Arctic Research Opportunities Arctic Natural Sciences; Arctic Social Sciences; Arctic System Science; Arctic Observing Network; and Cyberinfrastructure

PROGRAM SOLICITATION
NSF 10-597

REPLACES DOCUMENT(S):
NSF 10-503

National Science Foundation

Office of Polar Programs
Division of Arctic Sciences

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

November 10, 2010

October 18, 2011

October 18, Annually Thereafter

IMPORTANT INFORMATION AND REVISION NOTES

A revised version of the ***NSF Proposal & Award Policies & Procedures Guide*** (PAPPG), NSF 13-1, was issued on October 4, 2012 and is effective for proposals submitted, or due, on or after January 14, 2013. Please be advised that the guidelines contained in NSF 13-1 apply to proposals submitted in response to this funding opportunity. Proposers who opt to submit prior to January 14, 2013, must also follow the guidelines contained in NSF 13-1.

Please be aware that significant changes have been made to the PAPPG to implement revised merit review criteria based on the National Science Board (NSB) report, National Science Foundation's Merit Review Criteria: Review and Revisions. While the two merit review criteria remain unchanged (Intellectual Merit and Broader Impacts), guidance has been provided to clarify and improve the function of the criteria. Changes will affect the project summary and project description sections of proposals. Annual and final reports also will be affected.

A by-chapter summary of this and other significant changes is provided at the beginning of both the *Grant Proposal Guide* and the *Award & Administration Guide*.

Please note that this program solicitation may contain supplemental proposal preparation guidance and/or guidance that deviates from the guidelines established in the Grant Proposal Guide.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Arctic Research Opportunities
Arctic Natural Sciences; Arctic Social Sciences; Arctic System Science; Arctic Observing Network; and Cyberinfrastructure

Synopsis of Program:

The National Science Foundation (NSF) invites investigators at U.S. organizations to submit proposals to conduct research about the Arctic. Arctic research includes field and modeling studies, data analysis, and synthesis about the arctic region.

The goal of the NSF Arctic Sciences Section, Division of Polar Programs, is to gain a better understanding of the Arctic's physical, biological, geological, chemical, social and cultural processes; the interactions of oceanic, terrestrial, atmospheric, biological, social, cultural, and economic systems; and the connections that define the Arctic. The Arctic Sciences Section and other NSF programs support projects that contribute to the development of the next generation of researchers and scientific literacy for all ages through education, outreach, and broadening participation in science, technology, engineering, and mathematics. Program representatives from POLAR and other non-POLAR NSF programs that support arctic research coordinate across NSF, including joint review and funding of arctic proposals and mutual support of special projects with high logistical costs.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Renee D. Crain, Arctic Research Support and Logistics Program Director, telephone: (703) 292-4482, email: rcrain@nsf.gov
- Henrietta Edmonds, Arctic Natural Sciences Program Director, 755, telephone: (703) 292-7427, email: hedmonds@nsf.gov
- Patrick R. Haggerty, Arctic Research Support and Logistics Program Director, 755 S, telephone: (703) 292-8577, fax: (703) 292-9082, email: phaggert@nsf.gov
- Robert Holmes, Arctic Systems Sciences Program Manager, telephone: (703) 292-4897, fax: (703) 292-9082, email: rholmes@nsf.gov
- Anna M. Kerttula de Echave, Arctic Social Sciences Program Director, 740 S, telephone: (703) 292-7432, fax: (703)292-9082, email: akerttul@nsf.gov
- Erica Key, Arctic System Science Program Associate Program Director, 755S, telephone: (703) 292-7434, email: ekey@nsf.gov
- Neil R. Swanberg, Arctic System Science Program Director, 740 S, telephone: (703) 292-8029, email: nswanber@nsf.gov
- Ming-Yi Sun, Arctic Natural Sciences Program Director, telephone: (703) 292-7437, fax: (703) 292-9082, email: msun@nsf.gov
- William J. Wiseman, Arctic Natural Sciences Program Director, 740 S, telephone: (703) 292-4750, fax: (703) 292-9082, email: wwiseman@nsf.gov

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

- 47.078 --- Office of Polar Programs

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant or Cooperative Agreement

Estimated Number of Awards: 75 per year, pending availability of funds.

Anticipated Funding Amount: $25,000,000 per year approximately, pending availability of funds.

Eligibility Information

Organization Limit:

Proposals may only be submitted by the following:

- U.S. Organizations

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 Proposals:
  - Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. 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.
  - Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov Guidelines apply (Note: The NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide)

B. Budgetary Information

- Cost Sharing Requirements: Inclusion of voluntary committed cost sharing is prohibited.
- 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):

  November 10, 2010

  October 18, 2011

  October 18, Annually Thereafter

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: Additional award conditions apply. Please see the full text of this solicitation for further information.

Reporting Requirements: Additional reporting requirements apply. Please see the full text of this solicitation for further information.

TABLE OF CONTENTS

I. INTRODUCTION

The Arctic Sciences Section (ARC) in the Division of Polar Programs (POLAR) invests in scientific research about the arctic region and operational support. Science programs are suitable for disciplinary, multidisciplinary and broad interdisciplinary investigations directed toward both the Arctic as a region of special scientific interest and a region important to the global system.

A definition of the Arctic is provided by the United States Arctic Research and Policy Act (ARPA) of 1984, Section 112 (http://www.nsf.gov/geo/plr/arctic/iarpc/arc_res_pol_act.jsp). As this solicitation values studies that link arctic phenomena and the arctic system to lower latitudes, the ARPA definition should not be viewed as constraining the work proposed; however, the proposal must contain a clear statement of how the proposed research will increase our knowledge of arctic systems or processes.

One component of the arctic research portfolio is the Study of Environmental ARctic CHange (SEARCH), an interagency effort to study changes occurring in the arctic system (http://www.arcus.org/SEARCH/index.php). NSF is among the agencies contributing to this effort, which is also gaining support as a major international effort through the International Study of Arctic Change (ISAC). SEARCH themes supported by the Arctic Sciences Section will be guided by the research community through avenues such as the SEARCH Science Steering Committee, open SEARCH science meetings and the SEARCH Implementation Workshop held in May 2005. The Arctic Sciences Section has funded components of SEARCH research through special announcements of opportunity and expects to continue supporting the development of SEARCH through special announcements and through this program solicitation, depending on the availability of funds.

II. PROGRAM DESCRIPTION

This description provides detailed information on research opportunities to be supported by the following programs:

- Arctic Natural Sciences Program (ANS)
- Arctic System Science Program (ARCSS)
- Arctic Social Sciences Program (ASSP)
- Arctic Observing Network (AON)
- Cyberinfrastructure (ACI)

The descriptions below should help guide investigators in determining the appropriate program for their proposals. In addition, please consult the full text of this solicitation for further information on proposal preparation, field work, data management, review criteria, award conditions and other pertinent information.

The arctic environment is changing rapidly, as evidenced by numerous research observations. One response by the Arctic Sciences Section of the Division of Polar Programs is exemplified by this program solicitation in which we combine the approaches and resources of the Arctic Sciences Section to address pressing environmental concerns and social and cultural relationships to them.

A. Environmental Research in Arctic Natural Sciences, Arctic System Science, and Arctic Social Sciences

The Arctic Sciences Section supports a continuum of potential studies in the broad thematic area of arctic environmental research that joins the efforts of the Arctic Natural Sciences, Arctic System Science, and components of the Arctic Social Sciences programs.

The Arctic Sciences Section encourages proposals that advance understanding of the arctic environment, in its broadest sense; from projects that seek to advance fundamental disciplinary understanding to complex interdisciplinary work needed to understand the arctic system as a whole. As such, proposals are welcome from single investigators or linked groups of collaborators. Proposals can address a process or component of the system in a disciplinary manner or take a broader, system-wide interdisciplinary view. Areas of special interest include marine and terrestrial ecosystems, arctic atmospheric (tropospheric and stratospheric) and oceanic dynamics, arctic geological, glaciological or palaeoecological processes and hydrology, as well as studies of permafrost, environmental-human interactions, and environmental modeling. At the system end of the continuum, emphasis will be placed on proposals that advance our knowledge of important arctic environmental processes, the relationships among the various components of the arctic system, and the changes occurring in the cycles of water, carbon and energy in the Arctic and their connectivity to similar processes in lower latitudes with priority on subjects relating to environmental change in the Arctic.

Proposals should discuss how their results would contribute to an understanding of the arctic environment. Thus, while it is perfectly acceptable to propose a study of a relatively focused disciplinary scope, an effort should also be made to explain the proposed work will impact broader areas of research.

The Arctic Sciences Section encourages proposals that focus on arctic phenomena and provide hypothesis-driven tests to produce the understanding needed to develop predictive tools based on first principles. Proposals to perform long-term observations are best submitted to the Arctic Observing Network Program (AON). Similarly, proposals that treat generic processes that could be studied outside the Arctic are more appropriate to other programs within the Foundation.

Proposers are encouraged to contact a program director if they have questions about the fit of a given research topic.

B. Arctic Social Sciences Program

In addition to the environmental research theme described in Section II.A. above, the Arctic Social Sciences Program encompasses all social, behavioral, and economic sciences supported by NSF. These include, but are not limited to anthropology, archaeology, economics, geography, the science of endangered languages, law and social science, political science, linguistics, science technology and society, social psychology, sociology, traditional knowledge systems, and related subjects.

Although proposals in any of the social sciences mentioned above are welcome, areas of particular interest include culture and environment, resources and economic change, development of social and political institutions, ethnic and regional identities, and knowledge systems. These five research areas are identified and explained in the report, *Arctic Social Sciences: Opportunities in Arctic Research* (Arctic Research Consortium of the United States, June 1999, Fairbanks, Alaska; available for download at http://www.arcus.org/ASSP/1999_report.html).

The Arctic Social Sciences Program especially encourages projects that are circumpolar and/or comparative; involve collaborations between researchers and those living in the Arctic; or form partnerships among disciplines, regions, researchers, communities, and/or students (K-12, undergraduate, or graduate). In addition, the Arctic Social Sciences Program encourages social scientists to participate in interdisciplinary research teams applying to the Environmental Research competition in this solicitation. An additional resource for those interested in the interface between social-cultural systems and environmental systems is the Global Human Ecodynamics Alliance web site(http://gheahome.org/).

Dissertation research proposals are accepted by the Arctic Social Sciences Program. Please consult the "Dissertation Panel Advice to Students" guidelines in the Division of Behavioral and Cognitive Sciences (DBCS; http://www.nsf.gov/sbe/bcs/anthro/cultdadv.jsp). These guidelines are to provide the applicant with a basic outline for their proposals. Applicants should apply to this solicitation and talk to the ASSP program director about funding limits, which vary from those in DBCS.

Projects involving research with human subjects must ensure that subjects are protected from research risks in conformance with the relevant federal policy known as the Common Rule (Federal Policy for the Protection of Human Subjects, 45 CFR 690). Advice is available at http://www.nsf.gov/bfa/dias/policy/hsfaqs.jsp#top.

The Arctic Social Sciences Program considers joint review and funding within ARC, with other NSF programs, other agencies and international efforts when appropriate. Researchers interested in endangered languages are encouraged to examine the announcement of opportunity on the science of Endangered Languages (http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12816) released to support projects to develop and advance knowledge concerning endangered languages.

C. Long-term Environmental System Observing: the Arctic Observing Network

Science-driven proposals that will contribute to the development of AON will be accepted in response to this solicitation. The goal of AON is to enhance the environmental observing infrastructure required for the scientific investigation of arctic environmental system change and its global connections. AON encompasses physical, biological, social, cultural, and economic observations, including indigenous knowledge, of the land, ocean, atmosphere (troposphere and stratosphere) and social systems. All proposals must include a scientific rationale and an explanation as to why the proposed activity, data (including frequency and duration of observations) and geographic location are essential to research that will advance the understanding of arctic environmental system change. Proposals for continuation of existing AON projects must provide evidence that the data obtained so far have been archived

at a nationally or internationally recognized repository, and how the data have been used and contribute to the needs of the broader scientific community. Proposals for new AON projects must describe how the proposed activity complements and/or adds to the existing suite of observing activities.

AON is equivalent to the SEARCH Observing Change component and it cannot develop in isolation from the other components of SEARCH, i.e., Understanding Change and Responding to Change. Consequently, AON proposals should describe how the project will coordinate and integrate with and provide for the transfer and exchange of information with Understanding Change and Responding to Change research projects. The AON Program does not support such research, but the program will provide support for undergraduate students and graduate students to participate in other observing-related activities, e.g., instrument design, development and testing, fieldwork and deployment of instruments, sample analysis, data QA/QC, and preparation of data files and documentation for submission to an archive for long term curation. Prospective PIs are encouraged to contact the AON Program Director to discuss support for students.

The AON Program will also consider proposals for (1) the development of sensors and measurement systems that are critical to AON, and (2) observing network design. Proposers should take into account current AON and SEARCH efforts (Observing Change) in constructing a network design; the intrinsic interdisciplinary nature of arctic change; and the needs of modelers to simulate, understand and predict change. New sensor and sensor array designs which can contribute to effective, real-time quantification and transmission of arctic change data, in keeping with the AON data policy, will be reviewed as part of this solicitation.

Proposers should familiarize themselves with SEARCH reports (http://www.arcus.org/search/index.php) and consider the scientific questions and priorities presented in the SEARCH Implementation Plan. Other useful documents include the IARPC report *'Arctic Observing Network (AON): Toward a U.S. Contribution to Pan-Arctic Observing'* (http://www.nsf.gov/pubs/2008/nsf0842/index.jsp), and the *'Arctic Observation Integration Workshops Report'* (http://www.arcus.org/search/meetings/2008/aow/report.php).

All AON projects must conform to the SEARCH data policy (http://www.arcus.org/search/downloads/SEARCH_DataPolicy_051207.pdf). The only exceptions to this policy are some instances with social science and traditional knowledge data, where respect for confidentiality, intellectual property rights, or proprietary information sources might take precedence. In these cases, the proposer should follow the data policy for the ASSP program (Sec. IIB) and discuss their plan with the AON or ASSP Program Directors prior to submitting a proposal. Exceptions can also be made in cases where data release might cause harm.

AON data are considered to be community data and not subject to any embargo period. Proposals must include a data and information management plan that describes how free and rapid access to quality-controlled and fully-documented data and information by all researchers, and others, will be achieved during the course of the award, e.g., via a project website and/or a recognized data repository. Proposers should be aware that posting graphs on a website is not sufficient. The plan must include transfer of all data to a recognized data repository by the conclusion of the award. NSF is currently supporting the development of the Cooperative Arctic Data and Information Service (CADIS) for AON data and information management. Proposers should contact CADIS (http://www.aoncadis.org/) to discuss data and information management requirements.

D. Cyberinfrastructure

NSF's concept of cyberinfrastructure (CI) encompasses high-performance computing (HPC), stewardship and utilization of scientific data, and virtual organizations (VOs). This concept is often referred to as "e-science". The Arctic Sciences Section will consider proposals that promote effective use of HPC for direct and sustainable advances in current arctic research. Priority will be given to proposals that provide significant benefit to the arctic research community with respect to data, including (1) cost-effective transfer from remote field locations, (2) long-term sustainable curatorship and management, (3) visualization, manipulation, and analysis, particularly for understanding complexity, and (4) access and interoperability across scientific disciplines. Proposals that establish or enhance VO resources for arctic research, and its broader impacts, will also be considered. Interested proposers are encouraged to visit the web site for NSF's Division of Advanced Cyberinfrastructure (http://www.nsf.gov/div/index.jsp?div=ACI) to obtain current reports that explain NSF's expectations for the various components of CI.

ADDITIONAL OPPORTUNITIES

Other NSF Funding Opportunities

See Section IX on Other Programs of Interest and consult the NSF online program guide to browse for funding opportunities (http://www.nsf.gov/funding/browse_all_funding.jsp).

III. AWARD INFORMATION

Pending availability of funds, $25,000,000 may be available for proposals to this solicitation. This does not include logistics support that may be provided through the Arctic Research Support and Logistics program. NSF estimates 75 awards per year as standard or continuing grants, or cooperative agreements. The number of awards and average award size and duration are subject to the availability of funds.

IV. ELIGIBILITY INFORMATION

Organization Limit:

Proposals may only be submitted by the following:

- U.S. Organizations

PI Limit:

None Specified

Limit on Number of Proposals per Organization:

None Specified

Limit on Number of Proposals per PI:

None Specified

Additional Eligibility Info:

Only U.S. organizations are eligible to submit proposals under this solicitation. There is no limit on PI eligibility, and there is no limit on the number of proposals that may be submitted.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Grants.gov or via the NSF FastLane system.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained 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) 292-7827 or by e-mail from nsfpubs@nsf.gov. Proposers are reminded to identify this program solicitation number 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.

- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via the NSF FastLane system. Chapter II, Section D.4 of the Grant Proposal Guide provides additional information on collaborative proposals.

Important Proposal Preparation Information: FastLane will check for required sections of the proposal, in accordance with *Grant Proposal Guide* (GPG) instructions described in Chapter II.C.2. The GPG requires submission of: Project Summary; Project Description; References Cited; Biographical Sketch(es); Budget; Budget Justification; Current and Pending Support; Facilities, Equipment & Other Resources; Data Management Plan; and Postdoctoral Mentoring Plan, if applicable. If a required section is missing, FastLane will not accept the proposal.

Please note that the proposal preparation instructions provided in this program solicitation may deviate from the GPG instructions. If the solicitation instructions do not require a GPG-required section to be included in the proposal, insert text or upload a document in that section of the proposal that states, "Not Applicable for this Program Solicitation." Doing so will enable FastLane to accept your proposal.

Proposals may be returned without review for failing to comply with the Grant Proposal Guide (GPG)or NSF Grants.gov Application Guide, this solicitation and the instructions that supplement the GPG and NSF Grants.gov Application Guide.

Principles for the Conduct of Research in the Arctic

Researchers should conform to the *Principles for the Conduct of Research in the Arctic*, approved by the U.S. Interagency Arctic Research Policy Committee (IARPC) in 1990 (http://www.nsf.gov/od/opp/arctic/conduct.jsp). Proposers may also find the “Guidelines for Improved Cooperation between Northern Communities and Arctic Researchers” helpful (http://www.arcus.org/guidelines).

Proposals Involving Human Subjects

The NSF Grant Proposal Guide (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg) provides procedural information for projects with human subjects in the section Projects Involving Human Subjects. Investigators must ensure that human subjects are protected from research risks in conformance with the relevant federal policy known as the Common Rule (*Federal Policy for the Protection of Human Subjects*, 45 CFR 690). Additional information is available at http://www.nsf.gov/bfa/dias/policy/guidance.jsp. Letters of permission or approval, such as those from Native organizations or communities in which the work will take place, should be included in the Supplementary Documents section of the proposal.

Proposals Involving Arctic Field Work

The Arctic Research Support and Logistics (RSL) program was created to enhance safe access to the Arctic, and improve interactions with arctic communities. RSL has an annual budget to operate, maintain and upgrade facilities and infrastructure, purchase services from third-party support providers and contribute to proposal funding for research support and logistics activities

Proposals involving field work in the Arctic must describe the field work in the body of the proposal and include a schedule of proposed work. Investigators may include logistics costs directly in the proposal budget, if they will be making arrangements themselves. Alternatively, investigators may utilize third-party logistics providers for services. If using a third-party provider, the proposal must include a letter from the organization in the Supplementary Documents section of the proposal. The letter should be

1-2 pages long and include a description of the scope of work and a cost estimate. Prior to award, all proposals will be evaluated for total logistics costs and feasibility whether the logistics are in the proposal budget or provided by a third party.

Third-party support providers include NSF's arctic logistics contractor, CH2M HILL Polar Services (CPS), UNAVCO, Ice Drilling Design and Operations (IDDO) and others. A more detailed list is on the RSL website (http://www.nsf.gov/od/opp/arctic/res_log_sup.jsp). CPS services to the arctic research community include preparing logistics estimates for all submissions to NSF. Please allow 4-6 weeks for the preparation of these estimates prior to the deadline. Other support providers may require similar lead-time to meet proposal deadlines. Proposals requesting support for field work should be submitted with adequate time for proposal review and decision-making, up to six months, and an additional six months for logistics planning and budgeting. Thus, proposals submitted to this announcement should plan to go to the field no sooner than one year after the deadline.

Projects that will work close to arctic communities, particularly indigenous communities, are encouraged to discuss the proposed work with those communities while the project is being developed and to bring results back to the community following each field season or the end of the project. Investigators should include travel funds for this in their proposal budget. The RSL program may also support requests to visit communities on an ad hoc basis. These visits are anticipated to be limited to a few days and do not include additional funds for salaries or stipends. Please contact the RSL program managers for information about these opportunities.

Investigators are responsible for acquiring any permits necessary for their work. For work in Greenland, the Government of Greenland has instituted a new process (http://uk.nanoq.gl/Emner/Government/Departments/ministry_of_domestic_affairs_nature_and_environment/expeditions.aspx). NSF has committed to covering Search and Rescue related insurance in Greenland for NSF-sponsored investigators through a direct agreement with the Government of Greenland. NSF is not responsible for medical costs or evacuation of injured parties back to the U.S. however, so investigators should include costs of evacuation insurance in the proposal budget if not covered by their institution. This is an allowable cost.

More information about the logistics program, logistics providers and facilities and other opportunities for field work is available on the RSL program web site (http://www.nsf.gov/od/opp/arctic/res_log_sup.jsp). For support from CH2M Hill Polar Services in preparing the supplementary documents, please contact Diana Garcia-Lavigne at diana@polarfield.com and/or see the CPS website (http://www.polar.ch2m.com/).

Environmental Policy Considerations of Field Work

Federal agencies must comply with the National Environmental Policy Act (NEPA). Most NSF awards support individual scientific research projects and are not considered 'major Federal actions significantly affecting the quality of the human environment'. Projects involving construction, drilling or major disturbance to the local environment may require an assessment of environmental impacts. All federal agencies are regulated under acts such as the Endangered Species Act, the Marine Mammal Protection Act, and the National Historic Preservation Act. Researchers proposing work that may affect cultural or historic properties, or whose work involves tribal lands must cooperate with NSF in complying with the consultation requirements of section 106 of the National Historic Preservation Act. For additional information on cultural or historic preservation issues, see the Advisory Council on Historic Preservation's web site at http://www.achp.gov/work106.html. Contact the Environmental Officer of the Division of Polar Programs, Dr. Polly Penhale (ppenhale@nsf.gov) for guidance on environmental consultations, permitting, and NSF's obligations under existing environmental laws.

Data Management

Proposals must include a data and information management plan that describes how free and rapid access to quality-controlled and fully-documented data and information by all researchers, and others, will be achieved during the course of the award, e.g., via a project web site and/or a recognized data repository. Proposers should be aware that posting graphs on a web site is not sufficient. The plan must include transfer of all data to a recognized data repository by the conclusion of the award. Please note that the Arctic Social Sciences Program has requirements relevant to the social sciences (Section IIB). Please see Policy for Sharing Scientific Data in Section VII.B. of this solicitation for other data reporting requirements.

Identify this Solicitation Number on the Proposal Cover Sheet.

B. Budgetary Information

Cost Sharing: Inclusion of voluntary committed cost sharing is prohibited

C. Due Dates

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

  November 10, 2010

  October 18, 2011

  October 18, Annually Thereafter

D. FastLane / Grants.gov Requirements

- For Proposals Submitted Via FastLane:

  Detailed technical instructions regarding the technical aspects of preparation and submission via FastLane are available at: https://www.fastlane.nsf.gov/a1/newstan.htm. 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.

- For Proposals Submitted Via Grants.gov:

  Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: http://www07.grants.gov/applicants/app_help_reso.jsp. In addition, the NSF Grants.gov Application Guide provides additional technical guidance regarding preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

  Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. 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 either as *ad hoc* reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with 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. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in the GPG as Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: http://nsf.gov/bfa/dias/policy/merit_review/.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in *Empowering the Nation Through Discovery and Innovation: NSF Strategic Plan for Fiscal Years (FY) 2011-2016*. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the core strategies in support of NSF's mission 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 variety of learning perspectives.

Another core strategy in support of NSF's mission is broadening opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which 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.

A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated

level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. Both criteria are to be given full consideration during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (GPG Chapter II.C.2.d.i. contains additional information for use by proposers in development of the Project Description section of the proposal.) Reviewers are strongly encouraged to review the criteria, including GPG Chapter II.C.2.d.i., prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- Intellectual Merit: The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- Broader Impacts: The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
    a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
    b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

Additional Solicitation Specific Review Criteria

1. Priority will be given to proposals that contribute to our understanding of the Arctic.
2. Proposals submitted in response to this program solicitation will be reviewed by Ad Hoc Review and/or Panel Review. If another federal agency is considering funding proposals in this area, NSF may share proposals with and/or may invite employees from the federal agenc(ies) to sit in on review panels as observers for the purpose of determining whether the agency may provide funding.
3. The procedure for revising and resubmitting a proposal to this solicitation is as follows: 1) a detailed letter must be sent to the cognizant Program Director describing the way in which the proposal has been revised in response to reviewer and panel comments and 2) a brief description of how the resubmitted proposal has been revised in response to reviewer and panel comments must be included in the body of the Project Description section of the proposal.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or 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 http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

Special Award Conditions:

Principles for the Conduct of Research in the Arctic: Principal Investigators are expected to follow the *Principles for the Conduct of Research in the Arctic*, prepared by the Social Science Task Force of the U.S. Interagency Arctic Research Policy Committee (IARPC) and approved by IARPC in 1990. These principles are listed at http://www.nsf.gov/od/opp/arctic/conduct.jsp. Investigators may find useful the Guidelines for Improved Cooperation between Arctic Researchers and Northern Communities (http://www.arcus.org/guidelines).

Policy for Sharing Scientific Data

The Arctic Sciences Section (ARC) of the Division of Polar Programs (POLAR) at the National Science Foundation (NSF) has adopted a policy for data sharing that will be applied to all grantees. This policy establishes the criteria for the timely archiving of data in long-lived archives and sets out special conditions applicable to ARC grants. The purpose of this policy is to facilitate full and open access to data and materials for polar research from projects supported by ARC.

The Division of Polar Programs, in conformance with NSF policy (see Grant Proposal Guide, http://www.nsf.gov/pubsys/ods/getpub.cfm?gpg), expects investigators to share with other researchers, at no more than incremental cost and within a reasonable time, the data, derived data products, samples, physical collections and other supported materials gathered or created in the course of the research project. Data sets from ARC-supported scientific research should be deposited in archives appropriate for the specific type of data collected.

Data archives of ARC-supported projects should include easily accessible information about the data holdings (metadata), including quality assessments, supporting ancillary information, and guidance for locating and obtaining the data. National and international data and metadata standards should be used for the collection, processing and communication of ARC-sponsored data sets. The use of graphics to present data or results does not qualify as sharing of scientific data or submission to an archive.

NSF realizes that on occasion there are data gathered of a particularly sensitive nature, such as the locations of archaeological sites or nest locations of endangered species. It is not the intention of this policy to reveal such information publicly. Discipline standards, indigenous community cultural rules, and state and federal regulations and laws should be followed for these type of datas.

General Data Sharing Policy

For all ARC supported projects:

- Complete metadata must be submitted to a national data center or ARC approved data center within two years of collection or before the end of the award, whichever comes first.
- All data and derived data products that are appropriate for submission to a national data center or OPP-approved data repository, must be submitted within two years of collection or before the end of the award, whichever comes first.

For all ARC supported Arctic Observing Network projects:

- Real-time data must be made publicly available immediately. If there is any question about what constitutes real-time data, please contact the appropriate program officer.
- All data must be submitted to a national data center or ARC-approved data repository within 6 months of collection, and be fully quality controlled.
- All data sets and derived data products must be accompanied by a metadata profile and full documentation.

Special Note for Arctic Social Sciences Awards

The Arctic Social Sciences Program supports the full range of social science disciplines and adheres to the ARC Data Management statement that "Proposals must include a data and information management plan that describes how free and rapid access to

quality-controlled and fully-documented data and information by all researchers, and others, will be achieved during the course of the award, e.g., via a project web site and/or a recognized data repository." However, the program recognizes that the nature of social science data, the way they are collected, analyzed, and stored, and the pace at which this occurs, vary widely. Different storage facilities and access requirements exist for different types of social science data, e.g., archaeological data, specimens from physical anthropology, large-scale survey data, oral histories, taped interviews, and other narrative materials elicited from individuals or groups, and field records. Therefore, "rapid access" is defined in the Arctic Social Science Program as 3-5 years and "recognized data repository" can be discipline-specific. However, increasing efforts are being made by the social science community to provide disciplinary relevant guidelines (in the form of best practices), set data and ethical standards, create open source software for social science data, and create new data repositories. In recognition of these efforts, all proposals to the Arctic Social Sciences program must include a data and information management pan. Providing access to data collected in projects supported by the Arctic Social Sciences Program necessarily engages a broad range of potential complexities. Investigators should identify those that can be anticipated and explain fully when and why a modified application of the ARC Data Management policies might be appropriate.

Responsibilities of Principal Investigators of Awards Funded by the Arctic Sciences Section

Coordinated programs (multi-investigator and/or multi-agency programs) may (in consultation with the ARC program managers and other funding agencies involved) establish data submission procedures that are more rigorous than those for typical single-investigator projects, as necessary to meet the coordinated mission objectives. Principal Investigators with ARC-funded awards should comply with data policies established for these coordinated programs and submit their data as required to the appropriate repository stipulated by the coordinated program office.

Compliance with the data guidelines will be considered in the program managers' overall evaluation of a Principal Investigator's prior support record. Annual and final reports may not be approved if program managers determine that data sharing requirements have not been met. This can hold up future funding increments and awards.

Any questions concerning this policy should be directed to the cognizant program officer in the Arctic Sciences Section.

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 prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). Within 90 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements 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 http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

Please see the instructions, Section VII. B. Award Conditions in this program solicitation for information about award conditions for data.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Renee D. Crain, Arctic Research Support and Logistics Program Director, telephone: (703) 292-4482, email: rcrain@nsf.gov
- Henrietta Edmonds, Arctic Natural Sciences Program Director, 755, telephone: (703) 292-7427, email: hedmonds@nsf.gov
- Patrick R. Haggerty, Arctic Research Support and Logistics Program Director, 755 S, telephone: (703) 292-8577, fax: (703) 292-9082, email: phaggert@nsf.gov
- Robert Holmes, Arctic Systems Sciences Program Manager, telephone: (703) 292-4897, fax: (703) 292-9082, email: rholmes@nsf.gov
- Anna M. Kerttula de Echave, Arctic Social Sciences Program Director, 740 S, telephone: (703) 292-7432, fax: (703)292-9082, email: akerttul@nsf.gov
- Erica Key, Arctic System Science Program Associate Program Director, 755S, telephone: (703) 292-7434, email: ekey@nsf.gov
- Neil R. Swanberg, Arctic System Science Program Director, 740 S, telephone: (703) 292-8029, email: nswanber@nsf.gov
- Ming-Yi Sun, Arctic Natural Sciences Program Director, telephone: (703) 292-7437, fax: (703) 292-9082, email: msun@nsf.gov
- William J. Wiseman, Arctic Natural Sciences Program Director, 740 S, telephone: (703) 292-4750, fax: (703) 292-9082, email: wwiseman@nsf.gov

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.
- Linda Izzard, Program Coordination Specialist, 755, telephone: (703) 292-7430, fax: (703) 292-9082, email: lizzard@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.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, "My NSF" is an information-delivery system 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 Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "My NSF" also is available on NSF's website at http://www.nsf.gov/mynsf/.

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 http://www.grants.gov.

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 55,000 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 Arctic 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