Wang *et al.* (2017): Incorporating remote sensing ET into Community Land Model version 4.5

GENERAL COMMENTS

In general, the authors implemented most of my initial suggestions and replied properly to the comments raised by the two reviewers. Below, I list some final comments.

SPECIFIC COMMENTS

1. At P12-Sect. 4.1, the authors now clearly mention that no scaling is applied during periods where the sign of evaporation does not agree between the estimate from GLEAM, and the original CLM run. As can be deduced from Figure 2, this mainly occurs during winter months. I think it should be clearly mentioned in the paper what the impact of this decision is/may be. My guess is that this will introduce a seasonal bias in the "corrected" evaporation, or will even result in discontinuities (especially during the transition of a month with scaling factor to a month without scaling factor).

2. It is obvious from the results in Figures 3 and 5, that the impact of the bias correction algorithm is very limited in the western part of the CONUS. This is also acknowledged several times in the paper, but no clear reason is given why this is the case. As CLM tends to underestimate the GLEAM-derived evaporation in some parts of the West (mainly near the coast), and evaporation in these regions is mainly limited by water, I guess the low impact there could be related to the reasons mentioned at the end of P15. However, the reason explained along these lines is not valid in case of an initial overestimation of CLM, which is for instance happening in the eastern part of the North-West region (see Figure 3d). Also in that region, the impact of the bias correction algorithm is very low and I think the reason for this should be figured out and explained in the text.

3. Related to the previous comment, I do not agree with the statement at P14: "*Note that there is still a substantial overestimation in western CONUS in CLMET compared with the MODIS ET, partially because the algorithm developed by Mu et al. (2007, 2011) underestimate ET in the MODIS product (Michel et al. 2016, Miralles et al. 2016).*" I fully agree with the fact that the MODIS algorithm generally produces lower estimates of evaporation, probably explaining the severe positive bias that can be seen in Figure 5a2. However, the reason why this bias in the West is not reduced in CLMET is because the bias correction algorithm has simply no impact in that region (see also the previous comment). As a result, the bias is still present in CLMET. In addition, the negative bias between CLM and the FLUXNET-MTE product in the West is also not alleviated, while this is not discussed in the manuscript.

4. I think the fact that the method can hardly deal with underestimations of evaporation in water-limited regimes (see discussion at the end of P15) is an important drawback of the method and somehow summarizes the oddness of technique. This shows that this is a pure post-processing method and that it is not able to fix the real problem, which lies somewhere in the model physics. Therefore, I think that this should be highlighted in the conclusion as well.

TECHNICAL CORRECTIONS

1. Please add a reference to the numbers of global evaporation and runoff listed near the end of P3.

2. The paper should be carefully checked for typos and the proper use of English grammar. I am only listing here a few examples, but the list is not limited to the ones below:
    a. P6: "We **follows** ➔ **follow**"
    b. P6: "Although land surface models are **cable** ➔ **capable**"
    c. P13: "All the statistics in CLMET **is** ➔ **are**"
    d. P15: "**CNOUS** ➔ **CONUS**"
    e. P15: "… in contrast, when an **underestimate** ➔ **underestimated**"
    f. P17: "… scaling factor within each **gird** ➔ **grid**"
    g. P20: "… in this study can effectively **improves** ➔ **improve**"

3. The paper has currently 15 figures and 4 tables (which could be summarized in figures as well to strengthen the message, as the tables are not really giving a nice overview). I do not know the regulations of Copernicus Publications, but 15 figures seems a lot. Maybe, the authors should think about reducing the number of figures and only keeping the key figures.

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