



**NATIONAL SCIENCE FOUNDATION
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NSF 17-037

Division of Ocean Sciences (OCE) Sample and Data Policy

This document replaces [NSF 11-060](#), Division of Ocean Sciences Sample and Data Policy, May 24, 2011.

Per the NSF policy on the [Dissemination and Sharing of Research Results](#), Principal Investigators (PIs) are expected to share with other researchers and the public, 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 work under NSF grants.

All NSF proposals must include a Data Management Plan that describes what data/samples will be collected, what analyses will be done, and how the project will provide open and rapid access to data, samples, derived data products (e.g., models and model output), and other information on the project during and after the project's completion. The Data Management Plan also must specifically discuss how the investigators will achieve the specific OCE data archiving and reporting requirements described below in this document. If the project is not expected to generate new data, samples or derived data products, the Data Management Plan can include a statement that no detailed plan is needed, accompanied by a clear justification. See the [NSF Proposal & Award Policies & Procedures Guide](#) (PAPPG), Chapter II.C.2.j for additional information.

DATA AND SAMPLE ARCHIVING REQUIREMENTS

The Division of Ocean Sciences requires that metadata files, full data sets, derived data products and physical collections must be made publicly accessible within two (2) years of collection. This includes software and derived data products (e.g., model results, output, and workflows). A brief description of [preferred data and physical collection archives and centers](#) and their criteria for submission can be found on the [OCE website](#) or through contact with the Cognizant Program Officer of the given award. Any limit on access to data, samples, or other information beyond the two-year moratorium period must be based on compelling justification, documented in the Data Management Plan of the proposal, or approved by the cognizant Program Officer.

Where no data or sample repository or archive exists for collected data and samples, the PI is required to identify a preservation plan in the Data Management Plan that complies with the general philosophy of sharing research products and data within two years of collection as described above.

SPECIAL DIGITAL DATA GUIDANCE FOR OCE

For some ocean digital data there are designated Federal National Data Centers where these data must be deposited. These [Centers](#) and a brief description of the data they support can be found on the [OCE website](#) or through contact with a cognizant Program Officer. Submission of data to other databases does not eliminate the requirement for final deposition of data in these Federal National Data Centers. Some NSF-funded data management offices (see listing of on OCE website) deposit data submitted to them to NSF-approved Federal National Data Centers. If this is the case, the PI does not need to submit an additional copy to the appropriate National Center.

The Marine Geology and Geophysics (MGG) Program encompasses a wide range of data types and data formats for which they require deposition into specific data centers. During generation of any data management plan for MGG, please check with the cognizant Program Officer to help identify which repository is most appropriate for your digital data and/or data product. For MGG, any analyses tied to a physical sample must refer to the unique sample identifier number of the sample to which they are tied. MGG Investigators, whose data is served by the [IEDA \(Interdisciplinary Earth Data Alliance\)](#) data center should contact IEDA once they have been notified of an award and before starting work so they can register their awards and get the appropriate data submission forms and guidelines for submitting digital project data and metadata. The MGG Program strongly recommends that PIs use the [IEDA data management plan tool](#) to create data management plans for their NSF proposals.

All Climate Variability and Predictability Program (CLIVAR) data shall be made available no later than two (2) years after collection. However, several CLIVAR activities, like the Carbon/Global Hydrographic Survey, require PIs to submit data collected to the [CLIVAR and Carbon Hydrographic Data Office \(CCHDO\)](#) within six (6) months of collection.

Data collected by assets of the National Deep Submergence Facility (NDSF which at the present time includes the submersible Alvin, ROV Jason and AUV Sentry) should be archived at the Lamont Doherty Earth Observatory-hosted [Marine Geosciences Data System](#) managed by IEDA. PIs collecting specialized data including multibeam bathymetry, magnetics and chemical data should check with IEDA data managers on how to best archive these data. Visual imagery data is archived at the [Woods Hole Oceanographic Institution](#) data repositories.

The [Biological and Chemical Oceanography Data Management Office \(BCO-DMO\)](#) is the primary data management archive for the Biological Oceanography and Chemical Oceanography programs, as well as several associated special programs. When awards are initialized, investigators should immediately contact BCO-DMO and register their projects by submitting project metadata. For projects where data cannot be served by BCO-DMO, or where they are more appropriately served by other community data repositories, metadata should still be deposited in BCO-DMO with links to the other data repositories.

PIs who employ genomic techniques should articulate a strategy for providing timely community access to the data collected and for establishing links between genomic and environmental data. Sequence data should be submitted to a publicly accessible data repository (e.g., [National Center for Biotechnology Information](#)).

SPECIAL PHYSICAL SAMPLE SUBMISSION GUIDANCE FOR OCE

The Division of Ocean Sciences anticipates that most geological samples will be archived at NSF-approved repositories. Alternate archiving strategies must be based on compelling justification, documented in the Data Management Plan, and approved by the cognizant Program Officer. All physical geological samples (solid, gas, liquid) must be assigned unique sample identifiers (IGSNs), and this identifier for the samples and any analyses associated with those samples should be referred to in any publication. IGSNs can be generated from the online [IEDA IGSN assignment tool](#).

Not all biological material can (or should) be accommodated at NSF-approved facilities. PIs should archive voucher and type specimens as dictated by community standards and practices, as required by journals for publication and as appropriate to support research results. Sharing of valuable biological sample material is highly encouraged and can be facilitated by providing metadata, indicating that samples are available early in the development of a research program.

REPORTING REQUIREMENTS

PIs are required to provide updates on the status of metadata and data archival in Annual Project Reports. Compliance with the project Data Management Plan must be documented in the Final Project Report. If not deposited in an approved federally or NSF-funded repository, URL's for archived metadata and data should be included in these reports in the section entitled "Products-Websites." Where the Final Report is due before the required date of sample or data submission, the PI must report submission of metadata and plans for final data/sample submission. The PI should notify the cognizant Program Officer by e-mail after final data and/or sample submission has occurred, even if this is after the expiration date of the award. The ultimate disposition of data and samples also should be described in "Results from Prior NSF Support" section of future proposals submitted by the PI, as per guidelines in [PAPPG Chapter II.C.2.d.iii.e](#).