

Iteration 2: minor revisions - Author's response

We would like to thank the reviewers and the editor for their helpful comments.

A reference to the study by Randall et al. (2009) has been added to the section 2.3 (However a quantitative comparison is not possible here, because the data used in this study correspond to NO_x , while SMR measures only NO. Moreover, the limited latitudinal distribution of ACE-FTS measurements can influence the results and make the comparison more difficult.)

We decided to remove the figure 2 (PV polar maps) and to reduce the discussion about the characterisation of the stratospheric sudden warming event (splitting of the vortex), in order to keep our study more focused on the nitric oxide descent.

The typo pointed out by referee #1 has been corrected.

On behalf of all co-authors,

Kristell Pérot