Geophysical Research Abstracts, Vol. 7, 09414, 2005

SRef-ID: 1607-7962/gra/EGU05-A-09414 © European Geosciences Union 2005



ClO Observations in the Upper Troposhere and Lower Stratosphere

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During recent airborne field campaigns employing the high-flying stratospheric research aircraft M55 Geophysica the Juelich in-situ halogen oxide instrument HALOX has provided an interesting data set on ClO mixing ratios in the UTLS region. Data from the Arctic polar region has been obtained within the VINTERSOL-EUPLEX and ENVISAT validation campaigns in early 2003. Currently data from mid to tropical latitudes are obtained within the TROCCINOX campaign. Data aquisition and analysis in this observational demanding atmospheric region will be discussed. In the Arctic polar observations several pronounced enhancements of ClO have been observed in the 10-14km altitude regime. The origin of these ClO enhancements will also be discussed with respect to activation on cirrus particles.