

Ionospheric electric field perturbations of storm time Pc 5 pulsations observed by FM-CW HF radar

Manabu Shinohara[1]; Kiyohumi Yumoto[2]; Toshiki Shimbaru[3]; Akimasa Yoshikawa[3]; Yuki Obana[4]; Kenro Nozaki[5]; Takashi Kikuchi[6]; Yumoto Kiyohumi Circum-pan Pacific Magnetometer Network Group[7]

[1] SERC, Kyushu University; [2] Space Environ. Res. Center, Kyushu Univ.; [3] Earth and Planetary Sci., Kyushu Univ.; [4] SERC, Kyushu Univ.; [5] CRL; [6] NICT; [7] -

Pc 5 pulsations were observed by globally distributed magnetometer stations and the FM-CW HF radar at the low latitude station at Sasaguri, Fukuoka on Oct. 31, 2003 during the recovery phase of a huge magnetic storm. The FM-CW HF radar observed the vertical drift of the ionosphere which was caused by the zonal ionospheric electric field perturbation. DP2 type global electric field perturbations were observed by the FM-CW HF radar in the nightside low latitudes and by the magnetometer at the dayside equator.