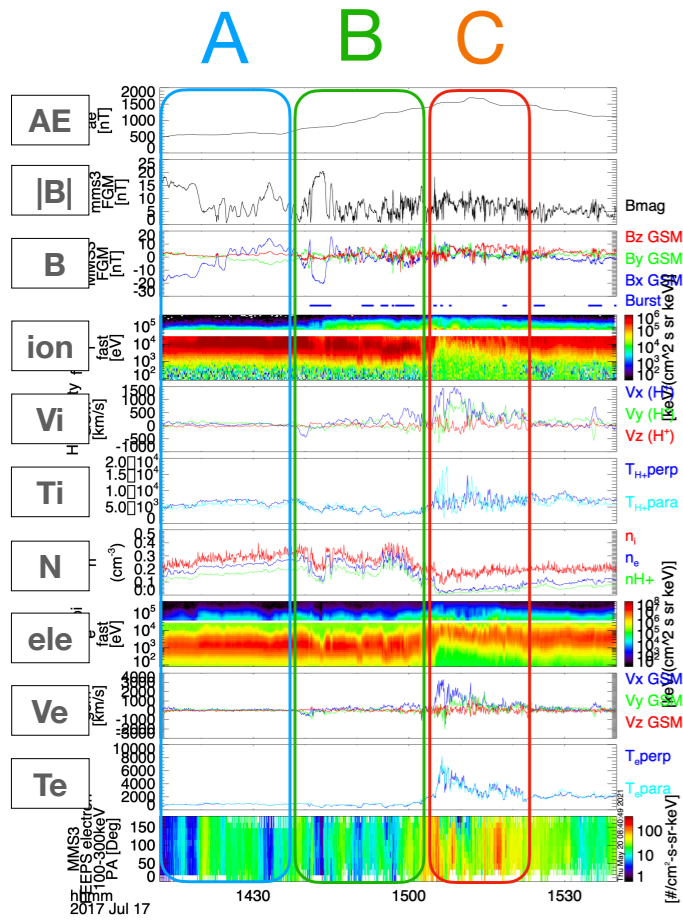
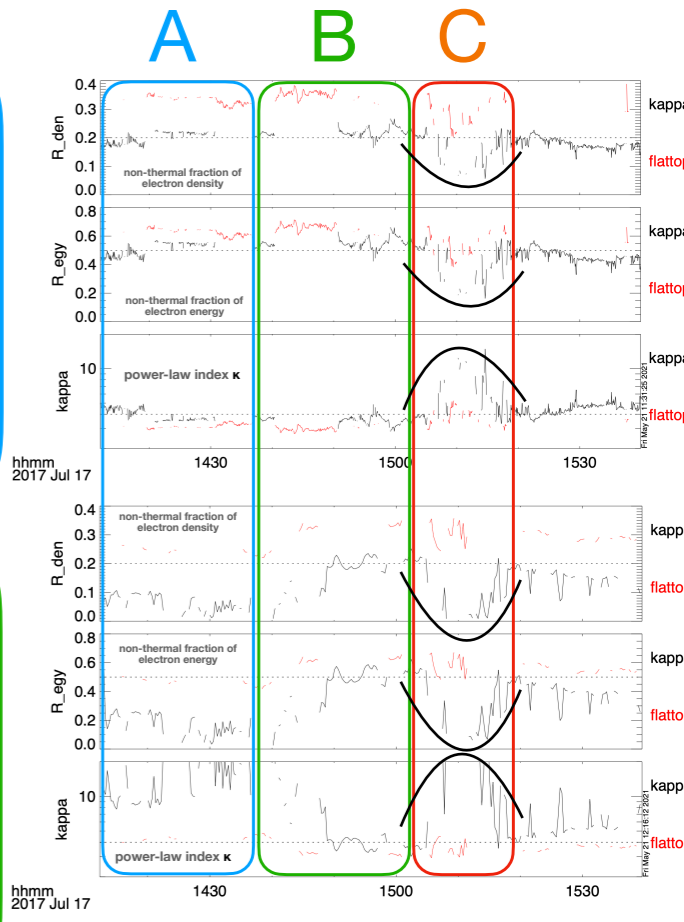
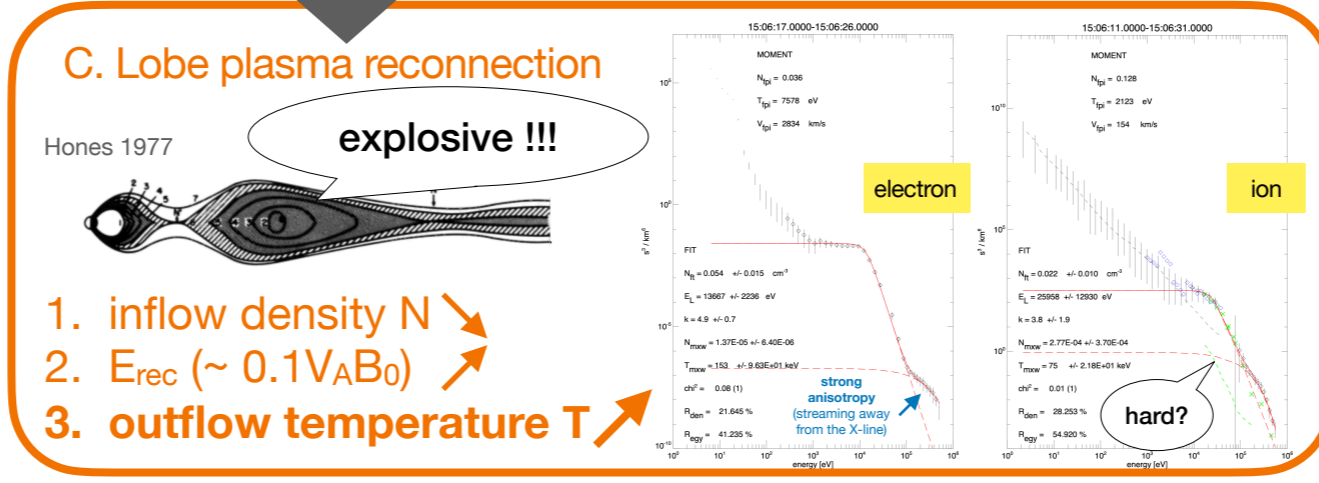
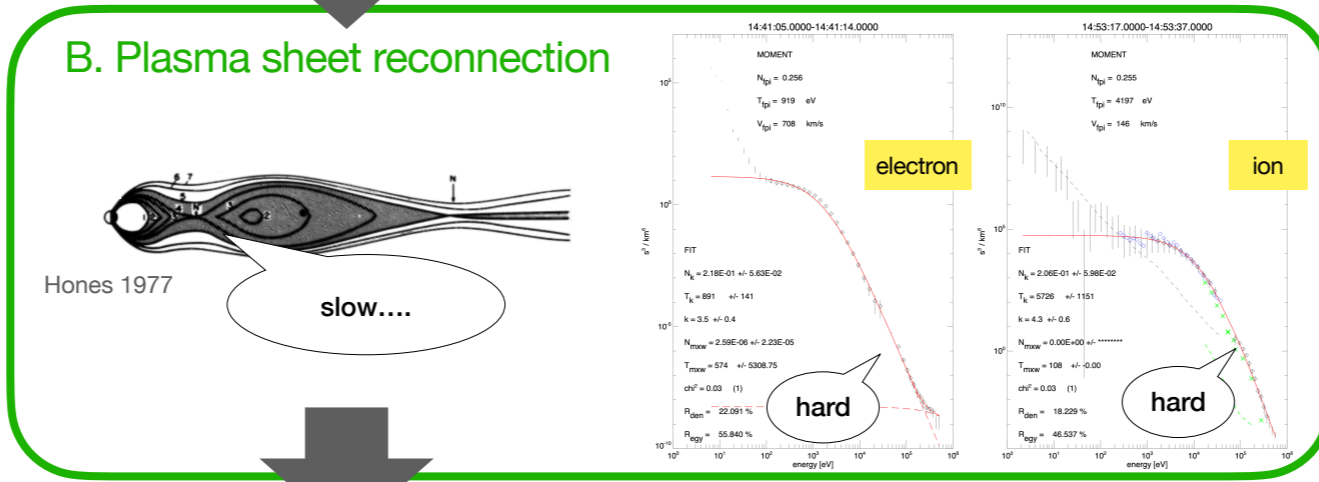
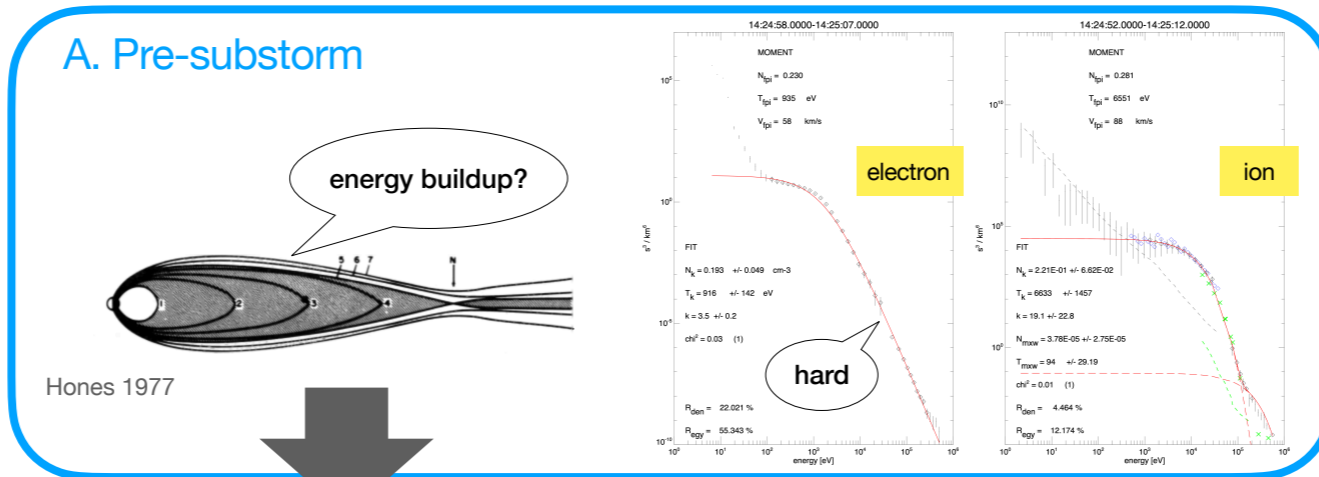


OVERVIEW



ENERGY SPECTRA



CONCLUSION

1. Electron power-law ($\delta \sim 3-4$) exists throughout the event even in quiet phase (but it was soft in another event preconditioning?)
2. Both ion/electron spectra become slightly softer in the enhanced temperature phase
3. The non-thermal fraction depends on the definition & model and are thus subjective.
4. Based on our definition, $R_{den} \sim 22\%$ and $R_{egy} \sim 55\%$ were the typical values in the active plasma sheet.

BASE MODELS

Kappa

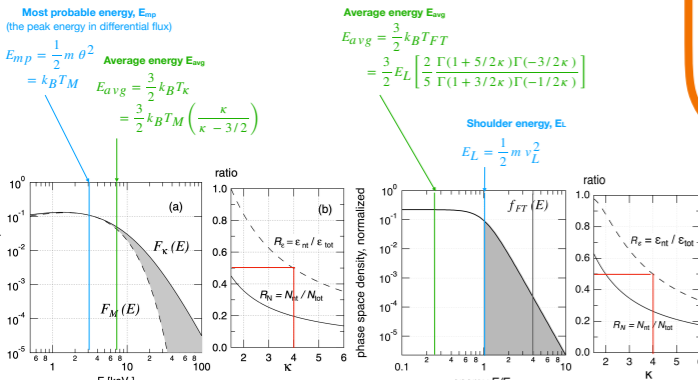
Flattop

$$f(v) = A \left[1 + \frac{v^2}{\kappa \theta^2} \right]^{-(\kappa+1)}$$

$$f(v) = A \left[1 + \left(\frac{v}{v_L} \right)^{2\kappa} \right]^{-\frac{\kappa+1}{\kappa}}$$

$$A = \frac{N}{(\pi \kappa \theta^2)^{3/2}} \frac{\Gamma(\kappa+1)}{\Gamma(\kappa-1/2)}$$

$$A = -\frac{3N}{2\pi v_L^2} \frac{\Gamma(1/\kappa)}{\Gamma(1+3/2\kappa)\Gamma(-1/2\kappa)}$$



NOTE: κ is equivalent to the power-law index δ as measured in differential flux.

Please come see this poster again during the core time, **Day 3, 13:00 – 13:40 EDT** for more detailed explanation, further analysis, and **movies** (which are cool!)

In both cases, there is an **equipartition** between thermal and non-thermal energies at $\kappa = 4$