Dear editors,

There is a response to reviews of our manuscript “Insights into a historic severe haze weather in Shanghai: synoptic situation, boundary layer and pollutants” (acp-2015-665). We thank very much for anonymous reviewers, and their suggestions are helpful for improving our manuscript. According to reviewer’s suggestions, we make revision to the manuscript in detail, all of revision have been marked in red in the new manuscript. The following is a point-to-point answer to comments.

For Referee 3

Question 1: The manuscript would clearly gain in strength if edited by native English speaker. Currently, it contains too many grammatical errors and some sentences are difficult to follow.

Answer: We have read the manuscript vary carefully and corrected any places having grammar errors or mistakes, which are highlighted in red in our revised manuscript. And the manuscript have been revised partly by one native English speaker.

Question 2: My reading of that this manuscript presents many raw data, with finally little interpretation. So maybe the authors could decide to present extensively all data providing ground for further investigations (in another study) of the specific features of that event i.e., with little or no data treatment. They could also select to present here the real specificities of that event. I feel that the current version oscillates between both options, which weakens the associated message.

Answer: As you mentioned, this manuscript presents many raw data. Aerosol physical, chemical and optical properties were measured and examined to give insights into severe haze events in the YRD. We mainly put efforts to combine ground base observations with views of synoptic during the entire process of haze pollution. So, we guess that it would be meaningful to investigate the formation and evolution of regional haze events, and to support useful information for pollution forecast and how to reduce the incidence of regional atmospheric pollutions. It’s really important to throw light on more specific features of that event, much deeper research and investigations will be contained in our another study of this haze event.

Question 3: One of the clearly strong aspect of that investigation, is the quite large number of parameters that have been reported, but finally not really used.

Answer: We used various data to draw a whole picture of this severe haze event. The first aim is to analyze the situation of entire pollution including pollutant, meteorological etc. The second aim is to analyze the formation of pollution event. Therefore, we need make more analysis for the pollution based on so rich data. We have given deeper analysis In the new manuscript.

Thanks very much!

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