

Interactive comment on “Validation of three different scientific ozone products retrieved from IASI spectra using ozonesondes” by G. Dufour et al.

Anonymous Referee #2

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Dufour et al review:

general comments

This paper presents a comprehensive evaluation of three ozone data products that are produced from the IASI measurements through slightly different algorithms. They use ozonesondes as the comparison data, and evaluate bias, rms and correlation coefficients. They separate data by season and hemisphere for the later analysis.

Overall, the paper is very well written, and generally provides an appropriate level of detail. There are a couple of extraneous details, but these were pointed out by the first

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reviewer, so I will not repeat them here.

I have one request for an additional figure (see the specific comment) and a number of editing remarks.

specific comments

1 - page 5441 - the authors have selected 7 hours as a coincidence criteria. This is a rather long time, given the variability of ozone. It would be beneficial to see a histogram of the times difference between the IASI data and the ozonesondes, so we know how the time difference might influence the results

technical comments:

page 5428, line 1 - replace the language 'ask the application' - I would suggest 'require the application'

page 5428, line 7 - poor English with the phrase 'allow determining' - I would suggest replacing with 'allow one to determine'

page 5435, line 15 'replace the phrase 'consist in profile' with 'consist of profile'

page 5436, line 26 - replace 'critically depending on' with 'critically dependent on'

page 5440, line 14 change 'we decided to restrain the study' to 'we decided to restrict the study'

page 5440, lines 17/18 - this sentence is confusing - perhaps change 'is usually twice less than' to 'is usually half of'

page 5440, line 28 - replace 'then allows considering' to 'then allows one to consider'

page 5441, line 4 - change 'was then chosen' to 'was chosen'

page 5441, line 5 - should be a means to characterize, not a mean

page 5442, lines 6 and 7 - change 'allows extracting this information' to 'allows one to

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extract this information'

page 5444, line 15 - I would use a word other than 'invoked' - perhaps 'uncertainties in ozone lines can a factor as well'

page 5447, line 27 - 'The less good ability' is an awkward construction. Perhaps 'The poorer performance of the LISA product'

page 5452, line 3 - replace 'present quite similar performances' with 'have quite similar performance' or 'display quite similar performance'

page 5452, line 27 - replace 'could be done' with 'could be performed'

page 5452, line 28 - replace 'of ozone as using' with 'of ozone such as using'

page 5452, line 30 = I would suggest replacing 'assumptions were proposed to explain the' with 'explanations were proposed regarding the'

Interactive comment on Atmos. Meas. Tech. Discuss., 4, 5425, 2011.