

Interactive comment on “An overview of the HIBISCUS campaign” by J. P. Pommereau et al.

J. P. Pommereau et al.

pommereau@aerov.jussieu.fr

Received and published: 23 November 2010

Answer to Referee # 4

The first version of the overview paper was indeed more like a technical report than a journal paper. The current version is completely changed, with technical and operational aspects shortened, synthesized, and details moved to appendices as suggested. More important, it is now oriented toward a synthesis of the scientific outcome of the project with adequate illustrations of most relevant information.

Specific comments - Maritime vs land convection. There is indeed evidence that maritime convective systems, particularly cyclones, are showing very cold brightness temperature, colder than those of land systems and that associated cirrus around the tropopause level are well represented in NWP. However, there is evidence from comparisons of, eg CH₄ or N₂O zonal distributions in the lower stratosphere as described

in the paper or signature of overshoot at the local scale, that they fail to capture fast vertical transport across the tropopause. Most references given, including radar observation by May and Ballinger 2007 in Darwin, are showing the difference between land and oceans. Thanks, however for the several interesting references which have been used, and cited in the revised paper. - sub-tropical location of Bauru. Referee #1 made the same remark. A brief description of the meteorology is given in the revised paper by adding an altitude/latitude cross-section and maps of PV contours in the region of Bauru. It is shown that that always it could be called subtropical, it always correspond to the definition of tropical climate, north of the tropical jet where the tropopause, defined as the contour of 2 pv unit, is at the 380 K level. - all other recommendations (synthesis, appendices, tables, key results) all taken.

Thanks for help.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 2389, 2007.

ACPD

7, C10131–C10132,
2010

Interactive
Comment

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

C10132

