

Periodic TEC fluctuations in the afternoon detected by equatorial GPS-TEC observations

Takuya Tsugawa[1]; Takashi Maruyama[1]; Mamoru Ishii[1]; Susumu Saito[2]

[1] NICT; [2] ENRI

Southeast Asia Low Latitude Ionosphere Observation Network (SEALION) has been developed by National Institute of Information and Communications Technology (NICT) to investigate ionospheric disturbances in the equatorial region. As one of SEALION, dual-frequency GPS receivers at Chang Mai (98.9 deg E, 18.8 deg N, 13.2 deg MLAT) and Chumphon (99.4 deg E, 10.7 deg N, 3.2 deg MLAT), Thailand, have been operated since 2005. Using the GPS-TEC data, we found that periodic TEC fluctuations (PTF) with the periods of 10-30 minutes are often observed in the spring (Apr-May) afternoon. In this presentation, we will show the preliminary results of the GPS-TEC analysis, and discuss about the longitude/latitude dependence and generation/propagation mechanism of PTF.