



Merged SAGE II / MIPAS / OMPS ozone record : impact of transfer standard on trends

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The deseasonalized ozone anomalies from SAGE II, MIPAS and OMPS-LP datasets are merged into one long record. Two versions of the dataset will be presented : ACE-FTS instrument or MLS instrument are used as a transfer standard. The data are provided in 10 degrees latitude bins, going from 60N to 60S for the period from October 1984 to March 2017.

The main differences between presented in this study merged ozone record and the merged SAGE II / Ozone_CCI / OMPS-Saskatoon dataset by V. Sofieva are:

- the OMPS-LP data are from the NASA GSFC version 2 processor
- the MIPAS 2002-2004 data are taken into the record
- Data are merged using a transfer standard.

In overlapping periods data are merged as weighted means where the weights are inversely proportional to the standard errors of the means (SEM) of the corresponding individual monthly means. The merged dataset comes with the uncertainty estimates.

Ozone trends are calculated out of both versions of the dataset. The impact of transfer standard on obtained trends is discussed.