Interactive comment on “Evaluation of the tropospheric flows to a major Southern Hemisphere stratospheric warming event using NCEP/NCAR Reanalysis data with a PSU/NCAR nudging MM5V3 model” by K. Wang

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We are very grateful to the reviewer for the comments.

p. 7958, Lines 13-14: This description means that a choice of 10 hPa model top is the best configuration of the MM5V3 used in this work. We will rephrase this description in the revision.

pp. 7959-7960: We will improve these descriptions in the revision.

The simulation domain is chosen so that the entire SH can be included. We will improve Figure 1 so that latitude lines can be seen in the plot.
These hemispheric experiments are inspired by Dudhia and Bresch (MWR, 130, 2989-3007, 2003). This is part of our progress toward a global MM5V3 model.

This lead time is chosen as a representative to test a 10-14 days of longer-period forecast simulations. As shown in Figure 2, the closer the initial conditions to 24 Sep 2002, the more realistic the simulations would be compared with the analysis.

Since the vortex split up from experiments (listed in Table 1) can be compared by the regions with high (red) and low (blue) temperatures, hence we use these figures to show these two main features. We will increase the size of the figures in the revision.

We have contacted the production manager of the ACPD regarding the printing problem mentioned by the reviewer. We are very grateful to Anne Klinger for pointing out that the problem seems to be that the figures in our manuscript build up very slowly. We used NCAR Graphics to produce these figures and these figures contain multiple layers that cause slowliness.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 7953, 2008.