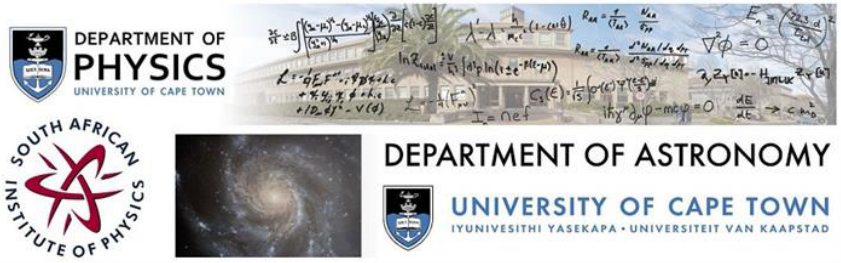

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Quiet time enhancements over African latitudes

Tuesday, 5 July 2016 14:00 (20 minutes)

Abstract content
   (Max 300 words)
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F2 layer disturbances not related to geomagnetic activity are known as quiet time enhancements (QTEs). The phenomenon of QTEs has not yet been studied over African latitudes. We
therefore explore the occurrence of QTEs over Africa in order to expand our knowledge on the behaviour of the ionosphere over this region. Several GPS stations in the middle to equatorial latitudes, during the solar minimum (2009) and near solar maximum (2013), are used. This data was examined for possible trends in variation with solar cycle, season and latitude as well as time of commencement of enhancements. Over the southern mid-latitude region of Africa we have observed that the QTEs are more likely to commence during the night in both solar minimum and maximum, however a slightly larger portion of daytime commencements during solar minimum than during solar maximum were observed. The total number of enhancements for the solar minimum period appears greater than during solar maximum. A seasonal trend is seen with the maximum number of enhancements occurring in summer during solar minimum and in winter during solar maximum. We explore further whether these trends are mirrored or different at low latitude/equatorial African regions.

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