

## ***Interactive comment on “Impacts of shipping emissions on PM<sub>2.5</sub> air pollution in China” by Zhaofeng Lv et al.***

**Anonymous Referee #3**

Received and published: 24 August 2018

Ship emission is one of the most important pollutant sources at a global scale. With the economic development, China has becoming one of big ship-using countries. Many cities situated on coastline, as well as Bo and Huang ocean, suffered from serious pollution due to ship emissions. In this paper, Lv et al. used CMAQ model to quantify the influence of ship emission on PM<sub>2.5</sub> in China in 2015. The data herein showed that ship emission increased the annual averaged PM<sub>2.5</sub> level up to about 5 ppb, and impacted air quality of YRD and PRD. Furthermore, ship emission could influence air quality of the inland areas up to 960 km. In my opinion, this research is valuable, and made some contribution newly to atmospheric chemistry, which make reader to know the contrition of ship emission to atmosphere pollution in China. Thus, I suggest this paper could be published with minor revision. However, the manuscript in the present

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form still suffered from a couple of flaws, as followed:

1 in the topic: “PM<sub>2.5</sub> air pollution” should be changed to “PM<sub>2.5</sub> pollution” 2 in the section of “Abstract”: At the end of ABSTRACT, a sentence should be add to tell readers the significance of this work. 3 In the INTRDUCTION section. Some reference about ship emission pollution in or haze formation should be added (i.g. in page 7 in line 15, Environ.Sci.Technol. 2017, 57, 202; Science of the Total Environment 2017, 578, 121;) 4 The present manuscript need improve English writing entirely. For example: Page 7, line 10, “Results and discussions”should be changed to “Result and discussions”; Page 9, line 10 : “PM<sub>2.5</sub> concentrations”should be changed to “PM<sub>2.5</sub> concentration”; Page 9 line 20 “SO<sub>4</sub>”and “NO<sub>3</sub>”should be spelled correctly.

Please also note the supplement to this comment:

<https://www.atmos-chem-phys-discuss.net/acp-2018-540/acp-2018-540-RC1-supplement.pdf>

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Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2018-540>, 2018.

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