

Observation of regional air pollutant transport between the megacity Beijing and the North China Plain

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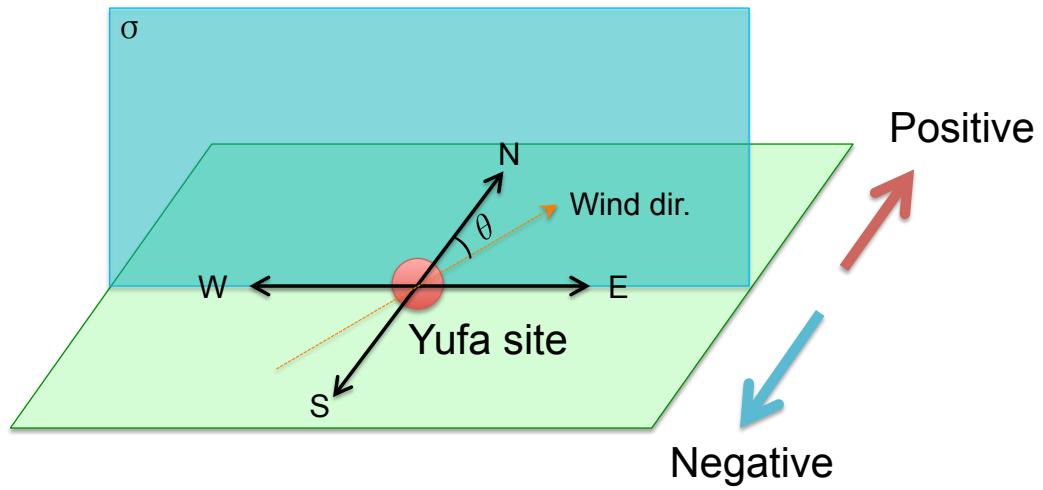


Figure S1. Principles for calculating gaseous pollutant fluxes: the wind vector along the north-south direction multiplies concentration of gaseous pollutant equals the gas pollutant flux. The direction from south to north (i.e. from the NCP to Beijing) is defined as positive, and vice versa.

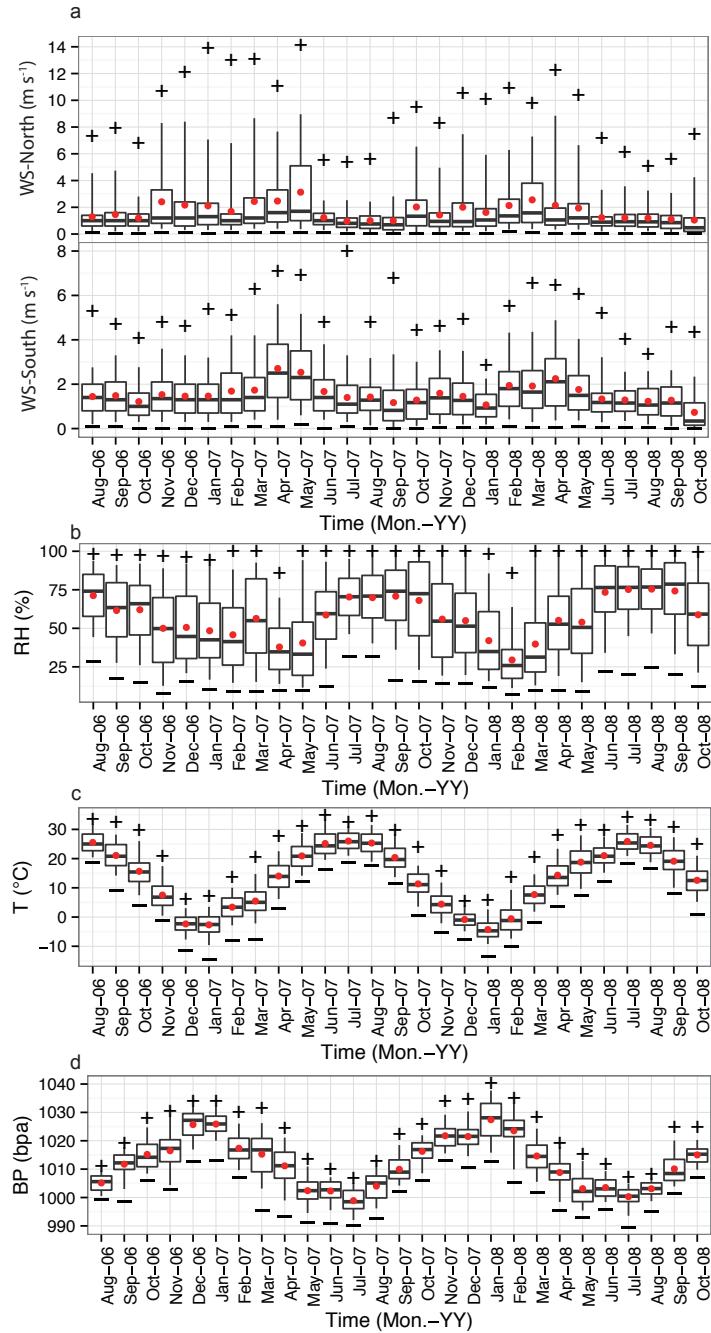


Figure S2. Monthly statistics of wind speed (WS) for north wind (a) top and south wind (a) bottom, relative Humidity (RH) (b), temperature (T) (c) and barometric pressure (BP) (d) at the Yufa site. The red point represents the mean value. The black cross bar stands for the median value. The black box and whisker denote the 5th, 25th, 75th and 95th percentiles, respectively. The plus and minus symbols represent the maximum and minimum, respectively.

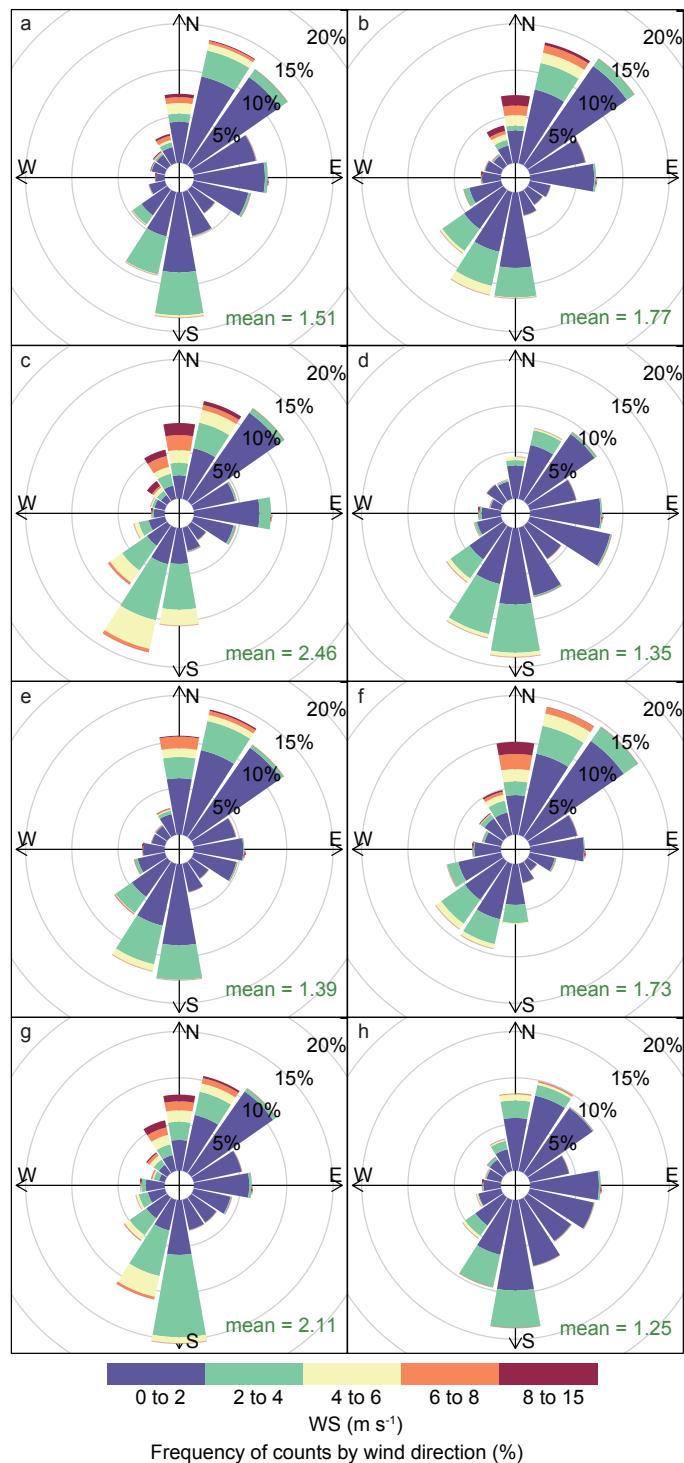


Figure S3. Wind rose plots based on frequencies of hourly data in autumn of 2006 (a), winter of 2006 (b), spring of 2007 (c), summer of 2007 (d), autumn of 2007 (e), winter of 2007 (f), spring of 2008 (g), and summer of 2008 (h) at the Yufa site.

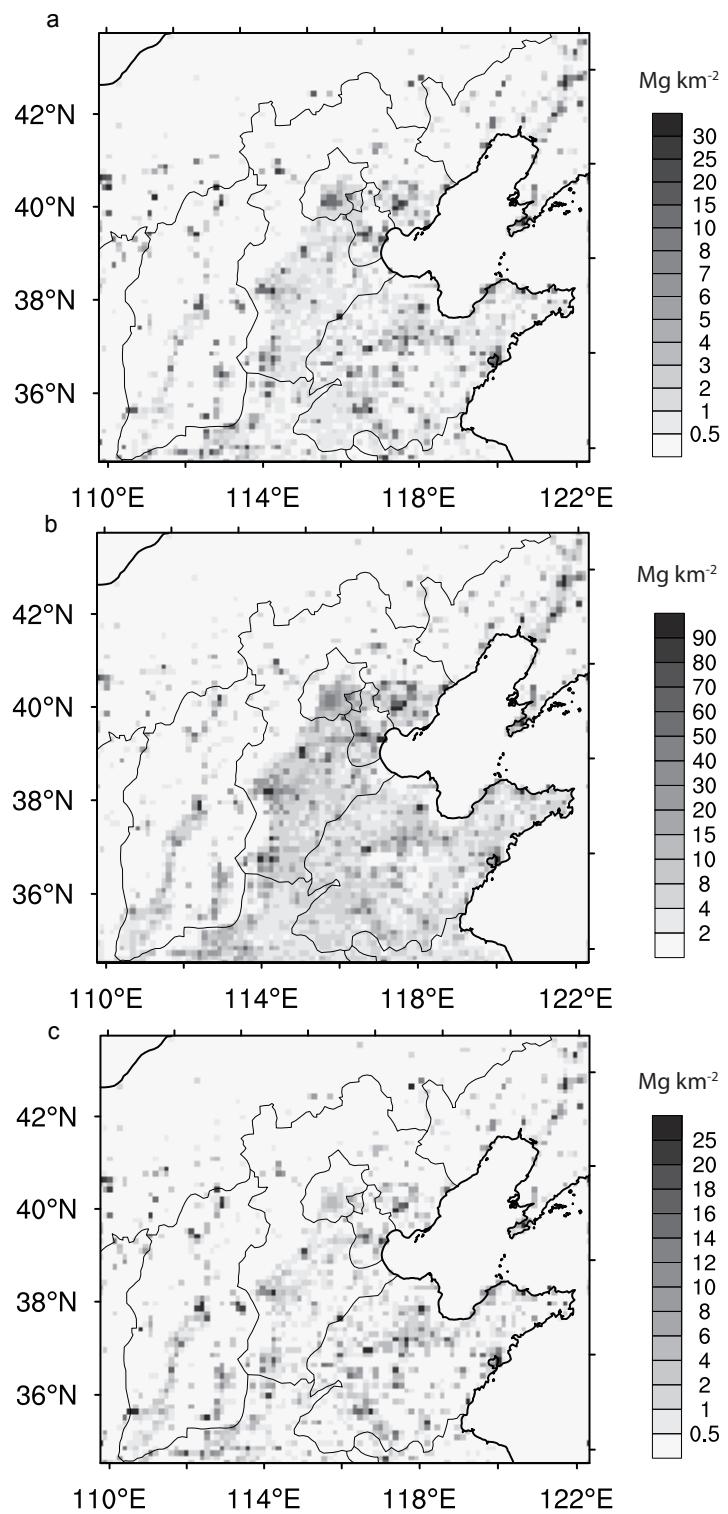


Figure S4. The emission inventory map of NO_x (a), CO (b), and SO₂ (c) based on the statistic data of Zhang et al. (2009).

References

Zhang, Q., D. G. Streets, G. R. Carmichael, K. B. He, H. Huo, A. Kannari, Z. Klimont, I. S. Park, S. Reddy, J. S. Fu, D. Chen, L. Duan, Y. Lei, L. T. Wang and Z. L. Yao. Asian emissions in 2006 for the NASA INTEX-B mission. *Atmos. Chem. Phys.*, 9, 5131-5153, doi:10.5194/acp-9-5131-2009