



Global comparisons of total O₃ columns from SCIAMACHY retrieved with Weighting Function DOAS (WFDOAS) Algorithm to OMI level-2 product, GOME WFDOAS and ground-based measurements

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The new satellite instruments SCIAMACHY (SCanning Imaging Absorption Spec- troMeter for Atmospheric CHartographY) on ENVISAT launched in March 2002 and OMI (Ozone Monitoring Instrument) on AURA, launched in July 2004 deliver global data sets of total ozone columns. Global stratospheric ozone columns from 2004-2005 derived from these satellite instruments are compared to data of their predecessor GOME (Global Ozone Monitoring Experiment) on ERS-2 and to ground-based data from the Brewer-Dobson network in order to detect biases between these data sets. The comparisons are also analysed for dependencies to total ozone, solar zenith angle, seasons and latitudes. Data sets for SCIAMACHY and GOME are retrieved using the weighting function DOAS algorithm (WFDOAS; Version 1.0 for both instruments). For OMI the operational product is used. Results help to understand how these differ- ent global total ozone data sets can be linked together for ozone trend studies.