Comments /suggestions

Review of Inter-comparison of retrievals of Integrated Precipitable Water Vapour (IPWV) made by INSAT-3DR satellite-borne Infrared Radiometer Sounding and CAMS reanalysis data with ground-based Indian GNSS data. Ramashray Yadav et al.

General observations:

The authors have made a good effort in the present study by evaluating inter-comparison of ground based GNSS, remote sensing by INSAT-3DR satellite and CAMS re-analysis model based observations. This type of study is very important for operational forecasting services especially tropical reason where most of the weather system development is convective in Nature and of course moisture development also affected global and local features (rugged terrains, plain, coastal, topography etc).

The authors are properly compiled the objective of the study in the manuscript and appropriate to publish in the journal. However, I have given few comments /suggestions to further improve the manuscript as follows:

Title of the manuscript is too lengthy, possible to make short.

During South West Monsoon season the Thiruvanathapuram (TRV) has plenty of moisture available and ITCZ remain active while seasonal correlation coefficient with INSAT-3DR and GNSS is very low. Explain it and add appropriately in the text.

Why the author considered INSAT-3DR instead of INSAT 3D? Give reason or may be some important points about the difference between two satellites. So it makes the case to use of the INSAT-3DR data.

"In this paper, CAMS & INSDAT-3DR retrieval has been compared and statistically analyzed with GNSS data taking as reference". This is the paper objective only compare the two products from different sources? Mention the clear-cut objective and benefit of the study in last para of the introduction section.

Line 159: "The full aperture internal Black-body calibration is performed every 30 min or on **command based whenever**. This enables the derivation of vertical profiles of temperature and

humidity". Explain it clearly the mechanism of calibration and correct the sentence appropriately. How it will be useful in operational forecasting and preset work.

Line 179: You have used Ground based GNSS data as base for comparison with INSAT-3DR and CAMS data. But the GNSS based data also associated with errors and may behave differently over land, coastal and desert locations. Explain the possible sources of GNSS errors in your analysis after the sentence in the line 179.

Line 140: RMSE values for Jalpaiguri (JPGI) and Dibrugarh (DBGH) stations shown higher , is there any specific reason for this finding, is association of the data values is also behave same way ?

Also please explicitly mention the importance of CAMS data in weather forecasting over Indian region in the manuscript.

It is suggested for future INSAT-3DR sounder PWV data performance over ocean and AERONET, PWV data as ocean play an important role and contributing differently thorough out the year,

Besides these I could see other numerous minor typos/English grammar errors. I am listing few of them here and check carefully in whole manuscript.

Line No12: it may be retrieval data at the end

Line No 15: Complete the sentence-------appropriately.

Line 344 to 346: provide gap in unit (mm) in whole text whenever necessary and frame the sentence properly. Change it throughout the manuscript.

Line 403: use everywhere the same notation