Supplementary Online Material

Interannual Variability and Trends of Combustion Aerosol and Dust in Major Continental Outflows Revealed by MODIS Retrievals and CAM5 Simulations During 2003 – 2017

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Figure S1

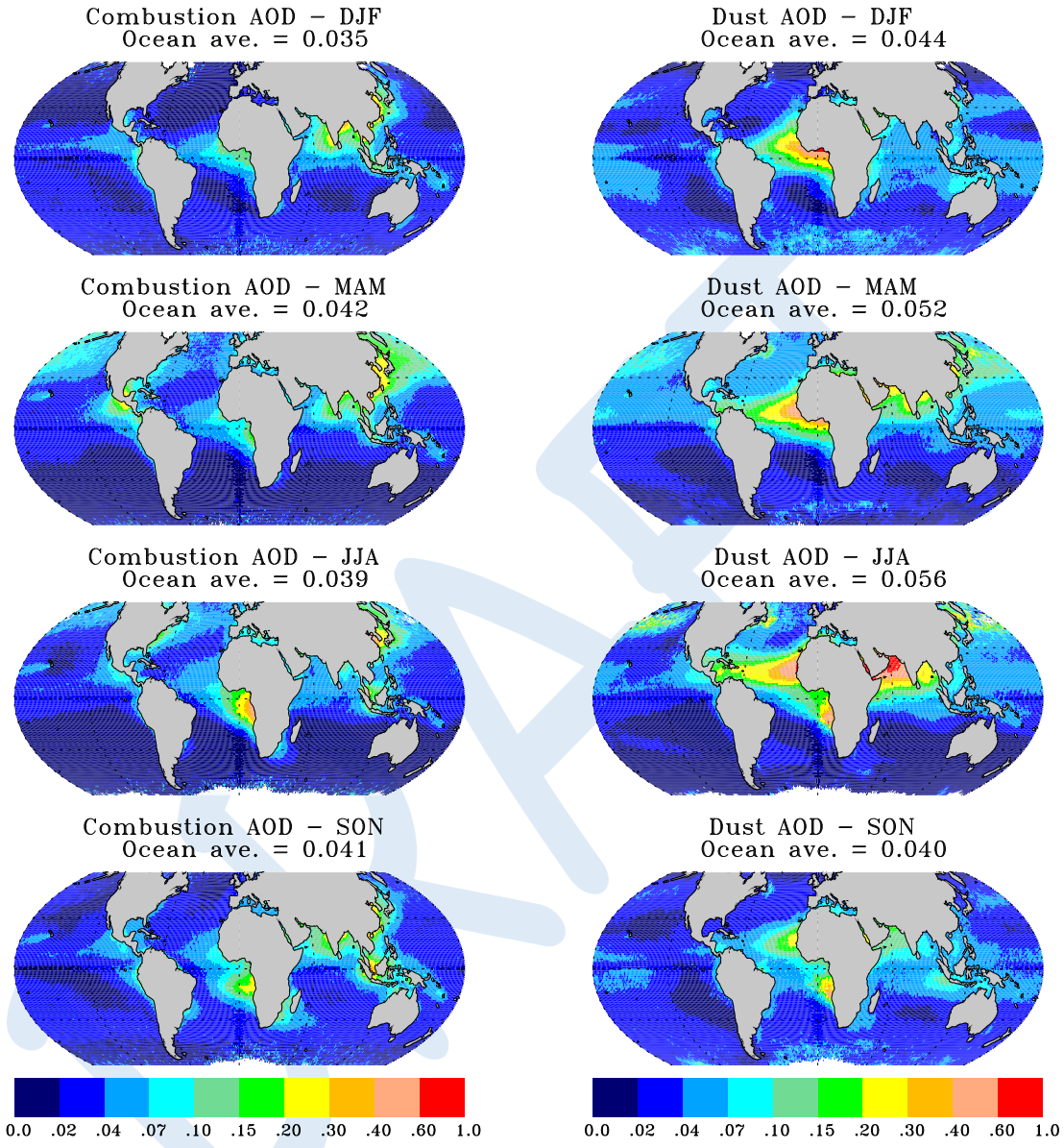

Figure S1: The MODIS/Aqua seasonal mean combustion AOD (τ_c) and dust AOD (τ_d) averaged over 2003-2014.

Figure S2

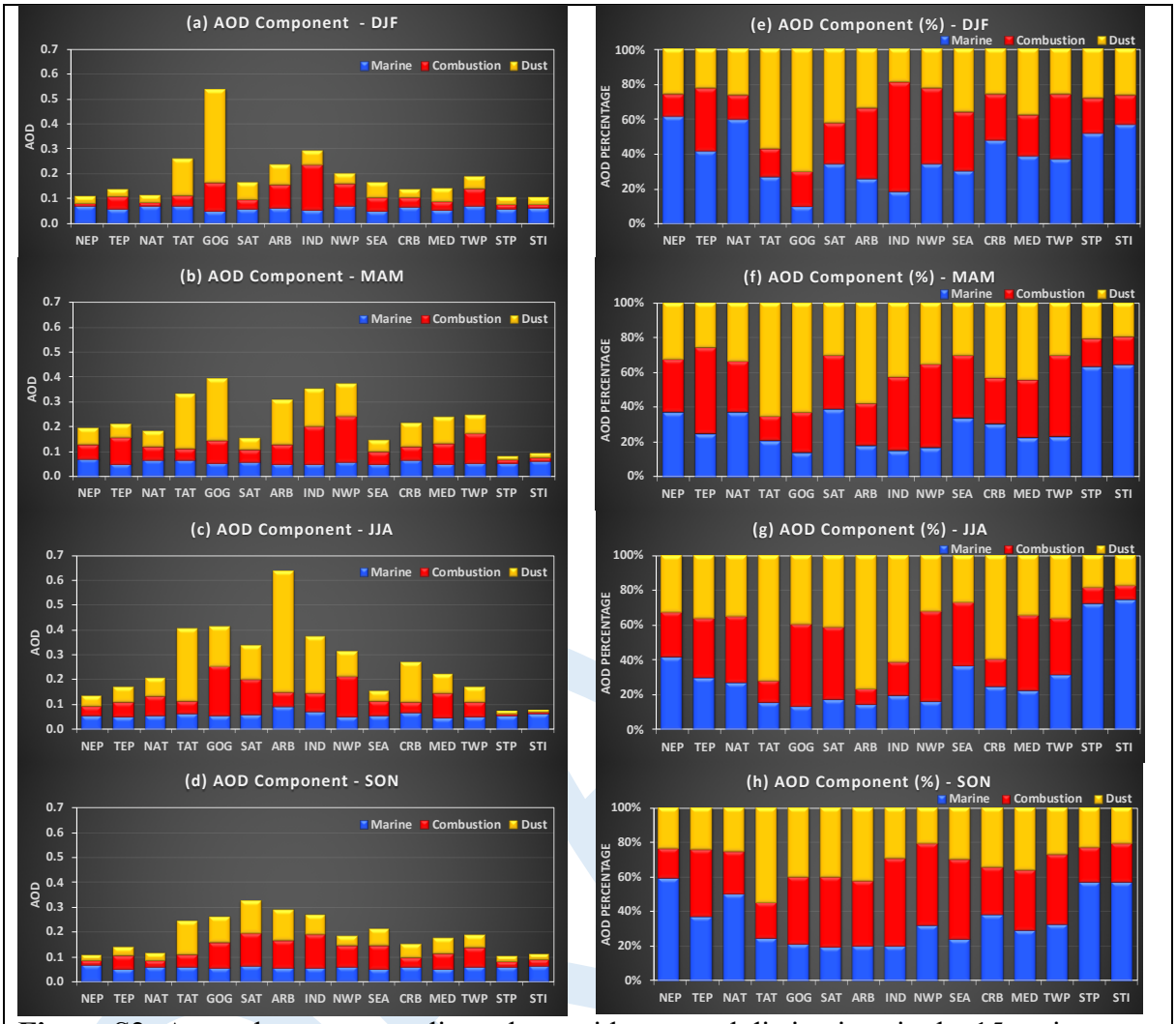

Figure S2: Aerosol component climatology with seasonal distinctions in the 15 regions as derived from 2003-2017 MODIS Aqua observations: (a - d) for magnitude of component AOD, and (e - g) for percentage of component AOD.

26 **Figure S3**

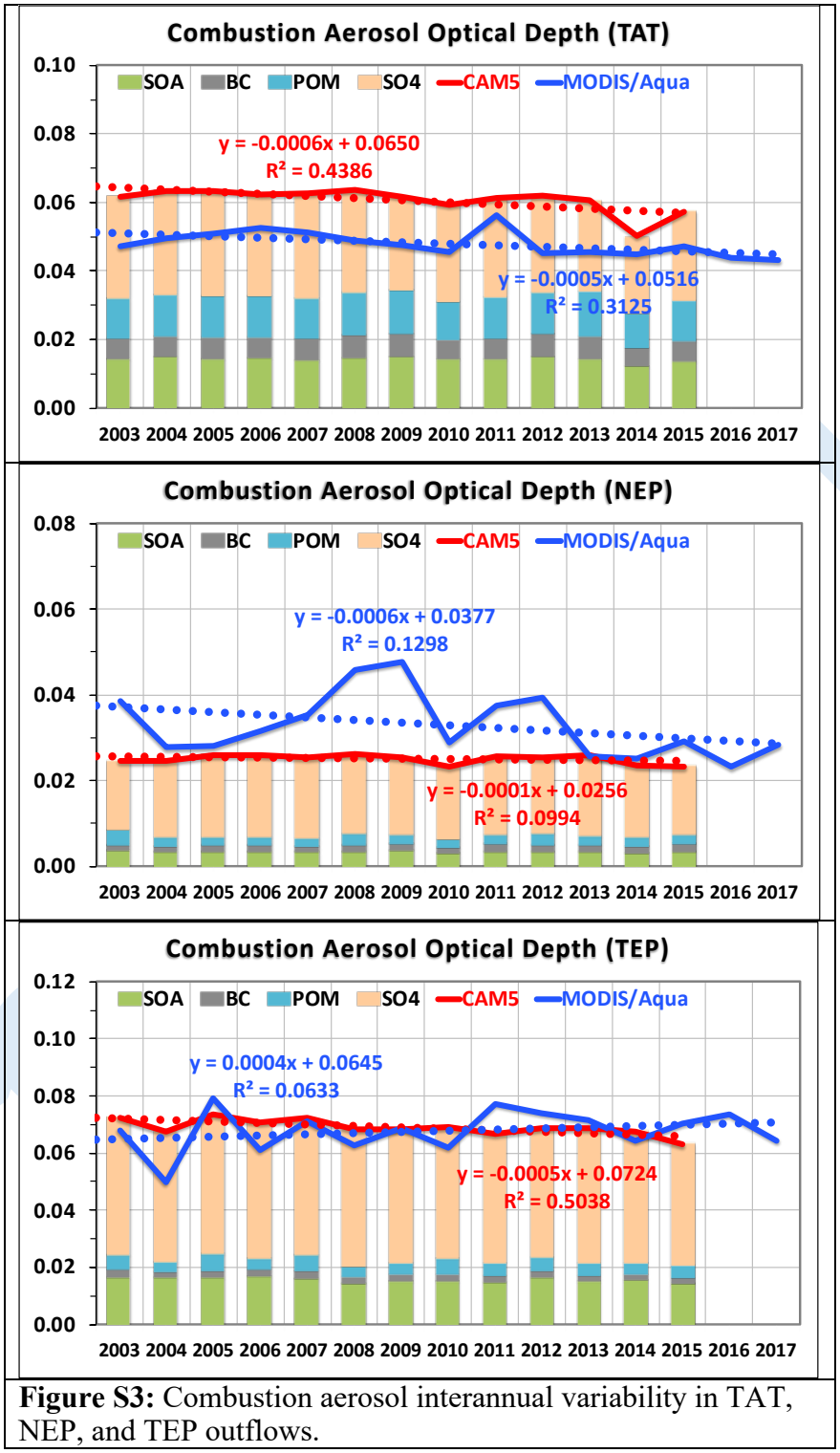

Figure S3: Combustion aerosol interannual variability in TAT, NEP, and TEP outflows.

Figure S4

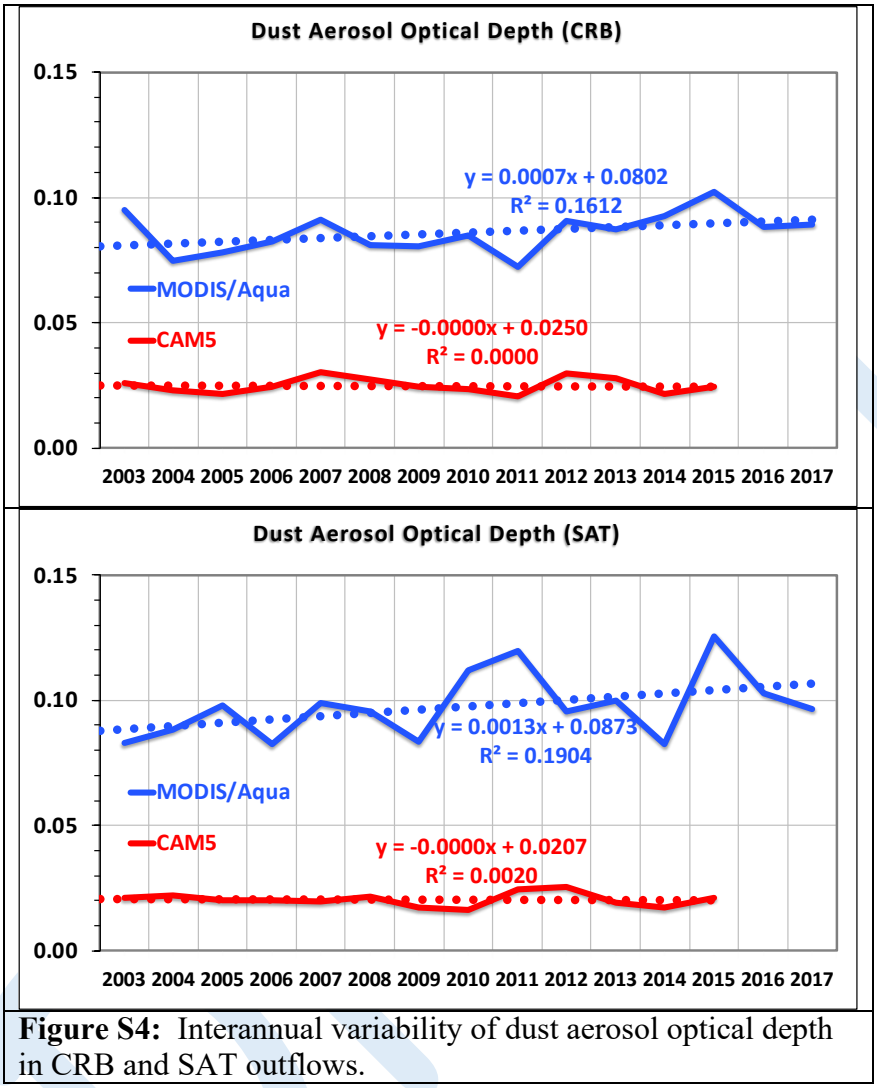

Figure S4: Interannual variability of dust aerosol optical depth in CRB and SAT outflows.