



Supplement of

The influence of the North Atlantic Oscillation and El Niño–Southern Oscillation on mean and extreme values of column ozone over the United States

I. Petropavlovskikh et al.

Correspondence to: I. Petropavlovskikh (irina.petro@noaa.gov)



Figure S1: Decomposition Plot of the Boulder total ozone record based on the Seasonal-Trend decomposition procedure based on LOESS (STL): (A) daily mean column ozone values, (B) seasonal component, (C) trend component, (D) residuals (i.e, daily column ozone minus seasonal and trend component). All panels in DU. For convenience right hand bars in (A)-(D) refer to the same magnitude (25 DU).



Figure S2: 'Fingerprints' of the NAO and ENSO as detected for Bismarck in (A) the frequency distribution of EHOs and ELOs for winter (DJF), (B) as (A) but for spring (MAM), (C) as (A) but for 'fingerprints' in seasonal mean column ozone, (D) as (C) but for spring. Filled circles denote visible 'fingerprints' and crosses denote not visible 'fingerprints'. NAO positive (negative) phase is indicated for winter in red (blue) and for spring in orange (light blue), ENSO positive phase is indicated for winter (green) in purple (light green).



Figure S3: as Figure S2 but for Wallops Island.



Figure S4: as Figure S2 but for Nashville.



Figure S5: Figure 5: STL-trend component anomaly (in DU) in 1963-2012 for Wallops Island (top), Bismarck (center) and Nashville (bottom) with underlying marks (colored vertical bars) for 'fingerprints' of positive and negative NAO modes (left panels) and warm ENSO phases (right panels) on seasonal basis. NAO positive (negative) phase is indicated for winter in red (blue) and for spring in orange (light blue). Warm ENSO phase is indicated for winter in green and spring in light green.