

Interactive comment on “Inclusion of biomass burning in WRF-Chem: impact of wildfires on weather forecasts” by G. Grell et al.

Anonymous Referee #2

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Inclusion of a wildfire algorithm in the community version of the WRF-Chem model and the presented process study at cloud resolving scales are significant contributions atmospheric physics and chemistry. This work will stipulate applications of models to other fire scenarios and further study of possible improvements in weather forecasting. The authors used a spectrum of methods to derive fire information to provide forcing and initial conditions to the model in a retrospective fashion. This study demonstrates a need for remote sensing satellite instruments that would provide radiation, chemistry and aerosol information so the presented methods can be used in operational weather predictions.

The submitted paper is well presented and balanced. Minor editorial comments were already addressed in the first review.

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I concur with the first review that some additional information and critical statement could be provided in respect to aerosol effects and convective parameterization used. However, I do see this work as a process study, thus more cases and more rigorous approach are required to make a full assessment of impacts before these processes could be included in operational NWP.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 30613, 2010.

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