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

Hongbin Yu, Yang Yang, Hailong Wang, Qian Tan, Mian Chin, Robert C. Levy, Lorraine A. Remer, Steven J. Smith, Tianle Yuan, Yingxi Shi

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**Figure S1**

The MODIS/Aqua seasonal mean combustion AOD ($\tau_c$) and dust AOD ($\tau_d$) averaged over 2003-2014.
**Regional Trends of Combustion Aerosol and Dust from MODIS and CAM5**

**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.
Figure S3

Figure S3: Combustion aerosol interannual variability in TAT, NEP, and TEP outflows.
Figure S4: Interannual variability of dust aerosol optical depth in CRB and SAT outflows.