Supplementary material for "Long-path measurements of pollutants and micrometeorology over Highway 401 in Toronto"

Yuan You[1], Ralf M. Staebler[1*], Samar G. Moussa[1], Yushan Su[2], Tony Munoz[2], Craig Stroud[3], Junhua Zhang[3], and Michael D. Moran[3]

[1]Air Quality Processes Research Section, Environment and Climate Change Canada, Toronto, Ontario, Canada, M3H 5T4.
[2]Ontario Ministry of the Environment and Climate Change, Toronto, Ontario, Canada, M9P 3V6
[3]Air Quality Modelling and Integration Section, Environment and Climate Change Canada, Toronto, Ontario, Canada, M3H 5T4.

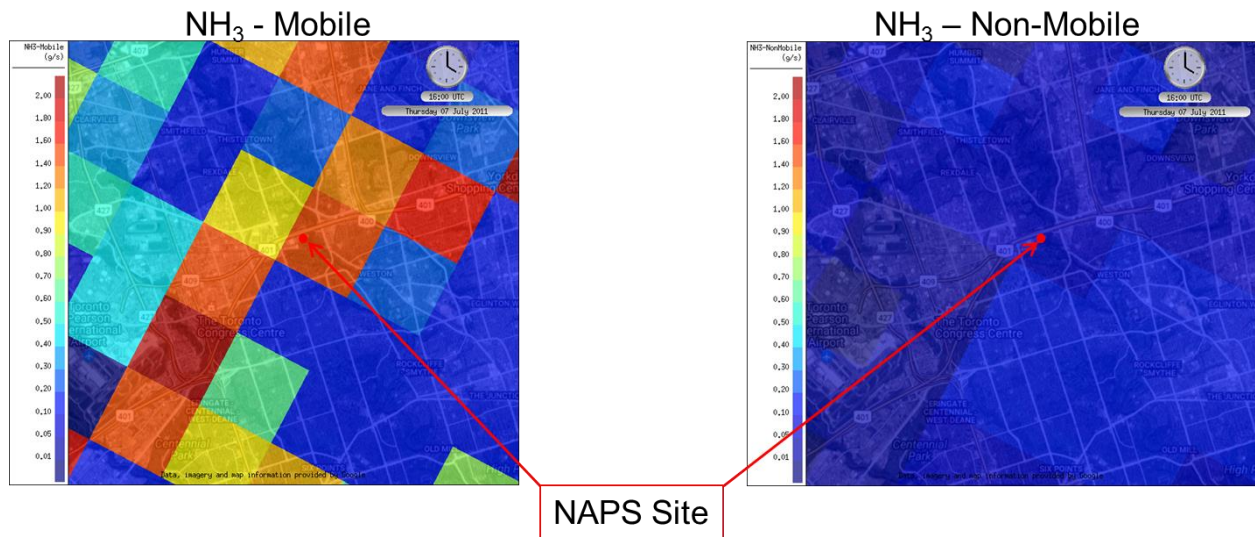*Correspondence to: ralf.staebler@canada.ca

Figure S1 : Gridded NH$_3$ emissions field used by GEM-MACH. Each grid cell is 2.5 km by 2.5 km in size, and the red dot marks the location of the NAPS trailer. The color scale indicates the magnitude of the emissions of NH$_3$ (g s^{-1}) in July 2010 from on-road mobile sources (left) and non-mobile sources (right).
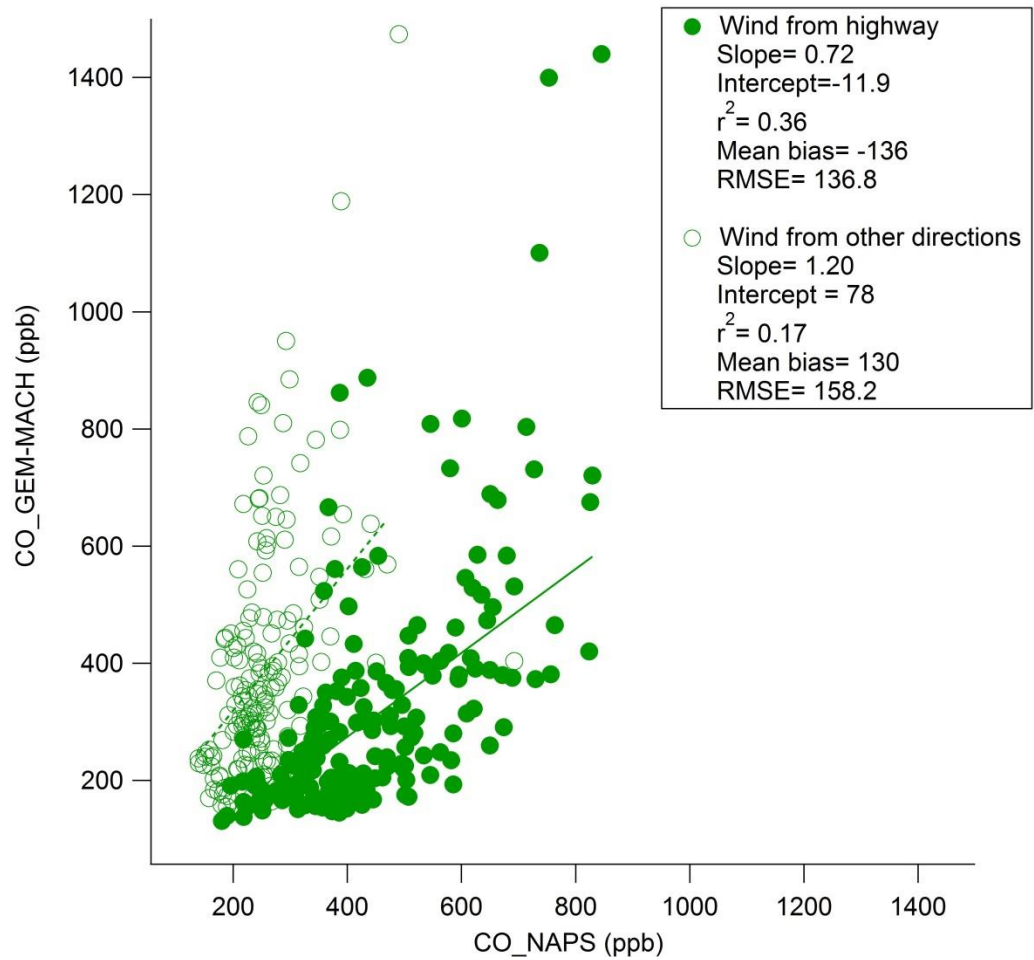
Figure S2 : Comparison of CO mixing ratios from GEM-MACH and NAPS. Solid circles show results when the wind was from the highway towards the NAPS trailer; the solid line is the linear regression line excluding 3 points when GEM-MACH results were much greater than NAPS values. Open circles show results when the wind was from other directions; the dashed line is the linear regression for these excluding the 4 most extreme outliers. Mean bias = [GEM_MACH]-[NAPS]. RMSE = root mean square error.