

# **“A New Look at the Jet-Storm Track Relationship in the North Pacific and North Atlantic”**

**Authors:** Zilibotti, Wernli, and Schemm

**Recommendation:** Minor Revisions

## **Overview:**

Overall, I am very pleased with the efforts the authors have made to address my comments and those of the other reviewer. The manuscript, in its current form, is very well written, supported robustly by analyses, and very insightful. The authors are commended for producing a fantastic and thought-provoking study. I only have a few minor comments for the authors to consider prior to publication.

## **Minor / Specific Comments:**

### *1. Introduction*

L53: Consider adding a sentence that briefly summarizes these two seeding branches.

### *2. Methods*

L149: If there is a pertinent figure from these studies that helps to visualize this distribution, consider referencing that here, as well.

### *3. The fundamental jet-storm track relationship on two timescales*

L189–193: This result certainly appears to be qualitatively true, but it's not as obvious of a comparison as the aforementioned correlations that are discussed on L169. Could some quick statistics be calculated for the magnitude of the inter-quartile range (IQR) to further support this claim? Similar calculations could also be made when discussing IQRs in L221.

L287: I am not convinced that the black dot at  $U=90$  m/s is exclusively from DJF since there is a pink regression line that also extends to similar values for the NP. Could the authors clarify or make a further revision to the text?

Fig. 6: The y-axis for this figure is a bit confusing since it may inadvertently imply that the plot shows the variance divided by the covariance. Consider an alternative way of expressing this label to eliminate potential confusion.

L299: It is a bit unconventional that these traits are listed out of order compared to how they are shown in Fig. 6. Consider an edit to the text that lists the variables in the same order as they are shown in Fig. 6.

L351: Consider referencing Fig. 2 to help remind the reader where to verify this prior result.

### *5. Implications of different jet states in DJF for eddy and cyclone characteristics*

L436: Consider breaking this paragraph into two separate paragraphs, with the second paragraph beginning with the discussion of the eddy orientation.

## *6. Summary and conclusions*

L531–532: The last half of this sentence seems a bit out of place (i.e., the part that begins with “can be even better understood...”). Consider a revision that further clarifies the discussion. Perhaps a solution could be to swap “as well as” with “or”?

Section wide: A lot of references are made to results from prior figures as part of this synthesizing discussion. Consider referencing the pertinent figures that support various claims with parenthetical references to help orient a reader who may start by reading the conclusion section as an “executive summary” of the work.