

Bi-Weekly Z-GRAM - 4 Sep 2009

[www.ioos.gov](http://www.ioos.gov)

The Z-Gram is an informal way of keeping you up-to-date on 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® - Our Eyes On Our Oceans, Coasts, and Great Lakes.

### **Programmatic:**

- Congressional Report: **No change.**
- FY09: It is close out time for us in the Program office

### **Initial Operating Capability - Data Management and Communications (DMAC) subsystem of IOOS®**

- **What the DIF:** For all documents and information, please visit the [www.ioos.gov](http://www.ioos.gov) website.
- **CUSTOMER IMPLEMENTATION:**
- **REGIONAL DIF IMPLEMENTATION: On track.**
- **DIF ENHANCEMENTS:**
  - Ocean Color:Data Content Standards: Updates to the IOOS/DIF ocean color DCS have been coordinated with CoastWatch's Phil Keegstra and NCDDC Rost Parson and Julie Bosch. There are several outstanding issues with the test reports that need to be resolved with CoastWatch; Marcia is working with new CoastWatch program manager Kent Hughes and Phil to resolve. Final documentation (including test reports) and posting of the final data content standards will be posted after review.

**Interagency Project Collaboration:** The Z-Grams are certainly focused on providing information on IOOS® connections to these projects and it is not intended to provide programmatic updates of these specific projects because they all have project leads.

- **Interagency Modeling Activities:** No update
- **IOOS and Links to the National Water Quality Monitoring Network:** The next meeting is September 14.
- **IOOS and National Science Foundation (NSF) - Ocean Observatories Initiative (OOI):** No update.
- **USGS National Hydrologic Modeling Structure Workshop, Denver, CO :** Attended by Rich Signell, the USGS is planning to use the same approach used in the IOOS Regions to serve CF-compliant data via OPeNDAP (a DMAC-approved standard for gridded data). They will use NcML to allow existing non-standard NetCDF files to be served via the THREDDS Data Server
- **National Surface Current Monitoring Plan Released:** The U.S IOOS has published "A Plan to meet the Nation's Needs for Surface Current Mapping.". Go to [www.ioos.gov](http://www.ioos.gov) to

download your copy. Responding to clear requirements for increased and improved coastal surface current measurements throughout United States coastal waters, NOAA and its regional IOOS partners - including Federal, state, academia and industry - developed this Plan to create a national surface current measurement, nowcast, and forecast capability. The most cost-effective technology for meeting the present-day requirements of the 21st century is High Frequency Radar (HFR). The technology measures speed and direction of ocean surface currents in near real-time to improve search and rescue, oil spill response, harmful algal bloom monitoring, water quality assessments, and more. When evaluated retrospectively, these data also provide value in ecosystem assessments and fisheries management. My sincere thanks to Jack Harlan for his leadership in this effort, to our Regional HFR team who is operating this system TODAY, and to the Alliance for Coastal Technologies for their support in pulling this plan together. If you have questions please contact Jack Harlan - [Jack.Harlan@noaa.gov](mailto:Jack.Harlan@noaa.gov).

### Other:

- **The Scarlet Knight (RU27):** When I last wrote, the Rutgers team was en route to investigate the cause of the strange behavior of Scarlet Knight. The best way to understand what took place is to read the blog. It was an amazing team effort that has allowed Scarlet Knight to surge ahead on the final 1800kms. Last year with the loss of RU17 we never knew what the glider encountered, now with the mission to survey the glider we have a much better understanding on the biology and its effects on these types of missions. The Rutgers team learned how to re ballast at sea without taking the glider out of the water, something that had only been done in a lab. The strides this mission has made in helping the technology develop is as important as the scientific data she is collecting. Speaking of that, throughout the mission the team has been evaluating satellite SST, altimeter maps against the HYCOM model. This is quoted directly from Scott's blog of yesterday: "I have been in the ocean forecasting business for 3 decades (yikes), and I am still amazed by what we discover about the ocean models as we path plan for this trip. On the sea surface temperature map, we've outlined the front that defines the series of warm and cold filaments we are flying into. Next we superimposed the digitized front from the SST on the altimeter map of surface currents, and the agreement was amazing. This builds confidence that our roadmap, in this case constructed from two different satellites, is good. Two independent measures of the structure and they both agree. Again I was just amazed at the agreement between the model and the two different satellite datasets. Hats off to the modelers, but now, a proposal. We have the opportunity to do an Observing System Simulation Experiment right here, except it would be real instead of simulated. Usually we fly these long distance glider missions along fronts, trying to find favorable currents that also usually run along the fronts. But data assimilative models want data along paths that run perpendicular to fronts. That's why a glider is one of the most efficient adaptive sampling systems we can build. It uses the ocean currents to move it along a front, but unlike a drifter, the gliders can use their own velocity to zig-zag back and forth across the front as the currents take it downstream. As RU27 heads east across these filaments towards Spain, even though we are flying straight, we will be crossing a series of filaments as the front zig-zags beneath us. We can collect all that data and email it down

to Stennis Space Center every morning where they assimilate it into the HYCOM model. We could check how much influence the glider data has on defining the structure of these filaments that are already looking pretty good in the surface data." So I leave this to my Navy colleagues to take Rutgers up on their offer. RU27 is about the cross one of Earth's largest features, the Mid-Atlantic Ridge. Keep in the loop: <http://www.i-cool.org/?cat=38>

- **Thoughts for our colleague Mark Luther:** While out servicing oceanographic equipment for the NOAA PORTS system, Mark was seriously injured when he was caught between his boat and the actual equipment when a larger vessel passing by created a wake. Mark has undergone surgery and is now recovering and I wanted him to know that all of us in the ocean observing world are thinking about he and his family. Mark has been there from the start of this IOOS endeavor and one of ocean observing's strongest supports. As another very good friend of mine stated when he heard about this unfortunate accident: "Although beautiful, the water is an unforgiving environment." Dr. Luther is director of the Ocean Monitoring and Prediction Lab in the University Of South Florida College Of Marine Science, where he co-directs the Coastal Ocean Monitoring and Prediction System.
- **IOOS Regional Coastal Component Meeting:** From August 24-27, representatives from the 11 Integrated Ocean Observing System (IOOS) regions, the Alliance for Coastal Technologies (ACT), the National Federation of Regional Associations, NOAA, academia, and other Federal agencies gathered in Seattle, WA, for the fourth annual IOOS Regional Workshop. Each of the RAs and ACT provided a briefing of their accomplishments and then we spend the next 1.5 days looking forward. The progress has been incredible. I encourage all of you to view the presentations at [www.ioos.gov](http://www.ioos.gov). At the conclusion of the meeting, the IOOS RAs participated in NOAA's Next Generation Strategic Planning effort and provided feedback through NOAA's Western Regional Team to NOAA's Planning, Programming and Integration Office.
- **Ocean Policy Field Meetings of the Ocean Policy Task Force.** The first of five scheduled hearings for the Ocean Policy Field Meetings of the Ocean Policy Task Force (<http://www.whitehouse.gov/administration/eop/ceq/initiatives/oceans/>) was held last week in Anchorage, Alaska. Molly, AOOS, was very involved in the Alaska meeting. I encourage the IOOS RA's to get involved at the next four hearings:
  - September 17 in San Francisco, California
  - September 24 in Providence, Rhode Island
  - September 30 in Honolulu, HI
  - September 28 or October 7 in Cleveland, Ohio (TBD)
  - October 19 in New Orleans, Louisiana (TBD)
- **Fifth Meeting of the Quality Assurance of Real-Time Ocean Data (QARTOD) Working Group will be held November 17-19, 2009** at Omni Hotel in Atlanta, Georgia: QARTOD is composed of oceanographers, data managers and data providers from agencies interested in addressing the quality assurance and quality control issues of evolving ocean observing systems, such as the Integrated Ocean Observing System (IOOS) community. The QARTOD V meeting will focus on the quality control of some different physical ocean parameters from past QARTOD meetings (e.g., conductivity, dissolved oxygen, turbidity, and pH) as well as provide additional input for parameters such as waves and ocean currents to complete the QARTOD To Open Geospatial

Consortium (OGC) or Q2O effort. More information on Q2O can be found at <http://q2o.who.edu>. We will also explore ways to expand our interaction with similar international efforts. Please register at <http://qartod.org> and forward this announcement to others who share in our goals & interests. This meeting is sponsored by NOAA's National Data Buoy Center.

**Congressional:** No update.

**Communications:**

**Upcoming Meetings:**

- 9-11 September: OOI/CI Planning Meeting - NOAA IOOS (Ops) to participate
- 21-25 September: OceanOBS09: Zdenka Willis and Jeff de La Beaujardiere to represent NOAA IOOS
- 26-29 October: MTS/IEEE Oceans 09 - US IOOS and OOI - Ocean Observing for the Nation

Cheers,  
Zdenka