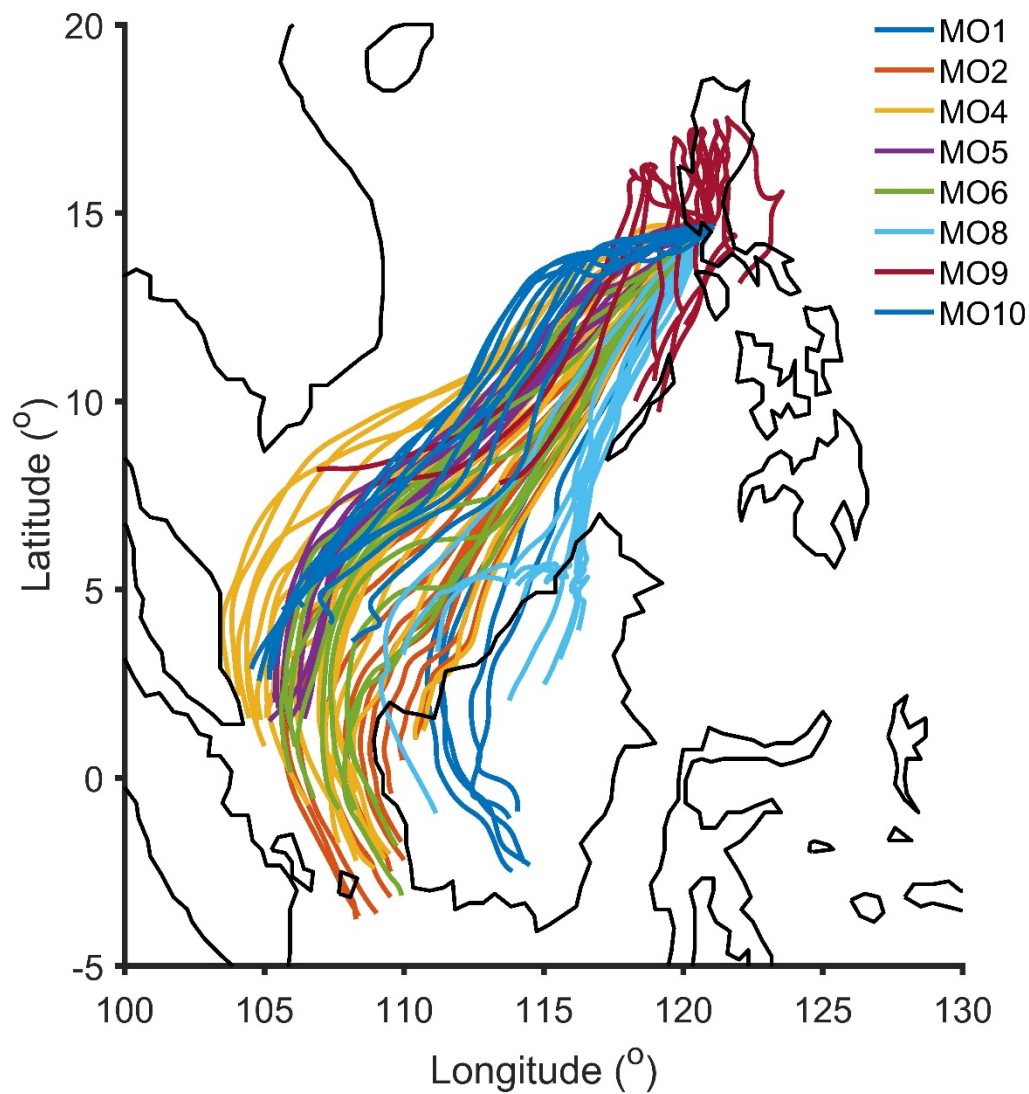
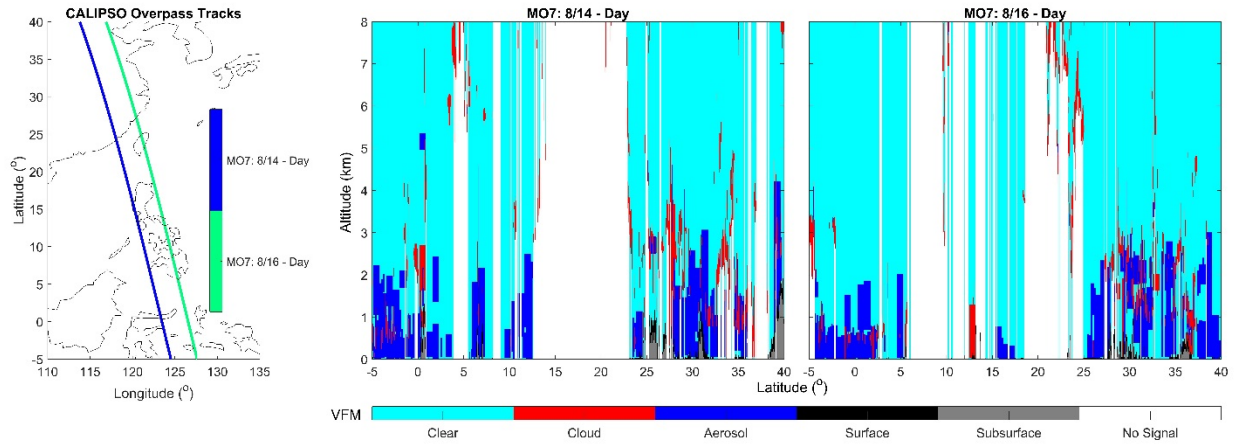


1 **Table S1.** List of water-soluble species analyzed and limits of detection (LOD) in units of
 2 aqueous concentration. Concentrations of elements and ions were quantified using ICP-QQQ and
 3 IC, respectively.
 4

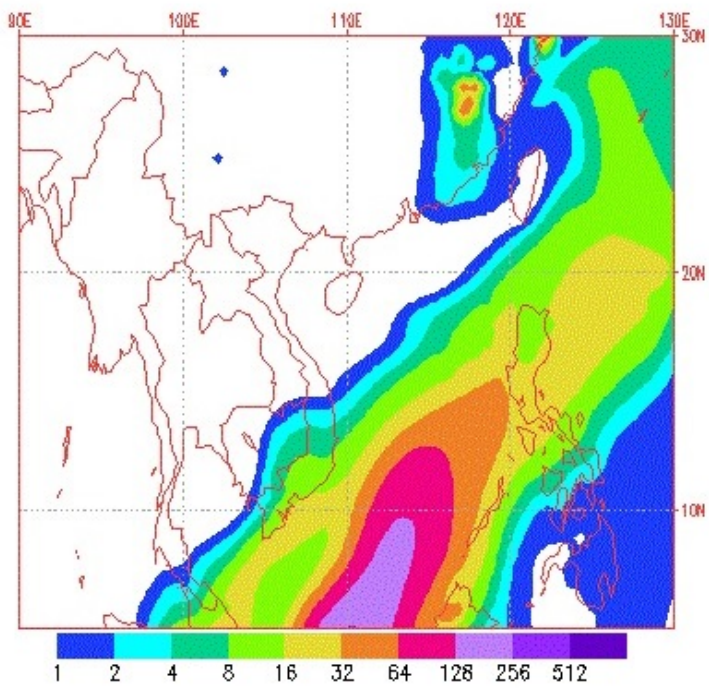
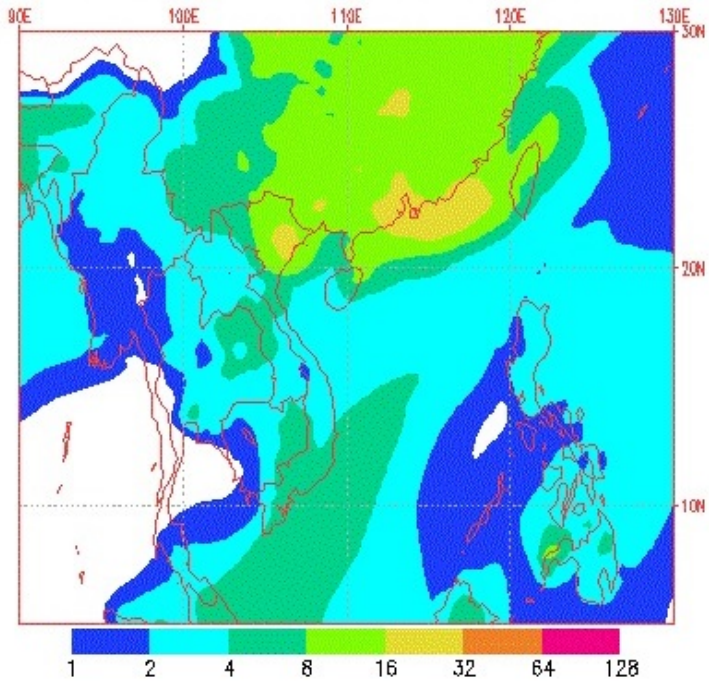
Element	LOD (ppt)	Ion	LOD (ppb)
Ag	0.743	Adipate	22.655
Al	29.474	Ammonium	42.434
As	7.945	Calcium	45.229
Au	0.912	Chloride	2.144
Ba	3.698	DMA	52.709
Cd	4.194	Magnesium	36.925
Co	0.722	Maleate	6.970
Cr	1.15	MSA	12.316
Cs	0.733	Nitrate	8.917
Cu	1.127	Oxalate	12.312
Fe	1.191	Phthalate	20.685
Hf	0.963	Pyruvate	63.754
Hg	2.738	Sodium	43.476
K	10.48	Succinate	11.046
Mn	1.624	Sulfate	11.982
Mo	2.258	TMA & DEA	315.164
Nb	0.522		
Ni	2.837		
Os	1.681		
P	770.726		
Pb	0.503		
Pd	1.683		
Pt	1.069		
Rb	1.566		
Ru	1.439		
Se	82.393		
Sn	1.772		
Sr	1.102		
Ta	0.199		
Te	65.457		
Ti	39.046		
Tl	0.38		
V	1.353		
Y	0.523		
Zn	5.88		
Zr	1.008		



5
6
7 **Figure S1.** Five-day air mass back-trajectories from HYSPLIT for the sample sets not included
8 in Figure 2: MO1, MO2, MO4, MO5, MO6, MO8, MO9, and MO10.



9
10 **Figure S2.** Daytime CALIPSO overpasses during sample set MO7.



11
 12 **Figure S3.** NAAPS model snapshots for the conditions at the stop time of MO8. The top plot is
 13 anthropogenic and biogenic fine aerosol (ABF) surface concentration ($\mu\text{g m}^{-3}$), while the bottom
 14 plot is biomass burning smoke surface concentration ($\mu\text{g m}^{-3}$).