

Interactive comment on “Data impact studies with the AROME WMED reanalysis of the HyMeX SOP1” by Nadia Fourrié et al.

Anonymous Referee #1

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Review of the paper: Data impact studies with the AROME WMED reanalysis of the HyMeX SOP1

By: Nadia Fourrié, Mathieu Nuret, Pierre Brousseau, and Olivier Caumont

General comment This paper shows the impact of different sources of data on the second reanalysis dataset produced with AEROME-WMED for the HyMeX-SOP1 campaign period. The impact of reprocessed GNSS-ZTD, the assimilation of the Spanish radars, and of wind profilers are evaluated through a series of data deny experiments. Performances are shown both at analysis and forecast times using also independent observations. The paper is interesting and fits the scope of the journal. There are, however, many minor errors in the current version of the paper, which make the reading difficult. I have attached to this review the pdf with sticky notes. Also, the description of

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the background error matrix must be improved.

Major points The background error matrix is very important in the context of this paper. A detailed description must be provided, which is missing in the current form of the paper.

Minor points As stated above there are many minor points that must be solved before the publication of the paper. Some figures are unnecessary and only the comments should be provided. See the sticky notes in the pdf.

Please also note the supplement to this comment:

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2020-153/nhess-2020-153-RC1-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-153>, 2020.

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