Interactive comment on “Glacial-interglacial variability in Tropical Pangaean Precipitation during the Late Paleozoic Ice Age: simulations with the Community Climate System Model” by N. G. Heavens et al.

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Received and published: 23 August 2012

First of all I should apologize to all concerned for the amount of time it has taken for me to post a comment. This is partly due to a family holiday but also because the assessment has been complex given the nature of the responses received.

I have read the paper (several times over the last week), as well as the reviewers comments and authors responses.

It is clear from the reviewer’s assessment and my own evaluation that the material
presented in the paper certainly has the potential for publication in CP. It represents a substantial modelling effort and the work discusses a number of aspects/facets of Pangaeanean climate that will be very useful to the community.

Having said that I agree that the paper requires substantial work to resolve issues raised around methodology, organization and clarity. I have sympathy with the second reviewers expressed view that the authors are perhaps trying to do and show too much, and trying to cover too much ground for the paper to be readily digestible to the reader. Great care needs to be taken with the structure and presentation of the work. Without such changes the work will not achieve the impact that it certainly deserves to and that is in no one’s interest. The fact that I have had to re-read the paper a number of times suggests that the paper it is not as penetrable as it needs to be, and that structural improvement is required.

The challenge of presenting a coherent story from the simulations completed thus far will be made all harder with the addition of further runs, so I am not in favor of that option, with the exception of the clean pCO2 forcing simulation requested by both the reviewers.

I also recommend that the paper is restructured and discussed by forcing mechanism as suggested by reviewer 2.

My view is that the paper requires substantial modification before acceptance is possible. I do not believe this is achievable before the initial deadline, and so that will need to be extended. The authors are invited to submit a revised version of the manuscript that delivers in all aspects the full essence of changes requested by the reviewers, with the exception of performing additional simulations (apart from a new pCO2 forcing simulation).

Given the magnitude of the changes that seem to be required, and the apparent disparity of views between the authors and reviewers, I will recommend that the revised manuscript be peer-reviewed rather than simply receiving a final review from the han-