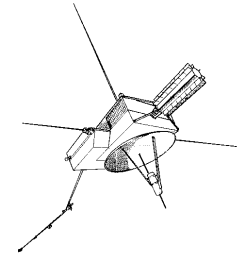




# Cometary Tail Disconnections Caused by Crossing the Heliospheric Current Sheet



- **Cometary Disconnection Events (DEs) occur when a comet's plasma tail is detached from the coma. Comparison (Brandt et al., Icarus, 137,69,1999) of DEs observed in Halley's Comet establishes a one-to-one correlation with crossings of the heliospheric current sheet (HCS) as inferred from spacecraft observations. These results firmly establish the cause of DEs as magnetic reconnection produced by the magnetic reversal seen when the comet pierces the HCS. A recent example in comet Hyakutake is shown. Observations of DEs can be used to determine the latitude extent of the HCS and to map the boundary between the equatorial and polar solar-wind regions discovered by ULYSSES.**

