

Data and Sample Handling Policy for Cooperative Research Cruises (CRC)

(Translated from Japanese text, which prevails for any translation discrepancy)

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1. Purpose of data and sample handling for CRC

Handling of data and samples acquired by the CRC aims at the following purposes:

- To appropriately preserve data and samples, and prevent them from being unaccounted and/or lost.
- To publicly distribute metadata of data and samples in an integrated manner.
- To attain effective utilization of data and samples by encouraging and supporting multiple usage; appropriately and publicly distribute data and samples while protecting acquirers' rights.

2. Ownership of data and samples

The ownership of data and samples acquired by the CRC is shared, if not otherwise specifically arranged, by the following co-owning institutions:

- Joint Usage/Research Center for Atmosphere and Ocean Science (JURCAOS)
- Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

However, if there is an issue on data/sample handling which needs further discussion, JAMSTEC and the Atmosphere and Ocean Research Institute (AORI) of the University of Tokyo will discuss on further and come to an acceptable decision.

3. Specifications and handling of data, samples, and their associated information

Acquired data, samples, and their associated information are handled as follows:

3.1. Research vessels' onboard-equipped instruments and AORI/JAMSTEC-managed instruments

3.1.1. Submission

- As for instruments managed/operated by AORI or JAMSTEC, which include onboard-equipped instruments on individual research vessels, manned/unmanned submersibles, sampling instruments, etc., as prescribed in the related documents, the chief scientist will submit the acquired data and associated metadata from these instruments to JAMSTEC.

3.1.2. Storage

- JAMSTEC will preserve the archives of submitted data and metadata.

3.1.3. Public distribution

- JAMSTEC will publicly distribute metadata through JAMSTEC-operated databases as soon as preparations are complete, and receive data requests for their utilization, similar to the handling of JAMSTEC cruise data.
- After completion of the public distribution moratorium period, JAMSTEC will disclose data for public distribution through JAMSTEC-operated databases, similar to the handling of JAMSTEC cruise data. The public distribution moratorium period is 5 years.
- If early disclosure of data for the public distribution is requested by the chief scientist, JAMSTEC may disclose the data before public distribution moratorium period of that cruise ends.
- Some of the data acquired by onboard-equipped instruments are defined as routine observation data, and generally no moratorium period is applied. However, the chief scientist can set a public distribution moratorium period of no longer than 5 years for those data, to meet research requirements.
- When disclosing data for public distribution, JAMSTEC will not inform either the chief scientist nor JURCAOS.
- JAMSTEC may use an offline method to distribute the data unsuitable for online downloading because of its specifications such as data type or size..
- For specific types of data to be routinely submitted to Japan Oceanographic Data Center (JODC), JAMSTEC will carry out the data submission.

3.2. Instruments brought-in by researchers

3.2.1. Submission

- For data generated by instruments that were temporarily brought-in by researchers on a research vessel or submersible, researchers will submit the metadata to JAMSTEC.
- If public distribution is desired, the acquired data will be submitted to JAMSTEC.

3.2.2. Storage

- JAMSTEC will preserve archives of submitted data and metadata.

3.2.3. Public distribution

- JAMSTEC will publicly distribute metadata through JAMSTEC-operated databases as soon as preparations are complete, and receive data requests for their utilization, similar to the handling

of JAMSTEC cruise data. When a data request is received, JAMSTEC will contact the researcher responsible for data storage.

- Researchers disclosing data for public distribution by themselves, will report the URL of the data server to JAMSTEC.
- JAMSTEC will disclose the submitted data, and/or reported URLs for public distribution through JAMSTEC-operated databases, similar to the handling of JAMSTEC cruise data. The public distribution moratorium period is 5 years.
- When disclosing data for public distribution, JAMSTEC will not inform either the chief scientist nor JURCAOS.

3.3. Rock samples

3.3.1. Submission

- Researchers who acquire rock samples will submit metadata of the samples to JAMSTEC.

3.3.2. Storage

- JAMSTEC will preserve the metadata of samples.
- Researchers will preserve the samples as well as their metadata. The storage period is defined as 10 years from the end of the cruise (for distributing samples to other users and/or for preserving evidences of research results), and extension of storage will be assessed after the end of storage period.
- Archived samples previously submitted to JAMSTEC will be preserved similar to the preservation of JAMSTEC cruise samples.

3.3.3. Public distribution

- JAMSTEC will publicly distribute metadata through JAMSTEC-operated databases as soon as preparations are complete, and receive requests for utilization of samples, similar to the handling of JAMSTEC cruise samples.
- The public distribution moratorium period is 5 years.
- If a sample request is received for the samples not submitted to JAMSTEC, JAMSTEC will contact the researcher responsible for storage of samples. As for archived samples previously submitted to JAMSTEC, JAMSTEC will distribute the samples following a procedure similar to the distribution of JAMSTEC cruise samples.

3.4. Sediment core samples

3.4.1. Submission

- Researchers who acquire sediment core samples will submit metadata of the samples to JAMSTEC.
- Archive portions of samples are recommended to be submitted to JAMSTEC. Submitters are liable for the expenses incurred in shipping of samples to Kochi Institute for Core Sample Research, JAMSTEC. The archived samples are subject to be disclosed for public distribution.

3.4.2. Storage

- JAMSTEC will preserve the metadata of samples.
- For samples not submitted to JAMSTEC, researchers will preserve the samples as well as their metadata. The storage period is defined as 10 years from the end of the cruise (for distributing samples to other users and/or for preserving evidences of research results), and extension of storage will be assessed after the end of storage period.
- Samples submitted to JAMSTEC will be preserved following a procedure similar to the preservation of JAMSTEC cruise samples. The storage period is defined as 10 years from the end of the cruise, and extension of storage will be assessed after the end of storage period.

3.4.3. Public distribution

- JAMSTEC will publicly distribute metadata through JAMSTEC-operated databases as soon as preparations are complete, and receive requests for utilization of samples, similar to the handling of JAMSTEC cruise samples.
- Archive portions of the samples submitted to JAMSTEC will be distributed following a procedure similar to the distribution of JAMSTEC cruise samples. The public distribution moratorium period is 5 years. Researchers are recommended to submit applications to the Joint Use System hosted by the Center for advanced Marine Core Research (CMCR), Kochi University for seeking support for analysis of the samples.
- If a sample request is received for the samples not submitted to JAMSTEC, JAMSTEC will contact the researcher responsible for storage of samples.

3.5. Biological samples (including those which are separated, extracted or propagated from original samples.)

3.5.1. Submission

- Researchers who acquire biological samples will submit metadata of the samples to JAMSTEC.

3.5.2. Storage

- JAMSTEC will preserve the metadata of samples.
- Researchers will preserve samples as well as their metadata. The storage period is defined as 10 years from the end of the cruise (for distributing samples to other users and/or for preserving evidences of research results), and extension of storage will be assessed after the end of storage period.

3.5.3. Public distribution

- JAMSTEC will publicly distribute the metadata through JAMSTEC-operated databases as soon as preparations are complete, similar to the handling of JAMSTEC cruise samples.
- The public distribution moratorium period is 5 years.
- If a sample request is received, JAMSTEC will contact the researcher responsible for storage of samples.

3.6. Other samples

3.6.1. Submission

- Researchers who acquire other samples (e.g., seawater, atmospheric gas, rainwater, etc.) will submit metadata of the samples to JAMSTEC.

3.6.2. Storage

- JAMSTEC will preserve the metadata of samples.
- Researchers will preserve samples as well as their metadata. The storage period is defined as 10 years from the end of the cruise (for distributing samples to other users and/or for preserving evidences of research results), and extension of storage will be assessed after the end of storage period. Storage period will not be applied in case samples are fully consumed in research work.

3.6.3. Public distribution

- JAMSTEC will publicly distribute metadata through JAMSTEC-operated databases as soon as preparations are complete, similar to the handling of JAMSTEC cruise samples.
- The public distribution moratorium period is 5 years.
- If a sample request is received, JAMSTEC will contact the researcher responsible for storage of samples.

3.7. Cruise Report and Summary

3.7.1. Submission

- As a report of research conducted during a cruise, the chief scientist will submit a cruise report (in English or Japanese) to the CRC office. A cruise report is supposed to be a preliminary document produced just after a cruise, and its content should be suitable for public distribution.
- The chief scientist will summarize the cruise in English, and submit it as a cruise summary.
- Cruise report and cruise summary will be submitted along with metadata, within 2 months after the end of the cruise.

3.7.2. Storage

- JAMSTEC will preserve the cruise report and cruise summary.

3.7.3. Public distribution

- JAMSTEC will publicly distribute the cruise report and cruise summary through JAMSTEC-operated databases as soon as preparations are complete, similar to the handling of JAMSTEC cruise reports and cruise summaries.
- JAMSTEC will register some contents of these documents as Cruise Summary Report (CSR) for JODC, as far as those are available.

3.8. Metadata

3.8.1. Submission

- The chief scientist will submit metadata about cruise and implementation activity in specified format within 2 months after the end of the cruise.

3.8.2. Storage

- JAMSTEC will preserve the metadata.

3.8.3. Public distribution

- JAMSTEC will publicly distribute some of the metadata through JAMSTEC-operated databases as soon as preparations are complete, similar to the handling of JAMSTEC cruise metadata.

4. Data and sample as intellectual property

If data/samples are used as intellectual property or distributed for commercial use, following procedure applies:

- For obtaining or asserting intellectual property rights for acquired data/samples, or for using them for a (non-profit or for-profit) commercial purpose, one of the responsible institutions or their

collaborating trustee organization will be contacted in advance. The contacted institution or organization will handle contractual arrangements.

- There is no obligation for notification or advance agreement with the co-owning institutions.
- The responsible institution which handles the contractual arrangements will take the profits, if any.
- When disclosed or distributed in public, photo/video data acquired with JAMSTEC manned/unmanned submersibles or sampling instruments will be credited to JAMSTEC with apparent notification.

5. Management of research proposal information

Information related to research proposal will be handled as follows:

- The CRC office will provide research proposal information to JAMSTEC.
- Research proposal information supposedly include;
 - Title of proposed research, name of principal investigator, contents of research, co-investigators, information about specific contracts, etc.
 - Overall status of various permissions/applications (e.g., MSR, ABS, special collection, marine sanctuary, etc.)
- JAMSTEC will use research proposal information for purposes such as confirmation of permission statuses, credit attribution to principal investigator if data/sample distributed publicly, identification of primary users during public distribution moratorium period, identification of responsible researchers for allowing data/sample requests for additional uses during public distribution moratorium period.

6. Additional use of data and samples

- When a researcher, who is not listed as a co-investigator in the cruise metadata sheet, wants to use data/samples during public distribution moratorium period, it will be treated as an additional use, and JAMSTEC will receive a data/sample request.
- For requesting data/samples under public distribution moratorium period, the requester will need to acquire a permission from the chief scientist of the concerned cruise.
- After public distribution moratorium period is over, data disclosed on online databases will be downloadable without a data request.
- Samples archived by JAMSTEC will be distributed on receipt of sample requests, as is the case with JAMSTEC cruise samples.
- As for data/samples not archived by JAMSTEC, JAMSTEC will contact responsible researchers to inform them that there is a data/sample request.

7. Report of research results

- When publishing research results (e.g., in literature, presentation at meeting, symposium, public documentation, etc.), a Research Result Publication Report will be submitted to the CRC office, regardless of whether it is for proposal-based or request-based use.
- The Research Result Publication Report will be prepared in a specified format.
- The CRC office will send notice to researchers once a year for reminding them about Research Result Publication Report. The reports will be publicly distributed through JAMSTEC databases or other means, in a manner linked to relevant cruises.