

Review of *Observed impacts of aerosol concentration on maritime tropical convection within constrained environments using airborne radiometer, radar, lidar, and dropsondes* by Amiot et al.

Recommendation: *Publish subject to minor revisions*

The authors have provided a much-improved manuscript based on the reviewers' comments. Especially, the introduction and methodology section are now much more suitable for publication. Overall, I am satisfied with the responses. I think the writing could be tightened up in certain parts. For example, there is a quite extensive description of results in the supplementary material (466-483). This part could be shortened quite a bit. In general, I suggest carefully reading the manuscript and editing it to shorten the text.

Below, I list a few more comments that the authors may want to consider before publication. These are mostly suggestions and are up to the authors if they want to include them.

Comments

1. 129: 'radar-based proxy'
2. 416: 'is capturing'
3. Can the corresponding parts of Figure 2 shown in Figure 3 be indicated somehow? For example, by putting a thicker box in Figure 2 around the three values for Mean 355-nm Bsc binned by LCL shown in Figure 3a. The same can be done for Figures 4, 6, and 7. That should make it easier to find the parts of the figures that correspond to each other.
4. In general, I would suggest flipping x-axis and y-axis in Figures 3, 5, and 8 since technically the authors are investigating the convective variables as a function of the aerosol variables.
5. 525: K-index looks like it has the lowest correlations in Fig. 6.