SUPPLEMENT TO: A GLOBAL PERSPECTIVE ON AEROSOL FROM LOW VOLATILITY COMPONENTS

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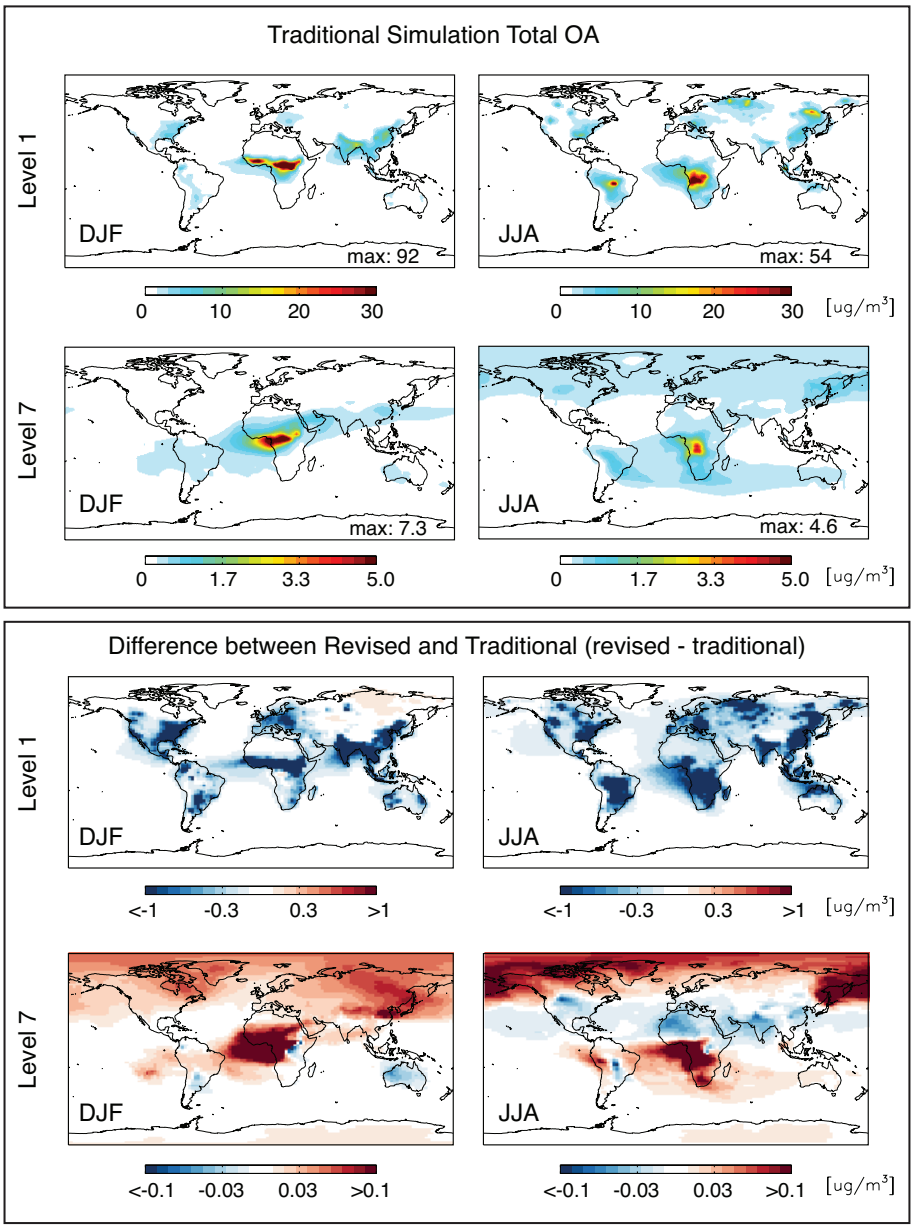
Figure S1: Traditional simulation organic aerosol concentration and change in total OA from traditional to revised simulation. Total OA includes POA and all forms of SOA. Level 1 is closest to the surface. Level 7 is approximately 4 km in altitude and 600 hPa at the center. Note that the color bars use different scales. Simulated concentrations for the present day traditional simulation show the maximum seasonally averaged concentration in the lower right corner of each panel. Simulations use GEOS-4 meteorology at 2°x2.5° for year 2000. See Section 3.1 of main manuscript for discussion.

Figure S2: June-July-August 2000 surface total OC concentration relative to traditional (non-volatile POA) simulation using GISS meteorology at 4°x5° horizontal resolution. Tests are outlined in Table 6 (main manuscript).

Figure S3: December-January-February 2001 surface total OC concentration relative to traditional (non-volatile POA) simulation. OC includes POA and all forms of SOA. Sensitivity simulations are outlined in Table 6 (main manuscript). Simulations use year 2001 meteorology from the GISS GCM III at 4°x5° resolution. Figure S.2 is the same as Figure 8 in the main manuscript with the only exception being that Figure S3 uses year 2001 and Figure 8 uses year 2000.

Figure S4: December-January-February 2000 surface total OC concentration relative to traditional (non-volatile POA) simulation using GEOS-4 meteorology at 2°x2.5° horizontal resolution. Tests are outlined in Table 6 (main manuscript). Panel (a) shows the difference between the traditional simulation and the revised simulation. Panel (b) shows the difference between the traditional simulation and a simulation in which POA emissions are doubled to obtain the SVOC emissions (compare to panel (c) of Figure 8 in the main manuscript).

Date: May 5, 2010.



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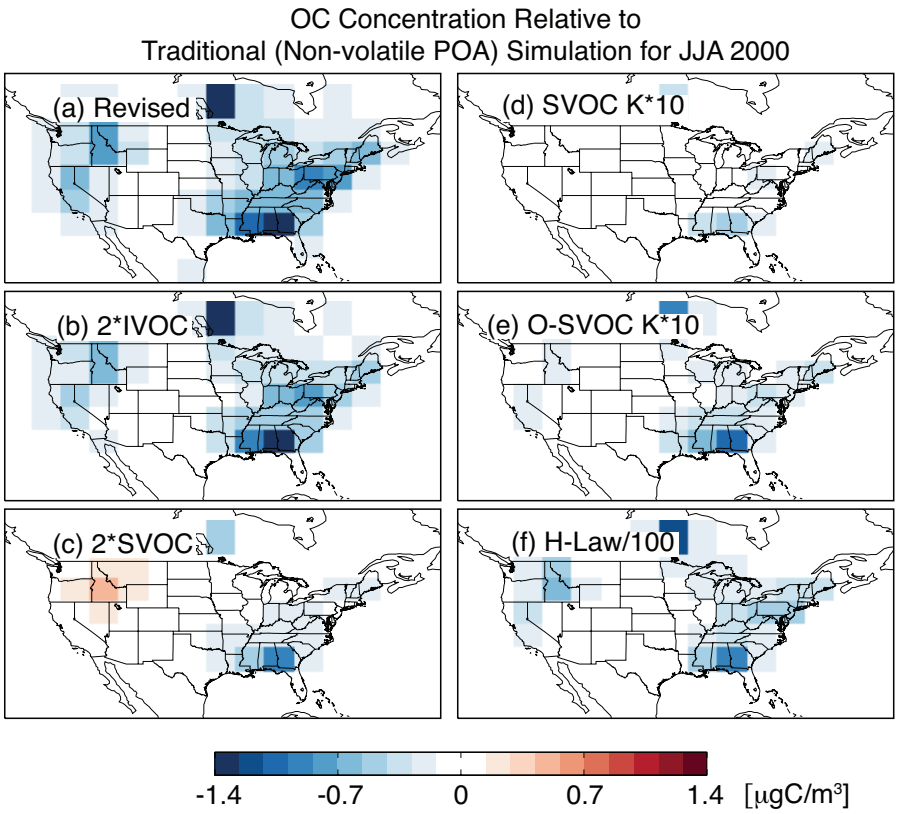

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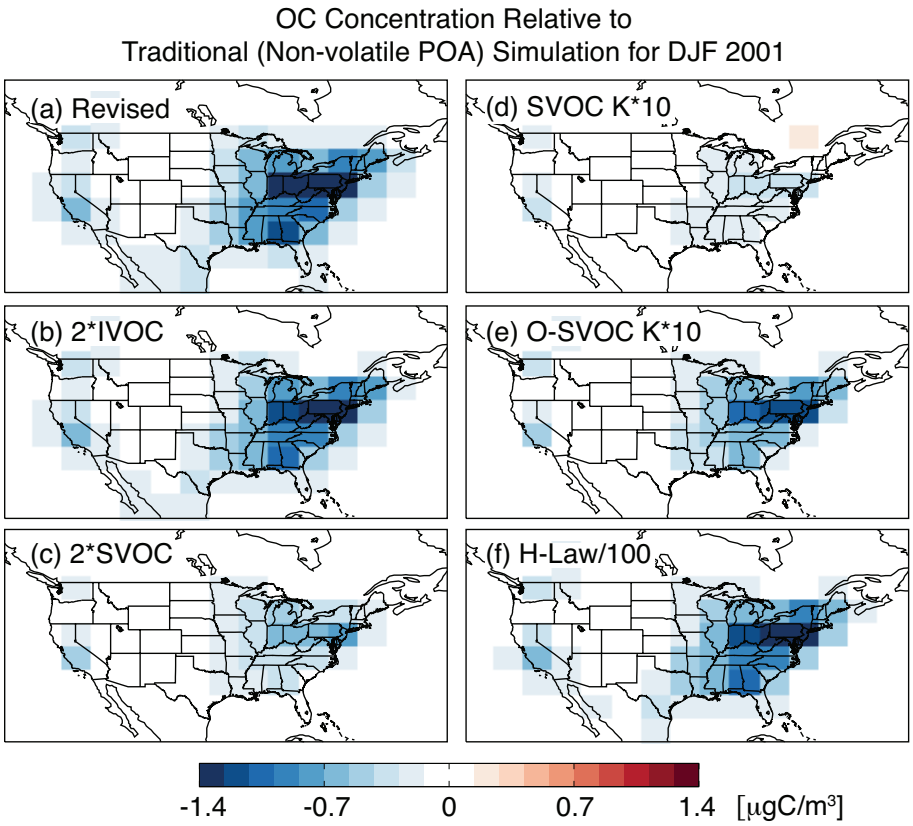

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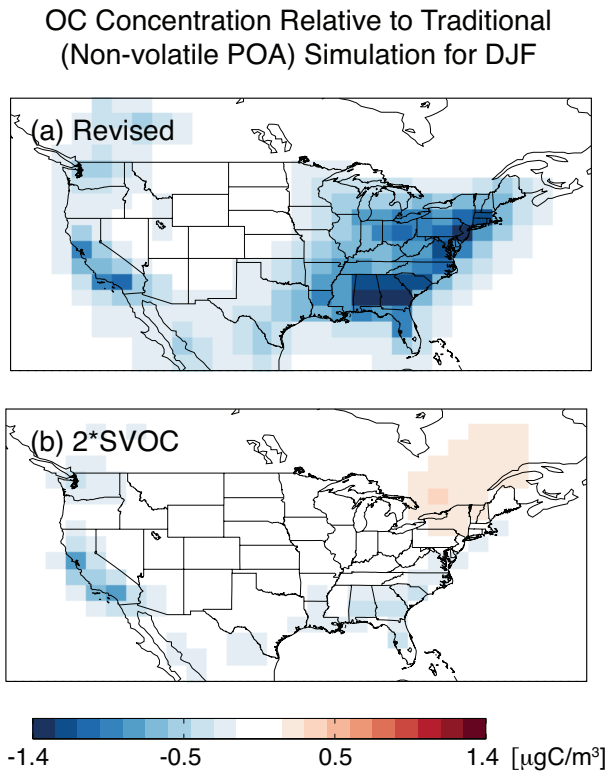

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