

# Longitude of Peak vs. Time

- The location of the peak of the sinusoidal fit (in System III longitude) changes with time.
- All 4 ion species show a nearly linear increase in the location of the peak with time.
- The drift in System III longitude with time is consistent with plasma that is subcorotating.
- O II shows the most deviation from linearity.
- S II and S III are approximately in phase, while S IV and O II are approximately  $180^\circ$  out of phase
- The dawn and dusk ansae of the torus show nearly identical results.
- Note, the top half is a copy of the bottom half.