

Secondary review of Coupling the high complexity land surface model ACASA to the mesoscale model WRF, by L. Xu et al. for Geoscientific Model Development Discussions.

Overall I am satisfied with the revisions made by the authors. I think the revised paper is more focused, and puts this work into context of overall model development for WRF-ACASA. The figures are also improved.

I think now the section about the 2m heights is perhaps over-explained (end of Section 2.5). Is it possible to more concisely state the problem – that 2 meters may lie within the canopy for WRF-ACASA, although it never does for WRF-NOAH, and the measurements may be made at different heights and likely not within the canopy – is this an accurate summary of the issue?

A minor comment on the Abstract: the second sentence is confusing, it might be better to reword: "... the land surface schemes available in WRF (such as the popular NOAH model) are simple and lack the capability to simulate carbon dioxide."

Line 473: Remove "very" from "WRF-NOAH is very slightly better"

There are a few typos and grammatical errors throughout so I recommend additional proofreading and editing by the authors.