Supplement of Atmos. Chem. Phys., 20, 5899–5909, 2020 https://doi.org/10.5194/acp-20-5899-2020-supplement © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.





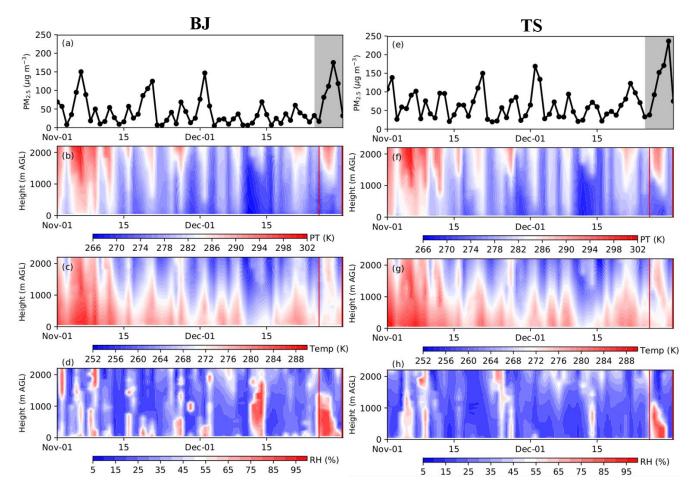
## Supplement of

## Integrated impacts of synoptic forcing and aerosol radiative effect on boundary layer and pollution in the Beijing-Tianjin-Hebei region, China

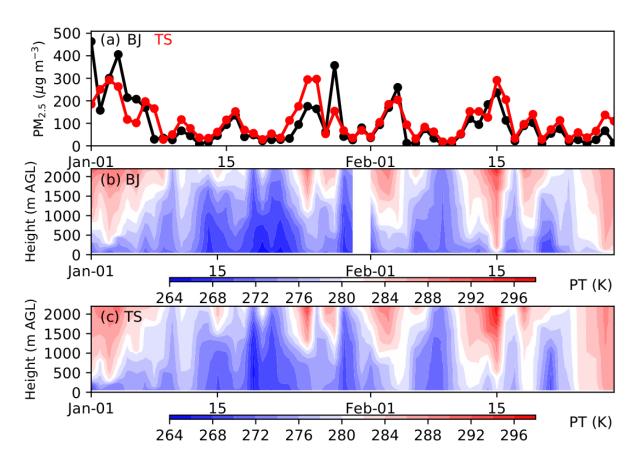
Yucong Miao et al.

Correspondence to: Huizheng Che (chehz@cma.gov.cn) and Xiaoye Zhang (xiaoye@cma.gov.cn)

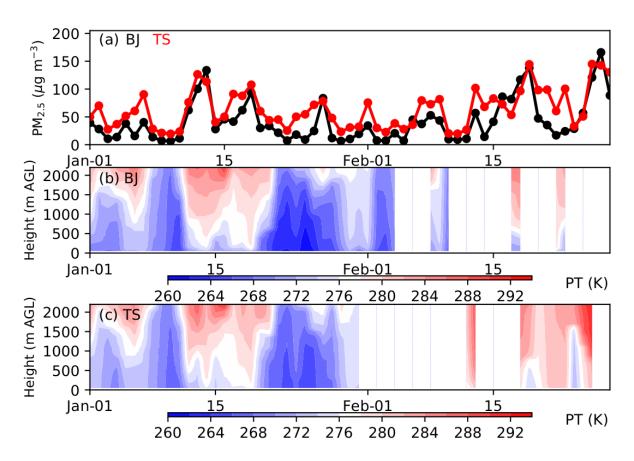
The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.



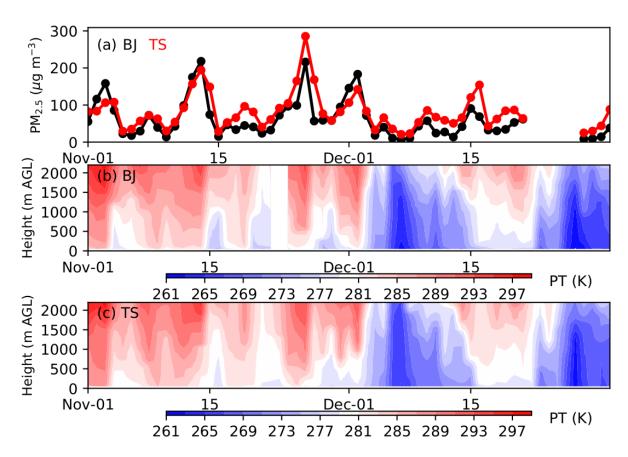
**Fig. S1.** Time series of observed (a, e) PM<sub>2.5</sub> concentration from 1 November to 31 December 2017 in (left) Beijing and (right) Tangshan, and vertical structure of (b, f) potential temperature (PT), (c, g) temperature and (d, h) relative humidity (RH), derived from the sounding data at 2000 BJT.



**Fig. S2.** Time series of observed PM<sub>2.5</sub> concentration from 1 January to 28 February 2017 in (a) Beijing and Tangshan, and (b, c) vertical structure of potential temperature (PT) derived from the sounding data at 2000 BJT.



**Fig. S3.** Similar as Fig. S2, but for the  $PM_{2.5}$  concentration and PT from 1 January to 28 February 2018.



**Fig. S4.** Similar as Fig. S2, but for the PM<sub>2.5</sub> concentration and PT from 1 November to 31 December 2018.