

Satellite Observations of Storm Time Variation in Electron Density and Temperature in the Low Latitude

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Storm time variation of Te and Ne was studied by using the data obtained with Japanese sun observation satellite HINOTORI which was in low inclination orbit(31 degrees) from February 1981 to June 1982. In order to study the variation due to storm, a model of Te and Ne was first constructed, and then deviation from the model Te /Ne was studied during storm time. Especially night time Te during storm was studied. Even Te deviation of 100 K could be detected. Polar orbiting US satellite DE-2 was in orbit at the same time. The combined use of data obtained from these two satellites might supply useful information because DE-2 satellite measured drift velocity of plasma, neutral wind velocity in addition to ion density, temperature, and electron temperature.