

COASTAL OCEAN OBSERVING SYSTEM



SCCOOS brings together coastal observations in the Southern California Bight to provide information necessary to address issues in climate change, ecosystem preservation and management, coastal water quality, maritime operations, coastal hazards and national security.

As a science-based decision support system, SCCOOS works interactively with local, state and federal agencies, resource managers, industry, policy makers, educators, scientists and the general public to provide data, models and products that advance our understanding of the current and future state of our coastal and global environment.

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SOUTHERN CALIFORNIA COASTAL OCEAN OBSERVING SYSTEM



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State Water Resources Control Board

Tijuana River National Estuarine Research Reserve

US Army Corps of Engineers

US Coast Guard

US Geological Survey

University of Southern California Sea Grant Program

US Naval Meteorology & Oceanography

SOUTHERN California

SCCOOS DATA

air, sea surface and subsurface temperatures, wind speed and direction, atmospheric pressure, relative humidity, precipitation, rainfall, real-time surface currents, wave conditions, turbidity, water level, bathymetry, salinity, water quality, chlorophyll, algal blooms, fish larvae

EXAMPLES OF PRODUCTS & APPLICATIONS

Climate Change

SCCOOS time series records of climate change provide valuable baseline information for understanding how climate change impacts regional ecosystems and the global environment.

Ecosystem Preservation and Management

SCCOOS supports the gathering of coastal biological data to allow the assessment of ecosystem variability in the nearshore environment.

Coastal Water Quality

When coupled with compliance-based water quality monitoring required by the State of California, SCCOOS products aid in identifying the sources of pollution that impact beaches and coastal waters, support decisions to post advisories or beach closures and provide scientific support for coastal planning communities.

Maritime Operations and Coastal Hazards

Surface currents, waves and wind field data are observed and forecasted by SCCOOS to aid oil spill response and prevention. Integrated data products combining location, surface current information, wave height, wave speed and wind speed assist in search and rescue operations. Data products to aid coastal erosion management decisions depend on meas-

urements and predictions of alongshore wave climate and nearshore currents. SCCOOS coordinates with the Southern California Beach Processes Study and the Coastal Data Information Program to implement routine monitoring of waves and sand levels.

National Security

SCCOOS data are used by Navy, Marine and Coast Guard personnel in training and operational exercises off the coast of California.

EDUCATIONAL OUTREACH

SCCOOS partners with the California Center for Ocean Science Excellence in Education (CA COSEE) and the Ocean Institute in Dana Point to develop programs designed to meet K-12 science standards, including curriculum and teacher professional development. Member institutions integrate SCCOOS science and products into existing educational outreach programs and work collaboratively to foster strong cross-institutional collaboration.

DATA MANAGEMENT

SCCOOS data management goals include interoperability, open access and discovery, sustained operations, effective user feedback, open design and standards process, preservation of data and products and modeling, and builds upon several information technology research projects funded by the National Science Foundation.

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