

## ***Interactive comment on “Drift corrected Odin-OSIRIS ozone product: algorithm and updated stratospheric ozone trends” by Adam E. Bourassa et al.***

### **Anonymous Referee #1**

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This is a short but important paper in that it describes the correction to OSIRIS pointing that is needed to make the data useful for trend calculation. The RSAS technique used to monitor the pointing errors is well established and they seem to understand its limitations. They have applied it to the OSIRIS data to determine a more accurate pointing and reprocessed the entire data set.

The correction for the long term trend in pointing, the goal of this exercise, is nicely done. Figure 5 shows this very clearly. But the extent to which the scatter is cleaned up, especially in the first two years is remarkable. Can you explain this reduction in scatter?

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This paper could be published as is or with minor revisions.

minor comments and corrections:

Page 2 line 1 - need to note whether the trends Harris et al. refer to are for total column ozone or upper stratosphere.

P2 line 2 - “in upper stratospheric ozone...”

Figure 3 - a better color scale might show the RSAS offsets more clearly. With this scale you can't tell where the offsets are near zero.

Page 5 last paragraph - is the daily average correction latitude dependent? This needs to be described a bit more clearly.

It is probably noted in the Bourassa paper, but the pre 1997 trend from SAGE shown in Figure 7 has a comparison issue in the upper stratosphere because SAGE measures near terminator while OSIRIS measures at non-terminator times. This is not an issue for the MLS comparisons.

Need to say how the version 5.10 data can be obtained. Provide links please.

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