Auxiliary Material for

Twelve-month, 12-km resolution North American WRF/Chem air quality simulation: Performance evaluation

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Introduction

This auxiliary material contains supplemental maps of pollutant concentrations in the file “concentrationMaps.pdf”, an example WRF/Chem configuration (“namelist.input”) file (labeled “namelist.input.txt”), model-measurement comparison statistics in the file (“comparisonInfo.xlsx”), and monitor-specific paired model-measurement data in the files (“comparinsonData.\*.json”).

1. concentrationMaps.pdf: Maps of annual average, annual average daily peak, average by month-of-year, average by day-of-week, and average by hour-of-day concentrations for modeled pollutants PM2.5, PM10, NOx, O3, HCHO, NH3, particulate SO4, particulate NH4, particulate NO3, secondary organic aerosol, particulate elemental carbon, and particle number concentration, as well as average profiles of population-weighted concentrations. To view animations, open the file in a pdf reader that can execute embedded javascript, such as Adobe Reader.
2. namelist.input.txt: Example “namelist.input” file for WRF/Chem v3.4 configuration to produce results reported here. File format is described in the WRF and WRF/Chem manuals as cited in the main text.
3. comparisonInfo.xlsx: Model-measurement comparison statistics disaggregated by pollutant, measurement network, geographic region or urban status, and season.
4. comparisonData.annual.json, comparisonData.spring.json, comparisonData.summer.json, comparisonData.fall.json, comparisonData.winter.json: Monitor-specific paired model-measurement data, one file for each season.