## Pre - and Post - Storm Behavior of Electron Density Over Equatorial and Low Latitude Stations in the Indian Sector

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The physical and dynamical behavior of the earth's ionosphere has a vital importance in trans-ionospheric communication systems, particularly during the disturbed geomagnetic conditions. A study has been made on the pre - and post storm behavior of NmF2 and TEC for Strong Geomagnetic Storms having DST < -100nT over an equatorial station, Trivandrum (8.47oN, 76.91oE, dip 0.6oS) and a low latitude station, Waltair (17.70N ,83.30E, dip 20oN). The simultaneous measurements from GPS (TEC) and ionosonde observations (NmF2) have been considered for the present study. It is observed that there is a substantial increase in NmF2 and TEC before the onset of the storm at Waltair, while it is not observed at Trivandrum. In some cases, during the maximum DST excursion, TEC shows larger values compared to those observed on subsequent days. During the recovery phase of the storm a large peak in NmF2 and TEC has been observed whereas it is less in magnitudes at Trivandrum. The origin of pre-storm enhancements in electron density still remains to be unresolved because of having several constraints in their potential sources and mechanisms. Further studies to identify the possible mechanisms responsible for such enhancements in electron density of F-region are being carried out.