We thank the reviewer for her review of our corrected manuscript. The response to technical corrections suggested by Dr. Knowland is given below:

- 1. Ln 61: NOAA accreditation has now been added.
- 2. Ln 61: Corrected
- 3. Ln 63: The sentence suggested has been included.
- 4. Ln 64-67: Changes have been made to the structure of the sentence as suggested.
- 5. Ln 87: Both radicals are now defined, and the second definition for OH removed.
- 6. Ln 166-168: The sentence suggested has been included.
- 7. Ln 240: Second definition of SOG now removed.
- 8. Ln 270: The aromatic species have now been defined as requested.
- 9. Ln 309: A comma has been added.
- 10. Ln 325: We have changed the text to include the specifics regarding the Yarmouth station.
- 11. Ln 330: GFDL has now been defined in the text. We find that adding the CO stations on the figure would not aid clarity for the other stations.
- 12. Ln 338-442: We use the first definition for the NWR station in the proceeding discussion of measurement stations. We think that the paragraph should remain as is as it is near the figure in the final manuscript.
- 13. Ln 380: Acronyms now corrected.
- 14. Ln 400: Thank you for raising this oversite in the tables, where the maximum latitude is now declared at 49N. The number of stations is output in the interpolation code rather than from this figure which simply reads in station locations. We ensure that Canadian stations are not included by defining the station type as 'unknown' in the listings file thus skipped in all analysis. Thus, the number of stations has not changed even though we removed stations from the figure as requested.
- 15. Ln 456-457: We now add US/Canada in the text to address this point.
- 16. Ln 466: We have added: "Please note that both the x- and y-axis vary with respect to station.".
- 17. Ln 491: We have defined the color scheme in the figure legend to avoid cluttering the figure panels.
- 18. Ln 508: We have now reformulated the sentence as requested.
- 19. Ln 687: we now change the text to: "with biases towards the west of the US being lower than the East of the US"
- 20. Ln 715: For the aims of consistency and considering previous comments we do not change this sentence.
- 21. Ln 808: Us/Canada added.
- 22. Ln 880-938: The conclusions and abstract sections are typically the go-to sections of any paper for a reader who just wants a summary of the findings therefore we have no problem with declaring each model version using the full nomenclature.
- 23. Ln