

Interactive comment on “Ceilometer evaluation of the East Mediterranean summer boundary layer height – first study of two Israeli sites” by L. Uzan et al.

Anonymous Referee #2

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I would like to thank the authors for this revised manuscript and the referee #1 for his extensive comments posted on 3 June 2016. I actually agree to all points he wrote in his interactive comment, so here I would just like to comment on some specific technical details of his remarks.

Ceilometers like the CL31 report attenuated backscatter profiles. The ongoing COST action ES 1303 'TOPROF' discusses in particular calibration procedures for these instruments. The paper "Recommendations for processing atmospheric attenuated backscatter profiles from Vaisala CL31 Ceilometers" by Kotthaus et al. (Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-87, 2016) is a result of this COST action; it discusses in particular the near range of CL31 profiles. It also discusses the influence

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of the different hardware and firmware versions of the CL31 on these profiles. My recommendation is that in order to answer the questions raised by referee #1 regarding the PM10 section of the manuscripts, the authors should check the version of their ceilometer and study the recommendations discussed in Kotthaus et al. A similar study comparing PM2.5 with ceilometer attenuated backscatter used the value reported by the ceilometer in 100 m height (Tang et al., 2015, already listed in the references). My recommendation is to investigate the comparison shown in Figure 6 also for other ceilometer range gates, and possibly contact the authors of the Kotthaus et al. paper.

[Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-85, 2016.](#)

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