

## ***Interactive comment on “Impact of Intercontinental Pollution Transport on North American Ozone Air Pollution: An HTAP Phase II Multi-model Study” by Min Huang et al.***

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1. Lines 93-100, Page 3:

Regarding Asian influence on US ozone trends, please consider citing the following papers and discuss their findings:

Lin, M., L.W. Horowitz, O.R. Cooper, D. Tarasick, S. Conley, L.T. Iraci, B. Johnson, T. Leblanc, I. Petropavlovskikh, E.L. Yates (2015): Revisiting the evidence of increasing springtime ozone mixing ratios in the free troposphere over western North America, *Geophysical Research Letter*, 42, doi:10.1002/2015GL065311

Lin, M., W. Horowitz, R. Payton, A.M. Fiore, G. Tonnesen. US surface ozone trends and

extremes over 1980-2014: Quantifying the roles of rising Asian emissions, domestic controls, wildfires, and climate. *Atmos. Chem. Phys. Discuss.*, doi:10.5194/acp-2016-1093, 2016

You cited Cooper et al. (2010, *Nature*). But Lin et al. (2015 *GRL*) investigated the representativeness of ozone trends derived from sparse measurements reported by Cooper et al. They found that sampling biases can substantially influence calculated ozone trends.

2. The multi-model results presented in this article are based on the spring of 2010 following strong El Nino conditions. I think it would be useful to the readers if you can discuss the representativeness of your results on inter-annual context. There are studies showing that long-transport transport of Asian pollution is stronger during El Nino springs due to the eastward extension and equator-ward shift of the subtropical jet stream (e.g., Lin et al., 2014, *Nature Geoscience*).

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Interactive comment on *Atmos. Chem. Phys. Discuss.*, doi:10.5194/acp-2016-958, 2016.

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Discussion paper

