



Corrigendum to **“Impacts of different characterizations of large-scale background on simulated regional-scale ozone over the continental United States” published in Atmos. Chem. Phys., 18, 3839–3864, 2018**

**Christian Hogrefe¹, Peng Liu², George Pouliot¹, Rohit Mathur¹, Shawn Roselle¹, Johannes Flemming³,
Meiyun Lin^{4,5}, and Rokjin J. Park⁶**

¹Computational Exposure Division, National Exposure Research Laboratory, US Environmental Protection Agency,
Research Triangle Park, NC, USA

²National Research Council Fellow at National Exposure Research Laboratory, US Environmental Protection Agency,
Research Triangle Park, NC, USA

³European Centre for Medium-Range Weather Forecasts, Reading, UK

⁴Atmospheric and Oceanic Sciences, Princeton University, Princeton, NJ, USA

⁵NOAA Geophysical Fluid Dynamics Laboratory, Princeton, NJ, USA

⁶School of Earth and Environmental Sciences, Seoul National University, Seoul, South Korea

Correspondence: Christian Hogrefe (hogrefe.christian@epa.gov)

Published: 12 July 2018

After the publication of the article, we determined that the solid and dotted yellow lines in the bottom panel of Fig. 6 were erroneously constructed from an additional model sensitivity simulation not included in the manuscript rather than the NO O₃ DDEP simulation indicated by the figure labels. Specifically, these lines were constructed from a regional CMAQ simulation that differs from the BASE simulation not only by turning off ozone dry deposition but also by using AM3 instead of C-IFS boundary conditions. The lines in the published figure therefore reflect the combined effects of these two factors when compared to BASE. The corrected Fig. 6 using the NO O₃ DDEP simulation in the bottom panel is shown below. No changes were made to the top three panels or the other lines in the bottom panel of this figure. The corrected figure now shows that, for the surface ozone monthly mean mixing ratio, the largest change from BASE is simulated for the BC ZERO case followed by the NO O₃ DDEP case.

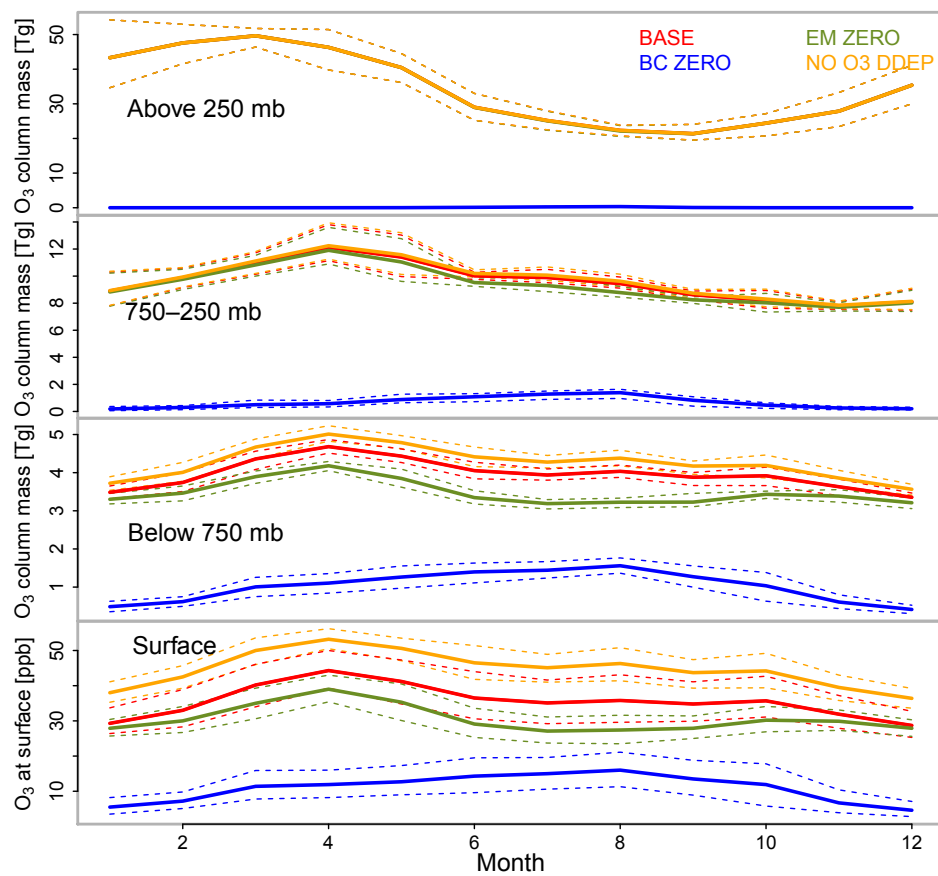


Figure 6. The upper three panels present time series of the monthly average domain total ozone column mass for the BASE, BC ZERO, EM ZERO, and NO O₃ DDEP sensitivity simulations for the same three layer ranges analyzed in Fig. 5 while the lowest panel presents time series of monthly average domain average ozone mixing ratios for the first model layer. The dashed lines represent the 5th and 95th percentiles of the hourly domain total ozone column mass and domain average ozone mixing ratios for a given month.