

Locations of "reversed" cross-tail current at the substorm onsets:GOES-5, GOES-6 and AMPTE-CCE magnetic field observations-(3)

Kohta Okada[1], kiyohumi yumoto[1]

[1] Earth and Planetary Sci., Kyushu Univ

It has been widely accepted that during substorm expansion onsets magnetic field changes are often detected at the nightside geosynchronous orbit. Using high-time resolution magnetic field data from the geosynchronous GOES 5,GOES 6 satellites and the AMPTE-CCE satellite,we examined the dynamical field changes in the nightside magnetosphere .The first peak of the magnetic field changes in space are found to show a peculiar feature. In order to explain the peculiar feature, we propose that the current disruption region should be set up in the inner magnetosphere than 6.6Re during the substorm expansion onset. Furthermore, we will show longitudinal and latitudinal distributions of the events of the magnetic field change at the substorm expansion onset in the nightside magnetosphere.

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