

# Solar Origin and Geomagnetic Effect of High-Density Region in the Magnetic Cloud

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## Abstract

The effect of high-density region of the magnetic cloud on geomagnetic disturbances (Dst) and its solar origin are studied. Results suggest that the high-density region in the magnetic cloud observed on May 2, 1998 affects Dst variation and the magnetic structure of the magnetic cloud is consistent with that observed near the filament disappearance region and the Heliospheric current sheet (HCS).

*Keywords:* *Magnetic cloud, geomagnetic disturbances (Dst), Filament disappearance*

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