



Trends and changes in stratospheric ozone at Legionowo, Poland since 1979

B. Kois

Institute of Meteorology and Water Management, Centre of Aerology, Legionowo, Poland (Bogdan.Koisimgw.pl)

The beginning of regular ozone soundings at Legionowo (52.4°N, 21.0°E), Poland in 1979 coincided with the global speeding up of ozone depletion, which was especially strongly manifested in the high latitudes. For trend estimation a multivariate regression model including NAO, QBO and SF 10.7cm was applied to the monthly deviations in ozone profile. During winter and spring, a significant negative ozone trend was found in the lower stratosphere for OSE (Brewer-GDR) series 01.1979-05.1993. From that time the ECC ozone sensor has been in use. Since 1997 a significant ozone increase has been found at heights above 22km. Special attention has been paid to changes in the UTLS region. A new algorithm for the ozone tropopause has been elaborated. Trends and changes in the vicinity of the ozone and thermal tropopause will be presented.