Atmos. Meas. Tech. Discuss., 3, C1726–C1727, 2010

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3, C1726-C1727, 2010

Interactive Comment

Interactive comment on "Aerosol Optical Depth measurements at 340 nm with a Brewer spectrophotometer and comparison with Cimel observations at Uccle, Belgium" by V. De Bock et al.

V. De Bock et al.

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Received and published: 15 October 2010

Concerning your comment on paragraph 4.2.2 (weekly periodicity)

In our previous response to this comment, we stated that this section would remain with minor adjustments. However, since we have extended our measurement period, we recalculated the weekly variation and did a new normality test on the values. This test showed that the values are not normal distributed, so we could no longer apply Full Screen / Esc

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a t-test. Since the maximum difference in AOD (between Monday and Wednesday) is only 0.04 and because of the high standard deviations on the average values, we could not state that this difference is large enough to be identified as a clear weekly cycle. We replaced the old paragraph by a new one:

"Bäumer et al. 2008 and Xia et al. 2008 observed a weekly AOD cycle in central Europe. They recorded the lowest values on Sunday and Monday, whereas higher values occurred between Wednesday and Saturday. This cycle is greater for the urban sites than for the rural sites. For our measurements in Uccle, there is no clear signal for such a weekly cycle (Table 3). The largest difference in mean AOD value occurs between Monday and Wednesday (respectively 0.49 versus 0.53). Because of the rather high standard deviation on the average values, we can not state that this difference is a clear signal of a weekly cycle."

Interactive comment on Atmos. Meas. Tech. Discuss., 3, 2743, 2010.

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