

IODP Science Support Office
Data Management Plan
Version 2023-04-18

The Science Support Office is responsible for managing the Site Survey Data Bank (SSDB; ssdb.iodp.org), through which scientists upload data relevant to their drilling proposals. The primary function of the SSDB is to support the IODP proposal review process; secondarily it acts as a resource for the scientific drilling community to find data to develop future proposals and scientific research plans.

These data were collected under a diversity of funding sources internationally, and the proponent is the owner of the data and responsible for ensuring they meet all data requirements. SSDB does not take the role of a long-term archive, but because data in SSDB are searchable by IODP proposal number and site number, it provides access to the data in a way not duplicated by other archives and repositories and provides value to the scientific drilling community.

Because the SSDB is not producing data, it does not have responsibility for ensuring the data are distributed and documented as required in the NSF GEO/OCE data policies; that responsibility remains with the proponent. However, it does hold and provide access to the data in the SSDB and has developed policies to ensure those data are appropriately managed.

1. The types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project.

The SSDB holds a diversity of digital data supporting scientific drilling proposals: any data deemed relevant by a proponent can be uploaded to support their proposal's review. This includes data related to seismic surveys, bathymetry, site maps, core or dredge sample data, and sometimes relevant environmental data (ice cover, currents, etc.). No analog data is accepted for modern proposals, though the SSO curates a legacy collection of paper data items (3.5 kHz data rolls, hand-plotted ship tracks, etc.) from previous scientific drilling programs.

2. The standards to be used for data and metadata format and content.

The SSDB holds files in the original format uploaded by the proponent; it does not reformat data, though we do provide a list of recommended data formats that reviewers are generally able to work with. The set of metadata was developed over the history of SSDB to best support the specific requirements of the scientific drilling community; however, it has been mapped to ISO 19115 for external compatibility if needed.

3. Policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;

And

4. Policies and provisions for re-use, re-distribution, and the production of derivatives; and

Ownership of the data remains with the proponent who uploaded them into SSDB (or the creator of the data from whom the proponent accessed them). When data are uploaded, the proponent can select to "release" or to "hold" the data. Released data become accessible to other SSDB users through the general search interface. Held data can be seen only by authorized reviewers/panelists, SSO staff, and, if the proposal is successful, the drillship operator, though the metadata for the file is publicly visible. These procedures are fully

defined in the Standard Confidentiality Policy (<https://www.iodp.org/standard-iodp-confidentiality-policy/file>). Strict controls are in place in the SSDB system to ensure that Held data remain secure, and these are supported by security policies – see the appended IODP Science Support Office Security Summary for further information. The SSO does not re-distribute or re-use the SSDB data beyond the SSDB query portal described in the main proposal and what is necessary for the proposal review process and drillship operations.

Occasionally, proponents have highly sensitive data requiring security above that provided by a Hold status. The SSO works with these proponents on a case-by-case bases to provide appropriate security measures. While this level of security may seem incompatible with NSF open science requirements, these data often come from petroleum companies or companies who collect and sell data to petroleum companies. They are data in the commercial realm not covered by NSF mandates, and their use to support drilling science is generally an exception to the data privacy policies of those companies and of benefit to scientific drilling.

5. Plans for archiving data, samples, and other research products, and for preservation of access to them.

As described above, SSDB does not submit data to external centers or archives for long-term preservation; that is the responsibility of the original producer of the data. Because these data were collected in many countries, under many different funding sources, over a long period of time, it is not appropriate for the SSO to impose data sharing/archiving requirements.