Supplemental Material

Physical and Optical Properties of Aged Biomass Burning Aerosol from Wildfires in Siberia and the Western US at the Mt. Bachelor Observatory

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Figures:

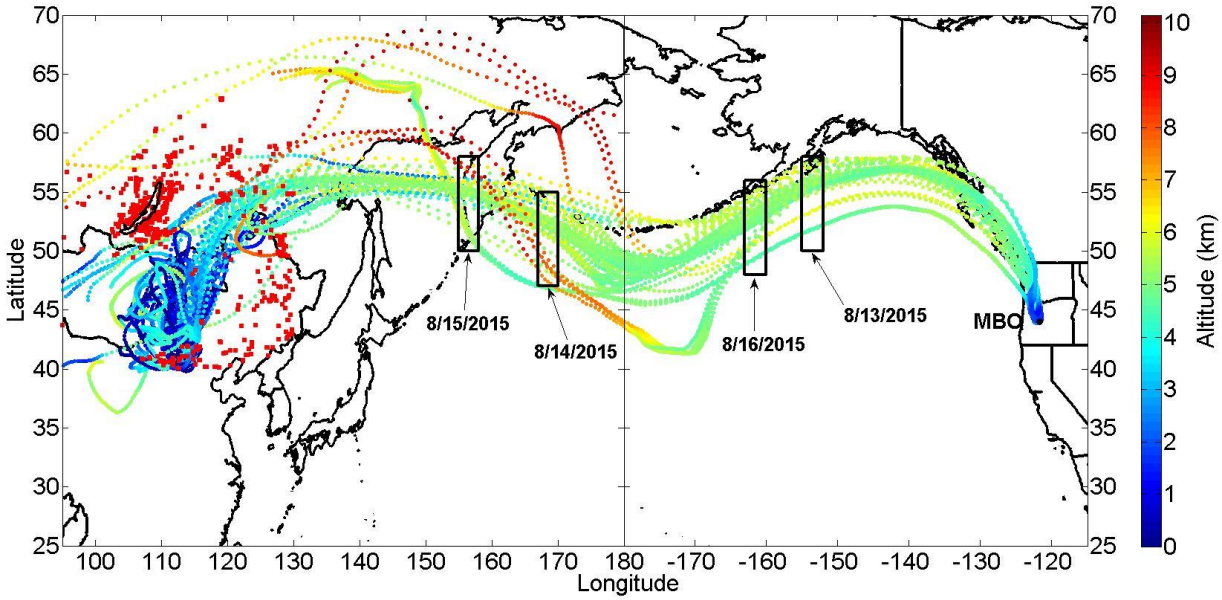

Figure S1. Most of the HYSPLIT back-trajectories for Siberian events (events 10-15) plotted as a function of altitude. Roughly 10% of the back-trajectories that did not follow the main transport track were not plotted. Forest fires from 8/7/2015 to 8/16/2015 identified by the Fire INventory from NCAR (FINN) fires are marked by red squares. These transects are not sequential and do not track one plume of Siberian smoke, but rather illustrate the extensive eastward transport of Siberian smoke over the course of the week. The four black squares represent the locations of smoke plumes identified by CALIPSO cross sections detailed in Figures S2-S5.

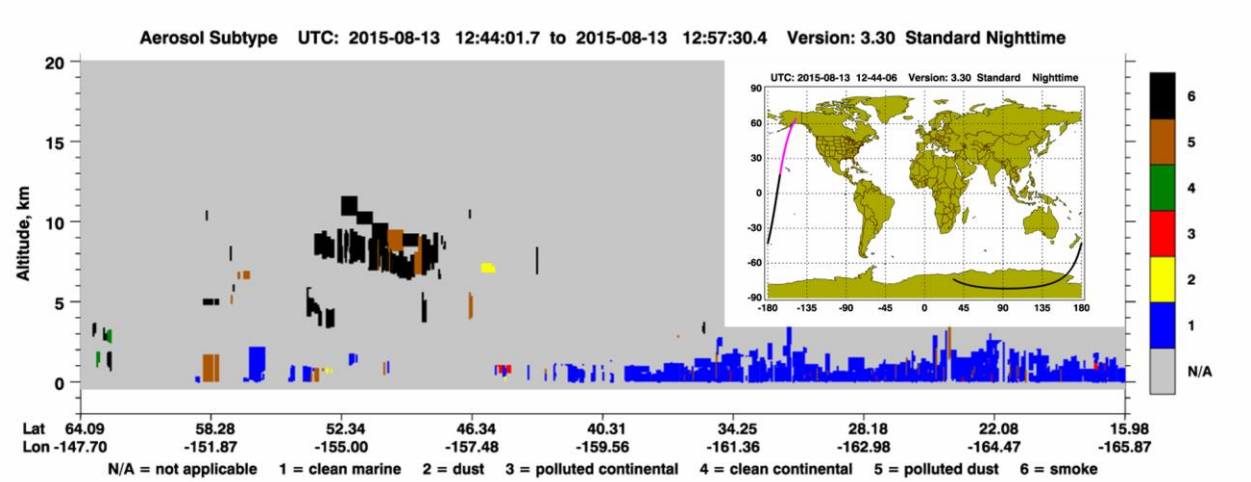

Figure S2. Aerosol types classified by CALIPSO from a transect over the Pacific Ocean on 8/13/2015 12:44 UTC showing a large smoke plume from the Siberian fires.

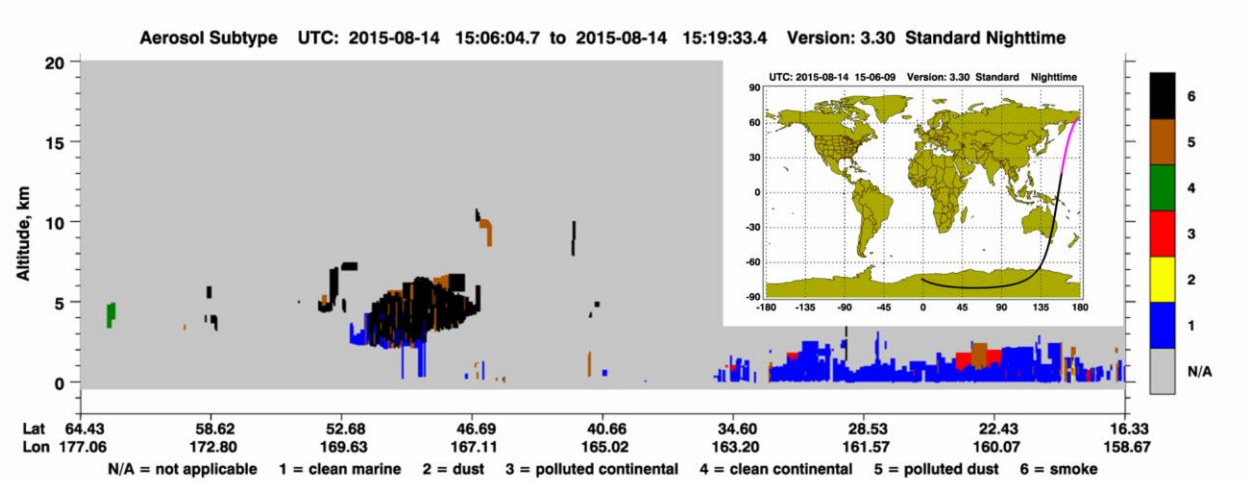

Figure S3. Similar plot as S2 for 8/14/2015 15:06 UTC confirming the eastward transport of a large Siberian smoke event.

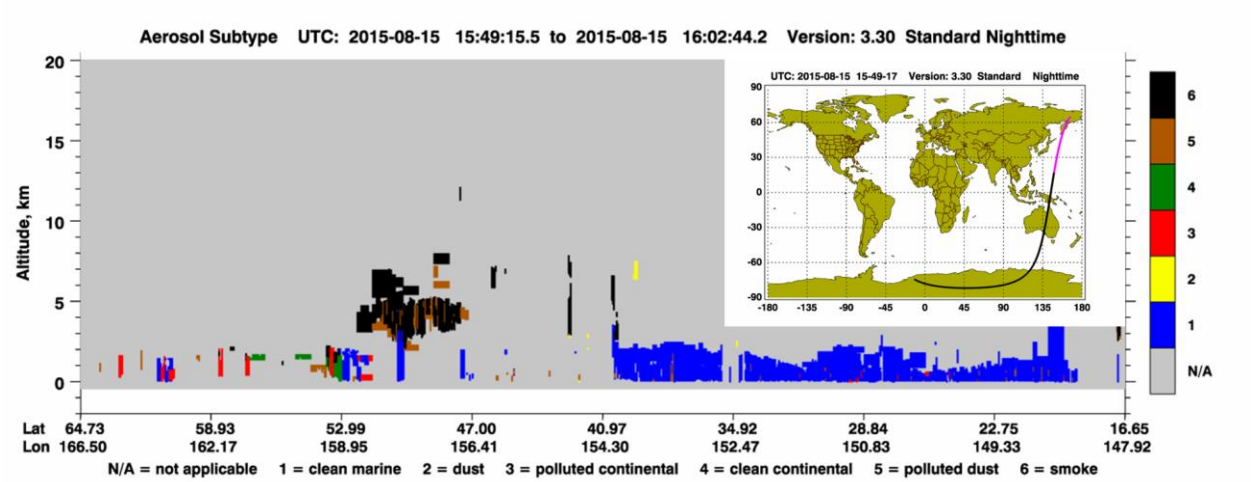

Figure S4. Similar plot as S2 for 8/15/2015 15:49 UTC.

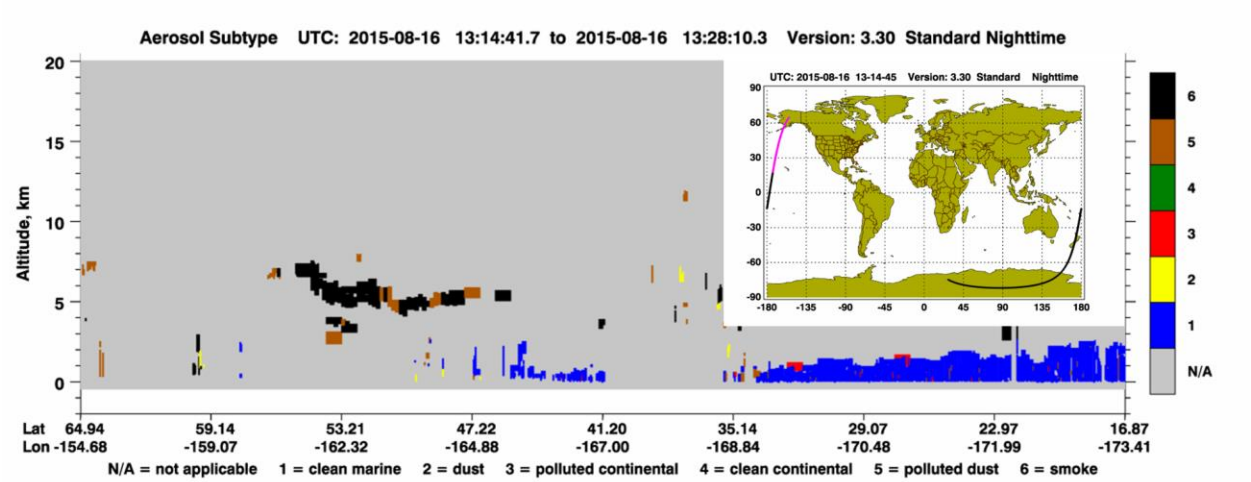

Figure S5. Similar plot as S2 for 8/16/2015 13:14 UTC.