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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Atmospheric boundary layer top height in South Africa: measurements with lidar and radiosonde compared to three atmospheric models" *by* K. Korhonen et al.

L. Ganzeveld (Editor)

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Dear author, co-authors, I have read in detail the comments provided by the two reviewers as well as your response to their comments and the revised version of your ms on BL measurements and model simulations over Southern Africa. I see that this is indeed a unique dataset providing essential information also needed for air-quality assessments and it is interesting to see the comparison of this essential metric based on three different measurement technologies as well for three different modelling systems. It is also obvious that you have made a strong effort to deal with the comments raised by the reviewers that urged you to provide a major revision. Also because of this

I have invited them to re-review this revision to see if your modifications are properly addressing the comments raised by them. In addition, you can find in the supplement of the editors comment some additinal issues that I want to raise now reading over again in detail your paper. What I still see as one of the most essential issues is a careful analysis of the role of differences in surface energy balance (and how the models treat large-scale vertical motions) in explaining discrepancies between the models and observations.

Regards, Laurens Ganzeveld

Please also note the supplement to this comment:
http://www.atmos-chem-phys-discuss.net/13/C10136/2013/acpd-13-C10136-2013-supplement.pdf

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Interactive comment on Atmos. Chem. Phys. Discuss., 13, 17407, 2013.