



## **GOME, SCIAMACHY, and GOME-2 total column WFDOAS ozone data (1995-2010): validation with satellite and ground-based observations**

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The WFDOAS total ozone (TOZ) data set from GOME (onboard ERS-2), SCIAMACHY (onboard Envisat), and GOME-2 (onboard MetOp-A) now spans a period of nearly 16 years (1995 - today). Here we will compare these data with other satellite missions like TOMS, OMI and ground-based TOZ data from our BREDOM DOAS network and from the WMO/GAW Dobson and Brewer network to validate the quality of TOZ data retrieved from these GOME-type instruments. In general the agreement is very good (within a few percent).

GOME was launched in 1995 and is still measuring but lost global coverage due to issues with the ERS-2 tape recorder in 2003. SCIAMACHY was launched in 2002 and its operation was extended to 2013. GOME-2 was launched in late 2006 (data as of January 2007). All three instruments (GOME, SCIAMACHY and GOME-2) are continuing operation. Using GOME data as a reference a merged WFDOAS total ozone data set has been created which shows excellent agreement with ground and other satellite data and is a useful data set for long-term trend studies.