

Interactive comment on “Landfalls of Tropical Cyclones with Rapid Intensification in the Western North Pacific” by Jie Yang and Meixiang Chen

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This paper investigates the phenomena of rapid intensification (RI) of landfalls of tropical cyclones (TC). The topic is interesting, and the results are convincing to me. The statistical results show that about 1/3 of the TCs underwent RI processes, and about 1/3 of historical TCs made landfalls after RI. This paper also found that the regions of the southern Chinese coast and southern Japan have increased the trend of cyclone energy since 1986. I am pleased to read this paper. Some of the questions and comments are listed below: 1. It is really difficult to understand the sentences in the abstract, “The frequent-occurrence region of RI is found in sea areas to the east of Philippines, and the mean genesis and on-set locations of landfalling TCs underwent RI had westward components compared with the ones did not make landfalls.” A revise

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is suggested. 2. In the abstract, “The coasts in the latter two regions have increased trend of cyclone energy since 1986, which possibly correlates with the poleward migration of the mean latitude where TCs reach their lifetime maximum intensities (LMI).” Because no correlation analysis in the context, it is not proper to put this “possible” guessing in the abstract. However, detailed correlation analysis is highly expected to be done in this paper or in the future works. 3. Figure 11 shows the trend of RI TCs, Landfalling RI TCs, and Landfalling non-RI TCs. However, adding the trend of All TCs is required to understand the correlation between RI TCs and All TCs. This can be used to explain if the increasing trends of RI TCs and Landfalling RI TCs are directly related to the All TCs or not.

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