

## NILU's Climate Related Observations at the Zeppelin Mountain Station in Ny-Ålesund, Spitsbergen

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The Zeppelin Station for Air Monitoring and Research in Ny-Ålesund, Spitsbergen, has been in operation since 1990. The Norwegian Institute for Air Research (NILU) is responsible for the scientific programs at the station, including the coordination of the scientific activities undertaken by NILU and other institutions, as well as a number of international research groups' campaigns. MISU is present on Zeppelin Mountain and cooperates closely with NILU in developing the scientific activities and programs at the station.

Currently, the observational program on climate research is under development. Surface ozone has been measured continuously since the opening of the station. Methane and CFC's were measured in flask samples for a few years in the mid 1990s. The station was rebuilt and reopened in the summer of 2000. Since then, methane and several halogenated gases have been continuously monitored, by GC/FID and GC/MS, respectively.

The halogenated compounds are measured by a GC/MS coupled to an automated adsorption-desorption (ADS) system. This system allows detection of CFC-11, CFC-12, CFC-113, CFC-114, CFC-115, HCFC-22, HCFC-123, HCFC-124, HCFC-141b, HCFC-142b, HFC-125, HFC-134a, HFC-152a, carbon tetrachloride, chloroform, dichloromethane, methyl chloride, methyl chloroform, trichloroethene, Halon-1211, Halon-1301, and methyl bromide. The program on halogenated compounds at the Zeppelin Station is linked to similar observations at Mace Head, Ireland, and Jungfraujoch, Switzerland, through the System for observation of halogenated greenhouse gases in Europe (SOGE) project, funded by the European Community.

In addition to describing the measurement program at the

Zeppelin Station, results will be shown for the latter part of year 2000.

### Zeppelin Mountain Halocarbons, GCMS/ADS September – October 2000

