

Ocean Exploration FY 2018 Funding Opportunity

TABLE OF CONTENTS

I. Funding Opportunity Description.....	5
A. Program Objective.....	5
B. Program Priorities.....	5
C. Program Authority.....	8
II. Award Information.....	8
A. Funding Availability.....	8
B. Project/Award Period.....	9
C. Type of Funding Instrument.....	9
III. Eligibility Information.....	9
A. Eligible Applicants.....	9
B. Cost Sharing or Matching Requirement.....	10
C. Other Criteria that Affect Eligibility.....	10
IV. Application and Submission Information.....	11
A. Address to Request Application Package.....	11
B. Content and Form of Application.....	11
C. Unique Entity Identifier and System for Award Management (SAM).....	17
D. Submission Dates and Times.....	17
E. Intergovernmental Review.....	18
F. Funding Restrictions.....	18
G. Other Submission Requirements.....	18
V. Application Review Information.....	19
A. Evaluation Criteria.....	19
B. Review and Selection Process.....	21
C. Selection Factors.....	21
D. Anticipated Announcement and Award Dates.....	22
VI. Award Administration Information.....	22
A. Award Notices.....	22
B. Administrative and National Policy Requirements.....	23
C. Reporting.....	26
VII. Agency Contacts.....	28
VIII. Other Information.....	28

ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): Oceanic and Atmospheric Research (OAR), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Ocean Exploration FY 2018 Funding Opportunity

Announcement Type: Initial

Funding Opportunity Number: NOAA-OAR-OER-2018-2005296

Catalog of Federal Domestic Assistance (CFDA) Number: 11.011, Ocean Exploration

Dates: A complete, maximum two-page, pre-proposal is a requirement in order to be allowed to submit a full proposal. Pre-proposals must be received by 5:00 pm (EDT) on August 28, 2017. Full proposal submissions must be received by 5:00 pm (EDT) on December 8, 2017. Applications received after the above deadlines will not be considered.

Funding Opportunity Description: NOAA's Office of Ocean Exploration & Research (OER) seeks to enhance ocean exploration and scientific knowledge of the unknown or poorly known areas of the ocean. This entails identifying, describing and creating baseline characterizations of new ocean habitats, marine resources and/or processes.

In this Announcement, OER is seeking proposals focused on three topics including:

1. Exploration of the deep marine environments in the US EEZ and US Outer Continental Shelf (OCS) of the Gulf of Mexico;
2. Discovery and exploration of prehistorically and historically significant submerged marine heritage sites in the Gulf of Mexico within the US EEZ and the US Outer Continental Shelf (OCS); and
3. Novel or innovative technologies and methodologies that could increase the pace and scope of ocean exploration, especially exploration of deep environments including the water column and archaeological sites.

For themes 1 and 2, OER will not entertain proposals outside the US EEZ and the US Outer Continental Shelf (OCS) in the Gulf of Mexico.

Proposals that combine more than one of these exploration topics are encouraged.

All correspondence regarding this FFO must be sent to the email: oer.ffa2018@noaa.gov

Applicants are required to submit pre-proposals and, ultimately, full proposals that support OER's exploration mission.

OER's overarching objective is to investigate and document poorly known and unknown ocean areas through interdisciplinary exploration, and to advance and disseminate knowledge of the ocean's physical, geological, chemical, biological, and archaeological environments.

OER's mission is compliant with NOAA's Next Generation Strategic Plan (<http://www.performance.noaa.gov/ngsp/>) which outlines NOAA goals of Science, Service and Stewardship.

Findings from projects and expeditions are anticipated to result in new baseline characterizations; provide better scientific understanding of the processes on US continental margins; offer new insights into climate variability and marine ecosystems; reveal new or unconventional energy, mineral, biological, and/or archaeological resources; help identify hazards resulting from extreme events such as submarine volcanic eruptions, earthquakes and tsunamis; and deliver technology advancements (platforms, sensors, methodologies, etc.) that will increase observational capabilities of the ocean.

In FY18, OER anticipates availability of approximately \$3,000,000 for this Funding Opportunity (this amount includes of costs for any required ship and/or submersible assets).

Note: Ship time on the NOAA Ship Okeanos Explorer will not be funded through this announcement.

Background information on how to apply and other informational documents are accessible through the OER Office Website:

<http://oceanexplorer.noaa.gov/about/what-we-do/funding-opportunities.html>.

Eligible applicants are institutions of higher education; non-profit institutions; for-profit organizations; state, local, and tribal governments, as well as U.S. territories that possess the statutory authority to accept funding for this type of work. Federal agencies that possess the statutory authority to accept funding for this type of work may also apply and must agree to take FY2018 funding for proposed projects. Federal and state agencies are strongly encouraged to collaborate with partners from a non-federal/non-state eligible entity.

For the purpose of this opportunity, the buying of ship time and/or other ocean data collection platform support (remotely operated vehicles, autonomous underwater vehicles, etc.) is considered a rental cost and therefore not included in Modified Total Direct Cost (MTDC).

OER funding will not be provided to hire and/or fund the salaries and associated overhead costs of any permanent federal or state government employee. OER will not pay Facilities and Administrative (F&A or "overhead") fees to federal and state agencies for subawards such as ship time or other ocean data collection platform support. Federal and state award recipients may use funding to cover travel, equipment, supplies, and contractual personnel costs associated with the proposed work.

Foreign researchers may participate by submitting a subaward through collaboration with an eligible U.S. entity.

The DOC and NOAA support cultural and gender diversity and encourage women and minority individuals and groups to submit applications to this Announcement of Federal Funding Opportunity. 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.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The world's deep ocean remains largely unexplored, leaving significant gaps in the basic environmental intelligence needed to manage and protect ocean resources and forecast future environmental changes. OER is dedicated to exploring these unknown and poorly known areas of the ocean, filling those knowledge gaps, and delivering information essential to addressing current and emerging science and management issues by:

1. Sponsoring interdisciplinary baseline characterizations of unknown or poorly known ocean areas, processes, and resources;
2. Advancing undersea technical capabilities through support for design/development, testing and implementation of new or improved deep-sea technologies (e.g., platforms, Sensors etc.) and innovative applications of existing technologies;
3. Fostering partnerships to accomplish NOAA ocean exploration goals;
4. Engaging and educating audiences by sharing information about ocean exploration through innovative means;
5. Adhering to an open-data policy which ensures that all data acquired by the program, once quality controlled, are promptly made available to requestors; and
6. Ensuring that funded projects are compliant with the National Environmental Policy Act (NEPA) and other federal laws for environmental protection (e.g., the Endangered Species Act, Marine Mammal Protection Act, National Marine Sanctuaries Act).

To gain familiarity with past and present OER-funded activities, applicants are encouraged to visit the program's website <http://oceanexplorer.noaa.gov>. Background on how to apply and information on how to obtain informational documents are available the OER Office Website:

<http://oceanexplorer.noaa.gov/about/what-we-do/funding-opportunities.html>.

B. Program Priorities

OER is especially interested in characterization of the deep areas (greater than 200m

depth) of poorly known or unknown regions of the US EEZ and US Outer Continental Shelf (OCS) in the Gulf of Mexico.

OER themes for this funding Announcement are:

1. Exploration of the deep marine environments in the US EEZ and US Outer Continental Shelf (OCS) of the Gulf of Mexico

About 175 million years ago, the Gulf of Mexico basin was formed by the initial rifting between Europe and North America and its present features result mostly from sedimentary and intra-basin tectonic processes. This geologic history resulted in the creation of different types of oceanic slope morphologies (e.g., tall cliffs and escarpments, salt diapirs intruding thick sediments, more gently sloping seafloor, etc.)

The Gulf of Mexico (“the Gulf”) is the ninth largest body of water in the world and is essential to the US economy - providing valuable seafood, recreational opportunities, transportation routes and ports, energy resources, and a rich cultural heritage. The five U.S. states that border the Gulf of Mexico have a gross domestic product of over \$2 trillion and much of that economic activity is dependent on, or related to, the Gulf.

While a vast number of research expeditions and industry surveys have focused on the Gulf for more than a century, there remain unexplored or poorly known regions of the seafloor. In addition, the physical, chemical, and biological (both macro- and microbiological) environments of the water column of the Gulf are virtually unknown. Given the intensive utilization of the Gulf of Mexico’s natural resources, as well as impacts on the Gulf associated with human activities such as shipping and agricultural runoff, interdisciplinary baseline characterizations of the Gulf’s environments and processes are necessary to provide context for both natural and human-induced change.

OER encourages the submission of proposals to explore novel areas or aspects of the deep marine environment from seafloor to sea surface in the US EEZ and within the boundaries of the US Outer Continental Shelf of the Gulf of Mexico. Proposals should target unexplored or poorly known areas that have a high potential for discovery. Areas or features that encompass combinations or a confluence of features, processes and factors (e.g., Florida and Yucatan straits, deep-sea canyons, escarpments, salt domes, etc.) are of particular interest.

Presently, there are many existing and developing scientific efforts focused on the Gulf of Mexico. Proposed projects in response to this FFO must be complementary to these efforts.

2. Archaeological Exploration of the US EEZ and OCS of the Gulf of Mexico.

Proposed archaeological projects have no depth restriction.

The Gulf of Mexico has a complex cultural past spanning thousands of years of prehistory and over 500 years of western history since the arrival of Europeans. Drawn by the region's abundant resources, diverse prehistoric cultures occupied the Gulf's shorelines. Later, European countries added to the cultural diversity vying to extract the region's rich resources, to establish trade routes, and in the process, fought for hegemony. Today, the archaeological imprint of many diverse cultures, spanning the region through time, extends from the shore to the deep ocean.

Marine archaeology proposals must address discovery and initial characterization of an aspect of the archaeological heritage in the Gulf of Mexico. Proposals must demonstrate strong interdisciplinary exploration incorporating archaeological, environmental, and geomorphological characterization. Activities may include surveying to discover new sites; identifying submerged, previously sub-aerial paleo-landscapes; and providing initial archaeological and environmental characterization of shipwrecks, aircraft or other types of submerged archaeological sites. Archaeological sites that meet the criteria of eligibility for nomination to the National Register of Historic Places are of particular interest.

Applicants must describe how they will use specific analytical tools such as the maritime cultural landscape approach or other relevant theoretical constructs to provide a framework to interpret past human activities. Applicants are strongly encouraged to use new technologies (e.g., autonomous underwater vehicles, synthetic aperture sonar, etc.) or innovative methods (e.g., for site recording or analysis) that advance the field of underwater archaeology and demonstrate broader applications in ocean exploration.

3. Technology for Ocean Exploration

Proposals that are focused on the application and testing of technologies are not constrained to take place in the US EEZ and US OCS of the Gulf of Mexico.

OER is interested in the application of new or novel use of existing technologies that increase the pace, scope and efficiency of ocean exploration data collection as well as technologies and methods that increase access and use of collected data. The overarching goal of investing in new technology is to improve understanding of the ocean environment by increasing the value of ocean exploration observations and to engage and educate larger audiences through the sharing of ocean exploration information.

Of particular interest are new and innovative sensors, integrated systems of sensors and other tools and methods to collect data on the ocean's physical, chemical, biological, geological and archaeological domains where existing observations are lacking. Technology-based proposals that reduce or eliminate the need for physical samples and that can integrate into ship-based or other exploration survey platforms (e.g., ROVs, UMS, landers, etc.) are encouraged. OER is interested in sensor and system technologies that collect in situ and time-series data that may lead to discovery of important new attributes of ocean environments including those associated with microbial communities. OER is interested in cost-saving technologies and methods that advance the coverage and resolution of deep-ocean bathymetric mapping and imaging. OER is also interested in technologies and methods that improve data processing, visualization, and data dissemination including video and image processing, and broad-band communications for data and information telemetry. Ideally, technology proposals that address the OER ocean exploration mission could also be applied to other NOAA high priority mission needs.

Applicants are encouraged to propose multidisciplinary projects that would incorporate more than one of these themes.

C. Program Authority

33 USC 3403(a)

II. Award Information

A. Funding Availability

OER anticipates a total of approximately \$3,000,000 will be available through this announcement. Through this solicitation, OER anticipates being able to support approximately 4-10 awards ranging from \$10,000 to \$750,000 for the entire project. Any proposal that exceeds the latter amount will not be considered. The amount of funding available through this announcement will be subject to the final FY18 appropriation/allocation for the NOAA Office of Ocean Exploration and Research. Publication of this announcement does not obligate NOAA to fund any specific project or obligate all or any part of available funds. There is no guarantee that sufficient funds will be available to initiate or continue exploration activities where funding has been recommended by OER. The amount of funding that OER may recommend for a grant will be determined in pre-award negotiations between the applicant and OER. The OER Director may defer selected 2018 proposals for consideration for funding in the subsequent, or later, fiscal year(s).

B. Project/Award Period

OER will accept proposals for projects that are one or two years in length. The earliest date for receipt of awards will be approximately 120 days after selection of a proposal. Applicants should factor in this time when proposing research activities. Activities contingent upon this funding should not be planned to start before October 1, 2018. Because funds will not be available until late in the fiscal year, FY 2018 funds would likely need to be used for FY 2019 field work.

C. Type of Funding Instrument

Proposals selected for funding will be funded through a grant or cooperative agreement under the terms of this notice. Proposals selected for funding from NOAA scientists will be funded through an intra-agency transfer. Proposals from a non-NOAA federal agency will be funded through an interagency agreement transfer.

For applications funded through cooperative agreements, substantial involvement of the federal government may include, but is not limited to, activities such as specifying direction or redirection of the scope of work due to interrelationships with other projects or stipulating that the recipient must meet or adhere to specific procedural requirements before subsequent stages of a project may continue.

By receiving funding from OER, all applicants agree to certain requirements for sample collection, education and outreach, data management, and website development. To help meet these requirements, one or more NOAA staff or NOAA designee(s) may become members of an at-sea science team serving roles as Expedition Coordinators, Data Managers, or Web Coordinators. For more details please refer to section VIII of this document.

III. Eligibility Information

A. Eligible Applicants

Eligible applicants are institutions of higher education; non-profit institutions; state, local, and tribal governments; for-profit organizations; and U.S. territories that possess the statutory authority to accept funding for this type of work.

Federal agencies that possess the statutory authority to accept funding for this type of work may also apply and must agree to take FY2018 funding for proposed projects.

Federal and state agencies are strongly encouraged to collaborate with partners from a non-federal eligible entity.

OER funding will not be used to hire and/or fund the salaries and associated overhead of any permanent federal or state employees. Federal and state award recipients may use their funding to cover travel, equipment, supplies, and contractual personnel costs associated with the proposed work.

Foreign researchers may participate by submitting a sub-award through collaboration with an eligible U.S. entity.

The DOC and NOAA support cultural and gender diversity and encourage women and minority individuals and groups to submit applications to this Announcement of Federal Funding Opportunity. 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: Before non-NOAA federal applicants may be funded, they must demonstrate that they have legal authority to receive funds from another federal agency in excess of their appropriation.

B. Cost Sharing or Matching Requirement

Cost-sharing, matching funds, in-kind contributions or contribution of no-cost ship time, etc. is not required. However, cost effectiveness may be a Selection Factor as proposals are considered for final selection.

C. Other Criteria that Affect Eligibility

1. Potential Partners

OER encourages partnerships between academia, government agencies, foundations, and private-sector companies. Foreign entities can participate only through collaboration with an eligible US-based entity through a subaward. OER also encourages investigators to seek additional funding for their proposed projects through complementary or linked proposals to other sponsors, both internal and external to NOAA. Partnering is the preferred mode of collaboration between federal agencies and OER.

2. Permits and Approvals

It is the applicant's responsibility to obtain all necessary international, 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 potential adverse environmental impacts. If applicable, documentation of requests for or approvals of cultural resource or environmental permits must be included in the proposal package. Applications will also be reviewed to ensure the National Environmental Policy Act (NEPA) questionnaire (<http://www.nepa.noaa.gov/questionnaire.pdf>; http://seagrant.noaa.gov/Portals/0/Documents/funding_fellowship/forms_templates/NEPA/NEPA_questionnaire.pdf) has been completed, i.e., to ensure there is sufficient information about the project to allow OER to analyze the project's potential environmental impacts, pursuant to NEPA.

Archaeological work requires consultation with the appropriate State Historic Preservation Office and adhering to any regulations or guidelines that may apply. The applicant must have the appropriate permits. Sample collection must not only adhere to Federal and State law, the applicant must make accommodation for conservation and curating as described in the Annex Rules of the UNESCO Convention for the Protection of the Underwater Cultural Heritage.

IV. Application and Submission Information

A. Address to Request Application Package

Information on this federal funding opportunity and a link to the application information form required for pre- and full proposals can be found at:

<http://oceanexplorer.noaa.gov/about/what-we-do/funding-opportunities.html>

For full proposals, grant application information and forms are available through Grants.gov. Grants.gov requires applicants to register prior to submitting an application. Applicants must also register with System for Awards Management (SAM) found at <https://www.sam.gov>. These registration processes can take several weeks and involve multiple steps. In order to allow sufficient time for these processes, applicants should register as soon as they decide to apply, even if they are not ready to submit their proposal.

B. Content and Form of Application

1. Pre-proposal Contents

A pre-proposal should be compelling, concise, and clear. It should identify the project's priorities and objectives and describe how these relate to NOAA's mission goals and OER's mission, objectives, and priorities (as described in Sections I.A and B above).

Complete, two-page pre-proposals are required for all applications. No more than two pages will be evaluated. Incomplete pre-proposals will not be considered. All information must be included in the designated two pages or on the OER Project Solicitation Cover Sheet. Such information may include: vessels, platforms, or other critical assets required to technically achieve the goals and their costs; auxiliary funding sources for the proposed project; and dates of anticipated field operations and any operational constraints, especially with regard to field operations; anticipated outputs (e.g., potential discoveries, knowledge and impact, published papers, reports, meetings, and/or education and outreach material).

All pre-proposal submissions must:

- a. Complete the OER Project Solicitation Cover Sheet that is available through a link at: <http://oceanexplorer.noaa.gov/about/what-we-do/funding-opportunities.html>
- b. Include a complete pre-proposal itself which is not to exceed two additional single-sided typewritten pages;
- c. The pre-proposal must be written on 8.5" x 11" paper, in at least 12-point font, with 1-inch margins;
- d. Include the Principal Investigator's last name typed in the bottom right-hand corner of each page. See Section IV.C for submission due dates, IV.F for submission procedures and addresses and V.A.1 for pre-proposal evaluation criteria; and
- e. Include all digital files named with the applicant's name and a descriptor of the file, e.g. "Jones Cover Sheet 2018".

Submissions not adhering to these requirements will be rejected upon receipt.

- f. Be sure to address the following questions in your pre-proposal (Sections IV. B. 1 and V. A. 1 describe pre-proposal content and review criteria).
 - i. How is the proposal relevant to NOAA and OER missions and goals? Describe the project's intrinsic value, how it is exploratory rather than research based, and what is its expected scientific impact?
 - ii. What is the scientific and technical merit of the proposal? Include plans for

information and data sharing. Describe how the project is innovative and interdisciplinary, its exploration value, and the logistical feasible of the project.

iii. What are the qualifications and competence of the applicant(s)? Include past performance on any prior OER award.

iv. Describe and justify project costs and budget. Include the value of non-OER funding and in-kind contributions. Provide a simple budget summarizing the major categories of effort (including costs associated with analysis, publication of the results, and archiving of data).

v. If a ship (or other seagoing asset) is required, the applicant must state that he/she has assured that the ship (or other asset) is available when needed and that the host institution would, if provided with the funding, have the administrative means to arrange and pay for it.

Pre-proposals submitted after the due date will not be evaluated.

2. Full Proposal Content

Successful full proposals will demonstrate relevance to NOAA's and OER's mission goals and priorities (as described in Sections I.A & I.B). Successful proposals are typically undertaken by a multi-partner group and are characterized by an interdisciplinary and innovative exploration approach; they frequently are leveraging other programs/organizations with compatible objectives and investment strategies (e.g., Schmidt Ocean Institute, National Science Foundation, etc.); they employ advanced technology platform and sensor technologies to further explore and characterize the three priority themes; they produce information that will be valuable to state and federal marine resource managers; they give consideration to environmental impacts in the project planning and represent the applicants' ability to acquire all necessary permits; and they explain the applicants' plan for making data and results publicly available to advance scientific knowledge, outreach, education, and inform environmental management decisions.

Proposers must number each page and label it with the Principal Investigator's last name in the bottom right-hand corner. All digital files should be named with the applicant's last name and a descriptor indicating the file content, e.g. "Jones executive summary 2018".

All full proposal text should be written on 8.5" x 11" paper, in at least 12-point font, with 1-inch margins. See Section IV.C for submission due date and IV.F for submission procedures and addresses.

Failure to comply with these requirements will result in the application not being reviewed.

Proposals submitted after the due date will not be considered.

No appendices are permitted.

Full proposals must include the content described below in the order listed, unless otherwise indicated.

All full proposals must include:

a. Complete the OER Project Solicitation Cover Sheet that is available in an appendix to this announcement and through a link at:

<http://oceanexplorer.noaa.gov/about/what-we-do/funding-opportunities.html>

b. Maximum One-Page Executive Summary: Describe the essential elements of the project being proposed. Include: 1) Title, 2) List of names, contact details, and affiliations of each investigator who will significantly contribute to the project, 3) A concise statement of the compelling objectives and benefits of the project and the rationale for the work proposed, and 4) Funding request for each year of the project and the total funding requested.

c. Project Description: The project description is not to exceed 15 pages, including all text and any tables and visual materials (e.g., charts, graphs, maps, photographs). This is a firm requirement. Any project description pages beyond the 15-page limit will be deleted and not reviewed.

The 15-page limit does not include: the Executive Summary, Budget Justification and Tables, Data Information and Sharing Plan (see VIII.C.), Literature Citation, Current and Pending Support, Curriculum Vitae, Letters of Commitment, and Required Forms (e.g., NEPA).

Contents of the Project Description:

i. Description of the project's scientific, technical, historical, cultural, or socioeconomic importance and merit. Might it potentially challenge existing paradigms or lead to the formulation of new paradigms?

ii. Description of the project's goals and objectives and the proposed methodology.

iii. Provision of brief descriptions of the contributions of participating personnel.

iv. Description of any complementary funding.

v. Clarification of date of field operations and any operational constraints.

vi. If a ship (or other seagoing asset) is required, the applicant must state that he/she has assured that the ship (or other asset), is available when needed and that the host institution would, if provided with the funding, have the administrative means to arrange and pay for it.

- vii. Anticipated outputs (e.g., potential discoveries, knowledge and impact, published papers, reports, meetings, and/or education and outreach material).
- viii. The value to NOAA and the nation and how this project's anticipated outcomes will benefit our understanding of the ocean, the science community, and society.
- ix. State a willingness to participate in OER outreach/education activities.

d. Data/Information Sharing Plan: Proposals submitted in response to this Announcement must include a Data Management Plan (up to 2 pages). See Section VI.B., Administrative and National Policy Requirements, below for additional information on what the plan should contain.

e. A concise summary of significant results and achievements: This summary should include publications and outputs, and data/information sharing experience from any prior, or ongoing, Ocean Exploration and Research funding.

f. A summary of current funding support: Applicants must provide information on all their current and pending federal support for ongoing projects and proposals, including potential subsequent funding in the case of continuing grants. The proposed project and all other projects or activities using federal assistance or that requires a portion of time of the Principal Investigator or other senior personnel should be included.

The relationship between the proposed project and these other projects should be described, and the number of person-months per year to be devoted to the projects must be clearly stated.

g. Brief résumés for each investigator: A maximum of two pages for each Principal and Co-Principal Investigator(s), including a representative reference list of relevant recent publications.

h. Budget justification and table: These must reflect the guidance provided in the NOAA Grants Management Division's Budget Narrative Guidance which can be found at:

http://www.ago.noaa.gov/grants/docs/gmd_budget_narrative_guidance_-_05-24-2017_final.pdf

(Note the examples provided. This document provides a comprehensive description of what is required for the Budget Justification and how to prepare a document that will facilitate a clear understanding of the funds being requested in support of the project.)

The budget must include, and justify, sufficient resources to analyze, interpret, publish, and archive data (in accordance with the Data Information and Sharing Plan) and results of the project. Applicants must describe the scope of work and budget for each year of support being sought (not to exceed two years), and a summary budget table for the entire award period.

The summary budget table must reflect the object classes contained in the SF424A form included with the submission. A copy of the institution's Indirect Cost Rate Agreement used to develop indirect costs in the request is to be included as a separate exhibit. The document must reflect the computations and basis used in the development of costs and justifications for: salary and travel; contracts for analyses or cataloging; publications; rentals; supplies; equipment; sub-awards to other parties for services; and non-standard items, including ship time and submersible assets being requested from OER for support. The summary budget table must also show how costs for ship time and submersible costs were developed and whether agreement has been reached for their use. Cost sharing or in-kind contributions must be clearly identified.

i. Indirect Cost Rate Memo: A copy of the institution's Indirect Cost Rate Agreement used to develop indirect costs in the request is to be included as a separate exhibit.

j. NEPA statement: Applicants are required to submit answers to [either list the question numbers from the NOAA NEPA questionnaire or state the specific questions.] See Section VI.B., Administrative and National Policy Requirements, below for additional NEPA information.

k. Forms: Applicants must submit a complete NOAA grant application package provided from Grants.gov.

OMB Standard forms:

- a. Standard Form 424 - Application for Federal Assistance
- b. Standard Form 424A - Budget Information - Non-Construction Programs - 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.
- c. Standard Form 424B - Assurances - Non-Construction Programs
- d. Standard Form 424C - Budget Information - Construction Programs
- e. Standard Form 424D - Assurances - Construction Programs
- f. Standard Form LLL - Disclosure of Lobbying Activities
- g. Form CD-511 - Certification Regarding Lobbying

I. A list of suggested reviewers: If the applicant chooses to do so, the application may include a list of suggested reviewers (submit names, e-mail addresses, and phone numbers) of five unconflicted potential peer reviewers. Applicants may also identify individuals recommended for exclusion from the review process (including justification for any such recommendation).

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

1. Unique Entity Identifier

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act of 2006, to the extent applicable, any proposal awarded in response to this announcement will be required to use the Central Contractor Registration and Dun and Bradstreet Universal Numbering System and be subject to reporting requirements, as identified in OMB guidance published at eCFR Title 2, Sub-title A, Chapter 1, Part 25 (2016), <http://www.ecfr.gov/cgi-bin/text-idx?SID=0f269ab1512e176127c4c911ccbb8b71&mc=true&node=pt2.1.25&rgn=div5>

2. System for Award Management (SAM)

Applicants may have to register or renew their central contractor registration prior to submitting to Grants.gov. Grants.gov will not accept submissions if the applicant has not been authorized or if credentials are incorrect. Authorizations and credential corrections can take several days to establish. Please plan your time accordingly to avoid being disqualified for a late submission. For further information please visit the System for Award Management website: <https://www.sam.gov>. For questions please visit the Federal Service Desk website: <https://www.fsd.gov>.

D. Submission Dates and Times

Completed pre-proposals are required and must be received by 5:00 pm (EDT) on August 28, 2017. After 5:00 pm (EDT), an auto-reply message will notify the applicant that their email with pre-proposal material submission is late and will not be considered. A complete pre-proposal is a prerequisite for submission of a full proposal. Applicants will receive an email encouraging or discouraging a full proposal submission by October 18, 2017. If you have not received a reply by October 20, 2017 contact OER at: oer.ffo2018@noaa.gov or (301) 734-1014 as soon as possible.

Full proposals must be received by 5:00 pm (EST) December 8, 2017. Applications

submitted through Grants.gov, will have an associated official date and time of receipt. Federal applications are submitted by email. The recorded time of federal application submissions will be the time-stamp indicated on the email header.

Pre-proposals and full Proposals received after their respective cutoff dates and times will not be considered.

Please note:

Applicants may have to register or renew their central contractor registration prior to submitting to Grants.gov. Grants.gov will not accept submissions if the applicant has not been authorized or if credentials are incorrect. Authorizations and credential corrections can take several days to establish. Please plan your time accordingly to avoid being disqualified for a late submission. For further information please visit the System for Award Management website: <https://www.sam.gov>. For questions please visit the Federal Service Desk website: <https://www.fsd.gov>.

E. Intergovernmental Review

Applications under this office's announcement are subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." Applicants must contact their State's Single Point of Contact (SPOC) to find out about and comply with the State's process under EO 12372. The names and addresses of the SPOCs are listed on the Office of Management and Budget's website:

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

F. Funding Restrictions

For the purpose of this opportunity, the buying of ship time and/or other ocean data collection platform support (remotely operated vehicles, autonomous underwater vehicles, etc.) is considered a rental cost and therefore not included in Modified Total Direct Cost (MTDC).

OER funding will not be provided to hire and/or fund the salaries and associated overhead costs of any permanent federal or state government employee. OER will not pay Facilities and Administrative (F&A or "overhead") fees to federal and state agencies for subawards such as ship time or other ocean data collection platform support. Federal and state award recipients may use funding to cover travel, equipment, supplies, and contractual personnel costs associated with the proposed work.

G. Other Submission Requirements

N/A

Address for Submitting Proposals:

Pre-proposal submissions must be submitted by e-mail to: oer.ffo2018@noaa.gov. Please put your last name in the subject heading, along with the words “ocean exploration pre-proposal,” e.g., "Jones ocean exploration pre-proposal." Adobe PDF format is preferred. Full proposals from non-federal applicants must be submitted through [Grants.gov](https://www.grants.gov). Federal applicants are ineligible to submit via [Grants.gov](https://www.grants.gov) and must submit their application by email to oer.ffo2018@noaa.gov.

V. Application Review Information

A. Evaluation Criteria

The same criteria will be used to evaluate both the pre- and the full proposals.

1. Pre-Proposal Evaluation Criteria

Pre-proposals will be evaluated by the OER program using the following criteria to either encourage or discourage submission of full proposals:

- a. Relevance to NOAA and OER missions and goals
- b. Scientific and technical merit
- c. Qualifications and competence of the applicants
- d. (including past performance on prior OER awards);and
- e. Costs for specific items as well as the overall project cost (including value of cost-sharing and/or in-kind contributions).

Given a discourage assessment, the decision of whether or not to submit a full proposal is left to the applicant(s).

2. Full Proposal Evaluation Criteria

Full proposals will be evaluated and rated individually by no fewer than three independent peer reviewers (mail reviews) and/or a peer-review panel with collective expertise in the relevant disciplines. The review will consist of a determination and analysis of strengths,

weaknesses, deficiencies and risks associated with each proposal. (All peer reviewers are required to sign confidentiality and non-disclosure agreements.)

The following are the criteria and corresponding weight values to be used to evaluate the full proposals:

- a. Importance/Relevance and applicability of proposal to NOAA and OER 's mission and goals (30%): This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, federal, regional, state, or local activities. For the OER program, this includes: 1) Is the proposed germane to NOAA's mission goals, 2) Is the proposal exploration focused (expanding the breadth of knowledge) versus being research-focused (expanding the depth of knowledge on any particular topic), 3) Could the anticipated results have high downstream impact, and 4) Are the plans for documentation, archival, and sharing of data, multimedia and specimen collections adequately outlined;
- b. Scientific and technical merit (35%): 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. For the OER program this includes: 1) Is the proposed approach scientifically and technically sound and/or innovative, including feasibility of high risk advanced technology, 2) Are there clear project goals and objectives, 3) Is the project interdisciplinary, and 4) Are the methods commensurate with the goals and objectives;
- c. Overall qualifications of applicants (15%): This criterion asks the reviewers to ascertain whether the applicant(s) possesses the necessary education, experience, training, facilities and administrative resources to accomplish the project. For the OER review process this includes judging: 1) the qualifications of the applicant(s) and 2) the strength, diversity, and depth of any partnership to accomplish the work proposed. If the applicant has previously received OER funding, this criterion also asks the reviewers to assess the applicant's prior OER award performance (e.g., timely publication of results and sharing of data);
- d. Project costs (15%): This criterion ask the reviewers to evaluate the proposal budget to determine if it is realistic and commensurate with the proposed project needs and time-frame. They will also assess the value of additional funding and in-kind contribution.
- e. Outreach and Education (5%): This criterion assesses whether the project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. For the OER program, this includes the evaluation of the proposal budget to determine if the proposal includes an outreach and education plan that will target future generation of explorers.

B. Review and Selection Process

Once a full proposal has been received by NOAA, an initial administrative review is conducted to determine compliance with requirements and completeness of the application. When a proposal is determined to be in compliance and complete, the proposal will be subjected to peer review.

Peer reviewers will rate the individual proposals using the evaluation criteria and percentage weights provided above and will provide summary comments. Both federal and non-federal experts in the field may be used in the peer-review process, which will include external mail reviews and/or a peer-review panel. Peer-review panelists will not be asked to reach consensus on individual proposals.

Based on external mail reviewer scores, summary comments, and, as appropriate, summaries and scores from review panelists, the OER Director, in consultation with OER scientific and technical staff, will make the final decision.

C. Selection Factors

In making final selections, the OER Director will award in rank order unless the proposal is justified to be selected/deselected 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 priorities
 - e. By project types
3. Duplication of other projects funded or considered for funding by NOAA/federal agencies;
4. Office priorities and policy factor as described in section I, A, 3., including but not limited to substantial contributions that improve cost efficiency of the proposal, logistical feasibility and scientific discipline areas.

5. Applicants' prior award performance, including data/information sharing;
6. Partnerships with/Participation of targeted groups;
7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

D. Anticipated Announcement and Award Dates

OER's intent is to notify all applicants of the results of the peer review of their proposal, as well as OER's final recommendation to award or decline funding, by email, approximately 180 days after receipt of the full proposal. Progress of the peer-review process as well timing of budget attribution to OER may affect this timeline.

VI. Award Administration Information

A. Award Notices

1. Notification of Acceptance

Successful non-federal applicants will receive notification that their proposals have been funded from the NOAA Grants Management Division. This notification is not an authorization to begin performance of the project. The NOAA Grants Officer will provide notice to the applicant that they have received the award.

This official notification of funding, signed by a NOAA Grants Officer, is the authorizing document that allows the project to begin. Notifications will be issued to the Authorizing Official and the Principal Investigator of the project. Unsuccessful applicants will be notified that their application was not selected for recommendation.

Project activities should not be initiated in the expectation of grant funding until a notice of award document is received from the NOAA Grants Management Division. Any spending prior to an official notice of award will be at the risk of the PI.

2. Modification to Applications

Successful applicants may be asked to modify objectives, work plans, or budgets prior to final approval of an award. The exact amount of funds to be awarded, the final scope of activities, the collaboration duration, and specific NOAA cooperative involvement in the activities of each partnership will be determined in pre-award negotiations between the

applicant and OER.

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.

In accordance with Section 523 of Division B and Sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) or a future

public law, an authorized representative of the selected applicant(s) will be required to provide certain pre-award representations regarding federal felony and federal criminal tax convictions, unpaid federal tax assessments, and delinquent federal tax returns. The form must be completed and submitted with grant applications for: (a) all for-profit and non-profit organization applicants (Part I, and if required, Part II); and (b) all non-Federal entity applicants anticipating receipt of \$5 million or more in the current Federal Fiscal Year appropriated funding (Part II only). The form can be found at <http://www.ago.noaa.gov/grants/forms.html>.

6. 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.

7. Data Sharing Plan.

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 the 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.

8. 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.

9. 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.

10. 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 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

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

C. Reporting

Federal Funding Accountability and transparency Act of 2006
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.

Grants, cooperative agreements, and intra- or interagency agreements have the same reporting requirements. An OER point of contact will work with awardees to facilitate reporting requirements described here and in section VIII “Other Information”.

1. An expedition/field work plan must be submitted to OER prior to the start of field work, in time to meet ship/platform requirements but no later than 30 days prior to the beginning of the expedition/field work.

2. Within 15 days of the completion of the expedition/field work recipients must provide a “Quick-Look report”. This requirement will be waived for projects with no field components, as it is anticipated that this information will be included in semi-annual reports. If multiple field efforts are planned, it is anticipated that a “quick-look report” will be submitted for each portion.

There is no required format for these reports, but OER will provide a template that can be used along with suggested items to be addressed. These three documents will be made publicly available along with the cruise datasets, no later than two years following completion of the expedition.

3. In addition, progress reports are due semi-annually and cover 6-month periods that begin with the start date of the project. Progress reports are submitted electronically to OER through grants.gov no later than 30 days after each 6-month project period. A final report is due no later than 90 days after the expiration date of an award. Progress reports should detail grant related activities that have occurred during the reporting period that correspond with the goals and objectives identified in the narrative, as well as provide specific, project-related information, including a summary budget table of expenses for that period.

4. Within 60 days of completion of the expedition/field work (or annually if the work is multi-year) grant recipients must provide:

- a. An updated collection level metadata record identifying completed collections and including Digital Object Identifiers (if assigned);
- b. A data inventory identifying data types collected, data release dates, and/or documents

specific proposed exceptions to the open data access policy (e.g., data that may have homeland/national security, cultural heritage, or protected resources value in accordance with NAO 212-151;

c. Expedition/field work location data (e.g., ship navigation track or area of operations for public GIS display).

For continuing observations, data inventories should be submitted periodically if there is a significant change in location, type, or frequency of such observations.

VII. Agency Contacts

For further information, contact the NOAA Office of Ocean Exploration and Research at (301) 734-1014 or oyer.ffe2018@noaa.gov. Email inquiries should include the Principal Investigator's name in the subject heading. Inquiries can also be mailed to: NOAA Office of Ocean Exploration and Research, ATTN: OER FFO 2018, SSMC3, Rm 10316, 1315 East West Highway, Silver Spring, Maryland 20910.

VIII. Other Information

By receiving funding from OER, all applicants agree to the following expectations for sample collection, education and outreach, data management, and website requirements. To help meet these requirements, one or more NOAA staff or NOAA designee(s) may become members of, and assist, the at-sea science party serving roles as Expedition Coordinators, Data Managers and/or Web Coordinators.

A. Sample Collection

In certain cases, OER may require the collection of living/non-living samples during the exploration aboard a NOAA or NOAA-chartered vessel. This may occur even when an expedition does not call for collection of samples. In such cases, OER will work with the at-sea expedition team to ensure any such sampling will not significantly interfere with or jeopardize the principal objectives of the expedition. Cultural heritage materials will only be collected after consultation with the appropriate State Historic Preservation Office and adhering to Section 106 of the Historic Preservation Act and other relevant regulations that may apply. The applicant must have the appropriate permits and must make accommodation for conservation and curating as described in the Annex Rules of the UNESCO Convention for the Protection of the Underwater Cultural Heritage.

B. Education and Outreach

1. All funded applicants and collaborators are strongly encouraged to cooperate with OER in facilitating education and outreach activities associated with their projects. Consequently, proposals should include an explanation of what activities are planned. NOAA's Ocean Explorer website (<http://www.oceanexplorer.noaa.gov>) is the principal vehicle for chronicling and documenting all missions supported by OER. OER will assess and provide support for education and/or outreach activities in collaboration with the applicant, as warranted.

2. The lead PI(s) for funded projects are required to provide a summary article for the website following completion of the fieldwork or project. In consultation with the PI, OER selects several projects each field season to be fully documented on the Ocean Explorer website during the expedition. An OER Web Coordinator will work with the applicant and science party to determine the content of web offerings, and to develop and implement a web production plan for these select projects. A berth on the host research vessel should be dedicated for the Web Coordinator if feasible.

Web content may include accompanying education materials. OER Education team members will facilitate development of materials and activities. PIs may be asked to participate in the development of lesson plans, professional development for teachers, accommodation of a teacher/educator-at-sea, participation in a media event or press conference to describe the expedition and its findings, and at-sea media participation.

C. Data Management Requirements

NOAA's Office of Ocean Exploration and Research (OER) is subject to NOAA's Public Access to Research Results (PARR)[1] policy and the implementing guidance contained in NOAA Environmental Data Management Committee (EDMC) Procedural Directives.[2] The PARR is NOAA's response to the White House's Office of Science and Technology Policy (OSTP) memorandum, dated February 22, 2013, Increasing Access to the Results of Federally Funded Scientific Research.[3]

The Procedural Directive specific to competitive awards is the Data and Publication Sharing Directive for NOAA Grants, Cooperative Agreements, and Contracts,[4] which requires OER to provide guidance to proposal writers that describes the data management responsibilities of any awardee. This document describes those requirements.

1. Data Management Plan

Proposals submitted in response to this Announcement must include a Data Management Plan that describes how the Principal Investigator plans to share the data and information produced through the proposed project. A Data Management Plan template is provided at the end of this section and the resulting plan should be no more than two pages. The contents of the Data Management Plan (or absence thereof), and past performance regarding such plans, will be considered as part of proposal review.

2. Data Management Timeline

Proposal submitters should be aware all data acquired with NOAA funding must be submitted for archive to the NOAA National Centers for Environmental Information (NCEI) or through other public data repositories appropriate for data types not normally stewarded by NCEI.[5] Data must be made publicly available in a timely way, which is defined as the soonest of:

- a. publication of a manuscript based on that data;
- b. two years from the time the data are collected and verified; or,
- c. two years from the end of the award period.

OER encourages awardees to submit data collected with NOAA funding as soon as possible.

3. Data Management Costs

The costs of data post-processing necessary to meet the Procedural Directive should be considered when calculating the proposal budget, keeping in mind that OER's data management team is available to provide some assistance and/or services, if needed.

Note that while submission of properly formatted data to the NOAA NCEI is one way to satisfy data sharing requirements, NCEI is not obligated to accept all submissions and may charge a fee for particularly large or unusual datasets.

4. Public Availability of Data Management Plans

NOAA may make the Data Management Plan from funded proposals publicly available, 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.

5. Public Access to Publications

Final pre-publication manuscripts of scholarly articles produced entirely or primarily with

NOAA funding must be submitted to the NOAA Central Library, which will link to the publisher's version of record and will make pre-publication manuscripts publicly available one year after journal publication. Awardees are encouraged to publish in open-access journals, where appropriate.

6. PARR Compliance Guide

For reference, the following table describes full PARR compliance. OER will negotiate data management plans with awardees to ensure compliance with PARR requirements.

Responsibility for meeting these requirements may rest solely with the awardee or be shared between the awardee and NOAA, depending on the terms of the final Data Management Plan.

Data Management PARR Compliance

- a. Datasets from every instrument/sensor are provided in archive-ready, open-source, non-proprietary formats.
- b. Datasets of scientific logging and first hand scientific observations are preserved and converted into archive-ready formats.
- c. Datasets are accompanied by ISO metadata with all mandatory elements completed and also data quality information and information necessary for an end user to completely understand the dataset and be able to use it.
- d. Any post-processed datasets, data products, and reports generated by the researcher are documented with metadata describing the processing steps and quality assurance methods.
- e. Full-complement of data is submitted for preservation and stewardship through the NCEI archive processes and given Digital Object Identifiers.
- f. Any online products referencing the research and its data are provided for OER to reference in its own Digital Atlas, giving users a broad explanation of the expedition and comprehensive access to the data and other related resources.
- g. Any publications produced based on the funded research reference the DOIs of the data behind the publication and are published in scientific journals.

7. Data Management Plan Template

Please refer to the Frequently Asked Questions (FAQ) for Data Sharing for NOAA Grants

(https://geo-ide.noaa.gov/wiki/index.php?title=FAQ_for_Data_Sharing_for_NOAA_Grants_PD) for any questions you may have when filling out this template. Some relevant FAQ questions are provided at the end of each question for your convenience.

I. What types of environmental data types or other information will be created during this project? (FAQ 1)

II. What is the tentative date by which the data will be made publicly accessible? (FAQ 2, 3)

III. If the data are not to be shared, under what authority are you requesting an exemption? (FAQ 10, 16, 23, 24)

IV. Where will data be hosted for public access?

V. In what formats will the data be submitted? Open-standard, archive-ready formats are encouraged[6].

VI. Will you provide metadata for the datasets or will you require assistance in doing so? At a minimum, the metadata should make the data independently understandable to the end user and include instrumentation used, data processing steps, and quality control procedures. The <https://www.iso.org/home.html> is encouraged. (FAQ 14, 15)

VII. Can you provide an estimate of the total volumes of data to be archived by data type? (e.g., geophysical/bathymetry, oceanographic, video/images)

VIII. Can you provide examples of prior experience in making such data accessible?

[1]http://docs.lib.noaa.gov/noaa_documents/NOAA_Research_Council/NOAA_PARR_Plan_v5.04.pdf

[2] <https://nosc.noaa.gov/EDMC/PD.all.php>

[3]https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf

[4] https://nosc.noaa.gov/EDMC/documents/Data_Sharing_Directive_v3.0.pdf

[5] Options could include

Dryad - <http://datadryad.org/>,

Figshare - <http://figshare.com/>,

DataVerse - <http://dataverse.org/>,

Pangaea - <http://www.pangaea.de/>,

Acadis (for Arctic data) - <https://www.aoncadis.org/>, Merritt (for University of California) - <https://merritt.cdlib.org/>, or others.

[6] Refer to: <https://www.archives.gov/records-mgmt/policy/transfer-guidance.html> for guidance on the preferred and acceptable formats defined by the National Archives and Records Administration (NARA).

Recommendation: Applicants awarded funding under the NOAA OER Program must state

their intent to comply with all above regulations.

D. Proprietary or Privileged Information

Patentable ideas, trade secrets, and 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 in any way liable for the release of such material.

E. Release of Grantee Proposal Information

A proposal that results in a NOAA 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 only when necessary for merit review of the proposal or as otherwise authorized by law.

Portions of proposals resulting in grants that contain descriptions of inventions in which either the Government or the grantee owns a right, title, or interest (including a non-exclusive 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 grantee 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.