Second review of

The extratropical tropopause - Trace gas perspective on tropopause definition choice

by Bauchinger et al.

Overall, the authors have adequately responded to my concerns given in the first review. In the revised version of the manuscript, the authors have 1) added a section on “Key differences in tropopause definition methodologies”, 2) added a figure of the typical vertical distribution of O3 and N2O and 3) added a section on “Vertical profiles and curvature at the tropopause”.

I can understand that the authors don’t want to add a complex sensitivity study on the impact of the one-station ozone climatology on the chemical tropopause results. I agree that it is acceptable to leave this point for future discussions. However, it would be good to communicate this point with the future audience of the paper. I would suggest that the authors add 1-2 sentences on the fact that the representatives and potential impact of the one-station ozone climatology are not explored here and subject of future work.