

Geospatial Modeling

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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: Geospatial Modeling

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-NGS-2018-2005522

Catalog of Federal Domestic Assistance (CFDA) Number: 11.400, Geodetic Surveys and Services (Applications of the National Geodetic Ref System)

Dates: Full proposals must be received no later than 11:59PM EST p.m. EST, April 23, 2018.

Funding Opportunity Description: The purpose of this notice is to solicit grant proposals from eligible organizations implementing activities that modernize and improve the National Spatial Reference System in Gulf Coast states. Proposals submitted in response to this announcement should contribute to the beneficial public outcomes associated with the following program priorities, which consist of; 1) enhancing infrastructure of geodetic control, coastal remote sensing data, terrestrial gravity measurements, and other physical datasets; 2) developing models, tools, and guidelines to access geodetic control and manipulate and analyze geodetic data; 3) supporting education, capacity building, and technology transfer; 4) coordinating through partnerships with local users (state and local governments, universities, and the public sector) and other partners in the region; 5) sharing environmental data and information, collected and/or created under NOAA grants/cooperative agreements, making it visible, accessible, and independently understandable to general users, free of charge or at minimal cost, in a timely manner, except where limited by law, regulation, policy, or by security requirements.

This competition focuses on the geography of the Gulf Coast states. Eligible funding applicants for this competition are institutions of higher education, state, local and Indian tribal governments. All awards are subject to the availability of funds.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The National Geodetic Survey (NGS) is a program office within the National Ocean Service (NOS) that provides the authoritative coordinate system for all positioning activities in the Nation. Known as the National Spatial Reference System (NSRS), NGS' authoritative coordinate system defines latitude, longitude, height, gravity, and shoreline information, which supports a wide range of important activities, including mapping and charting, navigation, transportation, infrastructure, flood risk determination, national security, and environmental observations. NGS also develops industry guidelines, specifications, and standards and provides training for surveyors, mapping professionals, scientists and other users of the NSRS.

The current horizontal (NAD83) and vertical (NAVD88) datums of the National Spatial Reference System (NSRS) have been identified as having biases that are best addressed through defining new horizontal and vertical datums. Specifically, NAD 83 is non-geocentric by about 2.2 meters. Secondly, NAVD 88 is both biased (by about one-half meter) and tilted (about 1 meter coast to coast) relative to the best global geoid models available today. Both of these issues derive from the fact that both datums were defined primarily using terrestrial surveying techniques at passive geodetic survey marks. This network of survey marks deteriorates over time (both through unchecked physical movement and simple removal) and resources are not available to maintain them. NGS is modernizing the NSRS to address these concerns and the advancements in technology by developing new datums by 2022. The new datums or reference frames (geometric and geopotential) will rely primarily on Global Navigation Satellite Systems (GNSS) such as the Global Positioning System (GPS) as well as an updated and time-tracked geoid model.

The primary objective of this funding opportunity is to modernize and improve the National Spatial Reference System in Gulf Coast States. This funding opportunity is limited to Gulf of Mexico states that are particularly vulnerable to the negative impacts of storms and geophysical processes like subsidence and erosion, and where there is an urgent and compelling need for improved geospatial information. This funding opportunity solicits projects that will implement National Spatial Reference System Modernization priorities and research innovative geospatial modeling techniques to address the unique geospatial concerns of the Gulf Coast States. National Spatial Reference System Modernization Priorities can be found at the following link, with an attention to Goal 2 - Modernize and Improve the National Spatial Reference System:

https://www.ngs.noaa.gov/web/news/Ten_Year_Plan_2013-2023.pdf

The secondary objective of this funding opportunity is to improve the awareness, coordination, and use of geospatial data. Awareness and education can be maximized by partnering and collaborating across organizations and stakeholder groups. This funding opportunity solicits projects that will raise awareness and educate users of the NSRS through regional meetings, presentations, and attendance at geospatial conferences. National Spatial Reference System Modernization Priorities can be found at the following link, with an attention to Goal 3 -Expand the the National Spatial Reference System Stakeholder Base through Partnerships, Education, and Outreach:

https://www.ngs.noaa.gov/web/news/Ten_Year_Plan_2013-2023.pdf

Applicants should have a demonstrated history in the collection, storage, analysis, and overall management of geospatial data. Funded projects will directly support the following objectives under NOAA's Resilient Coastal Communities and Economies Goal (<http://www.performance.noaa.gov/goals/>):

- Resilient coastal communities that can adapt to the impacts of hazards and climate change.
- Comprehensive ocean and coastal planning and management.
- Safe, efficient and environmentally sound marine transportation.

B. Program Priorities

NSRS Modernization supports the NOAA goal of Resilient Coastal Communities and Economies by enabling the public to obtain accurate elevation and positioning data. Proposals submitted in response to this announcement should contribute to the beneficial public outcomes associated with the five program priorities which consist of 1) enhancing infrastructure of geodetic control, coastal remote sensing data, terrestrial gravity measurements, and other physical datasets; 2) developing models, tools, and guidelines to access geodetic control and manipulate and analyze geodetic data; 3) supporting education, capacity building, and technology transfer of geodetic data and information; 4) coordinating through partnerships with local users (state and local governments, universities, and the public sector) and other partners in the region; 5) sharing environmental data and information, collected and/or created under NOAA grants/cooperative agreements, making it visible, accessible, and independently understandable to general users, free of charge or at minimal cost, in a timely manner, except where limited by law, regulation, policy, or by security requirements.

Activities to support the program priorities may include:

1. Enhance infrastructure of geodetic control, coastal remote sensing data, terrestrial gravity measurements, and other physical datasets:

- A. Expand or upgrade Continuously Operating Reference Stations (CORS) as needed to support local needs, while conforming to the NGS Guidelines for New and Existing CORS.
- B. Co-locate CORS with National Water Level Observation Network (NWLON) stations.
- C. Perform geodetic surveys (GNSS, gravity, leveling, etc.) on official NSRS benchmarks to enhance the NSRS.
- D. Evaluate and identify user requirements for geodetic vertical control data to enable access to the NSRS.
- E. Investigate survey methodologies to achieve one centimeter of positional accuracy using GNSS data.
- F. Operate and maintain a Real Time Network of GNSS stations for regional stakeholders.

2. Develop models, tools, and guidelines to access, manipulate and analyze geodetic data:

- A. Perform pilot projects and studies to test methodologies to determine positioning at required levels of accuracy.
- B. Develop tools for geospatial data manipulation and analysis in response to user needs.
- C. Investigate methodologies for modeling intra-frame velocities.
- D. Investigate Synthetic Aperture Radar (SAR) technologies for the development of a regional subsidence model.

3. Support education, capacity building, and technology transfer of geodetic data and information:

- A. Hold forums and meetings in states/regions to educate users and solicit input regarding requirements for data, products, and services to support regional geospatial modeling.
- B. Participate in forums held by NOAA and other partners, as well as local, regional, and national conferences to expand understanding of the importance of accurate and reliable data, models, and tools.
- C. Prepare education and outreach materials describing geospatial modeling program goals and activities, especially NSRS Modernization.
- C. Develop workshops to instruct surveyors and interested users in best practices for geodetic surveying.

4. Coordinate through partnerships with local users (state and local governments,

universities, and the public sector) and other partners in the region:

- A. Collaborate within a region to prepare for the NSRS Modernization.
- B. Work with local users to investigate new uses and applications of geospatial data products.

5. Share Environmental data and information:

- A. Manage a database of geospatial information.
- B. Develop and provide access to geospatial products such as: Geographic Information Systems (GIS), flood maps, aerial photography, and Light Detection and Ranging (LIDAR) measurements.
- C. Develop web access to data and tools not held at the national level.

C. Program Authority

Statutory authority for this program is derived from the Coast and Geodetic Survey Act, codified at 33 U.S.C. 883a and the Hydrographic Services Improvement Act, codified in 33 U.S.C. 892.

II. Award Information

A. Funding Availability

Total anticipated funding for all awards is approximately \$3,000,000 and is subject to the availability of FY 2018 appropriations. The anticipated federal funding per award is approximately \$3,000,000 for the initial award. The award will be made for one year with supplemental awards up to 5 years cumulatively. The anticipated number of awards is one. All awards, initial and supplemental are subject to availability of funds and quality of received proposals.

In no event will NOAA or the Department of Commerce (DOC) be responsible for application preparation costs. There is no guarantee that sufficient funds will be available to make awards for all qualified projects. Publication of this notice does not obligate 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. Publication of this notice does not obligate any agency to any specific award or to obligate any part of the entire amount of funds available. Recipients and subrecipients are subject to all federal laws and agency policies, regulations and procedures applicable to federal financial assistance awards.

B. Project/Award Period

This is a multi-year funding opportunity. Proposed projects should request funding for a five year project period. Anticipated start date, if found meritorious, generally will be six months after receipt by NOAA, but not should not start earlier than October 1, 2018.

C. Type of Funding Instrument

Applications should be written as grants and the proposal should clearly identify this funding instrument in the proposal abstract and cover sheet.

III. Eligibility Information

A. Eligible Applicants

Eligible funding applicants for this competition are institutions of higher education, state, local and Indian tribal governments. This funding opportunity is limited to Gulf of Mexico States (Texas, Louisiana, Mississippi, Alabama, and Florida) that are particularly vulnerable to the negative impacts of storms and geophysical processes like subsidence and erosion, and where there is an urgent and compelling need for improved geospatial information. Federal agencies or institutions and foreign governments may not be the primary recipient of awards under this announcement, but are encouraged to partner with eligible applicants when appropriate.

B. Cost Sharing or Matching Requirement

There is no requirement for cost sharing or matching.

C. Other Criteria that Affect Eligibility

N/A

IV. Application and Submission Information

A. Address to Request Application Package

Application packages are available through www.grants.gov. If an applicant does not have Internet access, application packages can be requested from:

Colin Becker
National Geodetic Survey
1315 East-West Highway

Room 8613, SSMC3,
Silver Spring, Maryland 20910; or
Phone: 240-533-9650
E-mail: Colin.Becker@NOAA.gov

B. Content and Form of Application

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

The following Federal Forms are required and must be submitted with applications.

1. Standard Form 424 - Application for Federal Assistance
2. Standard Form 424A - Budget Information - Non-Construction Programs*
3. Standard Form 424B - Assurances - Non-Construction Programs
4. Standard Form LLL - Disclosure of Lobbying Activities (if applicable)
5. Form CD-511 - Certification Regarding Lobbying

*NOTE: When applying for a Multi-Year award (2 to 5 years), the non-federal entity must submit a line item budget (SF-424A) and corresponding budget narrative for each of the funding periods anticipated.

Full Proposal: The proposal narrative must total no more than 10 pages (single-spaced, 11 or 12-point font and exclusive of appendices). The 10-page limit does not include the proposal title page, a table of contents, the data sharing plan, and the project summary referenced below under item two (2), nor any appendices. Appendices should be limited to materials that directly support the main body of the proposal (e.g., detailed budget information, negotiated indirect cost rate agreement, support letters, resumes, references, lists of data sources, and maps) and may not exceed 50 pages in length. In addition to an overall budget, an SF-424A must be submitted for each year of the proposal. Applicants must also provide a separate budget (SF424A) and budget narrative for each subaward. SF-424As and negotiated indirect cost rate agreements will not be included in the page count of the proposal or appendices.

All funding application packages must contain the following components:

1. Title Page

Include proposal title, complete contact information for the Principal Investigator, Financial Representative, and Authorized Representative, duration of proposed project, funding type (grant or cooperative agreement), funding request by year (as appropriate).

2. Project Summary

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

1. Project Name/Title
2. Primary Contact (name, address, phone, email)**
3. Recipient Institution
4. Other Investigators (name, affiliated institution or agency)
5. Brief Project Summary including activities, objectives, milestones and intended benefits
6. Partners

3. Project Description

All project proposals must include the following sections:

A) Goals and Objectives

Describe in the narrative the specific project goals and objectives to be achieved. Goals and objectives should be specific for each year of the work plan presented. Recipients will be required to submit semi-annual progress reports in which progress against these goals and objectives will be reported.

B) Background

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

C) Audience

Identify specific users of the results of the project, describe how they will use the results, and identify any training that will be needed for users to make full use of the results.

D) Approach

Provide a work plan that: identifies specific tasks to be accomplished; explains the technical approach (including quality assurance) needed to accomplish the tasks; identifies the roles of partners and cooperators; and identifies potential obstacles to successful completion of the goals and objectives. Describe how users are involved in the planning and design process. The work plan must clearly address data management requirements, and the steps to be taken to achieve efficient and effective data access and archive that is compliant with federal regulations. If the project includes federal partners, the roles and responsibilities of the federal partners must be clearly identified.

E) Benefits

Identify, with a high degree of specificity, the users of the information derived from the work, and the benefits that will be achieved for those users, as well as society as a whole. Document how valid user requirements are guiding the proposed work. Describe how the information from the project will be delivered to those users, and any special considerations or requirements for ensuring or improving the delivery of information.

F) Activity and Milestone Schedule

Proposals must identify schedules for all proposed project activities, accomplishments, products, and key outcomes. In addition, performance measures must be included in the application as a way to measure progress of the project activities and deliverables.

Examples of performance measures may include:

- * Number of GNSS stations maintained for the project
- * Number of new GNSS stations installed for this project
- * Percent of GNSS stations that are online and functioning properly
- * Average number of days required to fix a GNSS station that is offline or not functioning properly
- * Number of geodetic benchmarks observed with GNSS technology and submitted to NGS for inclusion in the National Spatial Reference System
- * Number of Real Time Network and/or GNSS users
- * Number of publications produced as a result of this project
- * Number of meetings and forums held to support education, capacity building, and technology transfer.
- * Number of meetings and forums attended to support education, capacity building, and technology transfer.

- * Number of manuscripts submitted by funding recipients to NOAA Institutional Repository.
- * Number of submitted manuscripts that acknowledged support using FundRef.
- * Number of submitted manuscripts that explicitly cited datasets used to support conclusions of the paper.

G) Proposed Project Budget:

Provide a budget description that follows the categories and formats in the NOAA grants package (Standard Form 424-A) and a brief narrative justification of the budget. Detailed budget information, such as a repeat of the information in Form SF-424A along with more details should be included in an appendix. In this appendix, the budget narrative also shall clearly identify the cost of separable elements of the proposed work and shall identify the elements of the project that the cooperator would recommend for revision or elimination in the event that sufficient funding is not available for all proposed activities. Applicants must itemize and describe the intended use of all equipment and in addition equipment costs greater than \$5,000 in value must have a lease versus purchase analysis if it is to be purchased under the award. The budget narrative must also provide the cost and description of anticipated travel. Applicants should allocate travel funds for any coordination meetings at regional or national levels. Foreign travel on non-U.S. flag carriers (during any part of the flight) must receive prior approval and should be anticipated in the proposal to the extent possible.

For more information, refer to the GMD Budget Narrative Guidance located at <http://www.ago.noaa.gov/grants/training.html>, for the budget justification/narrative requirements.

H) Appendices

1. Sub-award Information

Detailed Budget Information, including budgets of subawards and contracts, information on equipment, personnel and travel, etc. Information should include the names of all entities receiving funds, the locations of the entities receiving funds (city, state, and Congressional district), and the locations of the primary places of performance under the contract/subaward. In this appendix, the budget narrative also shall clearly identify the priority and cost of separable elements of the proposed work, and shall identify the elements of the project that

the cooperator would recommend for revision or elimination in the event that sufficient funding is not available for all proposed activities.

2. National Environmental Protection Act (NEPA)

See section VI. B-6 for additional NEPA requirements

Applicants are required to answer the questions indicated in this Announcement of Federal Funding Opportunity. Applicants should answer the NEPA questions to the best of their ability with as much detail as possible. If the applicant does not answer all of the questions indicated in the Announcement of Federal Funding Opportunity the application will be considered incomplete. Responses to NEPA questions should be included in the application appendices.

The NEPA questions below have been specifically selected for this funding opportunity from the “Environmental Compliance Questionnaire for National Oceanic and Atmospheric Administration Federal Financial Assistance Applicants” (located at: <http://www.nepa.noaa.gov/questionnaire.pdf>). Applicants need only respond to the questions listed below. 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. Some 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 applicant must elaborate on their answer.

Applicant NEPA questions are as follows:

Question 1: Describe the proposed activity, including:

- * its purpose, objectives, and goals;
- * start date and duration of the proposed activity.
- * graphics (i.e. figures, photographs), maps, site plans, plan diagrams, models, etc.;
- * sampling, collection, or observation protocols and operational procedures;
- * any proposed mitigation or monitoring measures and protocols;

Question 4: List hazardous substances (as defined by 29 CFR 1910.120(a)(3)) that may be released into the environment or used during the proposed activity.

Question 5: List hazardous wastes (as defined by 40 CFR 261.3) that may be generated during the proposed activity.

Question 6: List unique or unknown risks to human health or the environment from the proposed activity.

Question 7: List any individuals, groups, or organizations that may disapprove of or oppose the proposed activity, and describe the circumstances of their disapproval or opposition.

Question 9: If the applicant does not receive funding from NOAA, would the applicant conduct the proposed activity anyways?

Question 10: Describe the proposed location for this activity, including geographic coordinates, river mile markers, etc. and indicate whether it includes unique geographic areas of notable recreational, ecological, scientific, cultural, historical, scenic, or aesthetic importance (Examples include, but are not limited to: coral reefs; marine protected areas; national marine sanctuaries; essential fish habitat; habitat area of particular concern; critical habitat designated under the Endangered Species Act; park or refuge lands; wild or scenic rivers; wetlands; prime or unique farmland; sites listed on the National Register of Natural Landmarks; sites listed or eligible for the National Register of Historic Places; sites that are ecologically significant or critical areas including areas that are normally inundated by water or areas within the 100-year floodplain).

Question 11: Would the proposed activity degrade or disturb previously undisturbed areas?

Question 13: If there are previous or ongoing uses of the proposed activity's site, or other issues, that make it likely that contaminants may be uncovered and/or disturbed by the proposed activity, describe the previous or ongoing uses or other issues of the site, potential contaminant, and the circumstances that may uncover and/or disturb the contaminants.

Question 16: If the proposed activity would be conducted in partnership with NOAA or require NOAA's direct involvement, activity, or oversight, describe NOAA's involvement, activity, or oversight, including the name of the office or program that is involved.

Question 17: List all other interested or affected Federal, state, and local agencies; Tribal

governments, nongovernmental organizations; minority or economically disadvantaged communities; and individuals. Describe listed entities involvement, activity, or oversight regarding the proposed activity.

Question 18: List all federal, state, or local permits, authorizations, waivers, determinations, or ongoing consultations that would be required for the proposed activity to comply with all applicable environmental laws and regulations. Provide the date the permit, authorization, waiver, or determination was obtained or would be obtained. Provide copies of the permits, authorizations, waivers, or determinations you have secured.

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.

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, 2018.

3. Data Sharing

Refer to Section VI for Data Management Plan requirements and guidance.

4. Resumes

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

C. Unique Entity Identifier and System for Award Management (SAM)

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, 31 U.S.C. 6101 note, to the extent applicable, any proposal 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, as identified in OMB guidance published at 2 CFR Parts 25, which may be accessed at https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr25_main_02.tpl

D. Submission Dates and Times

Proposals must be received by www.grants.gov, postmarked, or provided to a delivery service by 11:59 PM PM (EST) on April 23, 2018. Use of U.S. mail or another delivery service must be documented with a receipt. No facsimile or electronic mail applications will be accepted. Please note: Validation or rejection of your application by Grants.gov may take up to two business days after submission. Please consider this process in developing your submission timeline. Applications received after this time will not be reviewed or considered.

E. Intergovernmental Review

Funding applications that include State agencies as funded partners are subject to Executive Order 12372, "Intergovernmental Review of Federal Programs", which relies on State and local processes for the coordination and review of proposed Federal financial assistance and direct Federal development. It is the state agency's responsibility to contact their state's Single Point of Contact (SPCO) to find out about and comply with the state's process under EO 12372. https://www.whitehouse.gov/wp-content/uploads/2017/11/Intergovernmental_-Review_-_SPOC_01_2018_OFFM.pdf

F. Funding Restrictions

N/A

G. Other Submission Requirements

Application packages should be submitted through www.grants.gov. The Grants.gov site contains directions for submitting an application, the application package (forms), and is also where the completed application is submitted. If an applicant does not have Internet access, one set of originals (signed) and two copies of the hard copy proposals and related forms should be mailed to the attention of Colin Becker at 1315 East-West Highway, N/NGS, Room 8613, SSMC3, Silver Spring, MD 20910 contact him at 240-533-9650 No e-mail or fax copies will be accepted.

Please be advised that potential funding applicants must register with Grants.gov before any application materials can be submitted. An organization's one time registration process may take up to three weeks to complete so please allow sufficient time to ensure applications are

submitted before the closing date.

As of Jan 1, 2018, applicants must use Grants.gov "Workspace" to apply to notice of funding opportunities. Please review the grants.gov website for instructions on how to use "Workspace." <https://www.grants.gov/web/grants/applicants/workspace-overview.html>. site. Note: Your organization's Employer Identification Number (EIN) will also be needed to complete the application process.

Grants.gov will provide information about submitting a proposal through the site as well as the hours of operation. After electronic submission of the application, the person submitting the application will receive within the next 24 to 48 hours two e-mail messages from Grants.gov updating them on the progress of their application. The first e-mail will confirm receipt of the application by the Grants.gov system, and the second will indicate that the application has either been successfully validated by the system prior to transmission to the grantor 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.

V. Application Review Information

A. Evaluation Criteria

1. Importance and/or relevance and applicability of proposed project to the program goals (25 percent): This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, State, or local activities. Proposals will be evaluated on how well the proposed project will achieve the program objectives and priorities provided in Section I and address the geospatial modeling needs of the Gulf Coast Region.

2. Technical and scientific merit (20 percent): This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. Questions relevant to this criterion include: Is the approach appropriate for the stated goals and objectives? Are the project goals and objectives achievable within the proposed time-frame? Does the proposed approach incorporate current guidance, scientific, and/or technical advancements in the design and implementation of the proposed work?

3. Overall qualifications of the funding applicants (30 percent): This criterion ascertains whether the funding applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. Questions relevant to this

criterion include: Does the proposal demonstrate regional and institutional support for the project? Are the investigators qualified and is the organizational framework appropriate to conduct a project of the nature and scope proposed? Are investigators from other agencies and institutions within the region included on the project to capitalize on available expertise and promote a regional approach?

4. Project costs (10 percent). This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time-frame. Questions relevant to this criterion include: Does the proposal demonstrate that the budget is commensurate with project needs? Is the cost effectiveness of the project optimized through strategic partnerships?

5. Outreach, Education, and Data Management (15 percent): This criterion assesses whether the project provides a focused and effective education and outreach strategy regarding NOAA's mission to understand and protect the Nation's natural resources. Questions relevant to this criterion include: Does the proposal include a plan to solicit input from the target user community regarding desired project outcomes? Does the activity generated by the proposal result in a positive impact on the user community? This criterion will also assess whether the proposal includes a Data Management Plan, including descriptions of the types of environmental data and information 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, sharing, and security; and prior experience in publishing such data.

B. Review and Selection Process

After the application period has closed, an initial administrative screening is conducted of received applications to ensure that they were received by the deadline date (see IV.D. Submission Dates and Times); were submitted by an eligible applicant (see III.A. Eligibility Information); address the program priorities (see I.B. Program Priorities); include required content (see IV.B. Content and Form of Application); and meet the federal funding requirements (II.A. Funding Availability). If your application does not conform to the requirements and the deadline for submission has passed, the application will be rejected without further consideration. NOAA, in its sole discretion, may continue the review process for applications with non-substantive issues that may be easily rectified or cured.

All proposals meeting those requirements will then be evaluated and individually ranked in accordance with the assigned weights of the above evaluation criteria by at least three independent peer reviewers. The merit reviewer's ratings are used to produce a rank order of the proposals. Appropriate mechanisms will be established to avoid conflicts of interest

during the proposal merit review process. The Selecting Official will award in the rank order unless proposals are justified to be selected out of rank order based upon one or more of the selection factors provided in the next paragraph. The Selecting Official or designee may negotiate the funding level of the proposal. The Selecting Official will make the final recommendation for award to the Grants Officer, who is authorized to obligate the funds and execute the award.

C. Selection Factors

The merit review ratings shall provide a rank order to the Selecting Official for final recommendation to the Grants Officer. The Selecting Official shall award according to rank order unless the proposal is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding
2. Balance/distribution of funds:
 - a. By type of partners
 - b. Geographically
 - c. By research areas
 - d. By type of institutions
3. Applicant's prior award performance
4. Program priorities and policy factors
5. Partnerships with/Participation of targeted groups
6. Duplication of other projects funded or considered for funding by NOAA/federal agencies
7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

D. Anticipated Announcement and Award Dates

The start date on proposals should be October 1, 2018, November 1, 2018, or December 1, 2018.

VI. Award Administration Information

A. Award Notices

The applications recommended for funding by the Selecting Official will be forwarded to the NOAA Grants Management Division (GMD) by the Program Office. The applicant will be notified by the program office by email that its application was recommended for funding. Unsuccessful proposals will not be returned to the applicant.

The applicant must be aware that the notification by the program office that a proposal was forwarded to GMD is NOT the official award notice. Official notification happens only when the applicant receives an award notice from the Grants Officer either by postal mail or electronically. Costs incurred prior to receiving notice from an authorized federal grants or procurement officer are solely at one's own risk of these costs not being included under the award.

B. Administrative and National Policy Requirements

1. DEPARTMENT OF COMMERCE PRE-AWARD NOTIFICATION REQUIREMENTS FOR GRANTS AND COOPERATIVE AGREEMENTS.

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.

Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to <http://go.usa.gov/SBYh> and <http://go.usa.gov/SBg4>.

3. DOC TERMS AND CONDITIONS.

Successful applicants who accept a NOAA award under this solicitation will be bound by Department of Commerce Financial Assistance Standard Terms and Conditions. This document will be provided in the award package in NOAA's Grants Online system at <http://www.ago.noaa.gov> and at <http://go.usa.gov/hKbj>.

4. LIMITATION OF LIABILITY.

Funding for programs listed in this notice is contingent upon the availability of appropriations. Applicants are hereby given notice that funds may not have been appropriated yet for the programs listed in this notice. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

5. UNPAID OR DELINQUENT TAX LIABILITY.

When applicable under Federal appropriations law, an authorized representative of the selected applicant(s) may be required to provide certain pre-award certifications regarding federal felony and federal criminal tax convictions, unpaid federal tax assessments, and delinquent federal tax returns.

6. 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.nepa.noaa.gov/NAO216_6.pdf, and the Council on Environmental Quality implementation regulations, http://energy.gov/sites/prod/files/NEPA-40CFR1500_1508.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).

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 an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. Failure to do so shall be grounds for not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special

award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

7. REVIEW OF RISK.

After applications are proposed for funding by the Selecting Official, the Grants Office will perform administrative reviews, including an assessment of risk posed by the applicant under 2 C.F.R. 200.205. These may include assessments of the financial stability of an applicant and the quality of the applicant's management systems, history of performance, and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities. Special conditions that address any risks determined to exist may be applied. Applicants may submit comments to the Federal Awardee Performance and Integrity Information System (FAPIIS) about any information included in the system about their organization for consideration by the awarding agency.

8. DATA SHARING PLAN.

(1.) Environmental data and information collected or created under NOAA grants or cooperative agreements must be made discoverable by and accessible to the general public, in a timely fashion (typically within two years), free of charge or at no more than the cost of reproduction, unless an exemption is granted by the NOAA Program. Data should be available in at least one machine-readable format, preferably a widely-used or open-standard format, and should also be accompanied by machine-readable documentation (metadata), preferably based on widely used or international standards.

(2.) Proposals submitted in response to this Announcement must include a Data Management Plan of up to two pages describing how these requirements will be satisfied. The Data Management Plan should be aligned with the Data Management Guidance provided by NOAA in this Announcement. The contents of the Data Management Plan (or absence thereof), and past performance regarding such plans, will be considered as part of proposal review. A typical plan should include descriptions of the types of environmental data and information expected 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; methods for providing data access; approximate total volume of data to be collected; and prior experience in making such data accessible. The costs of data preparation, accessibility, or archiving may be included in the proposal budget unless otherwise stated in the Guidance. Accepted submission of data to the NOAA National Centers for Environmental Information (NCEI) is one way to satisfy data sharing requirements; however, NCEI is not obligated to accept all submissions and may charge a fee, particularly for large or unusual datasets.

(3.) NOAA may, at its own discretion, make publicly visible the Data Management Plan from funded proposals, or use information from the Data Management Plan to produce a formal metadata record and include that metadata in a Catalog to indicate the pending availability of new data.

(4.) Proposal submitters are hereby advised that the final pre-publication manuscripts of scholarly articles produced entirely or primarily with NOAA funding will be required to be submitted to NOAA Institutional Repository after acceptance, and no later than upon publication. Such manuscripts shall be made publicly available by NOAA one year after publication by the journal.

1. Data Management Plan Guidance

A) Responsible NOAA Official for questions regarding this guidance and for verifying accessibility of data produced by funding recipients:

Name: Colin Becker

Title: Federal Program Officer

Affiliation or facility: NOAA – National Geodetic Survey

E-mail address: colin.becker@noaa.gov

Phone number: 240-533-9650

B) Data Accessibility: The NOAA Program requires that public access to grant-produced data be enabled as follows:

- * An existing publicly accessible online data server – or equivalent – at the funded institution is to be used to host these data (describe in proposal); or
- * Funding recipients will establish their own data hosting capability (describe in proposal).

C) Technical recommendations

The NOAA Program is not offering specific technical guidance. Proposals are to describe their proposed approach. Use of open-standard formats and methods is encouraged.

D) Resources

Proposals are permitted to include the costs of data sharing or archiving in their budgets.

Definitions of data management terms are included here:

1. Environmental data are recorded and derived observations and measurements of the physical, chemical, biological, geological, and geophysical properties and conditions of the oceans, atmosphere, space environment, sun, and solid earth, as well as correlative data such as socio-economic data, related documentation, and metadata. Digital audio or video recordings of environmental phenomena (such as animal sounds or undersea video) are included in this definition. Numerical model outputs are included in this definition, particularly if they are used to support the conclusion of a peer-reviewed publication. Data collected in a laboratory or other controlled environment, such as measurements of animals and chemical processes, are included in this definition.

2. Sharing data means making data publicly visible and accessible in a timely (see below) manner at no cost (or no more than the cost of reproduction), in a format which is machine-readable and based on open standards, along with metadata necessary to find and properly use the data. Data are to be made available in a form that would permit further analysis or reuse: data must be encoded in a machine-readable format, preferably using existing open-standard formats; data must be sufficiently documented, preferably using open metadata standards, to enable users to independently read and understand the data. Data should undergo quality control (QC) and a description of the QC process and results should be referenced in the metadata.

3. Machine-readable means the data are stored on a computer in a digital format whose structure is well described and which can be read without the aid of a human. An open-standard format is one which does not require proprietary software to be read. Metadata is documentation that is machine-readable and structured according to an open-standard format and which describes the data so that users can search for, access, read, understand, and use the data. International Organization for Standardization (ISO) EXtensible Markup Language (XML) is an acceptable metadata format.

4. Timely means no later than publication of a peer-reviewed article based on the data, or two years after the data are collected and verified, or two years after the original end date of the grant (not including any extensions or follow-on funding), whichever is soonest, unless a delay has been authorized by the NOAA funding program.

9. INDIRECT COST RATE

If an applicant has not previously established an indirect cost rate with a Federal agency they may choose to negotiate a rate with the Department of Commerce or use the de minimis indirect cost rate of 10% of MTDC (as allowable under 2 C.F.R. §200.414). The negotiation and approval of a rate is subject to the procedures required by NOAA and the Department of Commerce Standard Terms and Conditions. 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, MD 20910, or lamar.revis@noaa.gov.

10. MINORITY SERVING INSTITUTIONS

The Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSIs), i.e., Historically Black Colleges and Universities, Hispanic-serving institutions, Tribal colleges and universities, Alaskan Native and Native Hawaiian institutions, and institutions that work in underserved communities.

11. FREEDOM OF INFORMATION ACT (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, 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), 5 U.S.C 552, are found at 15 C.F.R. Part 4, 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 the applicant, the confidentiality of the content of funded applications will be maintained to the maximum extent permitted by law.

C. Reporting

Grant recipients 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 and stated in the NOAA Administrative Standard Award Conditions that will accompany the award acceptance package.

The Federal Funding Accountability and Transparency Act, 31 U.S.C. 6101 note, includes a requirement for awardees of applicable Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards. All awardees of applicable grants and cooperative agreements are required to report to the Federal Sub-award Reporting System (FSRS) available at <https://www.fsrs.gov/> on all sub-awards over \$25,000. Refer to 2 CFR Parts 170.

VII. Agency Contacts

For administrative or technical questions, contact Colin Becker, phone at 240-533-9650, or via e-mail at colin.becker@noaa.gov.

VIII. Other Information

N/A