

## Supplementary material:

### **Figure S1: Comparison between observed and modeled NO<sub>x</sub> and O<sub>3</sub> on 20 July 2012.**

Observed (track) and simulated (color shading) NO<sub>x</sub> (a, d) and O<sub>3</sub> (b, e) mixing ratios (ppbv), and particle number concentrations (particle/cm<sup>3</sup>) (c, f) at 100 (left) and 300 (right) m at 14 UTC on 20 July 2012.

