Interactive comment on “A model study of the January 2006 low total ozone episode over Western Europe and comparison with ozone sonde data” by A. Mangold et al.

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We would like to thank both referees for their positive and very constructive comments, which we will take into account in the revised version of the manuscript.

In particular, we will perform a further analysis of the different contributions to the low ozone event, namely to distinguish between the, until now treated in the manuscript as combined, effects of horizontal advection of ozone-poor low-latitude air in the UTLS region, connected with the divergence of air out of the column caused by the uplift of isentropes.

The part dealing with the instantaneous, in-situ chemical ozone depletion will be improved and especially the quality of the different models will be discussed carefully.
We will point out the benefit of using different models for investigating the dynamic and chemical aspects of that event more thoroughly.

As Referee #2 suggested, we will make an effort to shorten the manuscript.

Detailed responses to all points raised by the referees will be submitted together with the revised manuscript.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 6003, 2009.