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September 2015 Activities

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Ocean Observing Data Assists in Monitoring the Tsunami Triggered by the September 16, 2015, 8.3 Magnitude Earthquake off the Coast of Chile

The September 16, 2015 earthquake occurred off the north coast of Chile with a magnitude of 8.3. Tsunamis are measured through seismic measuring equipment, tide-sea-level instruments and DART II buoys. CDIP’s (Coastal Data Information Program) Scripps Pier pressure sensor recorded a clear tsunami signal arriving at approximately 11:50 UTC on September 17. Preliminary analysis shows an tsunami amplitude of close to 10cm.

Tsunamis are a separate class of ocean wave altogether. Generated by undersea earthquakes, landslides, and volcanic eruptions instead of wind, tsunamis differ greatly in their dynamics. They have far longer wavelengths and periods than wind-generated waves, and travel at far greater speeds. Instead of periods of 30 seconds or less, tsunamis have periods of several minutes to one hour; instead of traveling at speeds under 100 km/hr, they often move at speeds of 700 km/hr or more. For instance, CDIP wave buoys do not measure wave motions with periods greater than 40 seconds; therefore they cannot record tsunamis.

The underwater pressure sensors used by CDIP, do resolve sea level changes over longer periods, and can be used to study and analyze the motions of tsunamis. Over the years they have recorded a number of tsunamis in the Pacific Ocean.

U.S. Fish and Wildlife Service Training on Climate-Smart Conservation, November 6, 2015

This FREE, one day course, is meant for conservation practitioners, planners and natural resource managers working at multiple scales to ensure the ongoing effectiveness of their work in an era of climate change. The objectives are to:

- Explain basic concepts of climate-smart conservation
- Evaluate conservation goals from a climate change perspective
- Describe the process for identifying possible adaptation options
- Explain how to manage for climate related uncertainty

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The Shore Station Program at Scripps Institution of Oceanography, UC San Diego and Their Long Term Sea Surface and Bottom Time Series

The Shore Stations Program collects and provides access to current and historical data records of sea temperature and salinity measurements observed at shoreline stations along the West Coast of the United States. These data are currently funded by the California Parks and Recreation, Department of Boating and Waterways. Daily measurements are collected by Staff Aquarists and volunteers with the Birch Aquarium at Scripps.

Daily sea surface and bottom (approx. 5m) temperature and salinity measurements have been collected off Scripps Pier since 1916, with very few gaps as part of the Shore Stations Program. On August 30, 2015 the Scripps Pier maximum daily surface temperature was measured at 25.2°C and was the 6th highest temperature for the 100 year record (highest temperature on record was 25.8°C for 7/30/1931). Bottom temperature on the same day was also measured at 25.2°C which broke the maximum recorded bottom temperature since the start of these measurements in 1926.

The monthly mean temperatures for August were the 6th highest on record for the surface temperatures and the 2nd highest for monthly bottom temperatures. Monthly mean records were broken in February and March for surface temperatures (2.99°C and 3.05°C respectively above long term monthly means since 1916), and for February bottom temperatures (2.77°C above long term monthly means since 1926).
IOOS Regional Associations Directors Meet in St. Petersburg, Florida

Julie Thomas, SCCOOS Executive Director, attended the annual IOOS Association directors meeting to coordinate strategic approaches with an overarching theme of ocean observing systems’ abilities to support navigation services and also coastal intelligence for coastal communities. Topics included: ICOOS Reauthorization, data management integration, filling gaps in coastal observation, Federal Advisory Committee (FAC) updates, communications and national products. It is meetings like these that demonstrate how much the Regional Associations work together to plot a productive path forward for the whole.

U.S. IOOS Featured in an Ocean News & Technology September 2015 Issue

Donna M. Kocak, Marine Technology Society (MTS) President-Elect, wrote a 2015 update on worldwide survey of recent ocean observatory activities with the ocean observing committee of MTS. Featured in the update is U.S. IOOS and its’ Regional Associations.

The article highlights NOAA’s National Ocean Service project, with the Port of Long Beach and SCCOOS. Three wave buoys have been installed in support of maritime operations in the San Pedro Bight, that are operated by the Coastal Data Information Program (CDIP) based at the Scripps Institution of Oceanography, UC San Diego. These wave buoys are used for both real-time operations and wave model validation. They contribute greatly towards operations for the tugs and barges, ferries, harbor pilots, the PRO-TIDE under keel clearance project, offshore oil terminal operations in El Segundo, and the US Coast Guard.

Job Opportunity: Coastal Communities Resilience and Adaptation Specialist

Research Assistant, Coastal Community Resilience and Adaptation Specialist at the Alaska Sea Grant Marine Advisory Program

The Specialist will conduct a productive Alaska Sea Grant Marine Advisory statewide extension program for Alaska stakeholders and groups, including residents of coastal communities, participants in marine-related industries (for example, fisheries and marine transportation), and others who are affected by changes in the marine and coastal environment. The Specialist will assess the resilience and adaptation needs of coastal Alaska through means such as local advisory groups and program advisors, surveys and in-person interactions, and will prioritize those needs. He/She will design, coordinate, deliver and evaluate information/education programs based on those priorities. Products will be science-based, understandable by and accessible to the lay public, and will be delivered in culturally-appropriate language and formats. The closing date is October 26, 2015.