

N89 - 14580

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ABSTRACT

Ozone Measurements During Wintertime in the Arctic . Comparison with Recent Measurements at the Same Places are made. Here the 30 hPa. Temperatures are shown .

To be presented as POSTER

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Moon measurements made at Tromsø and at Spitzbergen, 70 and 78 deg. north, back in the fifties have been re-evaluated. One has to take into account that the wedge calibration will change when the focussed image of the moon on the inlet slit is used. A correction was later decided to be used after several experiments in Dobson's Laboratory in Oxford. The absorption coefficients have been changed since the observations were taken and evaluated the first time. The re-evaluated ozone values have been plotted, in one diagram for Spitzbergen, and in one for Tromsø. The zonal mean value for ozone is given as a reference.

Ozone measurements from the winter season 1985/86 and 1986/87 made at the same places are presented. Here the daylight measurements are incorporated and also TIROS satellite data from single point data retrieval are given. The two winter seasons were very different. In the first we had a late final stratospheric warming, and in the other we had a early final stratospheric warming. This can be seen from the 30 millibar temperatures, provided by Barbara Naujokat, and plotted in the diagrams. Again the zonal mean values of ozone are given as reference. Diagrams with ozone and 30 hPa. temperatures for the same seasons, from Oslo, are also presented.