

## **NDACC Protocol for Data Providers and Data Users**

It is the spirit and purpose of the NDACC to foster the broadest possible collaboration among interested scientists via quick access to NDACC data. However, with any good measurements, the investigators themselves bear the ultimate responsibility for data quality. The Protocol for NDACC Data Providers and Data Users recognizes that, in order to produce a verifiable data product, sufficient time is needed to collect, reduce, test, analyze, and intercompare the streams of preliminary analyses from multiple NDACC observing sites. Thus, this protocol is structured to ensure excellent data quality while providing quick data access.

### **Data Providers**

NDACC Principal Investigators (PIs) responsible for the measurements must adhere to the following principles:

- 1) NDACC investigators are encouraged to establish the scientific collaborations needed for the optimum testing and verification of their measurements.
- 2) Intercomparison among NDACC instruments is a critical element of the analysis and verification process leading to quality-assured data. In addition, the nature of small-trends detection requires an extremely high level of measurement confidence and may require multi-year analyses for observations from both individual and multiple sites. However, given the current maturity of many of the NDACC measurements, it is expected that the verifiable product referred to as “NDACC Data” be archived at the Data Host Facility (DHF) for public availability within a one-year period after acquisition.
- 3) In so far as possible, NDACC PIs are encouraged to approve the public release of the data on a time scale shorter than the one-year period mentioned in item (2).
- 4) Data providers will provide and update metadata sufficient to enable the continuing assessment of data quality. This documentation should include (but is not limited to):
  - a brief description and history of the instrument and any changes to it,
  - an indication of the data processing versions and procedures, and
  - a report of validation exercises and intercomparisons for the instrument and the data analysis.

These metadata are essential for all archived data and, in effect, enable an assessment of the data quality.

- 5) Upon acceptance into the NDACC, measurement PIs must also begin submitting annual reports containing their contact information, a summary of their instrument’s operational and funding status, information about the data analysis and archiving schedules, and a list of relevant publications. In

addition they are requested to highlight any issues that they wish called to the attention of the NDACC Steering Committee (SC).

- 6) Measurement PIs are also expected to provide, and update, as needed, a brief descriptive paragraph for inclusion in the Measurements & Analyses Directory.

There are a number of cases in which centralized access to preliminary data that is still undergoing final verification would be of operational benefit. Such cases might include (i) campaigns in the vicinity of an NDACC station for which centralized access to the preliminary analyses would help in achieving the goals of the campaign, (ii) geophysical episodes for which such analyses might be useful in planning a research response, or (iii) satellite intercomparison and validation activities. A dedicated directory on the DHF is available for such Rapid Delivery Data with the expectation that subsequent archiving of the final data products will occur within one year.

If the data processing method is changed, the entire archived dataset should be reprocessed as soon as possible to maintain comparability and the PI should retain the old version of the data. Since some instruments generate more data than others, the methodology for updating the archive for each instrument type should be established by the corresponding IWG.

### **Data Users**

As stated above, NDACC data products will be archived at the DHF for public availability within one year after acquisition. In addition, some instrument PIs have approved the public release of their verified data on a shorter timescale, while others provide preliminary data to the Rapidly Delivery section of the DHF shortly after acquisition. Within the first year after acquisition, any NDACC data not authorized for early public release are proprietary and their use is only possible via collaborative arrangement with the appropriate PIs. Co-authorship shall be offered on publications resulting from the use of such proprietary data sets.

Accounts on the NDACC DHF are only available to current NDACC investigators. New parties interested in general access to NDACC data should use the "Contact Us" feature on the NDACC web site <[www.ndacc.org](http://www.ndacc.org)> indicating whether they wish to become affiliated with a particular Instrument Working Group or to become a member of the NDACC Theory and Analysis Working Group. They will then be directed to the appropriate Working Group Co-Chairs who can guide them in the preparation and submission of a suitable proposal.

All NDACC investigators and data users must acknowledge both the NDACC data center and the data provider in any publication, as follows:

"The data used in this publication were obtained from *institute or PI name* as part of the Network for the Detection of Atmospheric Composition Change (NDACC) and are publicly available through anonymous ftp at <[ftp.cpc.ncep.noaa.gov/ndacc/station](ftp://ftp.cpc.ncep.noaa.gov/ndacc/station)>"

If substantial use is made of NDACC data in a publication (i.e., the data are critical to the study and its conclusions) an offer of co-authorship must be made through personal contact with the data providers or owners. ***In all cases***, scientists using NDACC data are encouraged to contact the relevant instrument PI in order to receive additional information about the data product that could be useful in their studies.

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