

*This paper documents aerosol data and observations from the 2019 ONR PISTON cruise and NASA CAMP2Ex flights performed over the north-western part of the Maritime continent on South-East Asia. The manuscript is rather large and highly descriptive of the multiple aerosol processes going on the Northwest Tropical Pacific's monsoon environment when multiple meteorological conditions are present during the observation period. The manuscript does an excellent job in advancing our current understanding of the interactions between meteorology, aerosols, and clouds on clean and polluted environments from a double perspective provided by aircraft and cruise measurements. This publication indeed does move the research frontier forward by providing a highly detailed description not only of the data itself but of the physics behind these multiple processes observed. Vertical and long-range transport of aerosol species and its presence over long distances and periods of time has been one of the areas for which very little measurements exist or none, let alone knowledge of its impact and implications for the Maritime continent regional environment. In addition, sections 4.4 and 5.2.4 relating the role of cold pools to particle lofting is, in my view, the biggest take home message and a very significant contribution to our understanding of aerosol lofting across this region. In essence, this work provides a fundamental baseline for future observations over the maritime region. I whole heartily recommend this article to be published and I would suggest to the authors to make a full review of the paper and identify areas to be condensed if possible.*

Thank you for the positive review and for taking the time to thoroughly evaluate the paper. The team dedicated a great deal of effort to this work. As with Reviewer #1, we acknowledge that this paper is non-traditional in its length and scope, and thus presented a challenging review task. At the point of submission, we had already condensed the material considerably. Even certain elements that could potentially be relegated to a supplement, such as the comparison of airborne and vessel-based HSRL during a period of quiescence, were deemed fundamental to the paper and therefore retained in the methods section. Likewise, the mean profiles, while perhaps not central to the main thrust of the paper, also seemed out of place in the supplementary materials. We welcome any specific suggestions you may have regarding areas for further consolidation.

*A couple of issues to note as shown below.*

*Line 550: "We surmise that these features..." I would guess the authors means "We assume ..." or something along those lines.*

Thanks for the comment. Surmise is indeed the word that is appropriate here. Assume means that you are taking without evidence as a start of a proof. Surmise means essentially an educated guess, or to hypothesize. We switched the wording to hypotheses to add clarity.

*Line 564: Table 2 is missing from the manuscript (there are other places in which Table 2 is mentioned).*

Sorry, about that, it was missed when we entered the field into the template.

*Line 590: “We initially surmised that the smoke...” Same typo as in Line 550 above.*

Changed to hypothesized.

Line 940: Closing parenthesis is missing at the end of the paragraph.

*Parentheses fixed*