

Interactive
Comment

***Interactive comment on “Bromocarbons in the
tropical marine boundary layer at the Cape Verde
Observatory – measurements and modelling” by
L. M. O’Brien et al.***

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Dear Louise and co-authors, Two comments:

(1) First on the diurnal variation of CHBr₃ during 5-10 Jun 07. I’ve looked at the Cape Verde data from that period and for these days there are diurnal variations in wind speed and in CO (with [CO] reducing during the midday hours, directly corresponding to increases in [CHBr₃], and wind speed peaking in the mid afternoon). I will email you the data. But it looks like the diurnal behaviour here is a transport/meteorological issue, not a local source effect.

(2) On pg 4352, the way that the Read et al. model was set up has been misinterpreted.

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As you can see from the Supplementary Material of that paper, we prescribed a flux of Br₂ to match the BrO data from the Leeds group. We included a simple scheme for heterogenous activation of halogens by assuming that the rate of release of reactive halogen species from aerosols to be limited by the uptake rate rather than the availability of ions, therefore uptake of HOBr, HBr and BrNO₃ was assumed to lead to immediate release of Br₂. There might well be model differences due to Br/BrO ratios and it would be interesting to compare these. But to say that the Read et al. model omits these contributions is incorrect. Regards, Lucy Carpenter

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 4335, 2009.

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