Supplementary Figures of 'Sources of Springtime Surface Black Carbon in the Arctic: An Adjoint Analysis'

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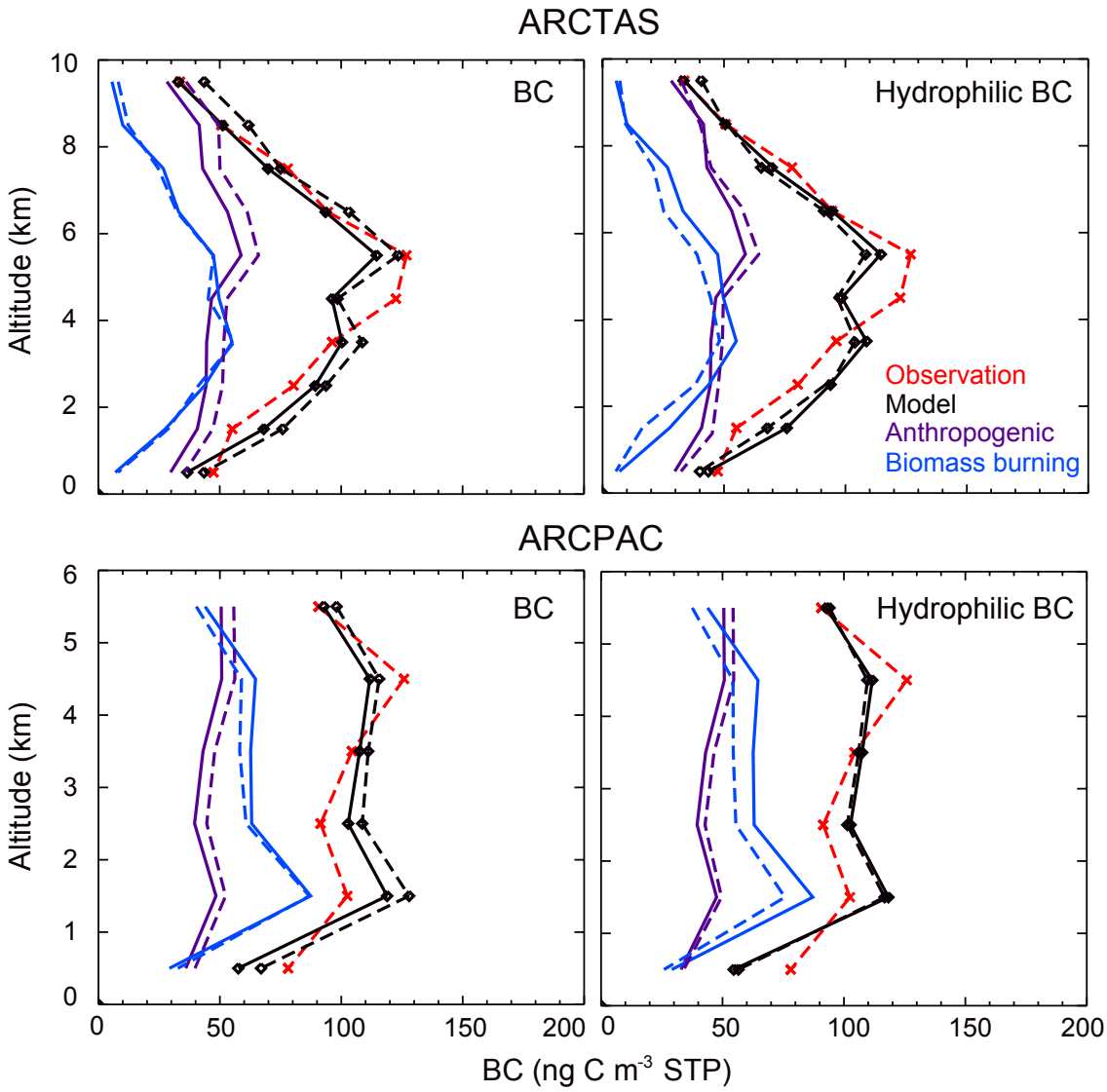

Figure S1: GEOS-Chem simulated vertical distributions total and hydrophilic BC (BCPI) along ARCTAS and ARCPAC flight tracks. Model results are from Experiment E (Table 2), either with an e-folding time of 1.15 days for BC conversion from hydrophobic to hydrophilic (solid lines) or with an OH-dependent BC aging scheme (dashed lines). Also shown are observations (red) and the relative contributions from anthropogenic (purple line) and fire sources (blue line).

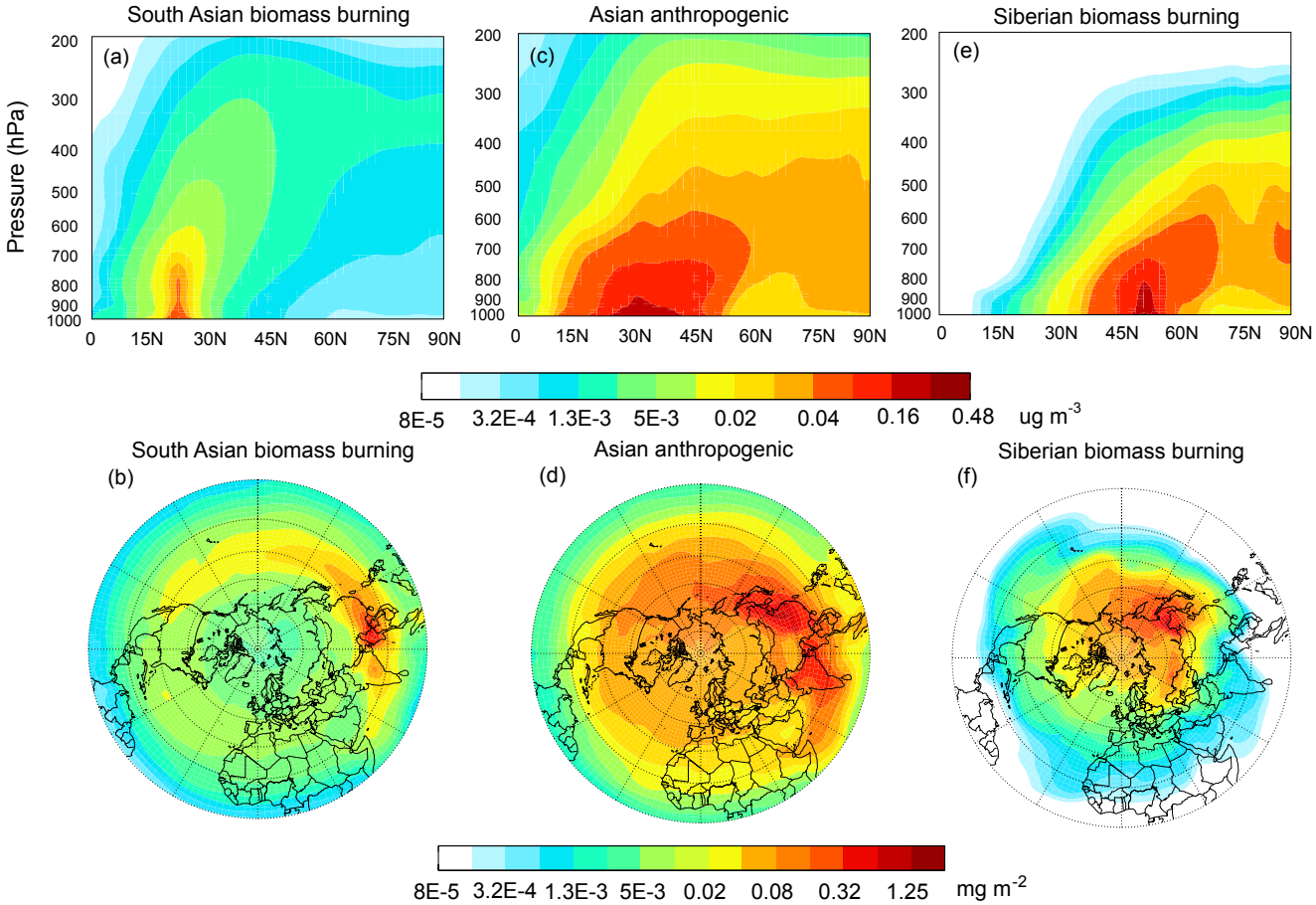

Figure S2: GEOS-Chem simulated (top panels) pressure-latitude cross section of zonal mean BC concentrations (μg m^{-3}) and (bottom panels) hemispheric BC column loading (mg m^{-2}) contributed from South Asian biomass burning, Asian anthropogenic, and Siberian Biomass burning emissions. Results are for averages for April 2008.

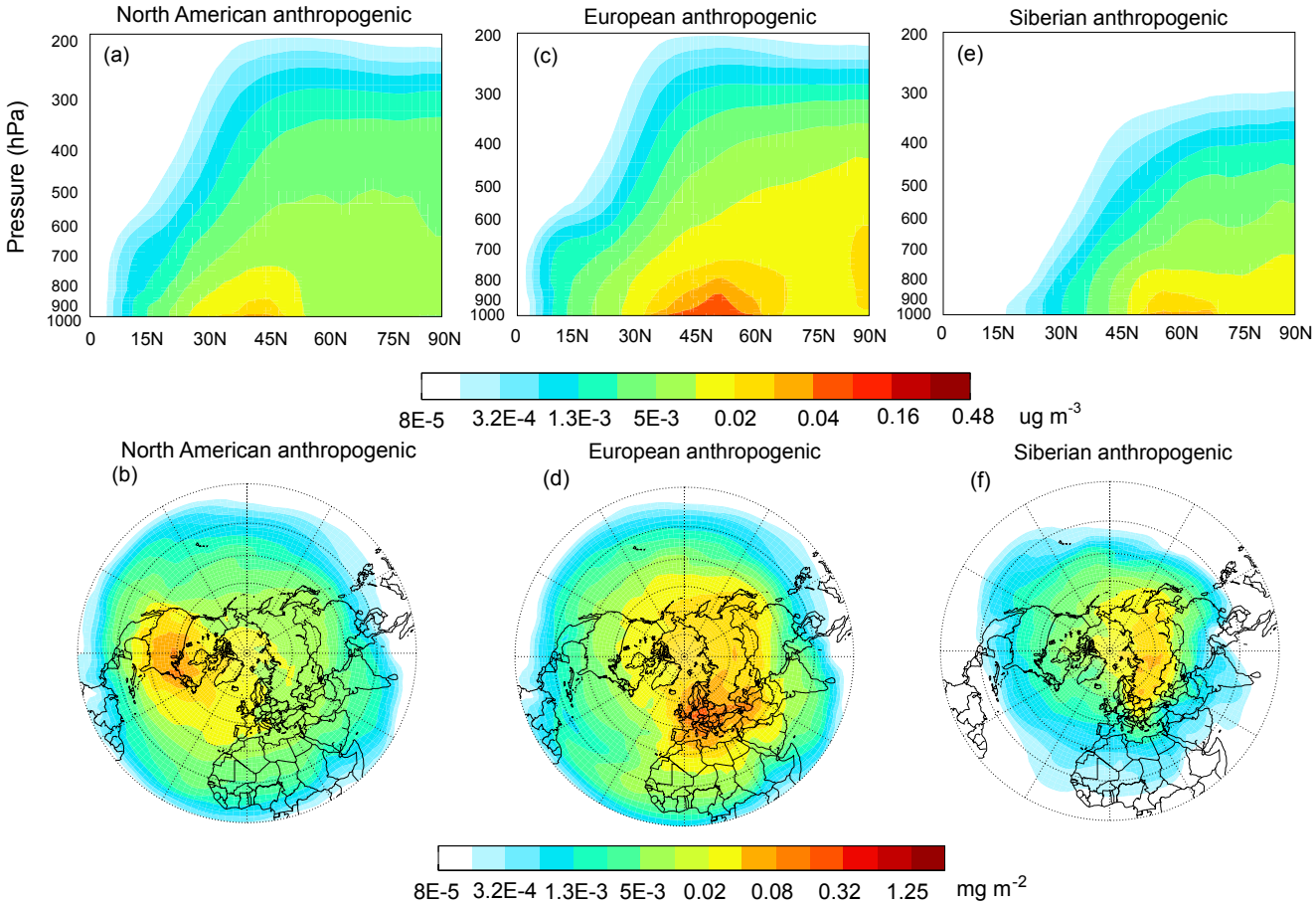

Figure S3: Same as Fig. S2, but for North American, European and Siberian anthropogenic sources.