

Interactive comment on “Forecasts covering one month using a cut cell model” by J. Steppeler et al.

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I would like to encourage the authors to submit a revised manuscript for publication in GMD, taking into account the referee's comments. Most importantly, I would like them to address referee 3's comment number 10: "the results could be presented in a more quantitative way". It is hard to see from the figures that you present that the cut cells really have a significant beneficial influence, particularly if comparing with CLM. The results as they stand could be interpreted that the noz model had serious problems that have since been dealt with. In comparing the Z model with noz are you making it too easy for the Z model? Also, the comparisons that you present do need to be more quantitative. This does not mean using alot more computing resources or more simulations. Referee 3's suggestion of showing instantaneous model bias or time-averaged model bias is nice. The time-averaged model bias may mean re-running the model to get all the fields at all time-steps. But the instantaneous biases just mean, for

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example, subtracting fig 1b from figs 1a and 1c. Additionally, a statistic like anomaly correlations between model and analysis results would provide a nice summary and allow the authors to show time-series of how the errors grow.

Other minor comments:

1. In figs 4, 5 and 6 the authors show monthly mean precipitation but no observationally derived precipitation over the ocean. I realise that products like CMAP have their own biases over the ocean, but the differences between noz and Z over the ocean are so large that comparisons with CMAP would probably be useful. Also, figures 4, 5 and 6 could be combined into one figure with 6 panels with alot less white space and without repetition of colourbars etc to avoid wasted space and to make the plotted data big and clear.

2. Figure 2 takes up 3 pages and includes alot of white space, repetitive colourbars and illegible and sometimes repetitive labels. Please improve (and hopefully fit into fewer pages).

3. A sentence in the abstract would be better as: "The LMZ has previously been tested extensively for one-day forecasts on a European area"

Interactive comment on Geosci. Model Dev. Discuss., 6, 625, 2013.

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