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Geoscientific
Model Development
Discussions

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

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Response to referee 3: We agree to points 1,2,3,4,5,6,7,8,9,11,12,13,14. It is obvious how to include these improvements. For 9 the parameterizations are: Kessler scheme for moisture, multi-level surface scheme according to Heise, diagnostic TKE for boundary layer and Ritter Geleyn scheme for radiation. There are references describing the implementation of these schemes at the time of the model development. For 12 the model reaction is different for precipitation and temperature. Differences in precipitation are large in the first 24 hrs. The large differences for temperature take 5 days to build up.

We agree also to point 10 and the general remark in the sense that it is desirable to have more quantitative verification. However, this work was done with rather limited resources. As Steppeler et al. (2011) it is intended to generate interest to do the final

test. We indicate that the present paper is a further step towards testing cut cells, but the final test has still to be done.

The following information is given for the discussion and will not necessarily be included in the revision: We aim for an area of the same size as in the present paper, but using resolution 7 km. 100 cases should be done. The area will be positioned to the places where the people live, who do the work and donate the computer time. Probably this will be all of USA, Atlantic and Europe. Remark 10 means that for the final test we will definitely have to include more verification. The simpler requests in point 10 can still be accommodates if the output files are still on mass storage. We will check on this.

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

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Interactive Comment