PROGRAM SOLICITATION NSF 09-568

REPLACES DOCUMENT(S): NSF 03-549



## National Science Foundation

Directorate for Geosciences Division of Atmospheric Sciences Division of Ocean Sciences

Office of Polar Programs Division of Antarctic Sciences Division of Arctic Sciences

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

September 24, 2009

# **REVISION NOTES**

Please be advised that the NSF Proposal & Award Policies & Procedures Guide (PAPPG) includes revised guidelines to implement the mentoring provisions of the America COMPETES Act (ACA) (Pub. L. No. 110-69, Aug. 9, 2007.) As specified in the ACA, each proposal that requests funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals. Proposals that do not comply with this requirement will be returned without review (see the PAPP Guide Part I: Grant Proposal Guide Chapter II for further information about the implementation of this new requirement).

# SUMMARY OF PROGRAM REQUIREMENTS

## **General Information**

### Program Title:

Climate Process and Modeling Teams (CPT)

### Synopsis of Program:

The key aim of the **C**limate **P**rocess **M**odeling **T**eam (CPT) concept is to speed development of global coupled climate models and reduce uncertainties in climate models by bringing together theoreticians, field observationalists, process modelers and the large modeling centers to concentrate on the scientific problems facing climate models today.

### Cognizant Program Officer(s):

- Jay S. Fein, Program Director, Climate and Large-scale Dynamics Program, telephone: (703) 292-8527, fax: (703) 292-9022, email: jfein@nsf.gov
- Eric C. Itsweire, Program Director, Physical Oceanography Program, telephone: (703) 292-8582, fax: (703) 292-9085, email: eitsweir@nsf.gov
- Peter J. Milne, Program Director, Antarctic Ocean and Atmospheric Sciences Program, telephone: (703) 292-4714, email: pmilne@nsf.gov
- William J. Wiseman, Program Director, Arctic Natural Sciences Program, telephone: (703) 292-4750, email: wwiseman@nsf.gov

### Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.050 --- Geosciences
- 47.078 --- Office of Polar Programs

## Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 8 to 12 collaborative grants to enable two to four CPTs

Anticipated Funding Amount: \$2,500,000 per year depending the availability of funds

## **Eligibility Information**

#### **Organization Limit:**

None Specified

### PI Limit:

None Specified

Limit on Number of Proposals per Organization:

None Specified

#### Limit on Number of Proposals per PI:

None Specified

## **Proposal Preparation and Submission Instructions**

#### **A. Proposal Preparation Instructions**

- · Letters of Intent: Not Applicable
- Preliminary Proposal Submission: Not Applicable
- Full Proposal Preparation Instructions: This solicitation contains information that supplements the standard NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information

#### **B. Budgetary Information**

- Cost Sharing Requirements: Cost Sharing is not required under this solicitation.
- Indirect Cost (F&A) Limitations: Not Applicable
- Other Budgetary Limitations: Not Applicable
- C. Due Dates
  - Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

September 24, 2009

# **Proposal Review Information Criteria**

Merit Review Criteria: National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

### **Award Administration Information**

Award Conditions: Standard NSF award conditions apply.

Reporting Requirements: Standard NSF reporting requirements apply.

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### I. INTRODUCTION

The aim of the Climate Process Modeling Teams (CPTs) is to speed development of global coupled climate models by bringing together theoreticians, observationalists, process modelers and the large modeling centers to concentrate on the leading problems facing models. Demand is growing for climate models to provide more accurate simulations of the present and past climates and more credible and reliable predictions and projections of future climates. Meeting this demand requires that progress in model development accelerate, a goal that will be met most effectively by bringing field experimentalists and remote sensing experts, process modelers and global-scale modelers together to tackle the most persistent and vexing problems in how global models represent key processes.

Each CPT will comprise a number of PIs and institutions proposing as a collaborative group (see Section II.D). Each team must include at least one, and preferably more, of the modeling centers identified in Section II.C, as collaborating institutions.

It is the objective of the CPTs to bridge the gaps among the field and remote sensing observation programs, process models, and global modelers by building new communities, in which those with observational expertise and data, those with highly detailed process models, and those building global models work together to address systematically the critical issues that limit progress in improving global climate models. The CPT is envisioned to support collaborations that will accelerate progress in climate model development. Such support should include visiting scientist programs, post-doctoral programs that give incentives for modelers and field scientists to interact, workshops for the teams to interact regularly, and computational resources to test and assess new parameterizations.

### **II. PROGRAM DESCRIPTION**

#### A. Research Foci

CPTs should focus on a specific climate process or on an interaction among climate processes with the expectation that significant progress can be made, over the duration of the project, in improving its representation in global climate models. Such processes should meet the following criteria:

- Relevance: The process should be one that is currently poorly represented in climate models, but where
  improvement in representation could lead to better and more credible climate simulations.
- Readiness: The process should be one where recent theoretical developments, process modeling, and
  observations are readily transferable into climate models.
- Focus: The topic needs to be focused and well defined so as to lead to concrete results within the duration of the project.
- Model independence: The process should be of interest to developers of more than one climate model.

Candidate processes to be addressed by CPTs include, but are not limited to, the following: tropical convection, radiative transfer processes, aerosol indirect effects, cloud microphysics, land surface processes including soil moisture and ice, ocean mesoscale eddy processes, sea ice processes, equatorial ocean upwelling and mixing, Southern Ocean ventilation and deep water formation, atmospheric gravity waves, air-sea fluxes, and ice sheet dynamics. Ideas for new and potentially exciting topics will be considered, including those that cross disciplinary boundaries.

#### B. Strategy

This is the second phase of CPTs. A pilot phase was announced in 2003, and three teams were supported. Descriptions of these teams and their activities can be found at http://www.usclivar.org/modeleval.php. A review of the pilot CPT activities is also available http://www.usclivar.org/CPT/CPTReviewdoc.pdf. Teams developing proposals should consider the recommendations for future CPTs outlined in this report.

In the current phase it is anticipated that the formation of 2-4 new teams will be supported. Each team will comprise a number of investigators and institutions proposing as a collaborative group with simultaneous submissions of proposals (see also Section V.A). Each team must include at least one, and preferably more than one, of the modeling centers identified in Section II.C, as collaborating institutions.

The objectives of the current phase are to:

- 1. Implement and verify improved parameterizations for a few processes that have a mature observational and theoretical base.
- 2. Stimulate data mining as well as the development of process-oriented theory and observations in support

#### of the development of parameterizations.

#### C. Implementation

The approach is to bring together model developers, process modelers/theoreticians, and observational scientists to collaborate and systematically address the identified problem. The management structure must foster communication across the team, guide the program to the most timely and "climate-relevant" problems and retain a focus on progress towards measurable model improvements. The team composition, activities, and responsibilities within the CPT are:

- Modeling Centers: Teams must include as co-PIs, scientists from the National Center for Atmospheric Research (NCAR), the Geophysical Fluid Dynamics Laboratory (NOAA/GFDL), National Center for Environmental Prediction (NOAA/NCEP), Los Alamos National Laboratory (DOE/LANL), and/or the Goddard Space Flight Center (NASA/GSFC), who are responsible for model development at their respective institutions. In addition, letters of commitment are required from the modeling institutions involved. These letters should include assurances that institutional resources commensurate with team plans will be available and devoted to team activities.
- Process Observationalists: Teams must include, as PIs or co-PIs, observational scientists, whose
  participation is essential in order to bring a strong "reality-check" on the development of new
  parameterizations.
- Process Modelers and Theoreticians: Teams must include, as PIs or co-PIs, process modelers and/or theoreticians, who provide the first line of observation-model interaction and can explore the dynamics of a process in a variety of contexts beyond what can be determined through limited field measurements or observations.

Collaboration among these centers and researchers may be facilitated through support for visiting scientists, postdoctoral researchers and workshops.

CPTs are envisioned to systematically address model fidelity. A multi-model approach reduces the likelihood of tuning results to a single model and renders the resulting gains more applicable to a wider array of models, many of which share common parameterizations and approaches. Consequently, preference will be given to those proposals that include co-PIs from more than one of the large modeling centers at NCAR, GFDL, NCEP, LANL, and/or GSFC and address a modeling problem(s) common to the centers involved. The involvement of scientists from other major climate modeling programs would similarly strengthen CPT proposals. Annual milestones should be clearly stated. Suggested milestones include data analyses, parameterization development and testing, schedule of implementation on NCAR/GFDL/NCEP/LANL/GSFC climate models, schedule for testing through model simulations and intercomparison activities.

A detailed description of the CPT program and agency interests can be found on the U.S. CLIVAR homepage, http://www.usclivar.org/.

#### D. Management Plan

Modeling Center Contacts

A management plan must be included in the Project Description. It should identify a lead Pl/institution who will be responsible for coordinating the preparation and submission of the collaborating group's proposals. The plan should clearly detail assignments of responsibilities among the collaborating institutions, including commitments by the management(s) of the relevant modeling center(s) for milestones for implementation and testing their climate models. The lead Pl should contact the modeling center leaders listed below to discuss CPT collaboration(s).

ar.edu
noaa.gov
lord@noaa.gov
@lanl.gov
m.rienecker@nasa.gov

The CPT project management will be the joint responsibility of the lead PI and the management of the collaborating modeling institutions. The responsibilities include coordination of the collaborating PIs and institutions, serving as a focal point for the sponsoring agencies, meeting science milestones and model development goals, and reporting progress and results as required.

Support for one or more CPTs from NOAA is anticipated. Investigators who wish to seek support from NOAA should contact one of the following NOAA program officers:

- James F Todd, Program Manager, NOAA OAR/CPO Climate Variability and Predictability Program, telephone: (301) 734-1258, email: james.todd@noaa.gov
- Jin Huang, Program Manager, NÓAA OAR/CPO Climate Prediction Program for the Americas & the Climate Test Bed, telephone: (301) 734-1226, email: jin.huang@noaa.gov

## **III. AWARD INFORMATION**

Contingent upon the availability of funds and upon the quality of the proposals received, approximately \$2.5 million, per year, will be provided for grant awards based on this competition. Team budgets, that is, the combined budgets of all collaborators comprising the team, are anticipated to be no more than \$1.5 million per team per year. Proposals should include costs for an annual meeting (perhaps associated with the Community Climate System Model workshop) where progress will be reviewed. Awards will be made for up to three years with a possibility of a two-year extension for teams that have met their second year milestones and are performing satisfactorily toward their third year milestones. Estimated program budget, number of awards and average award size/duration are subject to the availability of funds.

# **IV. ELIGIBILITY INFORMATION**

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

### **Organization Limit:**

None Specified

PI Limit:

None Specified

Limit on Number of Proposals per Organization:

None Specified

Limit on Number of Proposals per PI:

None Specified

# V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

## **A. Proposal Preparation Instructions**

**Full Proposal Instructions:** Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the guidelines specified in the NSF Grant Proposal Guide (GPG). The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-PUBS (7827) or by e-mail from nsfpubs@nsf.gov.

Proposals must include a management plan as described in Section II.D. in the Project Description section of the proposal.

Proposers are encouraged to provide a copy of their proposal to the US CLIVAR Project Office: Ms. Catherine Stephens, cstephens@usclivar.org.

Proposers are reminded to identify the program solicitation number (NSF 09-568) in the program solicitation block on the NSF Cover Sheet For Proposal to the National Science Foundation. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

## **B. Budgetary Information**

Cost Sharing: Cost sharing is not required under this solicitation.

### C. Due Dates

• Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

September 24, 2009

### **D. FastLane Requirements**

Proposers are required to prepare and submit all proposals for this program solicitation through use of the NSF FastLane system. Detailed instructions regarding the technical aspects of proposal preparation and submission via FastLane are available at: <a href="http://www.fastlane.nsf.gov/a1/newstan.htm">http://www.fastlane.nsf.gov/a1/newstan.htm</a>. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Further instructions regarding this process are available on the FastLane Website at: https://www.fastlane.nsf.gov/fastlane.jsp.

### VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program where they will be reviewed if they meet NSF proposal preparation requirements. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program

Officer, and usually by three to ten other persons outside NSF who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with the oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal.

## A. NSF Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board (NSB)-approved merit review criteria: intellectual merit and the broader impacts of the proposed effort. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two NSB-approved merit review criteria are listed below. The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which the reviewer is qualified to make judgements.

#### What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

#### What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website at: http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf.

Mentoring activities provided to postdoctoral researchers supported on the project, as described in a one-page supplementary document, will be evaluated under the Broader Impacts criterion.

NSF staff also will give careful consideration to the following in making funding decisions:

#### Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

### Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

#### Additional Review Criteria:

Program officers will give consideration to the following, more specific review criteria related to the climate process(es) proposed to be studied by the CPTs:

**Importance:** Is the uncertainty associated with the process related to the quality of simulation in today's coupled GCMs; does it impact the skill and uncertainties of climate prediction and projections; does it impact the sensitivity of coupled GCMs to greenhouse gasses; or does it lead to changed regimes which may be important for abrupt climate change?

**Readiness:** Has the process been well characterized observationally or through numerical process studies? Are climate models prepared to accept parameterizations of the process? For example, do climate/ocean models resolve whatever structures are required for a prospective parameterization? Can observational networks provide required information for the new parameterization?

Likelihood of significant contributions to models: Do parameterization schemes exist which just need "tuning" from observations, or can new schemes be envisioned?

### **B. Review and Selection Process**

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or possibly followed by Panel Review.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director accepts the Program Officer's recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal

Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

## VII. AWARD ADMINISTRATION INFORMATION

### A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

### **B. Award Conditions**

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (GC-1); \* or Research Terms and Conditions \* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

\*These documents may be accessed electronically on NSF's Website at

http://www.nsf.gov/awards/managing/award\_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF Award & Administration Guide (AAG) Chapter II, available electronically on the NSF Website at <a href="http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=aag">http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=aag</a>.

# **C. Reporting Requirements**

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period. (Some programs or awards require more frequent project reports). Within 90 days after expiration of a grant, the PI also is required to submit a final project report.

Failure to provide the required annual or final project reports will delay NSF review and processing of any future funding increments as well as any pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

Pls are required to use NSF's electronic project-reporting system, available through FastLane, for preparation and submission of annual and final project reports. Such reports provide information on activities and findings, project participants (individual and organizational) publications; and, other specific products and contributions. Pls will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system. Submission of the report via FastLane constitutes certification by the PI that the contents of the report are accurate and complete.

### **VIII. AGENCY CONTACTS**

General inquiries regarding this program should be made to:

- Jay S. Fein, Program Director, Climate and Large-scale Dynamics Program, telephone: (703) 292-8527, fax: (703) 292-9022, email: jfein@nsf.gov
- Eric C. Itsweire, Program Director, Physical Oceanography Program, telephone: (703) 292-8582, fax: (703) 292-9085, email: eitsweir@nsf.gov
- Peter J. Milne, Program Director, Antarctic Ocean and Atmospheric Sciences Program, telephone: (703) 292-4714, email: pmilne@nsf.gov
- William J. Wiseman, Program Director, Arctic Natural Sciences Program, telephone: (703) 292-4750, email: wwiseman@nsf.gov

For guestions related to the use of FastLane, contact:

• FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.

### **IX. OTHER INFORMATION**

The NSF Website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this Website by potential proposers is strongly encouraged. In addition, National Science Foundation Update is a free e-mail subscription service designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Regional Grants Conferences. Subscribers are informed through e-mail when new publications are issued that match their identified interests. Users can subscribe to this service by clicking the "Get NSF Updates by Email" link on the NSF web site.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this new mechanism. Further information on Grants.gov may be obtained at <a href="http://www.grants.gov">http://www.grants.gov</a>.

### ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 40,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at http://www.nsf.gov

Location:	4201 Wilson Blvd. Arlington, VA 22230						
For General Information     (NSF Information Center):	(703) 292-5111						
• TDD (for the hearing-impaired):	(703) 292-5090						
To Order Publications or Forms:							
Send an e-mail to:	nsfpubs@nsf.gov						
or telephone:	(703) 292-7827						
To Locate NSF Employees:	(703) 292-5111						

### PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals;

and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton Reports Clearance Officer Division of Administrative Services National Science Foundation Arlington, VA 22230

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NSF	The National Science Found Tel: (703) 292-5111, FIRS:	latio (800	n, 4201 Wi ) 877-8339	lson )   Tl	Bouleva DD: (800	rd, A ) 28	rlington, 1-8749	Virg	inia 22230, USA		Last Up 11/07/0 <u>Text On</u>	dated: 6 <u>ly</u>