

## TABLE OF CONTENTS

I. Funding Opportunity Description.....	4
A. Program Objective.....	4
B. Program Priorities.....	6
C. Program Authority.....	12
II. Award Information.....	12
A. Funding Availability.....	12
B. Project/Award Period.....	13
C. Type of Funding Instrument.....	13
III. Eligibility Information.....	14
A. Eligible Applicants.....	15
B. Cost Sharing or Matching Requirement.....	15
C. Other Criteria that Affect Eligibility.....	15
IV. Application and Submission Information.....	15
A. Address to Request Application Package.....	16
B. Content and Form of Application.....	16
C. Unique entity identifier and System for Award Management (SAM).....	22
D. Submission Dates and Times.....	23
E. Intergovernmental Review.....	24
F. Funding Restrictions.....	24
G. Other Submission Requirements.....	24
V. Application Review Information.....	26
A. Evaluation Criteria.....	26
B. Review and Selection Process.....	26
C. Selection Factors.....	28
D. Anticipated Announcement and Award Dates.....	29
VI. Award Administration Information.....	29
A. Award Notices.....	29
B. Administrative and National Policy Requirements.....	30
C. Reporting.....	33
VII. Agency Contacts.....	34
VIII. Other Information.....	34

## ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

## EXECUTIVE SUMMARY

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

Funding Opportunity Title: National Competitive Hypoxia Programs: the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX) and Coastal Hypoxia Research Program (CHRP)

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-NCCOS-2016-2004640

Catalog of Federal Domestic Assistance (CFDA) Number: 11.478, Center for Sponsored Coastal Ocean Research - Coastal Ocean Program

Dates: Applications for the NGOMEX program must be received and validated by Grants.gov by 5:00 p.m. Eastern Time on January 22, 2016. Applications for the CHRP program must be received and validated by Grants.gov by 5:00 p.m. Eastern Time on February 5, 2016.

NOAA will also accept paper applications subject to further details described in this Announcement that are postmarked or provided to a commercial carrier with tracking number and receipt on or before 5:00 pm Eastern Time on January 22, 2016 for NGOMEX and February 5, 2016 for CHRP. Private metered postmarks will not be accepted. Applicants submitting by paper are responsible for tracking their applications and should notify the Program Manager in Section VII of this Announcement that they are submitting by paper.

When developing your submission timeline, keep in mind the following information necessary to submit an application on Grants.gov: (1) a free annual registration process in the electronic System for Award Management (SAM) may take between three and five business days or as long as several weeks, as described in Section IV.F. of this Announcement, and (2) if you submit an application via Grants.gov, you will receive a series of email notifications for up to two business days before learning via validation or rejection whether NOAA has received your application.

Funding Opportunity Description: The purpose of this document is to advise the public that NOAA/NOS/National Centers for Coastal Ocean Science (NCCOS)/Center for Sponsored Coastal Ocean Research (CSCOR) is soliciting proposals for the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX) and Coastal Hypoxia Research Program (CHRP). Funding is contingent upon the availability of Fiscal Year 2016 Federal appropriations. It is anticipated that projects funded under this announcement will have a September 1, 2016 start date.

Total funding for this research: For NGOMEX, approximately 2 to 6 projects, for approximately 2-4 years in duration, are expected to be funded at a level not to exceed \$300,000 per year per proposal. For CHRP, approximately 3 to 7 projects, for approximately 2-5 years in duration, are expected to be funded at a level not to exceed \$400,000 per year per proposal. It is anticipated that up to \$1,850,000 may be available in Fiscal Year 2016 for the first year of all hypoxia projects combined. In addition to these annual funding limits, NOAA does not anticipate funding any proposals submitted with total budgets (across all years) that are greater than \$1,200,000 for NGOMEX and \$2,000,000 for CHRP.

Electronic Access: Background information about NOAA's NGOMEX and CHRP Programs can be found at <http://coastalscience.noaa.gov/research/pollution/hypoxia/ngomex> and <http://coastalscience.noaa.gov/research/pollution/hypoxia/chrp>, respectively. Any Frequently Asked Questions that arise will be posted at these sites. Proposals should be submitted through Grants.gov, <http://www.grants.gov>. Sign up to receive any potential amendments to this Announcement via [www.grants.gov](http://www.grants.gov).

## FULL ANNOUNCEMENT TEXT

## I. Funding Opportunity Description

## A. Program Objective

The Center for Sponsored Coastal Ocean Research (CSCOR), part of the National Oceanic and Atmospheric Administration (NOAA) National Centers for Coastal Ocean Science (NCCOS), develops and improves predictive capabilities for managing the Nation's use of its coastal resources through competitive research programs. NCCOS/CSCOR also supports efforts to translate the results of its research investments, and those of others, into accessible and useful information for coastal managers, planners, lawmakers, and the public to help balance the needs of economic growth with those of conserving the resources of our Nation's oceans, coasts, and Great Lakes.

NCCOS/CSCOR provides a focal point for regional ecosystem-scale, multidisciplinary coastal ocean research within the NOAA National Ocean Service (NOS). Together with partners in NOAA and other organizations responsible for coastal resources, NCCOS/CSCOR advances the scientific understanding needed to protect coastal resources and ensure their viability for future generations. This increased understanding of the ocean, coasts, and Great Lakes directly benefits the management of U.S. coastal and ocean resources, and helps NOAA, other Federal agencies, and state, tribal, and local governments achieve their stewardship responsibilities.

A key objective of NCCOS/CSCOR research is the production of user-driven predictive tools that will enable managers to assess alternative management strategies to restore degraded ecosystems and protect healthy ones. Research supported is outcome-oriented towards predictions, as well as increased scientific understanding that will provide managers and the public with sound scientific information for making decisions in support of societal objectives. Meritorious proposals articulate outcome-based management goals (see Section IV.B.) and recipients will be expected to report progress toward achieving outcome-based goals annually.

Hypoxia, or low dissolved oxygen, is a globally expanding problem impacting aquatic ecosystems. Although hypoxia can occur naturally, it is often a symptom of degraded water quality resulting from anthropogenic activities (e.g. nutrient pollution). Over the last few decades, increases in the frequency, duration, and aerial extent of hypoxic events have been linked to increased eutrophication of coastal waters. The number of "dead zones" has increased by a third between 1995 and 2007. Today, over 50% of examined U.S. estuaries have experienced hypoxia, many on a seasonal basis, increasing since the 1980s when ~38% of those estuaries assessed experienced hypoxia

(<http://www.wri.org/media/maps/eutrophication/fullscreen.html>).

Hypoxia can have a wide range of detrimental effects on living resources. Increases in hypoxia have led to increased frequencies and magnitudes of mortality events. Non-lethal effects of hypoxia are more common and include shifts in spatial distribution of organisms, changes in community structure, alteration of migratory patterns, cell damage and other oxidative stresses, endocrine disruption, and reproductive impairment. The cumulative effects may impact habitat quality and ecosystem structure, function, and stability. Mortality and longer-term sublethal effects can have large economic impacts on commercial and recreational fisheries.

Most coastal and estuarine hypoxia events are eutrophication-driven, a result of excess nitrogen and/or phosphorus loading from agricultural, industrial, and urban sources. The key to mitigating hypoxia effects in these cases is to develop and implement cost-effective and scientifically sound watershed nutrient reduction strategies. Coastal managers need accurate, accessible, and actionable information on the quantitative relationship between nutrients, hypoxia, and living resource populations to improve hypoxia goal setting and nutrient reduction targets. Determining the causes of hypoxia, developing the capability to predict its occurrence in response to varying levels of anthropogenic stress, and evaluating the subsequent ecological, economic, and social impacts are necessary to assess potential management alternatives.

Eutrophication-driven water quality impairments started to become evident in the 1960s and grew to be a national issue in the 1970s, 1980s, and 1990s, ultimately leading to passage of the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (HABHRCA), as amended, codified at 33 U.S.C. § 4001-4009. HABHRCA mandates NOAA to administer national competitive programs to advance the scientific understanding and management capabilities to assess, predict, and mitigate hypoxia events. The first hypoxia competitive program established through HABHRCA legislation was the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX) in Fiscal Year 2000. The Coastal Hypoxia Research Program (CHRP) was established in Fiscal Year 2005 to address national research needs to improve the understanding of hypoxia throughout the Nation's estuaries, coasts, and Great Lakes and excludes the northern Gulf of Mexico hypoxic zone covered under NGOMEX.

NGOMEX is dedicated to hypoxia research on the northern Gulf of Mexico dead zone located on the Texas/Louisiana/Mississippi continental shelf. This regional focus is based on the demand for a foundational understanding of hypoxia causes and effects to inform management strategies implemented through the interagency Mississippi River/Gulf of

Mexico Watershed Nutrient Task Force (Hypoxia Task Force). Knowledge gained through the NGOMEX Program has provided the scientific foundation upon which the Hypoxia Task Force assesses progress and effectiveness towards its management strategies. A region-specific focus by NGOMEX is required to effectively inform the long-term adaptive management needs of hypoxia mitigation in one of the world's greatest ecosystem restoration challenges (e.g. the Hypoxia Task Force network includes seven Federal/tribal and 12 state agencies, covering a watershed that includes 41% of the contiguous U.S.). The research priorities of NGOMEX address Hypoxia Task Force management needs. The overarching goals of NGOMEX are to: (1) develop a fundamental understanding of the northern Gulf of Mexico ecosystem with a focus on the causes and effects of the hypoxic zone and the prediction of its future extent and impacts; and (2) identify and fill critical research gaps used in the interagency Hypoxia Task Force's adaptive management process to connect monitoring, research, data analysis, and model predictions with management actions to restore and protect the Texas/Louisiana/Mississippi continental shelf ecosystem. NGOMEX's objectives are to: characterize the magnitude and extent of, as well as the processes controlling, the hypoxic zone; develop quantitative models to predict the extent of the hypoxic zone given varying levels of nutrient inputs, physical forcing, and other factors that control hypoxia; and develop quantitative models to determine the impacts of the hypoxic zone on ecologically and economically important living resources and the resultant socioeconomic impacts.

CHRP is a national program designed to accommodate the diverse state of hypoxia science in the Nation's coastal waters. The goal of CHRP is to improve the capability of coastal managers to effectively prevent or reduce the ecological and socioeconomic impacts of hypoxia. Mitigation of this problem requires a fundamental understanding of the causes and effects of hypoxia, and the availability to managers of forecasting tools to evaluate the effectiveness of alternative mitigation strategies in an ecosystem context. The objectives of the CHRP are to: quantify in a holistic manner the effects of specific natural and anthropogenic factors on the spatial and temporal extent of hypoxia; quantify the ecological and socioeconomic impacts of hypoxia; and develop predictive models to assess the parameters of hypoxia under a range of environmental scenarios and alternative management strategies.

#### B. Program Priorities

NCCOS/CSCOR established two research programs, NGOMEX and CHRP, under HABHRCA to advance the scientific understanding and management capabilities to assess and predict hypoxia events to enable coastal managers to evaluate the effectiveness of mitigation strategies in an ecosystem context. NGOMEX is regional in scope, addressing the scientific information needs of the Hypoxia Task Force covering the northern Gulf of

Mexico hypoxic zone on the Texas/Louisiana/Mississippi continental shelf. CHRP is national in scope, addressing hypoxia in the Nation's estuaries, coasts, and Great Lakes (excluding the northern Gulf of Mexico). The research priorities of NGOMEX have evolved commensurate with shifts in Hypoxia Task Force management needs. In contrast, the effectiveness of CHRP in advancing hypoxia management requires greater flexibility to accommodate the diverse state of hypoxia science in the rest of the nation's coastal waters. The priorities for Fiscal Year 2016 are presented below by Program.

## 1. NGOMEX

### Priorities:

This announcement solicits proposals to improve existing or develop new quantitative models to determine population- to ecosystem-level effects of Gulf of Mexico hypoxia both spatially and temporally on ecologically- and commercially-important aquatic species. The research should be directed towards the goal of developing a predictive capability for the coastal ecosystem within an adaptive management framework that connects model predictions and management actions with continuous feedback for improvement.

The objective is to quantify through multidisciplinary ecosystem models or other methods the ecological and/or socioeconomic impacts of hypoxia, including an evaluation of the effects of alternative management strategies on ecosystem function and living resource populations, and the socioeconomic consequences.

The proposals should emphasize the following considerations:

**Interactive effects:** Ecological modeling approaches directed at assessing and predicting the ecosystem effects of hypoxia will need to include quantification of the interactive effects of other stressors, including fishing, climate change, wetland loss, contaminants, and large-scale Mississippi River diversions. The latter could have a significant near-term influence on hypoxia effects because of the potential impact of diversions on the characteristics of nutrient delivery to the Gulf of Mexico, and the resultant effects of the size and distribution of the hypoxic zone, and subsequent effects on fisheries. Ecosystem responses to hypoxia and diversions are closely linked by the overlap in ecosystem model domains, affected species and habitats, and by the intersection of mitigation efforts in influencing estuarine and shelf water quality (e.g. changing salinity and nutrient properties).

**Holistic modeling approaches:** A holistic ecosystem research approach is needed to capture the breadth of potential outcomes (ecological and socioeconomic) that may result from alternative management strategies and the resultant severity and extent of hypoxic conditions. Coupling of hydrodynamic and biogeochemical models to ecological and socioeconomic models would support a complement of ecosystem management needs, and

better account for interactive stressor dynamics. Advances in socioeconomic modeling are needed to help managers translate their decisions on hypoxia management into ecosystem services, impacts to fisheries, and the capacity to support resilient communities and economies.

Approach:

Over the last 14 years, the greatest focus of the NGOMEX program had been in developing a number of scenario-based forecast models to apprise the Hypoxia Task Force of the causes (e.g. nutrient pollution) of hypoxia in a quantitative manner to inform their mitigation strategies. Additional sizable investments were made to maintain and improve the long-term monitoring program and to advance understanding and modeling of hypoxia impacts on living resources. With some of the modeling tool and observational requirements now transitioning to operations, the FY16 NGOMEX announcement will focus on the latter need - ecological and socioeconomic modeling to advance understanding of the ecosystem impacts of hypoxia.

This competition is focused on advancing Action 5 of the HTF 2008 Action Plan, specifically to “Identify and, where possible, quantify the effects of the hypoxic zone on the economic, human and natural resources in the...Northern Gulf of Mexico, including the benefits of actions to reduce nitrogen and phosphorus and the costs of alternative management strategies.” Priority research areas of the competition draw from outputs from three workshops designed to identify the science needs to facilitate resource managers’ understanding of, and preparation for, hypoxia impacts: the Hypoxia Impacts on Gulf Fisheries Report, p. 28-32 in the “Hypoxia Task Force Reassessment 2013:Assessing Progress Made Since 2008,” and the Proceedings paper on “Advancing Ecosystem Modeling of Hypoxia and Diversion Effects on Fisheries in the Northern Gulf of Mexico.” See <http://go.usa.gov/3SaFV> and <http://go.usa.gov/3SC3V>.

Below are some of the research needs articulated in the above workshop reports. The list includes some, but not all, examples of specific areas that could be addressed under the overall program objective to “quantify through multidisciplinary ecosystem models or other methods the ecological and/or socioeconomic impacts of hypoxia.” The successful proposal would articulate how addressing these or other effects of hypoxia would lead to an improved capability to assess “the effects of alternative management strategies on ecosystem function and living resource populations, and the socioeconomic consequences.”

Examples of research areas:

- Quantification of the interactive effect of hypoxia with other anthropogenic stressors,

including fishing, climate change, wetland loss, contaminants, and large-scale Mississippi River diversions;

- The effect of hypoxia on habitat quantity and quality, and the consequences on populations of managed species;
- Impacts of moderate dissolved oxygen on ecosystems (above 2 but below about 5 mg/l);
- Quantification of hypoxia-induced food web alterations, and the consequences on individual and reproductive fitness of important fish and shellfish species;
- Improved quantification of long-term population-level impacts of key living resources, such as brown shrimp and red snapper;
- Improved species modeling capabilities, including incorporation of movement patterns in relation to the hypoxic zone and bioenergetic implications of altered foraging habits and sub-optimal oxygen levels;
- Refinement of ecosystem modeling capabilities that incorporates spatially explicit effects of hypoxia and subsequent changes in predator-prey relationships;
- Refined quantification of socioeconomic effects;
- Coupling of ecological models with scenario-based and three-dimensional, time variable, hypoxia models that can better define exposure and duration of hypoxic events in the water column and benthic environments;
- Improved understanding of the relationship between nutrient loads, hypoxia spatial and temporal dynamics, and living marine resources through integrated modeling and assessments.

**Application to Management:** To ensure transition to application, meritorious proposals will provide a clear statement of management outcome(s) expected to be achieved. Successful proposals should clearly articulate how the research results will be used by managers to improve their ability to make informed decisions and assess alternative management strategies.

Applicants are encouraged to collaborate with end users as partners to ensure that their transition is effective and useful. To ensure that research leads to practical and valuable management outcomes, proposals should include a minimum of two investigators, a Scientific Principal Investigator and an Application Principal Investigator. In order to ensure transition of management tools to application, the duties and responsibilities of the two PIs are presented below:

**Scientific Principle Investigator:** will coordinate research and modeling activities, specifically:

- (1) Data management
- (2) Process studies and field work

- (3) Development and validation of models
- (4) Development of tool prototypes
- (5) Working with Application PI to refine and develop tools for transition to end users.

Application Principal Investigator: will be responsible for activities related to transitioning the research information and tools toward management application, specifically:

- (1) Conceptualization of the project's application(s) to coastal management issue(s), and ensuring progress toward achieving management outcomes;
- (2) Coordination and communications with the end user group(s), ensuring continuous engagement in project activities (meetings, workshops), and outreach of project results;
- (3) Organization and coordination of the annual Managers' Workshops (see below);
- (4) Ensuring that the milestones representing transition of research to operation timeline are met.

Annual Managers' Workshops must be specified in the project milestone chart that will focus initially on developing management needs and project applications, and shift to management tool demonstration and training, and finally to transition to application. On an annual basis, NCCOS/CSCOR Program Officers will assess the project's progress toward development of management tools and transition to management application, and determine whether a change of course is beneficial and the extent to which funds should continue to be awarded in subsequent years. A criterion for continued funding is the demonstrated likelihood that the project tools would be used by managers; therefore securing a commitment for support of the operation of management tools by those in coastal decision-making roles will be an important factor for continued funding of the project.

## 2. CHRP

### Priorities:

This announcement solicits proposals for regions with hypoxic zones that are of great concern to the coastal management community and that lack critical scientific information for decision-making. Proposals must include objectives that directly link scientific questions to management needs and outcomes in an ecosystem context and be tractable within the time frame and budget proposed. Proposals should address one of the following research needs:

- (1) Quantify the effects of specific natural and anthropogenic factors on the spatial and temporal extent of hypoxia development. An integrative, watershed approach is encouraged for these studies, accounting for inputs to the region and the processes occurring within the region. Research should include evaluation of the effects of alternative management actions on the magnitude of hypoxia. Projects should build upon prior model development research and community modeling efforts, if applicable, and consider how improvements in model

capabilities could be sustained in the future.

(2) Quantify, through multidisciplinary ecosystem models or other methods, the ecological and/or socioeconomic impacts of hypoxia, including an evaluation of the effects of alternative management strategies on ecosystem function, living resource populations, habitats, economic interests, and ecosystem services.

(3) Transition ecosystem-based scenario forecast models to a sustainable or operational setting in order to facilitate current and future application. Applicants are encouraged to collaborate with end users as partners to ensure that their transition is effective and useful. Proposals involving models with 3D, time variable hydrodynamic model components, and considering a transition to NOAA operations, must demonstrate a compatibility with FVCOM and/or ROMS versions being used in NOAA's Operational Forecasting System – <https://tidesandcurrents.noaa.gov/models.html>

Approach:

In Fiscal Year 2016, CHRP will support development of scenario forecast models to advance the understanding, prediction, and management of the causes and ecological and socioeconomic impacts of hypoxia in representative coastal ecosystems, with an emphasis on supporting the transition of mature models to applications/operations. To the extent possible, proposals should build on and leverage existing research, including application of models and modeling approaches from other regions. There is a great demand for accurate, accessible and actionable hypoxia forecasts at the ecosystem scale to drive management decisions. The key to success in developing, implementing, and transitioning models to applications/operations is the involvement of the end user throughout the project lifetime as addressed in the Application to Management section below.

**Application to Management:** To ensure transition to applications/operations, CHRP continues to place a premium on justification for the study region(s) in terms of ecological and/or socioeconomic significance. The proposal should include a clear statement of the management concern and explicit identification of the end user group(s) (e.g. specific agencies and programs) and expected policy framework under which these results will be used. Research with results that can be usefully extended or transitioned to other regions is encouraged.

To ensure, to the greatest extent possible, timely and successful transitions to application (i.e. project outcomes that lead to hypoxia management decisions) CHRP proposals must contain the following elements:

(1) The project team must include a representative from a management agency that has committed to using the results of this research for upcoming decisions on the management of hypoxia.

(2) The project must include annual Manager/Principal Investigator meetings that focus on development of products or outputs in a form and in time for use in upcoming hypoxia management decisions.

(3) The project must identify and recruit a Management Transition Advisory Group (MTAG) (that is, at least three individuals from local, state, and/or Federal agencies) who will meet with the PIs annually to evaluate progress and suitability to management goals. Based on the project's progress toward development of management tools and transition to management application, this Group will make recommendations to the project on how to make their information most applicable to management. Members of the MTAG must be named and letters included in the proposal indicating that they have agreed to serve on the MTAG; these letters do not count against the page limits.

(4) Evidence of existing regional management plans (or planning efforts), including the specific intended hypoxia management decisions and timeline for incorporating project outputs into these decisions, should be included in the Project Description. Relevance to management objectives and decisions is specifically included as an important review criterion for these proposals.

### C. Program Authority

33 U.S.C. § 4001-4009, The Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (HABHRCA), as amended; Public Law 102-567, § 201(c), Coastal Ocean Program.

## II. Award Information

### A. Funding Availability

Funding is contingent upon availability of Federal appropriations. It is anticipated that up to \$1,850,000 may be available in Fiscal Year 2016 for the first year of all hypoxia projects combined. For NGOMEX, approximately 2 to 6 projects, for approximately 2-4 years in duration, are expected to be funded at a level not to exceed \$300,000 per year per proposal. For CHRP, approximately 3 to 7 projects, for approximately 2-5 years in duration, are expected to be funded at a level not to exceed \$400,000 per year per proposal. In addition to these annual funding limits, NOAA does not anticipate funding any proposals

with total budgets (across all years) that are greater than \$1,200,000 for NGOMEX and \$2,000,000 for CHRP.

#### B. Project/Award Period

Full applications may cover a project/award period up to 4 years (NGOMEX) or 5 years (CHRP), but shorter-term project proposals are also encouraged.

Awards may be funded incrementally, generally on an annual basis, but once awarded those awards will not compete for funding in subsequent years. This multi-year funding is often appropriate for projects to be funded for two to five years. Once approved, full applications are not required for the continuation out years. While applicants are not required to divide Federal assistance project activities into annual increments based on appropriations law, this approach may be constructive given the possibility that funding may not be available in subsequent years.

Funding for each year's activity is contingent upon the availability of funds from Congress, satisfactory performance, and is at the sole discretion of the agency.

During the implementation phase of research projects funded under this announcement, regardless of the funding mechanism used, NCCOS/CSCOR Program Managers will analyze financial statements and progress reports for each continuing award, and will have dialogue with the Principal Investigators and Authorized Representatives of the recipient institutions to discuss research progress and expected time lines for the remaining award period. If NOAA experiences budget reductions in future fiscal years, the amount of funding provided in any given fiscal year will be determined by the remaining tasks to be completed, the overall pace of the research and the length of time remaining on the award and/or across the board reductions based on the overall funds available.

Regardless of the budget for any given fiscal year, Program Managers will consider the length of time remaining for each project, the amount of funds available, the tasks to be completed in the upcoming fiscal year, the pace of research, and any delayed progress relative to that originally proposed, before determining the funding amount in any given fiscal year.

#### C. Type of Funding Instrument

Research applications selected for funding from non-Federal researchers will be funded through a cooperative agreement. A cooperative agreement is appropriate when substantial Federal government involvement is anticipated. This means that the recipient can expect substantial agency collaboration, participation, or intervention in project performance. Substantial involvement exists when: responsibility for the management, control, direction, or performance of the project is shared by the assisting agency and the recipient; or the

assisting agency has the right to intervene (including interruption or modification) in the conduct or performance of project activities. "Substantial involvement" will be coordinated and communicated by NCCOS/CSCOR Program Managers, and can include collaboration and participation by NOAA researchers, as well as NCCOS/CSCOR Program Manager involvement in PI meetings, setting up management advisory groups, development of management transition plans, and communication of project results.

In an effort to maximize the use of limited resources, applications from non-Federal, non-NOAA Federal and NOAA Federal applicants will be evaluated in the same competition. If the applicant is at an institution that has a NOAA Cooperative Institute (CI), it is allowed to submit applications that reference the CI by attaching a cover letter to the application stating its desire to have the application associated with the CI. This letter should specify the name of the cooperative institute, the CI cooperative agreement number, and the NOAA-approved research theme and task that applies to the proposal. The application will use the Facilities & Administrative (F&A, or indirect cost) rate associated with the main CI agreement. If the application is selected for funding, NOAA will notify the university that a separate award will be issued with its own award number. However, the award will include two Special Award Conditions (SACs): (1) the existing University/NOAA Memorandum Of Agreement (MOA) would be incorporated by reference into the terms of the competitive award, and (2) any performance report(s) for the competitive project must follow the timetable of the funding program and be submitted directly to the funding program. Report(s) will be copied to the CI's administrator when due, to be attached to the main cooperative agreement progress report as an appendix. This will allow the CI to coordinate all the projects submitted through the CI, since the terms of these awards will specify that this is a CI project via the MOA.

Research applications selected for funding from an eligible NOAA Federal applicant will be funded through an intra-agency transfer and research applications selected for funding from non-NOAA Federal applicants will be funded through an inter-agency transfer, provided legal authority exists for the Federal applicant to receive funds from another agency.

PLEASE NOTE: Before non-NOAA Federal applicants may be funded, they must demonstrate that they have applicable legal authority to receive funds from another Federal agency. Support may be solely through NCCOS/CSCOR or partnered with other Federal offices and agencies. The policies described in this Announcement applicable to Federal assistance awards do not apply to intra- and inter-agency transfers of funds. Refer to the Agency Contact officials in Section VII. for more information.

### III. Eligibility Information

### A. Eligible Applicants

Eligible applicants are institutions of higher education, other non-profits, state, local, Indian Tribal Governments, for-profit organizations, U.S. Territories and Federal agencies that possess the statutory authority to receive financial assistance. DOC/NOAA supports cultural and gender diversity and encourages women and minority individuals and groups to submit applications to the NCCOS/CSCOR programs. In addition, DOC/NOAA is strongly committed to broadening the participation of historically black colleges and universities, Hispanic serving institutions, tribal colleges and universities, and institutions that work in underserved areas. DOC/NOAA encourages applications involving any of the above institutions to apply.

Please note that:

- (1) NCCOS/CSCOR will not normally fund any Federal Full Time (FTE) salaries, but will fund travel, equipment, supplies, and contractual personnel costs associated with the proposed work. If an applicant thinks that they are eligible for an exception, they should provide the Program Manager with appropriate documentation and obtain approval prior to submitting an application.
- (2) Researchers must be employees of an eligible entity listed above; and applications must be submitted through that entity. Non-Federal researchers should comply with their institutional requirements for application submission.
- (3) Non-NOAA Federal applicants will be required to submit certifications or documentation showing that they have specific legal authority to accept funds for this type of research.
- (4) Foreign researchers must apply as subawards or contracts through an eligible US entity.
- (5) Non-Federal researchers affiliated with NOAA-University Cooperative/Joint Institutes will be funded through cooperative agreements.
- (6) NOAA/NOS/NCCOS researchers are ineligible to apply.

### B. Cost Sharing or Matching Requirement

None

### C. Other Criteria that Affect Eligibility

Each application must substantially comply with the sixteen elements listed under Content and Form of Application, Required Elements, (1)-(16), or it will be returned to sender without further consideration. A checklist with the required and requested application elements can be found in Section VIII.

## IV. Application and Submission Information

## A. Address to Request Application Package

www.Grants.gov or  
Laura Golden  
1305 East West Hwy  
SSMC 4 Station 8219  
Silver Spring, MD 20910

## B. Content and Form of Application

### 1. Applications

An example application can be found on the NCCOS/CSCOR home page at:  
<http://coastalscience.noaa.gov/funding/applicants/forms>.

### 2. Required Elements

Collaborative Proposals - If more than one institution is collaborating in a project awarded funds, the lead institution will be the only institution to directly receive funds from NOAA. Collaborating institutions that receive funds must be budgeted as subawards or contracts. Unfunded collaborators may also participate.

Each application must substantially comply with the following sixteen elements to be forwarded for merit review.. The Summary, Title page, Abstract, Project Description, References, Biographical Sketch, Budget Narrative and Collaborators List must be single spaced in 12-point font with 1-inch margins. The sixteen elements are as follows:

(1) Standard Form 424. The applicant must submit the Standard Form, SF-424, "Application for Federal Assistance," to indicate the total amount of funding proposed for the whole project period. This form is to be the cover page for the original application and is the first required form in the grants.gov application package.

(2) Summary title page. One page maximum. The Summary title page identifies the project's title, starting with the acronym: NGOMEX 2016 or CHRP 2016 and the Principal Investigator's (PI) name and affiliation, complete address, phone and E-mail information. The requested funding amounts for each fiscal year with and without ship funding should be included on the Summary title page. If this proposal is a resubmission from a previous NCCOS competition, indicate that information on the Summary title page.

(3) One-page abstract/project summary. The summary (abstract) should appear on a separate single page, headed with the proposal title, institution(s), investigator(s), total proposed cost (with and without ship funds), and budget period. It should be written in the third person. The summary is used to help compare proposals quickly and allows the respondents to

summarize these key points in their own words. Project summaries of applications that receive funding may be posted on program-related websites.

The project summary should include an introduction of the problem, rationale, scientific objectives and/or hypotheses to be tested, and a brief summary of work to be completed.

(4) Project Description. The description of the proposed project must include narratives of the Proposed Research and of the Application to Management, and not be more than 20 pages in length, encompassing elements (a) through (f).

The Proposed Research Narrative should be thorough and explicitly indicate its relevance to the program goals and scientific priorities by:

- (a) Identifying the topic that is being addressed by the proposal;
- (b) Describing the proposed scientific objectives and research activities in relation to the present state of knowledge in the field and in relation to previous and current work by the proposing principal investigator(s).
- (c) Discussing how the proposed project lends value to the program goals;
- (d) Identifying the function of each PI. The Lead PI (s) will be responsible for communicating with the Federal Program Manager on all pertinent verbal or written information.
- (e) Providing a detailed data management plan that describes how metadata and data collected as part of the project will be disseminated to the broader community, and plans for longer term archiving of these data. Principal Investigators that propose to collaborate with data centers or networks are advised to obtain letters of commitment that affirm the collaboration. Where possible, all PIs are strongly encouraged to use existing data centers and data portals to archive and disseminate their data. Costs associated with use of data centers, or data archiving, should be included in the application budget. See the section on the NOAA Data Reporting requirements below (Section VI. C.).
- (f) The Applications to Management Narrative should establish the connection to relevant resource management needs by explicitly identifying the end user group(s) including evidence of the linkage between the scientific questions and management needs. If applicable, the format and role of management and technical advisory committees should be included in this section. If required, proposals should specifically identify direct participation of manager(s) as co-Principal Investigators.

This narrative should provide the management justification for the research through:

- (i) Articulating the coordination with one or more management entities;
- (ii) Discussing the expected significance of the project to management priorities and needs. Specific management targets, with proposed outputs and outcomes, should describe how this project will improve management capabilities. Outputs are defined as products (e.g.

publications, models) or activities that lead to outcomes (changes in management knowledge or action). Definitions and examples of outputs and outcomes can be accessed at <http://coastalscience.noaa.gov/funding/recipient/outcomes>. The timeline for achieving outcomes should be included in the Milestone Chart (below).

(iii) Describing specific activities, such as workshops or development of outreach materials, that will enhance information transfer from project scientists to relevant management entities, other end-users, or the public.

If the proposal is a resubmission from a previous competition, any concerns identified in the previous review process and provided to the applicant should be addressed in the resubmitted proposal.

(5) References cited. Reference information is required. Each reference should include the names of all authors in the same sequence they appear in the publications, the article title, volume number, page numbers, and year of publications. While there is no established page limitation, this section should include bibliographic citations only and should not be used to provide parenthetical information outside of the Project Description.

(6) Milestone chart. Provide time lines of major tasks covering the duration of the proposed project.

(7) Biographical sketch. All principal and co-investigators must provide summaries of up to 2 pages that include the following:

- (a) A listing of professional and academic credentials and mailing address;
- (b) A list of up to five publications most closely related to the proposed project and five other significant publications.

(8) Current and pending support. Describe all current and pending Federal financial/funding support for all principal and co-investigators. Continuing grants must also be included. A current and pending support form is available on the CSCOR web site for your use: <http://coastalscience.noaa.gov/funding/applicants/forms>. You should respond to this element whether or not you have any current and/or pending support, e.g., by indicating “not applicable.”

(9) A list of all known applicable permits that will be required to perform the proposed work. You should respond to this requirement element whether or not permits are required. It will be 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 should be received by the Program Manager 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) may delay the award of funds if a project is otherwise selected for funding.

(10) Accomplishments from Prior Federal Support addressing hypoxia research. If any PI or co-PI identified on the project has received Federal funding in the past five years for hypoxia research, information on the award(s) is required. Each PI and co-PI who has received more than one award (excluding amendments) must report on the award most closely related to the proposal. This section should not exceed two pages per award.

The following information should be provided:

- a) the award number, amount and period of support;
  - b) the title of the project;
  - c) a summary of the results of the completed work;
  - d) publications resulting from the award;
  - e) a brief description of outputs and outcomes; and
  - f) as appropriate, a description of the relation of the completed work to the proposed work.
- When applicable, this information will be considered by reviewers in the evaluation of overall qualifications of applicants.. You should respond to this element whether or not you have accomplishments from prior Federal support on hypoxia; e.g. by indicating “no prior Federal research on hypoxia.”

(11) Budget narrative/justification. In order to allow reviewers to fully 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. Personnel costs should be broken out by named PI and number of months and percentage of time requested per year per PI. Support for each PI should be commensurate with their stated involvement each year in the milestones chart (see Required Elements (6) Milestone chart).

Any unnamed personnel (graduate students, post-doctoral researchers, technicians) should be

identified by their job title, and their personnel costs explained similar to PI personnel costs above. The contribution of any personnel to the project goals should be explained. Travel costs should be broken out by number of people traveling, destination and purpose of travel, and projected costs per person. Equipment costs should describe the equipment to be purchased, and its contribution to the achievement of the project goals. For additional information concerning each of the required categories and appropriate level of disclosure please see <http://coastalscience.noaa.gov/funding/applicants/requirements>.

Any ship time needs must be clearly identified in the proposed budget. The applicant is responsible for requesting ship time through appropriate channels and for meeting all requirements to ensure the availability of requested ship time. Copies of relevant ship time request forms should be included with the proposal.

If any NOAA personnel will be present during ship operations, vessel safety clearances must be obtained through the NOAA Office of Marine and Aviation Operations (OMAO) in advance of the cruise. Required information and procedures are detailed in a Charter Vessel Acquisition and Safety NOAA Administrative Order which can be accessed via the OMAO website at <http://www.omaο.noaa.gov/charterreq.html>.

A separate budget justification is required for each subaward. Signed approval from each identified subaward institution is also required. The lead institution is responsible for sending funds to their subaward institutions. For acquisition contracts, the purpose and cost or price must be fully justified and the contract must fully comply with 2 C.F.R. 200.317-.326.

An applicant requesting funds for indirect costs in its proposal budget that has a current Federally approved rate should submit a copy of the indirect cost rate agreement as an attachment to its application submission. An applicant without a Federally approved rate should refer to Section IV.E. of this Announcement regarding options.

(12) CD 511. Certification Regarding Lobbying. Lead institutions can submit these forms through the grants.gov CD511 document placeholder without a hard signature because electronic signatures are allowed on documents from the submitting institution.

(13) SF 424B. Assurances - Non-Construction Programs. Lead institutions can submit these forms through the grants.gov SF 424B document placeholder without a hard signature because electronic signatures are allowed on document from the submitting institutions.

(14) Standard Form 424A. All applicants are required to submit a SF-424A Budget Form

that identifies the budget for each fiscal year of the proposal. Place each fiscal year in separate columns in Section B of page 1 on the SF424A by filling in the fiscal years 1 to 5 in Section A Budget Summary - Grant Program Function or Activity column. (Note that this revised 424A Section B format is a NOAA requirement that is not reflected in the Instructions for the SF 424A). For 5 year projects, use two SF424As. Place the first four years on one form in Section B columns one through four. The first four years will total in column five. Place the total from the first form onto the second form in Section B column one and use column two for the fifth year budget figures. The budget figures must correspond with the descriptions contained in the proposal. Each subaward should be listed as a separate item in the budget justification and each subaward should provide a SF424A for each year of funding requested.

Provide separate budgets for each subaward and indicate the basis for the cost estimates. Describe project activities for subawards and products/services to be obtained for acquisitions, and indicate the applicability or necessity of each to the project. List total subaward and contractor costs under line item 6.f. contractual on the SF-424A. Signed approval from the institution of each identified subaward and contractor should be provided. Indirect cost may not be applied to ship costs.

(15) Provide one list that includes all (U.S. and Foreign) collaborators, advisors, and advisees for each investigator (principal and co-principal investigators, post-docs, and subawardees), complete with corresponding institutions. Submit only one, combined and alphabetized list per application in an excel spreadsheet using First Name, Last Name, Institution for the column headings. Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes. Collaborators also include those persons with which the investigators may have ongoing collaboration negotiations. Advisees and Advisors do not have a time limit. Advisees are persons with whom the individual investigator has had an association as thesis advisor or postdoctoral sponsor. Advisors include an individual's own graduate and postgraduate advisors. Unfunded participants in the proposed study should also be listed (but not their collaborators). This information is critical for identifying potential conflicts of interests and avoiding bias in the selection of reviewers.

(16) Key Contacts form. At the time of application submission, all applicants must submit the Key Contacts form. This form can be found on the NCCOS/CSCOR website: [http://coastalscience.noaa.gov/funding/docs/key\\_contacts\\_form.pdf](http://coastalscience.noaa.gov/funding/docs/key_contacts_form.pdf). This form identifies the official applicant contacts.

Application format and assembly. Applications submitted via Grants.gov APPLY should

follow the format guidelines below:

Attachments must be submitted in Adobe Acrobat PDF, text document or word format to maintain format integrity. Please submit the required documents as described below. Follow the instructions found on the Grants.gov web site for application submission into the Grants.gov system. All required forms that do not have specific placeholders in the Mandatory Document box must be submitted in the Optional Form box as Other Attachments and labeled with the document name: i.e. budget narrative, project description, milestone chart etc. For a collaborative application: The documents for each additional institution should be combined into one file. The lead institution should label the file with the name of the institution and upload the file into the Optional Form box as Other Attachments. Repeat this procedure for each collaborating institution.

Save your completed application package with two different names before submission to avoid having to re-create the package should you experience submission problems. If you experience submission problems that may result in your application being late, send an e-mail to [support@grants.gov](mailto:support@grants.gov) and call the Grants.gov help desk. Their phone number is posted on the Grants.gov web site. The Program Manager associated with the Request For Applications will use programmatic discretion in accepting applications due to documented electronic submission problems. Please note: If more than one submission of an application is performed, the last application submitted before the due date and time will be the official version.

In addition to the sixteen required elements, applicants may suggest merit reviewers on a page after the Summary Title Page and to include letters from unfunded collaborators. These forms can be uploaded in to the Optional Form box under Other Attachments in Grants.gov.

Applications containing subawards must provide - SF424A, Budget Justification, Current and Pending Support, and Key Contacts. Signed approval from the institution of each subaward and contractor should be provided. We also request submission of the indirect rate agreement for subawards, if applicable. Applicants should provide Key Contacts for acquisition contracts and may provide additional information similar to that requested in this section for an acquisition contract if it may help NOAA assure compliance of the contract with 2 C.F.R. 200.317-.326.

\*Permits, accomplishments, Biographical sketches and the collaborators list should be supplied to the lead institution in order for them to be combined within the lead application information.

C. Unique entity identifier and System for Award Management (SAM)

#### D. Submission Dates and Times

Applications for the NGOMEX program must be received and validated by Grants.gov by 5:00 p.m. Eastern Time on January 22, 2016. Applications for the CHRP program must be received and validated by Grants.gov by 5:00 p.m. Eastern Time on February 5, 2016.

If use of Grants.gov is not feasible or an applicant is concerned about possible problems associated with the Grants.gov system, an applicant may submit a paper copy of its application. Paper applications must include all relevant application elements described in this Announcement, including an SF-424 form with original ink or valid electronic signature and date from an Authorized Organization Representative, and must be stamped with an official U.S. Postal Service postmark or provided to a commercial carrier with tracking number and receipt on or before 5:00 pm Eastern Time on January 22, 2016 for NGOMEX and February 5, 2016 for CHRP. Private metered postmarks will not be accepted. Applicants submitting by paper are responsible for tracking their applications and should notify the Program Manager identified in Agency Contacts, Section VII. of this Announcement, that they are submitting by paper.

Note that late-arriving paper applications will be accepted for review only if the applicant can document that:

- 1) The application was postmarked or provided to a delivery service by the closing date and time with delivery to the National Oceanic & Atmospheric Administration, 1305 East-West Highway, SSMC4, Mail Station 8219 8th Floor, Silver Spring, Maryland 20910-3281;  
AND
- 2) The application was received by NOAA by 5 p.m., Eastern Time no later than 2 business days following the closing date and time.

Investigators submitting applications electronically are advised to submit well in advance of the deadline. When developing your submission timeline, keep in mind the following information necessary to submit an application on Grants.gov: (1) a free annual registration process in the electronic System for Award Management (SAM) may take between three and five business days or as long as several weeks, as described in Section IV.F. of this Announcement, and (2) if you submit an application via Grants.gov, you will receive a series of email notifications for up to two business days before learning via validation or rejection whether NOAA has received your application.

Applications received after the deadline will be rejected and returned to the sender without further consideration.

Important: All applicants, both electronic and paper, should be aware that adequate time must be factored into applicant schedules for delivery of the application. Electronic applicants are advised that volume on Grants.gov is currently extremely heavy, and if Grants.gov is unable to accept applications electronically in a timely fashion, applicants are encouraged to exercise their option to submit applications in paper format. Paper applicants should allow adequate time to ensure a paper application will be received on time, taking into account that guaranteed overnight carriers are not always able to fulfill their guarantees.

#### E. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." Applicants are not required to consult a state Single Point of Contact.

#### F. Funding Restrictions

Indirect Costs: If an applicant has not previously established an indirect cost rate with a Federal agency it may choose to use the de minimis indirect cost rate of 10% of Modified Total Direct Cost as allowable under 2 C.F.R. §200.414 or negotiate a rate with the Department of Commerce. The negotiation and approval of such a new rate is subject to the procedures required by NOAA and the Department of Commerce Standard Terms and Conditions, Section B.06. The NOAA contact for indirect or facilities and administrative costs is: Lamar Revis, Grants Officer NOAA Grants Management Division 1325 East West Highway 9th Floor Silver Spring, Maryland 20910, [lamar.revis@noaa.gov](mailto:lamar.revis@noaa.gov).

NCCOS/CSCOR will not fund start up or operational costs for private business ventures and neither fees nor profits will be considered as allowable costs. Ship costs may not be included in indirect cost calculations unless ship is calculated within the indirect cost rate of the institution. NCCOS/CSCOR will not pay for ship overhead expenses otherwise. If indirect costs are applied, an approved indirect cost agreement or budget revision will be required before an application can be recommended for funding.

#### G. Other Submission Requirements

Applications previously submitted to NCCOS/CSCOR FFOs and not recommended for funding must be revised to address any reviewer or panel concerns before resubmission. Resubmitted applications that have not been revised to address identified concerns may be returned without review.

Applications submitted in response to this announcement are strongly encouraged to be

submitted through the Grants.gov web site. The full funding announcement for this program is available via the Grants.gov web site: <http://www.grants.gov>. You will be able to access, download and submit electronic grant applications for NOAA Programs in this announcement at <http://www.grants.gov>. NOAA strongly recommends that you do not wait until the application deadline date to begin the application process through Grants.gov. The standard NOAA funding application package is available at [www.grants.gov](http://www.grants.gov) (Grants.gov); and electronic application packages, including all letters of collaboration, shall be submitted through the “Apply” function on Grants.gov. Applicants must register with Grants.gov before any application materials can be submitted. To use Grants.gov, applicant must have a Dun and Bradstreet Data Universal Number System (DUNS) number and be registered in the System for Award Management (SAM), and periodic renewals are required. Applicants can receive a DUNS number at no cost by calling the dedicated toll-free DUNS Number request line at 1-866-705-5711 or online at <http://fedgov.dnb.com/webform>. Allow a minimum of five days to complete the SAM registration. (Note: Your organization’s Employer Identification Number (EIN) will be needed on the application form). An organization's one time registration process may take up to three weeks to complete. In addition, it may take two days until the applicant is notified as to whether NOAA received the application, so allow sufficient time to ensure applications are submitted before the closing date.

After electronic submission of the application through Grants.gov, the person submitting the application will receive within the next 24 to 48 hours two email messages from Grants.gov updating them on the progress of their application. The first email 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 before transmission to the grantor agency or has been rejected because of errors. Only validated applications are sent to NOAA for review. After the application has been validated, this same person will receive a third email when the application has been downloaded by the Federal agency.

In addition to Grants.gov, this announcement will also be available by contacting the program official identified in Section VII. The closing dates for electronic and paper applications are the same. Please refer to important information in Submission Dates and Times (Section IV.C.) to help ensure your application is received on time.

Applicants must contact the Program Manager for non-electronic submission instructions. Facsimile transmissions and electronic mail submission of full applications will not be accepted.

## V. Application Review Information

### A. Evaluation Criteria

1. Importance and/or relevance and applicability of proposed project to the program goals: This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, state, or local activities. This will include the plans for data management and access. (35 percent)

2. Technical/scientific merit: 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. (30 percent)

3. Overall qualifications of applicants: This ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. This includes the capability of the investigator and collaborators to complete the proposed work as evidenced by past research accomplishments, previous cooperative work, timely communication, and the sharing of findings, data, and other research products. (15 percent)

4. Project costs: The Budget is evaluated to determine if it is realistic and commensurate with the project needs and time-frame. (15 percent)

5. Outreach and education: 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. (5 percent)

### B. Review and Selection Process

An initial administrative review is conducted on each application to assure that it is timely, responsive, and complete. NOAA, in its sole discretion, may continue the review process for applications with non-substantive issues that may be easily rectified or cured. All applications that pass this initial review will be evaluated and scored individually in accordance with the assigned weights of the above evaluation criteria by independent peer mail review and/or by independent peer panel review. Both Federal and non-Federal experts may be used in this process. The peer mail reviewers will be at least three individuals with expertise in the subjects addressed by particular applications. Each mail reviewer will see only certain individual applications within his or her area of expertise, and score them individually on a scale of one to five, where scores represent respectively: Excellent (5), Very Good (4), Good (3), Fair (2), Poor (1). The reviewer applies a rating of 1 – 5 to each criterion and the total score is calculated from the weights. For example: If the criterion is

given 40% weight and the reviewer gives this criterion 4 out of 5 then the criterion is scored as a 32. (Rating = 4 out of 5, Percentage = 40; Total =  $4/5 \times 40 = 32$ ). Each criterion is scored in the same way. All scores are added together and the final score falls into the below ratings:

Rating: 5 Excellent = 100 - 90; 4 Very Good = 89 - 80; 3 Good = 79 - 70; 2 Fair = 69 - 60 and 1 Poor = 59 and below. Based on the nature, quality, and volume of applications and the availability of funds, a bar will be set, ordinarily around a score of 70, by which applications are selected to be sent forward to the panel review.

The peer panel will comprise several individuals, with each individual having expertise in a separate area, so that the panel, as a whole, covers a range of relevant scientific expertise. The panel will have access to all mail reviews of proposals and will use the mail reviews in discussion and evaluation of the entire slate of proposals. All proposals rated 70 and above will be evaluated and scored individually by the panelists. The peer panel shall rate the proposals using the evaluation criteria and scores provided above and used by the mail reviewers. The individual peer panelists' scores shall be averaged for each application and presented to the Program Manager. If a full review (mail and panel) is conducted, only the panel scores shall be used to rank each proposal. No consensus advice will be given by the independent peer mail review or the review panel.

The Program Manager will neither vote or score applications as part of the independent peer review panel nor participate in discussion of the merits of the applications other than to ask questions. Those applications receiving an average panel score of "Fair" or "Poor" will not be given further consideration, and applicants will be notified of non-selection.

For the applications scored by the reviewers as either "Excellent," "Very Good," or "Good", the Program Manager will (a) create a ranking of the applications to be recommended for funding using the average panel scores (b) recommend the total duration of funding for each application; and (c) recommend the amount of funds available for each application subject to the availability of fiscal year funds. Awards may not necessarily be made in rank order. In addition, applications rated by the panel as either "Excellent," "Very Good," or "Good" that are not funded in the current fiscal period, may be considered for funding in another fiscal period without having to repeat the competitive review process.

Recommendations for funding are forwarded from the Program Manager to the appropriate Branch Chief and then CSCOR Director for development of the final recommendation to the Selecting Official, the Director of NCCOS or designee, for the final funding recommendation decision. Recommendations will be made in rank order from the peer-review process unless the proposal is justified to be selected out of rank order based on the selection factors listed below in C. NOAA may select all, some, or none of the applications,

or part of any application, ask applicants to work together or combine projects, defer applications to the future, or reallocate funds to different funding categories, to the extent authorized. A competitively reviewed but unfunded proposal may be considered for funding in another fiscal period without repeating the competitive process.

Investigators may be asked to modify objectives, work plans or budgets, and provide supplemental information required by the agency prior to the award. When a decision has been made (whether an award or declination), verbatim anonymous copies of reviews and summaries of review panel deliberations, if any, will be made available to the applicant. Declined applications will be held in NCCOS/CSCOR for three years in accordance with current retention policies, and then destroyed.

The NOAA Grants Officer will review financial and grants administration aspects of a proposed award, including conducting an assessment of the risk posed by the applicant in accordance with 2 C.F.R. 200.205. In addition to reviewing repositories of government-wide eligibility, qualifications or financial integrity information, the risk assessment conducted by NOAA may consider items such as the financial stability of an applicant, quality of the applicant's management systems, an applicant's history of performance, previous audit reports and audit findings concerning the applicant and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities. Applicants should be in compliance with the terms of any existing NOAA grants or cooperative agreements and otherwise eligible to receive Federal awards, or make arrangements satisfactory to the Grants Officer, to be considered for funding under this competition. All reports due should be received and any concerns raised by the agency should be timely addressed in order to receive a new award. Upon review of these factors, if appropriate, specific award conditions that respond to the degree of risk may be applied by the NOAA Grants Officer pursuant to 2 C.F.R. 200.207. In addition, NOAA reserves the right to reject an application in its entirety where information is uncovered that raises a significant risk with respect to the responsibility or suitability of an applicant. The final approval of selected applications and issuance of awards will be by the NOAA Grants Officer. The award decision of the Grants Officer is final and there is no right of appeal.

### C. Selection Factors

Proposals may 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 institutions.

- 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. Refer to section I.B.
5. Applicant's prior award performance.
6. Partnerships and/or participation of targeted groups.
7. Adequacy of information necessary for NOAA to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the grants officer. Awards may also be modified for selected projects depending on budget availability or according to the selection factors listed above

#### D. Anticipated Announcement and Award Dates

Subject to the availability of funds, review of the NGOMEX applications will begin in January, 2016 and review of the CHRP applications will begin in February 2016. Applicants may be notified of award or declination by September, 2016, and applicants should use a start date of September 1, 2016.

## VI. Award Administration Information

### A. Award Notices

The official notice of award is the Standard Form CD-450, Financial Assistance Award, issued by the NOAA Grants Officer electronically through NOAA's electronic grants management system, Grants Online. The authorizing document, the CD-450 award cover page, is provided to the appropriate business office of the recipient organization. It is available at <http://go.usa.gov/SNMR>. The Internet Explorer browser should be used with Grants Online.

The Department of Commerce Financial Assistance Standard Terms and Conditions will apply to awards in this program. A current version of this document is available at <http://go.usa.gov/hKbj>. These terms will be provided in the award package in Grants Online at <http://www.ago.noaa.gov>.

In addition, award documents provided by NOAA may contain special award conditions, including those limiting the use of funds for compliance activities such as outstanding environmental compliance requirements, which will be applied on a case-by-case basis. Applicants are strongly encouraged to review award documents carefully before accepting a Federal award to ensure they are fully aware of the relevant terms that have been placed on

the award.

## B. Administrative and National Policy Requirements

### 1. Department of Commerce Pre-Award Notification Requirements

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. Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards

The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) at 2 C.F.R. Part 200, adopted by the Department of Commerce through 2 C.F.R. 1327.101, applies to awards in this program. Refer to <http://go.usa.gov/SBYh> and <http://go.usa.gov/SBg4>.

### 3. Limitation of Liability

Applicants are hereby given notice that funds have not yet been appropriated for this program. In no event will NOAA or the Department of Commerce be responsible for application preparation costs. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds. There is no guarantee that sufficient funds will be available to make awards for all qualified projects. Publication of this notice does not oblige NOAA to award any specific project or to obligate any available funds. If one incurs any costs prior to receiving an award agreement signed by an authorized NOAA official, one would do so solely at one's own risk of these costs not being included under the award or of not receiving an award.

Recipients and subrecipients are subject to all applicable Federal laws and agency policies, regulations and procedures applicable to Federal financial assistance awards.

### 4. 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.corporateservices.noaa.gov/ames/administrative\\_orders/chapter\\_216/216-6.html](http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_216/216-6.html), and the Council on Environmental Quality implementation regulations, [http://energy.gov/sites/prod/files/nepapub/nepa\\_documents/RedDont/G-CEQ-](http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-)

GuidanceRegulations.pdf. Consequently, as part of an applicant's package, and under their description of their 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 (e.g., the 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).

Applicants to be recommended for funding will be required to answer relevant questions from the "Environmental Compliance Questionnaire for NOAA Federal Financial Assistance Applicants" (OMB Control No. 0648-0538). The Program Manager will determine which questions are relevant to each specific proposal. Answers must be provided before the application can be submitted for final funding approval.

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. The failure to do so shall be grounds for the denial of an application.

#### 5. Scientific Integrity

CSCOR adheres to the principals of scientific integrity. This policy can be found at; <http://nrc.noaa.gov/scientificintegrity.html>.

#### 6. Felony and Tax Certifications for Corporations

In accordance with current Federal appropriations law, NOAA will provide a successful corporate applicant a form to be completed by its authorized representative making a certification regarding Federally-assessed unpaid or delinquent tax liability or recent felony criminal convictions under any Federal law.

#### 7. System for Award Management and Universal Identifier

To enable the use of a universal identifier and to build the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act, 16 U.S.C. 6106 Note, to the extent applicable, any applicant awarded in response to this announcement will be required to use the System for Award Management (SAM), which may be accessed online at <https://www.sam.gov/portal/public/SAM/>. 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, which

may be accessed online at: <http://go.usa.gov/3SNae>.

#### 8. Access to Information, Confidentiality, and Proprietary Information

Department of Commerce regulations implementing the Freedom of Information Act (FOIA) are found at 15 C.F.R. Part 4, Public Information. These regulations set forth rules for the Department regarding making requested materials, information, and records publicly available under the FOIA. Applications submitted in response to this Federal Funding Opportunity may be subject to requests for release under the Act. In the event that an application contains information or data that the applicant deems to be confidential commercial information which is exempt from disclosure under FOIA, that information should be identified, bracketed, and marked as Privileged, Confidential, Commercial or Financial Information. Based on these markings, the confidentiality of the contents of those pages will be protected to the extent permitted by law.

Proprietary or Privileged Information Patentable ideas, trade secrets, privileged or confidential commercial or financial information, disclosure of which may harm the proposer, should be included in proposals only when such information is necessary to convey an understanding of the proposed project. Such information should be clearly marked in the proposal or included as a separate statement accompanying the proposal and should be appropriately labeled with a legend such as, "The following is [proprietary or confidential] information that [name of proposing organization] requests not be released to persons outside the Government, except for purposes of review and evaluation." While NOAA will make every effort to prevent unauthorized access to such material, it is not responsible or liable for the release of such material. Release of Recipient Proposal Information for a proposal that results in an award will be available to the public on request, except for privileged information or material that is personal, proprietary or otherwise exempt from disclosure under law. Appropriate labeling in the proposal aids identification of what may be specifically exempt. Such information will be withheld from public disclosure to the extent permitted by law, including the Freedom of Information Act. Without assuming any liability for inadvertent disclosure, NOAA will seek to limit disclosure of such information to its employees and to outside reviewers when necessary for merit review of the proposal or as otherwise authorized by law. Portions of proposals resulting in awards that contain descriptions of inventions in which either the Government or the recipient owns a right, title, or interest (including a nonexclusive license) will not normally be made available to the public until a reasonable time has been allowed for filing patent applications. NOAA will notify the recipient of receipt of requests for copies of funded proposals so the grantee may advise NOAA of such inventions described, or other confidential, commercial or proprietary information contained in the proposal.

### C. Reporting

All performance (i.e. technical progress) reports shall be submitted electronically through NOAA's electronic Grants Online system unless the recipient does not have electronic access. In that case, performance (technical) reports are to be submitted to the NOAA Program Manager. All financial reports shall be submitted in the same manner. All ship time use must be reported by the PI or Chief Scientist on each cruise within the performance reports.

The Federal Funding Accountability and Transparency Act, 16 U.S.C. 6106 Note, includes a requirement for awardees of applicable Federal grants to report information about first-tier subawards 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 Subaward Reporting System (FSRS) available at [www.FSRS.gov](http://www.FSRS.gov) on all subawards over \$25,000.

#### Data Reporting Requirement

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. 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.

In conformance with the 2 CFR 200 any data collected in projects supported by NCCOS/CSCOR should be delivered to a National Data Center (NDC), such as the National Centers for Environmental Information (NCEI) in a format to be determined by the institution, the NDC, and the Program Manager. Information on NOAA NDC's can be found at <http://www.nesdis.noaa.gov>.

It is the responsibility of the institution for the delivery of these data; the DOC will not provide additional support for delivery beyond the award. Additionally, all biological cultures established, molecular probes developed, genetic sequences identified, mathematical models constructed, or other resulting information products established through support provided by NCCOS/CSCOR are encouraged to be made available to the general research community at no or modest handling charge (to be determined by the institution, Program Manager, and DOC).

## VII. Agency Contacts

Technical Information: Alan Lewitus, Program Manager for NCCOS/CSCOR, 301-713-3020, Internet: [Alan.Lewitus@noaa.gov](mailto:Alan.Lewitus@noaa.gov)

Business Management Information: Laurie Golden, NCCOS/CSCOR Grants Administrator, 301-713-3020, Internet: [Laurie.Golden@noaa.gov](mailto:Laurie.Golden@noaa.gov)

## VIII. Other Information

Additional background information on this program and announcement are available on the NCCOS/CSCOR home page at <http://go.usa.gov/3SYKV>. If any Frequently Asked Questions arise, they will be posted at this site.

Check List for Required and Requested Documents:

SF-424

Title Page

Abstract

Project Description

References

Milestone Chart

SF-424A (One for the lead institution and each subaward/subcontract)

Budget Narrative and Justification (One for the lead institution and each subaward/subcontract).

Bio Sketch

Current and Pending Support

Permits (if none, say so)

Alphabetized Collaborator List (ONE excel spreadsheet for all)

Waiver, if applicable

Signed Approval from subaward/subcontractor institutes

Ship Request form, if applicable

SF-424B

CD-511

Key Contact form

Indirect Rate Agreement (requested).

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