



Supplement of

Impacts of long-range-transported mineral dust on summertime convective cloud and precipitation: a case study over the Taiwan region

Yanda Zhang et al.

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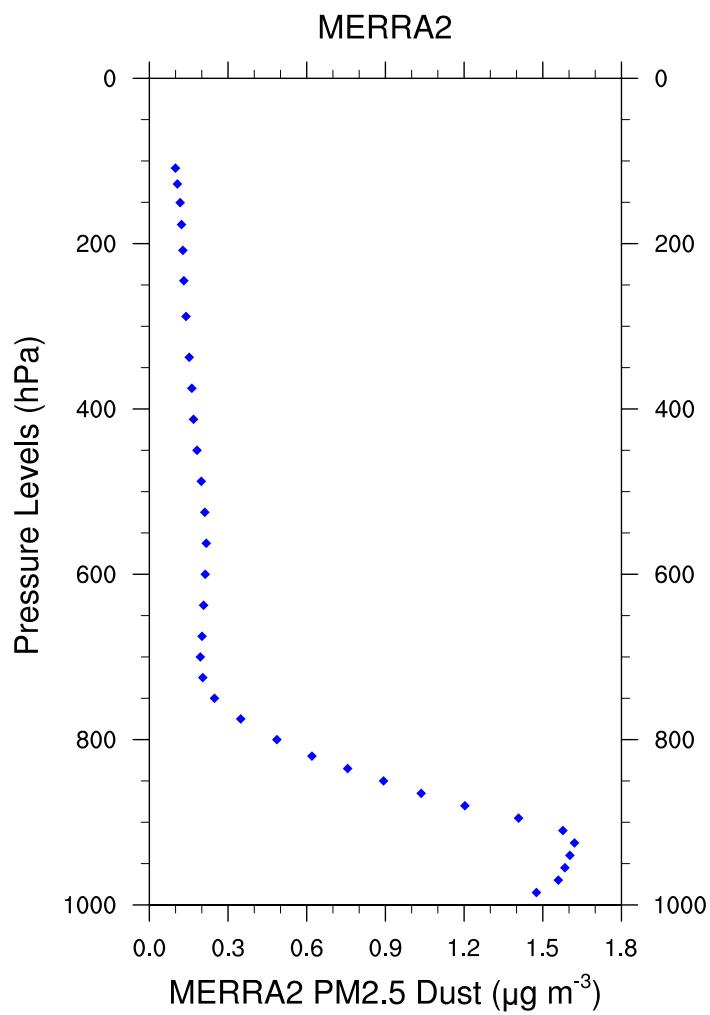


Figure S1. Vertical profile of MERRA-2 PM2.5 dust mixing ratio on 2006-07-08.

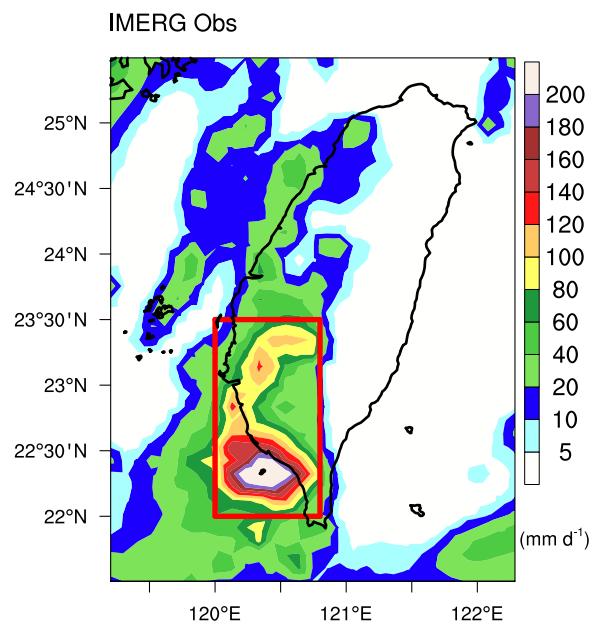


Figure S2. 24-hour accumulated precipitation (r_{24h}) (LT 2006-07-08) observations from IMERG observation.

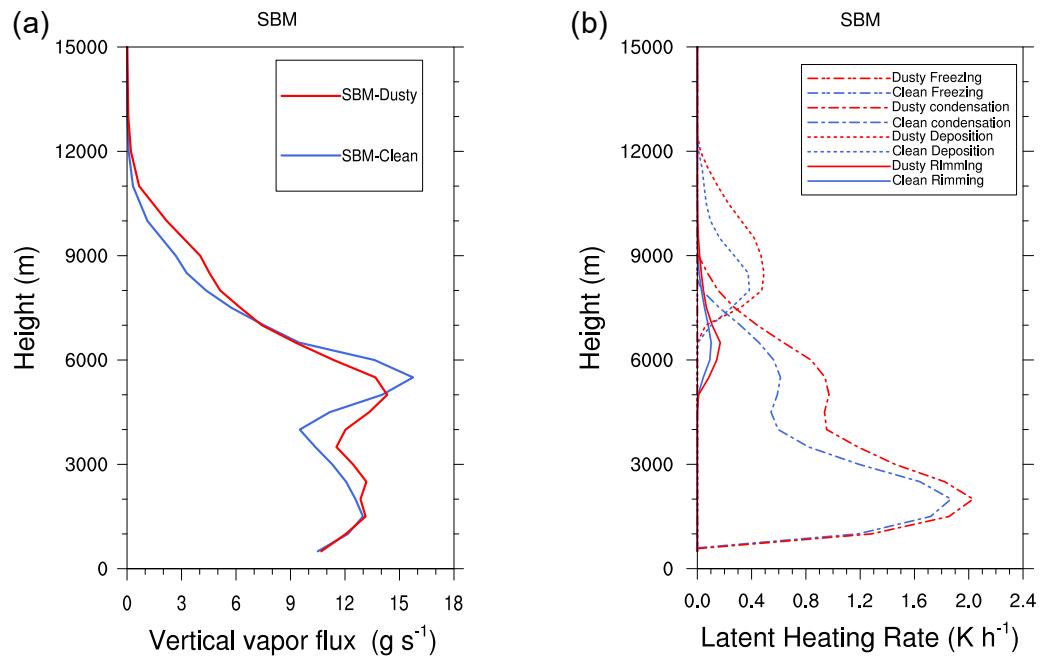


Figure S3. In the High-Pcp area during P2: (a) the vertocal vapor flux averaged over girds with the top 10 percentiles of the updrafts (90th to 100th) simulated by the SBM-Clean (blue line) & Dusty (red line) runs; (b) vertical profiles of latent heating rates averaged among precipitation grids simulated by the SBM-Clean (blue lines) & Dusty (red lines) runs.

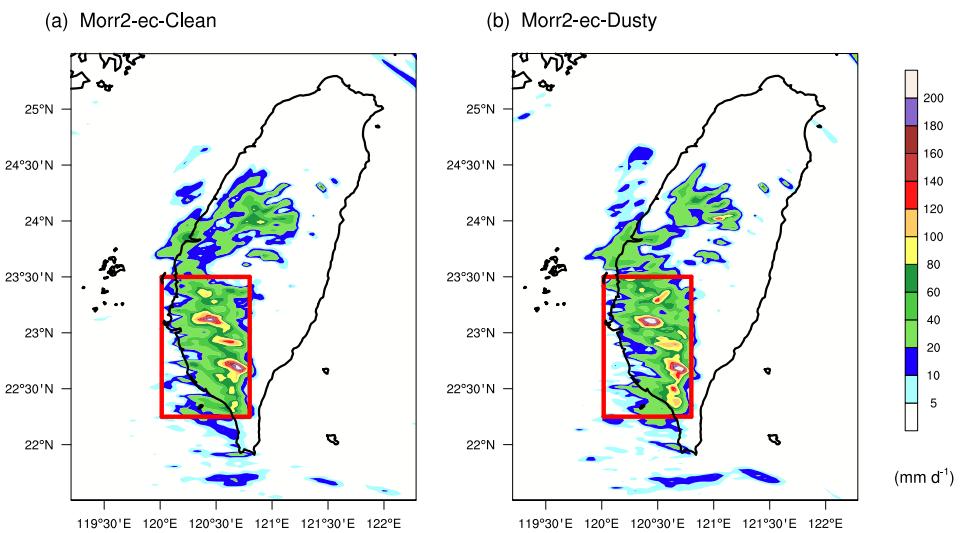


Figure S4. 24-hour accumulated precipitation (LT 2006-07-08) simulations from (b) Morr2-ec-Clean and (b) Morr2-ec-Dusty.

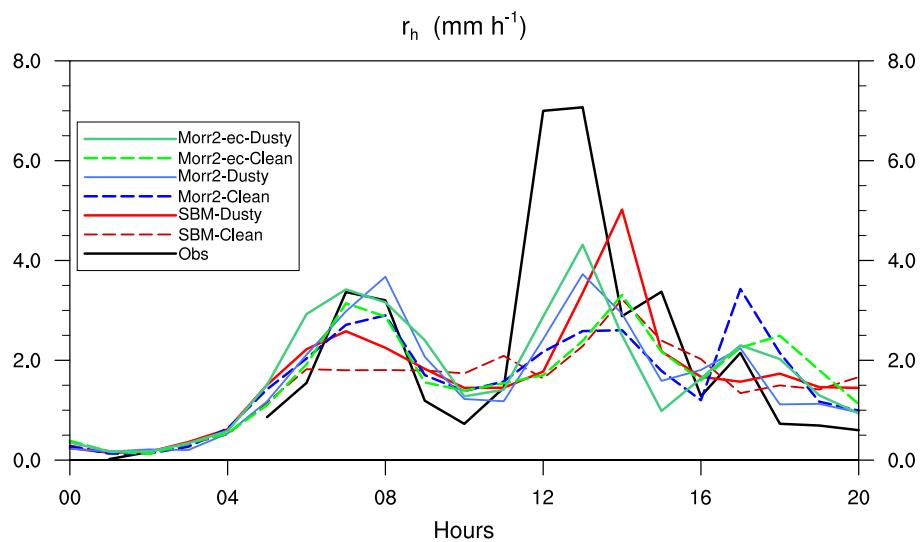


Figure S5. Hourly rainfall rates from IMERG observation (black line) and six numerical runs (colored lines) (LT 00:00–20:00, 2006-07-08), averaged among rainfall grids ($> 0 \text{ mm hr}^{-1}$) in the High-Pcp area.

