

Interactive comment on “Meteor radar quasi two-day wave observations over 10 years at Collm (51.3 N, 13.0 E)” by F. Lilienthal and C. Jacobi

Anonymous Referee #2

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The manuscript discusses the QTDW as inferred from MR wind observations over a decade. The authors go to great length to analyze the data and extract information using statistical methods and analysis. They strive to draw some scientific conclusions with regards to wind shear and possible connections between QTDWs and instability or stratospheric warming. I have however two concerns about the manuscript as it is currently presented to the reader. 1) There is a large number of errors and language mistakes that distract the reader from following the presented ideas. At times the meaning the authors attempt to convey is completely lost. The authors need to carefully improve the writing of this manuscript. I attempted to indicate below as much as I can some possible improvements below. 2) Although the authors cite some previous work relating to QTDWs this needs to be significantly expanded. The connection to other

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works and how the research presented here relates to that and improves on it needs to be expanded throughout the paper.

Page 9132

Line 9: remove "on" before "average"

Line 12: change "relation" to "relationship"

Line 20: remove "of a duration"

Line 23: change "ground based" to "ground-based"

Page 9133

Line 24: change "2 and 3 or 4" to "2, 3 and 4"

Page 9134

Line 8: add "these gaps are" before "especially"

Line 12-13: the sentence "Therefore, here the MR winds are analyzed and can be used to evaluate the earlier results" needs expanding to explain why the use of MR winds is a superior choice and why it is different that what is previously used

Line 15: add "is" before "based"

Line 16: replace "the true" with "actual"

Line 17: replace "their" with what it refers to, Jacobi (2014)

Line 18: replace "provided" with "obtained". Please add what makes obtaining further information possible.

Line 22: what does "SKiYMET" stand for ?

Page 9635

Line 9: change "analyse" to "analyze"

Line 10: why do you refer to heights as "gates" ?

Line 11: the use of "However" here is not correct

Line 18: change "was presented by" to "is presented in"

Line 25: change "to" to "with"

Line 26: remove "than these ones"

Page 9636

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Line 3: remove "the" before "amplitudes"
Line 9: isn't 40.5h too low for a QTDW ? How do you explain that especially that Figure 1 shows another period peak between 48h and 56h ?
Line 18: the formula for total wind amplitudes is trivial and should not be included
Line 23: replace "frequently" with "previously"
Page 9637
Line 1: remove "even"
Line 2: remove "Then," and the following sentence needs rewording
Line 4: remove "however"
Lines 4-7: This discussion about the obtained amplitudes and the chosen window length needs to be expanded.
Lines 11-12: the sentence "This ... QTDW" needs rewording
Line 12: change "This will be" to "This is"
Line 15: "Partly" is ill placed in this sentence
Line 16: add "to" before "the fact"
Lines 15-19: this paragraph absolutely needs to be rewritten, it is very badly written
Line 20: if the upper panel in Figure 2 is discussed after the bottom panel then it should be the bottom panel
Line 22: remove "the" before "different"
Line 28: change "again" to "same as in Figure 2"
Page 9638
Line 1: the black curve denoting the period in Figure 3 is very hard to see, different coloring is needed here
Line 7: change "are observed in May, too" to "are also observed in May"
Line 12: "but is weaker expressed in 2005 and 2009" need rewording
Lines 13-17: it appears that the winter QTDWs is negligible according to Figure 3, this needs to be said here and compared to other studies
Line 19: add "of" after "months"
Lines 24-26: the sentence "This can be ... 49.3h)" needs rewording, there is no way

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the reader can understand what the authors want to say here

Page 9639

Line 26: define SD

Line 28: add "," after "gates"

Page 9640

Line 6: replace "if" with "when"

Line 9: needs rewording, "by" is repeated before and after the vertical wavelength formula

Lines 9-11: here the authors say that they use the same period for all heights but they don't explain why and the sentence is seriously ill-written

Page 9641

Line 17: change "both ways" to "both methods"

Line 20: add "," after "amplitude"

Line 22: the sentence needs to ends at "shear" and a new one started, rewording is necessary here

Line 24: another word is needed instead of "relation"

Line 26: change "for" to "at"

Page 9642

Line 10: replace "in the figure" with "in Figure 10"

Line 20: remove "to"

Line 25: change "to" to "with"

Lines 27-28: move "is" before "slightly"

Page 9643

Line 2: add "the" before "correlation"

Line 4: add "," after "altitude"

Line 5: change "a lot" to "significantly"

Line 7: "and not that much determined" needs to be reworded

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