

Interactive comment on “Maïdo observatory: a new altitude station facility at Reunion Island (21 S, 55 E) for long-term atmospheric remote sensing and in-situ measurements” by J.-L. Baray et al.

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Received and published: 9 September 2013

I would like to thank the three referees for the overall positive judgement and for the useful inputs and corrections for improving the manuscript. I have integrated all these corrections in a revised version for publication in AMT. I wish to answer to specific points raised by referee #3 :

“Pg. 6375, line 25: with respect to the discussion of the number of clear nights at Maïdo versus St. Denis, it would be helpful if there were some information as to how these

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differ. Is there a climatology of clear vs cloudy nights available? If so, this should be included.”

I agree that the climatology suggested by the referee would be helpful. Unfortunately we did not quantify the difference of clear vs cloudy nights between St Denis and Maïdo in a climatology, and the discussion is only based on qualitative observations during the first year of operating and on mesoscale modelisation (Lesouef et al., 2011)

“Pg 6380, line 26 – 27: “The length: : :” Does this sentence imply that the beam is allowed to expand within the Raman cell before re-collimating it? Can you clarify?”

The beam is not expanded within the Raman cell but in a divergence optimizer optical system located after the Raman cell and described in Baray et al., appl. Opt. 1999. The text is now clarified.

“Pg. 6381, line 6: “In order to compensate for this, we have added: : :” This sentence seems to indicate that the low altitude measurements are not made at the same time as the higher altitude measurements – is this true?”

Yes, it is true. In the current configuration, the two modes can not work simultaneously, we have to switch from one mode to the other. Ozone profiles presented in the Fig. 4 have been made using the higher altitude mode, with the mosaic of four 50 cm telescopes.

Interactive comment on Atmos. Meas. Tech. Discuss., 6, 6371, 2013.

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