

Decadal application of WRF/Chem under future climate and emission scenarios: Impacts of technology-driven climate and emission changes on regional meteorology and air quality

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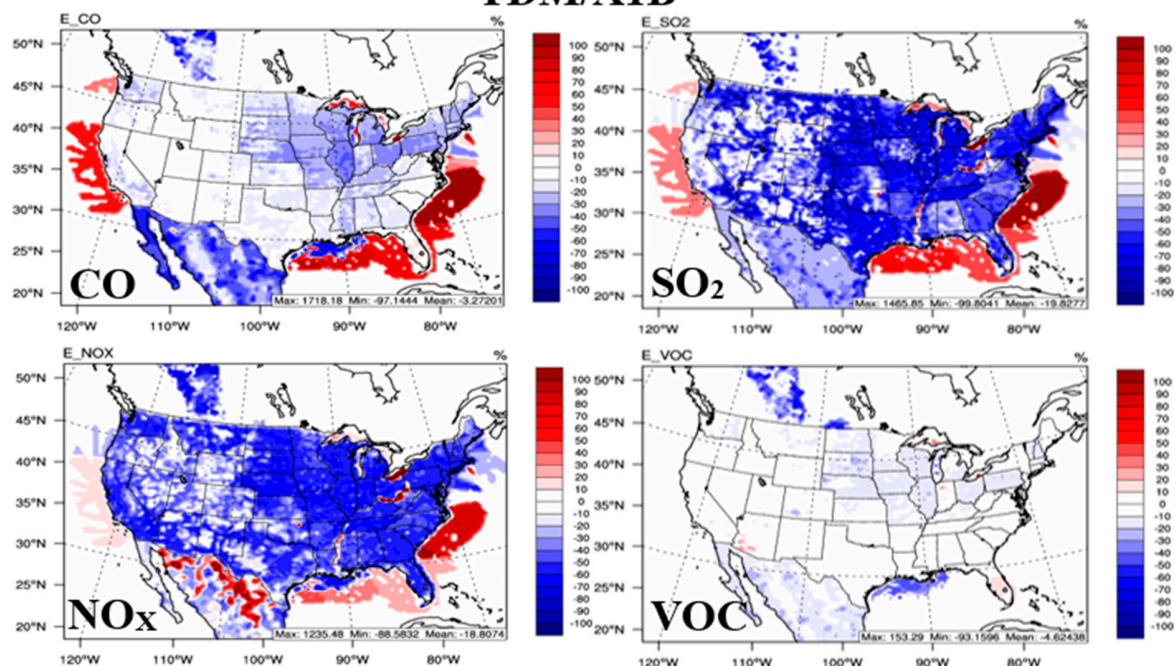
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TDM/A1B



TDM/B2

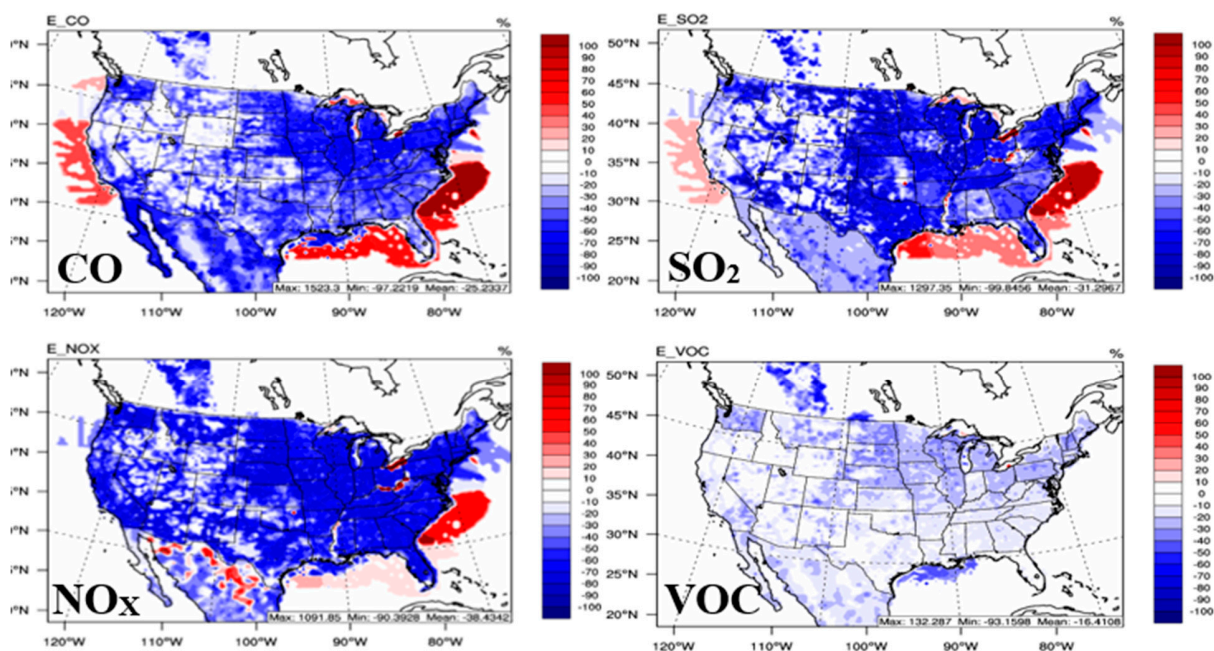


Figure S1. Spatial distributions of relative (%) changes of CO, SO₂, NO_x, and VOC emissions between annual average of future (2046 - 2055) and present (2005) conditions under the TDM/A1B (top) and TDM/B2 (bottom) scenarios.

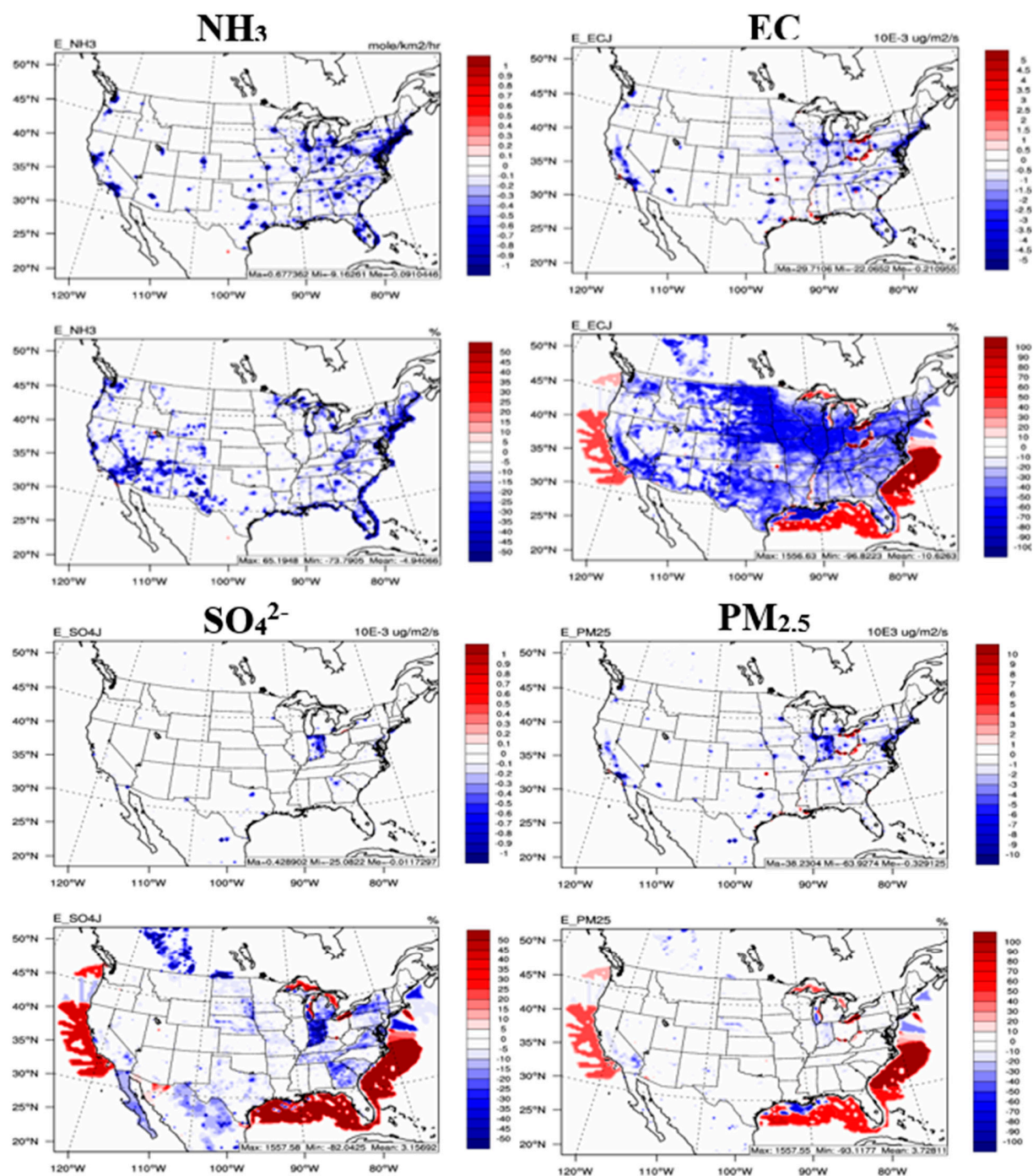


Figure S2. Spatial distributions of absolute (top panel) relative (lower panel) changes of NH_3 , EC, SO_4^{2-} , and $\text{PM}_{2.5}$ emissions between annual average of future (2046 - 2055) and present (2005) conditions under the TDM/A1B scenario.

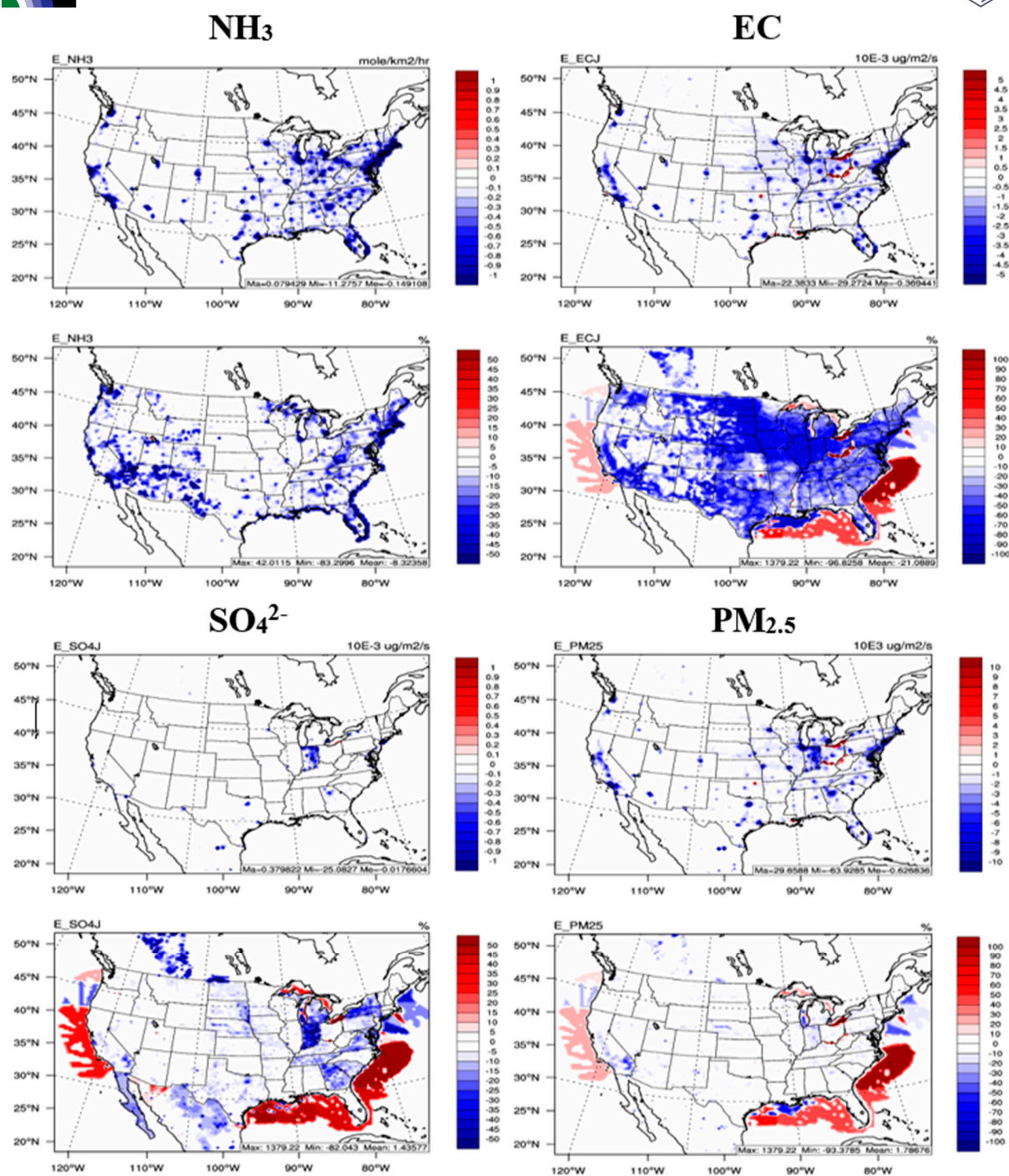


Figure S3. Same as in Figure S2, but for the TDM/B2 scenario.



TDM/A1B

Q2

TDM/B2

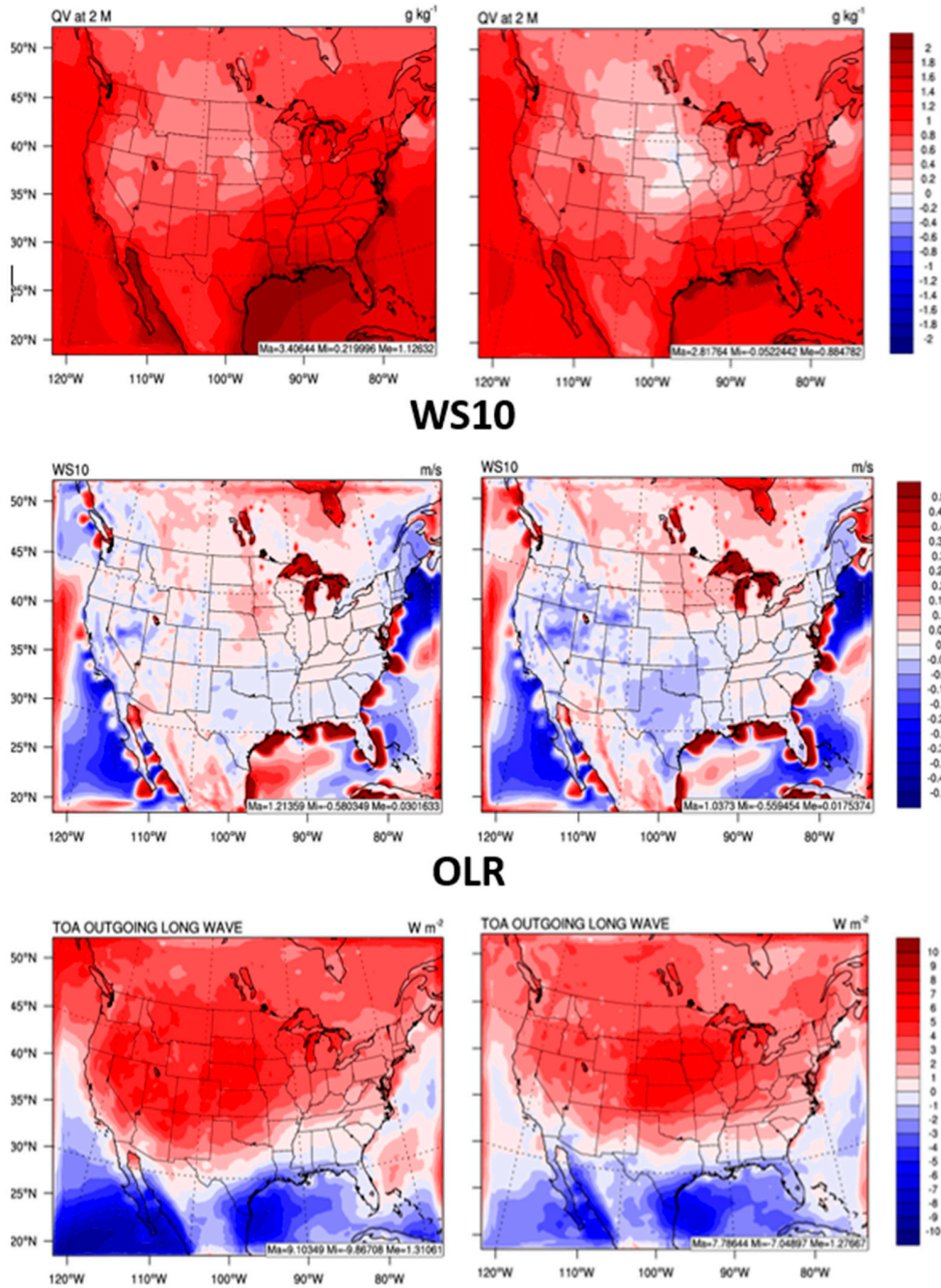


Figure S4. Absolute changes of annual average 2-meter water vapor mixing ratio (Q2), 10-meter wind speed (WS10), and outgoing longwave radiation at the top of the atmosphere (OLR) between future and current decade for TDM/A1B (left) and TDM/B2 (right).

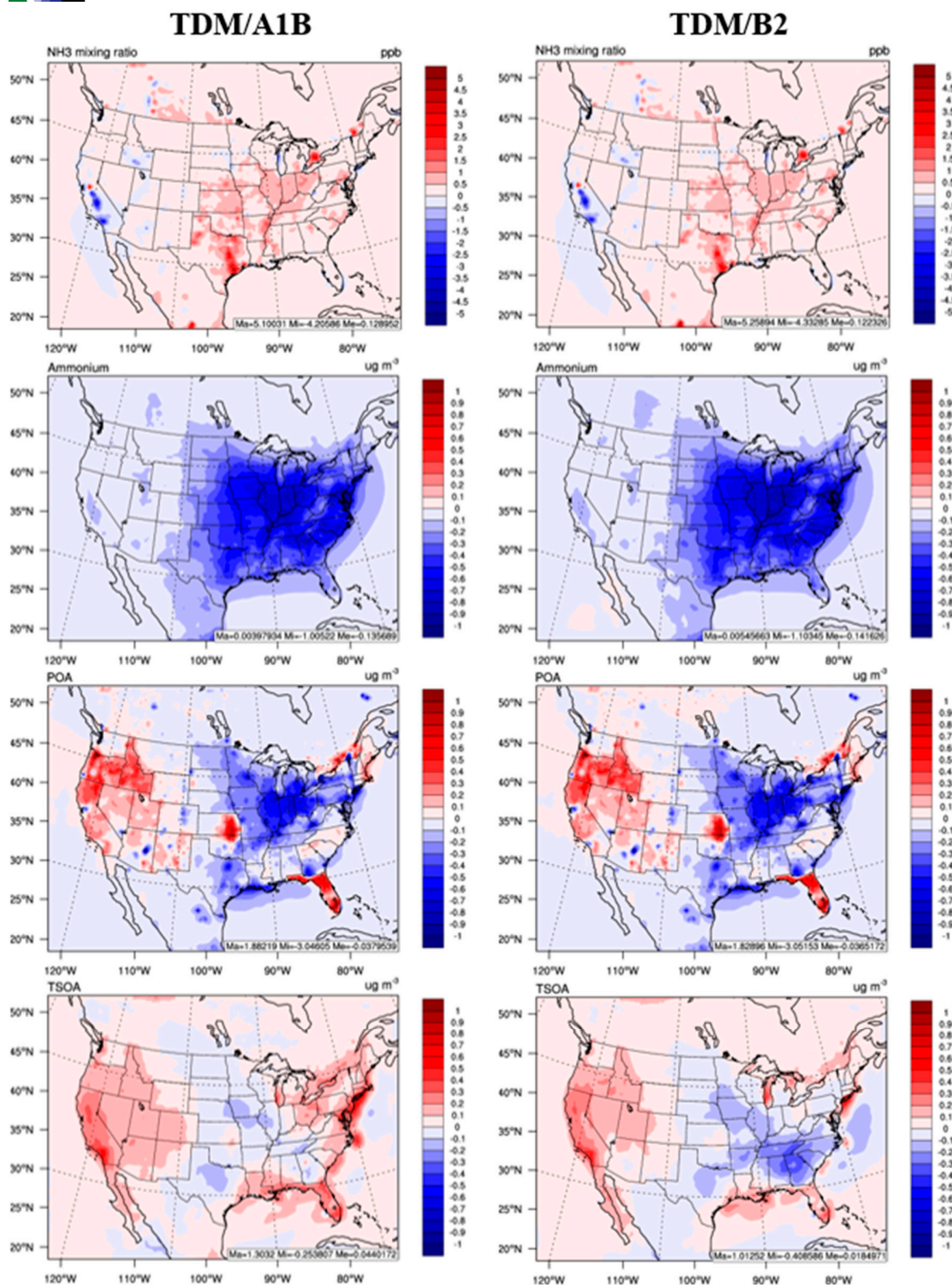


Figure S5. Absolute changes of annual average of gaseous ammonia (NH_3), ammonium (NH_4^+), primary organic aerosol (POA), and total secondary organic aerosol (TSOA) between future and current decade for TDM/A1B and TDM/B2.