

NDACC Protocol for Measurement Affiliation

Introduction

This protocol details the process for preparing and submitting a proposal to affiliate a measurement. Included here are the procedures to affiliate a measurement associated with a currently recognized NDACC instrumentation type and for proposals that introduce new instrumentation types to NDACC for consideration. This 'Protocol for Measurement Affiliation' works in conjunction with the 'NDACC Protocol for the Validation of Instruments and Data Analysis Methods', often referred to as simply the 'Validation Protocol'. The 'Validation Protocol' and its instrument-specific appendices prescribe the required data quality criteria for each of the currently existing instrumentation types. When a new instrumentation type is introduced and accepted, a new instrument specific validation appendix must be written for that instrument type. A new IWG might be established as discerned by the NDACC Steering Committee.

A measurement location that hosts one or more NDACC-affiliated instruments is designated as an NDACC station. The current NDACC stations and a listing of NDACC-certified instrument types can be found on the NDACC web site <www.ndacc.org> in the STATIONS and INSTRUMENT tabs. The technical specifications for the instrument are detailed in the specific instrument appendices of the Validation Protocol. The NDACC website also contains the NDACC Measurements and Analyses Directory which provides information about past and current measurement activities.

NDACC recognizes the challenges associated with obtaining a global representation of the atmosphere using a limited number of ground-based measurements. Thus, the addition of measurement activities to the network is essential both to improve scientific understanding and to broaden the geographical base of observations in a certifiable way.

Proposals for NDACC Affiliation

Candidate Principal Investigators (PIs) interested in having their measurement activities formally affiliated with the NDACC must submit a proposal via one of two paths 1) for instruments/measurements similar to NDACC-certified instrument/measurement types, contact the co-chairs of the corresponding Instrument Working Group (IWG) or 2) for a new measurement type, contact the SC co-chairs. Proposed measurements can be of one or more atmospheric species or parameters of network interest at either an already-existing NDACC station or at a new location. In all cases, the interested PI must identify a specific benefit to NDACC resulting from the geographical location of their instrument or an added science value (such as the measurement of additional species or parameters, or the use of a new measurement technique). Measurements may be proposed for either a specified period of time (e.g., for a particular campaign), or for open-ended, long-term studies. In the case of long-term measurements, the operational commitment must be of sufficient duration to allow for adequate

trend determinations or geophysical analyses. PIs are expected to secure the resources needed for conducting the measurements and for analyzing the data from their own institution or from a specific funding agency.

In the case of proposals for inclusion of new instrumentation type or measurement technique, the Steering Committee co-chairs, and if relevant the most closely associated IWG, must be provided with convincing documentation of the technique's validity, including end-to-end simulations of the measurement and data analysis methods, along with correlative experimental evidence from the actual instruments.

Since NDACC is dedicated to conducting measurements of the highest quality, it is necessary that all measurement systems within NDACC conform to similar standards. Thus, the candidate PI for a new instrument type must provide detailed information about the measurement system and analysis methods, together with a record of intercomparison activities for both. In addition, the candidate PI should describe the quality control procedures that have been implemented thus far and must agree to the requirements detailed in the 'NDACC Data Protocol for Instrument Principal Investigators'.

Communication between the candidate PI and the Co-Chairs of one or more of the NDACC IWGs prior to formal proposal submission for a new instrument type can be valuable in developing the application for affiliation and in initiating the validation process. The Co-Chairs of the NDACC SC can assist the PI in identifying the most appropriate IWGs.

In cases where the proposed measurements of interest are currently being conducted under the auspices of an existing independent network, it may be more appropriate to pursue the affiliation of that network as an "NDACC Cooperating Network." Details regarding such affiliation can be found in the 'NDACC Protocol for Cooperating Networks'.

Evaluation Procedure

Upon receipt of a proposal for NDACC affiliation, the SC or IWG will conduct an evaluation as follows:

- 1) In the case where the measurement technique corresponds to one of the current NDACC instrument types (Dobson/Brewer, FTIR, lidar, microwave, sondes, UV/Visible, or spectral UV), the proposal will be evaluated by the corresponding NDACC IWG. The recommendations from that Working Group will be presented to the SC for final action.
- 2) In the case where the measurement technique is different from that of current NDACC instruments, the appropriate Working Group(s), either existing or convened ad hoc, will evaluate the proposal and present their recommendations to the SC. If the proposed measurements are of species or parameters different from those currently addressed by NDACC, the appropriate Working Group(s) shall evaluate the benefit of such

measurements to the network, as well as the calibration procedures to be used by the investigators.

- 3) In the case where the proposed measurement(s) will be conducted at an existing NDACC station, input from NDACC PIs making measurements at that station also may be sought.
- 4) For cases not directly covered under items 1, 2, or 3 above, the NDACC Steering Committee will decide on an appropriate evaluation procedure.

If the proposing investigator has also submitted a proposal to a funding agency seeking support for the measurement activity, they may request a letter to the funding agency on behalf of NDACC after the proposal was evaluated successfully.

Current online Version:

November 14, 2025

Revision:

November 14, 2025

Changed title from NDACC 'Measurements Protocol' to 'NDACC Protocol for Measurement Affiliation'. Clarified the distinction between this and the 'NDACC Validation Protocol' (also now renamed) and moved some text between the two to comply with that distinction. This is fully focused on the process for creating and submitting a proposal for affiliation of a new measurement. This can be for a currently recognized NDACC instrument type, or for proposing a new instrument type. Added history of revisions.

Revision:

March 7, 2017

Substantial rewrite of the introduction removing statements about the name change and expanded scope of the network. List of priorities is removed.

Revision:

March 10, 2009

Changes name of the network to NDACC and adds the list of expanded priorities. Removes distinction of Complementary (vs Primary) measurement. Both result in substantial rewrite of the introduction.

Original Version:

September 26, 1996