

We are very grateful to the reviewers for their comments who significantly helped to improve this study. We corrected the minor corrections suggested to us by Reviewer 1. Our responses are given below in red. The correction in the article are also highlighted in red.

L33 P6: “the bias error”

Observation error means standard deviation, not bias. The authors should mention STD or RMSE instead of bias.

Reviewer 1 is right; the bias is not important.

We replaced ‘*Bousquet et al. (2016) demonstrated that the bias error of RASTA wind data is comprised between 1 and 1.5 ms⁻¹*’ by: ‘*Bousquet et al. (2016) demonstrated that the root-mean-square error of RASTA wind data versus ground-based centimetre-wavelength radars is on the order of 4 m s⁻¹. They argued that this error mainly originated from the sampling volume of ground-based radars being much larger than that of RASTA.*’

L28-20 P9: some of the most substantial ... locations.” I would like to draw the authors’ attention to the lee side of the RASTA observations, where there are larger differences as longer the assimilation windows are (Fig. 6)

We rectified the sentence: “*Besides, some of the most substantial differences are co-located with RASTA locations (black data points in Figure 6) and downstream of these locations.*”

L33 P10: “113 mm) and ... Therefore, the three ...” The values 113 and 116 mm obtained from the 2h and 1h experiments are similar and/or larger than 114 mm in CTRL. Thus, only the 3h experiment is better.

We rectified the sentence: “*The assimilation of RASTA wind data with smaller assimilation windows (2 and 3 hours) does not significantly impact the rainfall forecasts. Indeed, the maximum rainfall accumulation are of same order of magnitude in the RASTA^{IOP7} (113 mm) and RASTA^{IOP7} experiments (116 mm), compared to the CTRL^{IOP7} one.*”

[Technical concerns]

L9 P1, L20 P13: “two hours and three hours” Remove the first “hours”.

We removed the first “hours” in both sentences.

L5 P10: “the wind speed” standard deviation of the wind speed?

We rectified the sentence by “the standard deviation of the wind speed”.

L23 P11, L13 P12: “0.5°both” ”0.25°within” Insert single space after “°” (degree sign).

We inserted the space after the degree sign.