Atmospheric
Measurement
Techniques
Discussions

Open Access

Interactive comment on "Development and characterisation of a state-of-the-art GOME-2 formaldehyde air-mass factor algorithm" *by* W. Hewson et al.

D. Loyola

diego.loyola@dlr.de

This is a very interesting paper. I have a few comments to section 5.7 "Impact of TOMS ozone climatology".

The scaling of TOMS v8 profile is not described in detail. Using a constant scaling factor for all profile levels is not optimal. In the total ozone retrieval we use TOMS v8, the profiles are not scaled to the total column but are interpolated using a linear combination of two adjacent profiles weighted with the corresponding total columns (see the papers listed below and references therein).

C16

Depending on the GOME-2 total ozone product version used in this work, the preferred references are:

- GDP version 4.6 and older: Loyola D., Koukouli M. E., Valks P., Balis D. S., Hao N., Van Roozendael M., Spurr R. J. D., Zimmer W., Kiemle S., Lerot C., Lambert J.-C., "The GOME-2 total column ozone product: Retrieval algorithm and ground-based validation", Journal of Geophysical Research, vol. 116, D07302, 2011.

- GDP version 4.7: Hao N., Koukouli M. E., Inness A., Valks P., Loyola D. G., Zimmer W., Balis D. S., Zyrichidou I., Van Roozendael M., Lerot C., Spurr R. J. D., "GOME-2 total ozone columns from MetOp-A/MetOp-B and assimilation in the MACC system", Atmospheric Measurement Techniques, vol. 7, pp. 2937-2951, 2014.

Furthermore, it will be nice if the text "provided by the operational DLR retrieval" could be extended to something like "provided operationally by DLR in the framework of the EUMETSAT/O3M-SAF project"

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 1109, 2015.