Check whether revised punctuation conveys intended meaning, such that “upstream of AC16” refers to both the upper-tropospheric trough and the TPV.

Yes, the revised punctuation conveys the intended meaning.

Highlighted text refers to ACs in general, whereas subject of sentence appears to be AC16. Revision is needed to reconcile apparent disconnect.

The sentence has been revised on L56–58 of manuscript v5 to make the wording specific to AC16 only.

“such as …. .“ Briefly specify what features you have in mind?

The features I have in mind are upper-tropospheric troughs and ridges. The sentence on L66–70 has been adjusted to now specify these features.

“upper-level,” “lower-level,” or “tropospheric-deep baroclinicity”?

“tropospheric-deep baroclinicity” is intended. The wording has been updated on L70 of manuscript v5.

Does “respectively” refer AC12 back to Yamazaki et al. (2015) and the July 2018 AC back to Johnson and Wang (2021)?

Sentence is a long and bordering on difficult to interpret. Can it be subdivided?

The first sentence could read

“Observing system experiments by Yamazaki et al. (2015) show that the denial of radiosonde observations located in the vicinity of TPVs linked to the development of a strong AC that occurred during August 2012, hereafter referred to as AC12, degrade the forecasts of the ACs.”

The second sentence could read

“Similar results were obtained by Johnson and Wang (2021) for an AC that occurred during July 2018.”

Yes, “respectively” refers AC12 back to Yamazaki et al. (2015) and the July 2018 AC back to Johnson and Wang (2021). I split the sentence into two on L70–75 of manuscript v5. Also, upon reexamination of these papers, I now say “denial of radiosonde observations located over the Arctic and in the vicinity of a TPV” instead of “denial of radiosonde observations located in the vicinity of TPVs” on L71–72 of manuscript v5 since both studies consider radiosonde observations located over the Arctic that are in addition to radiosonde observations just located in the vicinity of TPVs.

Specify type(s) of cyclones? The term “cyclones” alone seems too broad. Same concern applies to “cyclone intensity” in lines 78–79.

I am referring to extratropical cyclones, which include the midlatitude cyclones and ACs discussed on L81–83 of manuscript v5. I changed “cyclones” to “extratropical cyclones” on L77 of manuscript v5 and changed “cyclone intensity” to “extratropical cyclone intensity” on L79 of manuscript v5.

Include a “dynamic quantity” in the e.g. statement?

I added “upper-tropospheric potential vorticity (PV)” in the e.g. statement on L80 of manuscript v5.

Citation appears to be misplaced in sentence. Also, is the citation needed, since it appears in the previous sentence (line 76)?

Since the citation appears in the previous sentence (L76 of manuscript v5), the citation is not needed and has been deleted.

Use “temperature” here, as in line 80, which appears to have set up an antecedent?

I replaced “thermal” with “temperature” on L86 of manuscript v5.

Is this an “e.g.,” citation? Also, is “Eady growth rate” sufficiently well known as to not require a citation? The use of a citation here seems “unbalanced,” since citations are not required for baroclinicity and latent heating.

I agree that “Eady growth rate” is sufficiently well known as to not require a citation and that the use of the citation here seems “unbalanced.” Therefore, I deleted the Hoskins and Valdes (1990) citation.

Check year and publisher. My copy features “1991” and “HarperCollins Academic”.

Since I originally looked at your copy of this book for information from this book, I updated the year and publisher on L632 of manuscript v5 to reflect your copy of this book. I also confirmed the year and publisher of your book with a Google search.

“green” and “cyan” appear in subsequent figures, and the colors of the green and cyan dots do not differ much to my eye. What is the rationale for using green in some figures and cyan in others to mark the location of the AC of interest?

My rationale for using green instead of cyan in Figs. 4, 6, 8, 10 is that I felt green stood out better than cyan from the background blue/cool colors of the shaded fields in these figures. My rationale for using cyan rather than green in Figs. 5, 7, 9, 11 is that the background shaded fields in these figures have shades of red, and I wanted to avoid potential red–green color blindness issues that may occur if using green for the dot.