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Interactive comment on "Evaluation of two ozone air quality modelling systems" *by* S. Ortega et al.

S. Ortega et al.

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We are pleased to answer the comment of our article Evaluation of two ozone air quality modelling systems.

Answer to comment 1 from anonymous referee (paragraph 2):

Certainly, a 3 day period is a limitation in the comparison with other forecast models, although the main goal of this study was not a statistical comparison as in Tilmes et al. (2002), but what we tried to do was the evaluation of the models accuracy in an episode as it has been done in other many studies (Barna et al., 1998, Grell et al., 2000, Kim & Ghim, 2001).

Answer to comment 2 from referee (paragraph 3):

The boundary conditions for the grid model are based on surface observations, so it has not been performed in a real forecast mode. Nevertheless, this model was used in the simulation of an ozone episode and not for forecasting. Nowadays, we are

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performing nested simulations, so the boundary conditions of the smallest domain are provided by a bigger domain and the system can be used as a forecast model.

Answer to comment 3 from referee (paragraph 4):

We attribute the disagreement in first hours ozone tendency between UAMV and observations to the effect of ozone in residual night layer. That means, the residual ozone is incorporated to the convective boundary layer as it grows. First episode day has the influence of initial conditions, which where homogenous in height. Second episode day show agreement with observations because the concentration of the preceding day is taken into account. Third episode day has a disagreement again because the night concentrations are not well predicted in surface, so we extrapolate that in height they are not well predicted (see figure 6 upper panel around hour 48) .

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