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Interactive comment on "Seasonal variations in the horizontal wind structurefrom 0–100 km above Rothera station, Antarctica (67° S, 68° W)" *by* R. E. Hibbins et al.

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This is very interesting and informative paper,which focuses on the climatological features of the Antarctic wind field vertical structure and the first one where this structure is analysed for the whole height interval from ground level to 100 km. The location of the Rothera station at the edge of the Antarctic wintertime polar vortex provides additional opportunities for study of the mechanisms of coupling between different atmospheric levels. General comment. When comparing the Rothera MLT wind data with the data, obtained at the another longitudinally distinct Antarctic radar stations (Maw-

son, Molodezhnaya, Davis), the authors did not take into account that the measurements at these stations were carried out during the periods, which are not coincided with the period of the discussed measurements at the Rothera station. As a result the possible effects of the earlier detected strong year-to-year and long-term Antarctic MLT wind variations on the differences between the climatic monthly mean wind values would be discussed. Minor comments. Alongwith the presented comparison of the obtained experimental data with the HWM-93 model, which is longitudinally depended one, a comparison of the Rothera MLT wind data with the climatic zonally averaged updated prevailing wind model GEWM-I by Portnyagin et al. (Mesosphere/lower thermosphere prevailing model,Adv.Space Res., v.34,pp. 1755-1762, 2004) would be very useful. In the figs. 2, 6 and 7 the absolute values of the wind speed in relation to the different isolines would be shown. The discussion about possible role of an atypical gravity wave field around Rothera, which appeared in the Summary, deserves more words and have to be moved in the main part of the paper. There is the Section 6 (Zonal wind climatology). Where is the Section " Meridional wind climatology"? (cf. Fig.2).

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