

Review of
“Validation of the IASI FORLI/Eumetsat ozone products using satellite (GOME-2), ground-based (Brewer-Dobson, SAOZ) and ozonesonde measurements”
by Anne Boynard et al.

The paper “Validation of the IASI FORLI/Eumetsat ozone products using satellite (GOME-2), ground-based (Brewer-Dobson, SAOZ) and ozonesonde measurements” by Anne Boynard et al validates the latest version of ozone data retrieved from spectra measured by IASI instrument using FORLI processing scheme, v20151001. The paper validates both total and partial ozone columns ozone data. The choice of reference instruments is logical and well thought: satellite-born GOME-2; ground-based Dobson, Brewer, SAOZ and FTIR, and ozonesondes. The dense data coverage of IASI instrument allows even to perform the initial drift assessment, using 9 years of the data.

The paper is very useful for users of IASI ozone data, even though the methods are quite identical to (Boyard et al, 2016). The paper under review is user-oriented, clearly written, and answers all main questions that a solid validation paper should answer : is there a bias, where is the bias concentrated, are the reasons for the bias known, how big are the uncertainties, how are the uncertainties geographically distributed, what are the major contributions to the uncertainty of the data, is there a drift, where is a drift, and are the reasons of the drift understood.

My recommendation is to publish the paper, subject to following minor changes:

1. The similarity of the methods to (Boynard 2016) is still quite misleading, despite the fact that compared to the previous version of the paper, the authors made an effort to make the changes between the two data versions transparent. The abstract and the summary should contain clear statements about changes (improvements) achieved in the new version obtained with new retrieval scheme with respect to the previous version.
2. The summary should mention if the authors recommend the IASI v20151001 ozone data for climatological studies. This is partly done in the answers to the reviews of the previous version of the paper, this should be included in the text of the paper.

Minor issues:

p.2, l. 8 : “In the troposphere, O₃ plays different important roles ...” Sounds strange, should be rephrased.

p. 15, l.27-29: “The standard deviation is maximum in the UTLS at Izaña and Lauder, which is due to strong O₃ variability and large total retrieval error in this region as shown in Wespes et al. (2016). » The Figure 4b in (Wespes et al 2016) indeed demonstrates that in tropical regions the estimated total retrieval error of vertical ozone profiles from IASI are larger than in middle latitudes, this indeed suggests that it would be the case for the ozone column as well. I would formulate it directly in this comment, rather than send the reader to the whole paper.