

Interactive comment on “The CSIRO Mk3L climate system model version 1.0 – Part 1: Description and evaluation” by S. J. Phipps et al.

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Dear Authors,

Both reviewers have found that you provide an useful and well balanced description of the CSIRO Mk3L climate system model. After the submission of your answer to the Referees' comments and to the short comment, I would thus be happy to consider a revised version for publication in Geoscientific Model Development. This revised version should take into account the Referees' comments. In particular, both reviewers have remarks about the model evaluation. Referee 1 suggests that all the evaluation should be made in coupled mode and Referee 2 wonders why you have chosen to compare present-day observations with a pre-industrial simulation. Both remarks appear fair

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to me. You should then modify the validation part or argue clearly in the manuscript why you have make those choices. Referee 1 also asks for a longer discussion of the impact of the flux adjustment that would certainly be useful in the revised version.

Thanks again for submitting your work to GMDD.

Hugues Goosse

We thank you for your comments, and for considering a revised version of the manuscript for Geoscientific Model Development.

We have revised the manuscript in response to all the comments received. In particular, the evaluation of the model climatology is now based upon a coupled climate system model simulation. The revised manuscript also includes much longer discussions of the procedure used to derive the flux adjustments, and of the potential limitations that they impose upon the utility of the model.

We have chosen to retain a pre-industrial simulation as the basis for the analysis. The reasons for this decision are outlined in the response to Referee #2, and in the revised manuscript itself.

Interactive comment on Geosci. Model Dev. Discuss., 4, 219, 2011.