

# **“Development and characterisation of a state-of-the-art GOME-2 formaldehyde air-mass factor algorithm” by Hewson et al. [2014]**

## **Response to Diego Loyola**

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).

*We thank Diego for bring this alternative method for scaling the ozone profile to our attention. Unfortunately we have not been able to include this different scaling approach in the revised manuscript, but intend to do so in a future upgrade. Given that impact of the ozone effect is not large, it is not so critical in the AMF computation. Note we have also acknowledged EUMETSAT/O3M-SAF project in the main text as requested.*