

Interactive comment on “Plasma density gradients at the edge of polar ionospheric holes: the presence and absence of phase scintillation” by Luke A. Jenner et al.

Anonymous Referee #2

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This manuscript presents new research about polar holes and associated electron density gradients and scintillations. It is well structured and well written. It has a clear objective and qualitative results which are presented in a well understandable way. I recommend its publication after minor comments are addressed.

1. The conclusions are currently described in a rather vague way. In the abstract, the last sentence “It may be that ...” should be revised. In the conclusions section, also the last sentence should be revised. Currently it reads more like a summary instead of a conclusion. I recommend splitting the last sentence after “... gradient was present” and rephrase the second part of the sentence to a

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conclusion.

2. It seems that the objective of the paper is to present observational proof for the comment in Aarons (1982) as described in Lines 251-253. I recommend to add this to the last part of the introduction.
3. Line 166 “of150 m s-1”: insert space
4. Line 170 “was been”: revision needed
5. Line 176 “values of”: revision needed
6. Line 200 replace “saw” by something more intuitive like e.g. “was characterized by “
7. Line 227 insert a comma after “identified”
8. Table 1: use same exponent in each cell to make the numbers better comparable.

Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2019-112>, 2019.

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