

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

Anonymous Referee #2

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This paper describes MAARSY wind experiments in Northern Norway. Based on the observations of PMSE on 20 and 22 July 2011, the authors show comparisons of two wind analysis techniques (VAD and VVP methods) and estimation of small-scale gravity wave parameters. The manuscript is well written and well organised. I would recommend that the present paper could be published in AMT after the authors revise the text according to the following minor points:

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

Line 18, page 5809: "then" → "than"

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,

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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.

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

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

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.

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.

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