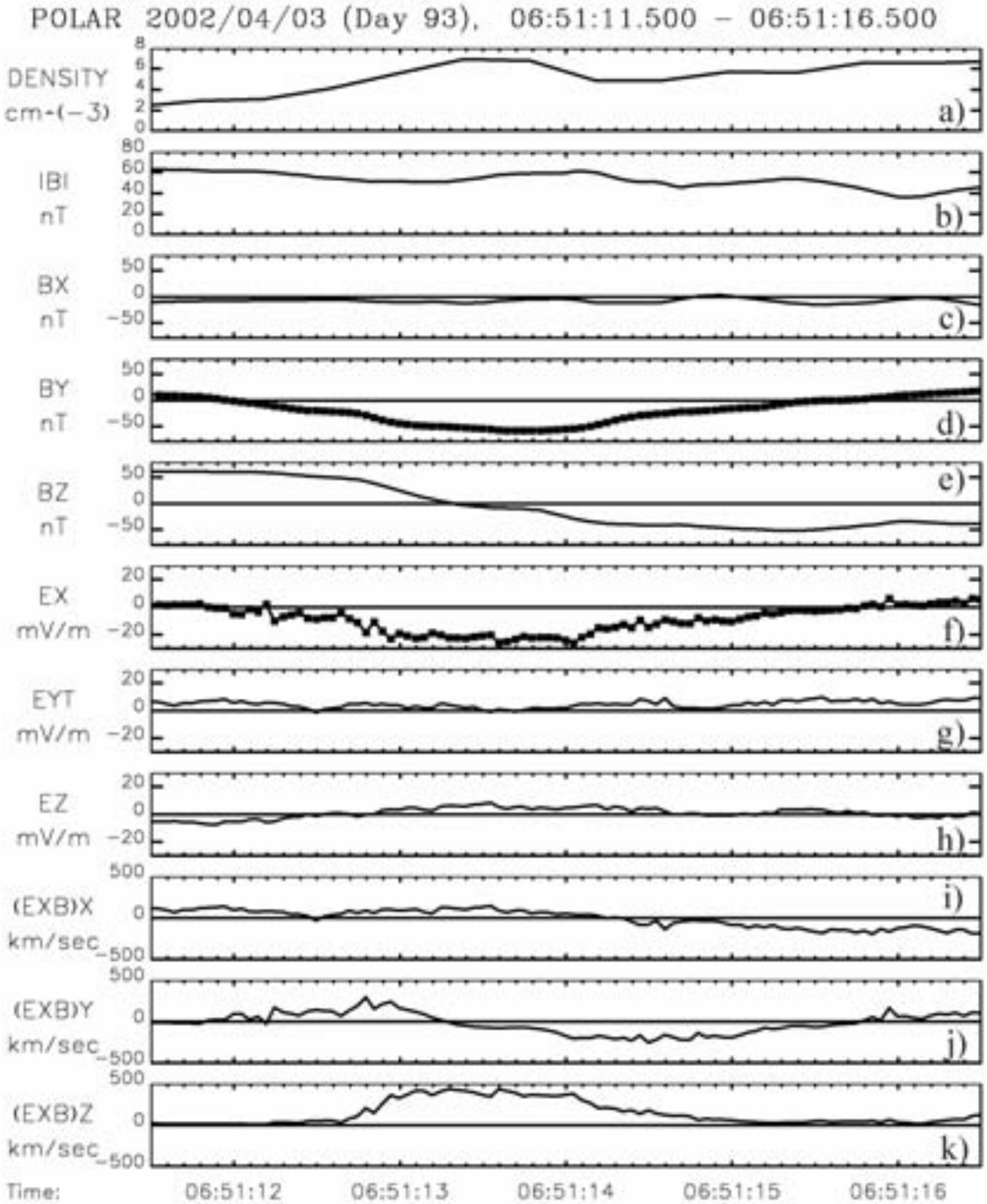

7.52 R_E, 1130 MLT, 22.3^0 MLAT

S/C crosses current sheet in ~2 seconds

Thickness = 300 km =2 c/ω_{pI}

Density (panel a)), B_Z (panel e)) show passage from sphere to sheath through magnetopause.

$\langle b_X \rangle < 0$ (panel c)) NECESSARY CONDITION FOR RECONNECTION Magnitude uncertain due to oscillations

$\langle e_Y \rangle$, $\langle e_Z \rangle > 0$ (panels g), h)) NECESSARY AND SUFFICIENT FOR RECONNECTION. Magnitude uncertain due to oscillations

$(\mathbf{E}X\mathbf{B}/B^2)_X$ inward from both sides (panel i))

$\langle bX \rangle < 0$ requires outflow in +Z direction. It is (panel k)). Outflow speed of 500 km/sec agrees with
v_{ALFVEN} = 340 km/sec (sheath)
= 830 km/sec (sphere)

B_G ~0.2, B_{total} ~ constant
Unipolar out-of-plane B with parallel **j**.

E_X CORRELATES WITH B_Y (panels d) and f)