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Source attribution of observed CO variability during BORTAS-B

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We use the GEOS-Chem global 3-D chemistry transport model to interpret the observed spatial and temporal variability of airborne, space-borne, and ground-based measurements of carbon monoxide (CO) taken during the BORTAS-B experiment in July 2011. We also look at the transport pathways of plumes over North America during summer 2011, and look at observable hemispheric perturbations due to boreal Canadian forest fires. We investigate the sensitivity of our calculations to prior assumptions about combustion emission factors and spatial and temporal distributions of fires during summer 2011. These calculations form the basis of future inverse model calculations.