



Ionospheric convection during an extended period of northward IMF: implications for the reconnection configuration at the magnetopause

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We present an extended observation of the ionospheric convection in the Northern hemisphere, made by means of the SuperDARN radar network, for a 3 hour period during December 3, 2001. The IMF during the time of observation is predominantly northward with the B_y component being positive in the first part of the interval and negative afterwards. CLUSTER, which is skimming the southern high latitude dusk magnetopause, reveals that reconnection is continuous throughout this period with the reconnection site being most of the time tailward of the southern cusp and always near the satellite location. The SuperDARN data coverage in the Northern hemisphere is excellent and allows continuous monitoring of both the dayside and nightside ionospheric convection. The evolution of the convection pattern, which for long intervals consists of twin reversed polar cap cells, together with the Cluster measurements and IMAGE FUV observations, are used to infer the large scale configuration of the reconnection at the magnetopause.