Gulf, and one of the outcomes from this workshop was to coordinate with GCOOS and SECOORA to leverage their coastal ocean observing infrastructures, especially the data management and outreach components to establish a web presence for a membership based animal telemetry group. The group also emphasized continuation of dialog on iTAG, and overwhelmingly agreed on the necessity for having such workshops in the future to foster leveraging and better coordination of animal telemetry efforts. All presentations and a complete workshop report will be posted shortly.

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.

- **IOOC Modeling Strategy Team:** The team will meet in DC on June 18th. Representatives from the Storm Surge Roadmap, the Ecological Forecasting Roadmap, and the COMT as well as several NOAA Line offices, other agencies, and RA members of the steering team will be in attendance.
- **COMT establishes the Technical Steering Group (TSG):** For each round of projects, a TSG is stood up. Members will be engaging with specific projects teams and assisting in getting the projects through the testing in the Testbed and through transition. Thank you to our new TSG:
 - o Patrick Hogan, NRL
 - o Pat Burke, NOAA/CO-OPS
 - o Ed Myers, NOAA/CSDL
 - o Bill Boicourt, UMCES
 - o John Lehrter, EPA
 - o Rich Signell, USGS
- **NOAA's Ecological Forecasting Roadmap Meeting:** All presentations, associated documents, and recordings of the plenary webinars can be found on the meeting's [Google site](#). If you do not have access you can contact Shari Hales, shari.hales@noaa.gov and she can add you to the site.

Interagency and International Collaboration/News

- **GEO Appathon:** Develop a new App using Earth observation data from the data sets in the GEOSS Common Infrastructure! The Appathon runs from May 7 to August 31. www.geoappathon.org. Check out the video produced by the U.S. Mission in Geneva at http://youtu.be/5sEH8go_DC1.

Delivering the Benefits:

- **MTS TechSurge Meeting on Technical Support for Coastal Resiliency on June 3 - 4 in Norfolk, VA.** See www.mtshamptonroads.org for last week's TechSurge agenda and slides that will be posted shortly. The event kicked off a 2 year pilot project to address sea level rise in the Hampton Roads region using a Whole of Government plus industry approach. The project has the full support of the White House, Pentagon, State and local governments. Navy is a huge player. Ray Toll ran this meeting, following a theme of Fed/non Fed data integration to support this 2 year effort. NOS leadership Dr. Russell Callender, Dr. Rick Spinrad, the EPA Administrator among many others attended. MARACOOS will be the integrating agent.
- **CO-OPS Collaborates with NWS on Improving Rip Current Forecasting:** NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) oceanographers developed a new rip current forecast model that is being tested this summer at NWS Weather Forecast Offices (WFOs) in Newport/Morehead City, NC and Miami, FL. The forecast model predicts the likelihood of hazardous rip current occurrence given wave field and water level inputs and improves upon present forecast methods. An improved rip current forecast system will benefit both lifeguards and beachgoers resulting in more effective outlooks and statements issued by NWS

forecasters. The forecast model is coupled with the NWS Nearshore Wave Prediction System which will enable eventual expansion to other WFOs in the future. This project is the result of ongoing collaboration between CO-OPS, NWS, and external partners.

- **Coast Survey Improves Public Access to Hydrographic Survey Reports:** NOAA's Office of Coast Survey (OCS) has improved access to a new metadata format for descriptive reports that accompany every hydrographic survey. This metadata is essential for evaluating the survey, updating charts, and contributing to NOAA's historical and legal archive. The reports make it easier to share data between Coast Survey and the National Geophysical Data Center. It also helps integrate information from other branches of NOAA and the wider survey-interested community.
- **First Yukon River Chinook arrive in the Delta:** This effort supports NOAA's Fisheries management responsibilities. The first Chinook observed and reported in the Yukon delta occurred 2 weeks ago, on May 19. The official outlook and forecast has been updated with the most recent environmental data. Researchers from NOAA Fisheries and the Alaska Department of Fish and Game, with the support of the AOOS, have identified a combination of spring conditions that is closely related to the timing of Chinook salmon on the Yukon delta. 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 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. For more info: <http://www.aos.org/2014-yukon/>

Congressional: No Update.

Communication / Outreach / Education:

- **Group on Earth Observation (GEO) - Oceans and Society:** Blue Planet launched their twitter account. Follow them at [@GEOBluePlanet](https://twitter.com/GEOBluePlanet).

Upcoming Meetings with IOOS participation: No update.

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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