

Interactive comment on “On the evaluation of the phase relation between temperature and wind tides based on ground-based measurements and reanalysis data in the middle atmosphere” by Kathrin Baumgarten and Gunter Stober

Anonymous Referee #1

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This manuscript describes temperature tides and their connection to the wind behaviour in the middle atmosphere using ground-based observation and reanalysis MERRA 2. Authors give very clear and useful results. I have only two minor question which should be implemented into discussion part and I can recommend this paper for publication. 1) MERRA 2 provide 3 hourly data up to 0.1 hPa. For diurnal and semidurnal tides is should be ok. But I am not sure if for the terdiurnal tide especially at higher altitudes MERRA 2 data are reliable for this kind of studies. It should be at least mentioned in the paper. 2) I suppose that data from lidar observations is

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included into MERRA 2 reanalysis assimilation process. Could it affect the results or not? Especially if you show the comparison between MERRA 2 and lidar observation.

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C2