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Interactive Comment

Interactive comment on "Mesoscale temperature fluctuations in the stratosphere" *by* B. L. Gary

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Potential applications of the parameterization of mesoscale fluctuation amplitudes (MFA), Eq.6, are pointed out (e.g., Sect.7.4). Two issues seem relevant in this context, but are hardly discussed in the manuscript.

Equation 6 provides an explicit dependence of MFA on latitude. Apparently, flights on which the analysis were based had also been carried out at southern hemisphere locations (I.1, p.7374). Is the MFA model directly applicable to southern hemisphere latitudes? If so, what are the numerical values of the variable *Latitude* to be used in Eq.6? Does this imply that the processes leading to the seasonal and latitudinal variation of MFA are identical in both hemispheres?

Longitude variations seem to be included only implicitly via the topography score. The author might wish to spell out in more detail why longitude is not explicitly accounted



for and why such a simplification might be reasonable.

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 7369, 2006.

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