

Interactive comment on “Analysis of internal gravity waves with GPS RO density profiles” by P. Šácha et al.

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We are grateful for the reviewer's positive review, valuable comments and suggestions, which helped us to improve the quality of the paper. Following are our replies to your remarks and suggestions :

1) Referee:... These sentences contain some contradiction. It is not clear is the inversion layer only a part of IGW or this layer is a background meteorological phenomenon separating two air masses with different characteristics..

The possibility of contradictive statements was diminished by changing the sentence in parentheses: Page 8323, line 18: ..which causes serious problems to our method..was replaced by: The method isn't able to assign correctly such meteorological phenomena

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with sharp changes of characteristics (as inversion layers) to the background making them an artificial source of IGWs.

2), 3), 4) The technical corrections were adopted, thank you very much.

2) Page 8316 Line 4; Page 8317 Line 2: (Gardner, 1989) was changed to: (Gardner et al., 1989)

3) Page 8329 Lines 25-28: the reference is now Gardner, C. S., Senft, D.C., Beatty, T.J., Bills, R.E., and Hostetler, C.A.: Rayleigh and sodium lidar techniques for measuring middle atmosphere density, temperature and wind perturbations and their spectra, in: World Ionosphere/Thermosphere Study. Volume 2, edited by C.H. Liu. Chapter 6., 148-187. University of Illinois, 1406 W. Green St., Urbana, Illinois 61801. December 1989.

4) Pages 8330-8331 Lines 32,33; 1,2: The reference is now: Pavelyev, A. G., Liou, Y. A., Wickert, J., Gubenko, V. N., Pavelyev, A. A., and Matyugov, S. S.: New Applications and Advances of the GPS Radio Occultation Technology as Recovered by Analysis of the FORMOSAT-3/COSMIC and CHAMP Data-Base, in: New Horizons in Occultation Research: Studies in Atmosphere and Climate, edited by: Steiner, A., Pirscher, B., Foelsche, U., Kirchengast, G., Springer-Verlag, Berlin Heidelberg, 165 – 178, doi:10.1007/978-3-642-00321_9, 2009.

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