

**Second Report of the manuscript titled “Validation of the IASI FORLI/Eumetsat ozone products using satellite (GOME-2), ground-based (Brewer-Dobson, SAOZ) and ozonesonde measurements”**

First of all, I would like to thank very much the authors for their very clear answers to the comments of the first report and for the very good quality of the updated manuscript. It is very much appreciated.

**There are still two points that I think should be addressed before publishing the present manuscript:**

1) In the end of the abstract, I would suggest to replace the sentence “However, since this difference in the drift values might be due only to the too short periods considered here associated with the high variability in TROPO O3 differences, a few more years are needed to confirm the observed negative drifts and evaluate them on the longer term”

by

“The observed negative drifts of IASI-A TROPO O3 product (8-16% decade-1) over 2008-2017 might be taken into consideration when deriving trends from this product and this time period.”

Two reasons motivate this suggestion:

- Since the drift of IASI-A TROPO O3 in the northern hemisphere with ozonesondes for the time-period 2008-2017 is statistically significant, I am rather convinced that the 9 years of study is long enough. If 9 years is considered too short for a drift assessment, should it be considered too short for a TROPO O3 trend analysis? As it is specified in the text, you use 30 pairs of ozonesondes data per month throughout the northern hemisphere in order to assess the drift. Isn't it a good statistics of data?

Furthermore, same results are found with FTIR data for the 6 selected stations.

The significant negative drift for the time-period 2008-2017 seems to be real.

However, I would agree that the time-period 2011-2017 might be too short to show that the drift is decreasing and more years are needed indeed. I would suggest to make this point clearer.

In summary, I would suggest to clearly separate the conclusions found for 2008-2017 (real significant negative drift) from the conclusions found from 2011-2017.

- It is really important to inform the users about this clear negative trends over 2008-2017 and so to clearly state right in the abstract that it has to be taken into account for TROPO O3 trends analysis.

2) Figure 3 shows the relative difference between IASI-A and IASI-B for TOC. The period May 2013 – March 2015 seems to show rather a positive bias in the poles and in the tropics, while the period after September 2015 seems to show rather a negative bias. Could you explain how IASI-A TOC product measures  $0.3 \pm 1.1$  % less ozone than IASI-B over the early period of time, while IASI-A TOC product gives  $0.1 \pm 0.5$  % over the late period of time. I would rather expect a change in the sign.

How would you explain the positive bias in the tropics between May 2013 and March 2015?

**Minor comments:**

- You should choose between “Figure” and “Fig” when citing the figures
- Typos need to be fixed