

Weather Clim. Dynam. Discuss., referee comment RC1  
<https://doi.org/10.5194/wcd-2022-25-RC1>, 2022  
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## **Comment on wcd-2022-25**

Todd Moore (Referee)

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Referee comment on "Predictability of a tornado environment index from El Niño–Southern Oscillation (ENSO) and the Arctic Oscillation" by Michael K. Tippett et al., Weather Clim. Dynam. Discuss., <https://doi.org/10.5194/wcd-2022-25-RC1>, 2022

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This is a well-put-together manuscript on a timely and important topic. The science builds on previous work and provides results that contribute to our collective understanding of seasonal and sub-seasonal tornado outlooks.

I have only minor comments for consideration:

Line 20: remove the second "reports" (after "numbers")

Line 21-23: It is pointed out that the limited predictability of severe thunderstorm activity with ENSO along with unpredictable weather noise likely explain the early-2021 inactive period, despite La Nina conditions being present. I think the authors should add something explicitly about the need to consider multiple oscillations (like AO) to explain more variability. This is hinted at with "limited predictability of ENSO" and especially in line 34, but (again) I think it would set the stage for this work if added here.

Line 43: hypthnate "time-scales"

Line 44: I don't understand the point of the sentence beginning "Originis of AO skill include..."

Line 115: Change "was" to "were" (after "data")

Figure 1: I suggest using the same scale for all maps in rows 1-4. Likewise, use the same scale for all plots in row 5.

Figure 2: I suggest to use the same scale for all plots in row 5.

Line 201: Change "Americal" to "American"

Line 226: Change "to the case" to "when"

Lines: 237-246: Not a comment for improvmentt, just want to say that these comments are insightful, and should spur addional studies as we continue to try to understand trends in severe weather ingredients---I've wondered for a while why numerous observational studies have captured increasing trends in SRH (despite the thought that shear-related metric should decline as the planet warms).

-Todd Moore