

Geosci. Model Dev. Discuss., referee comment RC2 https://doi.org/10.5194/gmd-2021-19-RC2, 2021 © Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.

Comment on gmd-2021-19

Anonymous Referee #2

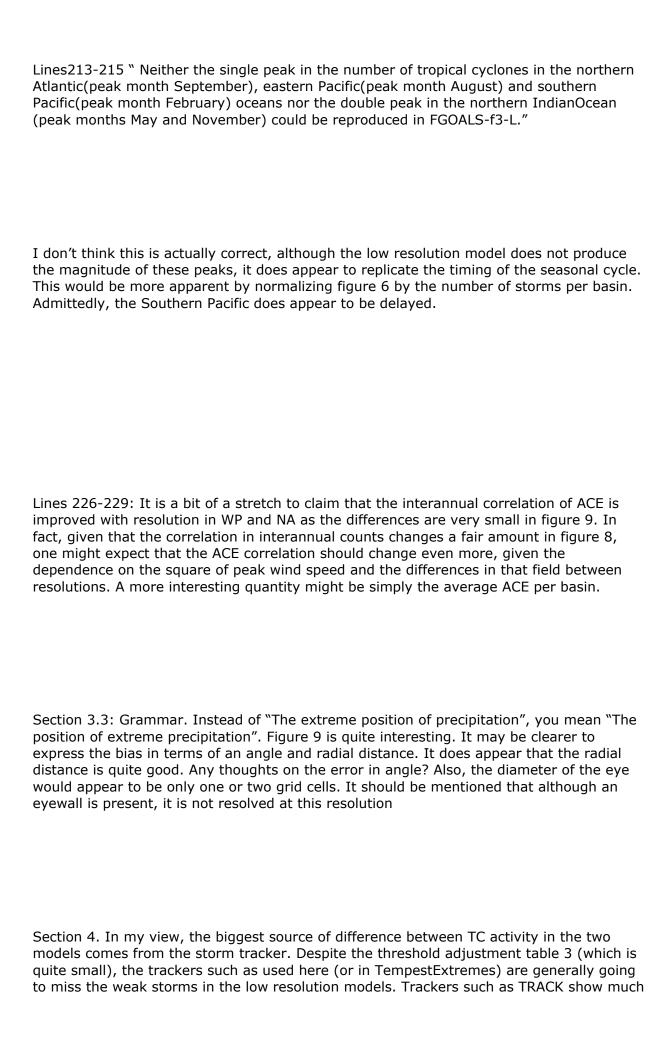
Referee comment on "Effect of horizontal resolution on the simulation of tropical cyclones in the Chinese Academy of Sciences FGOALS-f3 climate system model" by Jinxiao Li et al., Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2021-19-RC2, 2021

This paper serves as documentation of the tropical cyclone activity simulated by the FGOALS-f3 models submitted to the HighResMIP subproject. While there is little unexpected in the comparison of low to high resolution models, it is important to have such individual model results in the literature. I recommend that it be sent to the authors for some fairly minor revisions that I describe in detail below.

Section 3.1:

figure 2. It is difficult to synthesize by eye the biases in figure 2. I would like to see either a bar chart figure or a table with observed and simulated TC counts both globally and by ocean basin.

Figure 4. Please note that the bias in the min pressure/max wind speed is worse in the North Atlantic than in the western Pacific in the high resolution model. Why is this?



higher storm counts in low resolution models (see Roberts et al.). So while the improvements in MJO and GPI are interesting, it is hard to claim that they are responsible for the higher TC counts when there is such a strong dependence on the choice of storm tracker. You may consider shortening these sections.