Atmos. Chem. Phys. Discuss.,
https://doi.org/10.5194/acp-2018-194-RC2, 2018

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Cloud vertical structure over a tropical station obtained using long-term high resolution Radiosonde measurements" *by* Nelli Narendra Reddy et al.

Anonymous Referee #1

Received and published: 3 June 2018

General comments The manuscript shows the distribution of clouds in different seasons over the indian radiosonde station of Gadanki. A long term series od radiosonde measurements has been used for evaluating the cloud base and top heights and the cloud tickness. The study is interesting in terms of methodological approach and results. The manuscript is well wirtten and structured.

Specific comments - Assuming that the methodology performs well for detecting the cloud base and top, the results are very promising. However, it could be uselful a comparison with other measurements for validating the results: e.g. CALIPSO/Cloudsat for cloud tops, and/or ground based lidars for cloud base. - I probably did not understand

Printer-friendly version

Discussion paper

what the authors want to show with Figure 8 because it looks like the values are not consistent with those ones in Figures 6-7. Looking at Figures 6-7 the percentage of occurrences of cloud base and top heights during the monsoon season should be higher at higher altitudes than the other seasons (same for the cloud thickness).

Technical corrections Please write always water vapor or water vapour in the whole paper line 72 »> CVS is line 161 »> were launched every three hourly for 72 hour ?? line 252 »> 375ma.m.sl.?? line 266 »> Figure4a-d lines 270-289 »> In the caption of Figure 4 is reported that the values are anomalies, however in the text it looks like the authors area talking about absolute values. Can you please clarify it? line 320 »> Figure 6 (a-d) describes line 525 »> CVS has already been defined

---

Interactive comment on Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2018-194, 2018.

Printer-friendly version

Discussion paper