

*We thank the editor and review for their time. Here are responses to the most recent comments/questions:*

Figure 1: description line 6: change C) to c)

*Changed*

Line 396: Vaisalla -> Vaisala; and WTX -> WXT

*Changed*

Line 582: latter -> later

*Changed*

What are the data collection frequencies of different instruments and how do you suggest aligning the data points? For example, some particle size distribution measurements may take 1 min, others may just 1 s, how will you use these data?

*The published frequency of each dataset is inferrable from the metadata. When combining data on different frequencies an averaging approach is likely needed. However, the exact method may depend on the purpose of the analysis and the combination of variables. We cannot anticipate all potential approaches but are happy to work with anyone who wishes to discuss with us the best way of processing the data for their needs.*

*Specifically in relation to aerosol particle size distributions we can provide the following guidance. When calculating the mass concentrations, we average SP2 data at 1 Hz onto the AMS time base (for time base, refer to file metadata description or the start/end run time for each run). For SMPS, a size distribution is recorded every ~1 minute. As this is a coarse resolution, we suggest only using the SMPS data during straight and level runs on the flight track.*