

**Letter of Intent to submit a proposal to the NOAA Coastal Services Center**

Project Title: *The Southern California Coastal Ocean Observing System (SCCOOS)*



Submitted on behalf of SCCOOS by:

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and the SCCOOS Executive Steering Committee:  
Russ Davis – Scripps Institution of Oceanography  
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Proposed Focus Area: Regional Coastal Ocean Observing Systems (RCOOS) Development

**1. Statement of Purpose** - A consortium of eleven Southern California universities and laboratories that surround the Southern California Bight (SCB) created the Southern California Coastal Ocean Observing System ([www.sccoos.org](http://www.sccoos.org)) to bring together within a single Regional Association (RA) the agencies, managers, and data provider and user groups conducting ocean and coastal observing programs and activities. As a science-based decision support system, SCCOOS works interactively with local, state and federal agencies, resource managers, policy makers, educators, industry, scientists and the general public to provide data, models, and products that advance our delivery and understanding of coastal observations and improve the management of the California coastal ocean environment. SCCOOS integrates data and projects from local, state, and federal and individual institutional efforts to develop an integrated, multidisciplinary coastal observatory in the SCB. The purpose of this proposal will be to support the implementation of the necessary observing system components to gather data and deliver products of societal value for purposes of public health/water quality; ecosystem based management and assessing proposed Marine Protected Areas, Areas of Special Biological Significance, and once through power-plant cooling; early detection of harmful algal blooms; maritime operations including search/rescue and oil spill response; assessing climate and anthropogenic induced changes in the coastal zone; shoreline wave climatology and erosion, and national security.

**2. Summary of Work to be Completed** - This \$6 million, three year program (\$2M/year) will be administered through NOAA Joint Institute of Marine Observations (JIMO) managed at Scripps Institution of Oceanography. Continuing work efforts under the Coastal Observation Technology System (COTS) program, SCCOOS will deploy and maintain a suite of coastal observations including interdisciplinary moorings, ocean gliders, long and short range HF radar, shore-based meteorological sensors, surveys for bathymetry, habitat mapping, and ecosystem assessment, pier-based ocean sensors, boat-based sampling of ecological variables (eggs, plankton/zooplankton, nutrients), and shoreline sampling for harmful algal species and the toxins they produce. Models, including high-resolution simulations, will synthesize ocean data and provide hindcast/forecast climate products to aid interpretation of ongoing fisheries-relevant data collection California and for realtime applications like water quality forecasts, search and rescue, and oil spills. Data will be integrated, and where appropriate, transmitted to the appropriate federal data repositories. Similar to the implementation of the COTS funded effort, the work will be conducted by a consortium of performers within Southern California that includes research organizations, universities, and

industry bound by a system of contracts and grants. A complete description of the SCCOOS organization can be found at [www.sccoos.org](http://www.sccoos.org).

**3. Description of intended benefits to the IOOS community and expected use of the results by the community.** The work funded by this program will create an ocean observing system that will benefit the public by combining and improving the existing ocean observing monitoring activities from Point Conception to the San Diego/Mexico border to the seaward extent of the Exclusive Economic Zone. This system will provide data products for use by the management community by targeted engagement of mission agencies and their customers in this target areas. Southern California, by virtue of the more than 17 million coastal inhabitants in the region, has a vibrant economy dependent on a well-managed coastline, with several thematic areas of observing system applications relevant to management decisions. SCCOOS data, synthesis, and forecasts will provide efficiency to the difficult management decisions facing the region.

**4. Description of the partnerships –** SCCOOS benefits from an established organizational structure that involves a Senior Advisory Committee that provide two-way dialog in the development and delivery of useful products. The membership of this body includes: California Oil Spill Prevention and Response, California Sea Grant Program, Central Bight Water Quality Working Group, Marine Exchange of Southern California, Minerals Management Services, National Oceanic and Atmospheric Administration (NOAA), NOAA Southwest Fisheries/PacOOS, Orange County, Health Care Agency, SoCal Stormwater Monitoring Coalition, State Coastal Commission, State Coastal Conservancy, State Water Resources Control Board, Tijuana River National Estuarine Research Reserve, US Army Corps of Engineers, US Coast Guard, US Geological Survey, USC Sea Grant Program, US Naval Meteorology and Oceanography (METOC). SCCOOS has a proven track record with the coastal water quality, ocean discharge, and public health institutions. In addition, SCCOOS is working closely with its neighboring RA, the Central and Northern California Coastal Ocean Observing System (CENCOOS) and the State of California Ocean Protection Council and State Coastal Conservancy to develop ocean observation products of state-wide interest. Funding this RCOOS development will complement the existing State investment of \$21M directed towards the installation of coastal current monitoring infrastructure.