
JOURNAL CLUB

Dayside Magnetosphere and Ionosphere:
When the Interplanetary Fast Forward Shock Arrives

by

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ABSTRACT

Interplanetary fast forward shocks have significant effects on the dayside magnetosphere and ionosphere. The phenomena include shock generated field-aligned currents, increased ionospheric convection as well as enhanced auroral brightening and propagation etc. To understand the mechanisms, data from Polar, FAST, DMSP, SuperDARN and the ground-based magnetometers are analyzed. It is suggested that an identification of shock-aurora forms could provide an answer to all speculations. Therefore, an idea of conducting the auroral observation using high-altitude and long-duration balloons is being evolved.

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