

GUIDELINES TO COMPLETING METADATA RECORDS FOR THE ANTARCTIC MASTER DIRECTORY

Background

“Scientific observations and results from Antarctica shall be exchanged and made freely available” (Antarctic Treaty; Article III:1:c)

In order to facilitate this exchange of scientific data the Standing Committee on Antarctic Data Management (**SCADM**) was formed. The result was the creation of the Antarctic Data Directory System which comprises the Antarctic Master Directory (**AMD**), and the National Antarctic Data Centres (**NADCs**).

The [AMD](#) is a searchable, web-based record of Antarctic data set descriptions. The AMD is populated by information about the research data which is collected from the researchers by the NADCs. The information about the data is called **metadata** (i.e. it is not the data itself).

The SCADM committee is comprised of a representative from each NADC. New Zealand's NADC is Antarctica New Zealand. We therefore have an obligation under the Treaty to collect the metadata on all research activities that we support in Antarctica and to share that information via the AMD. Additional reasons to collect this data are to:

- Ensure that a public record is kept of all the Antarctic data collected;
- Improve the efficiency of Antarctic scientific data management;
- Facilitate easy access to Antarctic data, and therefore maximise the use of the data;
- Assist in avoiding duplication of research and data collection;
- Facilitate new research through access to existing Antarctic scientific data.

The accompanying Excel spreadsheet has been designed to collect your metadata so it can be entered in to the AMD. All research activities supported by Antarctica New Zealand are required to provide this information.

Please fill in the accompanying spreadsheet with the relevant information for each of your data sets and submit no later than four weeks after your return from Antarctica. **Failure to submit this spreadsheet by the designated date could result in the retraction of your logistical support from Antarctica New Zealand for the next season.**

If your event is collecting continuous, long-term data for which you have already submitted a metadata form, you do not need to re-submit a form. A new form DOES need to be submitted if you are collecting new data or samples for which we have no previous records of.

Please email the completed spreadsheet to **Shulamit Gordon** at s.gordon@antarcticanz.govt.nz. If you have any comments or queries concerning this procedure in general, or the spreadsheet in particular, please don't hesitate to ask Shulamit.

General Guidelines:

A: What fields need to be filled in?

All applicable fields for a given data set should be completed. Some information may not be available or cannot be recovered, and some fields do not necessarily apply to every data set.

Some fields are **required**, and these fields are marked in red in the spreadsheet. If you do not fill these fields in, none of the metadata will be accepted into the AMD and we would have to contact you again to provide this information.

B: How many data sets?

If each data set contains virtually identical information in most fields, the data sets should be aggregated by filling in one column on the spreadsheet. By doing this, the end user won't be overwhelmed by too many essentially identical entries when conducting a search.

C: Additional Information:

GCMD

<http://gcmd.gsfc.nasa.gov/>

AMD

<http://gcmd.gsfc.nasa.gov/KeywordSearch/Home.do?Portal=amd&MetadataType=0>

New Zealand's Portal to the AMD

http://gcmd.nasa.gov/KeywordSearch/Home.do?Portal=amd_nz&MetadataType=0

Specific Notes:

1.1 Event PI first name:

Enter the Principle Investigator's first name. The Principle Investigator will be the point of contact for anyone searching for more information regarding the dataset.

1.2 Event PI last name:

Enter the Principle Investigator's last (family) name.

2.1 Event No.:

Enter the Antarctica New Zealand event number and season for your event (e.g. K999 06/07).

2.2. Data set title:

This data set title **will not** necessarily be the same as your event title.

Enter a brief title for your data set. A good title is important because the user, when receiving the results of a metadata search, is often presented with a long list of similar titles. Titles should convey the content of the data set(s) and should be descriptive enough so the user, at search time, can distinguish the content from other similar data sets.

Generally, a good title may include parameters measured, geographic location, source name, sensor name, project, temporal coverage in years. There is a limit of 220 characters in the title so it needs to be descriptive but concise.

2.3 Data Summary:

Enter a brief description of the data set. A good summary is **descriptive**. It describes the data set so that users are able to decide whether the data set is appropriate for their needs. Generally, a brief summary of **what** was done, **where** it was done, **when** it was carried out and sometimes **how** it was conducted provides an indication of what the data set is comprised of.

For example:

Six ice cores from Kilimanjaro provide an ~11.7-thousand-year record of Holocene climate and environmental variability for eastern equatorial Africa, including three periods of abrupt climate change: ~8.3, ~5.2, and ~4 thousand years ago (ka). The latter is coincident with the "First Dark Age," the period of the greatest historically recorded drought in tropical Africa. Variable deposition of F⁻ and Na⁺ during the African Humid Period suggests rapidly fluctuating lake levels between ~11.7 and 4 ka. Over the 20th century, the areal extent of Kilimanjaro's ice fields has decreased ~80%, and if current climatological conditions persist, the remaining ice fields are likely to disappear between 2015 and 2020.

3.2 Science Keywords:

When someone is doing a search on the AMD, there are two ways one can look for information; a guided keyword search by topic or a free entry text search. Keywords are important in allowing guided keyword searching by topic for metadata records.

The use of the full format keywords ensures that the records are entered in a consistent manner. Thus, users searching for entries will be able to retrieve all entries related to a particular topic. Therefore, it is very important to select the correct and appropriate keywords in all applicable fields.

In comparison, when doing a search by the free entry text search, a search on the term "aerosols" for example, will return all entries with the word "aerosol" within the metadata record. Ancillary keywords can be helpful with this type of search but is not essential. Please feel free to add any additional keywords.

Select as many of the full format science keywords as appropriate from the current approved list, which can be found by clicking the box in the spreadsheet. Please use the entire keyword set.

3.3 ISO Topic Category:

This field is a high-level geographic data thematic classification, used to assist in the grouping and searching of available geographic data sets. Select as many ISO topic keywords as appropriate from the current approved list, which can be found by clicking the box in the spreadsheet.

4.0 GPS Data Collection

Please indicate if you collected any coordinates using GPS.

4.1 Spatial coverage

Enter the specific measurements of the geographic coverage of where the described data was collected.

Latitude and Longitude should be specified in decimal degrees with either the letters S, E or W right after the number with no space in between, or the symbols + or - right before the number with no space in between.

For example: Scott Base coordinates are 77° 51'S, 166° 45'E. In decimal degrees, this becomes -77.8500S, 166.7500E. A coordinate converter is available from <http://www.fcc.gov/mb/audio/bickel/DDDMSS-decimal.html>. The AMD is now linked to Google Earth and this information is used to show where the data was collected on a map.

4.2 Temporal coverage

Please include the start and stop dates of when the data set was obtained. Use the format YYYY-MM-DD for both dates.

4.3 Paleo-temporal coverage

For paleoclimatologic data, give the first and last dates represented by the data detailed in this document. Please include units of time, e.g. Ma, ka, ybp with numeric dates.

4.4. Platform and Instrumentation

In addition to science keywords, the GCMD has a controlled keyword search using the platform and instrumentation used to measure the data. An indication of the platform and instrumentation may also give an indication of quality of the data set. For example, an aerial penguin colony survey was completed by photographing the colonies and counting the nesting birds. The platform would be an airplane and the instrument would be a camera.

5.1 Related url:

This field is used to provide hypertext url links to Internet sites that contain information related to the subject of the data and/or research, as well as other useful Internet sites such as project home pages. Enter the url(s) for the homepage of the data and/or research which is detailed in this document. If no such homepage exists, you may want to enter the homepage of your organisation.

5.2 Project:

If your research is part of a recognised project, select the project name from the current approved list, which can be found by clicking the box in the spreadsheet.

If your research is part of a project which is not listed, insert your project name and indicate that it is not on the official list.

This field will enable the identification of all metadata that relates to that project, so it is important to attach one or more projects to your metadata record.