

Interactive comment on “Anomalous holiday precipitation over southern China” by Jiahui Zhang et al.

Anonymous Referee #2

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General Comments:

This manuscript presents the anomalous holiday precipitation over southern China during the Chinese Sprint Festival based on their analysis of the long-term station observations. The associated meteorological parameters are also analyzed to investigate the possible mechanisms of the reduced precipitation. The manuscript is scientifically sound, well organized, written, and concise. I recommend accepting it as minor revision as below.

Specific comments: P3 L24 it is better to use southern China not China since the results are analyzed in southern China in this study. P4 L8-9 What is your criterion to exclude the stations? likely if there is only one missing data do you exclude the site? P4 L29 what is the step 0? P5 L10-18 The statements to calculate the precipitation

frequencies are not clear. Actually how many days do you use, 7 days or 3 days? And it contradicts to the 9 days as found with the aerosol time-lag correlations. P6 L10-15 What do you mean of the specific day here? P6 L30 It looks there are positive departures. P7 L16 section→ subsection P7 L29 could you also shown this sub-region in the Figure? P8 L10 factors-> factor P8 L25 Please give the sample numbers of no rain days P10 L2-3 if total cloud cover shows no evident changes but low cloud covers experiences a significant decrease, does it indicate high cloud covers are increased? Figure 9 is it the horizontal wind or wind anomaly? P16 L1 why do you selected days [-15,-11]? Is it arbitrary? P18 L17 The maximum appears for a time-lag of -9, but aerosol lifetime is generally less than one week? Is there any other mechanism? P20 L19 It is not accurate to use East Asia here.

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2018-102>, 2018.

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