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Interactive comment on "A regional climate modelling projection ensemble experiment – NARCliM" *by* J. P. Evans et al.

R. Arritt (Referee)

rwarritt@bruce.agron.iastate.edu

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This is a useful contribution to the topic of dynamical downscaling, specifically the construction of GCM-RCM ensembles. The paper describes an approach to narrowing down matrix-style RCM by GCM ensembles mainly bt filtering out non-credible models. Use of metrics that already appear in prior literature is an effective leveraging of resources although it does depend on having available prior studies that can be referred to. Metrics could of course be evaluated as part of the evaluation process if there are not a body of existing literature (e.g., for newly created model runs).

The methodology is worth publishing after some minor clarifications are made. I have only a few substantive comments.

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1. The Abstract should be completely rewritten as it does not adequately describe the paper. It outlines the general problem but gives very little information on the methodology or findings.

2. The authors need to discuss the limitations of the approach used to filter the RCM configurations. Focusing on only a few storms will not necessarily give general results with regard to credibility of the models. Furthermore, running only short segments will remove any long-term memory from the system, e.g. the influence of soil moisture. The latter is especially important as some RCMs have shown a pathology in which they spuriously lock-in to a dry regime: low soil moisture causes low precipitation, which in turn causes low soil moisture. I am not asking that the authors redo the evaluation with long-term runs, only that they acknowledge these potential problems.

3. Can you give a table that summarizes the RCM configurations numbered in Figure 2? This information may be useful to others, who could cite it in their own work. This could help us build a base of experience on whether certain WRF configurations perform well or poorly across a range of applications.

Interactive comment on Geosci. Model Dev. Discuss., 6, 5117, 2013.