

This manuscript systematically studied the difference between the typhoon-induced and no-typhoon O<sub>3</sub> pollution in the PRD area of China. It elucidated the influence of typhoon on O<sub>3</sub> transport, production and accumulation and found the seasonal difference of such influence. The revised version of the manuscript would be a good fit to ACP and publishable if minor comments below are addressed.

- (1) Line 91: “We mainly used the ERA-Interim re-analysis product in the analyses due to its more available parameters and high spatial coverage”. Regarding “more available parameters”, does it compare to observations or to other reanalysis datasets such as GDAS? Why “mention spatial coverage” here if only ERA-Interim extractions at the monitoring locations are used.
- (2) Line 97: “near-surface parameters from the forecast fields”. What does it mean “forecast fields” if these fields came from the ERA-Interim re-analysis?
- (3) Line 124: “Higher O<sub>3</sub> MDA1 and MDA8 values can be generally found with the appearance of typhoons in comparison with days without typhoons in July, whereas these values are similar in October, further indicating the important role of typhoons in O<sub>3</sub> pollution in the PRD.” Better to just delete “, whereas these values are similar in October”, and replace it with “and October”.
- (4) Line 158: “Hysplit model (Stein et al., 2015) with the Global Data Assimilation System (GDAS) and Line 190: “The Weather Research and Forecasting (WRF) model (version 3.2) provided the meteorological fields used as inputs.” Why not use WRF outputs in Hysplit for consistency? Was GDAS or ERA-Interim used to drive WRF? What’s the reason to use two different reanalysis datasets in the same study, considering the potential inconsistency between them?
- (5) Line 191: “... process the anthropogenic and biogenic emission files”. “Emission files” better to be “emissions”.
- (6) Line 219: “... the difference between two sensitivity cases where emissions expect E<sub>i</sub> and all of the emissions are zeroed out, respectively”. Is “expect” in fact “except”?
- (7) Line 303: “scenario in summer were overall higher than these in the corresponding no-typhoon scenario”. Better to replace “these” with “those”?
- (8) Supplement Figure S11: “Comparisons between the observational and modelling mean O<sub>3</sub> MDA8, daily NO<sub>2</sub> and NMHCs concentrations in the PRD.” Better to use “observed and modeled”, instead of “observational and modelling”.
- (9) Figure S11 and Table S5. The conclusions of this study that based on modeling results rely on accuracy of the simulations, especially on consistency in performance of the simulations of different seasons as well as of different scenarios that with or without typhoon influence. Is there any significant performance difference between typhoon induced and no-typhoon scenarios for simulated meteorology and air quality?