

Interactive comment on “A multi-site techniques intercomparison of integrated water vapour observations for climate change analysis” by R. Van Malderen et al.

Anonymous Referee #2

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This paper seeks to intercompare IWV measurements made using a variety of methods, and identify any relevant explanatory factors in cases where disagreement is found. Overall, the methodology in this paper seems thorough and detailed, and the conclusions seem reasonable. However, I found the paper to be needlessly verbose. This paper comes across as a “data dump” to me, and could be substantially improved by simply getting to the point and not including in the text information that is already well documented in the tables and figures. Even then, the results don’t seem to be that significant in comparison to previous findings from the literature. Perhaps the main conclusions of the paper could be better framed in the last section.

C380

Furthermore, there are a number of grammar issues and awkward uses of English that need to be dealt with. I suggest having a native English speaker carefully proofread the paper, if this has not already been done. I’ve highlighted some examples in the list below, although this list is by no means exhaustive.

Title – The word “techniques” is awkward and should be removed

Line 4, p 1076 – “allowing to retrieve” is awkward.

Line 6, p. 1077 – is it really only 60%? Seems like a reference is needed.

Line 5, p. 1078 – Ross and Elliot 1996 reference is not in list

Line 4-5, p. 1079 – “..of either datasets” is awkward.

Line 5, p. 1080 – “and presented” should be “to present”

Line 11, p. 1081 – what is GIPSY

Line 15, p. 1081 – “end 2007” should be “the end of 2007”

Line 1, p. 1082 – swap “the” and whole”

Line 7, p. 1085 – what is resp. ?

Line 19, p. 1085 – condition should be conditions

Line 12, p. 1091 – Here and numerous times after, the word w.r.t. is used. This word should not be abbreviated, and is highly overused in the manuscript.

Line 20-23, p. 1091 – This sentence doesn’t make sense

Last paragraph, p. 1093 – This analysis would be much more convincing if the authors chose an IGS site that contains a WMO station. Then they could compare the difference in the IWV values calculated from the correct p/T values with ones from nearby stations. As is, all the authors are doing is comparing variability among nearby sites.

p.1095 – The section 3.3 title doesn’t make sense

C381

line 5, p. 1095 – “if” should be “of”

line 21 – 22 – “techniques altitude difference” doesn’t make sense

Last 2 paragraphs, p. 1096 – This discussion is pointless, because the authors don’t use the correction that is being described.

Line 9, p. 1099 – dispose is an awkward word here, and elsewhere in the manuscript.

Line 21, p 1102 – what is GMF?

Line 20, p. 1103 and line 14, p. 1104 – “threat” should be “treat”

Line 7, p. 1104, missing “of”

Line 25, p. 1110 – then should be than

Line 5-8, p. 1112 – the discussion of the direction of the bias in this sentence is confusing

Fg 1 – What is the blue line? A Gaussian fit I suppose? I don’t see mention of this.

Interactive comment on Atmos. Meas. Tech. Discuss., 7, 1075, 2014.