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Date: March 18, 2010

From: Rose Keuler
Joint Institute for Marine Observations
Scripps Institution of Oceanography
University of California, San Diego
858-534-1795
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The attached proposal is being submitted to you for your consideration by a NOAA Cooperative Institute. Should you recommend funding for this proposal, we request that the funding be transferred through **our current NOAA cooperative agreement, # NA08OAR4320894 (Shadow Award)**. The NOAA contact (described below) for this cooperative agreement should be contacted immediately if this proposal is accepted for funding.

Title of Proposal: **Integrated Ocean Observing System Implementation: Southern California Coastal Ocean Observing System (SCCOOS)**

Principal Investigator(s): **Eric Terrill**
Proposal #: **2010-0696R1**
Period of Performance: **June 1, 2010 – May 31, 2011**

Funding **\$1,411,900**

Task #: **2 - Joint NOAA Laboratory/JIMO Program**

Theme(s): **A – Climate Observations, Analysis and Prediction**

DUNS #: 17-510-4595
EIN# 95-6006144
Congressional District: 53

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(1) Is there a former DOC employee working for the applicant who represented or will represent the applicant before DOC or another Federal agency regarding this application and/or subsequent award? **No**

(2) Does this award include any subaward to a Minority Serving Institution? **No**

(3) Does the proposed award require any recipient, subawardee, and/or contractor personnel to have physical access to Federal premises for more than 180 days or to access a Federal information system? **No**

(4) Is PROGRAM INCOME anticipated being earned during performance of this project?
No

(5) Will a VIDEO be created for public viewing as part of this project? **Yes**

(6) Will DOC/NOAA owned equipment be provided to the recipient to use for this award?
No

(7) Are any permits required to conduct this project? (If yes, please provide the name of the issuing agency and the permit number.) When possible, it is best to include the response. **No**

March 18, 2010

Regina A. Evans
 Federal Program Officer
 Integrated Ocean Observing System (IOOS)
 1100 Wayne Avenue, Suite 1225
 Silver Spring, MD. 20910



Dear Ms. Evans,

Thank you for the opportunity to provide comment on the revisions to the original work plan proposed by the Southern California Coastal Ocean Observing System to NOAA's Integrated Ocean Observing System (IOOS) Program. The recommended funding level of \$1,411,900 will support a base set of SCCOOS observational programs with a modest increase in certain theme areas as well as a workshop on seafood and ocean acidification. Revisions to the proposed SCCOOS work plan will result due to the reduction of funds from the requested \$2.6 million.

SCCOOS works to inform short-term decision-making and long-term assessment of the coastal ocean through sustained physical and biological observations. In FY2010, funds will support ongoing operations and maintenance for underwater gliders, the high frequency (HF) radar system, and automated shore stations. Continued funding will be provided for an augmentation to the California Cooperative Fisheries Investigation (CalCOFI) and the SCCOOS harmful algal bloom (HAB) surveillance program. Model evaluation and forecasts will continue with both the fine resolution and real-time Regional Ocean Modeling System (ROMS). Data management funds will be utilized for participation in the IOOS regional observation registry, adapting to industry standards, restructuring of current storage and archival formats of core variables, and cross compatibility between significant programs. Education and Outreach as well as the development of new data products will continue to be supported by leveraging the SCCOOS Regional Association grant.

In order to quantify trends in ocean acidification and upwelling-induced hypoxia, SCCOOS will initiate observations of dissolved oxygen on glider transects with the installation of new sensors on those platforms. Observations of seabird and marine mammals will be added through a partnership with the Farallon Institute for Advanced Ecosystem Research to maintain a valuable time record of top predatory species that are indicators of marine ecosystem health

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and climate change. SCCOOS will also develop integrated, customized products for alongshore currents and inundation that promote safe recreational use of beaches. These products will be provided to the National Weather Service for coastal flooding and rip current predictions.

As the funding amount is less than requested, SCCOOS will make the reductions outlined in the “Reduced Budget” (included in the proposal) with an additional percentage cut equally from all system components. This reduction in funding will impact SCCOOS operations including the ability to rapidly respond to data requests, unexpected problems, and new initiatives. The reduction will also impact programs such as CalCOFI, HABs, gliders, HF radar and the nearshore sampling program—limiting the number of observations that will be collected and reducing operations and maintenance staff time dedicated to these tasks. These data are often requested datasets from SCCOOS and will be maintained with best efforts within the constraints of the funding.

The following tasks will not be supported in FY10:

- Underway Conductivity, Temperature, Depth (CTD) surveys;
- Ocean data synthesis through development of climatology and climate relevant indices;
- Hindcast reanalyses for indices with sardine and squid catch;
- ROMS reanalysis for Climate Trends and Connectivity Assessment, including the development of fisheries relevant climate indices;
- Harmful Algal Bloom Glider Operations; and
- Surfzone transport toolset.

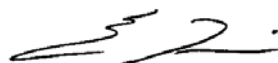
The reduction to data management will primarily impact staff time dedicated to maintaining near real-time data streams (e.g. ingestion, storage, distribution, and archival), online product maintenance, product development, and participation in IOOS Data Management and Communications Subsystem (DMAC). Data management will be leveraged by the Regional Association coordination grant, but online product availability, data distribution, and product development will still be significantly reduced.

Eliminated tasks and reduced projects will be reinstated in the FY2011 proposal. SCCOOS plans to contribute to marine spatial planning and the management of ocean resources in Southern California, but is also committed to contributing to larger ocean observing efforts at the regional, national and international level. Continuity of funding is critical to sustaining valuable ocean observations and expanding the regional components of IOOS.

Sincerely,



Julianna O. Thomas
SCCOOS Executive Director



Eric Terrill
SCCOOS Technical Director

REVISED MILESTONE SCHEDULE (*Shaded areas will be reduced or eliminated*)

ECOSYSTEMS AND CLIMATE TRENDS	
Monthly	Continue offshore glider transects
Monthly	Continue CalCOFI observations
June 1, 2010-May 31, 2011	Develop indices relevant to ecosystem fisheries management and coastal planning
Ongoing	ROMS reanalysis for climate trends and connectivity assessment
Monthly	Continue time series on the distribution and abundance of marine birds and mammals in the Southern California Bight
June 1, 2010-May 31, 2011	Underway conductivity, temperature, depth (CTD) surveys
WATER QUALITY	
Weekly	Conduct sampling at five HAB monitoring sites
Weekly	Automated sampling at pier shore stations (San Diego, Orange County, Los Angeles and Santa Barbara)
Bi-Monthly	Support glider mapping for the detection of potential HABs
June 1, 2010-May 31, 2011	Develop tools to observe and forecast plume dispersion
May 31, 2011	Surfzone contaminant trajectory tool available online
MARINE OPERATIONS	
Ongoing	High frequency (HF) radar operations and maintenance
Ongoing	Develop and expand integrated, customized products with multi-layer views of observations, nowcasts and forecasts
Oil Spill and Search and Rescue (SAR) events	Deliver ocean current data and surface wind analyses to aid oil spill and SAR real-time recovery and post-analysis trajectories
March 31, 2011	Expand the near real-time, customized wave display for Navy to include surface currents and winds
Ongoing	Deliver glider data for assimilation into Navy Coastal Model
COASTAL HAZARDS	
Storm Events	Monitor storm inundation at selected locations
Post-storm conditions	Validate and refine inundation model
Ongoing	Expand development and integration of inundation web site