

Interactive comment on “Preliminary observation of temperature profiles by radio acoustic sounding system (RASS) with a 1280 MHz lower atmospheric wind profiler at Gadanki, India” by T. V. Chandrasekhar Sarma et al.

Anonymous Referee #3

Received and published: 3 September 2012

The discussion paper "Preliminary observation of temperature profiles by radio acoustic sounding system (RASS) with a 1280 MHz lower atmospheric wind profiler at Gadanki, India" by T.V. Chandrasekhar Sharma et al. is in its present form not suitable for publication.

The description of the radio acoustic sounding system at 1280 MHz does not provide new information about the technique and represent an extract of the system description of the RASS development for the Gadanki MST radar (Chandrasekhar Sarma et al.,

C2049

Ann. Geophys., 26, 2531, 2008).

The presented first observations does not comply with the requirement "to continuously profile the atmospheric temperature from near the ground to upper tropospheric altitudes" as stated in the abstract. The temperatures obtained by the tower observations, the WP-RASS and MST radar-RASS measurements do not show any overlap between the different observations. In addition, the WP-RASS observations performed with $1\mu\text{s}$ and $0.25\mu\text{s}$ pulse lengths disagree on August 29 and August 30 around 0600 LT. The comparison of the different observations should be done on a profile basis including an error discussion.

More observations have to be acquired to demonstrate the capability of temperature profiling using WP-RASS and MST radar-RASS.

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 4447, 2012.