

**Review of ‘Identification of high-wind features within extratropical cyclones using a probabilistic random forest - Part 2: Climatology over Europe’ by Eisenstein et al. submitted to Weather and Climate Dynamics**

**General comments:**

This is my second review of this interesting study describing the results of applying a methodology previously published by the authors to develop a 19-extended-winters climatology of mesoscale wind features in cyclones over Western and Central Europe. The authors have responded to my earlier questions and concerns very thoroughly, including making appropriate edits to the paper. I have no further concerns relating to my original review. In reading the revised paper I spotted a few rather minor language edits and science clarifications that should be considered and these are listed below. I recommend that the paper is accepted for publication after these comments have been considered and I look forward to seeing it in Weather and Climate Dynamics.

**Minor specific comments:**

**Rebuttal letter** On p4 of your rebuttal letter you examine the robustness of your findings by, amongst other things, considering subsets of winter seasons. In the description in the rebuttal letter and caption of the associated figure, FR3, you say that 10 randomly chosen seasons were considered, however in the text added to the paper (which is also repeated in the rebuttal letter) you say that nine seasons were considered. Which is it?

**L38** I suggest changing "this feature" to "the CFC feature" for clarity (in my first reading of this sentence I thought "feature" referred to the bent-back front mentioned in the previous sentence).

**L60** By "features" here do you mean the storm tracks over the North Atlantic and North Pacific? This could be written more clearly.

**Section 2.1** It would be useful add the source of the observational data set here, as stating that the observations are only available over land (which I think is true). The source is stated in the data availability section of both parts of the paper but it would be helpful to repeat it here as well.

**L136** I appreciate that you showed in your rebuttal letter figure FR5, a figure that used the same domain for the COSMO-REA6 data as for the observational data, for comparison with Fig. 3a–h in the paper. As you still use different domains for these two datasets in the figures shown in the paper it would be helpful to note this in the paper and say briefly why you chose to use the different rather than consistent domains.

**Section 2.4** It would be useful to add here if there is a constraint on the minimum length (in time or space) of the cyclone tracks.

**p10** Consider combining some of the 3 short paragraphs near the end of this page.

**L374 & 401** Gentile and Gray (2023) didn't introduce the term CCBa, it was used previously by Earl et al. (2017). I don't know whether Earl et al. were the first to use it though.

**Technical errors:**

**L95** "cause" → "have" (otherwise you are saying that winds cause winds!).

**L129** I would say "at 10m" etc. (rather than "in 10m"); this applies three times in this sentence.

**L163** "characteristics in other..." → "characteristics of other...".

**L164** "different" → "differently".

**L243 and elsewhere** To be horribly pedantic, "less" should be "fewer" here (if you can count the items you should use "fewer" whereas you would use "less" for an amount, e.g., less time).

**L333** "they might" → "it might" (because frequency is singular) or say "as WJs might"

**L429** What does "they" refer to here? Strong winds?