

Second Review of Ward et al. 2018.  
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Recommendation: The paper is essentially publishable as is. Below, I have made some grammar and style corrections that should be made.

## Abstract

Write “spectrum to retrieve water vapor with a random uncertainty **of** less than 1%.”

Page 2

Line 10

“it may be underestimated”, this is a bit unclear. Are you referring to predicted amplification of precipitation or to predicted increases in water vapor?

Page 3

Line 12 Write “In recognition of the strengths and weaknesses of GPS RO and radiance measurements **as well as** the need for better...”

Line 24 Write “from near the surface **to** well into the mesosphere.”

Page 6

Line 6 Write “At still higher cloud and rain opacities, such as...”

Line 14 Write “Finally, in Section 7, ...”

Page 7 Line 1. Am I confused or should this be “**less ambiguous.**”

Page 8 and Page Line 25-30 to Line 5 Can you join these ideas into one paragraph? It’s not very smooth reading.

Page 9 Line 28 and 34. You have italicized *Kursinski et al. (2009)*

Page 12

On Line you use “completed every **48.8 s.**” And then on line 11 you use **48.8 seconds.** I guess you should probably use one or the other.

Line 13 Write “four times 50 ms, or 200 ms.”

Page 13

Line 12 Remove one of the periods, “described in Section 5.”

Line 15 Write “The **path-averaged** vapor pressure varied

Line 19, Write “In Section 6, we ...”

Page 15

Line 2. You capitalize “First Reference period” above, but not “second reference period”

Page 19

Line 13 Maybe better showers instead of shower.

Page 20

Line 18 Write “ ...the well-mixed, dry adiabatic,...”

Page 25

Line 2 Write “ path without interfering with **the** signal itself.”