Figure S1: GFED4.1s CHOCHO emission from biomass burning for 2010 October.
Figure S2: The low bias of model simulated CHOCHO VCDs (a), and simulated isoprene (b) and aromatics (c) contributions to CHOCHO VCDs using the a priori emissions.
Figure S3: INTEX-b aromatics emission (a) and Top-down aromatics emission (b). Note the color scale change.
Figure S4: Trans-Himalayas air mass fluxes (positive towards Tibet) during Oct 19-20 (black line) and Oct 21-24 (red line) in the lower atmosphere below 200m (b), 500m (c) and 1000m (d). Red dots in panel (a) denote numbered grid cell locations for computed air mass fluxes; they are used as the x-axis in the other panels.
Figure S5: (a) CFSR reanalysis geopotential height at 300hpa on Oct 16 2010 (available at http://www.esrl.noaa.gov/psd). (b) Same as Figure 5 for Period 1 (Oct 13-17). Red dashed line represents the trough in 300 hPa.
Figure S6: CFSR 300-150hPa observation coverage (http://cfs.ncep.noaa.gov/cfsr/atlas/) on October 14, 2010. The red frame indicates the domain of Figure 5 and Figure S5b.
Figure S7: Same as Figure S4 but for ground-1 km air mass fluxes of Period 1 and on October 23 under a cut-off low system, colored as black and red respectively.