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Atmospheric Chemistry and Physics Discussions

Interactive comment on "The lofting of Western Pacific regional aerosol by island thermodynamics as observed around Borneo" *by* N. H. Robinson et al.

Anonymous Referee #1

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This paper describes novel measurements of aerosol characteristics over Borneo and uses these to infer the influence of local dynamics on aerosol properties. They find that organic aerosol is lofted by convection to an elevated level consistently depending on the meteorological situation. Aerosol number and mass distributions in different layers are consistent with the composition analysis and thermodynamic characteristics of the atmospheric profile. It is generally well written, and all the material presented is necessary. The approach of averaged profiles in the main paper and individual ones in the supplement is good. I recommend this paper be accepted subject to a few (very) minor revisions which are detailed below.

Page 1222, section 2,2 line 10-16. I don't think you should talk about two atmospheric layers specifically here when you have not yet shown any vertical profiles. Since this section is intended to be about the methodology in general, a more appropriate phrase would be something like "Boundaries between atmospheric layers were estimated from sharp...."

Lines 14-16 appear to be repetition of lines 10-14 essentially.

Page 1224, line 20 "vapouriser"

Page 1226 line 14 ... "approxiamtely"

Page 1228 line 3 - you must define ITC here as it has previously only been used in the abstract

Page 1241 Conclusions section: there is some repetition between the extensive discussion section and the first part of the conclusions. Please consider whether this is necessary.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 1215, 2012.