

The authors' careful consideration of the two first-round reviews is appreciated, and has resulted in a number of minor edits that improve the manuscript. This manuscript as it stands is suitable for publication. Should additional revisions be made, a few comments are given below.

### **Remaining comments**

P9 L15–17: My disagreement remains regarding the SSW–Pinatubo comparison. First, SSW events are fundamentally different than a (hypothetical) vortex acceleration from Mt. Pinatubo—with regard to mechanism, sign of the wind anomaly, magnitude, and timescale—so information about SSWs cannot be extrapolated to eruptions. Second, even if such extrapolation were appropriate, a single SSW may not reach the surface (as the authors note), but on average they do; and the strength of that effect is what is in question regarding Mt. Pinatubo, or eruptions in general.

That said, the sentence is not a big deal either way; I just think the SSW–Pinatubo comparison slightly weakens the overall argument of the manuscript.

F5: The additional analysis for Figure 5 is much appreciated, and adds support to the manuscript's narrative. Inclusion of the low-top results in Figure S6 is appropriate given that they are supporting, if weaker, evidence for the conclusions of Figure 6.

P9 L24–35: I previously commented that “examining two individual ensemble members does not offer any insight into the mechanism.” The paragraph is certainly supported by Figure 6, but it is not surprising (at least to this reviewer) given the variety of processes contributing to interannual variability. Although my preference would be to keep the discussion focused on the effect/mechanism in the ensemble average, readers familiar with the authors' approach (as in the papers they cited) may wish to see the information presented in this form.