# Long-Term Ecological Research (LTER) in Coastal Ocean Ecosystems

# **PROGRAM SOLICITATION**

NSF 03-599



National Science Foundation Directorate for Geosciences

Division of Ocean Sciences

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

January 13, 2004

# SUMMARY OF PROGRAM REQUIREMENTS

# **General Information**

### **Program Title:**

Long-term Ecological Research (LTER) New

### Synopsis of Program:

This is part of a continuing series of solicitations as part of the NSF's Long-Term Ecological Research Program (LTER) and is the third solicitation from the Directorate for Geosciences in support of the LTER Program. This solicitation seeks proposals to augment this nationally and internationally recognized research program, and to support long-term research in fundamental, interdisciplinary environmental science.

#### 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.

- David L. Garrison, telephone: (703) 292-7588, email: dgarriso@nsf.gov
- Gayle Pugh, telephone: (703) 292-7589, email: gpugh@nsf.gov

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

• 47.050 --- Geosciences

# **Award Information**

Anticipated Type of Award: Continuing Grant

Estimated Number of Awards: 1 to 3 averaging \$810,000 per year for up to six years

Anticipated Funding Amount: \$2,400,000 is the approximate total for first year of all awards pending the availability of funds and depending on the quality of proposals received

# **Eligibility Information**

### Organization Limit:

Proposals may only be submitted by the following:

U.S. universities and colleges, U.S. non-profit, non-academic organizations, and for-profit organizations
are eligible to submit proposals under this program solicitation. Collaborative proposals must be submitted
using the "single proposal" method as described in Chapter II, Section D.3.a. of the GPG.

PI Limit:

None specified.

Limit on Number of Proposals per Organization:

None Specified

Limit on Number of Proposals per PI:

# **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: Other budgetary limitations apply. Please see the full text of this solicitation for further information.

### C. Due Dates

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

January 13, 2004

# **Proposal Review Information Criteria**

Merit Review Criteria: National Science Board approved criteria apply.

# **Award Administration Information**

Award Conditions: Standard NSF award conditions apply.

Reporting Requirements: Standard NSF reporting requirements apply.

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# I. INTRODUCTION

To enhance the scope and disciplinary breadth of the Long-Term Ecological Research (LTER) Network, the National Science Foundation (NSF) announces a competition for up to three (3) new LTER sites that focus on ecological systems in the coastal ocean; here meaning ecological systems from the shoreline outward on continental shelves and including the Laurentian Great Lakes, Congressionally defined as interior oceans.

With an initial set of six sites selected in 1980, the National Science Foundation established the Long-Term Ecological Research Program to conduct research on long-term ecological phenomena. The present total of 24 sites represents a broad array of ecosystems and research emphases. The LTER Program is supported at present by many parts of the NSF. The research activities are supported by the Directorate for Social, Behavioral and Economic Sciences, the Office of Polar Programs, the Division of Environmental Biology, and the Division of Ocean Sciences. Additional support for educational and international activities is provided by the Directorate for Education and Human Resources and the Office of International Science and Engineering, respectively.

The LTER Network is a collaborative effort among over 1200 scientists and students investigating ecological processes over long temporal and broad spatial scales. The Network extends the opportunities and capabilities of the individual sites to promote synthesis and comparative research across sites. The Network is managed by an Executive Committee and a larger Coordinating Committee comprised of representatives of the LTER sites. The LTER Network Office supports, facilitates, and enhances the research and creative activities developed by the LTER Network. In addition, the LTER Network Office plays a leadership role in developing and implementing data and information management standards and protocols for the LTER Network, as well as for the broader community of environmental scientists. Additional information about the LTER Network and the LTER Network Office can be obtained from the LTER homepage on the world wide web at http://www.lternet.edu.

# **II. PROGRAM DESCRIPTION**

While coastal ocean regions are sites of intense human influence and activity, only two of the existing sites explicitly focus on the coastal ocean - the continental shelf region from the coastline outward. The Palmer Station LTER is solely focused on this earth system in Antarctica; the Santa Barbara Channel LTER looks at the interface with near-shore coastal and terrestrial systems. In addition, four LTER sites are estuarine and "upstream" in their focus on coastal systems.

This competition for LTER sites in coastal ocean ecosystems is supported by the Division of Ocean Sciences (OCE) in the Directorate for Geosciences (GEO). It is coordinated with the Division of Environmental Biology (DEB) in the Directorate for Biological Sciences (BIO), which is the lead Division responsible for the LTER Program at the NSF.

The research proposed in response to this solicitation should emphasize major ecological processes, and questions/hypotheses germane to coastal marine ecological systems. The work should seek to understand the predominant causes of ecological variability and/or long-term change, and how populations, communities, and ecosystems of the coastal ocean respond. Projects that extend the traditional ecological disciplines represented at LTER sites by incorporating elements of behavioral, evolutionary, and physiological ecology are particularly encouraged. As the extant suite of LTER sites focuses on terrestrial, freshwater, estuarine and land/sea interface systems, this competition focuses on projects that emphasize ecological systems of the outer coastlines, coastal oceans, and Laurentian Great Lakes.

In order to achieve major advances in our understanding of these coastal systems, the following elements are encouraged:

- inter-disciplinary, process-oriented, research coordinated among investigators;
- · experimental studies across a range of appropriate and manageable spatial and temporal scales;
- development of conceptual, analytical and numerical models to guide the research;
- · data management activities to facilitate comparisons with research in other systems; and
- · comparative approaches comprising parallel studies in different localities or different ecosystem types.

Proposals submitted to this competition must support the general mission of the LTER Program. The research should be innovative and justify well the need for long-term support to understand ecological systems and processes.

Prospective investigators are strongly urged to contact current LTER Principal Investigators to learn more about the structure, management and expectations of an LTER site. Additional information and advice regarding LTER proposals and the integration of new sites into the LTER Network can be found at http://www.lternet.edu/propinfo.

An International LTER (ILTER) Network has been more recently developed, coordinated by the LTER Network Office. The purpose of the ILTER is to encourage the development of a world-wide network of long-term research sites. Proposals for land/ocean-margin LTER sites may also consider the potential for developing international collaboration in conjunction with ILTER. Information on ILTER can be found at http://www.ilternet.edu.

# **III. AWARD INFORMATION**

Up to \$2.4 million is available for the first year of support for proposals selected for funding, pending the availability of funds and depending on the quality of proposals received. Up to 3 awards, averaging \$810,000 per year for six years each are anticipated.

#### **Organization Limit:**

Proposals may only be submitted by the following:

 U.S. universities and colleges, U.S. non-profit, non-academic organizations, and for-profit organizations are eligible to submit proposals under this program solicitation. Collaborative proposals must be submitted using the "single proposal" method as described in Chapter II, Section D.3.a. of the GPG.

#### 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:

U.S. universities and colleges, U.S. non-profit, non-academic organizations, and for-profit organizations are eligible to submit proposals under this program solicitation. Collaborative proposals must be submitted using the "single proposal" method as described in Chapter II, Section D.3.a. of the GPG.

Proposals that are submitted to this Program Solicitation and are either previously or subsequently submitted in a substantially similar form to another NSF Program or special announcement, will be returned without completion of the review

### 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.

The following instructions supplement the GPG guidelines:

#### **Proposal Format**

Please note the page limits contained in this solicitation take precedence over those given in the NSF *Grant Proposal Guide (GPG)*. Additionally, collaborative proposals must be submitted using the "single proposal" method as described in Chapter II., Section D.3.a. of the *GPG*. Each project must be managed by a single organization with other organizations involved via sub-awards. The alternative, simultaneous submission of multiple proposals from multiple organizations, will be returned without review. Proposals will be subjected to initial screening for the requirements in the *GPG* and this solicitation, and will be returned without review or advance notification for non-compliance. Proposals will not be forwarded to other Programs if found to be inappropriate for this competition.

Proposals should include explicit plans for the documentation, archiving, and dissemination of research data. All funded participants must adhere to the data management policies applying to recipients of federal funding from OCE and DEB, as well as the LTER Network policies (see the LTER homepage on the world wide web at http://www.lternet.edu/). GPG guidelines should be strictly adhered to with exception of the following:

Cover Sheet: The title must start with the acronym, "LTER:" Failure to do this may delay processing.

Project Description: 35 pages total maximum. Develop and explain the conceptual framework that provides the unifying theme for the proposed Coastal Ocean Ecosystems LTER research (less than or equal to 20 pages of narrative *plus* less than or equal to 15 pages of graphics such as illustrations, tables and figures; no substitution is allowed of narrative *pages* for graphics pages). Describe in some detail the long-term experiments, sampling protocols, and monitoring to be done, and explain how they fit into your conceptual framework. Describe the methods and data analyses such that the quality of these long-term efforts can be critically evaluated by reviewers. In addition, describe any short-term, mechanistic experiments, empirical studies, sampling programs, modeling efforts, etc., that will be conducted. Again, describe the methods and planned analyses in detail and explain how these short-term studies fit into the conceptual framework. Also, conceptually integrate these above efforts to the proposed long-term studies. Outline any regionalization, cross-site, or other collaborative efforts involving the LTER network that are planned if they are not part of your core program (network activities). Close this section with a synthesis that ties together the proposed research activities.

Overall, an LTER site should be conducting hypothesis-driven, long-term research coupled with short-term mechanistic studies to derive understanding of long-term dynamics. Modeling efforts are important, and should be discussed in detail where appropriate.

Biographical Sketches: 1 page maximum. Provide a one-page biographical sketch for each PI and senior scientist listed in the proposal, and for key international participants, if relevant. List only FIVE publications per investigator on their sketch. Do not list conflicts separately on each sketch. Conflicts are to be listed separately as indicated below within Supplementary Docs.

Supplementary Docs must include these documents:

1. 5 pages maximum. A list of publications and datasets of the results from prior NSF support (as per GPG).

2. 4 pages maximum. Description of the proposed data and information management system and metadata standards to be used at your site. The document must be less than or equal to 3 pages narrative *plus* less than or equal to 1 pages of tables/figures. How

will the data management activity be implemented in the design of research projects? How is the data manager involved in the design of research projects? What mechanisms will you employ to assure that researchers contribute their data to the LTER databases? What resources will be dedicated to harvesting, documenting, archiving, managing, and making accessible data from LTER research? How quickly are data sets made available to other researchers? What criteria, if any, will be used to limit or provide other researchers access to data sets? How often will data sets be updated on the World Wide Web? One of the strengths of the LTER network is the quality of and emphasis on information management and metadata standards. It is expected that data derived from LTER funding will be made freely and widely available as soon as possible (not to exceed 2 years after collection) as per LTER data Policy, see <a href="http://www.ilternet.edu">http://www.ilternet.edu</a>, although exceptions are made for some types of data.

3. 3 pages maximum. Description of your outreach program, including educational activities at all levels, public activities, media interactions, implications/applications of your research to policy and management, etc. Include a plan for the development of your outreach program (less than or equal to 2 pages text *plus* less than or equal to 1 page of tables/figures).

4. An alphabetical list of all scientific collaborators including conflicts of interest for all the PIs and other LTER participants whose biographical sketches appear in the proposal. *Do not list conflicts separately on each biographical sketch*. In addition, e-mail this collaborator/conflict list to the Program Officer in charge (prtaylor@nsf.gov).

Protocols for safety and security - Proposals that work directly with microbes retrieved from extreme environments are expected to address appropriate safety and security issues (isolation, ultraclean facilities, decontamination and access) in the research and management plans. Investigators are expected to follow appropriate guidelines established for the Microbial Observatories solicitation (NSF-03-571).

Ship time - Proposals may require the scheduling of NSF-UNOLS ship time. These proposals must include a completed NSF-UNOLS Request Form (NSF Form 831). The UNOLS form may be obtained from the NSF Division of Ocean Sciences Ship Operations Program by calling (703) 292-8581, or directly from the UNOLS World Wide Web site at http://www.unols.org/.

Proposers are reminded to identify the program solicitation number (NSF 03-599) 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.

### Other Budgetary Limitations:

Federal agency scientists and scientists based in other countries may participate contingent on funding from other federal agency or foreign agency partners, but not via NSF funding.

# C. Due Dates

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

January 13, 2004

# **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.

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.

### **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

### **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/publicati

# **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, 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 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. The project outcomes report 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.

### 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:

- David L. Garrison, telephone: (703) 292-7588, email: dgarriso@nsf.gov
- Gayle Pugh, telephone: (703) 292-7589, email: gpugh@nsf.gov

For questions 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 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

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