

Flux transfer events

Flux transfer events (FTE) are thought to be patchy (spatially and temporally limited) [reconnection](#) events occurring in the dayside [magnetopause](#). They were first discovered by Russell and Elphic (1978) and Haerendel et al. (1978), who studied the magnetic field measurements in boundary normal [coordinates](#) near the magnetopause, and found bipolar signatures in the B_n component (outward along the boundary normal): first outward and then inward (normal FTE) or the other way around (reverse FTE). The occurrence frequency of these signatures is about 8 minutes (Russell et al., 1996). For a statistical study, see Sanny et al. (1998).

One of the most interesting aspects of FTEs are their **signatures on ground**: they are still not known for sure (e.g., Glassmeier and Stellmacher, 1996). Number of possibilities exist:

- flow bursts
- [auroral](#) transients
- magnetic field transients
- damped [ULF](#) wave packets

One important point is that different source mechanisms can generate similar ground-based signatures, especially in magnetometer measurements. For example, [travelling convection vortices](#) (TCV) have been shown to be related with solar wind [pressure pulses](#).

References

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