

Reply to the editor

1. *line 59: delete "and" before "Wang and Li"*

Done

2. *line 69: better "... should not be ..."*

Corrected

3. *line 72: "plays" --> "play"*

Corrected

4. *line 90: "... findings of the study was that ..."*

Changed

5. *line 116: "... with a top at ..."*

Changed

6. *line 118: "outermost domain"*

Corrected

7. *line 142: say something about Fig. 2 (or don't show it)*

We added a sentence: Although the sea level minimum pressure generally decreases with time, the maximum wind speed shows considerable fluctuations.

8. *line 154: "innermost domain"*

Corrected

9. *line 171: does this mean that ERC is not important for the cyclone track? If yes, then why do you discuss ERC in so much detail? Please clarify, this paper is about TC tracks - then only explain ERC in detail if it matters for the track.*

You are right. In our experiment, the influence of the ERC on tropical cyclone motion is not obvious. As discussed in section 4a, the associated structure change affects the magnitude of the HA1 and HA2 terms. Here is our discussion in the manuscript:

It is interesting to note that the contributions of the HA1 and HA2 terms increase in magnitude during the two eyewall replacement processes around 42 h and 68 h, suggesting that the tropical cyclone motion considerably deviates from the steering of the asymmetric flow during eyewall replacement. However, it seems that the two eyewall replacement processes have little influence on the tropical cyclone motion (Fig. 5a).

10. line 191: *omega* should not be bold symbol

Corrected

11. line 347: *delete this sentence (repetition from sentence in line 342)*

Done

12. line 350: "e.g.," (no space)

Corrected

13. line 352: *better "... range from less than ..."*

Corrected

14. line 408: *better "... from both the advection ..."*

Corrected