

## ***Interactive comment on “Investigation of gravity waves using horizontally resolved radial velocity measurements” by G. Stober et al.***

**G. Stober et al.**

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Anonymous Referee #2

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General Reply: The authors acknowledge the effort of the reviewer reading the manuscript. In particular, we are grateful for the advice with the mistake related to the paper of Nielson et al. (2006). According to the reviewer suggestions we rewrote the appropriate passages. The detailed replies to the reviewer comments are listed below. The suggested changes in the manuscript are emphasised by bold letters.

C2386

Comment: Line 9, page 5807: The times are given in Figure 4, but no date. Is it for 20 or 22?

Reply: We added the date in the caption of figures 4, 11.

Comment: Line 18, page 5809: "then" → "than"

Reply: Done.

Comment: Lines 8-19, page 5811: The authors made a comparison between the MAASY's observations and Nielsen's results. However the comparison is not correct; the 12-77 m/s, listed in Table 3, is the intrinsic phase speed, on the other hand, phase speeds in the range of 41-72 m/s by Nielsen et al. (2006) are the observed (apparent) parameter. Nielsen et al. also showed the intrinsic phase speed and they are comparable to the present results.

Reply: Thanks for pointing out the mistake in the comparison with the Nielson et al. (2006) paper. We changed this passage and compare now the intrinsic GW parameters of Nielson et al. (2006) to here derived results.

Comment: Table 3: Duration for each wave event would be helpful to readers.

Reply: We added a column in Table 3 with the duration of each event.

Comment: Figure 6: The caption is same as that in Figure 5. Please give the correct caption (Observed vertical and horizontal divergence : : :)

Reply: Done.

Comment: Figures 7 and 8: What indicates the black and red lines and in the plots? The authors should also clearly describe about "R" and "N" in the plot; they might be correlation coefficient and the number of data points.

Reply: We added a description of the symbols and lines in the text. The symbols are also explained in the captions of Figure 7, 8.

C2387

Comment: Figure 12: What indicates the radial scale? It looks the number of wave event, please provide information. But I feel that the scale increasing by 0.5 is not appropriate for event counting.

Reply: The Figure is now modified and the radial scale now just contains 1 and 2 and described the radial scale in the caption of the Figure.

Please also note the supplement to this comment:

<http://www.atmos-meas-tech-discuss.net/6/C2386/2013/amtd-6-C2386-2013-supplement.pdf>

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Interactive comment on Atmos. Meas. Tech. Discuss., 6, 5795, 2013.

C2388