

Response to referees

The representation of the trade-winds in ECMWF forecasts and reanalyses during EUREC4A

RC2:

I feel the authors have put a lot of work in the revision and have substantially improved the MS content and presentation. They have taken the comments from both referees very seriously and did not hesitate to undertake an in-depth modification to comply with them. They also have added material where necessary. In my opinion the paper should be published.

RC1:

The paper has improved in structure, contents, and clarity. My previous concerns have been taken into account and I recommend the paper for publication pending minor corrections listed below.

We would like to thank both reviewers for this second round of careful and constructive comments. Below we address each comment individually.

would expect “tropics/tropical” to appear somewhere in the title and/or abstract

We have changed the title and the abstract accordingly.

Fig. 1 Bias from which model/data? What is depicted by the symbols? What are the two panels? Why not merge them if they are not described separately?

We have improved the caption of the figure to include all necessary information.

l. 159 “9 km” is stated twice already

We have removed the repetition.

l. 195 “do not extend above 200 hPa”: confusing

Rephrased.

Fig. 5 ERA5 and forecast are switched in the caption

Fixed.

l. 250 in magnitude (negative numbers)

Fixed.

l. 324 not sure what is meant by “data assimilation plays a role here”

Rephrased.

Fig. 11 red and blue regions are swapped in the caption

Fixed.

l. 366 update status of Nuijens et al. (2021)

Done.

l. 375 any reference on this?

Added.

l. 392-396 move to the conclusions/perspectives

Done.

l. 411 what is a “total wind jet”?

Removed.

l. 448, 458 references to figures are not needed in the conclusions

Fixed.

l. 462 beyond: above

Fixed.