

## Development of DP2 type disturbance just after geomagnetic sudden commencement

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In these several years we have found the followings about the LT variation of SC (geomagnetic sudden commencement) amplitude and its dependence on IMF-Bz.

(1) The LT variation of SC takes maximum near midnight, the second maximum near noon and minimum around 8h. This LT variation is consistent with calculated LT variation of magnetic field due to DP2 type field aligned currents (FAC) and the FAC produced ionospheric currents.

(2) The size of the LT variation is larger during southward IMF than northward IMF. (3) The SC amplitude in low latitudes does not depend much upon IMF but it becomes much larger in higher latitudes during southward IMF.

(4) The SC amplitude in the polar cap is larger than in auroral latitudes during northward IMF. These observations suggest that the DP2 type FAC is much enhanced during southward IMF.

Further the DP2 type FAC is enhanced in a period just after SCs when the Dst index linearly decreases.

Here we show results of the analysis on development of the DP2 disturbance after SC.