

NDACC Protocols

The primary goal of the Network for the Detection of Atmosphere Composition Change (NDACC) is to obtain consistent, standardized, long-term measurements of atmospheric trace gases and chemical species, particles, physical parameters, and spectral UV radiation reaching the Earth's surface. Since its inception in 1991 as the Network for the Detection of Stratospheric Change (NDSC), the network focus has expanded considerably. NDACC remains committed to making observations through which changes in the physical and chemical state of the stratosphere can be determined and understood, with an emphasis on the long-term evolution of the ozone layer (i.e., its decay, likely stabilization and expected recovery). However, its measurement and analysis priorities now encompass the mesosphere, stratosphere, and troposphere in its exploration of the interface between changing atmospheric composition, climate, and air quality. Thus, NDACC's broadened objectives are presently centered on the following priorities:

- Establishing long-term databases for detecting changes and trends in atmospheric composition, and understanding their impacts on the mesosphere, stratosphere, and troposphere;
- Establishing scientific links and feedbacks between changes in atmospheric composition, climate, and air quality;
- Validating atmospheric measurements from other platforms (i.e., satellite, aircraft, and ground-based);
- Providing critical datasets to help fill gaps in satellite observations;
- Providing collaborative support to scientific field campaigns and to other chemistry- and climate-observing networks; and
- Providing validation and development support for atmospheric models.

NDACC is a major component of the international atmospheric research effort, and has been endorsed by national and international scientific agencies, including the United Nations Environment Programme and the International Ozone Commission of the International Association of Meteorology and Atmospheric Sciences. Since its inception, it has been a major contributor to the Global Atmosphere Watch Programme of the World Meteorological Organization.

In order to best address its goals and accomplish its objectives, the NDACC has established the following Protocols to guide the various aspects of its operations.