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**ACPD** 7, S9958–S9959, 2008

> Interactive Comment

## Interactive comment on "Evaluation of balloon and satellite water vapour measurements in theSouthern tropical UTLS during the HIBISCUS campaign" by N. Montoux et al.

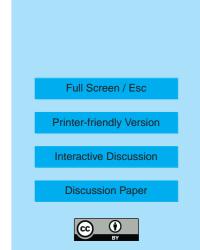
## N. Montoux et al.

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The referee mainly support the comments of the 3 previous referees but adding a few points: a) the mixing of two topics (a description of the HIBISCUS balloon water vapour measurements and an intercomparison of satellite remote sensing); b) the impact on the comparisons of differences of vertical resolution; c) the date of the measurements and particularly the unfortunate absence of MLS-AURA; and finally d) a recommendation of using Reprobus instead of AIRS and using the double difference technique suggested by Hocke et al (2007).

All the above points have been taken.

a) The paper deals with intercomparisons only, between satellites but also between



satellites and balloons, the last providing useful validation data. Implications of the in situ balloon water vapour measurements are presented by Durry et al., 2006.

b) The impact of differences in spectral resolution is difficult to assess. As replied to ref #3, each data set in the individual comparisons is shown with the sampling provided in the files always narrower than the resolution.

c) The dates of the measurements are now given and the unfortunate absence of MLS following the delay of its launch is underlined.

d) The use of AIRS is replaced by that of ECMWF/Reprobus and the double differencing technique used for comparing all satellite measurements to those of the most validated HALOE in the stratosphere.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 6037, 2007.

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