

## Magnetic enhancement at dayside dip-equator in the recovery phase of magnetic storms

Ai Yamashita[1]; Kiyohumi Yumoto[2]; # Manabu Shinohara[3]; Yumoto Kiyohumi Circum-pan Pacific Magnetometer Network Group[4]

[1] Earth and Planetary Sci., Kyushu Univ; [2] Space Environ. Res. Center, Kyushu Univ.; [3] Kyushu University; [4] -

An enhancement of magnetic variations at the dayside dip-equator was reported by Kuramitsu (2004) during the recovery phase of magnetic storms. In order to clarify the cause, we analyzed ground-based magnetic and IMF data.

We used data from: (1) ACE satellite of NASA, (2) CPMN of Kyushu University, and (3) SYM-H of Kyoto University. For this study, we examined the data when the magnetometers were in the dayside during a magnetic storm. We found that there are two kinds of magnetic enhancements: slow (several hours) and fast (tens of minutes). In the slow case, the IMF gradually (over a few hours) changes from the southward to the northward direction. In the fast case, the change occurs in tens of minutes.

From these results and theory of shielding electric field (Kuramitsu, 2004), it is concluded that the cause of the slow case and fast case are not the same.