Projected increases in wildfires may challenge regulatory curtailment of PM$_{2.5}$ over the eastern US by 2050

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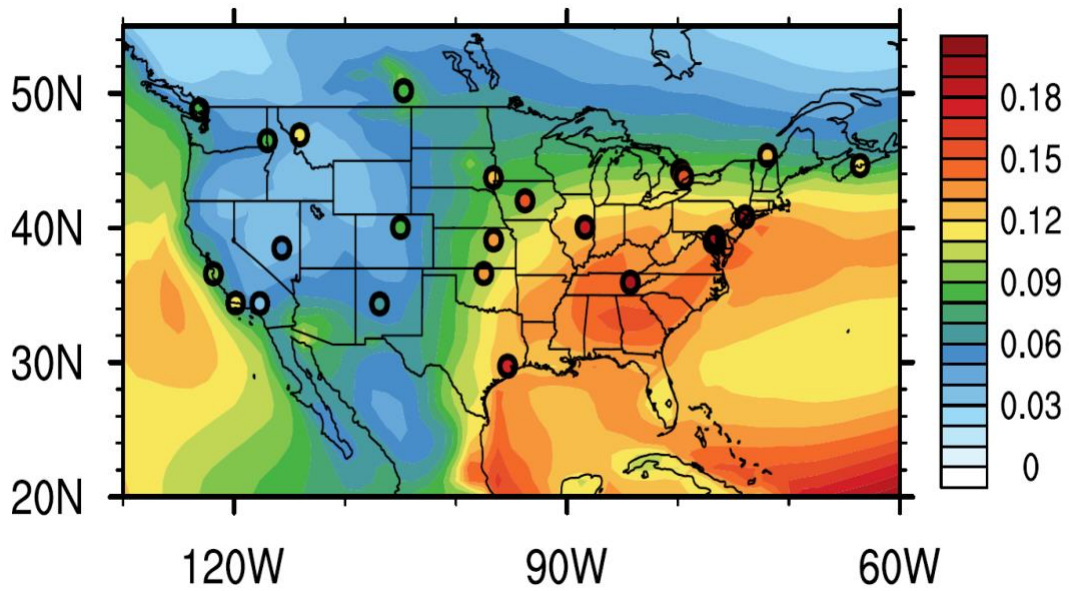
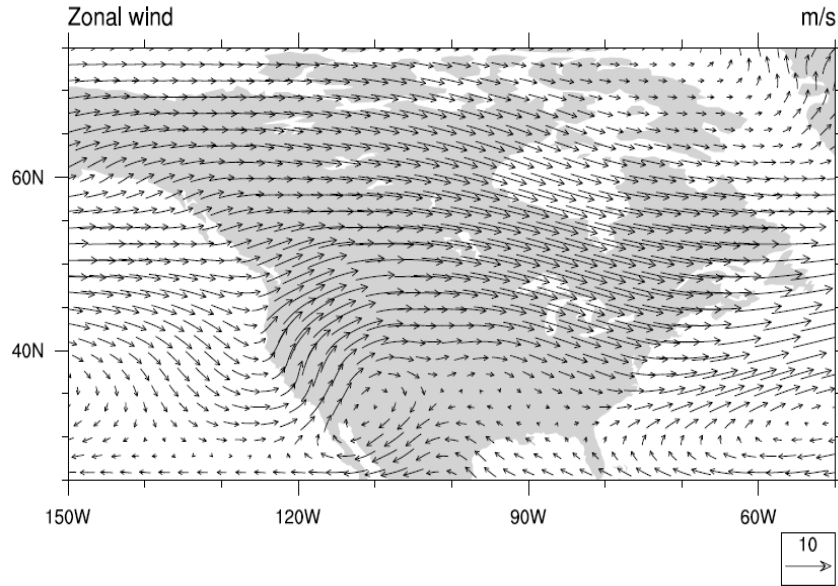
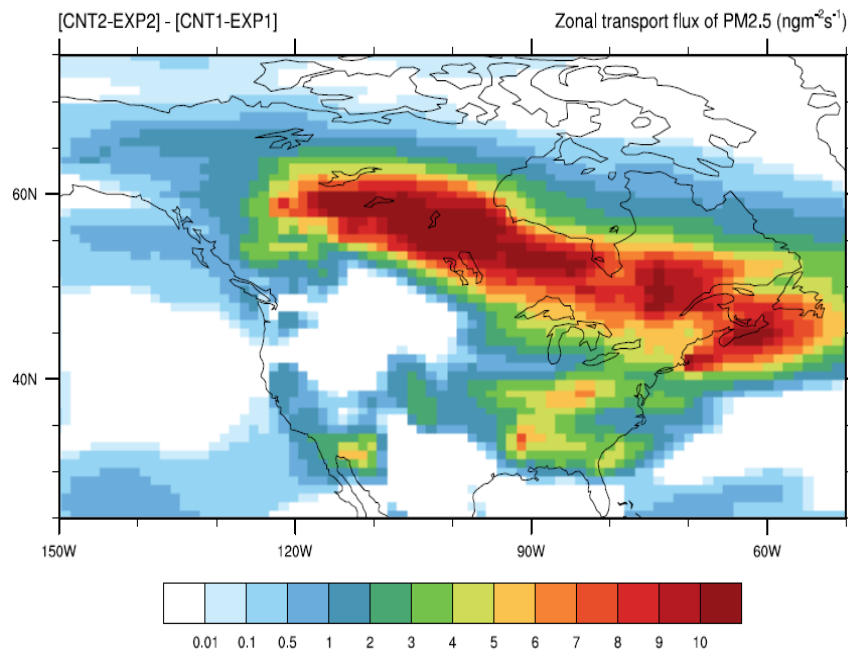
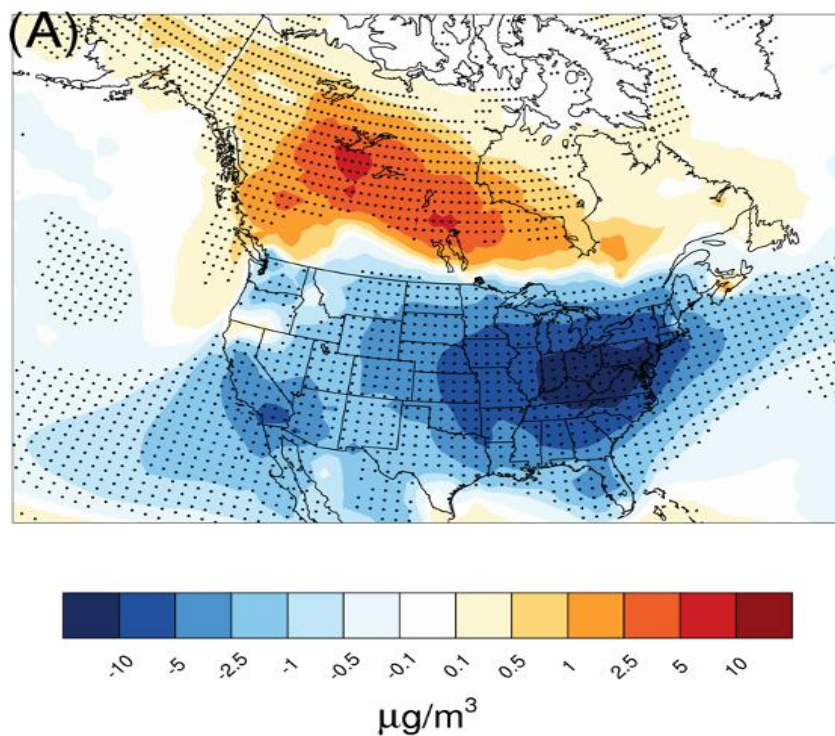
Contents:

Supplementary Figure 1: Evaluation of the simulated AOD at 550 nm (unitless) against observations at the AERONET sites in North America. Comparison of decadal-averaged (2001-2010) annual mean AOD between the simulation (shading) and AERONET in-situ observations (colored circles) in the 2000s.

Supplementary Figure 2A: Spatial distribution of mean summertime wind vector over North America at 800 hPa from the 2000ALL simulation. Differences in the mean wind vector among the 4 simulations are negligible (not shown).

Supplementary Figure 2B: Spatial distribution of the decadal mean difference in summer mean zonal flux ($U*PM_{2.5}$ values) of wildfire-induced $PM_{2.5}$ between the 2000s and the 2050s ([2050ALL-2050WEF]-[2000ALL-2000WEF]) within the planetary boundary layer (from the surface to 800 hPa).

Supplementary Figure 3: Spatial distribution of surface $PM_{2.5}$ in 10-year averaged summer mean quantities over North America from the present day to the mid-21st century (2050$_{ALL}$-2000$_{ALL}$). Areas marked with black dots indicate grids where changes are significant at the 95% confidence level.