

Interactive comment on “High temporal resolution VHF radar observations of stratospheric air intrusions in to the upper troposphere during the passage of a mesoscale convective system over Gadanki (13.5° N, 79.2° E)” by K. K. Kumar and K. N. Uma

Anonymous Referee #2

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While the authors show some interesting data (in Figure 1), the level of the analysis detailed in this paper is cursory. In particular, I am concerned that the event they focus on around 20:34 on 19th June 2006 is actually related to a MCS. Satellite observations or some extra supporting evidence are required. Note that the convective plumes at around 18:00 also look a little suspicious. Work detailed in Hooper et al. (2005) suggests confined enhancements in the vertical velocity and signal power from the surface to the top of the plume. So could these be areas of moist air unrelated to convection?

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The introduction is also cursory and requires more research.

This work should not be published at present and the authors should provide significantly more evidence for their hypothesis before re-submitting this work to a journal again.

Hooper, D. A., A. J. McDonald, et al. (2005). "The signature of mid-latitude convection observed by VHF wind-profiling radar." *Geophysical Research Letters* 32(4): doi: 10.1029/2004GL020401

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