



General Programmatic Terms and Conditions for the Earth Sciences: Instrumentation and Facilities, (NSF 05-587) (IRIS) Cooperative Agreements

- 1. Key Personnel:** Except for the Principal Investigator(s) (PIs) or Co-PIs identified in this award, requests to make any changes to personnel, organizations, and/or partnerships specifically named in the proposal, that have been approved as part of this award, shall be submitted in writing to the cognizant NSF Program Official for approval prior to any changes taking effect. Requests for prior approval of changes to the PI(s) must be submitted through FastLane for review by the cognizant NSF Program Official and approval by an NSF Grants Officer.
- 2. Program Project Description:** The Incorporated Research Institutions for Seismology is a university research consortium dedicated to exploring the structure and deformation of planet Earth through the collection and distribution of seismological and other geophysical data. With leadership from the U.S. academic research community, and through collaboration with other national and international organizations, IRIS manages facilities and programs in observational seismology that contribute to scholarly research, education, earthquake hazard mitigation and the verification of nuclear test ban treaties, through free and open data exchange. A permanent network of global observatories (the Global Seismographic Network) and a pool of portable instruments (the Portable Array for Seismological Studies of the Continental Lithosphere, PASSCAL) provide seismological data for fundamental studies of Earth structure and earthquakes. A Data Management System (DMS) ensures that all data collected by the GSN, PASSCAL and partner organizations are archived and effectively distributed. An Education and Outreach program (E&O) brings the excitement of earthquakes and exploration of our planet's deep interior to the public and the classroom.
- 3. Project Governance and Governing Responsibilities:** The Awardee will ensure that an efficient and effective project governing structure is in place throughout the award period to support all critical or significant project activities.

The IRIS governance and management structure is an interface between the scientific community, funding agencies and the programs of IRIS. This structure, as defined in the IRIS bylaws, is designed to ensure close involvement of the research community in the development of IRIS facilities, to focus scientific talent on common objectives, to encourage broad participation, and to effectively manage IRIS programs.

IRIS President – chief executive officer of the Corporation, implements the orders of the Board of Directors and ensures that the purposes of the Corporation are carried out.

Board of Directors (9 members) – has full power in the management of the affairs of the Corporation, representing the interests of the research community and the consortium members.

Standing Committees (4 committees) - The four Standing Committees develop policies and provide detailed oversight of the four core programs: the Global Seismographic Network (GSN), the Program for Array Seismic Studies of the Continental Lithosphere (PASSCAL), the Data Management System (DMS), and the Education and Outreach Program (E&O).

Other Committees reporting to the Board of Directors include:

- 1) Planning Committee – studies strategic problems and opportunities
- 2) Coordinating Committee – coordinates interaction among the core programs
- 3) Instrumentation Committee – responds to specific needs for technical advice

In addition, the President and the Board of Directors appoint special advisory committees and ad hoc working groups for specific tasks. It is the role of all appointed committees to develop recommendations for the Board of Directors, which in turn, evaluates and acts upon such recommendations.

4. **Reporting Requirements:** The Awardee will provide ad hoc and regular reports as designated by the NSF cognizant Program Official with content, format, and submission time line established by the NSF cognizant Program Official. The Awardee will submit all required reports via FastLane using the appropriate reporting category; for any type of report not specifically mentioned in FastLane, the Awardee will use the “Interim Reporting” function to submit reports.

Reporting requirements (in addition to those required by the general FATC):

- 1) An Annual Program Plan and Budget for the next fiscal year, due May 31 of each year, describing plans, activities, and requested funding allocations to IRIS and its subawardees for the next year of support. Each IRIS program and all subawards will present individual budget requests on the NSF budget Form 1030 and any necessary attachments thereto. The Annual Progress Report and the Annual Program Plan and Budget will serve, in part, as the basis for IRIS’ request for the next year’s support and will be subject to review and approval by the NSF Program Officer.
- 2) A Government Performance and Results Act (GPRA) facilities report.

- 3) An annual financial report submitted by September 30 of each year showing a comparison between budgeted amounts approved in the Annual Program Plan and Budget and actual expenditures in the major budget categories for all IRIS programs. Significant variances (> \$100,000) in the financial report will be brought to the attention of the NSF Program Officer.

Equipment Reporting:

- 1) Accountability of all equipment purchased with Government funds under NSF Cooperative Agreement No. EAR-0004370 is hereby transferred to this Agreement. An equipment inventory schedule is to be submitted to the Cognizant NSF Program Official by December 31, 2007 to be made a part of this Agreement by amendment.
- 2) Title to all equipment in excess of \$5,000 purchased and/or fabricated with Government funds under this Agreement shall pass directly to the Government from the vendor.
- 3) The Awardee may request the transfer of title or other disposition action with regard to specific items of equipment. NSF shall issue a response or instructions to the Awardee no later than 120 calendar days after receipt of the Awardee's request. Upon expiration of the Agreement, disposition of the equipment will be determined by the Foundation in consultation with the Awardee (reference OMB Circular A-110).
- 4) IRIS may purchase and charge to this Agreement general purpose equipment budgeted for in the approved Annual Program Plan and Budget as justified to be used exclusively in carrying out the mission of the Awardee.

5. **Awardee Support of Ongoing Management and Oversight:** The Awardee will ensure full commitment and cooperation among the governing structure components, and all project staff during all ongoing NSF project management and oversight activities. The Awardee will ensure availability of all key institutional partners during any desk or on-site review as well as timely access to all project documentation.

Routine management and oversight activities of IRIS:

- 1) 2-3 meetings per year of the IRIS Board of Directors and Coordination Committee
- 2) 2 meetings per year of Program Standing Committees and Planning Committee
- 3) Annual Membership Meeting of the Consortium
- 4) Biannual IRIS Workshop

Special management and oversight activities to be carried out by IRIS:

- 1) The IRIS Consortium will consult broadly with the research community to develop a new long-range science plan for global seismology that will guide potential future improvements and enhancements to the IRIS facilities. The Board of Directors of the IRIS Consortium will develop a plan for carrying out this review and submit the plan to NSF by March 31, 2007.
- 2) IRIS will conduct a review of the PASSCAL Program to be completed by March 31, 2008.
- 3) IRIS will coordinate with EAR and GEO Education program officers to implement an external evaluation of the E&O Program to be completed by September 30, 2007. NSF will work with IRIS on a follow-up review and recommendations for program changes, as required.

Change-over and Phase-Out:

- 1) The Awardee recognizes that this Agreement may be terminated or that it may be replaced by a successor awardee in the performance of the kind and type of work described herein. The Awardee agrees to use its best efforts to effect an orderly and efficient transition from the Awardee to any successor awardee.
- 2) NSF will notify the Awardee in writing of any intent to terminate this Agreement six months in advance of the required date of termination unless a period of less than six months is specifically mandated by actions of the U.S. Congress, in which case NSF will give the Awardee as much notice as possible.
- 3) Further, in the event that the Awardee is replaced by a successor awardee or in the event that there is no follow-on agreement initiated by the Foundation that provides for substantially the work the Awardee is presently performing, the non-renewal shall be treated as Termination for the Convenience of the Government for purposes of reimbursing the Awardee for its costs for accrued employee benefits plus all costs otherwise allowable as of the date of expiration. However, the Foundation shall not be obligated to reimburse the Awardee for the severance pay due its employees who are given offers of substantially similar employment by a successor awardee, if such offers are made prior to the expiration of this agreement, except for the amount of such payments that would equal the salary of the employee involved during any gap in his/her employment and other accrued benefits of the employee not assumed by the successor awardee. Nor shall the Foundation be obligated to reimburse the Awardee for the severance pay due employees who remain employed by the Awardee if such employment exceed one year after the date of expiration.

IRIS Responsibilities:

The Awardee shall be responsible for establishing, operating, maintaining, and managing the IRIS core programs, which consist of the Global Seismographic Network (GSN), a pool of portable seismic recording instruments (Program for Array Seismic Studies of the Continental Lithosphere or PASSCAL), the Data Management System (DMS), and Education and Outreach (E&O), in accordance with the NSF-approved Annual Program Plans and Budgets.

In addition, IRIS shall:

- 1) help coordinate access to seismic and other Earth science data collected with support from other national and international organizations.
- 2) engage in appropriate programs to inform the Earth science community about the potential uses of the IRIS facility and to keep the community informed about its accomplishments.
- 3) monitor the scientific, technical, and fiscal performance of all subawards made under the terms of this Agreement, ensuring that all NSF requirements are observed.
- 4) execute the scientific, technical, and fiscal responsibilities of IRIS projects supported by Federal agencies other than NSF and approved as part of this Agreement, ensuring that all NSF requirements are observed.
- 5) keep NSF informed of all activities carried out under this Agreement and other IRIS activities funded by Federal Agencies other than NSF.

NSF Responsibilities:

In order to facilitate the work done under this Agreement, NSF will:

- 1) cooperate in the coordination of the IRIS facility's programs and projects with other NSF-supported facilities and projects (e.g., EarthScope; seismology programs within OPP and OCE; educational programs in GEO and EHR) and with other Federal agencies (especially U.S. Geological Survey activities related to the GSN and DMS).
- 2) provide funding targets and guidelines to IRIS for the next year's program by January 1 of each year.
- 3) conduct an interim management review during the third year of the Cooperative Agreement. A report of this review will be submitted to the National Science Board (NSB) during the second half of 2009, and will provide more information for the basis of the decision to either allow the submission of a renewal proposal or to re compete the operation of this facility.
- 4) work with IRIS and other Federal agencies to address the critical issue of STS-1 sensor replacement (GSN refresh). NSF will convene an interagency and international working group during the second year of the Cooperative Agreement and work with IRIS to assess the prospects for support of new instrument design and construction.