

Interactive comment on “Changes in tropical cyclones under stabilized 1.5 °C and 2.0 °C global warming scenarios as simulated by the Community Atmospheric Model under the HAPPI protocols” by Michael F. Wehner et al.

Anonymous Referee #1

Received and published: 19 December 2017

This is a nice paper that reports the results of state-of-the-art ensemble simulations of tropical cyclone formation using a high resolution climate model. The results are good although they are more along the lines of confirming what we already suspected rather than completely new results. I have only minor comments.

P.2, Line 11: "are" should be "is"

P.2., Lines 14-17: This description of the methodology is not as clear as it could be. It only became clear to me what these lines meant when I read P.3, lines 34-35. These

Printer-friendly version

Discussion paper



lines should be rephrased accordingly.

Figure 2: these aerosol effects appear quite large compared with the CO₂ forcing and indeed the authors say this on P.13. While the HAPPI experiments are no doubt more realistic for having included the possible effects of aerosols, do the authors have any plans to assess the impact of aerosols using new simulations?

P.9, Line 10, and P.14, Line 13: It is possible to test whether these poleward shifts are statistically significant or not use a K-S test or similar.

P.9, Line 17-18. The authors are probably correct that there may be effects on extratropical transition, but a reference would assist in making their point.

Interactive comment on Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2017-101>, 2017.

Printer-friendly version

Discussion paper

