## SOUTHERN CALIFORNIA COASTAL OCEAN **OBSERVING** SYSTEM

## SCCOOS NEWS

**November Issue** 

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Date	Activity
September 29 - October 1	Port of Long Beach Under Keel Clearance Strategy Meetings
October 6-7	Vietnam Ocean Data and Information Center Meetings
October 17	SCCOOS Board Executive Committee Conference Call
October 22	Central and Northern California Ocean Observing System (CeNCOOS) Staff Luncheon
October 22-23	United States Geological Survey California Seafloor and Coastal Mapping Program Workshop

SCCOOS NEWS

Join us in our Fond Farewell of Laura Lilly, our Sea Grant Fellow

Laura's Sea Grant Fellowship was a collaborative effort between the <u>West Coast Governors Alliance on Ocean Health</u>, the <u>Network Association of Networked Ocean Observing Systems</u>, <u>Central and Northern California Ocean Observing System</u>, and <u>SCCOOS</u>.

The fellowship was centered around using oceanographic data obtained from the West Coast Ocean Observing Systems (NANOOS, CeNCOOS, and SCCOOS) for coastal managers via the WCGA Ocean Data Portal. Laura focused her work even more by creating data driven oceanographic products with marine debris and ocean acidification applications. The details of her work is highlighted on the <u>SCCOOS</u> project page.

Laura's magnetic personality will be missed, but all are very excited to see what her future will hold. We all hope that this isn't goodbye, rather a see you soon!



U.S. Integrated Ocean Observation System (U.S. IOOS) Funds Port of Long Beach Buoy Deployment in Support of Under Keel Clearance of Commercial Vessels

A newly deployed CDIP San Pedro South Buoy and customized website, funded by the U.S. Integrated Ocean Observing System (IOOS), will be used operationally by Jacobsen Pilots for validating oceanographic conditions to ensure the safe transport of vessel traffic transiting at the Port of Long Beach. 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) for the initial assessment, The Marine Exchange of Southern California in San Pedro will serve the management entity for this project. as

Wave data are extremely important during a high swell event. Vessels can pitch and roll, affecting their draft and potentially hitting the ocean bottom. Combined, the Port of Los Angeles and the Port of Long Beach are the busiest ports in the United States for vessel transport. Assuring the safety and operations of vessel traffic is a vital component to our nation. The IOOS funding for this buoy is in collaboration with the US Army Corps of Engineers and the California Department of Parks and Recreation.



## West Coast Beaches Monitoring for Fukushima Radiation

In March 2011 a 9.0 magnitude earthquake off the coast of Japan resulted in a meltdown of 3 reactors which led to the release of cooling waters containing short-lived radio nucleotides into the Pacific Ocean. This plume is now approaching the U.S. West Coast, and is expected to migrate into the California Current and eventually along our coast.

An effort is underway to establish a radiation sampling and processing capability at Scripps that will be responsive to this emerging potential health risk. The analyses are focused on Cesium 134 and 137, which have half-lives of 2 and 30 years. The effort is an opportunity to provide a platform from which future ecosystem studies can be based. So far this project has included;

- The collection of daily water samples via the <u>SCCOOS's shore station program</u>, funded by California Dept. of Boating & Waterways, is being leveraged for this project.
- A method for water samples to be analyzed by Scripps Institution of Oceanography's Scholar, <u>James Day</u> is currently underway with support from an private donor.
- The water samples collected thus far are analyzed by Ken Buessler at Wood's Hole Oceanographic Institution (WHOI) with support from the Pacific Blue Foundation.

You can learn more about marine and environmental radiation via the WHOI portal - <u>our radioactive ocean</u>. In the near future, SCCOOS will work with Scripps Institution of Oceanography to post local data on our websites as well.



**Figure 1**. Projected migration of the Fukushima radiation plum (Cesium 137) from Japan across the Pacific Basin. The plume is expected to reach the U.S. West Coast in 2014 - A) April 2012, B) April 2014, C) April 2016, D) April 2021 From Rossi et al. *Deep Sea Research Part I: Oceanographic Research Papers, Vol.82, Dec. 13, Page 72.* 

SCCOOS Research Associate, Melissa Carter, has been appointed to the Interagency Ocean Observation Committee (IOOC) Biological Integration and Observation Task Team (BIO-TT)

Please join us in congratulating, Melissa Carter, whom has been accepted by the IOOC to their latest Task Team. The IOOC was created by the Integrated Coastal and Ocean Observation System Act of 2009 and oversees efforts to develop the National Integrated Coastal & Ocean Observing System.

The goals of this team is to improve the availability of observations and to identify and prioritize biological and ecosystem observation needs. Melissa will be helping to formulate recommendations for the future planning of U.S. Integrated Ocean Observing System (IOOS) <u>biological variables</u>. She will attend a workshop in early November that will work to accomplish an inventory of existing sources of core variables, including recognized data standards, and identification of plans and partners to facilitate integration into IOOS in the future.



Join us in Welcoming Cal Poly's new Physical Oceanographer, Ryan Walter

Ryan Walter recently joined the Physics Department at California Polytechnic State University in San Luis Obispo as a physical oceanographer. Ryan received his B.S. in Civil and Environmental Engineering from Cornell University, and is M.S. and Ph.D. from Stanford University, where he worked in the Environmental Fluid Mechanics Laboratory. He also conducted field studies in Monterey Bay. His research focuses on physical processes in the nearshore and coastal environment, including transport and mixing due to internal waves and bores, upwelling dynamics and frontal features, and the physics of coastal hypoxia.



CalPoly is on the border of CeNCOOS & SCCOOS, and Ryan will participate in issues relating to both regions. Welcome to the Ocean Observing family Ryan, we all look forward to working with you!

## Announcement - U.S. IOOS releases a new Quality Assurance Real Time Oceanographic Data (QARTOD) Manual for Wind Speed and Direction



Manual for Real-Time Quality Control of Wind Data

A Guide to Quality Control and Quality Assurance for Coastal and Oceanic Wind Observations

DARTOD

Version 1.0 October 2014 The QARTOD projects ensure a systematic process for establishing standard procedures for the quality assurance/quality control (QA/QC) of key ocean observation data. Each manual provides a check list of QC tests for data collected in real-time and includes control steps for the sensors, in addition to those for collected data, which are critical to guaranteeing quality of the data. Each test contains codeable instructions for implementation and assumes the involvement of knowledgeable scientists, engineers, programmers, and technicians. Suggestions for QA best practices are provided in the appendix as a courtesy to the manual user.

This <u>manual</u> is the 6th in a series of similar quality control manuals that IOOS has published. This project was conducted in partnership with NOAA's National Data Buoy Center, and are a giant stride forward for U.S. IOOS in documenting the best practices for QA/QC for the ocean observing community.

