Comments

A typhoon over the Western Pacific, as a large scale weather system during East Asian summer monsoon season, can significantly affect the tropospheric O3 as well as air quality in a large region. The manuscript investigated the Landfall typhoon significantly affecting O3 in the Yangtze River Delta (YRD) region, East China in respects of major processes and health impacts. This unique case study presented the interesting results on major processes of O_3 change driven by a succession of four landfall typhoons. This topic fits well into the scope of ACP. The manuscript should be considered for publication only after making minor revisions as follows:

1) Please clarify the implication and limitation of this study for air quality change. A three-dimensional circulation of typhoon consists of the rotational air flow in the horizontal direction and the in-up-out-down overturning flow in the vertical direction, along which air mass near the surface can rise into thunderstorm clouds, outflowing at high levels in the UTLS and subsiding in the periphery. To better discuss the link with three-dimensional circulation of typhoon, please reference this ACP paper: Jiang, Y. Zhao, T., Liu, J., et al. Why does surface ozone peak before a typhoon landing in southeast China? . Atmos. Chem. Phys., 2015, 15, 13331-13338.
2) All Figs. (a) and (b) in Figs 6, 8 and 9 are too tiny to identify. Please improve the Figure presentations with better quality.
3) Lines 485-487: this statement that “The YRD region, which features a typical subtropical monsoon climate, is strongly influenced by the western Pacific subtropical high in summer.” is incorrect or incomplete. The YRD, as a typical region of East Asian monsoon climate, is strongly influenced by typhoon activities over the Western Pacific.
4) In synoptics, the western Pacific subtropical high and tropical cyclone (Typhoon) over western Pacific are two large scale weather systems in

opposition to each other. Therefore, please remove “The subtropical high”, and “High temperature, southeast wind, downward airflow” from Fig. 11, also please correct the corresponding discussions.