

## Study on ionospheric irregularities during FRONT campaign with the MU radar and the GPS receiver network

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During the FRONT(F-region Radio and Optical measurement of Nighttime TIDs) campaign in 16-24 May 1998 we conducted observations of field-aligned irregularities(FAI) and electron density profiles in the F-region ionosphere with the MU radar. Simultaneously airglow imager observations at five sites and TEC (Total Electron Content) observations with the GPS Network of Geographical Survey Institute were also carried out. It had been known that FAIs propagate westward, and those observed in this campaign showed same propagation direction. Airglow and GPS-TEC observations revealed that ionospheric electrons showed band structure and tended to travel toward southwest. In this study we will compare these propagation characteristics of TIDs with those of the ionospheric irregularities.