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# The effects of substorms and storms on the magnetotail

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We present a study of the magnetotail lobes during different geomagnetic conditions. We have employed data from the Cluster spacecraft from 2001 to 2007. Specifically, we have selected orbits through the magnetotail which contain either one or multiple crossings of the current sheet (indicated by a change in $B_X$ from 5 nT to -5 nT or vice versa). SYM-H and AE indices are used to ascertain the storm and substorm conditions during the orbits. We show that the current sheet is more dynamic and highly tilted with lower current densities during substorms than compared to quiet times. We also show that during magnetic storms, the current sheet is less active, with reduced tilt angles and larger current densities, even though the AE index indicates that substorms are occurring. We will also present results to give a more complete picture of the region, showing how the lobe magnetic field behaves during quiet, substorm and storm times.