

Interactive comment on “The Met Office Unified Model Global Atmosphere 3.0/3.1 and JULES Global Land 3.0/3.1 configurations” by D. N. Walters et al.

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1 Reply to general comments

We thank the reviewer for their detailed reading of the paper and their positive comments regarding the necessity for such a paper within the community of UM modellers and users.

We provide answers to your specific comments below:

Comment: *"The layout I found a little strange in that the latest versions are described*

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in detail and then the differences from the current climate model versions are described afterwards.

Reply: The motivation for this decision was to highlight that the primary purpose of the paper is to document the current configuration, with the supplementary purpose of describing developments made since the last one. Similar papers in the past have tended to focus on the latter and let the reader follow back-references to previous papers to find a description of parts of the model formulation that have not changed. We believe that the move to an annual development cycle with annually released documentation papers makes that approach inappropriate, since it could leave the casual reader/user following a long chain of references to find a basic description of a particular part of the model formulation.

We welcome further discussion on this approach if the reviewer and/or other readers believe it to be inappropriate, since we plan for this to be the first in a series of annual papers written in the same style.

2 Reply to recommended modifications

page 1218, lines 13-: *"Although this section is deliberately concise I feel that the abbreviation yr for year and years is a step too far! Especially as months and days are spelt out in the previous paragraphs."*

Reply: We agree, but this was a change made by the editorial team during the typesetting of the discussion document. We will use your review to support our recommendation that the full words are replaced in the final manuscript.

page 1222, line 7: *"It seems strange to single out cloud liquid water when there are a number of prognostic cloud condensate and cloud fraction variables. I would suggest replacing 'cloud liquid water' with 'cloud condensate fields'."*

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Reply: We agree that it is unsuitable to single out this field in the description. As the PC2 cloud scheme does use cloud condensates and fractions as separate prognostic variables, we propose that we use the phrase 'prognostic cloud fields' in the final manuscript.

Interactive comment on Geosci. Model Dev. Discuss., 4, 1213, 2011.