Dear Editor,

We are thankful to you for reviewing and helping us to improve this paper. The corrections have been made in the manuscript.

Thank You! Best regards, Nadia Imtiaz.

1.Title "Geomagnetic" ---> "geomagnetic" (not use a capital "G" here!). Response: The correction has been made in the title.

"GPS" define "vTEC". 2.Abstract:Please abbreviations and "Global Ultraviolet Spectrographic Imager" **--** → "Global UltraViolet Spectrographic (GUVI)". Imager "Thermosphere Ionosphere Mesosphere Energetics and Dvnamics" ---> "Thermosphere Ionosphere Mesosphere Energetics and Dynamics (TIMED)".

Response: The abbreviations "GPS" and "vTEC" have been defined in the abstract of final version of the manuscript as:

- Global Positioning System (GPS)
- vertical total electron content (vTEC)

3.Introduction: Please define abbreviations "GPS", "TEC", "GNSS", "TIMED/GUVI".

Response: In the final manuscript the abbreviations are defined as:

- Global Positioning System (GPS)
- total electron content (TEC)
- Global Navigation Satellite System (GNSS)
- Global UltraViolet Imager (GUVI)
- Thermosphere Ionosphere Mesosphere Energetics and Dynamics (TIMED) satellite.

Line 19: "is the season dependent" ---> "is season dependent". Response: On Line 20 of the final manuscript "is the season dependent" has been replaced by "is season dependent".