

Interactive comment on “A fire model with distinct crop, pasture, and non-agricultural burning: Use of new data and a model-fitting algorithm for FINALv1” by Sam S. Rabin et al.

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We thank the editors and reviewers for their help in improving this manuscript.

The reviewers' suggestion that the optimization appeared not to have finished was especially helpful. We re-ran the optimization (four times, with slightly randomized initial conditions) and allowed it to continue much longer than before. The burned area and emissions performance of the final parameter set did change much, but some features (such as the relative humidity and soil moisture functions) turned out to be more reasonable than before.

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Note that the new optimization and model runs would not have been possible without the help of Daniel S. Ward, who we would like to add as second author.

The length of the main text has been reduced by moving some figures to a new Supplementary PDF, as well as by moving the discussion about pasture biomass to the Appendix (B).

As mentioned in a previous comment, information about accessing the fire model and optimization code has now been provided in the Data Availability section.

Attached, find a ZIP file with new versions of the main text and the new supplementary PDF. Included as well is a PDF containing our responses to reviewers and the output of the latexdiff command between the original and new versions of the main text.

Please also note the supplement to this comment:

<https://www.geosci-model-dev-discuss.net/gmd-2017-77/gmd-2017-77-AC3-supplement.zip>

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2017-77>, 2017.

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