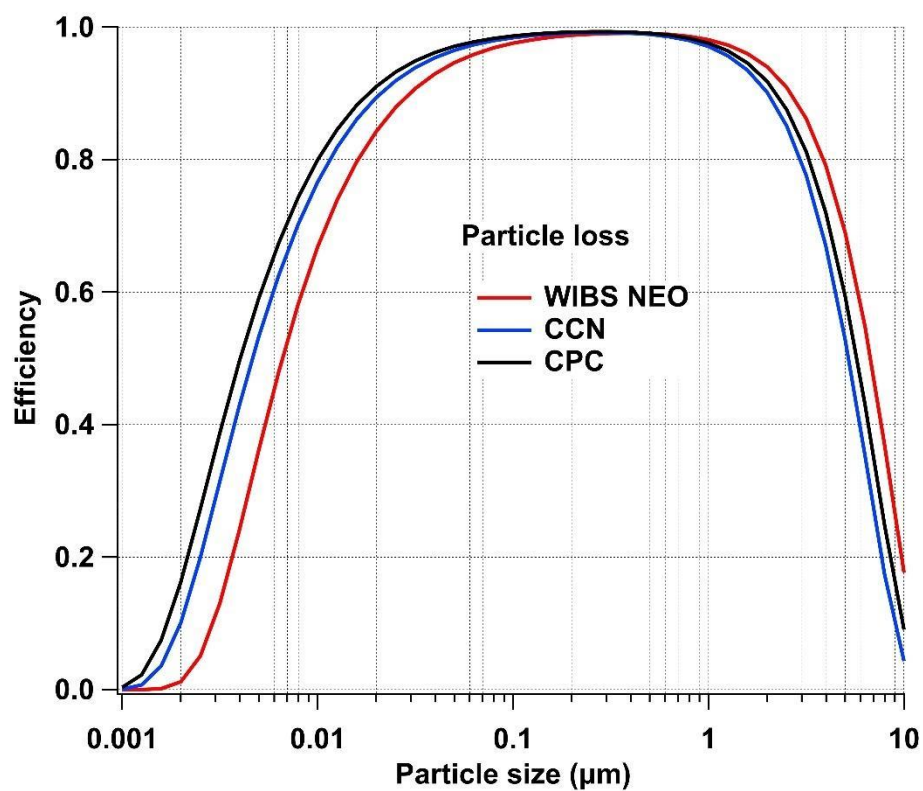
1   **Supplementary information**

3   **Fig. S1. Sampling efficiency curves plotted for each of the sensors (e.g., WIBS, CCN counter and CPC)**
4   **attached to the sampling line.**

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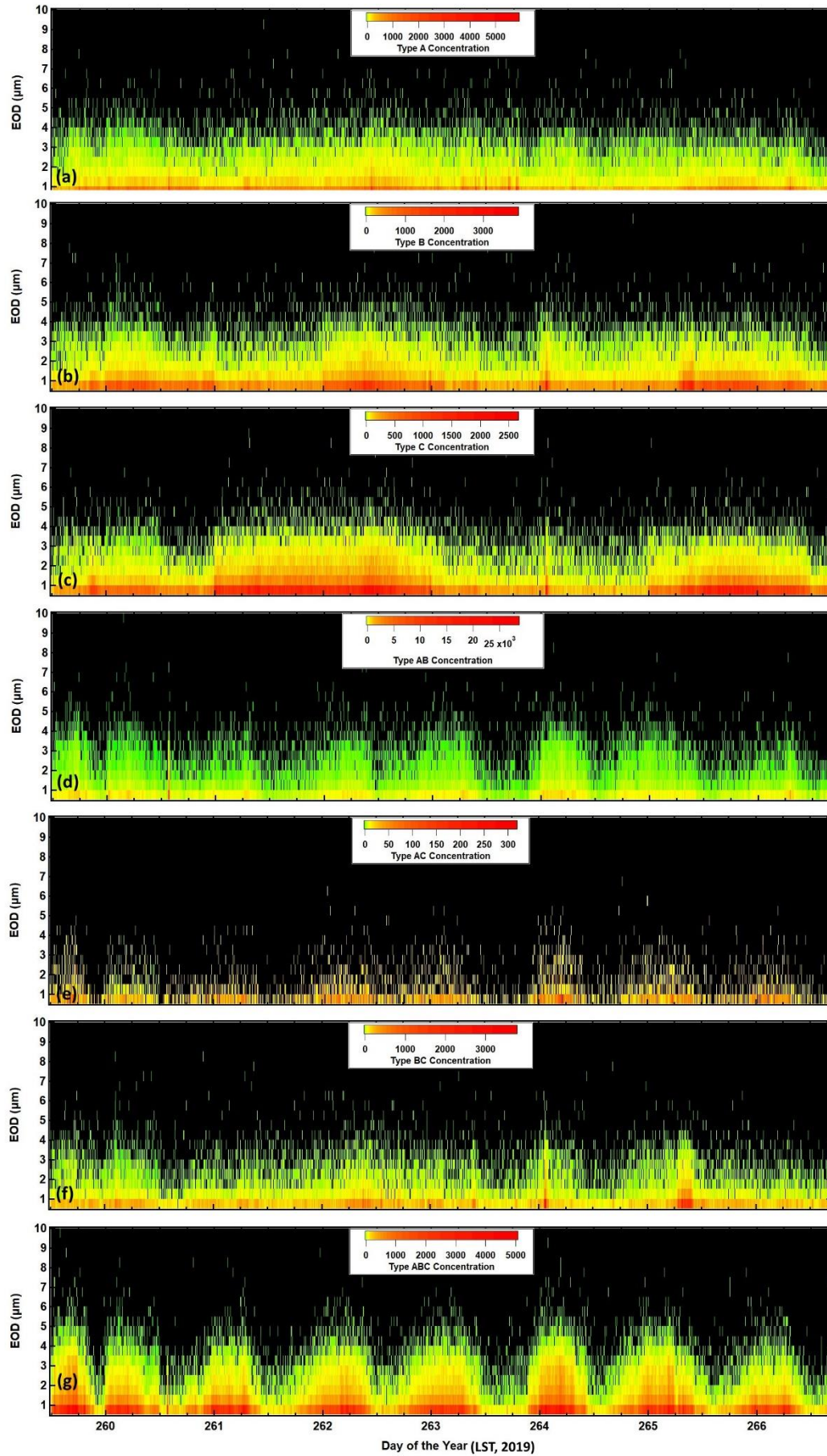
9   **Fig. S2. These time series show the particle size distributions of all seven types (i.e., (a)A, (b)B, (c)C, (d)AB,**

10   **(e)AC, (f)BC, and (g)ABC) of FAP during the study period. Note that the color scales are logarithmic and**

11   **cover different concentration ranges for each FAP type.**

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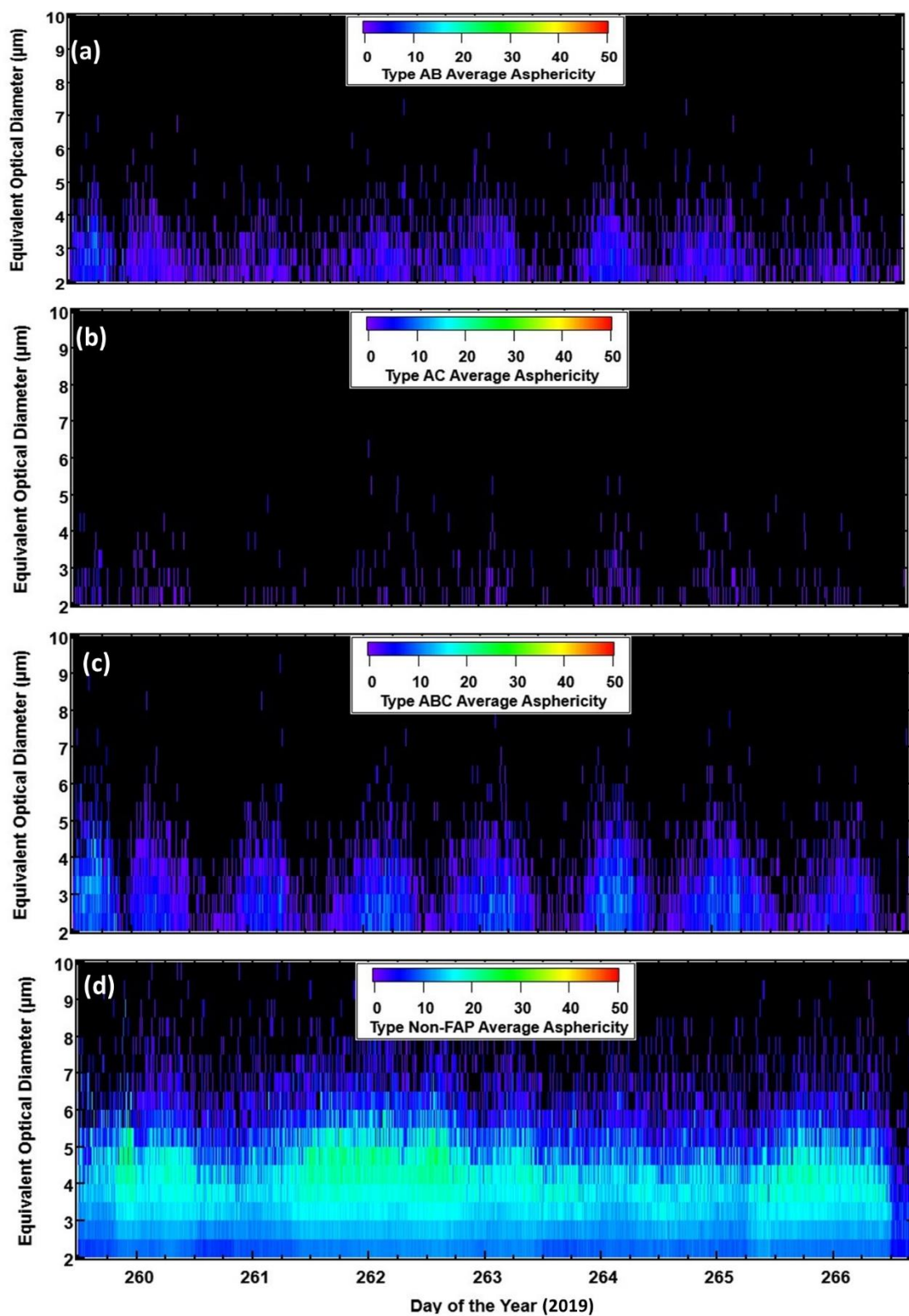
14 **Fig. S3.** These time series over the seven days of the project show the asphericity size distributions of FAP

15 types (a) AB, (b) AC, (c) ABC, and (d) non-FAP of fluorescent particles during the entire study period.

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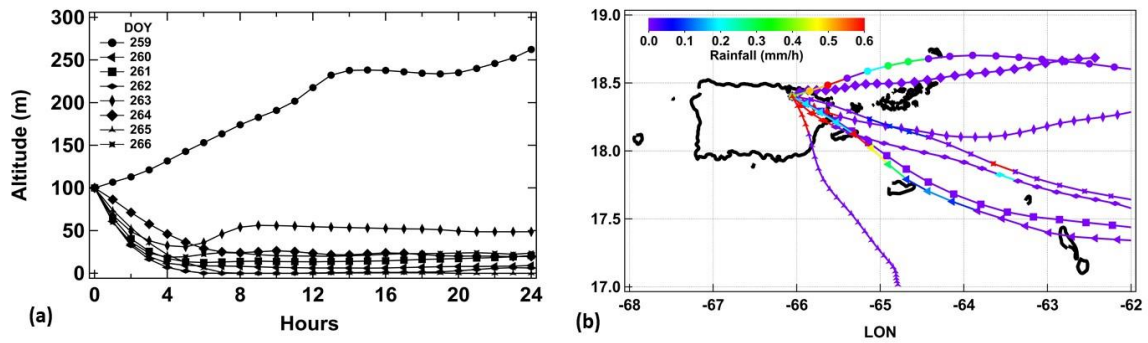
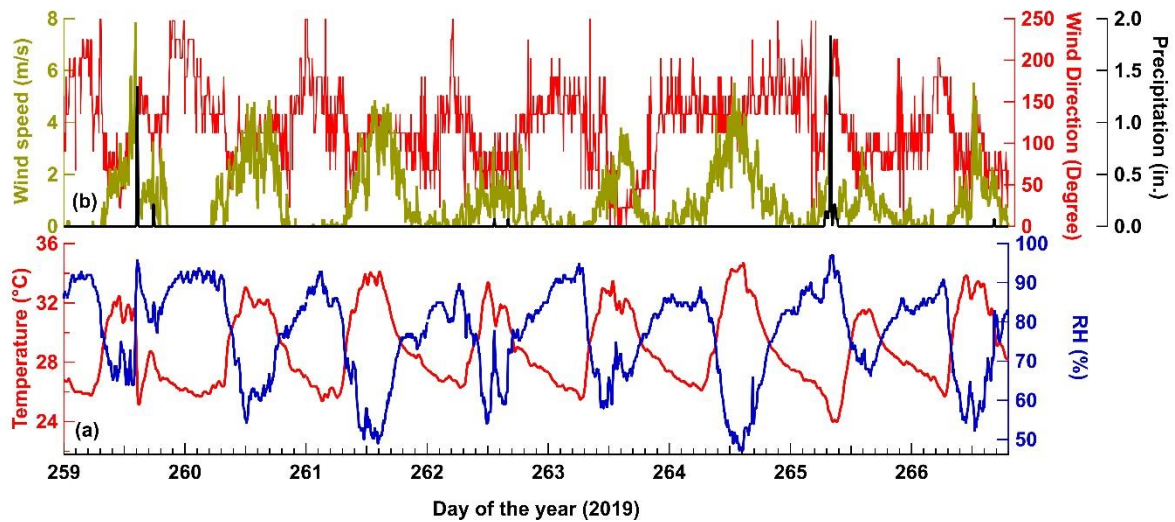

17 **Fig. S4.** HYSPLIT air mass back trajectories drawn for each measurement day starting from DOY 259 to

18 DOY 266. The color scale represents (a) altitude versus back trajectory hour and (b) associated rain fall

19 along the path of trajectories.

21 **Fig. S5.** Time series of (a) Temperature (°C) and relative humidity (%) and (b) wind speed (m/s), wind

22 direction (Degree) and precipitation (inches).

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