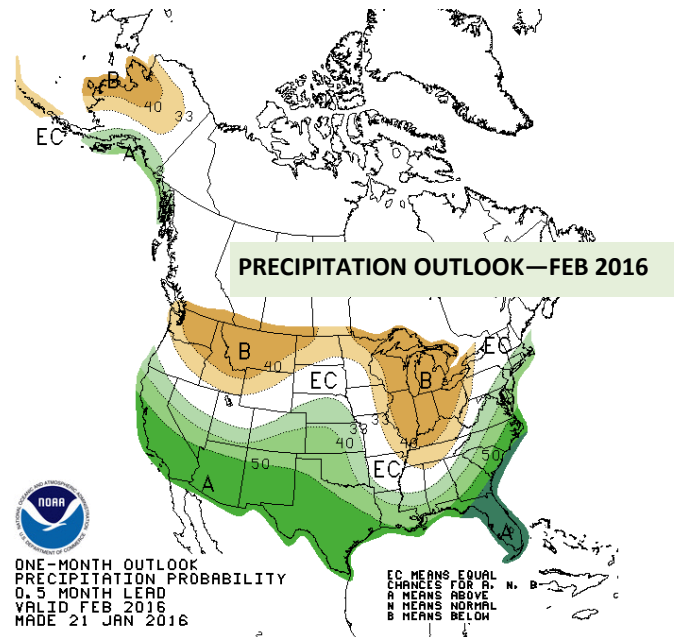
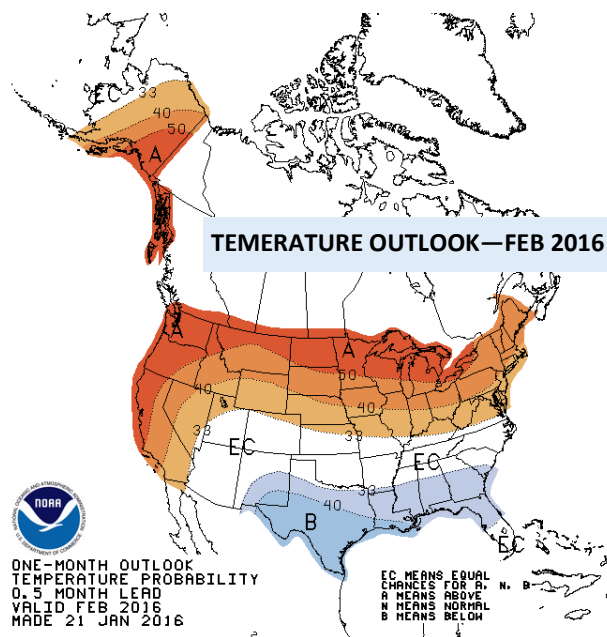




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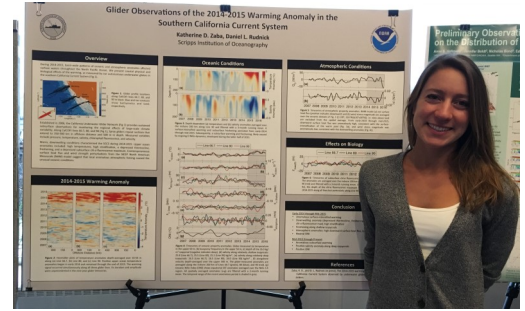
January 2016 Activities

January 11	The Maritime Alliance Meeting
January 12-14	USCG Area Planning Committee Regional Response Team IX Meeting—Santa Barbara, CA
January 13	San Diego MPA Collaborative Meeting
January 20 and 21	Pacific Anomalies Workshop II - Seattle, WA
January 20	Citizen Science King Tide Walk - La Jolla, CA
January 21	SCCOOS Tour for XYLEM
January 26	IOOS Honorary Meeting - Seattle, WA
January 27	San Diego Harbor Safety Committee Meeting
January 29	USCG Sector San Diego Change of Command Ceremony

Pacific Anomalies Workshop II Takes Place in NANOOS's Region at the University of Washington

The goal of the [second workshop](#) was to articulate what is known about the mechanisms that drove the 2014-2015 anomalous conditions in the NE Pacific Ocean, and how this event interacted with the coastal ecosystems. In addition, participants worked to identify needs to increase our ability to predict, react to, or understand these anomalies.

Special thanks to IOOS, the sponsors, steering team, Pacific Ocean Regional Associations and their teams for their commitment to building our collective understanding of the ocean and its far reaching affects on our coastal communities.



Katherine Zaba, a Graduate Student at Scripps Institution of Oceanography, stands in front of her poster highlighting her physical oceanography work with Spray Gliders to understand how climate variability affects our coastal ocean.

The Maritime Alliance (TMA) Presents to California State Lands Commission



At the invitation of the California State Lands Controller Betty Yee, TMA's Executive Director Greg Murphy gave a presentation to the California State Lands Commission.

His presentation focused on opportunities to collaborate and partner to support a sub-regional marine spatial planning in San Diego. Click on the picture left to view the presentation.

SCCOOS Joins Citizen Science Training focused on Photo Documentation of Coastal Flooding

On January 20th, SCCOOS joined forces with [USC Sea Grant's Urban Tides Beach Walk and Training](#) at La Jolla Shores. This opportunity proved itself very valuable to generate visibility, participation and collaboration for all coastal photo-documenting projects (including [SCCOOS's Storm Photo Effort](#)). The volunteers learned how to effectively capture beach erosion and coastal flooding photos. Check out the [USC Sea Grant blog](#) to learn more.

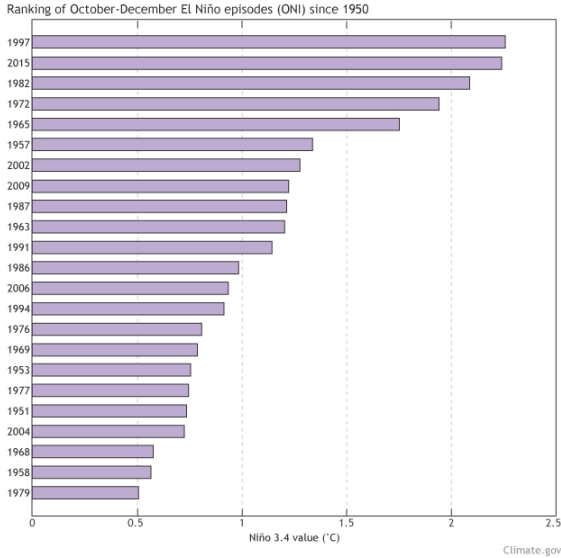


These data collected from our citizen scientists will build a database that will be helpful to calibrate models, set priorities and further the collective dialogue about how we can adapt to rising sea levels. One of the volunteers was quoted in a [KPBS broadcast](#) that, "being able to basically inform scientists through the click of your phone makes it a lot easier to participate."



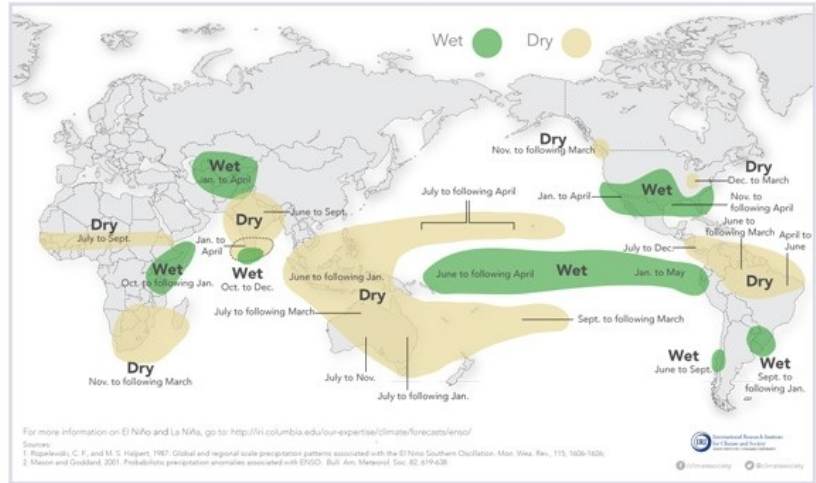
How is our “El Niño fueled” Storm Season Evolving?

Climate Prediction Center El Nino Status: A strong El Niño is expected to gradually weaken through spring 2016, and to transition to neutral conditions during late spring or early summer.



El Niño and Rainfall

El Niño conditions in the tropical Pacific are known to shift rainfall patterns in many different parts of the world. Although they vary somewhat from one El Niño to the next, the strongest shifts remain fairly consistent in the regions and seasons shown on the map below.



Our colleagues at NOAA’s climate prediction office contribute to a [Nino blog](#) that focuses on monitoring and forecasting El Niño, La Niña, and its impacts. The left picture above displays the ranking of October-December average sea surface temperature departures from the mean for all El Niño episodes since 1950 ([click](#) for a larger image). This measurement, the Oceanic Niño Index, uses ERSSTv4 data. Figure by [climate.gov](#), data from [CPC](#) . The right picture above maps typical rainfall patterns during El Niño events. Such teleconnections are *likely* during El Niño events, but not *certain*. Map by [IRI](#) ([click](#) for a larger image).

El Niño changes coastal conditions in California:

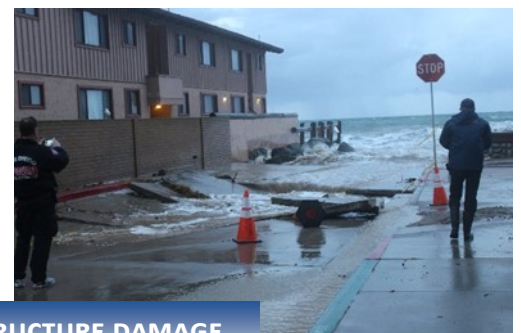
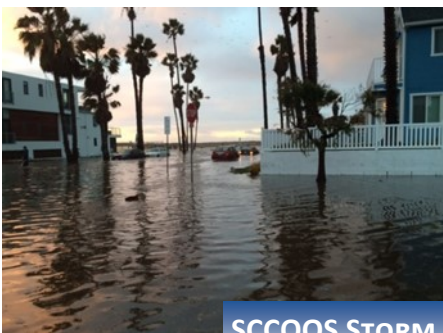
During an El Niño winter, typical storm tracks move farther south through California. In February and March, storms are generally stronger, more frequent, and cause more damage:

- Waves:** ↑ May be up to 30 percent larger than normal
- Winds:** ↑ Stronger storm winds and waves from the south and southwest
- Rainfall:** ↑ Greater amounts than normal, especially in Southern California
- Sea Level:** ↑ Up to 20-30 centimeters (8-12 inches) higher than normal during the winter, and even higher during storms due to winds and waves

Patrick Barnard, USGS Coastal Research Geologist, [summarizes](#) the potential effects that this El Niño Season can have on coastal California.

HOW COULD EL NIÑO AFFECT COASTAL CALIFORNIA?

- ➡ Almost double the typical winter-season beach erosion due to higher-than-average sea levels and waves.
- ➡ Increases in sea-cliff erosion caused by greater beach erosion, larger waves, and heavier rainfall.
- ➡ Increased coastal flooding at stream mouths and in coastal lagoons.
- ➡ Up to three times as much damage to coastal roads, buildings and utilities, especially on south- and southwest-facing coastlines.
- ➡ Big increases in beach hazards, such as debris washing on shore and rip currents.



SCCOOS STORM PHOTOS OF RECENT FLOODING AND INFRASTRUCTURE DAMAGE