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## Combined Cluster/Double Star observations of a close transit across the dayside magnetopause, during a period of quasi-steady reconnection

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The recent launch of the equatorial spacecraft of the Double Star mission, TC-1, has provided an unprecedented opportunity to monitor the low-latitude dayside magnetosphere boundary layer in conjunction with simultaneous observations of the highlatitude boundary layer by the quartet of Cluster spacecraft. We present preliminary results of one such situation in which, on 6 April 2004, both Cluster and the Double Star TC-1 spacecraft were on outbound transits through the dawnside magnetosphere. The observations are consistent with ongoing reconnection on the dayside magnetopause, resulting in a series of flux transfer events (FTEs) seen at both Cluster and TC-1, which appear to lie north and south of the reconnection line, respectively. In fact, the observed polarity and motion of each FTE signature advocates the existence of an active reconnection region consistently located between the positions of Cluster and TC-1, with Cluster observing consistently northward moving FTEs with +/- polarity, whereas TC-1 sees FTEs of -/+ polarity. This assertion is further supported by the application of a model designed to track flux tube motion for the observed plasma parameters and prevailing interplanetary conditions. The results from this model show, in addition, that the low-latitude, FTE dynamics are sensitive to changes in convected upstream (i.e. magnetosheath) conditions, particularly the interplanetary magnetic field (IMF) clock angle. Changes in the latter suggest that TC-1 should miss the resulting FTEs more often than Cluster and this is borne out by the observations.