

Review of the manuscript numbered acp-2024-360, revised version 1

Title: "In-plume and out-of-plume analysis of aerosol-cloud interactions derived from the 2014-15 Holuhraun volcanic eruption"

written by Amy H. Peace et al.

Manuscript number: "acp-2024-360".

Decision: "Minor revision"

The authors have done a good job responding to my concerns and comments. I am thankful for the authors' efforts to revise the manuscript. However, I have some minor comments therefore I suggest a minor revision. I use the section numbers and page numbers based on the revised manuscript.

- In Section 2.3, could you please provide explanations on how MODIS COSP Level 3 differs from standard traditional MODIS L3 data, and why it is necessary to use this specific dataset?
- In the caption of Figure 1, could you please clarify the difference between OMPS and MOPS-coarse?
- In the caption for Table 1, "Nd" and "d" should be corrected.
- Line 430: You mention Figure 8, but the paper does not contain a Figure 8.
- These citations are missing DOIs:
 - Jones, A., Roberts, D. L., Woodage, M. J., and Johnson, C. E.: Indirect sulphate forcing in a climate model with an interactive sulphur cycle, *J. Geophys. Res.*, 106, 20293–20310, 2001
 - Khairoutdinov, M. F. and Kogan, Y. L.: A new cloud physics parameterization in a large-eddy simulation model of marine stratocumulus, *Mon. Weather Rev.*, 128, 229–243, 2000.
- The year should be at the end here:
 - Pincus, R., S. Platnick, S. A. Ackerman, R. S. Hemler, and R. J. Patrick Hofmann, 2012: Reconciling Simulated and Observed Views of Clouds: MODIS, ISCCP, and the Limits of Instrument Simulators. *J. Climate*, 25, 4699–4720, <https://doi.org/10.1175/JCLI-D-11-00267.1>.
- A dot is missing here at the very end:
 - Trofimov, H., Bellouin, N., and Toll, V.: Large-scale industrial cloud perturbations confirm bidirectional cloud water responses to anthropogenic aerosols. *Journal of Geophysical Research: Atmospheres*, 125, e2020JD032575. <https://doi.org/10.1029/2020JD032575>, 2020