

Open and transparent access to samples and data is essential for research progress in the International Ocean Discovery Program (IODP). In return, recipients of samples and data incur obligations on their use and on the reporting of derived science outcomes in the peer-reviewed scientific literature.

## IODP Sample, Data, and Obligations Policy and Implementation



The JOIDES Resolution Facility Board approved these guidelines on May 15, 2018.

Note: This policy applies to IODP expeditions that began in October 2018 or later.

# IODP Sample, Data, and Obligations Policy and Implementation

Approved by *JOIDES Resolution* Facility Board: **15 May, 2018**

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## **(1) General Principles**

The goal of this policy and guideline is to ensure open and transparent access to samples and data from the International Ocean Discovery Program (IODP), the Integrated Ocean Drilling Program (IODP), the Ocean Drilling Program (ODP), and the Deep Sea Drilling Project (DSDP) for scientists, educators, museums, and outreach officers.

In return, recipients of IODP samples or data incur obligations on their use and reporting of the science outcomes from research based on these samples or data. The use of all core materials, samples, and data are under the auspices of the IODP Curators and the IODP Curatorial Advisory Board (CAB).

Specifically, the International Ocean Discovery Program, and encompassing all previous incarnations of scientific ocean drilling, ensures:

1. Availability of samples and data to Science Party members so they can fulfill the objectives of the drilling project (see **Appendix A, Section 3.1** for definition) and their responsibilities to IODP.
2. Dissemination of the scientific findings of all IODP-related drilling activities to gain maximum scientific and public exposure.
3. Scientific community access to encourage scientific analyses over a wide range of research disciplines by providing samples and data.
4. Preservation of core and cutting materials as an archive for future description and observations, non-destructive analyses, and sampling.
5. Support for education and outreach related to the drilling program by providing IODP samples and data to educators, museums, and outreach officers.

The current version of the **IODP Sample, Data and Obligations Policy and Implementation Guidelines** can be downloaded from <http://iodp.org/policies-and-guidelines>.

## (2) Policy Implementation Guidelines

### 2-1 Sample and Data Requesters

Sample and data requesters fall into three classes; each group incurs its own particular obligation once a sample or data request has been approved and delivered:

- 1. Science Parties:** A science party consists of all invited shipboard and shore-based expedition scientists, plus other scientists who have been approved by the shipboard Sample Allocation Committee (SAC; including the expedition's co-chief scientists, expedition program manager, and curator) to work on expedition material and/or data during the IODP nominal moratorium period. Expedition samples and data are held under a one-year moratorium, to ensure that Science Party members receive priority access to samples and data.
- 2. Post-moratorium Researchers:** These researchers, not part of the science party, may submit sample or data requests after the expedition's moratorium ends.
- 3. Educators and Outreach Officers:** Grade school through university educators, museum educators, and curators of museum exhibits and/or collections may also request IODP sample and data, when sailing as part of the science party or post-moratorium, including professionals conducting outreach related to an expedition as an outreach officer or scientific ocean drilling in general.

### 2-2 Sample and Data Requests

Requests for samples and data must be made through official IODP channels. Samples or data may be requested from so-called moratorium or post-moratorium expeditions, the latter which include past IODP expeditions as well as ODP and DSDP legs:

- 1. Moratorium Expeditions:** IODP imposes a sample and data moratorium for each expedition, one year from its completion, during which sample and data access is restricted to members of the expedition Science Party. Completion of an expedition is designated as the date when the majority of sampling is completed, either on board the drilling platform, or at the end of any official expedition-related shore-based sampling party. The one-year term may be modified before the expedition, in certain cases, by the Chair of the *JOIDES Resolution* Facility Board (JRFB), such as when significant funding derives from external sources or when the science party has expedition-related paper(s) under review with 'high-impact' scientific journals.
- 2. Post-moratorium Expeditions:** Samples and data from IODP expeditions no longer under moratorium restrictions, including all past IODP expeditions as well as ODP and DSDP legs.

Samples and data from current IODP and past IODP expeditions as well as ODP and DSDP legs can be accessed via the following links:

- a. [http://www.iodp-usio.org/Data\\_Samples/](http://www.iodp-usio.org/Data_Samples/)
- b. <http://sio7.jamstec.go.jp/>
- c. <http://iodp.wdc-mare.org/>

Shipping and supply costs in excess of reasonable costs, as detailed on the appropriate IODP core repository web site (see **Appendix B**), are the responsibility of the requester.

All submitted requests for expeditions under moratorium must be approved by the SAC. The SAC will review the sample requests, and approval will be based on compatibility with the scientific goals and objectives of the expedition as developed in the *Sampling Strategy* section of the *Expedition Prospectus*.

All scientists who receive approval for samples or data by the SAC become members of the Science Party. The sample requester may choose to appeal any decision by the shipboard SAC or onshore IODP Curators to the Curatorial Advisory Board (CAB).

If a conflict arises over the allocation of samples during a moratorium, the expedition participants will have priority over those who did not participate in the expedition.

Researchers with approved sample and data requests incur publishing obligations (see **Section 2-3**) for working on expedition material during the moratorium period.

During the moratorium period, the only researchers permitted to receive expedition core and cuttings materials and data are members of the Science Party. The Science Party may access expedition data online at a password-protected web site during the moratorium.

Samples are given or loaned to persons whose post-moratorium expedition requests have been approved by the appropriate IODP Curator.

## 2-3 Researcher Obligations

**Science Party Members** are obligated to conduct research and to publish their results in a peer-reviewed scientific journal or book that publishes in English, or as a peer-reviewed data report either in the open literature or in a relevant issue of the *Proceedings of the International Ocean Discovery Program*. To fulfill this obligation, manuscripts must be submitted within 20 months post-moratorium. Failure to meet this obligation may result in the denial of future sample requests or future sailing opportunities.

**Post-moratorium Researchers** are obliged to make data and results, obtained from these samples or data, publicly available within 36 months.

## Return of Sample Material

Following completion of sample investigations, or in the event that the proposed research described in the sample or data request is discontinued, **Science Party Members** and **Post-moratorium Researchers** are required to return all non-destroyed sample material, including borrowed sample mounts, smear slides, thin sections (etc.) at the investigator's expense to the IODP repository where the expedition sample materials are stored (see **Appendix B** for sample distribution information).

## Unfulfilled Research Plans

If investigators are unable to fulfill their obligations, they should submit a letter to the IODP Curator(s) to explain their reasons (see **Appendix B** for contact information). The letter should provide specific reasons for not fulfilling the obligations, such as the lack of conclusive analytical results (quality or quantity), personal reasons, or external factors.

## 2-4 Educator and Outreach Officer Obligations

After the IODP expedition moratorium period has expired, core materials and data can be used for the following education and outreach purposes:

1. Viewing and describing for teaching and educational purposes.
2. Sampling by educators (if core materials are abundant in the collection, and thus not in demand for research purposes).
3. Public display, such as in museums or at professional meetings.

All educators, museums, and outreach officers that receive samples for educational or display purposes incur the following obligations to IODP:

1. Recipients are required to submit a report at the conclusion of the loan period (or other time frame designated by the IODP Curator) that documents **(a)** how the core materials were used, **(b)** how many students/visitors were impacted, and **(c)** the activities that were organized related to the loan.
2. Public displays of IODP material must properly credit IODP using the following wording: "This project used samples and/or data provided by the International Ocean Discovery Program (IODP)".

## 2-5 Submitting Manuscripts

### Science Party Authors

Manuscripts can be submitted for publication during the moratorium period, but Science Party authors must comply with the following guidelines:

1. Receive prior written (email) approval by a majority of the expedition scientists. This approval will be coordinated by the IODP Expedition Project Manager (EPM) associated with the expedition. The EPM will circulate the manuscript among the expedition participants, tabulate the responses, and notify the author(s) of the expedition participants' decision.
2. Comply with all written collaborative agreements in the expedition's sampling strategy (see **Appendix B** for contact and repository-specific information).
3. Include "Expedition #### Scientists" (where #### is the expedition number) within the authorship.
4. Include the word(s) "International Ocean Discovery Program" and/or "IODP" in the publication's abstract.
5. Acknowledge IODP in all publications that result from the samples and/or data collected or received using the following wording: "This research used samples and/or data provided by the International Ocean Discovery Program (IODP). Funding for this research was provided by #####." (where ##### is the grant information required by the funding agency).
6. Provide the following key words, as appropriate, to the manuscript publisher:
  - a. "International Ocean Discovery Program (IODP)"
  - b. "Name of drilling platform"
  - c. "Expedition (short) title"
  - d. "Expedition ####" (where #### is the expedition number)
  - e. "Site ####" (where #### is the site identifier)
7. Notify the Editorial Review Board (ERB; consisting of the expedition's co-chief scientists and the EPM) of manuscript submission and submit complete citation information to the Science Operator upon acceptance.

Expedition science parties may decide to submit manuscript(s) immediately following an expedition to convey their initial results to a high-impact journal (e.g. Nature, Science, PNAS). In this case, all other IODP publications, news releases, and reports related to the expedition should be placed under temporary embargo. The Science Operator is required, before the end of the expedition, to notify the Chair of the respective Facility Board of the *JR*, *Chikyu*, or Mission-Specific Platform (MSP) to receive approval to postpone the publication of the expedition Preliminary Report (due for publication within two months post-expedition).

The Science Operator will be responsible for coordinating and completing the process, including communicating with the contracted publication agency that prepares the Preliminary Report for publication. Approval of the publishing embargo must be received by the expedition EPM no later than two weeks post-expedition. A status report on the progress toward the publication(s) governed by the temporary publication embargo is due to the Facility Board of the *JR*, *Chikyu*, or MSP six months post-expedition.

Once the publishing embargo has been approved, the manuscript must be submitted to a high-impact journal with a copy to the publication contractor within two months post-

expedition. If this deadline is missed, the embargo will be lifted, and immediately all IODP reports and news releases will go ahead. The Preliminary Report will also then be automatically published. All requirements for publishing during the moratorium period apply.

### Post-moratorium Researchers

Post-moratorium researchers who use samples and/or data from the International Ocean Discovery Program (IODP), Integrated Ocean Drilling Program (IODP), Ocean Drilling Program (ODP), and Deep Sea Drilling Project (DSDP) received *after* the end of the expedition moratorium period do *not* incur obligations to publish their results. However, if they publish papers based on these sample and/or data, they are requested to comply with the following guidelines:

1. Submit a manuscript for publication, if possible, within 36 months after receiving samples and/or data.
2. Include the word(s) “International Ocean Discovery Program” and/or “IODP” in the publication’s abstract (or similar wording appropriate to the DSDP, ODP, or the Integrated Ocean Drilling Program).
3. Acknowledge IODP in all publications that result from the samples and/or data collected or received using the following wording: “This research used samples and/or data provided by the International Ocean Discovery Program (IODP). Funding for this research was provided by #####.” (where ##### is the grant information required by the funding agency).
4. Provide the following key words, as appropriate, to the manuscript publisher:
  - a. “International Ocean Discovery Program (IODP)”
  - b. “Integrated Ocean Drilling Program (IODP)”
  - c. “Ocean Drilling Program (ODP)”
  - d. “Deep Sea Drilling Project (DSDP)”
  - e. “Name of drilling platform”
  - f. “Expedition or Leg (short) title”
  - g. “Expedition or Leg ###” (where ### is the expedition/leg number)
  - h. “Site ###” (where ### is the site identifier)
5. Notify the IODP Curator of manuscript submission and submit complete citation information upon acceptance.

## **(3) Appendix A: Terms, Definitions, Rolls and Responsibilities**

### **3-1 Drilling Project**

A single expedition or a series of multiple expeditions defined as one project during the expedition scheduling phase.

### **3-2 Drilling Project**

The moratorium period is one-year long and begins either **(a)** after the conclusion of an expedition, if the majority of the sampling occurred during the seagoing expedition, or **(b)** after the conclusion of the expedition's onshore sampling party (also identified as the "onshore science party" in case of a mission-specific platform, or MSP).

During the moratorium period, the only researchers permitted to receive expedition core and cuttings materials and data are members of the Science Party. After the moratorium period ends, samples are given or loaned to persons whose requests have been approved by an IODP Curator. Project data are publicly available (<http://www.iodp.org/resources/access-data-and-samples>) after the moratorium period.

### **3-3 Non-destructive Analyses**

Requests to perform non-destructive analyses on cores (descriptions, imaging, MST, X-ray scanning, etc.) should be submitted to the IODP Curator at the appropriate repository after the completion of the IODP Sample Request Form (<http://www.iodp.org/resources/access-data-and-samples>).

Investigators who conduct non-destructive analyses incur the same obligations as those scientists who request samples.

### **3-4 Post-moratorium Researchers**

Researchers who request samples after the moratorium period has ended.

## 3-5 Proceedings of the International Ocean Discovery Program

The *Proceedings of the International Ocean Discovery Program* is a serial publication published by the *JOIDES Resolution* Science Operator (JRSO) that contains a detailed summary of the IODP project technical operations and scientific results, including related peer-reviewed publications, data reports, and synthesis papers that covers post-expedition research, within and outside the one year nominal moratorium.

A “data report” is a short report of useful data that mainly consists of data sets and does not contain interpretation of results.

An expedition “synthesis paper” summarizes in a review-type fashion the findings related to key goals and themes of the drilling project and links to the broader and global science theme(s) addressed. While this is primarily based on the scientific papers and data reports resulting from the expedition, it is not required to be a synopsis of all papers and all data reports in all fields of observations. The style should be close to that of a thematic review paper for the peer-reviewed literature, though obviously tied closely to the actual expedition(s). An expedition could have more than one synthesis paper, if the diversity of science and findings would thus be best served. Likewise, synthesis papers from drilling projects with multiple expeditions, joint scientific party membership, and a common moratorium period would not normally be broken down according to specific expeditions, but instead could be presented as a single manuscript.

Each *Proceedings* volume will be completed at 36 months post-moratorium.

## 3-6 Science Party

The Science Party includes all invited shipboard and shore-based expedition participants plus scientists who have been approved by the SAC (see **Section 3-10**) for working on expedition material during the moratorium period and publishing their results.

## 3-7 IODP Curators

Three International Ocean Discovery Program (IODP) Curators (see **Appendix B** for more information) are responsible for (1) curation and sampling of core and cuttings during an IODP drilling project and (2) oversight and use of IODP, Integrated Ocean Drilling Program (IODP), Ocean Drilling Program (ODP), and Deep Sea Drilling Project (DSDP) core collections that are stored in the IODP repositories.

The curators maintain records of all distributed samples, both from the platform and from the repositories. These sample records include the names of the recipients, the nature of

the proposed research, the volume of samples taken, and the status of the request. This information is available upon request through the specific IODP Repository Curator.

### Platform Curator

Each IODP Curator (or assigned assistant curator for a specific IODP expedition) serves as the Platform Curator to oversee all curation tasks from the pre-planning stage through the arrival of the core and cuttings after an expedition at the repository where the core and cuttings material will be stored. The Platform Curator has responsibility to oversee use of the core and cuttings materials through the end of the moratorium period.

### Repository Curator

In addition, each IODP Curator serves as the Repository Curator with responsibility for the preservation of the core and cuttings once it arrives at the repository where the core material will be stored. The Repository Curator has responsibility to oversee the use of core and cuttings material after the moratorium period ends.

## **3-8 Curatorial Advisory Board (CAB)**

The Curatorial Advisory Board (CAB) is a standing body that consists of five members of the scientific community. The CAB members and chair are selected by the *JOIDES Resolution* Facility Board (JRFB), the ECORD Facility Board (EFB) and the *Chikyu* IODP Board (CIB) based on nominations from the IODP Curators.

CAB Members serve overlapping four-year terms. Every effort will be made by the JRFB, EFB, and CIB to ensure that the CAB membership represents a variety of scientific disciplines.

The CAB has two main roles:

1. Act as an appeals board vested with the authority to make final decisions regarding sample distribution, if and when conflicts or differences of opinion arise among any combination of the sample requester, the IODP Curator at the repository of interest, and the SAC.
2. Upon request from the IODP Curator, if needed review and approve requests, in order to sample the permanent archive and requests for loans of core material for outreach and education.

Any person or party appealing to the CAB may contact any member of the CAB directly via <http://www.iodp.org/resources/curatorial-advisory-board>.

### 3-9 Editorial Review Board (ERB)

The Editorial Review Board (ERB) is established for every drilling project and comprised of the Co-Chief Scientist(s) for the drilling project and the assigned IODP Expedition Project Manager (EPM) for the expedition. ERB members may select external scientists or specialists to serve with them, based on workloads and expertise of the expedition Co-Chief Scientists and EPM. An ERB remains active for 36 months post-moratorium.

The ERB has four main roles:

1. Coordinate the writing of the drilling project results.
2. Monitor all post-drilling project research and associated publication of results.
3. Make decisions on issues relating to the publication of research related to the drilling project to fulfill IODP obligations.
4. Monitor obligation fulfillment by the Science Party.

The members of the ERB hold the following specific responsibilities:

Responsibility	All ERB Members	Expedition Project Manager	Co-Chief Scientists
Coordinate the writing of the “Expedition Reports” section of the <i>Proceedings of the International Ocean Discovery Program</i> , attend the first post-expedition meeting, and review the Expedition Reports section galleys.	<b>X</b>		
Ensure that all manuscripts published in the “Expedition Research Results” section of the <i>Proceedings of the International Ocean Discovery Program</i> are complete and of reviewable quality before they are sent out for review. Manuscripts that do not meet IODP’s standards will be returned to the author(s) and will not go through the review process unless they are revised to meet IODP standards before the submission deadline.		<b>X</b>	
Collect all proposed publication titles related to the expedition (papers published in the <i>Proceedings of the International Ocean Discovery Program</i> volume and peer-reviewed journals or books).	<b>X</b>		
Make decisions on issues relating to the publication of research that are required for a drilling project to fulfill IODP obligations.	<b>X</b>		
Approve the final table of contents for the <i>Proceedings of the International Ocean Discovery Program</i> volume.	<b>X</b>		

Responsibility	All ERB Members	Expedition Project Manager	Co-Chief Scientists
Check each journal or book manuscript submission, within three months of receipt, for proper citation of site summaries and site chapters and for proper use of data and conclusions from other members of the Science Party.	X		
Implement the peer-review process for data reports and synthesis papers submitted to the <i>Proceedings of the International Ocean Discovery Program</i> as soon as the Expedition Project Manager approves each one as being of “reviewable quality” (see above).	X		
Although not anymore required, the IODP encourages the writing and coordination of drilling project synthesis paper(s) to be published in the <i>Proceedings of the International Ocean Discovery Program</i> or peer-reviewed journal(s).			X
Coordinate the peer-review process for synthesis paper if submitted to the <i>Proceedings of the International Ocean Discovery Program</i> .		X	
Document the status of the Science Party members’ actions to fulfill their obligations requirements.	X		
Regularly provide updates to the expedition-related bibliography that is part of the <i>Proceedings</i> volume.	X		

### 3-10 Sample Allocation Committee (SAC)

The Sample Allocation Committee (SAC), which is established for each drilling project, consists of the Expedition’s Co-Chief Scientist(s), IODP Expedition Project Manager (EPM), and Platform Curator. During the drilling project, the Platform Curator designates authority and responsibilities to a drilling project Curatorial Representative.

The SAC establishes a project-specific sampling strategy and makes decisions on project-specific sample requests received before the drilling project, during the drilling project, and during the moratorium period. In the event of an evenly divided vote, the Platform Curator at the repository associated with the expedition will make a decision. The sample requester at any time may choose to appeal the SAC’s or Platform Curator’s decision to the CAB (see **Section 3-8**).

### **3-11 Facility Boards (JRFB, EFB, CIB)**

Each platform provider (NSF for *JOIDES Resolution*, MEXT/JAMSTEC for *Chikyu*, and ECORD for IODP Mission-Specific Platforms) uses a Facility Board to make or inform decisions on the effective use of its drilling facility in fulfilling the objectives of the IODP Science Plan.

All the IODP Facility Boards make use of the *JOIDES Resolution* Facility Board (JRFB) Advisory Panels, which include the Science Evaluation Panel (SEP) and Environmental Protection and Safety Panel (EPSP) in order to evaluate the science, sites, environmental protection, and safety of proposed expeditions.

## Appendix B: Repository-specific Information

The three IODP core repositories (<http://www.iodp.org/resources/core-repositories>) are:

1. **Bremen Core Repository** (BCR) at the University of Bremen, Germany
2. **Gulf Coast Repository** (GCR) at Texas A&M University, College Station, USA
3. **Kochi Core Center** (KCC) at Kochi University, Japan.

### 3-12 Geographic Core Distribution

According to current IODP convention, the following geographic core distribution model will be maintained for the storage and curation of IODP cores and samples:

1. The BCR stores all of the cores recovered since the beginning of scientific ocean drilling from the Atlantic and Arctic Oceans as well as the Mediterranean, and the Black and Baltic Seas. In addition, the BCR is responsible for providing mobile laboratories for MSP expeditions and for organizing and hosting their Onshore Science Parties.
2. The GCR stores all of the cores recovered since the beginning of scientific ocean drilling from the Pacific Ocean (defined as east of western boundary of the Pacific Plate), Caribbean Sea, the Gulf of Mexico, and all Southern Oceans (defined as south of 60° except for the Kerguelen Plateau).
3. The KCC stores all of the cores recovered since the beginning of scientific ocean drilling from the Pacific Ocean (defined as west of western boundary of Pacific plate), Indian Ocean (North of 60°S), the Kerguelen Plateau, and the Bering Sea.

### 3-13 IODP Core Repository Websites

Repository Procedures can differ slightly between the BCR, GCR and KCC and these are accessible at/through the respective repository websites.

#### [Bremen Core Repository](#)

<https://www.marum.de/en/Research/IODP-Bremen-Core-Repository.html>

#### [Gulf Coast Repository](#)

<http://iodp.tamu.edu/curation/gcr/index.html>

#### [Kochi Core Center](#)

<http://www.kochi-core.jp/en/iodp-curation/index.html>