

Referee comment

1. The title. I still think the title needs to mention “halocarbons” as the subject of the “changes” that are being referred to (I think my previous comment may not have been specific enough on this point). Perhaps “Investigating changes in stratospheric CFC-11 and other halocarbons using aircraft, AirCores and a global model”?

Author response

We have changed the title from

“Investigating stratospheric changes between 2009 and 2018 with trace gas data from aircraft, AirCores, and a global model focusing on CFC-11”

to

“Investigating stratospheric changes between 2009 and 2018 with halogenated trace gas data from aircraft, AirCores, and a global model focusing on CFC-11”

Referee comment

2. The new paragraph on AoA surfaces is much improved. However, I still get a bit stuck on the “quintupling”! I think what the authors saying is this: “... the data for each flight were replicated four times, where each replicate was modified by plus or minus the uncertainty in the mixing ratio and mean age uncertainties”?

Author response

We have changed the sentence as requested and thank the reviewer for this suggestion.

Referee comment

3. I think there’s a missing word from the new sentence: “However, it should be noted that the limited temporal and spatial coverage of the observation-based and especially the gap between 2011 and 2016 introduces an additional uncertainty that is only partly reflected in the derived slope uncertainties.” I’m not sure what this should be! I think this sentence needs rewording.

Author response

We have improved the sentence by changing it from:

“However, it should be noted that the limited temporal and spatial coverage of the observation-based and especially the gap between 2011 and 2016 introduces an additional uncertainty that is only partly reflected in the derived slope uncertainties.”

to

“However, it should be noted that the limited temporal and spatial coverage of the observation-based and especially the gap between 2011 and 2016 represents an additional and not quantifiable source of uncertainty.”