

Interactive comment on “The North American Carbon Program Multi-scale synthesis and Terrestrial Model Intercomparison Project – Part 1: Overview and experimental design” by D. N. Huntzinger et al.

Anonymous Referee #2

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This paper is the first in a series describing the MsTMIP. It describes the MsTMIP experimental design, the participating models, and some preliminary results. Overall, the paper is well structured and easy to read.

I disagree with the first reviewer regarding the inclusion of preliminary results. It was very clear to me from the text why the authors chose to include these specific preliminary results. The results show that the introduction of a more standardized simulation protocol significantly reduces but does not eliminate inter-model spread.

The basic experimental design itself is also well-thought through. As this is the focus of
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this paper, I have few complaints and recommend that it be published with only minor revisions.

Specific comments:

p 2986, line 8 - While not global, there are gridded observations of aboveground biomass carbon covering the tropics:

Saatchi, S. S., Harris, N. L., Brown, S., Lefsky, M., Mitchard, E. T., Salas, W., ... & Morel, A. (2011). Benchmark map of forest carbon stocks in tropical regions across three continents. *Proceedings of the National Academy of Sciences*, 108(24), 9899-9904.

Follow-on papers will compare the strengths and weaknesses of the various models and relate these to structural differences. Why have the authors decided to not include at least some parametric sensitivity analyses? Or for that matter, model comparisons against experimental observations (FACE, throughfall exclusion, irrigation/fertilization)?

What is the data management plan for the MsTMIP simulations? Will there be a central repository?

Interactive comment on Geosci. Model Dev. Discuss., 6, 3977, 2013.