



Supplement of

Impacts of tropical cyclone–heat wave compound events on surface ozone in eastern China: comparison between the Yangtze River and Pearl River deltas

Cuini Qi et al.

Correspondence to: Pinya Wang (pinya.wang@nuist.edu.cn) and Yang Yang (yang.yang@nuist.edu.cn)

The copyright of individual parts of the supplement might differ from the article licence.

24 Contents of this file

25 Figures S1 to S6

26





Figure S1. Spatial distributions of ground-level MDA8 ozone concentration anomalies averaged
for TC-HDs compared to those during the periods of TC occurring alone. YRD and PRD regions
are outlined in black boxes in panel.





Figure S2. The tracks and intensity of tropical cyclones observed during the AHDs period.



Figure S3. The vertically integrated water vapor transport flux (vectors, unit: kg m⁻¹ s⁻¹) and divergence anomalies (shading areas, unit: 10^{-5} kg m⁻² s⁻¹) in reanalysis datasets ERA5 during TC-HDs compared to the summer climatology. YRD and PRD regions are outlined in green boxes in each panel.



42

Figure S4. (a) Spatial distributions of observed ground-level MDA8 ozone concentration anomalies during TC-HDs relative to the summer climatology. (b) Spatial distribution of simulated ground-level MDA8 ozone concentration anomalies during the TC-HDs relative to the summer climatology. (c) Spatial distributions of observed ground-level MDA8 ozone concentration anomalies during TC-HDs relative to AHDs. (d) Spatial distribution of simulated ground-level MDA8 ozone concentration anomalies during the TC-HDs relative to the AHDs. YRD and PRD regions are outlined in black boxes in each panel.





Figure S5. Spatial distributions of ground-level MDA8 ozone concentration averaged for summer

- 53 climatological period. YRD and PRD regions are outlined in black boxes in panel.



57 Figure S6. The cross-section of the wind fields and ozone concentration anomalies during the TC-

58 HDs compared to AHDs.