

## The Global Atmosphere Watch (GAW) Station Information System - GAWSIS

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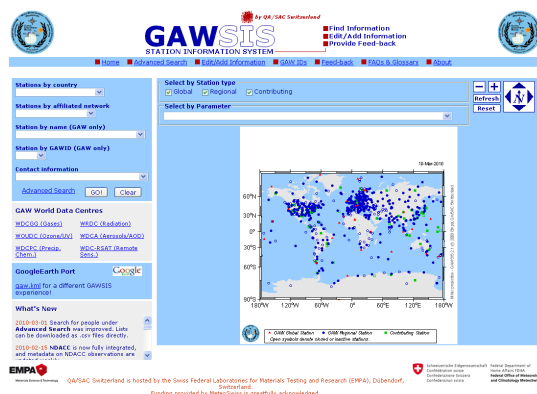
GAWSIS is an interactive web application and the official catalogue of the observational base of the World Meteorological Organization (WMO)/GAW programme. It was designed with a hierarchical log-in system to allow registered users to change and amend information. On top, it uses automated machine-to-machine processes using metadata obtained from a number of data centers regularly update information on the measurement programs of stations. The GAWSIS development effort has been guided by the objectives to:

- Document the ground-based observational network of GAW (& partner programs) and help keep this information up-to-date
- Facilitate data discovery and data retrieval of atmospheric data
- Increase the visibility of GAW (& partner programs)
- Promote scientific exchange and collaboration between stations and
- provide an entry point for researchers interested in placing an experiment.

GAWSIS is available on-line at <http://gaw.empa.ch/gawsis>. The web interface and functionalities have been steadily improved over the years. GAWSIS serves as a structuring element in the increasingly complex landscape of atmospheric monitoring programs and data archives. At present, GAWSIS provides:

- station reports for a total of 788 stations world-wide (of which 180 stations are reported closed) including
- site characterization,
- contact people,
- measurement program with links to data sources, and access to trajectories
- bibliographic references
- simple search interfaces to produce lists of stations and people based on geographical criteria or measurements of interest
- vocabularies for variables, methods
- a collocation table for identification of stations in various programs
- International Organization for Standardization-compliant metadata representations in Extensible Markup Language for use in WMO Information System (WIS) or Global Earth Observation System of Systems
- A GoogleEarth™ port and GoogleMaps™ visualizations, as well as a custom-built mapping system.

WMO/Commission for Atmospheric Sciences-XV recommended to establish GAWSIS as a World Data Centre for Metadata and a Data Collection and Production Centre for WIS. It is believed that the present design concepts used in GAWSIS are very well suited to support such a development.



**Figure 1.** Entry page of GAWSIS at <http://gaw.empa.ch/gawsis>