

Reply to a comment by Lynn Harvey

The authors should cite this study in the background section: Harvey, V. L., M. H. Hitchman, R. B. Pierce, T. D. Fairlie (1999). Tropical aerosol in the Aleutian High, JGR, <https://doi.org/10.1029/1998JD200094>

Thank you for pointing that out. We had overlooked the paper and it definitely needs to be included, as it contains information on both poleward transport from the subtropics and observability in aerosol extinction. We have now added a reference to Harvey et al. 1999 in the introduction:

“The poleward transport of tropical aerosols at an altitude of 15–30 km was already described in Harvey et al. 1999. Here, SAM II measurements of the aerosol extinction coefficient at 1000 nm revealed a reduced surface aerosol density (SAD) in the polar vortex during the winter months from 1978 to 1991, while the SAD in the Aleutian High was increased.”