

## 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: FY 2016 Implementation of the U.S. Integrated Ocean Observing System (IOOS®)

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-IOOS-2016-2004378

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

Dates: Full proposals must be received by 5:00 p.m. ET on August 31, 2015.

Funding Opportunity Description: The U.S. Integrated Ocean Observing System (IOOS®) is a national and regional partnership working to provide observations, data, and new tools and forecasts to improve safety, enhance the economy, and protect our environment. NOAA is requesting proposals for coordinated regional efforts that further the IOOS in two topic areas, 1) sustaining and enhancing comprehensive regional observing systems and 2) verification and validation of observing technologies for studying and monitoring coastal and ocean environments.

NOAA invites applicants to submit proposals for one or both of these topic areas, described in detail below, and requests applicants submit separate applications for each topic area. For single topic proposals, clearly identify the topic area and present all required information such that merit reviewers can associate proposal elements (project description, partners, budgets) with the specific topic area.

NOAA anticipates making multiple awards, subject to the availability of funds, in amounts ranging from \$1,000,000 to \$4,000,000 per year, for up to five years.

## FULL ANNOUNCEMENT TEXT

### I. Funding Opportunity Description

#### A. Program Objective

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 National Oceanographic Partnership Program (NOPP), recommended development of IOOS. At that time, work began on the development of regional coastal ocean observing systems. In 2006, the First IOOS Development Plan (Ocean.US 2006) called for an integrated system of observations to support national and regional priorities. A comprehensive effort to engage stakeholders at the local and regional level would determine regional priorities.

Eleven IOOS Regional Associations (RAs), representing the entire U.S. coastline, were established and 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. The RAs engage with stakeholders to determine regional priorities and needs, and identify the data and information products necessary to meet those needs. In 2007, NOAA, as the lead federal agency for IOOS, established the U.S. IOOS Program 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, President Obama signed the Omnibus Public Lands Management Act of 2009, 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 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 ocean, coastal, and Great Lakes observing system that enables NOAA and its partners to provide service to the Nation through improved ecosystem and climate understanding; sustained living marine resources; improved public health and safety; reduced impacts of natural hazards and environmental changes; support of homeland security and enhanced support for marine commerce and transportation.

IOOS enables decision making every day but also fosters advances in science and technology. IOOS is an end to end operational system, integrating activities in the areas of regional observing system coordination and management; observations; data management

and communication; modeling and analysis; education and outreach; and research and development. IOOS addresses regional and national needs for ocean, coastal, and Great Lakes information, to gather data (physical, chemical and biological) on key coastal, ocean, and Great Lakes variables, and to ensure timely and sustained dissemination and availability of these data in standard formats. Entities involved in IOOS include federal, state, local and tribal governments; regional entities; academia; and the private sector, including non-governmental organizations.

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

- Operation, management, and coordination of coastal observing systems and requisite data management systems, in the eleven IOOS regions, with an emphasis on making data and information widely available and useful to users;
- Engaging with users and stakeholders to determine priorities;
- Testing, deploying, operating, and maintaining sensors and platforms to address data and information needs articulated by regional and national (Federal) stakeholders;
- Participate in a standards based lifecycle data management framework that maximizes the discoverability, accessibility, and usability of data and information products and ensures their long term preservation;
- Engaging with new, potentially unfunded, regional data providers to facilitate the integration of their data into regional or national data assembly centers and their accessibility via IOOS standards-compliant data access services;
- Engaging in outreach activities to increase stakeholder participation, and working with educators to contribute high quality data and information into education tools and curricula; and
- Contributing to the development of the national IOOS observing, data management and communication, and modeling subsystems.
- Maintain the IOOS regional infrastructure to provide opportunities for leveraging by other Federal, State, local and tribal government efforts and enhance efficient operations.
- Environmental stewardship through the implementation of the best practices and procedures outlined in the programmatic environmental assessment (PEA) and its project design criteria. (see section VIII).

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), and continue a national-scale effort for evaluation of observing technologies (Topic Area 2).

## B. Program Priorities

IOOS is a sustained, operational ocean, coastal and Great Lakes observing system, including a network of regional partners that coordinate with regional stakeholders while contributing data and other outputs to the national system, which also includes federal and industry partners. IOOS regional partners shall continue to develop activities in a manner that supports regional priorities while advancing regional contributions to national missions. NOAA is 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 data integration supporting regional and national agency priorities.

### Topic Area 1: Implementation and Development of Regional Coastal Ocean Observing Systems

For topic area 1, NOAA is inviting proposals for five-year funding to continue the implementation and development of regional coastal ocean observing systems.

NOAA expects successful awardees to serve as a Regional Association responsible for operating the Regional Coastal Observing System. For the purposes of this funding announcement, the following definitions are provided:

Regional Association – an organization that coordinates State, Federal, local, and private interests at a regional level with the responsibility of engaging the private and public sectors in designing, operating, and improving regional ocean, coastal, and Great Lakes observing systems in order to ensure the provision of data and information that satisfy the needs of user groups from the respective regions.

Regional Coastal Ocean Observing System (RCOOS) - An end-to-end network of observations, data management and delivery, data analysis and modeling, research, education and outreach, and organizational structure and management that links the needs of users to observations of coastal marine and estuarine environments and the Great Lakes on regional scales. The RCOOS consists of the infrastructure and expertise required for each of these subsystems. It also includes oversight, evaluation, and evolution mechanisms that ensure the continued and routine flow of data and information, the evolution of a system that adapts to the needs of the user groups and to the development of new technologies and understanding.

Proposals should build on the efforts of the existing RAs and demonstrate a single entity that is both the RA and RCOOS. Proposals should demonstrate the approach and benefits of integration and implementation at the geographic scale of the IOOS regions described below

(not sub-regional). NOAA intends to make eleven awards for this activity in amounts ranging from \$1,000,000 to \$4,000,000 per year, subject to the availability of funds.

Applicants should address how they integrate the following subsystem elements, which are described in further detail below: 1) Governance and Management Subsystem; 2) Observing Subsystem; 3) Data Management and Communications (DMAC) Subsystem; 4) Modeling and Analysis Subsystem; and 5) Outreach and Education in the management and operation of the regional coastal ocean observing system.

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.

Successful applicants will be required to report on progress and performance over the life of the award and are required to participate in the annual Regional IOOS meeting, the Annual Data Management Workshop, and any other meetings related to the core subsystem elements as directed by the U.S. IOOS Program.

For those proposals that are requesting funding of \$1.5M a year or more, applicants are required to present their work plan and budget requests in priority order, indicating base capacity plus enhancements at increasing levels of funding, to streamline the process of de-scoping projects and making awards if less money is available than requested. Base level is to be set at \$1.5M annually, a subsequent level set at \$2.5M, and an annual cap of \$4M. Applicants should organize annual budgets in a manner that clearly connects costs to activities.

### Subsystem Elements

#### 1. Governance and Management Subsystem

The First IOOS Development Plan (Ocean.US 2006) defines the geographic extent of a regional coastal ocean observing system as including 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.) connected to the ocean. NOAA, building upon prior investments coordinated by the eleven RAs, request multi-year proposals 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 (the ocean and estuaries from North Carolina through the west coast of 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);
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 Hawai'i, the territories of Guam and American Samoa, the Commonwealth of the Northern Mariana Islands, the Republic of Palau, the Republic of the Marshall Islands, the Federated States of Micronesia, and the U.S. Minor Outlying Islands (Howland, Baker, Johnson, Jarvis, Kingman, Midway, Palmyra, Wake).

Applicants to this funding opportunity must:

- Describe the organizational structure that will gather, manage, and distribute required observation data, supporting and integrating all aspects of coastal and ocean, or Great Lakes observing and information programs within one of the identified regions. The organization will work closely with the U.S. IOOS Program, and as such, NOAA's desire is that applicants identify a full-time equivalent Executive Director, or individual or individuals filling a similar position, as the lead for the organization.

- Define a formal process for identifying regional needs and priorities through consultation with a diversity of regional stakeholders; and trace the end-to-end linkage from requirements to observations, data, products or services delivered to the stakeholders.

- Ensure the proposal represents the interests of the diverse data providers and user groups in the region, and they are actively participating in regional activities.

## 2. Observing Subsystem

Observing systems may consist of multiple platforms and sensors, including autonomous underwater vehicles, High Frequency Radar, Animal Borne Sensors, satellites (remote sensing), and in situ measurements from buoys, gauges, and ships, among others.

Applicants should describe plans for sustaining the operation and maintenance of existing assets and for enhancements to the observing system based on stakeholder needs as identified in a regional observing system build-out plan (<http://www.ioosassociation.org/regionalIOOS>). 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.

Applicants should describe their strategy for balancing changes in regional priorities with the need to maintain established data sets, the primary value of which may be in their long-term records. Where there are funding arrangements with other programs (e.g. NOAA's Ocean Acidification Program), changes to those assets must be justified. Other proposed changes to existing observing assets that contribute to national or inter-regional network should be explained.

Applicants should specify how they are making connections between regional and national priorities and needs, observing activities, DMAC, modeling activities, and the delivery of products and services. Applicants are encouraged to provide details about ongoing and planned inter-, intra-regional and national collaboration on observing activities.

For those IOOS regions with a High Frequency radar network, applicants should identify the priority HF radars supported in the proposal. For each priority HF Radar identified, include its location and approximate operating frequency and how it will operate within the national network.

A number of documents have been written by the ocean observing community and applicants should discuss how their regional observing subsystem activities will be designed and implemented in a way that is consistent with these and other national frameworks. The First IOOS Development Plan, A Coastal Theme for the IGOS Partnership, and An Implementation Strategy for the Coastal Module of the Global Ocean Observing System, further define the variables, with temporal and spatial resolutions that the regional coastal component of IOOS needs to observe. The Interagency Ocean Observation Committee prioritization of IOOS needs including the U.S. IOOS Summit Report, which identifies the high priority variables necessary to meet the seven societal goals of IOOS.

Applicants should be familiar with documents outlining national plans and strategies related to specific data types and observing technologies. Proposals should describe how their work contributes to these national efforts and is consistent with the guidance in the following documents:

- The National Operational Wave Observation Plan  
([http://www.ioos.noaa.gov/library/wave\\_plan\\_final\\_03122009.pdf](http://www.ioos.noaa.gov/library/wave_plan_final_03122009.pdf)),

- The National Surface Current Mapping Plan  
([http://www.ioos.noaa.gov/library/national\\_surface\\_current\\_plan.pdf](http://www.ioos.noaa.gov/library/national_surface_current_plan.pdf)), and

- A Network Gaps Analysis for the National Water Level Observation Network – Updated Edition

([http://tidesandcurrents.noaa.gov/publications/Technical\\_Memorandum\\_NOS\\_COOPS\\_0048\\_Updt.pdf](http://tidesandcurrents.noaa.gov/publications/Technical_Memorandum_NOS_COOPS_0048_Updt.pdf))

- Gap Analysis of the Great Lakes Component of the National Water Level Observation Network (NWLON)

([http://tidesandcurrents.noaa.gov/publications/NOAA\\_Technical\\_Report\\_NOS\\_COOPS\\_074.pdf](http://tidesandcurrents.noaa.gov/publications/NOAA_Technical_Report_NOS_COOPS_074.pdf))

- The white paper " Toward a U.S. IOOS® Underwater Glider Network Plan Part of a comprehensive subsurface observing system"

([http://www.ioos.noaa.gov/glider/strategy/glider\\_network\\_whitepaper\\_final.pdf](http://www.ioos.noaa.gov/glider/strategy/glider_network_whitepaper_final.pdf))

- Strategic plan and recommendations for a National Telemetry Network (ATN) through IOOS

([http://www.ioos.noaa.gov/observing/animal\\_telemetry/national\\_atn\\_sp\\_draft\\_final1.pdf](http://www.ioos.noaa.gov/observing/animal_telemetry/national_atn_sp_draft_final1.pdf))

- Strategic Plan for Federal Research and Monitoring of Ocean Acidification - Prepared by Interagency Working Group on Ocean Acidification

(<ftp://ftp.oar.noaa.gov/OA/IWGOA%20documents/IWGOA%20Strategic%20Plan.pdf>)

- Quality Assurance of Real Time Ocean Data (QARTOD) manuals

(<http://ioos.noaa.gov/qartod>)

- The emerging U.S. Marine Biodiversity Observation Network

([http://www.ioos.noaa.gov/biodiversity/marine\\_bon.html](http://www.ioos.noaa.gov/biodiversity/marine_bon.html); [http://www.nopp.org/wp-content/uploads/2010/03/BON\\_SynthesisReport.pdf](http://www.nopp.org/wp-content/uploads/2010/03/BON_SynthesisReport.pdf))

### 3. Data Management and Communications (DMAC) Subsystem

A key premise of IOOS is that information, regardless of its method of collection, is a public resource, and therefore, one of the primary goals of DMAC is enabling the public to discover, access, and understand ocean, coastal, and Great Lakes information. This information can take many forms and includes, but is not limited to, a multidisciplinary (physical, chemical, biological, and geological) suite of direct and remotely sensed observations. The DMAC subsystem must also be capable of managing numerical simulations of the ocean yielding hindcasts, nowcasts, or forecasts of ocean conditions, and analyses and syntheses of various information streams into value added information products such as ocean or ecosystem state estimates created by assimilating observations into numerical models.

The DMAC subsystem is essential infrastructure in the form of information technology, data managers, standard processes, and governance policies needed to manage ocean, coastal, and Great Lakes information through its entire lifecycle. Inter- regional collaboration is strongly encouraged on all aspects of DMAC planning and implementation.



Note, it is not assumed that each region must operate a completely separate and distinct infrastructure. Innovation to increase efficiencies and share infrastructure, expertise, and technology between regions is encouraged.

Proposals must identify resources that will be applied to the DMAC subsystem. This should include staff and financial resources directed towards integrating data and information products originating through the efforts of other organizations.

Successful applicants will operate an IOOS Regional Data Assembly Center (DAC), which includes computer facilities that aggregate, manage, curate, and distribute ocean, coastal and Great Lakes information; or ensure that the region's data is represented in at least one of the regional IOOS or national DACs. These DACs provide data assembly, quality control, discovery and access services for marine and Great Lakes data collected by state, local, tribal governments, academia and industry regardless of whether the U.S. IOOS Program contributes funds for the observing platform. These DACs will re-serve federal data as a service if there is a stakeholder requirement.

While applicants do not need to submit a full technical DMAC plan as part of the proposal, (the development of a regional DMAC implementation plan covering, at minimum the award period, will be required of all successful awardees so applicants should identify resources in their proposal to execute this task once awards are in place) they should demonstrate:

1. That they have the capacity to operate a regional DAC;
2. How their DMAC efforts comply with the principles and functional requirements in the document Guidance for Implementation of the Integrated Ocean Observing System (IOOS) Data Management and Communications (DMAC) Subsystem, henceforth referred to as IOOS/DMAC Guidance ([http://www.ioos.noaa.gov/data/contribute\\_data.html](http://www.ioos.noaa.gov/data/contribute_data.html)); and
3. Their ability to participate in national DMAC efforts such as QARTOD.

Below provides amplifying information on how proposals should address the IOOS/DMAC Guidance. Proposals shall demonstrate:

1. That the applicant can manage the data lifecycle for two complementary but equally important data streams. First, they shall manage, data and information generated by the project partners, and second, they shall manage data that exists within their region but may be collected or funded by other organizations or other efforts;
2. Support for QARTOD efforts by resourcing subject matter experts to participate in QARTOD workshops and to implement QARTOD results within their regional DAC;

3. How their DMAC efforts enable or inform activities within the Modeling and Analysis Subsystem; and

4. Staff and financial resources to attend one national DMAC meeting annually.

Successful proposals should succinctly describe how they will meet the following functional and programmatic responsibilities identified in the IOOS/DMAC Guidance.

#### Functional Responsibilities

Applicants should allocate resources and maintain the capacity to:

1. Enable open data sharing
2. Contribute data to the World Meteorological Organization Global Telecommunications System (WMO GTS)
3. Employ a Service-Oriented Architecture (SOA)
4. Establish, register, and maintain standards-based Data Access Services
5. Offer data in approved common data formats
6. Implement ontologies, controlled vocabularies and identifiers
7. Implement metadata standards and metadata management and query capabilities
8. Ensure local storage and offsite, permanent archiving of data at an approved facility

#### Programmatic Responsibilities

Applicants should propose activities to maintain capacity to and demonstrate how they will:

1. Develop realistic plans for long-term, regional DAC operations, including automation, continuity of operations planning, infrastructure upkeep, collaborative open source software development, and other efficiencies aimed at making the DAC maintenance more stable, reliable, and efficient.

2. Describe how they will participate in the operations, maintenance, and evolution of the national DMAC subsystem. Applicants should describe how they will measure and document the successful deployment and use of regional DMAC products and services. For example, they might do this by establishing diagnostic measures of service 'up-time' and documenting the number of stakeholder products using regional IOOS data services.

During the period of the award, the U.S. IOOS Program expects to develop capability maturity levels for particular areas in data management such as use of standardized data

access services, provision of metadata, system reliability, and others. The U.S. IOOS Program will assess and publicly display maturity levels for IOOS data and service providers. The U.S. IOOS Program expects successful applicants to permit and assist with this assessment, and encourages award recipients to achieve as high a level as practical in each category and to describe requirements or obstacles to moving to higher maturity levels if applicable.

U.S. IOOS Program's DMAC efforts are subject to the procedural directives published by the NOAA Environmental Data Management Committee. The NOAA Environmental Data Management Framework (<https://www.nosc.noaa.gov/EDMC/framework.php>; henceforth the Framework) provides the overarching guidance for Environmental Data Management within NOAA programs and the architecture of the DMAC subsystem is consistent with this Framework. In particular, the Framework principles guide the DMAC subsystem, especially the notion of a complete Data Lifecycle, which requires planning, and resources to maximize the present and future value of IOOS information. The Framework is further refined and tailored to IOOS goals in the IOOS/DMAC Guidance, detailing the specific elements of the DMAC subsystem that will be required of successful applicants.

#### 4. Modeling and Analysis Subsystem

Applicants should include modeling and analysis plans that meet national, state or local priorities and satisfy planned activities. They should explain how the modeling and analysis efforts meet identified requirements.

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

Applicants should consider a number of guiding documents when developing their proposal. Applicants should indicate how ongoing and planned modeling systems address these strategic guidelines and interface with Federal modeling systems. The documents are:

1. The Integrated Ocean Observing System (IOOS) Modeling and Analysis Workshop Report ([http://www.ioos.noaa.gov/library/mast\\_report2008.pdf](http://www.ioos.noaa.gov/library/mast_report2008.pdf))
2. A Strategic Vision for NOAA's Ecological Forecasting Roadmap: 2015 – 2019 (<http://oceanservice.noaa.gov/ecoforecasting/noaa-ecoforecasting-roadmap.pdf>)
3. NOAA's Storm Surge Roadmap (<http://www.stormsurge.noaa.gov/>)

Applicants should review the U.S. IOOS Program's modeling webpage (<http://www.ioos.noaa.gov/modeling/welcome.html>), for the latest updates on the IOOS National Modeling Strategy, planned for release in early 2015.

The U.S. IOOS Program also leads the Coastal and Ocean Modeling Testbed (COMT, <http://www.ioos.noaa.gov/modeling/comt/welcome.html>), which uses targeted research and development to accelerate the transition of scientific and technical advances from the coastal and ocean modeling research community to improve identified operational ocean products and services. The Terms of Reference Charter for the COMT are at (<http://www.testbeds.noaa.gov/pdf/comt-TOR-091412.pdf>). Applicants should be cognizant of the COMT projects and any relations or intersections between their proposed activities and the COMT projects. Addressing barriers, which limit the access of modeling system enhancements by operational systems, is also significant.

#### 5. Outreach, Stakeholder Engagement, and Education

Proposals should address how the applicant will engage in outreach, stakeholder engagement, 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 engagement priorities, groups the applicants expect to contact during the project, and the relevance of regional IOOS products and tools to those target groups. Applicants should consider engagement with existing ocean- and coastal-related education (e.g., National Marine Sanctuaries, National Estuarine Research Reserves, Sea Grant, and museums and aquariums) 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 as specified in the IOOS authorizing legislation, in their semi-annual progress reports. The U.S. IOOS Program will request awardees provide information such as testimonials and success stories to help illustrate the benefits of regional contributions and the national network.

#### Topic Area 2: National-Scale Efforts Toward Evaluation of Observing Technologies

For topic area 2, NOAA 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.

NOAA will consider proposals that build upon previous efforts and demonstrate extensive and close coordination with the RAs, IOOS federal and non-federal partners, and the U.S. IOOS Program to establish priorities for and to plan and implement the testing and evaluation of ocean observing sensors. NOAA anticipates making one award for this activity in an amount ranging from \$1,000,000 to \$3,000,000 per year, subject to the availability of funds.

Proposals submitted for this activity must demonstrate how the project:

- Tests and evaluates 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 RAs in a manner consistent with IOOS regional stakeholder and user engagement, to build on regional and national needs for sensor testing and evaluation as well as established regional priorities;
- Involves NOAA and IOOS regional and national partners, including end-users and operational entities on the governance team and any technical advisory groups;
- 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
- Provide specific, measurable, and timely outcomes, including a clear schedule for collecting IOOS community input and testing activities.

### C. Program Authority

The Integrated Coastal and Ocean Observation System Act of 2009, 33 U.S.C 3601-3610, provides statutory authority for this program.

## II. Award Information

### A. Funding Availability

Total anticipated funding for all awards is subject to appropriations and the availability of funds from other NOAA programs, federal and/or non-federal entities. NOAA expects to fund multiple awards in amounts ranging from \$1,000,000 to \$4,000,000 per year for Topic Area 1, and a single award in an amount ranging from \$1,000,000 to \$3,000,000 for Topic Area 2, contingent on availability of funds each year.

### B. Project/Award Period

This is a multi-year funding opportunity. Proposed projects may request funding for up to five years. Please note, should an applicant decide to propose a project less than five years, NOAA does not anticipate announcing another federal funding opportunity for these activities prior to 2020. Funding in the out-years is contingent upon availability of funds from Congress and satisfactory performance, and is at the sole discretion of NOAA.

### C. Type of Funding Instrument

NOAA will fund the projects as cooperative agreements. Cooperative agreements include substantial involvement of the federal government during performance of the proposed activity. The recipient can expect substantial collaboration, participation, and/or intervention in the management of the project by NOAA. The following are examples of substantial involvement that are likely to occur: NOAA may halt an activity immediately if detailed performance specifications are not met; NOAA may specify the direction or redirection of scope of work due to the interrelationships with other projects; NOAA may collaborate with the recipient by working jointly with a recipient scientist or technician in carrying out the scope of work, by training recipient personnel, or detailing federal personnel to work on the project; and NOAA may direct the scope of work, organizational structure, staffing, mode of operations, and other management processes, coupled with close monitoring or operational involvement during performance.

## 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 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. Because of the nature of this competition, the Economy Act (31 U.S.C. 1535) is not an appropriate authority.

As the implementing program for this competition, the U.S. IOOS Program expects lead grantees to use subcontracts or other appropriate mechanisms to provide funds to its non-Federal partner(s). If a partner is a NOAA office or laboratory, the U.S. IOOS Program will transfer the funds internally.

Applicants should note that:

1. The U.S. IOOS Program will not fund any federal Full Time Equivalent (FTE) salaries, but will fund federal partners to purchase equipment, supplies, and cover contractual personnel costs associated with the proposed work.

2. Federal agencies, generally, are barred from accepting funds from a non-Federal awardee 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.

#### C. Other Criteria that Affect Eligibility

It is the applicant's responsibility to obtain all necessary Federal, state and local government permits and approvals where necessary for the proposed work to be conducted. Applicants are expected to design their proposals so that they minimize the potential adverse impact on the environment. If applicable, documentation of requests or approvals of environmental permits must be received by the Federal Program Officer prior to funding. Applications will be reviewed to ensure that they have sufficient environmental documentation to allow program staff to determine whether the proposal is categorically excluded from further National Environmental Policy Act (NEPA) analysis, or whether an Environmental Assessment is necessary in conformance with requirements of the NEPA. For those applications needing an Environmental Assessment, affected applicants will be informed after the peer review stage; and will be requested to assist in the preparation of a draft of the assessment (prior to award). Failure to apply for and/or obtain Federal, state, and local permits, approvals, letters of agreement, or failure to provide environmental analysis where necessary (e.g. NEPA environmental assessment) will also delay the award of funds if a project is otherwise selected for funding.

### IV. Application and Submission Information

#### A. Address to Request Application Package

The full funding opportunity announcement and application materials are available online at <http://www.grants.gov>. If an applicant does not have Internet access, application packages can be requested from Dave Easter, U.S. IOOS Program; 1100 Wayne Avenue, Suite 1225, Silver Spring, Maryland 20910; or by phone at 301-427-2451, or by fax 301-427-2073, or via e-mail at [Dave.Easter@noaa.gov](mailto:Dave.Easter@noaa.gov).

#### B. Content and Form of Application

Letter of Intent: NOAA is not requesting Letters of Intent under this announcement.

NOAA will not review applications that do not include all required documentation and information as listed below.

Proposals must conform to the page limits set below, may be single-spaced, must use a minimum 12-point font, and be formatted on 8.5 by 11 inch paper size, with one-inch margins. The 15-page limit does not include the Title Page, Project Summary, a table of contents, 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 may not exceed 50 pages in length. SF-424A forms will not count against the page limits for either the Project Description or the appendices.

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 de-scoping projects and making awards if less money is available than requested. For those proposals that are requesting funding of \$1.5M a year or more, base level is to be set at \$1.5M annually, a subsequent level set at \$2.5M, and an annual cap of \$4M. Applicants should organize annual budgets in a manner that clearly connects costs to activities.

If a NOAA or another non-NOAA Federal partner is requested to perform any work as part of the project, please be advised that the work to be performed and resources required must be reflected separately in the project description and partner budget. The budget should clearly identify the recipient agency and funded activity.

For a NOAA partner, applications for Federal assistance (SF-424 and SF-424A) must show the total amount less that which would go to the NOAA partner. Detailed budget and budget justifications within the proposal should show the total amount, including that which would go to the NOAA partner, and should include text stating that the applicant wishes for NOAA to retain those funds and transfer them to the NOAA partner. Travel funds for Federal employees for such work will not be approved and should not be included.

For a non-NOAA Federal partner, applications for Federal assistance (SF-424 and SF-424A) must show the total amount including funds requested for the non-NOAA Federal partner. Detailed budget and budget justifications within the proposal should show the total amount, including that which would go to the non-NOAA Federal partner. NOAA will not retain the funds and transfer them to the non-NOAA Federal partner. That transfer will be the responsibility of the awardee.

All funding application packages must contain the following components:

1. Title Page (one page maximum)



Include proposal title, complete contact information for the Principal Investigator and Financial Representative, duration of proposed project, and funding request. Include a statement that this project complies with the PEA, specifically the Project Design Criteria (PDC), or identify the tasks within the project that require further analysis by the Federal Program Officer. If the applicant desires the transfer of funds to a NOAA partner on the project, state the amount to NOAA on the cover.

## 2. Project Summary (not to exceed two-pages)

Provide a summary of the proposed project. Prepare the summary for a broad audience and include 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 and Narrative (not to exceed 15 pages)

The description of the proposed project must include the following sections:

- a. Background. Provide sufficient background information for reviewers to assess how the proposal is responsive to the funding announcement objectives and program priorities.
- b. Goal and Objective(s). Describe in the narrative the specific project goals and objectives. 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. Connection to Users/Stakeholders 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 plans for delivering products or information to users.
- d. Work Plan. Present work plans in priority order indicating base capacity plus enhancements at various levels of funding.

1. Identify specific tasks; explain the technical approach needed to accomplish the tasks;
  2. Identify the roles of partners and cooperators;
  3. Describe how users are involved in setting work plan priorities that direct the development of products and services;
  4. The work plan must clearly address the data management requirements, and the steps taken to achieve efficient and effective data access/sharing through IOOS and archiving that is compliant with Federal regulations. As noted in the Topic Area 1 - Data Management and Communications Subsystem section, successful applicants will be required to submit a regional DMAC implementation plan covering (at minimum) the award period will be required of all successful awardees. This implementation plan must be consistent with the data management framework and policies described on the IOOS website at ([http://www.ioos.noaa.gov/data/contribute\\_data.html](http://www.ioos.noaa.gov/data/contribute_data.html)); and
  5. If the project includes Federal partners, clearly identify their roles, responsibilities and contributions.
    - e. Milestone Schedule. Display timelines for major tasks and show milestones for important intermediate and final products, including deliverables and key project outcomes.
    - f. Project Budget. Provide a budget for the overall project that follows the cost categories and formats in the SF-424A form, identifies all award recipients (including sub-award recipients), their requested funding amount broken down by the cost categories found in the SF-424A form, and a brief description of their work tasks. The applicant should demonstrate the ability to manage sub-awards.
4. Appendices (not to exceed 50 pages, required NOAA forms, e.g. SF-424A, CD-511, do not count against the page limit). Only material that is submitted as a single package will be reviewed.
- a. Budget Narrative. In order to allow reviewers to evaluate the appropriateness of costs, all applications must include a detailed budget narrative and a justification to support all proposed budget categories for each fiscal year. Provide separate budgets for each sub-award and contractor regardless of the dollar value and indicate the basis for the cost estimates. Describe products/services to be obtained and indicate the applicability or necessity of each to the project.
1. Provide an SF-424A for each year of the proposal. Provide a narrative on the details of the costs associated with each SF-424A cost category and in accordance with the applicable cost principles.

2. Provide an SF-424A for each sub-award and sub-contract. Provide a narrative on the details of the costs associated with each SF-424A cost category and in accordance with the applicable cost principles.

3. To the extent possible, detailed information on travel, including costs, a description of anticipated travel, 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 meeting with U.S. IOOS Program staff at NOAA headquarters or other location as determined by the U.S. IOOS Program. Foreign travel must receive prior approval and should be included in the proposal to avoid having to request approval after the project starts. Applicants may factor in travel costs for participation in a NOAA Grants Management Division workshop for recipients.

4. 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.

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. Include names and locations (city, state, Congressional district) of all entities receiving funds and primary places of performance under the sub-contract/sub-award.

d. Application for Federal Assistance (SF-424); Budget Information, Non-Construction Programs (SF-424A); Assurances, Non-Construction Programs (SF-424B); Certification Regarding Lobbying (CD-511); and, if applicable, Disclosure of Lobbying Activities (SF-LLL). These forms are available for download from the NOAA Grants Online application package.

#### 5. 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 that 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 NOAA Administrative Order 216-6 for NEPA, [http://www.gc.noaa.gov/documents/NAO216\\_6\\_TOC.pdf](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](http://ceq.hss.doe.gov/Nepa/regs/ceq/toc_ceq.htm).

Consequently, 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 that may exist.

Upon completion of the application process, NOAA may require follow-up information. In addition to providing specific information that will serve as the basis for any required impact analyses, NOAA may request applicants assist 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 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. Having a fully completed NEPA questionnaire is not one of the minimum requirements for submission and review of the proposal. Further analysis of NEPA considerations will be completed with applicants selected for funding during the negotiation process.

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 NOAA NEPA Coordinator, NOAA Office of Program Planning and Integration, SSMC 3, Room 15700, 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 November 30, 2015.

#### C. Submission Dates and Times

Applications must be received by 5:00 PM Eastern Standard Time on August 31, 2015. Applications received after this deadline will not be considered for funding. For applications submitted through <http://grants.gov>, a date and time receipt indication is included and will be the basis of determining timeliness. Hard copy applications delivered by mail will be date and time stamped when they are received in the U.S. Program. Applications received after that time will not be reviewed or considered.

#### D. Intergovernmental Review

Funding applications to NOAA are subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." 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's Web site: <http://www.whitehouse.gov/omb/grants/spoc/>.

#### E. Funding Restrictions

None.

#### F. Other Submission Requirements

All proposal package material, including letters of support, must be submitted through Grants.gov. If an applicant does not have internet access, surface mail may be used.

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 U.S. IOOS Program. No e-mail or fax copies will be accepted. Application packages submitted by mail must be received by the U.S. IOOS Program no later than 5:00 p.m. ET, August 31, 2015. Any U.S. Postal Service correspondence should be sent to the attention of Dave Easter, U.S. IOOS Program; 1100 Wayne Avenue, Suite 1225, Silver Spring, Maryland 20910.

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.

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 also where the completed application is submitted.

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.)

## V. Application Review Information

### A. Evaluation Criteria

#### Topic Area 1

1. Importance and/or relevance and applicability of proposed project to the program goals (35 points): This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, State, or local activities. This criterion evaluates the proposed work's relevance and ability to successfully operate, manage, and coordinate the regional component of the IOOS.

- Does the proposal demonstrate linkages to the ocean observing national frameworks and policy priorities cited on Page 6 of this Federal Funding Opportunity? (5 points)

- Does the proposal clearly demonstrate progress in and plans for collaborations to build the regional and/or national components of IOOS? (5 points)

- Does the proposal clearly demonstrate the connection between data collection efforts and the delivery of products and services to identified user needs? (5 points)

- Does the proposal demonstrate broad-based support from a range of stakeholders across the region (e.g. industry, state and local agencies, other federal agencies, user groups)? (5 points)

- Does the proposal clearly demonstrate or describe plans to maintain observing assets or enhance the observing system based on the identified stakeholder needs? (5 points)

- Does the proposal clearly demonstrate the ability to operate and govern a regional coastal ocean observing system? (5 points)

- Does the proposal clearly demonstrate modeling and analysis plans fulfilling established requirements and serving planned activities that are coordinated with operational users? (5 points)

2. Technical and scientific merit (35 points): This assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. The emphasis is on proposals that provide an end-to-end capability from observation to modeling that meet user needs. Reviewers will evaluate how effectively the proposed project builds upon prior investments in regional ocean, coastal, and Great Lakes observing technologies and systems.

Questions relevant to this criterion include:

- Does the proposal demonstrate the ability to meet IOOS DMAC requirements successfully? (10 points)

- Does the proposal clearly demonstrate how applicable observing systems will be operated and maintained and how data from these systems will be published via regional and national Data Assembly Centers? (10 points)

- Does the proposal demonstrate a plan for integrating regional state, local, tribal and NGO data from sources not funded by the Regional Association? (5 points)

- Does the proposal demonstrate the ability to operate the regional data assembly center efficiently and effectively, especially in times of emergency? 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? (5 points)

- Does the proposal demonstrate significant prior experience and success in operating a regional observing system? Are investigators qualified with respect to the proposed scope and technical breadth of project data management and data interoperability? (5 points)

3. Overall qualifications of the funding applicants (10 points): 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:

- Does the proposal identify an organizational framework appropriate to manage and operate a regional observing system across the region and are the investigators qualified? Does the proposal identify a full-time equivalent Executive Director for the lead organization? Does the applicant demonstrate the ability to manage sub-awards successfully? (5 points)



- Does the organization structure show a balanced diversity of members, representing government, private industry, non-profit organizations, tribes, and academia? (5 points)

4. Project costs (15 points): This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and timeframe.

Questions relevant to this criterion include:

- Are the cost, schedule, and deliverables clear, reasonable, and logically presented? Does the budget show the costs are necessary for successful completion of the project and that charges are reasonable and realistic? (10 points)

- Does the proposal identify priority activities, indicating base capacity plus enhancements at various levels of funding? Does the project optimize its cost effectiveness through strategic partnerships with collaborating institutions, agencies, other regions, or private sector partners? (5 points)

5. Outreach and education (5 points): NOAA assesses whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to 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? (5 points)

## Topic Area 2

1. Importance/relevance and applicability of proposal to the program objectives and priorities (35 points): This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, State, and/or local activities, including importance and relevance to the priorities of the U.S. IOOS regional associations.

2. Technical/Scientific Merit (35 points): This assesses whether the approach is technically sound and/or innovative, whether the methods are appropriate, and whether there are clear project goals and objectives. The proposed work should have focused objectives and a complete and technically sound strategy for project design, methodologies, data management, data analysis, and development of products and outcomes in support of the objectives.

3. Overall Qualifications of Applicants (15 points): This criterion assesses whether the applicant team possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project.

4. Project Costs (10 points): 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 (5 points)

- Does the budget show the costs are necessary for successful completion of the project and that charges are reasonable and realistic? (5 points)

5. Outreach and Education (5 points): NOAA assesses whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources.

## B. Review and Selection Process

Screening, review, and selection procedures will take place in three steps: 1) an initial screening by U.S. IOOS Program staff; 2) a merit review; and 3) final selection by the Selecting Official (i.e. the Director of the U.S. IOOS Program). The merit review step will involve at least three reviewers per application. The Selecting Official will make the final decision regarding which applications will be funded based on the numerical ranking of the applications, the evaluations by the merit reviewers, and the selection factors set in Section V.C., below.

1. Initial Screening. The initial screening will ensure that application packages have all required forms and application elements and meet all of the eligibility criteria. Applications that pass this initial screening will be submitted for merit review.

2. Merit Review. Eligible applications will be evaluated in accordance with the criteria and weights described in this solicitation by at least three independent peer reviewers through an independent mail review and/or an independent peer panel. Each reviewer will independently evaluate each project and provide an individual score. Both Federal and non-Federal experts may be used in this process. No consensus advice will be given by the independent peer reviewers through mail reviews or on the review panels. If a panel is convened, the panel will be comprised of subject matter experts and may convene in person or by teleconference, video conference or electronic means. The merit review's ratings are used to produce a rank order of the proposals. Proposals submitted under Topic Area 1 will be grouped and ranked separately from proposals submitted under Topic Area 2.

3. Final Selection. The U.S. IOOS Program staff will create a ranking of the proposals to be recommended for funding using the average merit review or panel review scores, if a panel review is conducted. The reviewer comments, composite project scores, rank order, and a summary of the concerns (if any) identified through the mail and/or panel

review process along with information pertaining to selection factors (see below) will be presented to the Selecting Official.

Based on the numerical ranking, merit review written evaluations, and the additional selection factors described below, the Selecting Official will develop a list of projects recommended for funding. For a proposal to be selected for funding, the applicant may be asked to modify objectives, work plans, and budgets, and to provide supplemental information required by the agency prior to the award. When a decision has been made (whether an award or declination), anonymous copies of mail merit review comments or summaries of panel deliberations, can be made available to the applicant upon request.

### C. Selection Factors

The Selecting Official shall award in rank order unless a 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 institution.
  - c. By type of partners.
  - d. By research areas.
  - e. By project types.
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other Federal agencies.
4. Program priorities and policy factors.
5. Applicant's prior award performance.
6. Partnerships and/or 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 can be the first day of any month between June 1, 2016 and September 1, 2016.

## VI. Award Administration Information

### A. Award Notices

Successful applicants will receive notification that the application has been recommended for funding by an official of the U.S. IOOS Program. This notification is not an authorization to begin performance of the project. Official notification of funding, signed by a NOAA Grants Officer, is the authorizing document that allows the project to begin. Notifications will be issued to the applicant's Authorized Representative and the Principal Investigator of the project.

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.

### B. Administrative and National Policy Requirements

1. The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2014 (79 FR 78390) are applicable to this solicitation and may be accessed online at <http://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf>.

2. Limitation of Liability: In no event will NOAA be responsible for proposal preparation costs. Publication of this announcement does not oblige NOAA to award any specific project or to provide special privileges.

3. To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act of 2006, to the extent applicable, any applicant awarded in response to this announcement will be required to use the System for Award Management (SAM). The link is: <https://www.sam.gov/portal/public/SAM/>.

4. For applicants receiving funds from NOAA: Applicants are also required to use the Dun and Bradstreet Universal Numbering System and will be subject to reporting requirements, as identified in OMB guidance published at 2 CFR Part 25. The link is: [http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr25\\_main\\_02.tpl](http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr25_main_02.tpl).

5. Unpaid Tax Liability – In accordance with current Federal appropriations law, NOAA will provide a successful corporate applicant a form to be completed by its authorized representatives certifying that the corporation has no Federally assessed unpaid or delinquent tax liability or recent felony criminal convictions under any Federal law.

### C. Reporting

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.

The Federal Funding Accountability and Transparency Act of 2006 includes a requirement for awardees of applicable Federal grants to report information about first-tier sub-awards and executive compensation under Federal assistance awards issued in FY 2011 or later. All awardees of applicable grants and cooperative agreements are required to report to the Federal Sub-award Reporting System (FSRS) available at [www.FSRS.gov](http://www.FSRS.gov) on all sub-awards over \$25,000.

## VII. Agency Contacts

For questions regarding this announcement, contact: Dave Easter, US IOOS Program; 1100 Wayne Avenue, Suite 1225, Silver Spring, Maryland 20910; or by phone at 301-427-2451, or by fax 301-427-2073, or via e-mail at [dave.easter@noaa.gov](mailto:dave.easter@noaa.gov).

## VIII. Other Information

If successful applicants incur any costs prior to receiving an award agreement from an authorized NOAA grant official, they would do so solely at one's own risk of these costs not being included under the award.

Successful applicants will be requested to ensure that all progress reports a) clearly state the resulting impact of their project and products in the coastal management community and on forecasting environmental events; and b) indicate whether financial reports have been submitted to NOAA's Grants Management Division and are up-to-date. Applicants in their final progress report will be asked to certify that "Final financial reports have been submitted to NOAA's Grants Management Division and a final funding draw-down has been made through the Automated Standard Application for Payments (ASAP)."

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/>.

In the event that an application contains information or data that you do not want disclosed prior to award for purposes other than the evaluation of the application, you should

mark each page containing such information or data with the words "Privileged, Confidential, Commercial, or Financial Information - Limited Use" at the top of the page to assist NOAA in making disclosure determinations. DOC regulations implementing the Freedom of Information Act (FOIA) are found at 5 U.S.C 552, which sets forth rules for DOC to make requested materials, information, and records publicly available under FOIA. The contents of funded applications may be subject to requests for release under the FOIA. Based on the information provided by you, the confidentiality of the content of funded applications will be maintained to the maximum extent permitted by law.

### NOAA Data Sharing Policy

Environmental data and information, collected and/or created under NOAA grants/cooperative agreements must be made visible, accessible, and independently understandable to general users, free of charge or at minimal cost, in a timely manner (typically no later than two (2) years after the data are collected or created), except where limited by law, regulation, policy or by security requirements.

1. Unless otherwise noted in this federal funding announcement, a Data/Information Sharing Plan of no more than two pages shall be required as part of the Project Narrative. A typical plan may include the types of environmental data and information to be created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content; policies addressing data stewardship and preservation; procedures for providing access, data, and security; and prior experience in publishing such data. The Data/Information Sharing Plan will be reviewed as part of the NOAA Standard Evaluation Criteria, Item 1 -- Importance and/or Relevance and Applicability of Proposed Project to the Mission Goals.

2. The Data/Information Sharing Plan (and any subsequent revisions or updates) will be made publicly available at time of award and, thereafter, will be posted with the published data.

3. Any software routines, modeling system, framework or tools, modeling testing and evaluation techniques, protocols and metrics, modeling evaluation criteria, modeling standards and protocols, concept of operations for the modeling system, or other project results are expected to be shared with all partners and will be shared with the ocean and coastal modeling community upon completion of the work.

4. Failing to share environmental data and information in accordance with the submitted Data/Information Sharing Plan may lead to disallowed costs and be considered by NOAA when making future award decisions.

## Programmatic Environmental Assessment and Project Design Criteria

The U.S. IOOS Program is completing a PEA ([http://www.ioos.noaa.gov/about/governance/environmental\\_compliance.html](http://www.ioos.noaa.gov/about/governance/environmental_compliance.html)) identifying the typical activities that a regional coastal ocean observing system would engage in with discussion of their potential environmental effects. Successful applicants will be required to review the PEA along with its approved PDC. Awards will include a Special Award Condition requiring all successful applicants to follow the PDC and to contact the U.S. IOOS Program when work is being proposed that is outside the scope of the PEA and inconsistent with the PDC.

Please note that on December 26, 2013, OMB published final guidance titled Uniform Administrative Requirements, Cost Principles, and Audit Requirements (OMB Uniform Guidance) (<https://www.federalregister.gov/articles/2013/12/26/2013-30465/uniform-administrative-requirements-cost-principles-and-audit-requirements-for-federal-awards>), which streamlines the language from eight existing OMB circulars, including Cost Principles (OMB Circulars A-21, A-87, A 122) and administrative requirements (OMB Circulars A-102 and A 110), into one consolidated set of guidance applicable to federal assistance awards. The OMB Uniform Guidance supersedes DOC's uniform administrative requirements set out at 15 C.F.R. parts 14 and 24. The DOC adopted the OMB Uniform Guidance by December 26, 2014, meaning that the OMB Uniform Guidance will apply to all new awards and to additional funding to existing awards made after December 26, 2014. In addition, the audit requirements of the OMB Uniform Guidance will apply to audits of non Federal entities beginning on or after December 26, 2014. Therefore, applicants should familiarize themselves with the OMB Uniform Guidance. Additional information on the substance of and transition to the OMB Uniform Guidance may be found at <https://cfo.gov/cofar/>.

### References:

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