

## Reply to Reviewer 2

l. 61: I suggest to spell out as “Dobson instrument #17”

Reviewer 1 suggested to omit this, so we move this from the title to the text and spell it out.

l. 151: For completeness it would be good to specify also the meaning of  $p$  and  $p_0$  in eq.1.

Thanks, this was an oversight ( $p$  is station pressure,  $p_0$  is sea-level pressure).

We will include this in the revised manuscript.

l. 163: “Aerosol scattering can then be neglected” Suggestion: “...in which case eq. 3 simplifies to:...” and then give the corresponding equation.

Good suggestion – we will do this in the revised manuscript.

l. 247: would be interesting how much this value differs from the standard value

We will report the standard value in the new Table suggested by reviewer 1.

l. 287: “Z ZC” -> “C ZC”

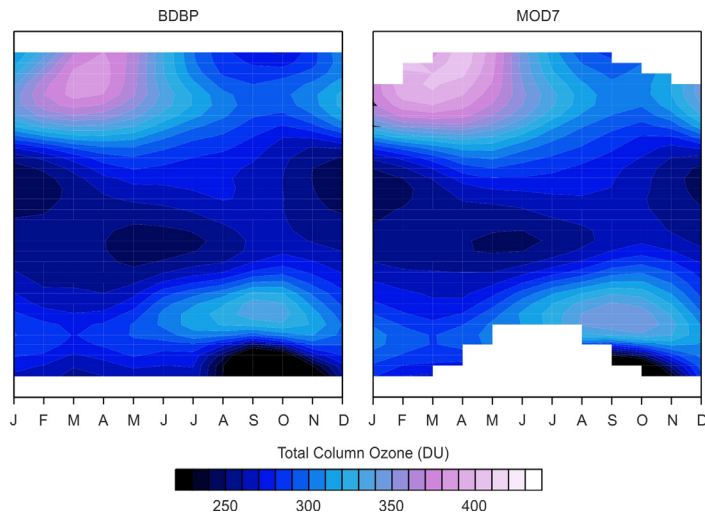
Thanks.

l. 328: “the all values” -> “all values”

Thanks.

l. 381 and l. 487-9: why not using SBUV MOD7 for the 1990s as well? Even if the differences are “marginal”.

Since HISTOZ was generated with BDBP as standard, we prefer to plot this data set (also because it is spatially more complete. Below is the plot for BDBP and MOD7. We will replace the formulation to be more quantitative.



l. 387: add distance Invercargill-Lauder for comparison here already (180 km)

Thanks.

l. 427: include “(“

Thanks.

l. 582: why not include names of students here?

Good suggestion – we will add the names to the Acknowledgements.

l. 744: something missing here: “for different“...?”

...different wavelength and observation modes. Thanks, this will be changed.