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Title: On the relationship of energetic particle precipitation and mesopause temperature

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Review

In their revised manuscript (version 5) and authors' response (version 3), the authors have satisfactorily addressed my two major comments and most of my minor comments. The presentation of the results is now considerably improved, and the discussion and conclusions sections are more convincing. I have several minor comments which either restate previous ones that have not been completely addressed or are in connection with changes to the text or the new plots that have been added. Responding to these minor comments should be straightforward. In conclusion, I commend the authors (and Editor) for their efforts and perseverance reworking the manuscript and recommend minor revision of the paper before the paper is considered for publication in *ANGEO*.

Minor comments

- Lines 28–29. The instrument on the TIMED satellite that provides neutral temperatures should probably be stated.
- Line 43. My previous comment: Clarify what is meant by 'largest magnetic deflection'. The authors' response states [Instead of "largest magnetic deflection" we use "lowest local minimum of the horizontal H component", which is more accurate.](#) However, this change has been omitted in the revised manuscript.
- Line 45. My previous comment: Clarify what is meant by 'activity'. Geomagnetic activity? The authors' response states [Yes, this refers to geomagnetic activity, and it has been stated now.](#) However, this change has been omitted in the revised manuscript.
- Lines 121–122. 'These experiments provide a sufficient height resolution to detect enhanced electron densities in the mesopause region (<5 km).' The '<5 km)' should be placed immediately after 'height resolution' as that is what it refers to.
- Figure 3. The units of the electron density labels on both upper plots are unclear (formatting error?) and need to be corrected. Also, the regression line and confidence bounds are faint and need to be made clearer using thicker lines.
- Figure 3 caption. 'confidence bounce' should be 'confidence bounds'. The sentence 'To exclude the dominance of a these two events we increased the lower percentile to 35%.' would be better written as 'To reduce the dominance of these two events the lower percentile for intensity is set at 35%.', or similar wording.
- Figure 4 and Appendix A / Table A1. The selection of non-EPP dates needs to be explained better. The ten non-EPP epochs are on the same dates (but different times) as eight of the ten EPP events (Table 1 – Event #3–10). Why are non-EPP dates for the first and second EPP events (i.e., 2007/12/29 and 2008/02/28) not used?