Ozone pollution is becoming a growing challenge in China, and the meteorology plays a significant role in how it changes. The study by Yang et al. investigated the meteorological characteristics during the high ozone months in four polluted cities in China. They also looked at how these meteorological factors have changed in the past and might change in the future, thereby providing implications for ozone control strategies. The topic is clear and interesting, and the paper is well organized and easy to follow. The results emphasize to the community that future climate warming could exacerbate ozone pollution in China.

The one difficulty I have with judging the relevance of the findings is that they only analyzed one specific month with extremely high ozone in each region, and all the subsequent statements rely on the meteorological conditions prevalent during those specific months. It seems potentially non-representative. The paper would be much stronger if the authors would evaluate all the high ozone months for each region or convincingly demonstrate to readers that the representativeness of the selected months.

Specific comments:

1. The authors looked at ozone during April-September. Please consider extend it to October since the warm season is longer in PRD.

2. Figure 8, could the authors explain more on how they calculated the spatial correlation?

3. Line 161, "simulations" is misspelled.

4. Line 196, "northwesterly winds" is inconsistent with the following description "from the north and east".

5. Figure 2, please consider enlarging the font size.

6. Figure 9, please consider labeling each subplot with its corresponding target region.