

NSF Proposals and the Two Page Data Management Plan

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The Two Page Plan

- all NSF proposals (after January 17, 2011)
- must include a supplementary document of no more than two pages labeled “Data Management Plan”
- supplement to the 15 page proposal
- describe how the proposal will conform to NSF policy on the dissemination and sharing of research results
- full description - Grant Proposal Guide (GPG) Chap. II.C.2.j
http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_2.jsp#dmp

NSF GPG Data Management Topics

- describe types of data, samples, physical collections, software, curriculum materials
- standards to be used for data and metadata format and content [QA/QC, sampling and analytical standards and protocols]
- . . .

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BCO-DMO provides these aspects of data management

- policies for access and sharing including provisions for appropriate restrictions
- policies and provisions for re-use, re-distribution, and the production of derivatives
- plans for archiving data, samples, and other research products

Additional comments

- NSF Program-specific plans are available at:
<http://www.nsf.gov/bfa/dias/policy/dmp.jsp>
(NSF OCE uses NSF 04-004)
- Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only **one** supplemental **combined** Data Management Plan
- Fastlane will not permit submission of a proposal that is missing a Data Management Plan.



BCO-DMO

bco-dmo.org



data management for investigators funded by
NSF OCE Biological and Chemical Oceanography Sections
or NSF OPP ANT Organisms & Ecosystems Program

- partner with individual investigators and those associated with collaborative research projects
- data management support throughout the project
- capture and record documentation (metadata) sufficient to support data reuse
- load data and metadata into a relational database and ensure their availability online (bco-dmo.org/data/)
- ensure final archive in appropriate data center (e.g. NODC); contribute to special repositories (e.g. CDIAC, OBIS, GenBank)

'proposal to preservation'

General Guidelines

if the proposal is submitted to

- NSF OCE Biological or Chemical Oceanography Sections (Dave Garrison or Don Rice)
- NSF OPP ANT Organisms & Ecosystems Program (Roberta Marinelli)
- then your 2 page plan can state that data management will be done in collaboration with the BCO-DMO (no per-project funding required)

Types of Data and Research Results

- collection of field or laboratory data
- synthesis of existing data
- model development and model results
- if BCO-DMO is not involved, then you should include funds for data management (5-10% of the research costs, exclusive of ship time)

Two Page Plan Outline

- **Data Policy Compliance**
- **Pre-cruise Planning**
 - or data management for laboratory experiments
- **During the Cruise**
 - or management of model results
- **Post-cruise**
- **Public availability of data [results]**
- **Permanent archive of data [results]**

Data Policy Compliance

- What are the plans for compliance with any published data policies, e.g. the 2004 NSF Division of Ocean Sciences Data and Sample Policy online at:
<http://www.nsf.gov/pubs/2004/nsf04004/nsf04004.pdf>
- or if relevant, the data policy of a large coordinated research program (GEOTRACES, IMBER)
- for the types of data (model results) expected

Pre-cruise Planning

- pre-cruise planning coordination
e.g. email, teleconferencing, workshop, etc.
 - agreement on and arrangements for data collection
 - coordination of sampling strategies if multiple sampling programs are planned (allocation of water sample volume)
- will BCO-DMO manage the data?
- include a list (Table 1)
sampling instrumentation
measurements and observations
name of investigator responsible for each data type

During the Cruise

- Describe implementation of recommendations in the BCO-DMO Best Practices Guide
bco-dmo.org/resources/
or the GO-SHIP Repeat Hydrography Manual
www.go-ship.org/HydroMan.html
- for example, for a cruise
 - cruise report
 - document sampling and analytical protocols
 - sampling event log and data inventory

Post-cruise

- Will the shipboard underway data be available from <http://www.rvdata.us> (the central data repository for data collected aboard UNOLS vessels)?
- What post-cruise processing will be done? Describe QA/QC procedures and include references to published sampling and analytical protocols.
- When and where will the processed data be made available? (E.g. an open access, online database or a thematic repository?)
- What are the plans for permanent archive of the data?



Resources

- NSF OCE Data Policy
<http://www.nsf.gov/pubs/2004/nsf04004/nsf04004.pdf>
- NSF GPG
http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_2.jsp#dmp
- BCO-DMO Data Management Resources
<http://bco-dmo.org/resources/>
- GO-SHIP Repeat Hydrography Manual
<http://www.go-ship.org/HydroMan.html>
- Rolling Deck to Repository (R2R)
<http://www.rvdata.us/catalog/>