

Hi Natascha,

As far as we can see, the only remaining request from the reviewer is:

“The authors have improved the manuscript. They are still missing some reference to earlier use of weather station data in an assimilation context to constrain the surface energy partitioning (Noilhan and Mahfouf 1993)”

We think we already addressed this in the previous round of reviews, and do not know how to proceed from here. To recap, there is no Noilhan and Mahfouf paper from 1993. The original review said 1996, and there are two Noilhan and Mahfouf papers from 1996:

- J. Noilhan, J.-F. Mahfouf, The ISBA land surface parameterisation scheme, In *Global and Planetary Change*, Volume 13, Issues 1–4, 1996, Pages 145-159, ISSN 0921-8181, [https://doi.org/10.1016/0921-8181\(95\)00043-7](https://doi.org/10.1016/0921-8181(95)00043-7). (<http://www.sciencedirect.com/science/article/pii/0921818195000437>), and
- Mahfouf, J.-F., & Noilhan, J. (1996). Inclusion of Gravitational Drainage in a Land Surface Scheme Based on the Force-Restore Method. *Journal of Applied Meteorology*, 35(6), 987–992. [https://doi.org/10.1175/1520-0450\(1996\)035<0987:IOGDIA>2.0.CO;2](https://doi.org/10.1175/1520-0450(1996)035<0987:IOGDIA>2.0.CO;2) ([http://journals.ametsoc.org/doi/abs/10.1175/1520-0450\(1996\)035%3C0987%3AIOGDIA%3E2.0.CO%3B2](http://journals.ametsoc.org/doi/abs/10.1175/1520-0450(1996)035%3C0987%3AIOGDIA%3E2.0.CO%3B2))

Of these, neither seem relevant to our paper. The reviewer mentions “use of weather station data in an assimilation context to constrain the surface energy partitioning”, and only the first of the two papers (the ISBA paper) deals with assimilation at all, and so we assume that is the paper they mean. But the ISBA paper deals only with assimilation of soil moisture products, not weather station data, as far as we can see. Since our models have nothing to do with soil moisture, or with data assimilation (since we are not using numerical models with states), we’re having some trouble seeing how this paper is relevant as a reference for our paper.

If the reviewer is able to provide some more detail on exactly how the Noilhan and Mahfouf paper is relevant to our paper, we would be happy to try to accommodate any suggestions.

Cheers

ned haughton