

ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

- **Federal Agency Names:** Office of Global Programs (OGP), Office of Oceanic and Atmospheric Research (OAR), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC)
- **Funding Opportunity Title:** NOAA Climate and Global Change Program for FY 2005
- **Announcement Type:** Initial Announcement. This program announcement is for projects to be conducted by investigators outside the Federal Government.
- **Catalog of Federal Domestic Assistance (CFDA) Number:** 11.431, Climate and Atmospheric Research
- **Dates:** Letters of Intent should be received by 5:00 p.m. Eastern Time April 14, 2004. Full proposals must be received at the Office of Global Programs no later than 5 p.m. Eastern Time May 24, 2004.
- **Application Submission:** All submissions should be directed to: NOAA Office of Global Programs; Attn: Diane S. Brown, Grants Manager; 1100 Wayne Avenue, Suite 1210; Silver Spring, MD 20910-5603.

Funding Opportunity Description: The Climate and Global Change Program represents a National Oceanic and Atmospheric Administration (NOAA) contribution to evolving national and international programs designed to improve our ability to observe, understand, predict, and respond to changes in the global environment. This program builds on NOAA's mission requirements and long-standing capabilities in global change research and prediction. The NOAA Program is a key contributing element of the U.S. Climate Change Science Program (CCSP), which is coordinated by the interagency Committee on Environmental and Natural Resources. NOAA's program is designed to complement other agencies' contributions to that national effort.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

1. Program Objectives

The overall goal of the NOAA climate program is to understand climate variability and change to enhance society's ability to plan and respond. NOAA Climate and Global Change Program aims at improved scientific understanding of the earth's past and present climate variability and change to improve climate forecast skill, increase the credibility of climate change projections, and the use of climate information for policy and decision makers and resource managers.

NOAA believes that the Climate and Global Change Program will benefit significantly from a strong partnership with outside investigators. NOAA's broad objective is to establish a national information service based on reliable assessments and quantitative predictions of changing global climate. Once established, this service will help NOAA provide high-quality predictions and assessments to the public and private sectors, other federal and state agencies, and the international community. The near-term objective is to provide reliable predictions of global climate changes, both natural and human-induced, and their associated societal impacts on time scales ranging from seasons to a century or more.

NOAA's Climate and Global Change program is addressing climate initiatives outlined in the Climate Change Science Program (CCSP), which encompasses both the U.S. Global Change Research Program (USGCRP) and the Climate Change Research Initiative (CCRI). NOAA's program is an integral part of the interagency CCSP and it will continue to address a better understanding of the global climate system. Changing climate confronts us with significant economic, health, safety, and national security implications. NOAA has a significant responsibility in operational observation, research, prediction, and information management efforts for the global change study effort.

2. Program Priorities

In FY 2005, NOAA will only accept individual proposals in the Main Program Elements listed below. The names, affiliations and phone numbers of relevant Climate and Global Change Program Managers are provided. Investigators are encouraged to visit the Climate & Global Change Program web page (<http://www.ogp.noaa.gov/>) for general program information prior to submitting full proposals. Applicants may also communicate with Program Managers for information.

A. Atmospheric Composition and Climate (ACC):

The Atmospheric Composition and Climate Program pursues two overall research objectives: (1) to improve the predictive understanding of the radiative forcing of the climate system by aerosols and by chemically-active greenhouse gases, such as tropospheric ozone and methane, and (2) to better characterize the recovery of the stratospheric ozone layer, including its role in climate change. The integrated research

activities that address these objectives involve instrument development, global observations, laboratory studies, and theoretical modeling by NOAA and extramural partners. A hallmark of the Program is that its objectives are cooperatively framed with both national and international collaborators. Nationally, the Program's aerosol research is part of the interagency U.S. Climate Change Science Program. Internationally, the Program's research contributes to the projects of the International Global Atmospheric Chemistry (IGAC) program of the International Geosphere-Biosphere Program (IGBP), and the Stratospheric Processes and their role in Climate (SPARC) program of the World Climate Research Program (WCRP).

The Atmospheric Composition and Climate Program will support research into three specific topics for 2005: (1) aerosol-cloud-climate interactions, (2) regular vertical profiling of aerosols and their properties using a small aircraft, and (3) analysis and interpretation of the results from the NEAQS/ITCT summer 2004 field campaign.

1. The principle research objective for ACC in 2005 is focused on gaining a better predictive understanding of the interactions between aerosols, clouds, and climate. Proposals are encouraged that target: (a) development and application of new techniques and approaches for understanding aerosol-cloud-climate interactions; (b) carrying out atmospheric measurements needed to elucidate the processes governing these interactions; and (c) development, evaluation, and application of theoretical models that can simulate these chemical/radiative effects and their influence on the radiative balance in the earth's atmosphere.
2. NOAA is expanding its effort at carrying out regular measurements of aerosols and their properties at selected sites using small aircraft. Proposals are sought that focus on developing measurement techniques that are applicable to such studies.
3. Proposals are also sought for the analysis, interpretation, and theoretical modeling using data from the summer 2004 NEAQS/ITCT field campaign.

More information about these activities can be found on the Internet:

<http://www.al.noaa.gov/WWHD/pubdocs/> and the Atmospheric Composition and Climate home page: <http://www.ogp.noaa.gov/mpe/atmochem>. For further information, investigators may contact one of the NOAA program managers, Kea Duckenfield of the Office of Global Programs (Kea.Duckenfield@noaa.gov, 301-427-2089 ext. 112, fax: 301-427-2222) or Fred C. Fehsenfeld of the Aeronomy Laboratory (fcf@al.noaa.gov, 303-497-5819).

B. Climate Observation:

The goal of this element is to build and sustain the global climate observing system that is needed to satisfy the long-term observational requirements of the operational forecast centers, international research programs, and major scientific assessments. The element supports in-situ ocean components that contribute to global networks for understanding climate variability and change, the global water cycle, and the global carbon cycle, and looks for efficiencies to be gained by utilizing common platforms/sites/data infrastructure for several objectives in parallel. This program element will not accept applications for

new projects in FY 2005. For further information, investigators may contact the NOAA program manager, Michael Johnson (Mike.Johnson@noaa.gov, 301-427-2089 ext. 169, fax: 301-427-2073).

C. Climate and Societal Interactions (CSI):

Climate science and services have the potential to help inform decision making in sectors and regions that are affected by climate variability and change. A multi-disciplinary, research, assessment and applications effort is fundamental to creating an effective bridge between societal need and scientific insights and products. Toward this end, the NOAA Climate and Societal Interactions (CSI) program addresses a spectrum of issues ranging from problem identification and assessment, to the development of science-based solutions and tools, to the articulation of societal need back to the research and service communities. The CSI program stimulates and supports innovative research on climate-human interactions, and the use of this insight for the development, prototype implementation and evaluation of decision support tools and mechanisms. Through these efforts, CSI contributes to the U.S. Climate Change Science Program (CCSP), and NOAA's endeavor to provide climate services tailored to key resource management challenges such as those associated with water, agriculture, and public health and safety. Specifically, CSI seeks to: a) advance the interdisciplinary knowledge necessary to build local, regional and national capacity to increase resilience with regards to climate variability and change; b) catalyze and accelerate the development, prototype implementation and evaluation of tools and methods for productively connecting NOAA science to decision making needs and structures; and c) identify, explore and communicate the information requirements and needs of a diverse suite of decision makers in order to help create a solution-oriented focus to NOAA research and services. The CSI is a chapeau for a suite of activities, the whole of which is intended to further research-based integration between studies of the whole of the climate system, including human components, such as health, and evolving informational and educational needs of decision makers in climate sensitive sectors around the world. CSI website information is available at: <http://www.ogp.noaa.gov/mpe/csi/index.htm>. Prospective applicants may apply to one of the following CSI program elements:

C1. Human Dimensions of Global Change Research (HDGCR):

One of the main goals of the HDGCR program is understanding and analyzing the decision process as it relates to information about a dynamic climate system. The program is interested in building on analyses, modeling, and field work of societal adaptation to climate and the use of scientific information. For further information, investigators may contact one of the NOAA program managers, Nancy Beller-Simms (Nancy.Beller-Simms@noaa.gov, 301-427-2089 ext. 180, fax: 301-427-2082) or Caitlin Simpson (Caitlin.Simpson@noaa.gov, 301-427-2089 ext. 152, fax: 301-427-2082) or see: www.ogp.noaa.gov/mpe/csi/econhd/index.htm

C2. Climate Variability and Health Program (CVHP):

It is anticipated that a joint interagency and private sector announcement of opportunity for research on climate variability and human health will be published in a future Federal Register Notice. For more information, investigators may contact the NOAA program manager, Juniper Neill (Juniper.Neill@noaa.gov, 301-427-2089 ext. 176).

C3. Regional Integrated Sciences and Assessments (RISA):

The Regional Integrated Sciences and Assessments (RISA) program possesses three distinct qualities: (1) Interdisciplinary, integration and synthesis; (2) Bridging the gap between climatic, environmental and societal interactions on different temporal and spatial scales; and (3) Decision support and services. It requires innovative partnerships among a spectrum of interested parties (Federal, State, local and private) to enable regional organizational capacity to develop accurate (i.e., identifying risks, uncertainties, and/or indeterminacies), balanced syntheses and services on an ongoing basis. As such, the program relies heavily on consolidating the results and data from ongoing NOAA-OGP disciplinary program elements, already funded in a region, into an integrated framework. This program will not accept applications to initiate new activities. For further information, investigators may contact the NOAA program manager, Harvey Hill (Harvey.Hill@noaa.gov, 301-427-2089 ext. 197, fax: 301-427-2082).

C4. Environment, Science and Development (ESD):

The Environment, Science and Development (ESD) Program seeks to catalyze and accelerate the use of climate science and technology in the resolution of key resource management challenges (e.g., water management, natural hazard mitigation, agriculture). ESD fosters decision support oriented research and applications activities that link climate science and technology to economic development, sustainable management needs and policy-making processes. The program builds upon a ten-year global scale pilot effort in climate research applications, and recent scholarship on research, assessment and decision support systems for climate and global change. Collaborative, multi-disciplinary proposals with clear linkages to stakeholders are encouraged. For more information, investigators may contact the NOAA program manager, Lisa Vaughan (Lisa.Vaughan@noaa.gov, 301-427-2089 ext. 132, fax: 301-427-2082).

D. Climate Change Data and Detection (CCDD):

The scientific goals of this element include efforts to: (1) provide data and information management support to assure the availability of critical data sets for a variety of international programs and assessments of primary interest to NOAA's C&GC Program, e.g., WCRP (World Climate Research Program), GCOS (the Global Climate Observing System), the IPCC (Intergovernmental Panel on Climate Change), as well as national programs and assessments, e.g., Pan-American Climate Studies (PACS), U.S. CLIVAR (Climate Variability and Predictability) Program, the Tri-lateral North American Climate Extremes Assessment, etc.; (2) develop, quality control, and evaluate data sets and quantify time-dependent biases (homogeneity) for cross-cutting science necessary to improve our ability to describe, understand, and predict seasonal, interannual, decadal,

and longer-term climate variations and changes; (3) calibrate, validate, and blend existing data sets from a variety of observing systems, including space-based, in situ, and model data (data set enrichment); (4) document the quantitative character of observed climate variations and changes (climate change detection); and (5) attribute changes in the observed climate record to specific climate forcings (climate change attribution); (6) produce high quality paleoclimate data sets that support detection/attribution and climate variability efforts and facilitate the interpretation of the modern climate record.

During FY 2005, the Climate Change Data and Detection program element expects to include two major interagency activities: (1) the Climate Change Detection and Attribution Project - NOAA and the Department of Energy (DOE) will co-sponsor a project that addresses all aspects of climate change detection and attribution. This initiative is jointly supported by NOAA/OGP and the DOE/BER (Biological and Environmental Research) Climate Change and Prediction Program; and (2) Paleoclimatology - NOAA and the National Science Foundation (NSF) will jointly support the Earth System History (ESH) Program at NSF. This joint project is complementary to the NOAA/OGP extramural paleoclimate research program.

More information on these activities may be accessed on the Internet at <http://www.ogp.noaa.gov/mpe/ccdd>. Further information maybe obtained by contacting the NOAA program management: Chris Miller (Christopher.D.Miller@noaa.gov, 301-427-2089 ext.143, fax: 301-427-2073) or Bill Murray (William.L.Murray@noaa.gov, 301-427-2089 ext. 133, fax: 301-427-2073). Additional information may also be obtained from the DOE contact, Rick Petty (Rick.Petty.oer.doe.gov, 301-903-5548); or the NSF contact, David Verardo (dverardo@nsf.gov, 703-292-4695).

E. Climate Dynamics and Experimental Prediction (CDEP):

Climate Dynamics and Experimental Prediction, through a set of Applied Research Centers (ARCs), supports NOAA's program for quantitative assessments and predictions of global climate variability and its regional implications on time scales of seasonal to centennial. The ARCs employ dynamical models in diagnostic and predictive mode as central integrators in a program of research, development and experimental applications intended to improve the National capability to predict the Earth's climate system. In FY 2005, this program will not accept applications to establish any new centers.

In FY05 CDEP anticipates initiating a modest number of short term collaborative projects with ARCs aimed at conducting applied research and development activities towards enhancing NOAA intraseasonal to interannual climate prediction products and services.

Preference will be given to projects that build on existing long term efforts at the ARCs. Prospective investigators should identify relevant partnerships with/among ARCs in their letter of intent.

An information sheet containing details on FY 05 CDEP themes are found at

www.ogp.noaa.gov/mpe/cdep/index.htm For further information, investigators may contact the NOAA program manager, Anjuli Bamzai (Anjuli.Bamzai@noaa.gov, 301-427-2089 ext. 113, fax: 301-427-2073).

F. Climate Prediction Program for the Americas (CPPA)

CPPA integrates PACS and NOAA's GAPP contributions into a single research program aimed at producing improvements (model components, methodologies, data sets) for operational intraseasonal to interannual climate forecasts and developing application products for improved water resource management through interpretation of climate forecasts. This program is strongly motivated by the Nation's need for skillful intraseasonal to interannual predictions and the application of climate forecasts for regional and sectoral resource management. The scientific basis for the CPPA program is that the predictability on intraseasonal to interannual climate variability is largely determined by slow variations of the ocean and land surface conditions.

CPPA research has the following major objectives:

- 1) improving the understanding and model simulation of ocean, atmosphere and land-surface processes,
- 2) determining the predictability of climate variations on intraseasonal to interannual time scale for the Americas, including the predictability of the continental-scale monsoon systems,
- 3) advancing NOAA operational climate forecasting, monitoring and analysis capabilities,
- 4) developing climate-based hydrologic forecasting capabilities and decision support tools for water resource applications.

An information sheet containing details on FY05 CPPA priorities can be found at the CPPA web site (<http://www.ogp.noaa.gov/mpe/cppa/index.htm>). For further information, investigators may contact the NOAA program managers Michael Patterson (301-427-2089 ext 102, michael.patterson@noaa.gov; fax: 301-427-2073), or Jin Huang (301-427-2089 ext. 148, jin.huang@noaa.gov; fax: 301-427-2073).

G. Climate Variability and Predictability (CLIVAR):

The U.S. CLIVAR program seeks to observe, model and understand patterns of climate variability on seasonal to decadal time scales and to assess the predictability of such climate variability. The ultimate goal of NOAA's participation in CLIVAR is to improve predictions of climate variability and projections of climate change on seasonal to multi-decadal time scales, and regional spatial scales, for optimal use in resource planning and policy decision making. The program is designed to understand global climate variability and potential changes due to climate system feedbacks; to determine the spatial and temporal extent to which this variability is predictable and to develop the observational, theoretical, and computational means to predict variability and project potential future changes.

NOAA's CLIVAR research focuses on large-scale recurrent patterns of variability that influence climate on the regional scale, particularly over the U.S. Among these patterns are the El Nino-Southern Oscillation (ENSO), Pacific Decadal Oscillation (PDO), Tropical Atlantic Variability (TAV), the North Atlantic Oscillation (NAO), and the American monsoon systems.

In FY05, NOAA's CLIVAR program will continue to investigate climate variability and predictability in the Atlantic and Pacific sectors, with particular emphasis on global coupled ocean-atmosphere dynamics. An information sheet containing further details on NOAA's CLIVAR program can be found at:

<http://www.ogp.noaa.gov/mpe/clivar.index.htm>.

Applicants should note that CLIVAR PACS research is supported under a new program element, the Climate Prediction Program for the Americas.

For further information on CLIVAR, investigators may contact the NOAA program managers, James Todd (James.Todd@noaa.gov, 301-427-2089 ext. 139, fax: 301-427-2073), and Ming Ji (Ming.Ji@noaa.gov, 301-427-2089 ext. 189, fax: 301-427-2073).

H. GEWEX Americas Prediction Project (GAPP):

(See Climate Prediction Program for the Americas)

I. Global Carbon Cycle (GCC):

The U.S. Interagency Carbon Cycle Science Program (CCSP) seeks to answer two overarching questions: 1) How large and variable are the dynamic reservoirs and fluxes of carbon within the Earth system, and how might carbon cycling change and be changed in future years, decades and centuries, and 2) What are our options for managing carbon sources and sinks to achieve an appropriate balance of risk, costs, and benefits to society? For further information on the interagency program, please consult the web at: <http://www.carboncyclescience.gov>.

NOAA's participation in the U.S. program focuses on three main goals: 1) Quantifying spatial patterns and variability of carbon sources and sinks at global to regional scales; 2) Documenting the fate of anthropogenic CO₂ in the atmosphere and oceans; and 3) Improving future climate predictions by incorporating a dynamical understanding of the carbon cycle into models. To achieve these goals, the GCC program focuses on oceanic and atmospheric observations, process-oriented field studies and modeling. Information and current project abstracts can be found on the web at: <http://www.ogp.noaa.gov/mpe/gcc/index/html>.

For further information, investigators may contact the NOAA program manager, Kathy Tedesco (Kathy.Tedesco@noaa.gov, 301-427-2089 ext. 119, fax: 301-427-2073).

II. Award Information

1. Funding Availability

NOAA believes that the Climate and Global Change Program will benefit significantly from a strong partnership with outside investigators. Please be advised that actual funding levels will depend upon the final FY 2005 budget appropriations. In FY 2003, \$8.2M in first year funding was available for 63 new awards; similar funds and number of awards are anticipated in FY 2004 and FY 2005. Current plans assume that 100% of the total resources provided through this announcement will support extramural efforts, particularly those involving the broad academic community. Past or current grantees funded under this announcement are eligible to apply for a new award which builds on previous activities or areas of research not covered in the previous award. Current grantees should not request supplementary funding for ongoing research through this announcement. We anticipate that the annual cost of most funded projects will fall between \$50,000 and \$200,000 per year. There is no guarantee that sufficient funds will be available to make awards for all qualified projects. The exact amount of funds that may be awarded will be determined in pre-award negotiations between the applicant and NOAA representatives. Neither NOAA nor the Department of Commerce is responsible for proposal preparation costs if this program is not funded for whatever reason. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

2. Project/Award Period

This Program Announcement is for projects to be conducted by investigators outside the Federal Government, primarily over a one-, two- or three-year period.

3. Type of Funding Instrument

The funding instrument for awards will be a grant unless it is anticipated that NOAA will be substantially involved in the implementation of the project, in which case the funding instrument should be a cooperative agreement. Examples of substantial involvement may include, but are not limited to, proposals for collaboration between NOAA or NOAA scientists and a recipient scientist or technician and/or contemplation by NOAA of detailing Federal personnel to work on proposed projects. NOAA will make decisions regarding the use of a cooperative agreement on a case-by-case basis. Funding for contractual arrangements for services and products for delivery to NOAA is not available under this announcement.

III. Eligibility Information

1. Eligible Applicants

Eligible applicants are institutions of higher education, other nonprofits, commercial organizations, international organizations, state, local and Indian tribal governments. Federal agencies or institutions are not eligible to receive Federal assistance under this notice.

2. Cost Sharing or Matching Requirement

Cost Sharing is not required.

IV. Application and Submission Information

1. Address to Request Application Package

The standard NOAA application kit is available on the OGP Website at: <http://www.opg.noaa.gov/grants/appkit.htm> or from Diane S. Brown at the NOAA Office of Global Programs, 1100 Wayne Avenue, Suite 1210, Silver Spring, MD 20910-5603; or by phone at 301-427-2089, ext. 107, or fax to 301-427-2222, or via internet at ogpgrants@noaa.gov.

The text of the full funding opportunity announcement can also be accessed at OGP's web site: <http://www.opg.noaa.gov> or the central NOAA site: www.ofa.noaa.gov/~amd/SOLINDEX.HTML. This announcement will also be available through Grants.gov at <http://www.Grants.gov>.

2. Content and Form of Application Submission

All proposals must be submitted in accordance with the requirements listed below. Failure to heed the requirements may result in proposals being returned without review.

Letters of Intent (LOI):

The purpose of the LOI process is to provide information to potential applicants on the relevance of their proposed project to the Climate and Global Change Program and the likelihood of it being funded in advance of preparing a full proposal. While it is in the best interest of the applicants and their institutions to submit an LOI, it is not a requirement; applicants who do not submit an LOI are allowed to submit a full proposal. Full proposals will be encouraged only for LOIs deemed relevant.

LOIs are encouraged to be submitted by facsimile or e-mail to the identified NOAA program element's program manager. LOI's can also be submitted electronically to ogpgrants@noaa.gov.

The LOI should provide a concise description of the proposed work and its relevance to the targeted program element. The LOI should be no more than two pages in length and should include the components listed below. If these components are not included, the LOI risks a delayed response and may not be considered by the program reviewers.

- (1) Identification of the program element that is being targeted in the LOI.
- (2) Specification of a tentative project title in the LOI.
- (3) Name(s) and institution(s) of all principal investigator(s), and specification of which individual is the Lead principal Investigator.
- (4) Statement of the problem.

- (5) Brief summary of work to be completed, methodology to be used, data sets needed or to be collected, and approximate cost of the project.

A panel of program managers will review each LOI to determine whether the LOI is responsive to the program goals as advertised in this notice. An LOI response (e-mail or letter) will be sent back to the investigator encouraging or discouraging a full proposal. The final decision to submit a full proposal will be made by the investigator.

Full Proposals:

The following forms and elements are required in each application, with original signatures on each federal form. Failure to comply with these provisions will result in proposals being returned without review.

- (1) Applicants must submit proposals to NOAA OGP (see address below) in paper format to be received by the deadline. Electronic applications and facsimile transmissions of full proposals will not be accepted.
- (2) Three original copies of the Federally-required forms are needed. It must include the original and two unbound copies of the proposal. In order to facilitate the review process, applicants are also requested to provide 11 additional paper copies of the proposal excluding Federal forms (11 more than required), particularly if they wish all reviewers to receive color, unusually sized (not 8.5 x 11"), or otherwise unusual materials submitted as part of the proposal.
- (3) In addition, although on-line submission is not yet fully operational, applicants are strongly encouraged to also provide (email) their proposal as a PDF File to the identified NOAA program element's program manager or to ogpgrants@noaa.gov. Please be advised that the PDF version cannot substitute for the required three copies of the full proposal.
- (4) Proposals must be limited to 30 pages (numbered), including budget, investigators vitae, and all appendices, and should be limited to funding requests for one to three year duration. Appended information may not be used to circumvent the page length limit. Federally-mandated forms and the NEPA Statement are not included within the page count.

Required Elements (all full proposals must include the following):

- (1) Signed title page: The title page should be signed by the Principal Investigator (PI) and the institutional representative and should clearly indicate which program element is being addressed. If more than one investigator is listed on the title page, please identify the lead investigator. The PI and institutional representative should be identified by full name, title, organization, telephone number and address. The total amount of Federal funds being requested should be listed for each budget period.
- (2) Abstract: An abstract must be included and should contain an introduction of the problem, rationale and a brief summary of work to be completed. The abstract should appear on a separate page, headed with the proposal title, institution(s), investigator(s), total proposed cost and budget period.

- (3) Results from prior research: The results of each prior research project (during the last 3 years) relevant to the proposed effort should be summarized in brief paragraphs. This section should not exceed two pages.
- (4) Statement of work: The proposed project must be completely described, including identification of the problem, scientific objectives, proposed methodology, relevance to the goal of the Climate and Global Change Program, and the program priorities listed above. Benefits of the proposed project to the general public and the scientific community should be discussed. The statement of work, including references but excluding figures and other visual materials, must not exceed 15 pages of text. Investigators wishing to submit group proposals that exceed the 15 page limit should discuss this possibility with the appropriate Program Manager prior to submission. Proposals from 3 or more investigators may include a statement of work containing up to 15 pages of overall project description plus up to 5 additional pages for individual project descriptions.
- (5) Budget Justification: A brief description of the expenses listed on the budget and how they address the proposed work. Item justifications must include salaries, equipment, publications, supplies, tuition, travel, etc.
- (6) Budget: The proposal must include total and annual itemized budgets corresponding with the descriptions provided in the statement of work. Non-Federal Applicants must submit a Standard Form 424 (9-2003) "Application for Federal Assistance," including a detailed budget using the Standard Form 424a (7-97), "Budget Information -- Non-Construction Programs." Travel must be itemized to include destination, airfare, per diem, lodging and ground travel. The form is included in the standard NOAA application kit.
- (7) Vitae: Abbreviated curriculum vitae are sought with each proposal. Reference lists should be limited to all publications in the last three years with up to five other relevant papers.
- (8) Current and pending support: For each investigator, submit a list that includes project title, supporting agency with grant number, investigator months per year, dollar value and duration. Requested values should be listed for pending support.
- (9) DUNS Number: All applications must have a DUNS (Dun and Bradstreet (D&B) Data Universal Numbering System) when applying for Federal grants on or after October 1, 2003. No application is deemed complete without the DUNS number and only OMB may grant exceptions.
- (10) 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--TOC.pdf>, and the Council on Environmental Quality implementation regulations, http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm 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.

3. Electronic Submission

LOIs are encouraged to be submitted by facsimile or e-mail to the identified NOAA program element's program manager or to ogpgrants@noaa.gov.

Full Proposals must be submitted in paper format mailed to the Office of Global Programs (see address below) to be received by the deadline.

4. Submission Dates and Times

- A. Letters of Intent should be received at the Office of Global Programs no later than 5:00 p.m. 5 p.m. Eastern Time April 14, 2004. Applicants who have not received a response to their Letter of Intent within four weeks should contact the identified NOAA program element's program manager or ogpgrants@noaa.gov.
- B. Full proposals must be received at the Office of Global Programs no later than 5 p.m. Eastern Time May 24, 2004 . Proposals received after that time will not be considered for funding. OGP determines whether an application has been submitted before the deadline by date/time stamping the applications as they are physically received in the OGP office.

5. Address for Submitting Proposals

NOAA Office of Global Programs; Attn: Diane S. Brown, Grants Manager; 1100 Wayne Avenue, Suite 1210; Silver Spring, MD 20910-5603.

6. Funding Restrictions

This program will not cover tuition remission for graduate students above \$2,500/year or computing and networking services above \$1,000/year per grant.

V. Evaluation Criteria & Selection Procedures

1. Review and Selection Process

Once a full application has been received by OGP, an initial administrative review is conducted to determine compliance with requirements and completeness of the application.

Full proposals will be evaluated in accordance with the evaluation criteria below by (A) independent peer mail reviewers, and/or (B) independent peer panel reviewers consisting of both Federal and non-Federal experts. Only mail reviewers may be used if only a few applications are received. If peer panel reviewers evaluate all proposals, only their ratings may be used to establish the rank order. No consensus advice will be given by the panel.

The peer mail reviewers and peer panel reviewers rate each proposal using the above two evaluation criteria. The proposals will be scored from 1, for poor, to 5, for excellent, on Scientific/Technical Merit and from 1, for low, to 5, for high, on Importance/Relevance. The scores from each reviewer for each proposal will be averaged to produce an average numerical score for the proposal. The average scores for all proposals result in a numerical rank order.

Occasionally a reviewer may, due to lack of familiarity in a particular area, choose not to score a particular proposal. The scores from each peer panel reviewer for each proposal will be averaged to produce a single numerical score for the proposal. The average scores for all proposals result in a numerical rank order within each program element.

If peer mail review and peer panel review are both conducted, the available peer mail reviews will be provided to the peer review panel for use in its deliberations prior to providing its ratings.

If only a mail peer review was conducted, the Program Manager will use the rank numerical order of the mail reviews to determine funding recommendations. If only a peer panel review or both a peer panel review and a peer mail review were conducted, the Program Manager will use the numerical rank order of the peer review panel to determine funding recommendations.

The Program Manager will recommend proposals to the Selecting Official in numerical rank order unless the proposal is justified to be selected out of rank order based upon any of the factors listed in the following section. The Program Manager will also recommend the total duration of funding and the amount of funding for each selected proposal, which may be less than the proposal and budget requested. The Selecting Official will review the recommendations.

2. Evaluation Criteria

A. Importance/Relevance and Applicability of Proposal to the Program Goals (50%)

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 Climate and Global Change Grant Program competition, this includes importance and relevance to the goals of the selected Program Element(s) (see Program Element descriptions above).

B. Technical/Scientific Merit (50%)

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.

C. Overall Qualifications of Applicants (0%)

This criterion assesses whether the applicant, and team members, possess the necessary education, experience, training, facilities, and administrative resources to accomplish the project. For the Climate and Global Change Grant Program competition, this criteria is not scored.

D. Project Costs (0%)

This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time frame. For the Climate and Global Change Grant Program competition, this criteria is not scored.

E. Outreach and Education (0%)

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 Climate and Global Change Grant Program competition, this criteria is not scored.

3. Selection Factors

The Selecting Official shall award in rank order unless a proposal is justified to be selected out of rank order based upon any of the following factors:

- A. Availability of funding
- B. Balance/distribution of funds
 - i. Geographically
 - ii. By type of institutions
 - iii. By type of partners
 - iv. By research areas
 - v. By project types

- C. Duplication of other projects funded or considered for funding by NOAA/federal agencies
- D. Program priorities and policy factors
- E. Applicant's prior award performance
- F. Partnerships with/Participation of targeted group

The Selecting Official makes final recommendations for award to the Grants Officer who is authorized to obligate the funds.

4. Anticipated Announcement and Award Dates

Subject to the availability of funds, review of proposals will occur during the 5 months following the full proposals due date. We anticipate that funding decisions on proposals will be made by December 2004 subject to/contingent to the final FY 2005 appropriation for NOAA by Congress and final allocation of funds to OGP by NOAA, and that funding for successful applicants will begin during winter 2005 for most approved projects. Proposals should use February 1, 2005, as the Start Date unless otherwise directed by the Program Manager.

VI. Award Administration Information

1. Award Notices

Successful applicants will receive notification that the application has been recommended for funding to the NOAA Grants Management Division. This notification is not an authorization to begin performance of the project. Official notification of funding, signed by a NOAA Grants Officer, is the authorizing document that allows the project to begin. Notifications will be issued to the Authorizing Official and the Principle Investigator of the project. Unsuccessful applicants will be notified that their proposal was not selected for recommendation. Unsuccessful applications will be kept on file in the Program Office for a period of at least 12 months, then destroyed.

2. Administrative and National Policy Requirements

Administrative and national policy requirements for all Department of Commerce awards are contained in the Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements published in the Federal Register on October 1, 2001 (66 FR 49917), as amended by the Federal Register notice published on October 30, 2002 (67 FR 66109). You may obtain a copy of these by notices by contacting the agency contact(s) under Section VII, or by going to the website at: www.access.gpo.gov/su_docs/aces140.html.

The National Environmental Policy Act is applicable to the Notice. See Section IV above for the necessary information.

3. Reporting

Award recipients will be required to submit financial and performance (technical) reports. All financial reports shall be submitted in triplicate (one original and two copies) to the NOAA Grants Officer. Performance reports should be submitted to the appropriate NOAA/OGP Program Manager. Electronic submission of performance reports is preferred. All reports will be submitted on an annual schedule. The first technical progress report of a multi-year award is due 9 months after the start date of the award. The comprehensive final report is due 90 days after the award expiration.

VII. Agency Contacts

Please visit the Office of Global Programs website for further information <http://www.ogp.noaa.gov> or contact Diane S. Brown, Grants Manager, at the Office of Global Program (OGP), National Oceanic and Atmospheric Administration, 1100 Wayne Avenue, Suite 1220, Silver Spring, MD 20910-5603; or by phone at 301-427-2089, ext. 107, or fax to 301-427-2222, or via internet at ogpgrants@noaa.gov.