Global Compression of the Plasma Sheet and Magnetotail During Intense Storms From THEMIS Observations

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Résumé

We estimate the global impact of storms on the global structure and dynamics of the night side plasma sheet from observations by the NASA mission THEMIS. We focus on an intense storm occurring in December 2015 triggered by interplanetary coronal mass ejections (ICMEs). It starts with a storm sudden commencement (SSC) phase (SYM-H$\sim$ $ + $50nT) followed by a growth phase (SYM-H$ \sim$ $-188nT at the minimum) and then a long recovery phase lasting severa
> $4nPa during the SSC and main phases, i.e. 8 times larger than its value during the quiet phase before the event. This co

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