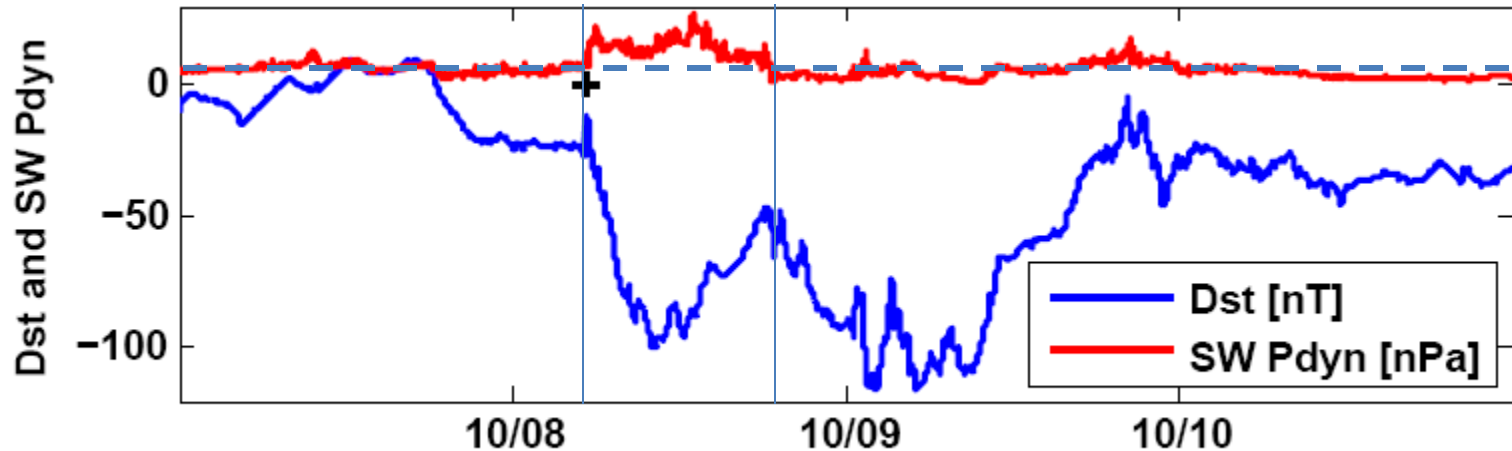


# 8-9 October 2012

## “Double Dip” Storm

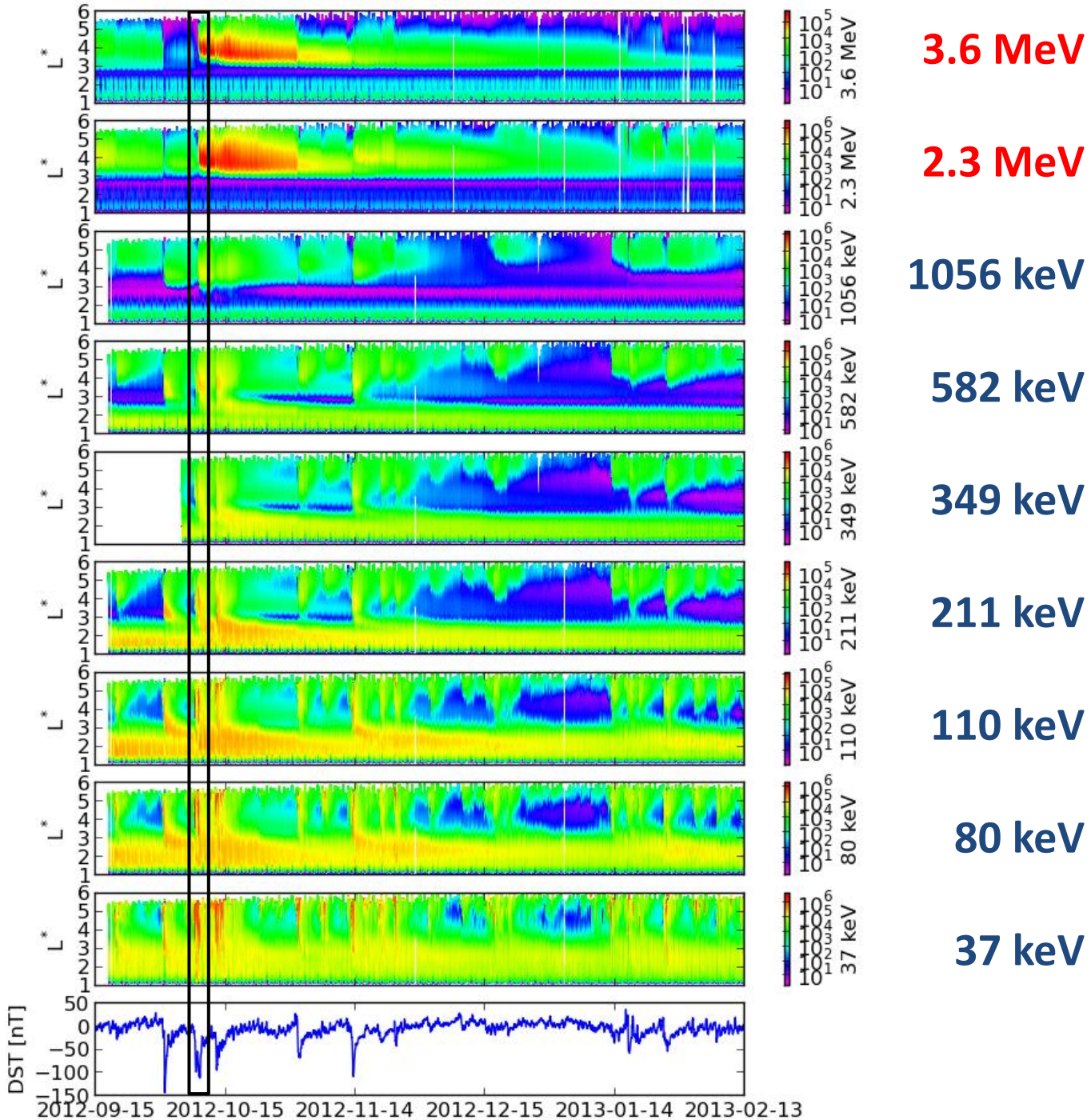


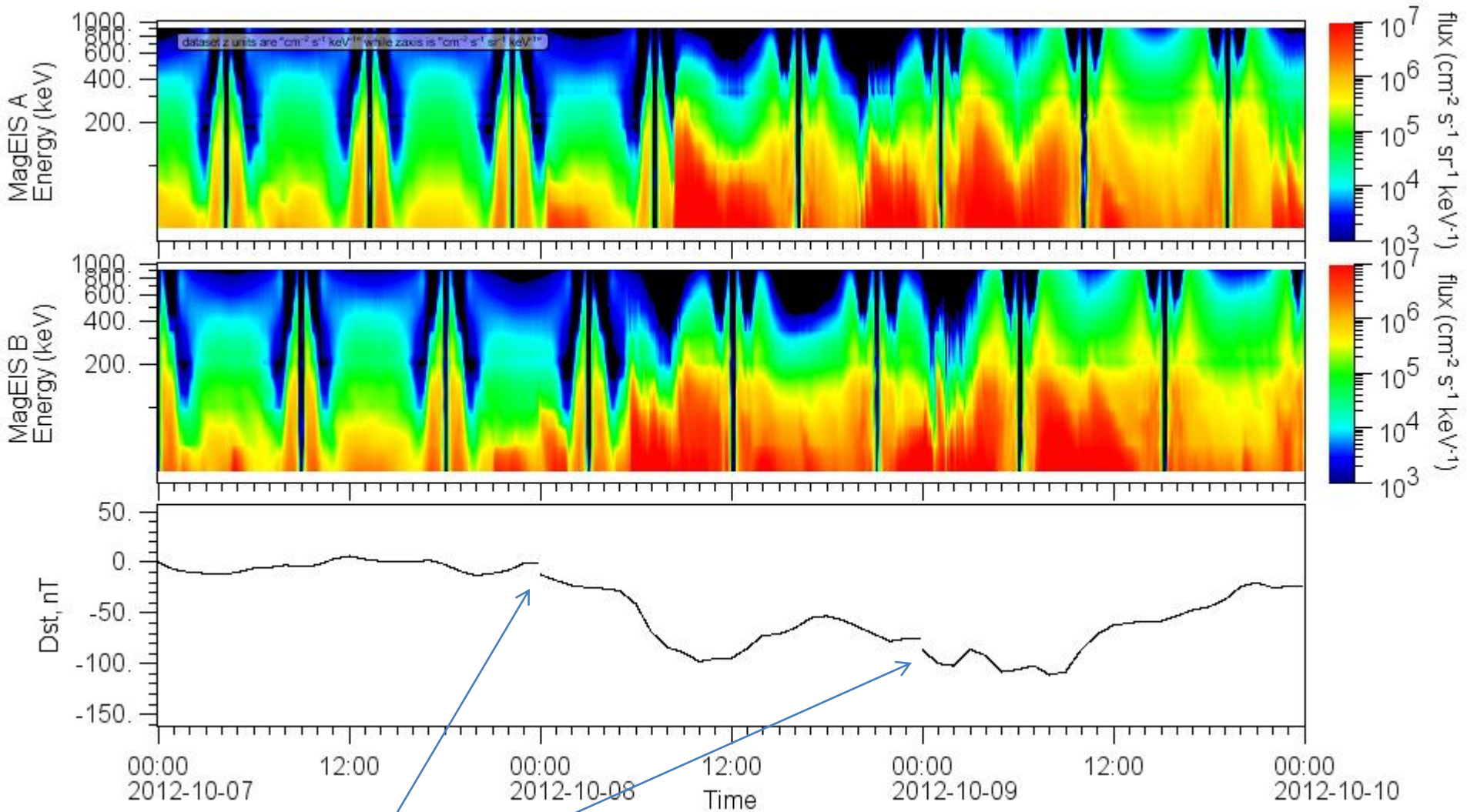
Thanks to ECT team (with special callouts to Alex Boyd and Chia-Lin Huang)

# Electron Omnidirectional Fluxes

MagEIS

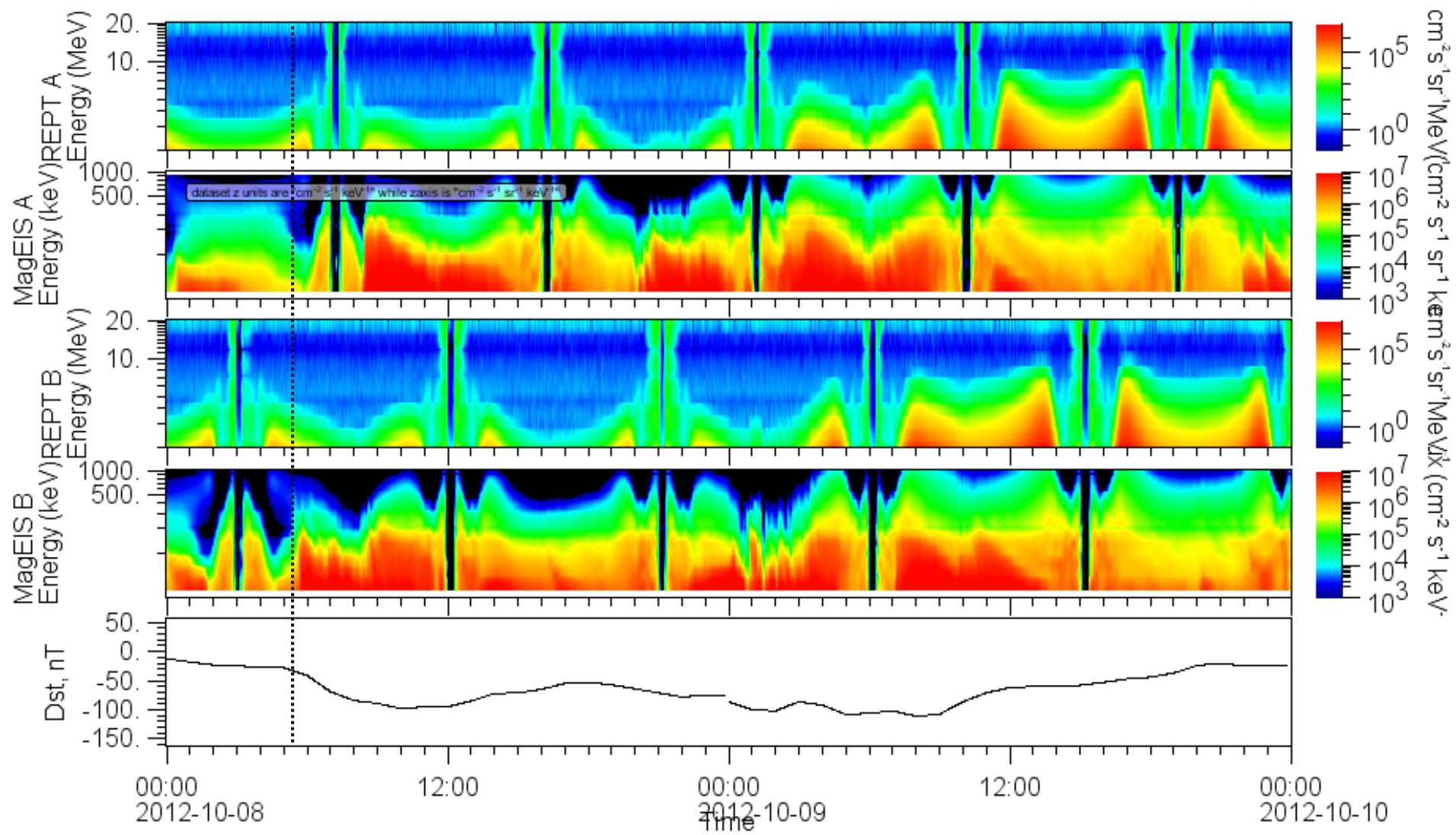
REPT





Beware of  
Qin-Denton  
file oddities

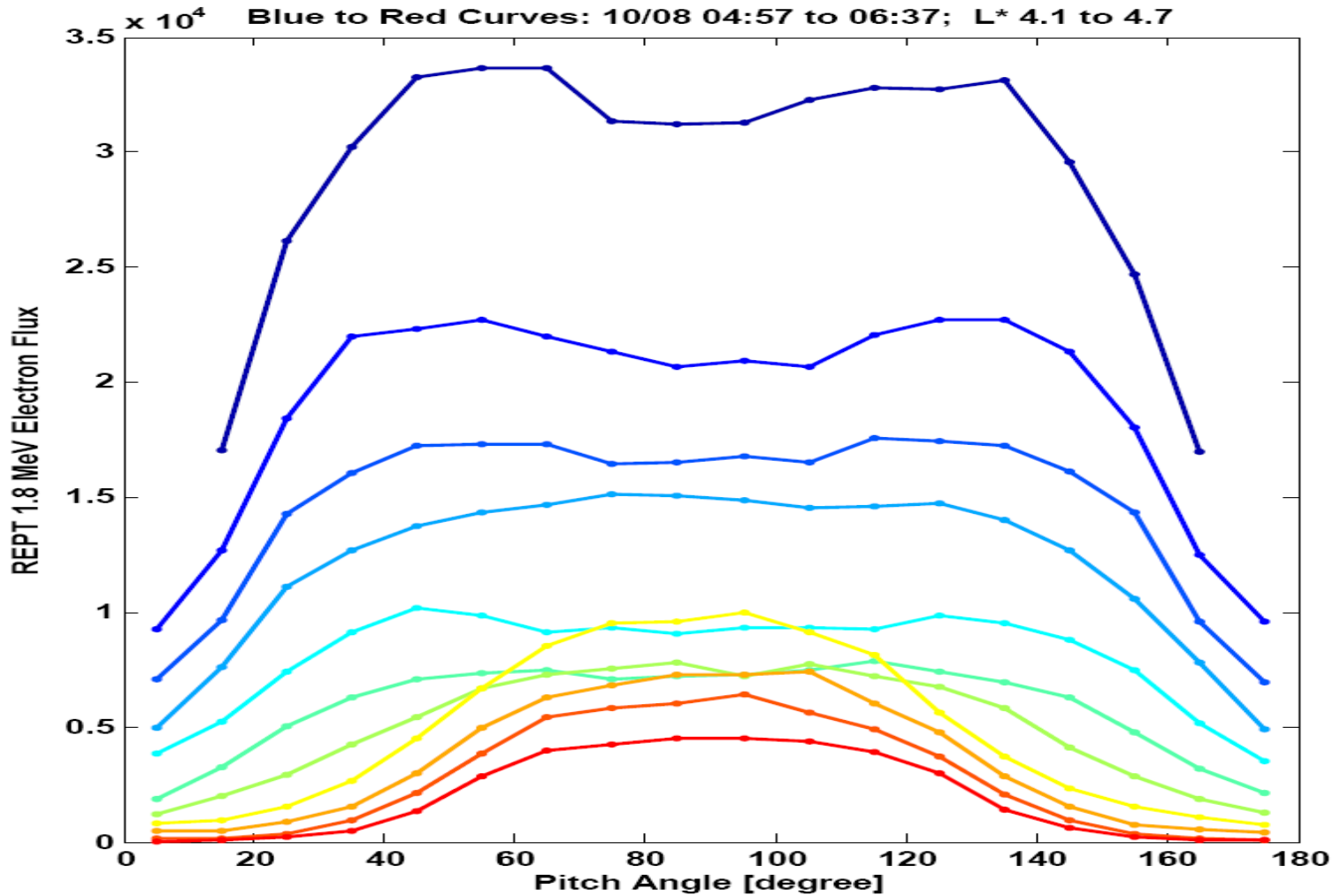
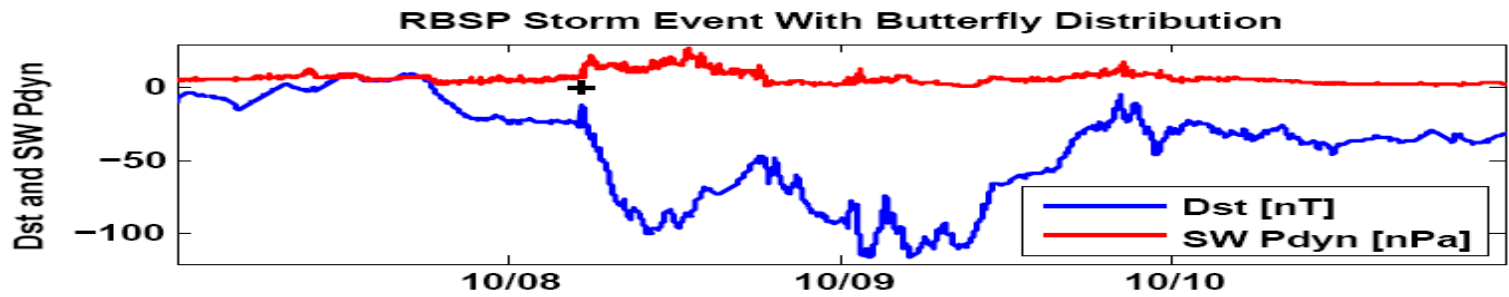




- First dip associated with solar wind pressure enhancement

- Ring current also enhanced

- ~2 MeV e-'s from L\* between 4.1 to 4.7 develop butterfly PADs during compression while flux drops rapidly



# Summary

- First storm emptied most energetic portion of outer zone electrons
  - Compression of magnetosphere and ring current inflation lead to shadowing (probably at high L, but maybe even deeper in the magnetosphere - or not?)
  - Injection of lower energy electrons drive waves that scatter particles enhancing losses?
- Second storm starts with pumped up medium energy electrons (10's to few 100 keV) and with no magnetopause compression (and presumably less loss)
  - Same (or similar waves) lead to higher energetic fluxes