



Long-term time series of ozone at Observatoire de Haute-Provence (OHP), 44°N, 6°E

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At Observatoire de Haute-Provence (OHP - 44°N, 6°E), an NDACC (Network for the Detection of Atmospheric Composition Change) station with several instruments, the stratospheric ozone distribution has been monitored by Lidar (Light Detection and Ranging) measurements since 1985 and by SAOZ (Système d'Analyse par Observation Zénithale) measurements since 1992.

The Lidar at OHP uses the Differential Absorption Lidar (DIAL) technique to derive ozone. From 1985 to 1993, an average of 50 Lidar profiles per year was obtained in the 18 -- 45 km altitude range. After a major experimental improvement in 1993, the frequency of the measurements increased to 110 per year in average. SAOZ is a ground-based UV-Visible zenith-sky spectrometer installed at a number of NDACC stations at all latitudes around the world. The instrument is measuring ozone and NO₂ total columns twice a day at sunrise and sunset using the Differential Optical Absorption Spectroscopy (DOAS) technique.

The evolution of stratospheric ozone at OHP is analysed using the Lidar and SAOZ ozone time series together with other long-term time series like Dobson-Umkehr ozone profile observations at the same station or satellite measurements for total columns in the vicinity of OHP.