



# SCCOOS News

The IOOS Regional Association Serving Southern California

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August/September 2015 Issue

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## July & August 2015 Activities



July 1	Marine Plastics Meeting with Representatives from EPA
July 2	Los Angeles Hyperion Diversion Meeting
July 6-10	Senate Ocean Caucus Briefing in Washington DC
July 10	Presentation to SIO's Center for Marine Biodiversity & Conservation Grad Students
July 16	Meeting with the National Weather Service San Diego Forecasting Office
July 20-24	Data Management Training—THREDDS conference in Boulder, CO
July 27	Esri User Conference
July 29	Ocean Protection Council Meeting
July 29	U.S. Coast Guard Commandant Visit
July 30	SCCOOS Visits the Carlsbad Aquafarm
August 4	NOAA Leaders Manson Brown, Russell Callender and Richard Spinrad Visit with SCCOOS at Scripps Institution of Oceanography
August 8	San Diego Area Committee Meeting
August 24 & 25	Climate Change Symposium in Sacramento



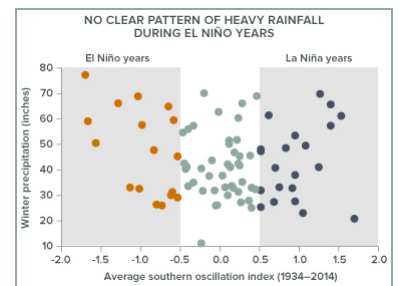
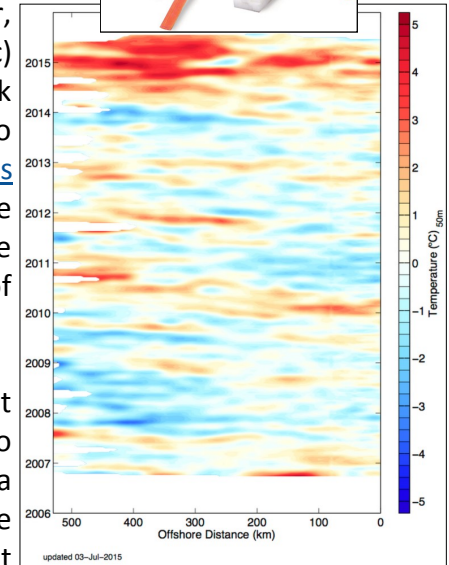
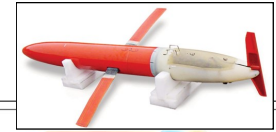
## Forecasters Estimate El Niño Strength and it's Potential Impacts

Dan Rudnick, a SCCOOS researcher and Executive Steering Committee Chair, was recently interviewed by the [OC Register](#). Dan currently has [gliders](#) (top pic) in the water at the equator and off the coast of California that report back ocean temperatures (middle pic) that are one tool in the toolbox that is used to increase our understanding of El Niño. The most recent [El Niño predictions](#) indicate that there is a 90% chance that El Niño conditions will continue through winter and a 80% chance that it will continue through spring. In the article, Dave Pierce (SIO climate scientist) mentioned that the understanding of an El Niño in California can result in a wet winter, but that isn't guaranteed.

Alongside everyone's concerns about an impending El Niño, are concerns about the drought conditions in California. Therefore, SCCOOS wants to point you to [blog](#) written by Dan Cayan, a climate scientist at SIO and Jeffrey Mount, a senior fellow at Public Policy Institute of California. Both the article and the blog can help one wrap their mind around what an El Niño can be and how it may effect us in the coming months (bottom pic).

Here are a few facts regarding past El Niño's that the OC register included in their article;

- 1. 72/73 El Niño:** Ocean Temps indicate a strong event, but only an average amount of rain fell (11 inches in Southern California).
- 2. 82/83 El Niño:** brought increased rain, snow and winds that killed 36 people, injured 481 and caused \$1.2 billion in damage to California's economy.
- 3. 97/98 El Niño:** More rain fell then in the 82/83 El Niño, but caused less damage because Californians were more prepared.



## Team DuraFET Awarded for the Development of pH Sensors for Ocean Acidification Monitoring



Team DuraFET (left) is comprised of experts from Monterey Bay Aquarium Research Institute, Scripps Institution of Oceanography, Sea-Bird Scientific and Honeywell. For the last 7 years this team adapted a Durafet pH sensor to work at high pressures in the deep ocean. Todd Martz, a SCCOOS Subject Matter Expert on Ocean Acidification, participated in this effort and said, "This sensor would not exist without a strong partnership between leaders from both industry and academia, so it is a satisfying feeling to see a working technology come out of the long days and nights spent in the lab by scientists at Honeywell, the Monterey Bay Aquarium Research Institute, and a number of excellent graduate students at Scripps." Team DuraFET will donate their \$250,000 prize to the [Argo](#) ocean observing program which will allow this program to broaden its' mission to include ocean acidification.

Los Angeles’ Hyperion Water Reclamation Plant Diversion September 21-October 26, 2015

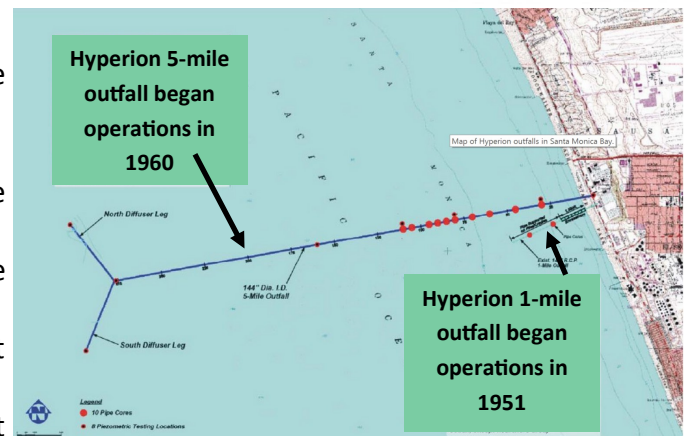
The City of Los Angeles will divert the Hyperion Water Reclamation Plants effluent from its 5-mile outfall to its auxiliary 1-mile outfall. The diversion is currently scheduled for September 21-October 26, 2015. Effluent will be switched from the 5-mile outfall to the 1-mile outfall with an average of 250 million gallons per day (mgd) over this 5 week period.

The Hyperion Environmental Monitoring Division (EMD) has an effluent and receiving water monitoring plan that is compliant with the Regional Water Quality Board and the EPS permit regulations and is as follows;

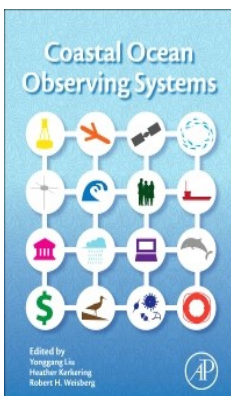
1. Effluent Monitoring: Toxicity Testing
2. Shoreline Monitoring: Microbiology and Chlorine testing
3. Nearshore and Offshore Monitoring: Microbiology, Chlorine, Nutrients, Phytoplankton, Benthic Macrofauna/Sediment Chemistry and Sediment toxicity testing

Hyperion’s EMD has reached out to the ocean observing community and is using their instrumentation and expertise to provide an accurate picture of the ecosystem during the project. Those assets and affiliates are;

1. SCCOOS High Frequency Radar derived surface currents as displayed on the SCCOOS website.
2. NASA/Jet Propulsion Laboratory Satellite images
3. UC Santa Barbara’s Current Drifters will provide current velocities
4. UC San Diego/SIO Wirewalkers that measure the vertical location of the plume
5. Continuous Surface Mapping using a data sonde at predetermined water quality stations
6. Profiling CTD for vertical profiling of the plume at predetermined water quality stations
7. [SCCOOS Integrated Webpage](#) will be used as a portal to determine daily operations



Coastal Ocean Observing Systems Includes a Chapter Written by Julie Thomas and Lisa Hazard



In June 2015 the book titled, [Coastal Ocean Observing Systems](#) was released in response to a 2014 Ocean Sciences meeting session #009 called, “Scientific and Societal Benefits for Integrated Coastal Ocean Observations and Networked Marine Laboratories”. The lead authors for Chapter 10 called, “How High-Resolution Wave observations and HF Radar-Derived Surface Currents are Critical to Decision-Making for Maritime Operations” are Julie Thomas (SCCOOS Executive Director) and Lisa Hazard (Operations Manager, Coastal Observing Research and Development Center—CORDC). The book emphasizes a healthy relationship with the ocean requires that we understand it and one way is through Ocean Observing.

## Senate Ocean Caucus Briefing, “Making a Difference: Why Ocean Observing Matters”

On July 9, the [Senate Ocean Caucus](#) alongside the [U.S. IOOS Association](#), sponsored an informational briefing in the Russell Senate Office Building. Brandon Elsner (pic bottom right), Legislative Assistant for Senator [Wicker \(R-MS\)](#), provided opening remarks. Vice Admiral Manson Brown ([NOAA Asst. Secretary](#) for Environmental Observation and Prediction), Captain Kip Louttit (Executive Director for the [Marine Exchange of Southern California](#)) and Dr. Michael Macrander ([Shell Arctic Program](#)) all spoke about the value of sustaining ocean observations and the practical application of those observations in their daily operations.

The caucus was moderated by Molly McCammon, Executive Director of the [Alaska Ocean Observing System](#) with over 90 people in attendance—including the SCCOOS Executive Director, Julie Thomas. You can [read more](#) about the event on IOOS’s webpage.



Senate Ocean Caucus Panelists (L-R): Samatha Helton & Brandon Elsner (Office of Senator Wicker) Cpt. Louttit, Dr. Macrander, Molly McCammon and VADM Brown



Cpt. Kip Louttit, briefs the group on projects at the Port of Los Angeles and Long Beach



Brandon Elsner’s opening comments

## SCCOOS Visits with the USCG Commandant and NOAA Leaders at Scripps Institution of Oceanography



On July 29<sup>th</sup> the 25<sup>th</sup> U.S. Coast Guard Commandant, Paul Zunkunft (pictured left) visited our program office. He leads the largest component of the Department of Homeland Security, composed of 88,000 personnel including active duty, reserve, civilian and volunteer auxiliaries.

On August 4<sup>th</sup> leaders at NOAA (Assistant Secretary of Commerce for Environmental Observations and Prediction and Deputy Administrator for NOAA - Manson K. Brown, P.E., Acting Assistant Administrator, National Ocean Service - W. Russell Callender, PhD. and NOAA Chief Scientist - Dr. Richard Spinrad)

visited with our program staff.

Both visits are a great examples of the steps our federal partners will take to ensure good channels for communication and collaboration. Both meetings held discussions of current technologies and their practical applications to best serve the decision makers to improve safety, enhance the economy and protect the environment.