

Interactive comment on “Characterization of Odin-OSIRIS ozone profiles with the SAGE II dataset” by C. Adams et al.

C. Adams et al.

cristen.adams@usask.ca

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Thank you for your comments, which have helped to improve our manuscript. Below we address the recommended changes point-by-point.

1. P1036 L8-9. *The overlap period of the two instruments is just 4 years, which is too short for drawing the conclusions about the quality of the dataset for trends estimates. You are saying it yourself in P1048 l5-7. You could probably just omit “are suitable for analysis of ozone trends” from the sentence.*

This has been removed, as suggested.

2. P1040, l.1-2: *“smoothing width had minor effect on the comparison results”. What for degrading SAGE further than OSIRIS vertical resolution? When intercomparing,*

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the effect, if any, does not come from the smoothing width but from the smoothing with a well prescribed width the better resolved profiles should be degraded down to the worse resolved instrument’s resolution, in order to make profiles comparable. I would suggest replace “smoothing width had minor effect on the comparison results unless it was set to values that were much larger than the OSIRIS vertical resolution.” by “smoothing had minor effect on the comparison results.”

This has been changed, as recommended.

3. P1040, l22-23 *“Care has been taken to minimize the impact of sampling biases for coincident measurement pairs, as discussed in Sect. 3.” If plots presented were produced without applying dynamical coincidence criteria, please explain what is meant by “care has been taken”. Also, explaining the dynamical criteria on $\frac{1}{2}$ page and not giving any plot illustrating their results is misleading: you should probably consider to provide one plot obtained with these criteria.*

We have added a figure like Fig. 3, showing global comparison results including the dynamical coincidence criteria. We have also added panels to Fig. 5, showing the latitudinal agreement between the instruments with the dynamical coincidence criteria.

TECHNICAL CORRECTIONS

P1038 l20: *“Coincident measurement pairs were selected for the three sets of criteria given in Table 1.” Table 1 shows two (not three) sets of criteria. You could change “three” to “two” and mention dynamical coincidence criteria in the phrase introducing the table.*

Since the dynamical coincidence criteria are now a larger part of the paper, we have added them to Table 1.

P1048 l8-9: *“Biases between OSIRIS and additional datasets should must be identified and quantified.” Should or must?*

This has been changed to “must”

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