



Supplement of

Diurnal differences in the effect of aerosols on cloud-to-ground lightning in the Sichuan Basin

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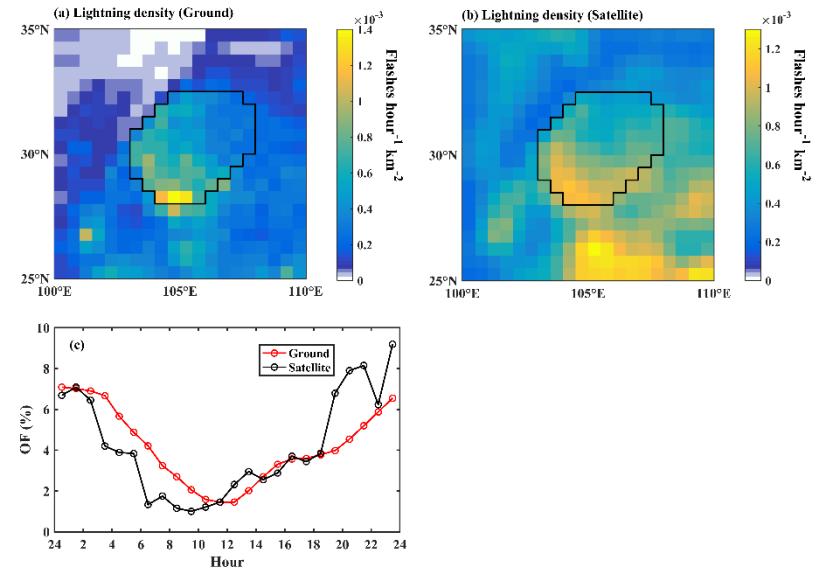


Figure S1. Spatial distribution of lightning density (flashes hour⁻¹ km⁻²) from (a) ground and (b) satellite at a spatial resolution of 0.5° × 0.5°. (c) Diurnal variation of lightning occurrence frequency (OF).

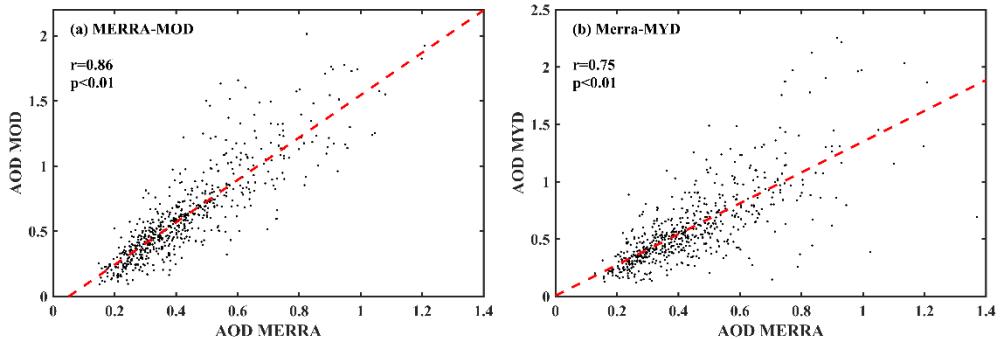


Figure S2. Relationship between AOD from MERRA-2 and AOD from MODIS.

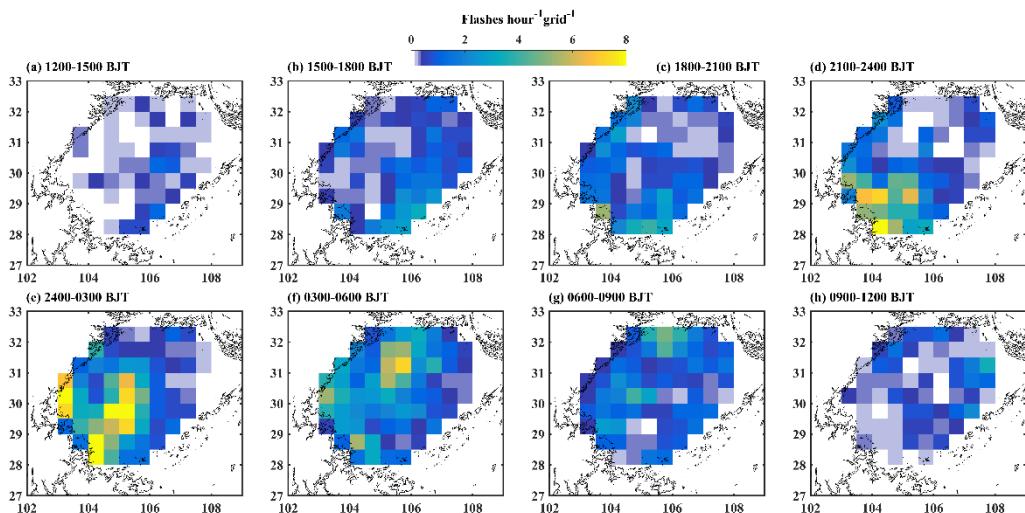


Figure S3. Diurnal cycle of lightning flashes in polluted subset on a 0.5° × 0.5° grid with an interval of 3 hours (BJT) for 2010–2018 including the summer months (June, July, and August). The black

lines represent the 1500m contour lines.

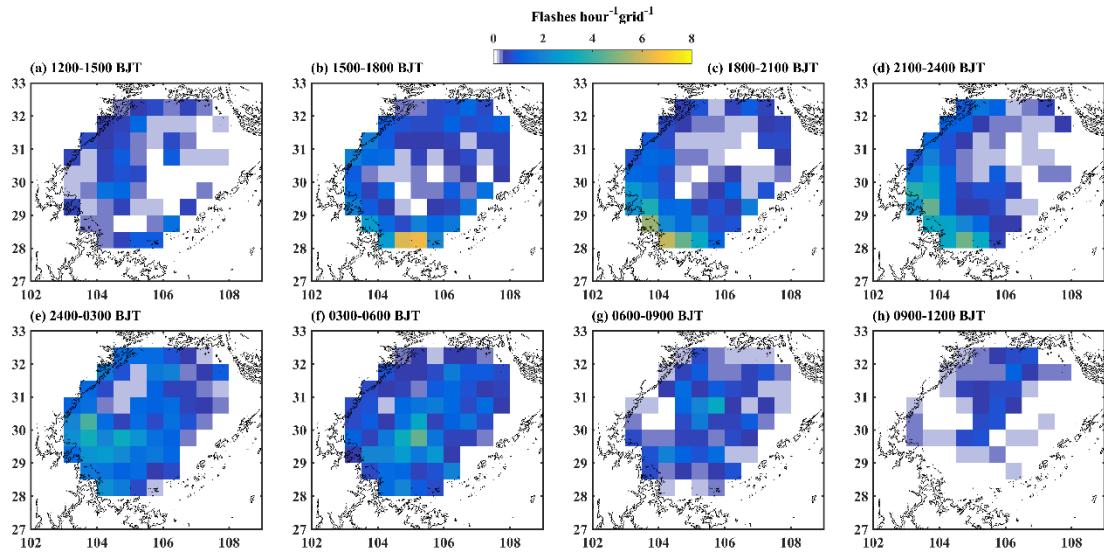


Figure S4. Same as in Fig. S3, but for lightning flashes in a clean subset