

Correlation Analysis of DP2 events at the FM-CW radar and CPMN stations, and the ACE satellite

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We have studied DP2 events by using magnetometer data from the CPMN stations, GAM(Mlat=5.61) and YAP(Mlat=1.02), ionospheric vertical drift data from the FM-CW radar at Sasaguri(Mlat=28) and solar wind data from the ACE satellite.

We have found that a few events of the ionospheric vertical drift velocity at Sasaguri showed a good correlation with the DP2 magnetic variations identified at GAM and YAP and the IMF Z-component at ACE; this suggests a global response of the ionospheric drift velocity to the DP2 variation.

We have also found that an event of the ionospheric vertical drift velocity at Sasaguri was correlated with the solar wind pressure at the ACE satellite. More details will be presented in the meeting.