The Importance of Blowing Snow to Antarctic Aerosols: Number Distribution and more than Source-Dependent Composition - results from the 2ODIAC campaign

SI Figures:

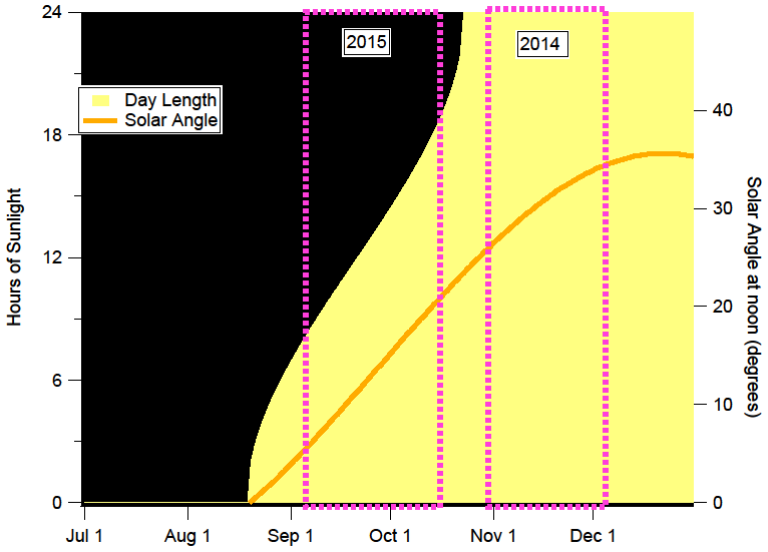

Fig. S1 – Hours of sunlight per day and solar angle at noon for the field site near McMurdo Station, shown for the entire year. The durations of the two field campaigns are highlighted.

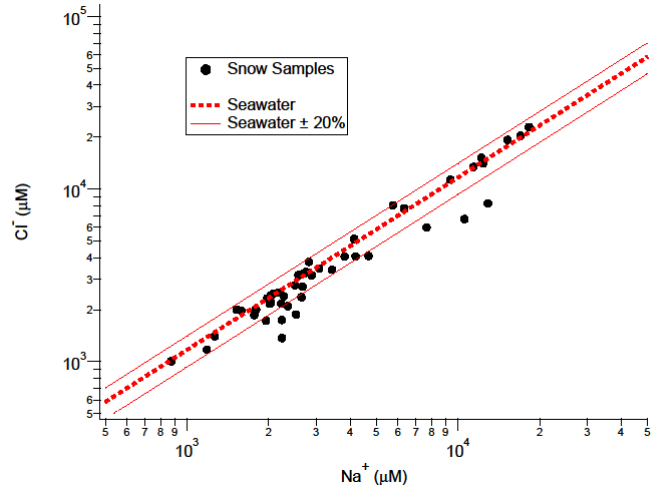

Fig. S2 – Cl^- to Na^+ ratio of snow samples from 2015 as well as the nominal seawater Cl^-:Na^+ ratio (red dotted lines).

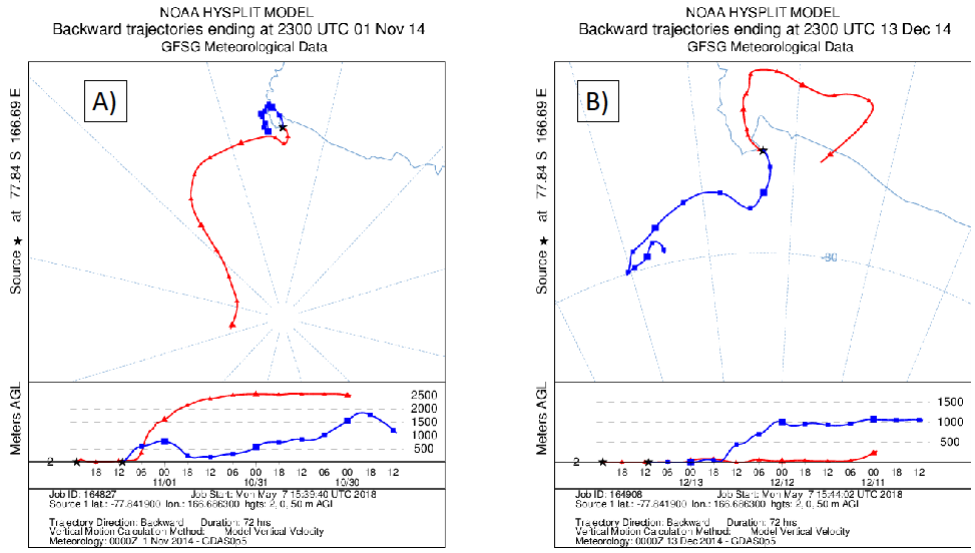

Fig S3 – Examples of HYSPLIT back trajectories classified as Primarily Continental (red in A) and blue in B)), Primarily Marine (red in B)) and Mixed (blue in A)).

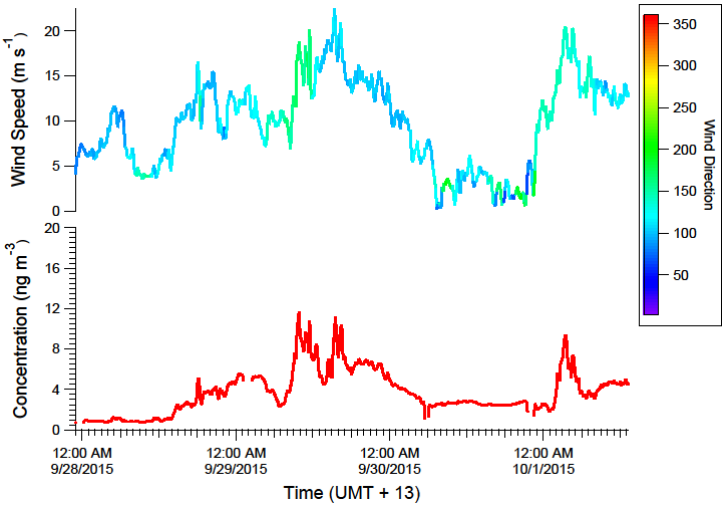

Fig. S4 – Aerosol number (squares) and wind speed (solid line) records as a function of time during a typical wind speed change.

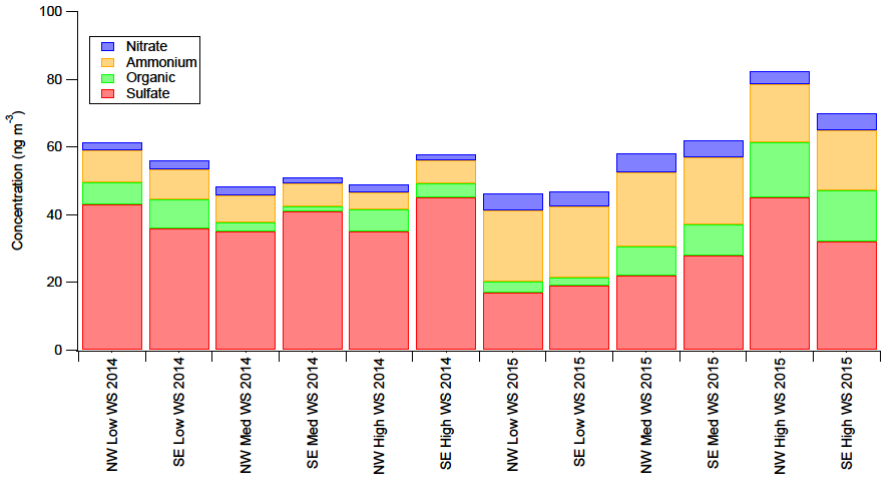

Fig. S5 – As Figure 7 (including error bars), average AMS concentrations by wind regime without Na or Cl.

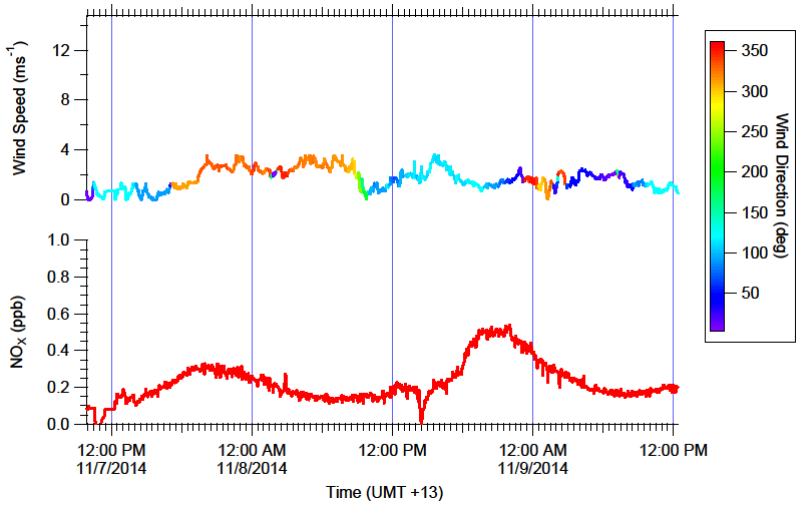

Fig. S6 – NO_x concentrations (bottom) and wind speed colored as a function of wind direction (top) measured during low wind conditions during the 2014 Spring/Summer campaign.

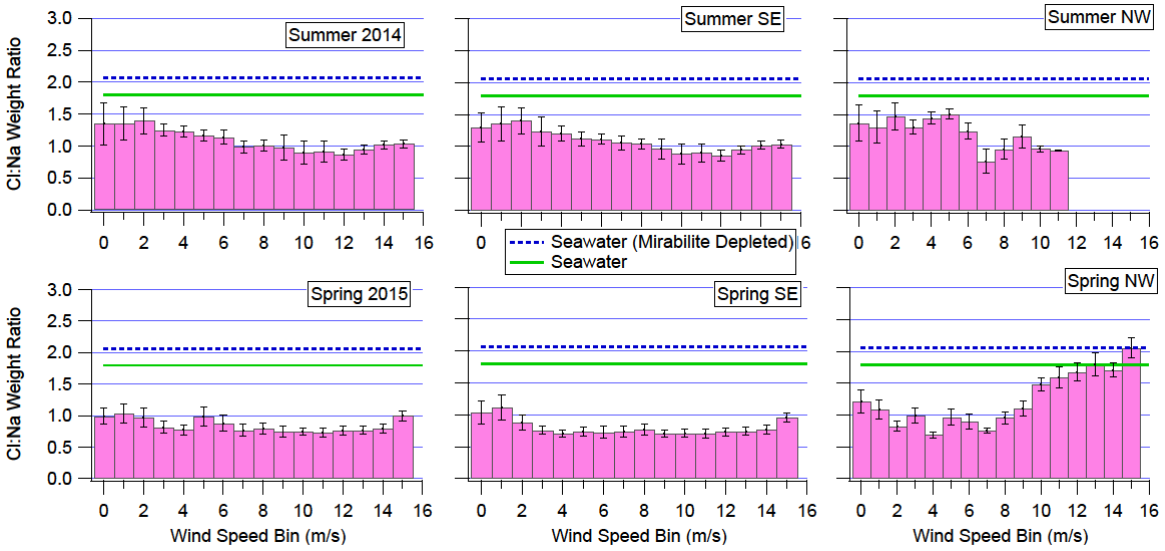

Fig. S7 – As Figure 9, Cl:Na weight ratio as measured/modelled in the AMS as a function of wind speed for both field seasons and parsed by wind direction: SE Wind in Summer (a), SE wind in spring (b), NW wind in summer (c), and NW wind in spring (d). Error bars indicate standard error of the mean.

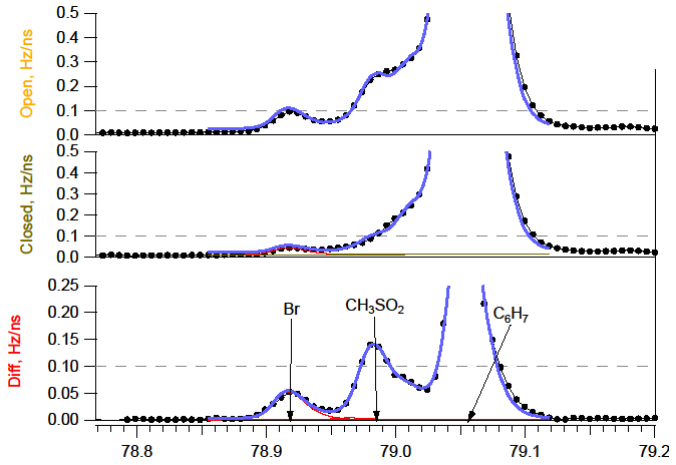

Fig. S8 – Open, Closed, and Difference Spectra from High-Resolution fitting of AMS data at *m/z* 79. Data shown is averaged over the high Br event shown in Figure 10.