NATIONAL SCIENCE FOUNDATION 4201 Wilson Boulevard Arlington, VA 22230

Division of Earth Sciences

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This statement provides guidelines from the Division of Earth Sciences (EAR), National Science Foundation, for the implementation of the Foundation's Data Sharing Policy. The overall purpose and fundamental objective of these policy statements is to ensure and facilitate full and open access to quality data for research and education in the Earth Sciences. These guidelines are considered to be a binding condition on all EAR-supported projects.

The Division of Earth Sciences conforms to the following statement on sharing of research results and data (NSB-88-215; PAM Manual #10, VII, G.2b):

Sharing of Findings, Data, and Other Research Products

The National Science Foundation advocates and encourages open scientific communication. The NSF expects significant findings from research and educational activities it supports to be promptly submitted for publication, with authorship that accurately reflects the contributions of those involved. It expects investigators to share with other researchers, at no more than incremental cost and within a reasonable time, the data, samples, physical collections, and other supporting materials created or gathered in the course of the work. It also encourages awardees to share software and inventions or otherwise act to make the innovations they embody widely useful and usable.

NSF Program management will implement these policies, in ways appropriate to the field and circumstances, through the proposal review process; through award negotiations and conditions; and through appropriate support and incentives for data cleanup, documentation, dissemination, storage, and the like. Adjustments and, where essential, exceptions may be allowed to safeguard the rights of individuals and subjects, the validity of results, or the integrity of collections or to accommodate legitimate interests of investigators.

The Division of Earth Sciences is committed to the establishment, maintenance, validation, description, and distribution of high-quality, long-term data sets. Therefore:

1. Preservation of all data, samples, physical collections and other supporting materials needed for long-term earth science research and education is required of all EAR-supported researchers.

- 2. Data archives must include easily accessible information about the data holdings, including quality assessments, supporting ancillary information, and guidance and aids for locating and obtaining data.
- 3. It is the responsibility of researchers and organizations to make results, data, derived data products, and collections available to the research community in a timely manner and at a reasonable cost. In the interest of full and open access, data should be provided at the lowest possible cost to researchers and educators. This cost should, as a first principle, be no more than the marginal cost of filling a specific user request.
- 4. Data may be made available for secondary use through submission to a national data center, publication in a widely available scientific journal, book or website, through the institutional archives that are standard for a particular discipline (e.g. IRIS for seismological data, UNAVCO for GPS data), or through other EAR-specified repositories.
- 5. For those programs in which selected principle investigators have initial periods of exclusive data use, data should be made openly available as soon as possible, but no later than two (2) years after the data were collected. This period may be extended under exceptional circumstances, but only by agreement between the Principal Investigator and the National Science Foundation. For continuing observations or for long-term (multi-year) projects, data are to be made public annually.
- 6. Data inventories should be published or entered into a public database periodically and when there is a significant change in type, location or frequency of such observations.
- 7. Principal Investigators working in coordinated programs may establish (in consultation with other funding agencies and NSF) more stringent data submission procedures.
- 8. Within the proposal review process, compliance with these data guidelines will be considered in the Program Officer's overall evaluation of a Principal Investigator's record of prior support. Exceptions to these data guidelines require agreement between the Principal Investigator and the NSF Program Officer.