

Ionospheric irregularities observed with a GPS network in Japan

Tohru Aramaki[1], Yuichi Otsuka[2], Tadahiko Ogawa[3], Akinori Saito[4], Takuya Tsugawa[4]

[1] STE, [2] STEL, Nagoya Univ., [3] STE Lab., Nagoya Univ, [4] Dept. of Geophysics, Kyoto Univ.

To investigate ionospheric irregularities, we have analyzed Total Electron Content (TEC) obtained from a GPS network in Japan with a resolution of 30 seconds. To express amplitude of the ionospheric irregularities, we computed the rate of change of TEC (Rate of TEC; ROT) for each 30-second interval and Rate of TEC Index (ROTI), which is defined as standard deviation of ROTI for 5-minute interval. We compared the occurrence rate of ROTI with that of data lack of TEC to reveal their local time and seasonal variations. In the presentation we will discuss statistical characteristics of the ionospheric irregularities.