

Equatorial plasma bubbles during the sunset terminator observed using GPS receivers in Southeast Asia

M Buhari Suhaila[1]; Abdullah Mardina[2]; 横山 竜宏 [3]; 大塚 雄一 [4]; 西岡 未知 [3]; 津川 卓也 [3]
[1] NICT; [2] UKM; [3] 情報通信研究機構; [4] 名大 STE 研

Equatorial plasma bubbles during the sunset terminator observed using GPS receivers in Southeast Asia

Suhaila M Buhari[1]; Mardina Abdullah[2]; Tatsuhiro Yokoyama[3]; Yuichi Otsuka[4]; Michi Nishioka[3]; Takuya Tsugawa[3]
[1] NICT; [2] UKM; [3] NICT; [4] STEL, Nagoya Univ.

The longitudinal variations of equatorial plasma bubble (EPB) can be continuously observed using rate of TEC index (ROTI) measurement acquired from GPS receivers over 3000 km zonal distance (92oE to 120oE) in Southeast Asia (SEA). The continuous generation of several EPB structures were normally observed from ROTI keogram during the passage of the solar terminator in a night. The EPB structure with 100 km to 550 km spacing distance propagated 3000 km towards the east were prominent for 7 hours. The GPS data during the ascending solar activity in 2011 shows 96 out of 162 occurrence day in 2011 (60%) demonstrates several number of EPB were developed continuously during the sunset terminator. The continuous generation during the sunset terminator shows 87 out of 96 (90%) days were during the equinoctial season.