Interactive comment on “Experimental evidence of condensation-driven airflow” by P. Bunyard et al.

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Comment of reviewer #2 concerning author’s reply dated 2015/12/2 Paper: HESS-2015-365 MS

Reply: We much appreciate the comments of the reviewer concerning the equations (4) $\tilde{A}$ $\bar{T}$ (6) and we are glad to see that the equations (5) and (6), with the notations given are now deemed to be correct, according to the notations of $r$ and $q$ given in McIlveen.

As to equation (4) and checking back to McIlveen, p.90 Numerical 4.2, we see that he calculates the ideal gas constant $R$ for moist air, using the percentages of the moisture in air and of dry air. He therefore subtracts the moisture from 100 per cent to obtain the percentage of dry air. The example he gives is of 3 per cent water vapour and 97 per cent dry air.

That fits in with your comment and your use of notation. As you will be aware our use of $r$ rather than $q$, makes an ‘error’ of approximately 0.005%. We have therefore corrected the error in the experiments carried out recently.

We will take your advice and use the notations you suggest.

Thank you again for your helpful comments.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 12, 10921, 2015.