

Second Review of “Differences in aerosol and cloud properties along the central California coast when winds change from northerly to southerly” – Zeider et al. (2024)

The authors have done a thorough and commendable job revising the manuscript based on my comments/suggestions, as well as those of Dr. Witte. I have just one minor comment regarding the southerly vs. northerly flow in the model output compared with the observations.

If the authors have any questions, please do not hesitate to contact me.

Zachary J. Lebo

Minor Comment

- 1) I am still a bit concerned about the southerly vs. northerly winds shown in Fig. 2 from the model simulations compared with the differences shown in Table 3 from observations. The added note about the model not fully capturing the wind reversal is great, and it does help recognize that the model is perhaps a bit deficient here but at the very least the mechanics of the wind slowing are captured. One thing that comes to mind though about the difference between the observations shown in Table 3 and the model output shown in Fig. 2 is that perhaps there is a mismatch in the sampling of the vertical? The model output is averaged over the lowest 5 levels, does the complete lack of a wind reversal appear at all levels? I guess what I am after is trying to understand if the model predicts a change in the wind direction at some level or at some time, but when averaged spatially and temporally, the instances where the model does capture a reversal are overwhelmed by the instances where it does not.