

## ***Interactive comment on “Correlation between equatorial Kelvin waves and the occurrence of extremely thin ice clouds at the tropical tropopause” by F. Immler et al.***

**F. Immler et al.**

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Reply to Referee #1

We like to thank referee # 1 for his comments and corrections. He suggest to replace the number 90% by 50% on page 2855, line 21. However, in the abstract as well as in the conclusions, the Massie et al paper (2003) says that "Ninety percent of the tenuous cirrus near the tropopause is located away from deep convection." This is the statement we are referring to.

Based on 5-day backward trajectories, Massie et al found, that 50% of cirrus are associated with deep convection. We also found based on backward trajectories (see Immler et al., JGR, 2007) that TTL cirrus is generally related to convective activity.

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However, for clouds generated by convection to survive on the timescale of days an additional mechanism that provides moister and/or cooling is required (Boehm et al., JGR,1999, Corti et al., ACP, 2006). Whether a cloud found 5 days downstream of a convective region, supported by large scale ascent should be termed a "blow-off-cloud" is therefore questionable.

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Interactive comment on Atmos. Chem. Phys. Discuss., 8, 2849, 2008.

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