

Enhancements of the Plasmaspheric Density in its Low-L Part During Magnetic Storms

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Abstract

The plasmaspheric plasma density at L~1.3 was monitored by three ground magnetometer stations during the magnetic storm on July 13 - 16, 2000. The density was significantly increased to about two times the pre-storm value. We compared this feature with the ionospheric response, which [1] observed at L=1.34 during the same interval. The maximum of foF2 at L=1.34 occurred at 1630 UT on July 15, before the plasmaspheric density maximum at L~1.3 estimated from the ground magnetometer data; at the time of the latter maximum, foF2 showed a significant drop.