

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: Regional Ecosystem Prediction Program; Center for Sponsored Coastal Ocean Research, Ecosystem Impacts of Ocean Acidification

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-NCCOS-2012-2003178

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

Dates: The deadline for receipt of full proposals at the NCCOS/CSCOR office is 3 p.m., Eastern Time January 30, 2012. The required letters of intent (LOI) for all programs must be received by 5:00 p.m. Eastern Time on December 15, 2011. LOIs should be submitted by email to Mary.Payne@noaa.gov. Applications received after the closing date and time will not be accepted. Please note: Validation or rejection of your application by Grants.gov may take up to 2 business days after submission. Please consider this process in developing your submission timeline.

Funding Opportunity Description: The purpose of this document is to advise the public that NOAA/NOS/NCCOS/CSCOR is soliciting proposals for research under its Regional Ecosystem Prediction Program theme focused on the impacts of ocean acidification on key fish and shellfish species and their supporting ecosystems in US coastal and estuarine waters. CSCOR is accepting proposals which are focused on the development of modeling and prediction tools to determine population-, community-, and ecosystem-level effects of increasing ocean acidification in marine and estuarine systems. As a component of developing the necessary understanding of ecological processes and linkages, physiological research on targeted species or groups of ecologically related species may be included. Proposals must target or be relevant to US commercial and/or recreational fishery species. It is anticipated that final recommendations for funding under this announcement will be made by mid Calendar Year 2012 with a start date of September 1, 2012. Total funding for this research: approximately \$1.5 million over 3 years, depending on final appropriations. Funding limits for individual projects are approximately \$200,000 to \$400,000 per year lasting up to 3 years. Projects may include ship time above these limits. Requests for ship time costs will be evaluated in light of overall project goals.

" Electronic Access: Background information about the NCCOS/CSCOR efforts can be found at www.cop.noaa.gov. Proposals should be submitted through Grants.gov (<http://www.grants.gov>.)

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

NCCOS/CSCOR's Regional Ecosystem Prediction Program:

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

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

A key objective of NCCOS/CSCOR research is the production of user-driven predictive tools that will enable resource managers to assess alternative management strategies to restore degraded ecosystems and protect healthy ones. Research supported is outcome-oriented towards predictions, as well as increased scientific understanding that will provide managers and the public with sound scientific information for making decisions in support of societal objectives. The aim of the Regional Ecosystem Prediction Program (REPP) is to develop predictive capabilities for marine ecosystems on a regional basis, with an emphasis on transition to operation and/or application. Research priorities are currently determined through a multi-tiered process which includes Congressional direction, NOAA mandates and strategic plans, engagement of resource managers and stakeholders, and identification of strategic opportunities by the scientific community.

NCCOS/CSCOR regional ecosystem research is implemented on a geographic basis in the Great Lakes, Northeast Shelf, Southeast Shelf, Caribbean Sea, Gulf of Mexico, California Current, Alaska Ecosystem Complex, and the Pacific Islands Ecosystem Complex. Although there are different management concerns in each of these areas, there are also many fundamental similarities in the types of problems between regions and the science needed to address them. Therefore, it is important in a national program such as the REPP that relevant science constructs (e.g. modeling

frameworks) developed nationally and internationally are fully utilized and adapted to the particular issue and region of interest so as to gain efficiencies from past research investments.

CSCOR's Ocean Acidification subcomponent of the RER program is part of a broader NOAA effort funded and administered by the Ocean Acidification Program, established in FY 11, based in NOAA's Oceanic and Atmospheric Research (OAR) Line Office (<http://www.research.noaa.gov/oceans/ocean-acidification/index.html>).

Ocean Acidification

The amount of carbon dioxide in the atmosphere has been increasing steadily for the past 150 years, since the onset of the industrial revolution. The world's oceans act as a sink for a portion of the carbon dioxide emitted by humans, and this absorption

is causing a reduction in surface ocean pH, otherwise known as ocean acidification (OA). By 2100, surface ocean pH is predicted by some to drop by another 0.3 pH units (Orr et al. 2005; <http://www.nature.com/nature/journal/v437/n7059/abs/nature04095.html>), a rate faster than in, at least, the past 800,000 years. A growing number of laboratory experiments now demonstrate that OA adversely affects many marine organisms, especially organisms that construct their shell material from calcium carbonate. In particular, OA has been shown to hamper the ability of reef-building corals and reef-cementing algae to calcify, thereby affecting their growth and accretion, and making the reef more vulnerable to erosion. Ocean acidification has the potential to seriously threaten the future health of the world's oceans and the significant economic benefits they provide to humankind. This rapidly emerging scientific issue has raised serious concerns across the scientific and resource management communities as to possible ecological, economic and societal impacts.

Ocean acidification could impact the recruitment dynamics of fish and shellfish through two distinct pathways: reduced growth and survival through direct physiological effects on harvested species and/or by altering the production of lower trophic levels and thus their foraging environment. Effects of OA can be expected to cascade through the highly productive food webs that support fisheries. Additional impacts from the warming of sea surface temperatures, increased nutrient and pollutant inputs, and/or altered circulation patterns may have synergistic effects with OA. Deleterious impacts to harvested species will require modifications in management strategies to maintain sustainable populations. Impacts of OA to ecosystem processes and overall productivity are mostly unknown, but will likely require integration of biogeochemical modeling with food web models. Incorporation of economic modeling will provide predictions of economic impacts of alternative management approaches.

The recently passed Federal Ocean Acidification Research and Monitoring (FOARAM) Act of 2009 provides authority and requires NOAA to respond to this pressing issue. According to the FOARAM legislation, it is important to determine the potential impacts of rising CO₂ levels and the associated reduced ocean pH and

carbonate ion availability on marine ecosystems, which includes a broad array of key species critical to NOAA-managed living marine and place-based resources. It is also important to determine the potential socio-economic impact as a result of effects on these managed resources, especially since OA has the potential to impact other

NOAA mandates such as the Coral Reef Conservation Act, Harmful Algal Bloom and Hypoxia Research and Control Act, Magnuson-Stevens Act, and Endangered Species Act.

The potential impacts of OA have garnered considerable scientific, policy and Congressional interest. In addition to the FOARAM legislation, several national-level reports can provide background information on OA research and national strategies:

1) National Academies of Science 2010 report: Ocean Acidification: A National Strategy to Meet the Challenges of a Changing Ocean
http://www.nap.edu/catalog.php?record_id=12904#description,

2) Present and Future Impacts of Ocean Acidification on Marine Ecosystems and Biogeochemical Cycles <http://www.whoi.edu/sbl/liteSite.do?litesiteid=19977>

3) Interagency Report on Impacts of OA on Coral Reefs and other Marine Calcifiers, http://www.ucar.edu/communications/Final_acidification.pdf

B. Program Priorities

NOAA/NOS/NCCOS/CSCOR is accepting proposals which address the potential ecosystem impacts of OA to fishery ecosystems of US waters. Research should be focused on the development of ecological models (linked to biogeochemical models if possible) which can be used to predict population and/or ecosystem level effects (including potentially, socioeconomic impacts) of increasing ocean acidification on a) important US commercial and recreational fishery species and/or b) key organisms in the ecosystems on which these fishery species rely (e.g., zooplankton, forage fish).

The intent of the modeling supported under this announcement is to provide a more synthetic regional ecosystem-scale context for the results of individual biogeochemical and physiological studies of OA. The NOAA Ocean and Great Lakes Acidification Research Plan (http://www.pmel.noaa.gov/co2/files/feel3500_without_budget_rfs.pdf) contains priorities for national and regional OA research within NOAA. For the purposes of this announcement, the main priority is contained in section 1.3, "Biogeochemical and Ecosystem Models", especially Task 1.3.2: "Develop regional ecological and bio-economic models coupled to regional biogeochemical models to predict local changes in ecosystem, food web, and economic interactions."

As a component of developing the necessary understanding of ecological processes and linkages, physiological research on targeted species or groups of ecologically related species may be included. In situ process studies and/or field

work may also be included, if it is shown to be directly applicable to model development. Proposals that focus specifically on single-organism studies should show how their results fit into a larger ecosystem modeling framework. Biogeochemical modeling to predict future OA conditions should be considered to be part of ecological models. Proposers should use realistic (e.g., 100 year) projections of atmospheric CO₂ rise and pH change as determined by recent models (e.g., Intergovernmental Panel on Climate Change, IPCC). Increased understanding of the ecological effects of OA should lead to the development of vulnerability assessments and/or adaptation and management plans for coastal species, ecosystems and habitats at risk from OA.

Ecosystem models developed through this announcement should capitalize on NOAA's other investments in OA research. Proposals must include collaborations among researchers from outside NOAA and from NOAA or NOAA-funded programs such as those listed below. Information about NOAA's research activities in OA is available at the following websites:

" NOAA National Marine Fisheries Service (NMFS) studies are focused on assessing the physiological effects on individual living marine resources and the resulting ecosystem impacts. Implementation plans for NMFS OA research in fiscal years 2010 and 2011 are available at <http://www.st.nmfs.noaa.gov/st7/AcidResearch.html>.

" NOAA's Pacific Marine Environmental Laboratory (<http://www.pmel.noaa.gov/co2/story/Ocean+Acidification>) and Atlantic Oceanographic and Meteorological Laboratory (<http://www.aoml.noaa.gov/ocd/gcc/co2research/>) maintain robust OA observing programs and work closely with other divisions of NOAA in assessing the potential impacts of the changing ocean chemistry.

" The NOAA National Ocean Service manages NOAA marine protected areas under its National Estuarine Research Reserve System (NERRS; <http://www.nerrs.noaa.gov/>) and the National Marine Sanctuaries (NMS; <http://sanctuaries.noaa.gov>). The NERRS plans to add new ocean acidification-related parameters to long-term estuarine water quality monitoring and the NMS have developed an Ocean Acidification Action Plan for the West Coast National Marine Sanctuaries (http://sanctuaries.noaa.gov/about/pdfs/wc_onms_plan.pdf).

" The U.S. Integrated Ocean Observing System (IOOS) is a federal, regional, and private-sector partnership working to enhance the accessibility of coastal, ocean, and Great Lakes data and information. IOOS regional associations (RAs) are participating in NOAA's OA observing network and several RAs have regional ecosystem modeling frameworks.

Any one proposal is not expected to incorporate information or collaborations from all of the resources mentioned above. However, proposals must include collaborations with one or more of the groups listed above.

Proposals should follow ocean acidification research best practices guides such as those detailed in the Guide to Best Practices for Ocean Acidification Research and Data Reporting (<http://www.epoca-project.eu/index.php/guide-to-best-practices-for-ocean-acidification-research-and-data-reporting.html>) and the Guide to Best Practices for Ocean CO2 Measurements (http://cdiac.ornl.gov/oceans/Handbook_2007.html). Failure to comply with the best practices will result in a downgrade of the proposal.

All NOAA environmental data developed through this announcement shall adhere to the guidelines documented in the NOAA Administrative Order 212-15 (http://www.corporateservices.noaa.gov/ames/NAOs/Chap_212/naos_212_15.html). Also, all proposals must include a data management plan which considers how to provide data as soon as feasible to the public (see Data Reporting Requirements).

C. Program Authority

Subtitle D of the Omnibus Public Land Management Act of 2009: Federal Ocean Acidification Research and Monitoring Act of 2009. Public Law 111-11

II. Award Information

A. Funding Availability

Funding is contingent upon availability of Federal appropriations. NOAA is committed to continual improvement of the grants process and accelerating the award of financial assistance to qualified recipients in accordance with the recommendations of the Business Process Reengineering Team. In order to fulfill these responsibilities, this solicitation announces that award amounts will be determined by the proposals and available funding. It is anticipated that total funding for this research will be approximately \$1.5 million over 3 years, depending on final appropriations. Funding limits for individual projects are approximately \$200,000 to \$400,000 per year lasting up to 3 years. Projects may include ship time above these limits. Requests for ship time costs will be evaluated in light of overall project goals. It is anticipated that 1 to 2 awards will be funded.

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

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

Full proposals may cover a project/award period up to 3 years (depending on the type of proposal submitted), but shorter-term project proposals are also welcome. Multi-year awards may be funded incrementally on an annual basis, but once awarded those awards will not compete for funding in subsequent years. Each award requires a project description that can be easily divided into annual increments of meaningful work representing solid accomplishments.

The following is a description of multi-year awards for those applicants subsequently recommended for award. Multi-year awards are awards that have an award/project period of more than 12 months of activity. Multi-year awards are partially funded when the awards are approved, and are subsequently funded in increments. One of the purposes of multi-year awards is to reduce the administrative burden on both the applicant and the operating unit. For example, with proper planning, one application can suffice for the entire multi-year award period. Funding for each year's activity is contingent upon the availability of funds from Congress, satisfactory performance, and is at the sole discretion of the agency. Multi-year funding is appropriate for projects to be funded for 2 to 5 years. Once approved, full applications are not required for the continuation out years.

During the implementation phase of research projects funded under this announcement, regardless of the funding mechanism used, CSCOR Program Managers will analyze financial statements and progress reports for each continuing multi-year project, and will have dialogue with the Principal Investigators and Authorized Representatives of the recipient institutions to discuss research progress and expected time lines for the remaining award period. Program Managers will consider the length of time remaining for each project, the amount of funds available, the tasks to be completed in the upcoming fiscal year, the pace of research, and any delayed progress relative to that originally proposed, before determining the amount of funds to allocate to continuing research projects in any given fiscal year.

C. Type of Funding Instrument

Funding instruments available are project grants and cooperative agreements.

(1) Research Project Grants: A research project grant is one which does not anticipate substantial programmatic involvement by the Federal government during the project period. Applicants for grants must demonstrate an ability to conduct the proposed research with minimal assistance, other than financial support, from the Federal government.

(2) Cooperative Agreements: A cooperative agreement implies that the Federal government will assist recipients in conducting the proposed research. The application should be presented in a manner that demonstrates the applicant's ability to address the research problem in a collaborative manner with the Federal government or Federal researchers. A cooperative agreement is appropriate when

substantial Federal government involvement is anticipated. This means that the recipient can expect substantial agency collaboration, participation, or intervention in project performance. Substantial involvement exists when: responsibility for the management, control, direction, or performance of the project is shared by the assisting agency and the recipient; or the assisting agency has the right to intervene (including interruption or modification) in the conduct or performance of project activities.

NOAA will review the applications in accordance with the evaluation criteria. Before issuing awards, NOAA will determine whether a grant or cooperative agreement is the appropriate instrument based upon the need for substantial NOAA involvement in the project. If a cooperative agreement is determined to be the appropriate instrument, the CSCOR program officer will participate in important activities which may include evaluation and selection of applicants for funding, education about and discussion of research activities, participation in meetings, guidance on NOAA philosophy, directions, and priorities, and research strategy discussions.

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

Research proposals selected for funding from non-Federal researchers will be funded through a project grant or cooperative agreement. Research proposals selected for funding from non-NOAA Federal applicants will be funded through an interagency transfer, provided legal authority exists for the Federal applicant to receive funds from another agency. PLEASE NOTE: Before non-NOAA Federal applicants may be funded, they must demonstrate that they have legal authority to receive funds from another Federal agency. Because this announcement is not

proposing to procure goods or services from the applicants, the Economy Act (31 U.S.C. section 1535) is not an appropriate basis. Support may be solely through NCCOS/CSCOR or partnered with other Federal offices and agencies.

III. Eligibility Information

A. Eligible Applicants

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

Please note that:

(1) NCCOS/CSCOR will not normally fund any Federal Full Time (FTE) salaries, but will fund travel, equipment, supplies, and contractual personnel costs associated with the proposed work. If an applicant thinks that they are eligible for an exception, they should provide the Program Manager with appropriate documentation and obtain approval prior to submitting an LOI.

(2) Researchers must be employees of an eligible entity listed above; and proposals must be submitted through that entity. Non-Federal researchers should comply with their institutional requirements for proposal submission.

(3) Non-NOAA Federal applicants will be required to submit certifications or documentation showing that they have specific legal authority to accept funds for this type of research.

(4) Foreign researchers may apply as subawards through an eligible US entity

(5) Non-Federal researchers affiliated with NOAA-University Cooperative/Joint Institutes should comply with joint institutional requirements; they will be funded through grants either to their institutions or to joint institutes.

B. Cost Sharing or Matching Requirement

None

C. Other Criteria that Affect Eligibility

Each proposal must substantially comply with the fourteen elements listed under Proposal Submission/Required Elements, (1)-(14), or it will be returned to sender without further consideration.

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

IV. Application and Submission Information

A. Address to Request Application Package

NOAA

1305 East West Hwy SSMC4

Mail Station 8240, 8th floor

Silver Spring, MD 20910

B. Content and Form of Application

1. Letter of Intent (LOI)

The purpose of the LOI process is to provide information to potential applicants on the relevance of their proposed project and the likelihood of it being funded in advance of preparing a full application. Full applications will be encouraged only for LOIs deemed relevant, however the final decision to submit a full proposal is made by the investigator. The LOI should provide a concise description of the proposed work and its relevance to the targeted Competition. The LOI should be no more than two pages in length, single spaced in

12-point font with 1-inch margins and should include in order the components listed below.

If the below components are not included, the LOI risks a delayed response and may not be considered.

- 1) Identification of the Competition that is being targeted in the LOI.

- 2) Specification of a tentative project title in the LOI.
- 3) Name(s) phone number(s), email address(s) and institution(s) of all Principal Investigator(s), and specification of which individual is the Lead Principal Investigator.
- 4) Approximate cost of the project, with and without ship costs.
- 5) Statement of the problem and its relevance to commercial or recreational fishery populations.
- 6) Brief summary of work to be completed, methodology to be used, and the plan for coordination with ongoing NOAA and other funded OA work.

Program Managers from CSCOR and the OA program will review each LOI to determine whether it is responsive to the Program's goals and priorities, as advertised in this notice. Letters or emails to encourage or discourage a full application are scheduled to be sent out two weeks after the due date. In general, full proposals will be encouraged if they show evidence of application to NOAA's OA research plan and clear statements of the problem addressed and the methodologies to be used. The final decision to submit a full application will be made by the investigator, regardless of the recommendations of the program manager regarding the LOI. Late LOIs will not be considered and their associated full applications cannot be submitted.

2. Proposals

The provisions for full proposal preparation provided here are mandatory. No proposal will be accepted from an investigator who did not submit a LOI. Proposals received after the published deadline (refer to DATES) or proposals that deviate from the prescribed format will be returned to the sender without further consideration. Information regarding this announcement and additional background information are available on the NCCOS/CSCOR home page. An example proposal can be found at: http://www.cop.noaa.gov/opportunities/grants/pdf/sample_application.pdf and FAQs are also available.

3. Required Elements

For clarity in the submission of proposals, the following definitions are provided for applicant use:

Funding and/or Budget Period - The period of time when Federal funding is available for obligation by the recipient. The funding period must always be specified in multi-year awards, using fixed year funds. This term may also be used to mean budget period. A budget period is typically 12 months.

Award and/or Project Period - The period established in the award document during which Federal sponsorship begins and ends. The term award period is also referred to as project period in 15 CFR 14.2(cc).

Applications with multi- institutions - Collaborative proposals with more than

one institution requesting direct funding by NOAA. If funded, each institution receives a separate award from NOAA.

Applications with sub contractors - Collaborative proposals with only the lead institution requesting direct funding by NOAA. If funded, the lead institution will disburse funds to the subcontractor institutions.

Each proposal must include the following fourteen elements or it will be returned to sender without further consideration. The Summary title page, Abstract, Project Description, References, Biographical Sketch, Current and Pending Support, Budget Narrative and Collaborators List must be in 12-point font with 1-inch margins. The fourteen elements are as follows:

(1) Standard Form 424. At the time of proposal submission, all applicants requesting direct funding must submit the Standard Form, SF-424, Application for Federal Assistance, to indicate the total amount of funding proposed for their institution for the whole project period. This form is to be the cover page for the original proposal.

(2) Summary title page. The Summary title page identifies the project's title, starting with the acronym: OA and the Principal Investigators (PI) name and affiliation, complete address, phone, FAX and E-mail information. The requested budget for each fiscal year with and without ship funding should be included on the Summary title page. Multi-institution proposals must also identify the lead investigator for each collaborating institution and their requested funding with and without ship funding for each fiscal year.

(3) One-page abstract/project summary. The summary (abstract) should appear on a separate page, headed with the proposal title, institution(s), investigator(s), total proposed cost (with and without ship funds), and budget period. It should be written in the third person and not exceed one page in length. The summary is used to help compare proposals quickly and allows the respondents to summarize these key points in their own words. Project summaries of applications that receive funding may be posted on program related websites. The project summary shall include an introduction of the problem, rationale, scientific objectives and/or hypotheses to be tested, and a brief summary of work to be completed.

(4) Project description. The description of the proposed project must include narratives of the Proposed Research and of the Applications to Management.

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

(a) Identifying the topic that is being addressed by the proposal;

(b) Describing the proposed scientific objectives and research activities in relation to the present state of knowledge in the field and in relation to previous and current work by the proposing principal investigator(s);

(c) Discussing how the proposed project lends value to the program goals;

(d) Identifying the function of each PI. The Lead PI (s) will be responsible for communicating with the Federal Program Manager on all pertinent verbal or written information.

The Proposed Research Narrative should provide a full scientific justification for the research, rather than simply reiterating justifications presented in this document. Specific research activities must be divided into annual increments of work that include specific objectives and methodology.

The Applications to Management Narrative should establish the connection to relevant resource management needs and potential pathways for experimental or model results to be incorporated into decision making. This narrative should provide the management justification for the research through:

(a) Articulating coordination with one or more management entities;

(b) Discussing the expected significance of the project to resource management priorities and needs; and/or

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

The project description for OA proposals must not exceed 15 pages in 12-point, easily legible font with 1 inch margins. The page limit includes figures, tables, and other visual materials, but excludes references, a milestone chart, budget narratives, data sharing plan and letters of intent from unfunded collaborators. Any information vital to the scientific objectives of the proposal should be included in the project summary, and not appear solely in the budget narratives or letters of intent.

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

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

(7) Standard Form 424A. At time of proposal submission, all applicants are required to submit a SF-424A Budget Form which identifies the budget for each fiscal year of the proposal. Place each fiscal year in separate columns in Section B of page 1 on the SF424A. (Note that this revised 424A Section B format is a NOAA requirement that is not reflected in the Instructions for the SF 424A). For 5 year projects, use two SF424As. Place the first four years on one form in Section B columns one through four. The first four years will total in column five. Place the

totals from the first form onto the second form in Section B column one and use column two for the fifth year budget figures. The fifth column on the second SF424A will show the 5 year totals. The budget figures must correspond with the descriptions contained in the proposal. Indirect cost may not be applied to ship costs.

(8) Budget narrative and justification. In order to allow reviewers to fully evaluate the appropriateness of costs, all applications must include a detailed budget narrative and a justification to support all proposed budget categories for each fiscal year (an example is provided at:

http://www.cop.noaa.gov/opportunities/grants/pdf/sample_application.pdf).

Personnel costs should be broken out by named PI and number of months requested per year per PI. Support for each PI should be commensurate with their stated involvement each year in the milestones chart (see Required Elements (6) Milestone chart). Any unnamed personnel (graduate students, post-doctoral researchers, technicians) should be identified by their job title, and their personnel costs explained similar to PI personnel costs above. The contribution of any personnel to the project goals should be explained. Describe products/services to be obtained and indicate the applicability or necessity of each subaward and contractor. Travel costs should be broken out by number of people traveling, destination and purpose of travel, and projected costs per person. Equipment costs should describe the equipment to be purchased, and its contribution to the achievement of the project goals. For additional information concerning each of the required categories and appropriate level of disclosure please see

http://www.cop.noaa.gov/opportunities/grants/other_instructions.aspx.

Any ship time needs must be clearly identified in the proposed budget. The applicant is responsible for requesting ship time through appropriate channels and for meeting all requirements to ensure the availability of requested ship time. Copies of relevant ship time request forms (e.g. UNOLS ship request forms at <http://www.gso.uri.edu/unols/ship/mainmenu.html>) should be included with the proposal.

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

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

(a) A listing of professional and academic credentials and mailing address;

(b) A list of up to five publications most closely related to the proposed project and five other significant publications. Additional lists of publications, lectures, and the rest should not be included. The lead institution should combine all Biographical sketches from each Co-PI and PI as a single attachment.

(10) Current and pending support. Describe all current and pending federal financial/funding support for all principal and co-investigators. Continuing grants must also be included. The capability of the investigator and collaborators to complete the proposed work in light of present commitments to other projects should be addressed. Therefore, please discuss the percentage of time investigators and collaborators have devoted to other Federal or non-Federal projects, as compared to the time that will be devoted to the project solicited under this notice. A current and pending support form is not required but is available on the CSCOR web site for your use: http://www.cop.noaa.gov/opportunities/grants/pdf/current_pending_form.pdf. You must respond to the requirement whether or not you have any current and/or pending support.

(11) One list of all applicable permits that will be required to perform the proposed work. You must respond to this requirement element whether or not permits are required.

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

(13) Accomplishments from Prior Federal Support. If any PI or co-PI identified on the project has received federal funding in the past five years for research on OA, information on the award(s) is required. Each PI and co-PI who has received more than one award (excluding amendments) must report on the award most closely related to the proposal. Accomplishments must be summarized in no more than two pages (total for all investigators) which should follow the Project Description. The following information must be provided:

- a) the award number, amount and period of support;
- b) the title of the project;
- c) a summary of the results of the completed work;
- d) publications resulting from the award;
- e) a brief description of outputs and outcomes; and
- f) as appropriate, a description of the relation of the completed work to the

proposed work.

Reviewers will be asked to comment on the quality of the prior work described in this section of the proposal. You must respond to the requirement whether or not you have accomplishments from prior federal support.

(14) Data Sharing Plan. A Data Sharing Plan of up to 2 pages is required. This should include:

- a) Types of environmental data created;
- b) Standards to be used for data format and content;
- c) Policies addressing data stewardship and preservation;
- d) Previous data sharing experience; and
- e) Procedures for providing access, sharing, and security.

Proposal format and assembly. Proposals submitted via Grants.gov APPLY should follow the format guidelines below:

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

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

In addition to the fourteen required elements, it is requested that the SF-424B, CD-511, Key Contact form (available on the CSCOR web site at: http://www.cop.noaa.gov/opportunities/grants/initial_submission.aspx and the indirect rate agreement be provided upon application submission. It is allowable for applicants to suggest merit reviewers on a page after the Summary Title Page. These forms can be uploaded in to the Optional Form box under Other Attachments in

Grants.gov.

If a collaborative proposal is submitted, the following documents must be attached for each collaborating institute:

Multi-institutional submissions - SF424, SF424A, Budget Justification, and current and pending are required. PLEASE NOTE: Signed SF424s from each applicant requesting direct funding is a submission requirement. We also request submission of the SF-424B, CD-511, Key Contact form.

Sub contractor submissions - SF424A, Budget Justification, and current and pending are required. Signed approval from the institution of each subaward and contractor must be provided. We also request submission of the SF-424B, CD-511, Key Contact form.

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

C. Submission Dates and Times

LOI for all programs must be received at the CSCOR Program Office by 5 p.m. Eastern

Time, December 15, 2011. Applicants who have not received a response to their LOI within three weeks should contact Mary Payne. Applicants may not submit full applications if they do not submit LOI.

The deadline for receipt of full proposals at the NCCOS/CSCOR office is 3 p.m., Eastern Time January 30, 2012. Note that late-arriving hard copy applications will be accepted for review only if the applicant can document that:

1) the application was provided to a delivery service with delivery to the National Oceanic & Atmospheric Administration, 1305 East-West Highway, SSMC4, Mail Station 8240 8th Floor, Silver Spring, Maryland 20910-328;

2) delivery was guaranteed by 3 pm, Eastern Time on the specified closing date; AND,

3) the proposal was received in the NCCOS/CSCOR office by 3 p.m., Eastern Time no later than 2 business days following the closing date.

Investigators submitting proposals electronically are advised to submit well in advance of the deadline.

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

D. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." It has been determined that this notice is not significant for purposes of Executive Order 12866. Pursuant to 5 U.S.C. 553(a) (2), an opportunity for public notice and comment is not required for this notice relating to grants, benefits and contracts. Because this notice is exempt from the notice and comment provisions of the Administrative Procedure Act, a Regulatory Flexibility Analysis is not required, and none has been prepared. It has been determined that this notice does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

E. Funding Restrictions

Indirect Costs: Regardless of any approved indirect cost rate applicable to the award, the maximum dollar amount of allocable indirect costs for which DOC will reimburse the recipient shall be the lesser of (a) the line item amount for the Federal share of indirect costs contained in the approved budget of the award or (b) the Federal share of the total allocable indirect costs of the award based on the indirect cost rate approved by a cognizant or oversight Federal agency and current at the time the cost was incurred, provided the rate is approved on or before the award end date. NCCOS/CSCOR will not fund start up or operational costs for private business ventures and neither fees nor profits will be considered as allowable costs. Ship costs may not be included in indirect cost calculations. NCCOS/CSCOR will not pay for ship overhead expenses.

F. Other Submission Requirements

LOIs should be submitted by email Mary.Payne@noaa.gov. If an applicant does not have Internet access, LOI hard copies may be sent to Mary Payne. Hard copies should be sent to NOAA Center for Sponsored Coastal Ocean Research, 1305 East-West Highway, SSMC4, Mail Station 8218, 8th floor, Silver Spring, MD 20910 or faxed to 301-713-4044. Please allow two weeks after receipt for a response.

Full proposals must include evidence of linkages between the scientific questions and management needs. Proposals previously submitted to NCCOS/CSCOR FFOs and not recommended for funding must be revised and reviewer or panel concerns

addressed before resubmission. Resubmitted proposals that have not been revised will be returned without review.

Please refer to important information in submission dates and times above to help ensure your application is received on time.

Applications submitted in response to this announcement are strongly encouraged to be submitted through the Grants.gov web site. The full funding announcement for this program is available via the Grants.gov web site: <http://www.grants.gov>. This announcement will also be available by contacting the program official identified below. You will be able to access, download and submit electronic grant applications for NOAA Programs in this announcement at <http://www.grants.gov>. The closing dates will be the same as for the paper submissions noted in this announcement. NOAA strongly recommends that you do not wait until the application deadline date to begin the application process through Grants.gov.

Please refer to important information in Submission Dates and Times (Section IV.C.) to help ensure your application is received on time.

Applicants should contact the Program Manager for non-electronic submission instructions.

Facsimile transmissions and electronic mail submission of full proposals will not be accepted.

V. Application Review Information

A. Evaluation Criteria

1. Importance and/or relevance and applicability of proposed project to the program goals: This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, state, or local activities. This should also include a review of how the project complements ongoing NOAA OA research. (40 percent)

2. Technical/scientific merit: This assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. The proposed work should have focused objectives and a complete and technically sounds strategy for project design, methodologies, data

management, data analysis, and development of products and outcomes in support of the objectives. (25 percent)

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

4. Project costs: The Budget is evaluated to determine if it is realistic and commensurate with the project needs and time-frame. (10 percent)

5. Outreach and education: NOAA assesses whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. The applicant must demonstrate clear connections to relevant management needs. (10 percent)

B. Review and Selection Process

Once a full application has been received by NOAA, an initial administrative review is conducted to determine compliance with requirements and completeness of the application. All proposals will be evaluated and scored individually in accordance with the assigned weights of the above evaluation criteria by independent peer mail review and/or by independent peer panel review. Both Federal and non-Federal experts may be used in this process. The peer mail reviewers will be several individuals with expertise in the subjects addressed by particular proposals. Each mail reviewer will see only certain individual proposals within his or her area of expertise, and score them individually on a scale of one to five, where scores represent respectively: Excellent (5), Very Good (4), Good (3), Fair (2), Poor (1).

The peer panel will comprise 5 to 15 individuals, with each individual having expertise in a separate area, so that the panel, as a whole, covers a range of scientific expertise. The panel will have access to all mail reviews of proposals, and will use the mail reviews in discussion and evaluation of the entire slate of proposals. All proposals will be evaluated and scored individually. The peer panel shall rate the proposals using the evaluation criteria and scores provided above and used by the mail reviewers. The individual peer panelist scores shall be averaged for each application and presented to the Program Manager. No consensus advice will be given by the independent peer mail review or the review panel.

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

For the proposals scored by the panel as either "Excellent," "Very Good," or

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

Recommendations for funding are then forwarded to the selecting official, the Director of NCCOS, for the final funding decision. In making the final selections, the Director will award in rank order unless the proposal is justified to be selected out of rank order based on the selection factors listed below in C.

Investigators may be asked to modify objectives, work plans or budgets, and provide supplemental information required by the agency prior to the award. When a decision has been made (whether an award or declination), verbatim anonymous copies of reviews and summaries of review panel deliberations, if any, will be made available to the applicant. Declined applications will be held in the NCCOS/CSCOR for the required 3 years in accordance with the current retention requirements, and then destroyed.

C. Selection Factors

Based on the panel review scores, the Program Manager will provide a listing of proposals in rank order to the Selecting Official for final funding recommendations. A Program Manager may first make recommendations to the Selecting Official applying the selection factors below. The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding.
2. Balance/distribution of funds:
 - a. Geographically
 - b. By type of institutions
 - c. By type of partners
 - d. By research areas
 - e. By project types
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other federal agencies.

4. Program priorities and policy factors. Refer to section I.B.

5. Applicant's prior award performance.

6. Partnerships and/or participation of targeted groups.

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

Awards may also be modified for selected projects depending on budget availability or according to the selection factors listed above.

D. Anticipated Announcement and Award Dates

Subject to the availability of funds, review of proposals will begin in January 2012. Applicants should use a start date of September 1, 2012.

VI. Award Administration Information

A. Award Notices

The notice of award is signed by the NOAA Grants Officer and is the authorizing document. It is provided by postal mail or electronically through the Grants Online system to the appropriate business office of the recipient organization.

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 2 CFR Parts 25, 170 (2010),

[http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?
c=ecfr&tpl=/ecfrbrowse/Title02/2cfr25_main_02.tpl,](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr25_main_02.tpl)

[http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?
c=ecfr&tpl=/ecfrbrowse/Title02/2cfr170_main_02.tpl."](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr170_main_02.tpl)

B. Administrative and National Policy Requirements

The 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 February 11,

2008 (73 FR 7696) are applicable to this solicitation.

Limitation of Liability

In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs if these programs fail to receive funding or are cancelled because of other agency priorities. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

National Environmental Policy Act (NEPA)

NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: <http://www.nepa.noaa.gov/>, including our NOAA Administrative Order 216-6 for NEPA, http://www.corporateservices.noaa.gov/~ames/NAOs/Chap_216/naos_216_6.html, and the Council on Environmental Quality implementation regulations, <http://ceq.hss.doe.gov/ntf/report/htmltoc.html>. 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 of an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying and implementing feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. The failure to do so shall be grounds for the denial of an application.

C. Reporting

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

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

Data Reporting Requirement

In conformance with the Uniform Administrative Requirements for Grants and Cooperative Agreements section 15 CFR 14.36, any data collected in projects supported by NCCOS/CSCOR should be delivered to a National Data Center (NDC), such as the National Oceanographic Data Center (NODC), in a format to be determined by the institution, the NDC, and the Program Manager. Information on NOAA NDC's can be found at <http://www.nesdis.noaa.gov/EnvironmentalData.html>. It is the responsibility of the institution for the delivery of these data; the DOC will not provide additional support for delivery beyond the award. Additionally, all biological cultures established, molecular probes developed, genetic sequences identified, mathematical models constructed, or other resulting information products established through support provided by NCCOS/CSCOR are encouraged to be made available to the general research community at no or modest handling charge (to be determined by the institution, Program Manager, and DOC). Proposers should be aware that NOAA is currently developing a data sharing policy for grants and cooperative agreements. Initial recommendations suggest that data should be accessible to the research community within three months after the end date of the project and restricted to the research community for a period of two years after the end date of the project, at which time, all data should be made publicly available through a NOAA NDC or other publicly accessed data source.

VII. Agency Contacts

Technical Information: Elizabeth Turner, NCCOS/CSCOR Ocean Acidification Program Manager, 603-862-4680. Internet: Elizabeth.Turner@NOAA.gov.

Business Management Information: Laurie Golden, NCCOS/CSCOR Grants Administrator, 301-713-3338/ext 151, Internet: Laurie.Golden@NOAA.gov.

VIII. Other Information

Collection of information requirements

Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection displays a currently valid OMB control number.

This notification involves collection-of-information requirements subject to the Paperwork Reduction Act. The use of Standard Forms 424, 424A, 424B, and SF-LLL has been approved by the Office of Management and Budget (OMB) under control numbers 0348-0043, 0348-0044, 0348-0040 and 0348-0046.

Check List for Required and Requested Documents

SF-424

Title Page

Abstract

Project Description

References

Milestone Chart

SF-424A (One for the lead institution and each institution in a multi-institutional project and/or each subcontract)

Budget Narrative and Justification (One for the lead institution and each institution in a multi-institutional project and/or each subcontract).

Bio Sketch

Current and Pending Support

Permits (if none, say so)

Alphabetized Collaborator List (ONE list for all)

Accomplishments from prior CSCOR support (if none, say so)

Signed Approval from subaward/contractor institutes

SF-424B (requested)

CD-511 (requested)

Indirect Rate Agreement (requested)

Ship Request form, if applicable

Key Contact form (requested for each institution)