

*We would like to thank both reviewers for their additional reviews and feedback. Below, we note the additional minor changes to the manuscript according to feedback from the reviewers and editor.*

Reviewer/Editor Comment

*Author Response*

Revised Text

Thank you for submitting your revised manuscripts based on the reviewers' comments. Both reviewers are mostly satisfied with your revisions. However, there's one remaining item related to the extent of the drift in POP's sizing and the corrections that were made to the size bins. Please add a figure to SI that demonstrates the extent of this correction for the different sites and discuss this range in the main text (Section 2.2).

*Thank you for this additional feedback. We have added additional information to both the manuscript and the Supplement to address this item. In the manuscript, we first corrected the PSL size from 500 nm to 495 nm (the exact size used). This change does not affect the overall understanding of the post-correction process. Second, we added a few additional sentences to reference the additions to the SI and to add more clarity to the post-correction. The sentences are written below, but will likely make more sense if read in the entire context of Section 2.2.*

“Figure 1 of the Supplement shows an example of how these PSL checks look in the raw data.”

“The bin that contains the 459 nm sized particles has a lower bound of 350 nm. Thus, the drift is recognized when PSL is sized smaller than 350 nm, shifting the bin in which the PSL signal occurs.”

“ For the majority of the following analysis, the minimum particle size used will be 170 nm (minimum of the third POPS bin) instead of the 140 nm that is standard with the POPS to account for this shift. This shift allows for a fair comparison across sites, even with a drifted POPS. If a POPS shifted more than two bins, those data were not used in the following analysis. Pumphouse experienced the most drift, where in the last month of the deployment, particles were sized four bins lower. Snodgrass experienced the least drift, with the PSL check still sized properly at the end of the deployment. Table 1 of the Supplement contains a table of the monthly documented drift of each POPS.”

*The SI now contains a figure of what the raw data look like during a PSL check where the POPS has drifted. It also contains a table that documents in which bin the PSL signal occurred for all POPS during each month that they were deployed. This allows the reader to explicitly see when each POPS experienced drift and to what extent, and also understand in which months the data were post-corrected.*

*As a final note, if there is a specific template for the SI, please let me know. I could not find one online and I know everyone is out of the office until January 2, after which these revisions are due, so I added the SI in a basic pdf, but am happy to change the formatting if needed.*