

ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: On behalf of the National Oceanographic Partnership Program (NOPP), NOAA and its partner agencies--the National Aeronautics and Space Administration (NASA), the Office of Naval Research (ONR), and the U.S. Department of Energy (DOE)--are requesting proposals for coordinated regional efforts that further the U.S. Integrated Ocean Observing System (IOOS). In addition, the agencies have identified several related topic areas for which they are requesting proposals, to include verification and validation of observing technologies for studying and monitoring coastal and ocean environments; improved and routine production, stewardship, and coastal application of the Group for High Resolution Sea Surface Temperature (GHRSSST) data; and study of marine animal interactions with offshore renewable energy devices. Applicants are invited to submit proposals for one or more of these topic areas, which are described in detail in the FFO announcement. It is recommended that applicants to multiple topic areas submit a separate application for each, and that each application list other topic areas for which the applicant is making a submission. For single topic proposals or if multiple topics are included in a single proposal, ensure that the topic areas are clearly identified and that all required information is presented such that merit reviewers can associate proposal elements (project description, partners, budgets) with specific topic areas. Multiple awards are anticipated, subject to the availability of funds, in amounts ranging

from \$200,000 to \$4,000,000 per year for up to five years.

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-IOOS-2011-2002515

Catalog of Federal Domestic Assistance (CFDA) Number: 11.012, Integrated Ocean Observing System (IOOS)

Dates: Full Proposals must be received by www.grants.gov, postmarked, or provided to a delivery service by 5:00 p.m. (EDT) on October 1, 2010. Use of U.S. mail or another delivery service must be documented with a receipt. No facsimile or electronic mail applications will be accepted. Please note: Validation or rejection of your application by Grants.gov may take up to 2 business days after submission. Please consider this process in developing your submission timeline.

Funding Opportunity Description: On behalf of the National Oceanographic Partnership Program (NOPP), NOAA and several of its partner agencies, including the National Aeronautics and Space Administration (NASA), the Office of Naval Research (ONR), and the U.S. Department of Energy (DOE), are requesting proposals for coordinated regional efforts that further the U.S. Integrated Ocean Observing System (IOOS). In addition, the agencies have identified several related topic areas for which they are requesting proposals, to include verification and validation of observing technologies for studying and monitoring coastal and ocean environments; improved and routine production, stewardship, and coastal application of the Group for High Resolution Sea Surface Temperature (GHRSSST) data; and study of marine animal interactions with offshore renewable energy devices.

Applicants are invited to submit proposals for one or more of these topic areas, which are

described in detail below. It is recommended that applicants to multiple topic areas submit a separate application for each, and that each application list other topic areas for which the applicant is making a submission. For single topic proposals or if multiple topics are included in a single proposal, ensure that the topic areas are clearly identified and that all required information is presented such that merit reviewers can associate proposal elements (project description, partners, budgets) with specific topic areas.

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FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The National Oceanographic Partnership Program (NOPP) was established by law (10 U.S.C. 7902 et seq.) to (1) promote the national goals of assuring national security, advancing economic development, protecting quality of life, and strengthening science education and communication through improved knowledge of the ocean; and (2) coordinate and strengthen oceanographic efforts in support of those goals by identifying and carrying out partnerships among Federal agencies, academia, industry, and other members of the oceanographic scientific community in the areas of data, resources, education, and communication.

In 1998, Congress called for the development of an Integrated Ocean Observing System (IOOS) for the oceans and the Nation's coastal waters, including the Great Lakes, to serve as the U.S. contribution to Global Earth Observation System of Systems (GEOSS). In 1999, the National Ocean Research Leadership Council (NORLC), oversight body of the NOPP, recommended development of IOOS. At that time, work began on the development of regional coastal ocean observing systems that would be integrated into a national system.

In 2006, the First IOOS Development Plan (Ocean.US) called for an integrated system of observations to support national and regional priorities. Regional priorities were to be determined by a comprehensive effort to engage stakeholders at the local and regional level. The responsibility for such engagement was directed to IOOS Regional Associations (RAs)

which are charged with designing and implementing the regional coastal ocean observing system infrastructures that compliment and contribute to national observing systems by providing observations at the regional scale. Eleven RAs across the nation were established and are currently addressing stakeholder needs for data and information products. In 2007, NOAA, as the lead federal agency for IOOS, established a program office to manage this activity and transitioned away from Congressionally directed funding to begin issuing competitively awarded funds for the development of IOOS. On March 31, 2009, the Omnibus Public Lands Management Act of 2009 was signed into law, which includes the Integrated Coastal and Ocean Observation System (ICOOS) Act of 2009. The ICOOS Act authorizes the establishment of a national integrated system of ocean, coastal and Great Lakes observing systems, referred to as U.S. IOOS.

IOOS delivers the data and information needed to increase our understanding of the nation's oceans, coasts and Great Lakes so decision makers can take action to improve safety, enhance our economy, and protect our environment. The vision for IOOS is a fully integrated, operational coastal and ocean observing system that provides service to the nation in a number of areas, including marine operations; climate variability and change; ecosystems, fisheries, and water quality; coastal hazards; and coastal and marine spatial planning. U.S. IOOS is envisioned to be an operational system, encompassing activities in the areas of regional management; observations; data management and communication; modeling and analysis; education and outreach; and research and development. The overarching purpose of U.S. IOOS is to address regional and national needs for ocean information, to gather specific data on key coastal, ocean, and Great Lakes variables, and to ensure timely and sustained dissemination and availability of these data. Entities involved

in U.S. IOOS include federal, state, local and Indian tribal governments; regional entities; academia; and the private sector, including non-governmental organizations.

Through this funding announcement, the partner agencies seek to continue the implementation and development of the regional coastal, ocean and Great Lakes component of U.S. IOOS. IOOS regional partners are responsible for, among other things:

- Designing, operating and managing coastal ocean observing systems in the 11 IOOS regions;

- Engaging with users and stakeholders to determine priorities and gather input, including on formally identified regional priorities (e.g. those identified through regional Governors' Alliances and similar fora);

- Testing, deploying, operating, and maintaining sensors and platforms to address data and information needs articulated by regional and national (Federal) stakeholders;

- Integrating IOOS standards-compliant data into user-specified tools and information products (observations, model output, forecasts) at local and regional scales and making those available to stakeholders;

- Partnering with educators to ensure incorporation of high quality data and information into education tools and curricula; and

- Maintaining and contributing to the development of IOOS observing, data management and communication (DMAC), and modeling subsystems.

This announcement requests proposals for five-year awards that build upon progress made to date on the development of regional coastal ocean observing systems (Topic Area

1), continue a national-scale effort for verification and validation of observing technologies (Topic Area 2), and lead to the improved, sustained generation and long-term stewardship of sea surface temperature (SST) data and their application within U.S. IOOS (Topic Area 3).

In addition, the partner agencies are requesting proposals for three-year cooperative agreements to study observational data for migratory species on the Outer Continental Shelf to inform permitting and licensing for offshore renewable energy facilities and to contribute to basic knowledge of marine mammal behavior and ecology in this habitat (Topic Area 4).

For all NOPP-funded activities, team efforts are required among at least two of the following three sectors: academia, government (including federal, state, local, and tribal), and the private sector (including Non-Governmental Organizations).

B. Program Priorities

U.S. IOOS is envisioned as a sustained, operational ocean, coastal and Great Lakes observing system, including a network of regional partners that provide coordination with regional stakeholders while contributing data and other outputs to the national system, which also includes federal and industry partners. IOOS regional activities shall continue to be developed in a manner that supports regional priorities while advancing regional contributions to national missions. The partner agencies are particularly interested in projects that provide timely and appropriate information to public mission agencies at the national, regional, state, local, and tribal levels, and that address integration across regional and national agency priorities.

Topic Area 1: Continued Development of Regional Coastal Ocean Observing Systems

For topic area 1, NOPP is inviting proposals for five-year funding to continue progress made to date on the development of regional coastal ocean observing systems, build upon the efforts of the IOOS RAs, and demonstrate the approach and benefits of integration and implementation at the scale of the Regional Association (not sub-regional). NOPP intends to make eleven awards for this activity in amounts ranging from \$500,000 to \$4,000,000 per year, contingent on the availability of funds.

Applicants should address all of the following subsystem elements, which are described in further detail below: 1) Coordinated Regional Management Covering the Nation's Oceans, Coasts, and Great Lakes; 2) Observing Subsystem; 3) Data Management and Communications Subsystem; 4) Modeling and Analysis Subsystem; and 5) Outreach and Education. Applicants are encouraged to coordinate and collaborate with the appropriate RAs in preparing their proposals.

Awardees will be expected to seek certification to become a member of U.S. IOOS after the certification process is published. U.S. IOOS is the national system called for in the Integrated Ocean and Coastal Observation System Act of 2009. Applicants should demonstrate in their proposals how they would successfully collaborate inter-regionally, intra-regionally and nationally, to include such activities as sharing data and information, coordinating on model development and application, etc.

Subsystem Elements

1. Coordinated Regional Management Covering the Nation's Oceans, Coasts, and Great Lakes:

As defined in the First IOOS Development Plan (Ocean.US 2006), the geographic extent

of a Regional Coastal observing system includes to the nation's Exclusive Economic Zone (EEZ), Great Lakes, and estuaries. 'Estuaries' includes all semi-enclosed bodies of water (bays, lagoons, fjords, tidal wetlands, etc.) that are connected to the ocean.

NOAA and its partner agencies intend to build upon prior investments coordinated by the 11 IOOS RAs and associated observing systems, and are requesting a multi-year proposal from each of the following IOOS regions:

1. Northeast Atlantic (coastal waters from the Canadian Maritime Provinces to the New York Bight);
2. Mid-Atlantic (the ocean and estuaries between Cape Hatteras and Cape Cod);
3. Southeast Atlantic (North Carolina to Florida);
4. Gulf of Mexico (the U.S. portion of the Gulf of Mexico and its estuaries);
5. Caribbean (Puerto Rico, the U.S. Virgin Islands, and the island of Navassa west of Haiti);
6. Great Lakes (Great Lakes, St. Lawrence River and interconnecting waterways);
7. Southern California (the Southern California bight);
8. Central and Northern California (from Point Conception north to the California-Oregon border);
9. Pacific Northwest (primarily Washington and Oregon);
10. Alaska; and

11. Pacific Islands (the state of Hawaii, the Commonwealth and Territories of the United States in the Pacific (the Commonwealth of the Northern Mariana Islands, and Territories of Guam and American Samoa), the Freely Associated States in the Pacific (the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau), and the U.S. Minor Outlying Islands in the Pacific (Howland, Baker, Johnston, Kingman, Jarvis, Wake, Palmyra, Midway).

The ICOOS Act calls for an integrated system of observations that support national and regional priorities, including the establishment of regional information coordination entities (RICEs) to design and implement the regional IOOS infrastructure. Since 2007, NOAA has been funding regional entities (the IOOS RAs and the associated regional coastal ocean observing systems), through competitively awarded cooperative agreements, to engage stakeholders in this process with a goal of achieving a unified, national network of data acquisition, management, and product development.

Proposals to this funding announcement should: demonstrate how the region will be governed, further the development of the regional component of IOOS in the geographic areas identified above, address stakeholder requirements as identified by the IOOS RAs, and support regional and national needs and priorities. Applicants to this funding opportunity must demonstrate how they will:

- Engage in legally binding agreements, assume fiscal authority to receive and disperse funds, and ensure accountability for such agreements and revenue streams;

- Describe how they will oversee sustained management, development and operation of a regional observing system in accordance with IOOS principles;

-Define a process for identifying regional needs and priorities through consultation with regional governing boards and stakeholder and advisory committees;

-Add and remove members to ensure that the interests of diverse data providers and user groups in the region are represented and are actively participating in funded activities; and

-Establish a formal process to solicit information, product, and service requirements from the diversity of regional stakeholders, and trace the end-to-end linkage from requirements to observations, data, products or services delivered to the stakeholders. For example, an applicant can: engage an advisory council to help identify regional ocean observing needs; execute a formal requirements process which includes feedback and alternative analyses; develop initial functional/technical requirements; identify associated resource needs; define and document measures of progress/success; maintain iterative feedback mechanisms; and ensure sustained support for operational products and services.

Successful applicants will be required to report on progress and performance over the life of the project. In addition to semi-annual progress reports and an annual assessment performed by the IOOS program, this will include evaluations based on performance metrics developed by NOAA in coordination with the National Federation of Regional Associations (NFRA) for Coastal and Ocean Observing (e.g. the IOOS Regional Maturity Index and outcome performance metrics). Successful applicants will be required to seek certification as members of U.S. IOOS once certification standards and processes are determined.

Applicants are requested to present their work plan and budget requests in priority order, indicating base capacity plus enhancements at various levels of funding, to streamline the process of descoping projects and making awards if less money is available than requested.

Annual budgets should be organized in a manner that clearly shows total costs required to achieve each milestone and deliverable.

2. Observing Subsystem

IOOS RAs have defined high priority observing needs within each of the IOOS regions. The IOOS Development Plan, the Integrated Global Observing Strategy (IGOS) Coastal theme, and the Global Ocean Observing System (GOOS) Coastal Module Implementation Report further define the variables, with temporal and spatial resolutions that the regional coastal component of IOOS needs to observe. In addition, analyses such as the National Operational Wave Observation Plan (<http://ioos.gov/program/wavesplan.html>), the National Surface Current Mapping Plan (<http://ioos.gov/hfradar>), and A Network Gaps Analysis for the National Water Level Observation Network (http://www.tidesandcurrents.noaa.gov/publications/Technical_Memorandum_NOS_COOPS_0048.pdf) outline variables (i.e. waves, surface currents and water levels) that are priorities for U.S. IOOS. Applicants should demonstrate how their regional observing subsystem activities will be designed and implemented to maintain consistency within these and other national frameworks. Applicants should also describe planning for future enhancement of observing activities.

Observing systems may consist of multiple platforms and sensors, including autonomous underwater vehicles (AUVs), High Frequency Radar (HFR), satellites (remote sensing), and in situ measurements from buoys and gauges, among others. In many cases observing systems and networks are leveraged, so proposals should identify observing assets that will be leveraged, but not necessarily funded, through this announcement.

Proposals should give priority, at a minimum, to operation and maintenance of any existing observing assets that contribute to national or inter-regional networks observing IOOS priority variables, unless new requirements dictate that funding a new asset has more importance for the region. Changes to or removal from service of any existing assets over the life of the project should be justified and coordinated with the IOOS program office, including the NOAA Federal Program Officer, as such changes could impact availability of out-year funding.

Applicants should articulate deployment and build-out plans, including initial costs and annual funding requirements for operation and maintenance of new and existing observing assets by asset class in their proposals. They should also describe the analysis used to select additional or alternative sensors or assets, describe how observing priorities are established, and provide details about ongoing and planned inter-, intra-regional and national collaboration on observing activities. Applicants should provide specific details on how they are making connections between regional and national priorities and needs, observing activities, and Data Management and Communications.

Awardees will be required to submit a semi-annual inventory of new and existing regional assets and to document operational status via diagnostics and data availability statistics. These inventories will be used to help inform system-wide planning and capacity. Collaboration with other IOOS regional partners as well as the IOOS program on regional asset inventory formats is strongly encouraged. Awardees will be expected to participate in a U.S. IOOS planning activity for maintaining asset inventories, and identifying regional and national opportunities for collaboration, and they should allow for travel to one meeting per year on this topic. Awardees will also be required to participate in an annual process to

identify gaps in observation coverage or needs for capital improvements for federal and non-federal assets.

3. Data Management and Communications (DMAC) Subsystem

Central to the success of IOOS is the presence of a DMAC subsystem capable of delivering real-time, delayed-mode, and historical data for in-situ and remotely-sensed physical, chemical and biological observations, as well as, model-generated outputs, including forecasts, to IOOS users and of delivering all forms of information to and from secure archive facilities. The DMAC design must be responsive to user needs. At a minimum, the regional DMAC subsystem must make data and products discoverable and accessible, and must provide essential metadata regarding information sources, methods and quality.

The overall objectives are for IOOS partners to develop and maintain DMAC capabilities to:

- Deliver accurate and timely ocean observations and model outputs to a range of consumers including government, academic, private sector users, and the general public utilizing specifications common across all providers.

- Deploy the information system components (including infrastructure and relevant personnel) for full life-cycle management of observations from collection to product creation to public delivery, system documentation, and archiving.

- Establish robust data exchange that is responsive to variable customer requirements and routine feedback and not tightly bound to a specific application of the data or particular

end-user decision support tool.

Applicants must therefore address the following DMAC-specific objectives:

-A standards-based foundation for DMAC capabilities: Applicants must clearly demonstrate how they will ensure the establishment and maintenance of a standards-based approach for delivering their ocean observations data and associated products to users through local, regional and global/international data networks.

-Exposure of and access to coastal ocean observations: Applicants must describe how they will expose users to coastal ocean observations via a service-oriented architecture and recommended data services (details in white paper, referenced below) to ensure increased data interoperability including the use of improved metadata and uniform quality-control methods.

-Certification and governance of IOOS data and products: Applicants must present a description of how they will participate in establishing an effective IOOS governance process for data certification standards and compliance procedures. This objective is part of an overall accreditation process which includes the other IOOS subsystems (observing, modeling and analysis, and governance).

Applicants should describe how they will implement and sustain DMAC Subsystem components based on the principles outlined in the white paper entitled 'Guidance for Implementation of the Integrated Ocean Observing System (IOOS) Data Management and Communications (DMAC) Subsystem.' This document is available from the IOOS web site: (http://ioos.gov/library/dmac_implementation_2010.pdf). Successful awardees will be required to adopt and implement these primary aspects of the IOOS DMAC Subsystem to

the highest practical level. A regional DMAC implementation plan covering (at minimum) the award period will be required of all successful awardees, so applicants should identify (in their proposal) resources to execute this task.

Specifically, applicants should allocate resources and maintain the capacity to:

- Actively participate in a distributed service oriented architecture (SOA), including: establishing standardized services, registering those services in an IOOS Service Registry, utilizing user notification mechanisms, permitting monitoring of service response time and availability, and reporting summary usage statistics each month.

- Actively participate in cross-regional data management policy and implementation plan development and attend at least one national workshop/meeting per year to facilitate a closely coordinated national approach to IOOS data management;

- Actively participate in national data management committees and forums such as the Interagency Working Group on Ocean Observations, DMAC Steering Team, the Federation of Earth Science Information Partners, Smart Ocean Sensor Consortium, among others;

- Provide initial stewardship and ensure permanent archiving (via NOAA's National Oceanographic Data Center (NODC)) of their observations, model outputs, metadata and derived information products of archival quality.

Provide data to the WMO GTS in near real time. IOOS partners can fulfill this requirement by entering into an agreement with NOAA's National Data Buoy Center (NDBC);

- Support, and if appropriate to help define, common vocabularies and identifiers, as well

as cross-walks (i.e., semantic mediation) between IOOS and existing local or community-of-interest vocabularies and identifiers;

- Permit and assist with assessment of IOOS DMAC maturity levels and certification;

- Ensure relevant metadata is produced, accessible, and compliant with IOOS conventions as adopted, and to participate as appropriate in the development of such conventions; and

- Develop realistic plans for long-term, regional DMAC operations, including automation and other efficiencies.

More detailed explanations and descriptions of these requirements are found in the aforementioned white paper: (http://ioos.gov/library/dmac_implementation_2010.pdf).

Applicants should also describe, in detail, how DMAC implementation will be directly connected to and influenced by documented, regional user requirements. Furthermore, applicants should describe how their DMAC efforts will enable or inform activities within the Modeling and Analysis Subsystem. In addition, applicants should describe how they will measure and document successful deployment and use of regional DMAC products and services. For example, establishing diagnostic measures of service 'up-time' and documenting the number of stakeholder products using regional IOOS data services.

Inter-regional collaboration is strongly encouraged on all aspects of DMAC planning and implementation.

4. Modeling and Analysis Subsystem

The IOOS regional coastal ocean observing systems and RAs support regional modeling

capacity to predict future conditions, provide region-wide information, verify climate and other models on a regional basis, and deliver high-resolution modes at local and regional levels to meet needs identified by stakeholders. The IOOS modeling and analysis subsystem supports IOOS nowcast, forecast, hindcast and decision-making capabilities and related IOOS ocean prediction and analysis activities. The observing and data management and communication subsystems are supporting elements for the IOOS modeling and analysis subsystem.

The IOOS Development Plan (Ocean.US 2006), along with the second IOOS Modeling and Analysis Steering Team (MAST) report (http://www.ocean.us/2008_model_wkshp) that is based on a July 2008 community workshop, provide important recommendations to advance the IOOS modeling and analysis subsystem and should be used as a guide for applicants. Applicants should also to indicate how ongoing and planned modeling systems interface with Federal modeling systems and will be maintained and integrated with new and planned modeling activities including a national modeling framework.

Among the new and planned modeling activities, the recently issued FY2010 Integrated Ocean Observing System Federal Funding Announcement 'Community Modeling Environment To Support a Super-Regional Test Bed' and the activities of the National Science Foundation Ocean Observatories Initiative Cyberinfrastructure (<http://ci.oceanobservatories.org/>) are key efforts that support the IOOS modeling and analysis subsystem infrastructure and related federal goals for research and operations. Applicants should be cognizant of these efforts and how proposed activities relate and intersect. Previous IOOS-funded modeling focused on coastal inundation, ongoing modeling, as well as community modeling forums and workshops such as the Grand

Challenges in Coastal Resiliency I: Transforming Coastal Inundation Modeling to Public Security workshop (<http://www.lsu.edu/highlights/2009/01/workshop.shtml>), and the Hurricane Storm Surge Workshop (http://www.marine.usf.edu/events/hurricane_surge_workshop/) are also important for applicants to be aware of and to indicate how proposed work will maintain and/or expand upon these ongoing or planned activities. Addressing barriers which limit the access of modeling system enhancements by operational systems is also significant. In addition, NOAA's priorities such as Marine Spatial Planning, Climate Services, Sustainable Fisheries, and Arctic Science and Service are important priorities to be supported, along with other national priorities such as the Joint Subcommittee on Ocean Science and Technology Ocean Research Priorities Plan and Implementation Strategy (ORPPIS).

In summary, applicants should address modeling progress to date and/or plans relevant to this subsystem to the extent appropriate in their respective regions (given stakeholder priorities, strategic planning, and other considerations) and in the context of a national modeling and analysis system.

5. Outreach and Education

The key elements of a regional coastal ocean observing system include integrated outreach and education activities. The outreach process facilitates the two-way flow of information between user groups and the scientific community. As a result, user groups receive useful science-based information and IOOS regional partners receive feedback on emerging issues and data needs. Outreach works directly with industry, federal agencies, resource managers, emergency managers, and other officials and stakeholder groups. The

education component refers to information provided for K through Gray, linking IOOS with future ocean users, scientists and others.

Proposals should address how the applicant will provide a structure and process for both outreach and education region-wide, support delivery of products to identified users, receive feedback from users regarding their needs, and evaluate the success of funded activities. Proposals should identify groups to be contacted during the project and the relevance of regional IOOS products and tools to those target groups. Consideration should be given to engagement of existing ocean- and coastal-related education and professional programs in the region, including but not limited to maritime professional associations. Award recipients will be required to include a list of education and outreach activities and products, including those related to climate education, as specified in the IOOS authorizing legislation, in their semi-annual progress reports. Awardees will also be asked to provide information such as testimonials and success stories to the U.S. IOOS office to help illustrate the benefits of regional contributions and the national network.

Topic Area 2: National-Scale Efforts Toward Verification and Validation of Observing Technologies

For topic area 2, NOPP is inviting proposals for five-year funding to continue progress in the area of verification and validation of observing technologies for studying and monitoring coastal and ocean environments. This activity is essential to a sustained and operational national IOOS, and coordination of this activity across U.S. IOOS and the 11 IOOS geographic regions is critical. NOPP will consider proposals that build upon

previous efforts and demonstrate extensive and close coordination with the IOOS regions, IOOS partners, and the IOOS program office to establish priorities for and to plan and implement the testing, validation and verification of ocean observing sensors. NOPP anticipates making one award for this activity in an amount ranging from \$500,000 to \$3,000,000 per year, contingent on the availability of funds.

Proposals submitted for this activity must demonstrate how the project:

- Conducts verification and validation of sensors for coastal and ocean observing systems in different environments, utilizing both field experiments and laboratories to recreate environmental conditions;

- Builds capacity related to the use of sensors for coastal and ocean observing systems;

- Responds to the priorities, existing assets, interests and needs of the IOOS regions in a manner consistent with IOOS regional stakeholder and user engagement, to build on regional and national needs for sensor validation and established regional priorities;

- Involves IOOS regional and national partners, including end-users and operational entities on the governance team;

- Makes up-to-date information on such technologies and testing results widely available to the community through a variety of mechanisms;

- Responds to the testing and evaluation activity included in the National Operational Wave Observation Plan (<http://ioos.gov/program/wavesplan.html>) and/or the National Surface Current Mapping Plan (<http://ioos.gov/hfradar/>);

- Can apply results to multiple regions nationally; and

-Provides specific, measurable, and timely outcomes, including a clear schedule for collecting IOOS community input and for testing.

Topic Area 3: Improved and Routine Production, Stewardship, and Application of the Group for High Resolution Sea Surface Temperature (GHRSSST) Data

For topic area 3, NOPP is inviting proposals for five-year funding leading to the improved, sustained generation and long-term stewardship of sea surface temperature (SST) data and their application within the U.S. Integrated Ocean Observation System. The funding agencies anticipate making up to two awards in this topic area in amounts ranging from \$500,000 to \$1,000,000 per year, contingent on the availability of funds.

Over the last several years, the Group for High Resolution SST (GHRSSST; www.ghrsst.org) has achieved significant advances in its ability to measure and utilize satellite-derived and in situ SST. SSTs with error estimates as produced by GHRSSST are finding broad use within the operational and research communities. High-resolution SST analyses based on GHRSSST SSTs have been very successful and have been adopted internationally by operational agencies. The GHRSSST community and the NASA SST Science Team have established the following set of research and development priorities:

- Research into satellite calibration and validation, specifically to improve of sensor error characterization

- Research into diurnal warming and cool skin modeling, specifically to improve use of satellite data within analysis systems and our understanding of upper ocean physics

-Research into multi-satellite data fusion, accounting for skin and diurnal effects.

-Routine production of satellite SST data conforming to the GHRSSST Data Specification (GDS) Version 2, with data distribution and preservation through the GHRSSST Global Data Assembly Center (GDAC, <http://ghrsst.jpl.nasa.gov>) and Long Term Stewardship and Reanalysis Facility (LTSRF, <http://ghrsst.nodc.noaa.gov>)

-Use of these advanced products to increase understanding of our oceans and coasts, so decision makers can take action to improve safety, enhance the economy, and protect the environment.

Successful proposals must have substantive partnerships working together to ensure that the IOOS operational and research communities are aware of the capabilities of, and have the tools to use, the resulting improved SST data and products. Proposed projects must address all five research priorities listed above, either in a single project or through a partnership of two projects. Successful proposals will indicate how the data will be utilized in the GHRSSST project to fully reach the international operational and research communities.

Applicants must describe how they will expose coastal ocean observations to users via a service-oriented architecture and recommended data services (details in white paper located at: http://ioos.gov/library/dmac_implementation_2010.pdf) in order to improve data interoperability through common protocols including metadata and uniform quality-control methods. Where appropriate, proposals should address IOOS DMAC Subsystem components based on the principles outlined in the white paper. Successful awardees will be required to adopt and implement these primary aspects of the IOOS DMAC Subsystem to

the highest practical level.

Topic Area 4: Observational Data for Migratory Species on the Outer Continental Shelf to Inform Permitting and Licensing for Offshore Renewable Energy Facilities and to Contribute to Basic Knowledge of Marine Mammal Behavior and Ecology in this Habitat

For topic area 4, NOPP is inviting proposals for three-year funding for a study or studies utilizing observational data integrating IOOS buoy observations, passive acoustics, aerial surveys, marine mammal tagging or other appropriate methodologies to describe the regionally-specific appearance and disappearance, patterns of migration and behaviors of marine mammals, turtles, fish or birds, with an emphasis on those protected under federal statutes such as the Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Sustainable Fisheries Act (SFA) and Migratory Bird Treaty Act (MBTA). Funding amounts are listed under the subtopic area descriptions below. The agencies anticipate making one to three awards for Subtopic 4.1 with an expected annual level of funding from \$200K-\$350K for up to three years, and one to four awards for Subtopic 4.2 with an expected annual level of funding from \$250K-\$500K over three years.

We expect that the information obtained under this topic area will have wide utility for a number of federal agencies charged with regulating, permitting, or licensing activities, and operating generally, on the OCS. In particular, we are seeking data and information products that can be applied to answer key regulatory and impact mitigation questions within the context of a specific future activity on the Outer Continental Shelf (OCS): offshore renewable energy siting/permitting (subtopic 4.1). In addition, we seek to support new

studies of marine mammals on the OCS that will include utilizing data from IOOS to contribute to basic knowledge of this habitat (subtopic 4.2), which may be of future value to several agencies (e.g. in planning and conducting Naval training exercises). Because the geographic scope for these uses could overlap, proposals may take an integrative approach, addressing questions from both sub-topic areas with a single study. Alternatively, proposals may take a more focused approach, addressing questions in geographic regions applicable to just one sub-topic.

Proposals must address IOOS DMAC Subsystem components based on the principles outlined in the white paper entitled 'Guidance for Implementation of the Integrated Ocean Observing System (IOOS) Data Management and Communications (DMAC) Subsystem.'

This document is available from the IOOS web site:

(http://ioos.gov/library/dmac_implementation_2010.pdf). Successful awardees will be required to adopt and implement these primary aspects of the IOOS DMAC Subsystem to the highest practical level. Applicants are encouraged to coordinate activities with the National Oceanic and Atmospheric Administration Science Centers, IOOS RAs, and other agencies and groups carrying out similar research on migratory marine species.

Subtopic 4.1:

Subtopic 4.1 focuses on potential interactions between migratory species and potential offshore renewable energy devices to fill key data needs for permitting and licensing offshore wind, wave, tidal, and ocean current energy technologies on the OCS.

A number of recent reports have identified the need for an improved understanding of the migratory patterns, distribution, abundance, and life history of migratory species,

including marine mammals, sea turtles, fish, bird, and bat species to inform responsible siting, development, and operation of marine renewable energy devices and arrays. While the general migratory routes for many species are known, we are lacking detailed data; and potential for interactions with renewable energy devices are not well understood. There is also a need to integrate information on the movement of individual animals with both oceanographic (e.g. nutrient and chlorophyll levels, water temperature, ocean current vectors) and life history data (e.g. habitat use, feeding, and reproduction life history information) to increase our ability to predict occurrence, abundance, and behavior in specific areas.

Given the time scales and observational intensity necessary to characterize protected migratory species, we anticipate that baseline data required under existing statutes could be difficult and expensive for offshore renewable energy developers to obtain during permitting and licensing. Developing strategies and capabilities to align ocean observing infrastructure to answer key regulatory questions concerning development of offshore renewable energy could provide new tools to accelerate responsible deployment of these technologies.

We anticipate that information obtained through research under this topic area will address one or more of the following areas of interest:

- Provide baseline information on migratory species to industry and regulators to inform permitting and licensing of offshore renewable energy technologies, with potential transferability to other regions.

- Provide a level of understanding for species and areas addressed in the study that will reduce costs associated with future site-by-site studies on migratory species during

permitting and licensing processes.

-Provide information to improve the siting of ocean renewable energy projects to minimize impacts on migrating species to the extent that they occur.

-Determine if there are temporal or spatial sensitivities concerning migratory species to consider during project installation, and determine potential mitigation strategies.

-Provide methodologies for cost effective migratory species observations using IOOS infrastructure, which could be expanded to species and areas outside of this initial study.

Proposals will be considered for any region(s) covered by IOOS. However there is special interest in covering geographic areas with significant potential for offshore energy, including wave, tidal, ocean current, and offshore wind, as well as potential for interaction with migratory species, including marine mammals, turtles, birds, and fish species protected under the ESA, MMPA, SFA, MBTA or other statutes. Critical to the success of any proposal will be its plan to include and utilize complementary data collected as part of IOOS. Proposals that clearly illustrate methodologies to present or organize data and research findings in a manner that aids the renewable energy industry in siting and/or regulatory decision support will be given highest consideration. The agencies anticipate making one to three awards for this subtopic with an expected annual level of funding from \$200K-\$350K for up to three years.

Subtopic 4.2:

Subtopic 4.2 seeks to utilize IOOS technologies and data to contribute to our understanding of the behaviors and migrations of marine mammals on the OCS. Existing

data on marine mammals in outer shelf environments is insufficient at spatial and temporal scales necessary to assess risks of anthropogenic activities at either the individual or population levels. There is tremendous value in combining studies of outer shelf populations with data collected via IOOS as the complementary information provided will allow assessment of oceanographic and atmospheric conditions related to animal groupings and movements. This may facilitate a stochastic level of prediction in the future.

Funding under this subtopic will be used to equip one or more sites that are covered by IOOS with small arrays of permanent, continuously or near-continuously recording passive acoustic monitoring (PAM) detectors that can identify, enumerate, locate and track vocalizing mysticete or odontocete whales over distances of many 10's to 100's of km with the goal of identifying migration or movement corridors, average rates and directions of movement, formation and dissipation of groups (as possible), individual vocal behavior and timing of occurrence in a region. Studies may also or alternatively include data obtained directly from marine mammals equipped with electronic data logging tags that report time, location, and possibly other variables (e.g. depth, temperature, salinity) for periods of weeks to months, and preferably longer. Biologging data could act to guide placement of PAM equipment for longer-term monitoring, and inform associations of animals' occurrence and behavior with specific oceanographic habitats and conditions.

Proposals will be considered for any region(s) covered by IOOS. However, there is special interest in including in coverage geographic areas used for training by the U.S. Navy. Critical to the success of any proposal will be its plan to include and utilize complementary data collected as part of IOOS with the goal of understanding mammal activities in a concept integrated with diverse environmental data. The agencies anticipate making one to four

awards for this subtopic with an expected annual level of funding from \$250K-\$500K over three years.

C. Program Authority

Statutory authority for this program is provided under the Integrated Coastal and Ocean Observation System Act of 2009, 33 U.S.C 3601-3610.

II. Award Information

A. Funding Availability

Total anticipated funding for all awards is subject to the availability of appropriations. NOPP, through its partner agencies, expects to fund multiple awards (anywhere from 10 to 21 awards), in multiple topic areas, in amounts ranging from \$200,000 to \$4,000,000 per year, contingent on availability of funds each year.

B. Project/Award Period

This is a multi-year funding opportunity. Unless otherwise specified, proposed projects may request funding for up five years. Please note, for Topic Areas 1 and 2, should an applicant decide to propose a project less than five years, NOPP does not anticipate announcing another federal funding opportunity for those activities prior to 2015. Funding in the out-years is contingent upon availability of funds from Congress and satisfactory performance, and is at the sole discretion of the partner agencies.

C. Type of Funding Instrument

Applications should be written as cooperative agreements and should specify this award

type on the cover sheet. However, the partner agencies reserve the right to make awards to applicants under this funding announcement as appropriate.

If a cooperative agreement is awarded, the federal government will be substantially involved by, for example, acquiring, increasing access to, and enhancing capacity to use data and tools; convening partners and building diverse teams to accomplish work; assisting with instructional design; and/or coordinating access to datasets, Federal testing facilities, High Performance Computing and/or transitional capabilities, operational standards and configurations, modeling expertise, consultation and review, and operational requirements within NOAA, NOPP partners, and other Federal agencies as necessary.

III. Eligibility Information

A. Eligible Applicants

Eligible funding applicants for this competition are institutions of higher education, non-profit and for-profit organizations, and state, local and Indian tribal governments. Federal agencies or institutions and foreign governments may not be the primary recipient of awards under this announcement, but are encouraged to partner with applicants when appropriate. If requesting funds under this award, federal partners must identify the relevant statutory authorities that will allow for the receipt of funds.

For all NOPP-funded activities, team efforts are required among at least two of the following three sectors: academia, industry (including Non-Governmental Organizations or

NGOs), and government (including State and Local).

If applicants have partners who would receive funds, the lead grantee will be expected to provide funds using subcontracts or other appropriate mechanisms to the project partners. If a federal partner is a NOAA office, the funds will be transferred internally. If the partners are federal agencies other than NOAA, the grantee and the federal partner must use interagency agreements or otherwise take steps relevant to their organizations to ensure that funds can be transferred by the primary grantee and received by any federal partners.

Before non-NOAA Federal applicants may be funded, they must demonstrate that they have legal authority to accept funds in excess of their appropriation. Because of the nature of this competition, the Economy Act (31 USC 1535) is not an appropriate authority.

Applicants should note that federal agencies are generally barred from accepting funds from a recipient to pay transportation, travel, or other expenses for any Federal employee unless specifically approved in the terms of the award. A Special Award Condition will be required if invitational travel for Federal employees is included in a proposal.

B. Cost Sharing or Matching Requirement

There is no requirement for cost sharing.

NOPP appreciates that applicants may seek additional support (in-kind or cash) for development of regional coastal ocean observing systems under the umbrella of IOOS. While a cost share of funding is not required, applicants are requested to provide a description of complementary funding and in-kind contributions from project partners.

In general, the IOOS Program will support the use of IOOS funds and activities towards

meeting the shared goals of IOOS and state and local partners over the course of a funded project. This support is based on the assumption that the work plan for which the federal funds were awarded remains unchanged.

C. Other Criteria that Affect Eligibility

N/A

IV. Application and Submission Information

A. Address to Request Application Package

Application packages for full proposals are available through Grants.gov. If an applicant does not have Internet access, application packages can be requested from Regina Evans, NOAA IOOS; 1100 Wayne Avenue, Suite 1225, Silver Spring, Maryland 20910; or by phone at 301-427-2422, or by fax 301-427-2073, or via e-mail at Regina.Evans@noaa.gov.

B. Content and Form of Application

Applications that do not include all required documentation and information as listed below will not be reviewed.

Letter of Intent: Letters of Intent are not requested under this announcement.

Full proposal: Proposal narrative must total no more than 15 pages (single-spaced,

12-point font). The 15-page limit does not include the proposal title page, a table of contents, the project summary referenced below under item two (2), and any appendices. Appendices should be limited to materials that directly support the main body of the proposal (e.g., detailed budget information, support letters, resumes, references, lists of data sources, and maps) and the total appendices may not exceed 50 pages in length.

Applicants should paginate their proposal and any appendices. Appendices may be paginated as stand-alone documents (individually) or collectively.

Applicants are requested to present their work plan and budget requests in priority order -- indicating base capacity plus enhancements at various levels of funding -- to streamline the process of descoping projects and making awards if less money is available than requested.

All funding application packages must contain the following components:

1. Title Page (Proposal Cover Sheet). Include proposal title, topic area(s) applied for, complete contact information for the Principal Investigator and Financial Representative, duration of proposed project, and funding request. If funds are to be transferred to a NOAA partner on the project, state the amount to NOAA on the cover. If applicants are submitting separate proposals for multiple topic areas, they should list those topic areas on the cover sheet.

2. Project Summary. Provide a one- to two-page summary of the proposed project. The summary should be prepared for a broad audience and contain the following sections:

- a. Project Name/Title
- b. Primary Contact (name, address, phone, fax, e-mail)
- c. Recipient Institution
- d. Other Investigators (name, affiliated institution or agency)
- e. Brief Project Summary including objectives and intended benefits
- f. Partners

3. Project Description ("Proposal"). All proposals must include the following sections:

a. Background. Provide sufficient background information for NOAA and non-NOAA reviewers to independently assess the significance of the proposed project. Summarize the problem to be addressed and the status of ongoing efforts to address the identified needs. Summarize the relationship of the proposed work to other regional efforts.

b. Goal and Objective(s). Describe the specific project goals and objectives to be achieved. Goals and objectives should be specific for each year of the work plan presented. Recipients will be required to submit semi-annual progress reports that align with these stated goals and objectives.

c. Audience and Benefits. Identify the benefits to users, customers, collaborators, and society as a whole. Indicate specific users and document the process by which user requirements are guiding the proposed work. Describe any outreach, education or training that will be needed for users to make full use of the project results. Explain how products or

information will be delivered as a result of the project.

d. Work plan. Present work plans in priority order indicating base capacity plus enhancements at various levels of funding. Identify specific tasks to be accomplished; explain the technical approach (including quality assurance) needed to accomplish the tasks; identify the roles of partners and cooperators; and identify potential obstacles to successful completion of the goals and objectives. Describe how users are involved in the planning and design process. Identify the roles and responsibilities of any federal partners. In general, applicants should clearly address the specific requirements for the Topic Area(s) to which they are applying.

e. Milestone Schedule. Display timelines for major tasks and show milestones for important intermediate and final products, including deliverables and key project outcomes.

f. Cost Proposal. NOPP requires that the cost proposal lead with a table summarizing, by fiscal year and for each entity requesting funds: the Principal Investigator(s), the name of the institution and its nature, and funds requested for each fiscal year of the proposed effort. The accompanying budget narrative should follow the categories and formats in the NOAA grants package (Standard Form 424-A). Indicate base capacity plus enhancements at various levels of funding and in priority order to streamline the process of awarding funds if less money is available than requested. Clearly explain costs required to achieve each goal, objective, milestone or deliverable listed in the work plan and milestone schedule.

The budget narrative should also include information on travel such as costs, destinations, number of travelers, and a justification of relevance to the project. If trip

details are unknown, applicants must state the basis for any proposed travel charges. Applicants must allocate travel funds for coordination meetings at the regional and national levels, including travel to the annual IOOS Regional Workshop and an annual project meeting with IOOS program staff at NOAA headquarters or other location as determined by the IOOS program office. As noted previously, federal agencies are generally barred from accepting funds from awardees to pay transportation, travel, or other expenses for any federal employee unless specifically approved in the terms of the award. A Special Award Condition will be required if invitational travel for federal employees is included in a proposal. Foreign travel must receive prior approval and should be included in the proposal to avoid having to request approval after the project starts.

If NOAA is requested to perform any work as part of the project, this work must be reflected in the project description and budget narrative. The budget should clearly show where all funds will go and how the funds will be used. Applications for federal assistance (forms 424 and 424a) must show the total amount LESS what goes to a NOAA partner; the budget narrative should indicate the total amount including that which goes to a NOAA partner and should include text stating that the applicant wishes for NOAA to retain those funds and have them used by partner NOAA office.

Additional detailed budget information should be included in an appendix (see below for additional information).

4. Appendices

- a. Additional Detailed Budget Information.
 - i. Provide an SF-424A for each year of the proposal (SF-424As will not be

included in the page count of the proposal or appendices).

ii. Provide a separate budget for each subaward and subcontract. Include names and locations (city, state, Congressional district) of all entities receiving funds and primary places of performance under the subcontract/subaward.

iii. Itemize and describe the intended use of equipment costing \$5,000 or greater that will be purchased under the award (for this item, applicants should include a brief narrative in the proposal and detailed budget information in the appendix). Complete a lease versus purchase analysis for any equipment \$5,000 or greater. Identify who will retain ownership of any equipment purchased through grant funds after the project ends.

iv. List and describe complementary funding and in-kind contributions from project partners.

b. Resumes. Provide resumes of the Principal Investigator and other key personnel critical to the success of the project. Ensure that resumes address qualifications relevant to conducting the proposed work. Limit resumes to a maximum of two pages for each key investigator.

c. National Environmental Policy Act (NEPA)

NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: <http://www.nepa.noaa.gov>, including our NOAA Administrative Order 216-6 for NEPA,

http://www.gc.noaa.gov/documents/NAO216_6_TOC.pdf , and the Council on Environmental Quality implementation regulations, http://ceq.hss.doe.gov/Nepa/regs/ceq/toc_ceq.htm .

As part of an applicant's package, under the description of program activities, applicants are required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns (e.g., use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems).

NOAA may require follow-up information after the application process has been completed. In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting of an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying and implementing feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. Failure to do so shall be grounds for the denial of not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

Applicants are required to answer the questions indicated in this Announcement of Federal Funding Opportunity. Applicants should answer the NEPA questions to the best of

their ability with as much detail as possible. If the applicant does not answer all of the questions indicated in the Announcement of Federal Funding Opportunity the application may be considered incomplete.

Some of the questions may overlap with material provided in other parts of the application. This overlap occurs because the answers to the questionnaire are provided to NOAA staff who do not review the other parts of the application. If appropriate, the applicant may copy the information from other parts of the application and paste it into the answers to the questionnaire. Many questions have a yes or no response. If the response is no the applicant does not need to elaborate on their answer. If the response is yes the question will have a second part asking the applicant to provide more information.

Applicant NEPA questions are as follows:

Question C1. Is the proposed activity going to be conducted in partnership with NOAA or would the proposed activity require NOAA's direct involvement, activity, or oversight? If yes, describe NOAA's involvement, activity, or oversight, including the name of the office or program that is involved.

Question C2. Would the proposed activity involve any other federal agency(ies) partnership, direct involvement, activity, or oversight? If yes, provide the name(s) of the agency(ies) and describe its involvement, activity, or oversight.

Question D1. Provide a brief description of the location of the proposed activity.

Question E1. List any federal, state, or local permits, authorizations, or waivers that would be required to complete the proposed activity. Provide the date the permit,

authorization, or waiver was obtained or will be obtained. Provide copies of the permit, authorization, or waiver as appropriate. Was a NEPA analysis prepared for the permit, authorization, or waiver? If yes, state the title of the NEPA analysis and provide copies of the NEPA analysis.

Question F1. Is there the potential for the proposed activity to cause changes that would be different from normal ambient conditions (e.g., temperature, light, turbidity, noise, other human activity levels, etc.)? If yes, describe the changes and the circumstances that would cause these changes.

Paperwork Reduction Act Statement Public reporting burden for this collection of NEPA information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Ms. Shelby Mendez, NOAA Office of Program Planning and Integration, SSMC 3, Room 15718, 1315 East West Highway, Silver Spring, MD 20910. The information collection does not request any proprietary or confidential information. No confidentiality is provided.

Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. The valid OMB Control Number is 0648-0538, which expires on August 31, 2012.

C. Submission Dates and Times

Full Proposals must be received by www.grants.gov, postmarked, or provided to a delivery service by 5:00 p.m. (EDT) on October 1, 2010. Use of U.S. mail or another delivery service must be documented with a receipt. No facsimile or electronic mail applications will be accepted. Please note: Validation or rejection of your application by Grants.gov may take up to 2 business days after submission. Please consider this process in developing your submission timeline. Applications received after that time will not be reviewed or considered.

D. Intergovernmental Review

Funding applications that include State agencies as funded partners are subject to Executive Order 12372, "Intergovernmental Review of Federal Programs", which relies on State and local processes for the coordination and review of proposed Federal financial assistance and direct Federal development. It is the state agency's responsibility to contact their state's Single Point of Contact (SPCO) to find out about and comply with the state's process under EO 12372. To assist the applicant, the names and addresses of the SPOCs are listed on the Office of Management and Budget Web site:

<http://www.whitehouse.gov/omb/grants/spoc.html>.

E. Funding Restrictions

N/A

F. Other Submission Requirements

Proposals, including any letters of support, should be submitted through Grants.gov. If an applicant does not have Internet access, the applicant must submit through surface mail one set of originals (signed) and two copies of the proposals, including any letters of support, and related forms to the NOAA IOOS Program to the attention of Regina Evans, NOAA IOOS; 1100 Wayne Avenue, Suite 1225, Silver Spring, Maryland 20910. No e-mail or fax copies will be accepted.

Please be advised that potential funding applicants must register with Grants.gov before any application materials can be submitted. An organization's one time registration process may take up to three weeks to complete so please allow sufficient time to ensure applications are submitted before the closing date. The Grants.gov site contains directions for submitting an application, the application package (forms), and is also where the completed application is submitted.

Applicants using Grants.gov must locate the downloadable application package for this solicitation by the Funding Opportunity Number or the CFDA number (11.012). Applicants will be able to download a copy of the application package, complete it off line, and then upload and submit the application via the Grants.gov site. Grants.gov will provide information about submitting a proposal through the site as well as the hours of operation. After electronic submission of the application, the person submitting the application will receive within the next 24 to 48 hours two e-mail messages from Grants.gov updating them on the progress of their application. The first e-mail will confirm receipt of the application by the Grants.gov system, and the second will indicate that the application has either been successfully validated by the system prior to transmission to the granting agency or has been

rejected due to errors. After the application has been validated, this same person will receive another e-mail when the application has been downloaded by the federal agency.

To use Grants.gov, applicants must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number and be registered in the Central Contractor Registry (CCR). Allow a minimum of five days to complete the CCR registration. (Note: Your organization's Employer Identification Number (EIN) will be needed on the application form.)

Full proposal application packages should be submitted through Grants.gov. The standard NOAA funding application package is available at www.grants.gov. Please be advised that potential funding applicants must register with Grants.gov before any application materials can be submitted. An organization's one time registration process may take up to three weeks to complete so please allow sufficient time to ensure applications are submitted before the closing date. The Grants.gov site contains directions for submitting an application, the application package (forms), and is also where the completed application is submitted.

If an applicant does not have Internet access, the applicant must submit through surface mail one set of originals (signed) and two copies of the proposals and related forms to the NOAA IOOS Program. No e-mail or fax copies will be accepted. Full proposal application packages submitted by mail must be received by the NOAA IOOS Program no later than 5:00 p.m. ET, October 1, 2010. Any U.S. Postal Service correspondence should be sent to

the attention of Regina Evans, NOAA IOOS; 1100 Wayne Avenue, Suite 1225, Silver Spring, Maryland 20910.

V. Application Review Information

A. Evaluation Criteria

1. Importance/relevance and applicability of proposal to the program goals (35 percent): This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to federal, regional, state, or local activities and objectives for designing and implementing the regional component of the IOOS.

-Does the proposal demonstrate strong partnerships based on the degree of participation and integration of all proposed partners in the effort?

-Will the proposed project achieve the specific program goals as stated in the funding announcement?

-Does the proposal clearly demonstrate progress in and plans for collaborations to build the regional, national and/or global components of U.S. IOOS?

-Does the proposal demonstrate substantive collaboration with or support for existing U.S. IOOS partners, (e.g. RAs, research institutions, federal agencies, operational entities)?

-Does the proposal clearly demonstrate or describe plans to move elements of U.S. IOOS closer to operational status?

-Does the proposal demonstrate broad-based support from a range of stakeholders (e.g. industry, state and local agencies, other federal agencies, user groups), which might include

complementary funding, in-kind contributions, and/or other types of participation?

-Does the proposal address the specific applied information needs of partnering agencies articulated within the topic areas?

Additional question relevant to this criterion for Topic Area 1 only:

-Does the proposal clearly demonstrate the ability to operate and govern a regional coastal ocean observing system?

2. Technical and scientific merit (35 percent): This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. Proposals will also be evaluated on how effectively the proposed project builds upon prior partner agency investments, including in regional ocean and coastal observing technologies and systems.

Questions relevant to this criterion include:

-Is the proposed approach appropriate for the stated goals and objectives?

-Are the project goals and objectives achievable within the proposed time-frame?

-Do the proposed approaches incorporate current guidance, scientific, and/or technical advancements in the development and implementation of the U.S. Integrated Ocean Observing System?

-Does the proposal promote interoperability with other components of a regional and national ocean observing system?

-Does the proposal demonstrate a clear understanding of the required data management

approaches?

-Does the proposal demonstrate significant prior experience and success in related activities?

3. Overall qualifications of the funding applicants (10 percent): This criterion ascertains whether the funding applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project.

Questions relevant to this criterion include:

-Are the investigators qualified and is the organizational framework appropriate to conduct a project of the nature and scope proposed?

-Are investigators from other agencies and institutions within the region, including the IOOS RAs, included as key personnel on the project to capitalize on available expertise and promote a regional approach?

-Are investigators qualified with respect to the proposed scope and technical breadth of project data management and data interoperability?

4. Project costs (10 percent): This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time-frame.

Questions relevant to this criterion include:

-Are the cost, schedule, and deliverables clear, reasonable, and logically presented?

-Does the budget show costs required to achieve each goal, objective, milestone or deliverable listed in the work plan and provided with enough detail to evaluate their

reasonableness?

-Does the proposal demonstrate that the budget is commensurate with project needs?

-Is the cost effectiveness of the project optimized through strategic partnerships with collaborating institutions, agencies, or private sector partners?

5. Outreach and education (10 percent): This criterion assesses whether the project provides a focused and effective education and outreach strategy regarding partner agency missions, including NOAA's mission to understand and protect the Nation's natural resources.

Questions relevant to this criterion include:

-Does the proposal demonstrate that the target user community has been fully engaged in development of the desired project outcomes?

-Does the proposal demonstrate that information generated by the project will reach its target audience and have a positive impact on the development of regional and national observing system infrastructure?

B. Review and Selection Process

An initial administrative screening is conducted to determine compliance with requirements and completeness. The merit review process will then be conducted by the National Oceanographic Partnership Program (NOPP) office with input from the funding agencies and other interested NOPP agencies. All proposals will be evaluated and individually scored in accordance with the assigned weights of the above evaluation criteria by at least three independent peer evaluations. The merit review ratings are used to produce

a rank order of the proposals. The Selecting Official or designee may negotiate the funding level of the proposal.

C. Selection Factors

The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding
2. Balance/distribution of funds:
 - a. Geographically
 - b. By type of partners
 - c. By project types
 - d. By research areas
 - e. By type of institutions
3. Duplication of other projects funded or considered for funding by NOAA/federal agencies
4. Program priorities and policy factors
5. Applicant's prior award performance
6. Partnerships with and participation of targeted groups

7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

D. Anticipated Announcement and Award Dates

The start date on proposals should be June 1, 2011; or the first day of the month of any month after June 2011.

VI. Award Administration Information

A. Award Notices

Applications recommended for funding by the selecting official(s) will be forwarded to the appropriate agency grants management or procurement offices. The applicant will be notified by the NOPP office by e-mail that their application was recommended for funding. The applicant must be aware that the notification by the NOPP office is NOT the official award notice. Official notification happens only when the applicant receives an award notice from a federal grants or procurement officer either by postal mail or electronically.

Costs incurred prior to receiving notice from an authorized federal grants or procurement officer are solely at one's own risk of these costs not being included under the award.

Unsuccessful applications will be destroyed and not returned to the applicant.

B. Administrative and National Policy Requirements

1. Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements Administrative and national policy requirements for all Department of Commerce awards are contained in the Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of February 11, 2008 (73 FR 7696). A copy of the notice may be obtained at <http://www.gpoaccess.gov/fr/search.html>.

2. Limitation of Liability: In no event will NOPP or the partner agencies be responsible for proposal preparation costs if these programs are cancelled because of other agency priorities. Publication of this announcement does not oblige NOPP to award any specific project or to provide special privileges.

C. Reporting

Award recipients are subject to partner agency requirements for periodic reporting.

NOAA awardees will be required to submit financial and performance (technical) progress reports electronically through the NOAA Grants On-Line System. Instructions for submitting financial and progress reports will be provided by NOAA Grants Management Division.

NOPP-funded PIs are also required to provide an annual report to the NOPP office for inclusion in the annual NOPP Report to Congress.

VII. Agency Contacts

For questions regarding this announcement, contact: Regina Evans, NOAA IOOS; 1100 Wayne Avenue, Suite 1225, Silver Spring, Maryland 20910; or by phone at 301-427-2422, or by fax 301-427-2073, or via e-mail at Regina.Evans@noaa.gov.

VIII. Other Information

Applicants' names will be released to the NOPP office, which will be managing the merit review process; NOPP staff have all signed non-disclosure agreements to protect this information. The NOAA IOOS Program Office will not release the names of applicants submitting proposals for any other purpose unless ordered by a court or requested to do so by an appropriate NOAA official and administrative protocol.

Applicants can use the public search feature at <https://grantsonline.rdc.noaa.gov/flows/home/Login/LoginController.jspf> to find information about NOAA awards or go through the Freedom of Information Act process to request information about grant competitions. More information about the NOAA FOI process is on-line at <http://www.rdc.noaa.gov/~foia/>.

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