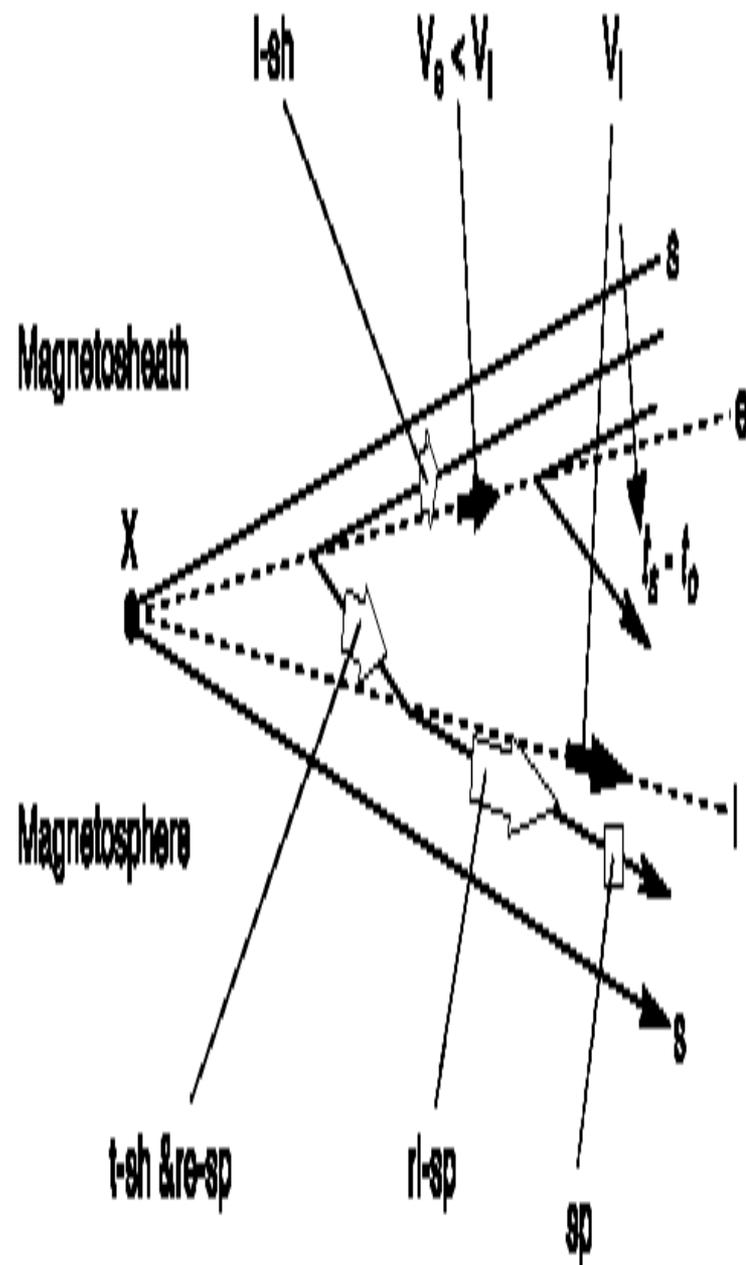
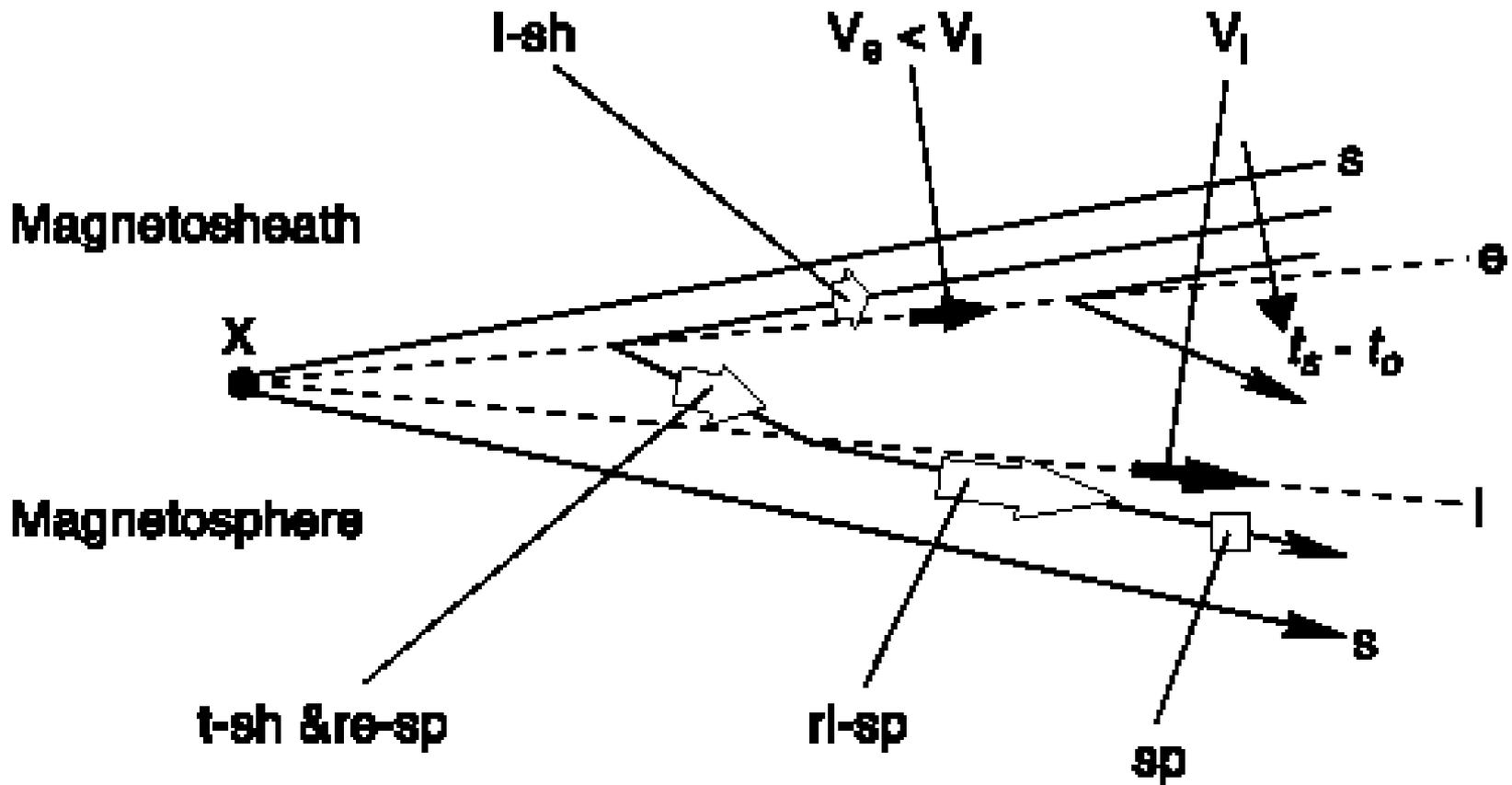
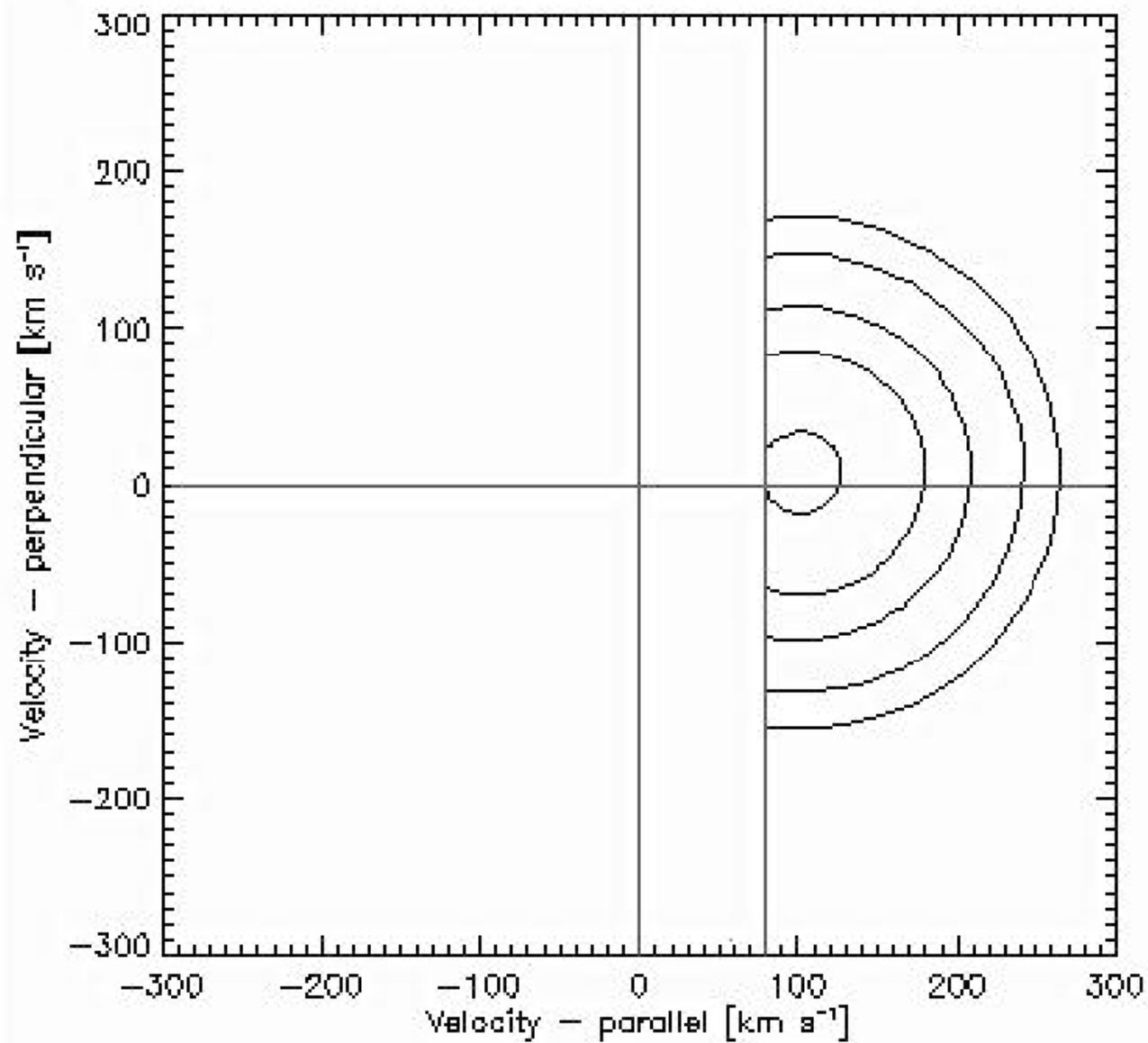


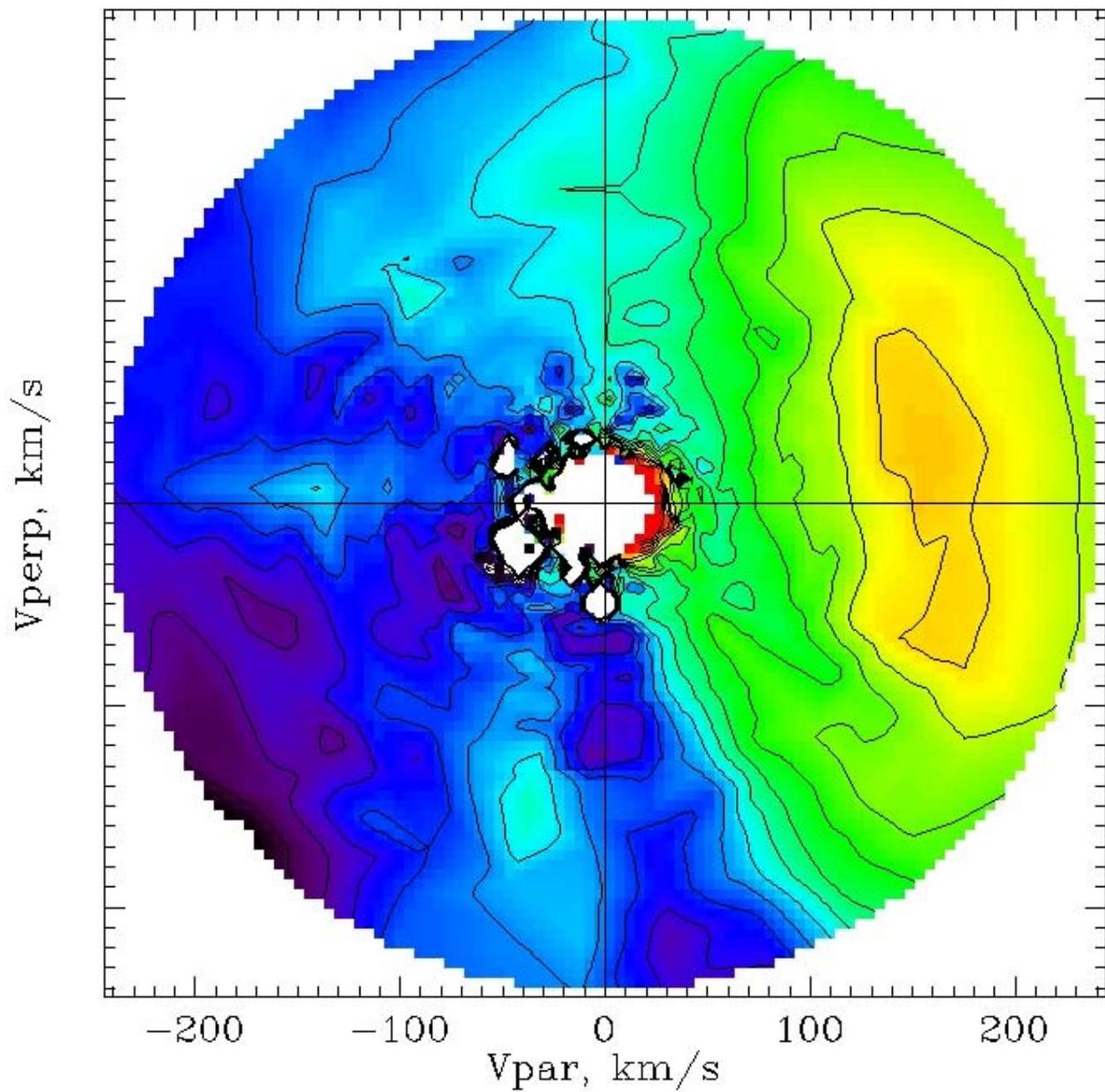
FIG. 1 (color). The geometry of the reconnection region with the results of the present experiment included. Note the coordinate description with  $X$  along the normal to the magnetopause. Ions are decoupled from the electrons and magnetic field in the ion diffusion region, creating the Hall magnetic and electric field patterns. Electrons are demagnetized in the electron diffusion region.







09:20:04 UT



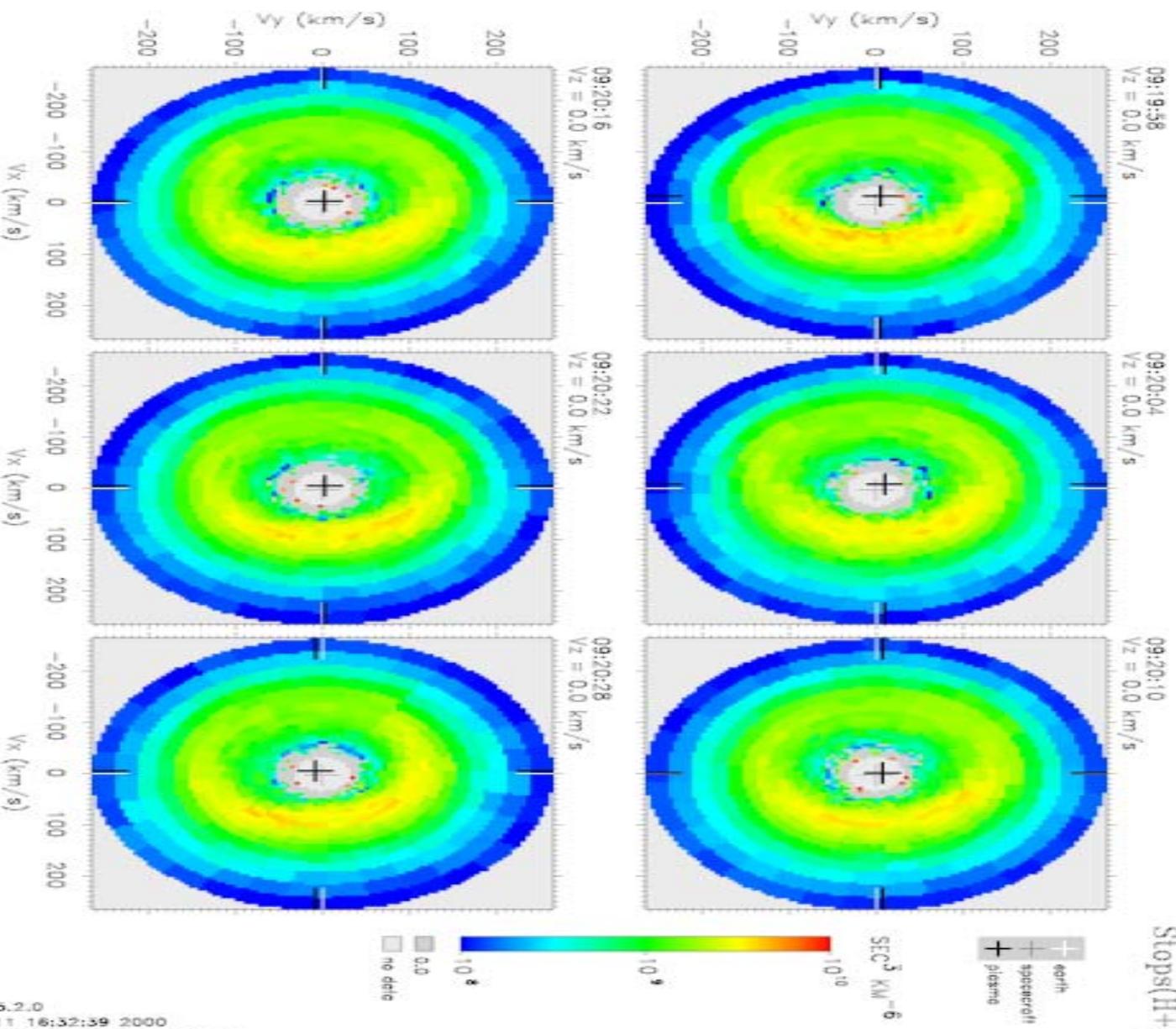
QuickTime™ and a  
TIFF (LZW) decompressor  
are needed to see this picture.

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TIFF (LZW) decompressor  
are needed to see this picture.

TIDE Velocity Distribution Parallel Planes

05/08/00

Stops(H+)



**POLAR TIDE/PSI**

start time: 05/08/00 09:20:58 UT

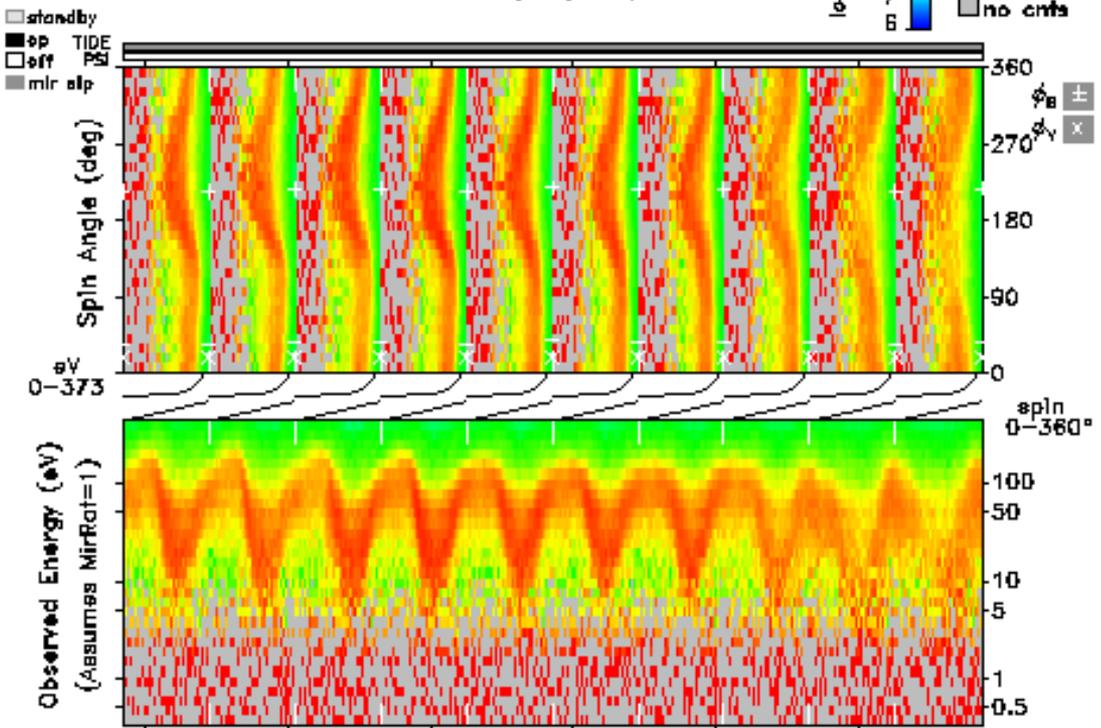
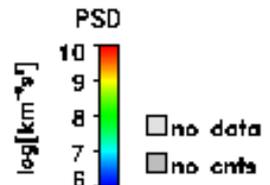
stop time: 05/08/00 09:21:59 UT

no spin averaging

collapse option 2

spin marker at sun pulse

Stops(H+)



time 09:21  
Re 7.8  
Lshell 31.4  
mlt 11.3  
mlat 60.0  
inlat 79.7

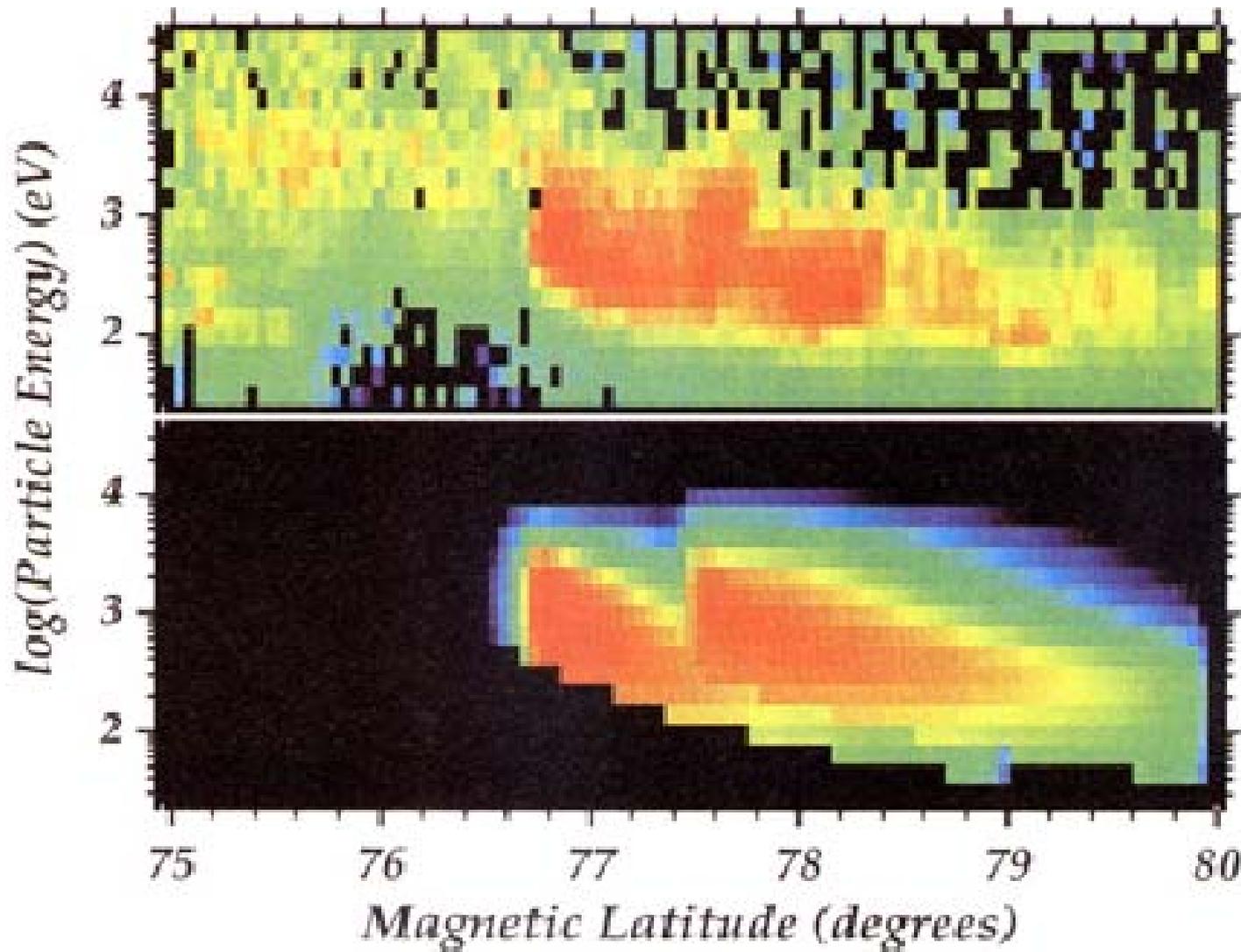
hrmn Re  
hrs  
degs  
degs

file\_b\_v5.2.0  
Tue Jul 11 16:29:58 2000  
plot: t005080020\_D821\_ap.eee.gif  
no minimum subtracted

sector\_sans: no correction  
calibration: tide\_calib.v6  
mass\_calibration: mass\_calib.v7  
len\_mask: t00507\_y2.mask

s/a potential from EFI K0  
altitude: 00050800.att  
orbit: 00050800.orb  
level-zero: 000508050000-113000.gz

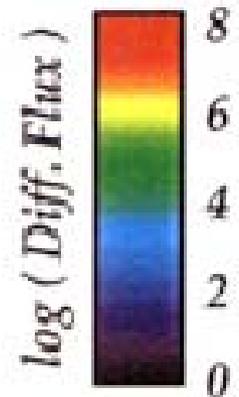




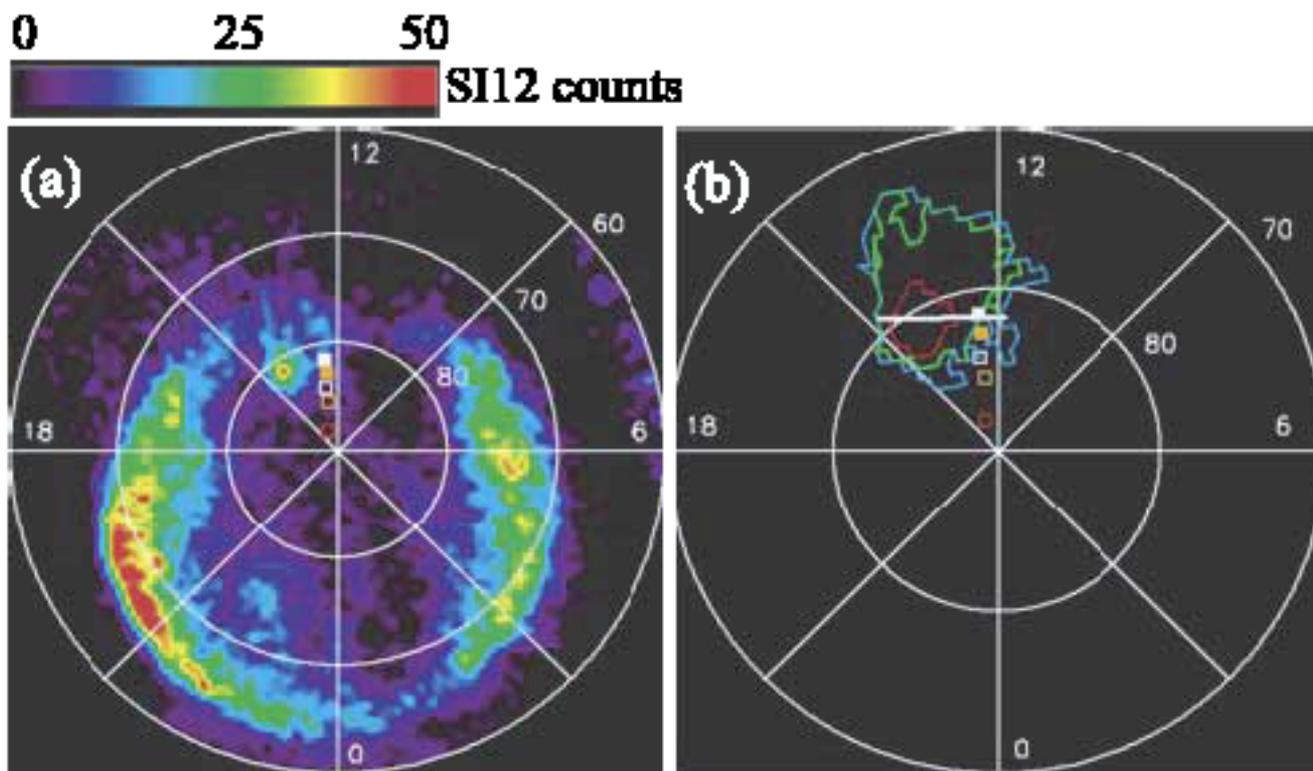
*F8*

*Jan. 10, 1990  
10:37-10:40 UT*

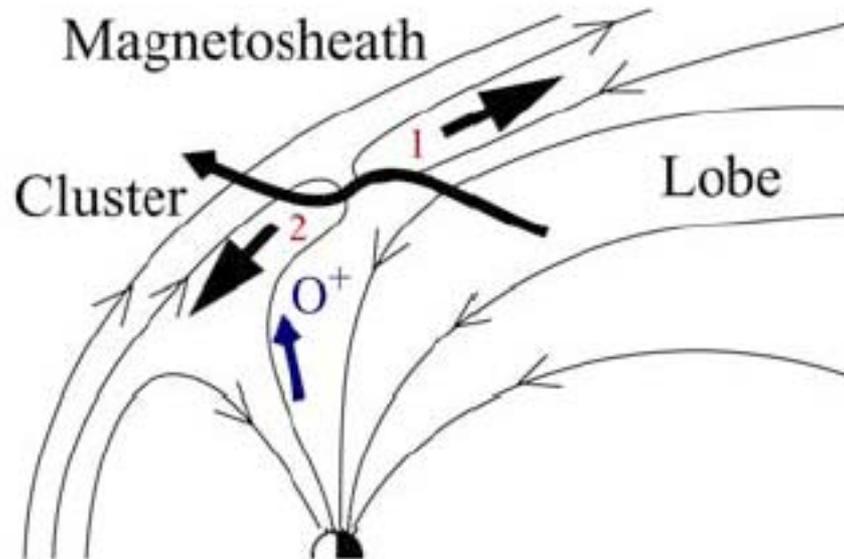
*Data*



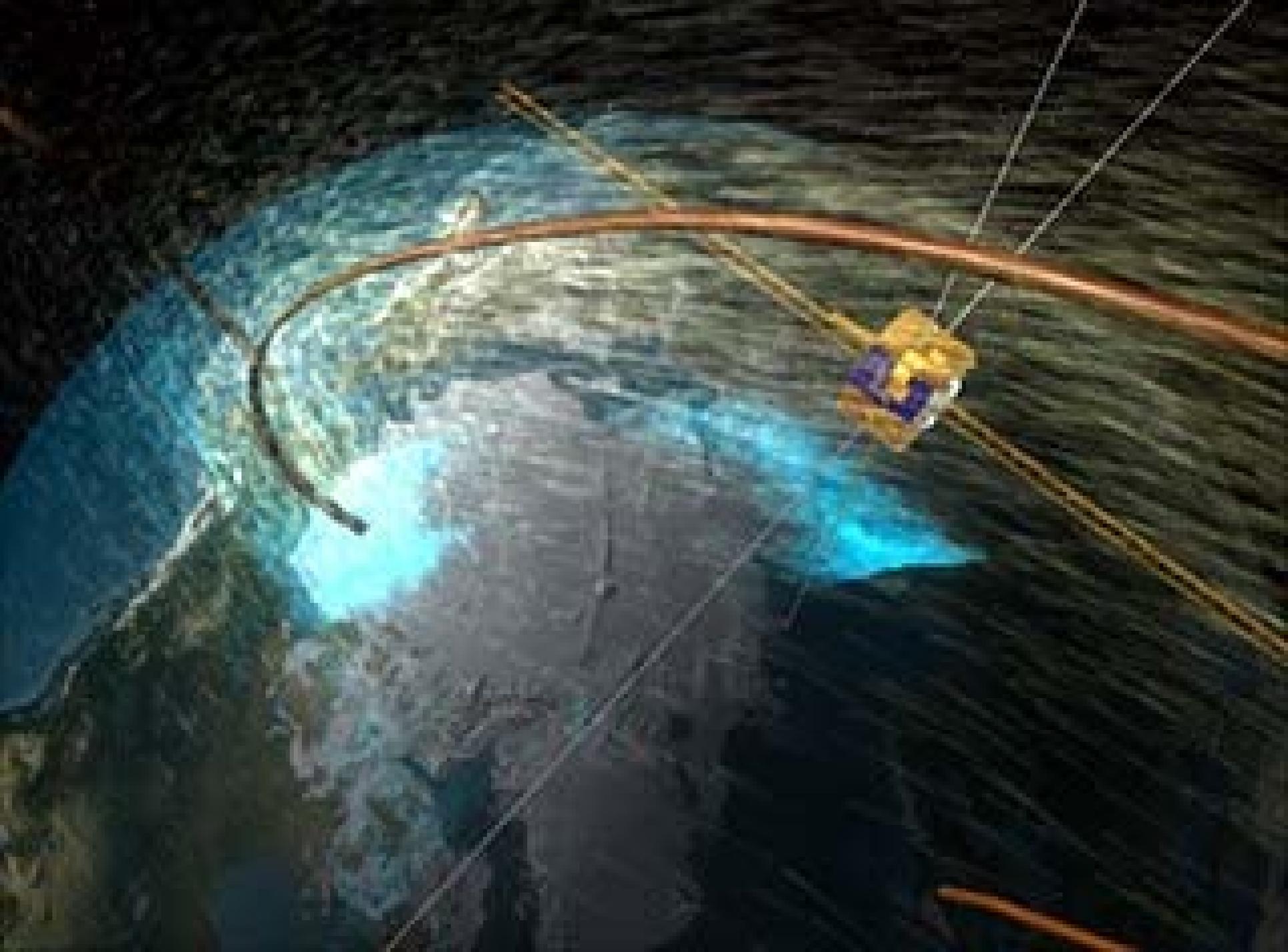
*Model*

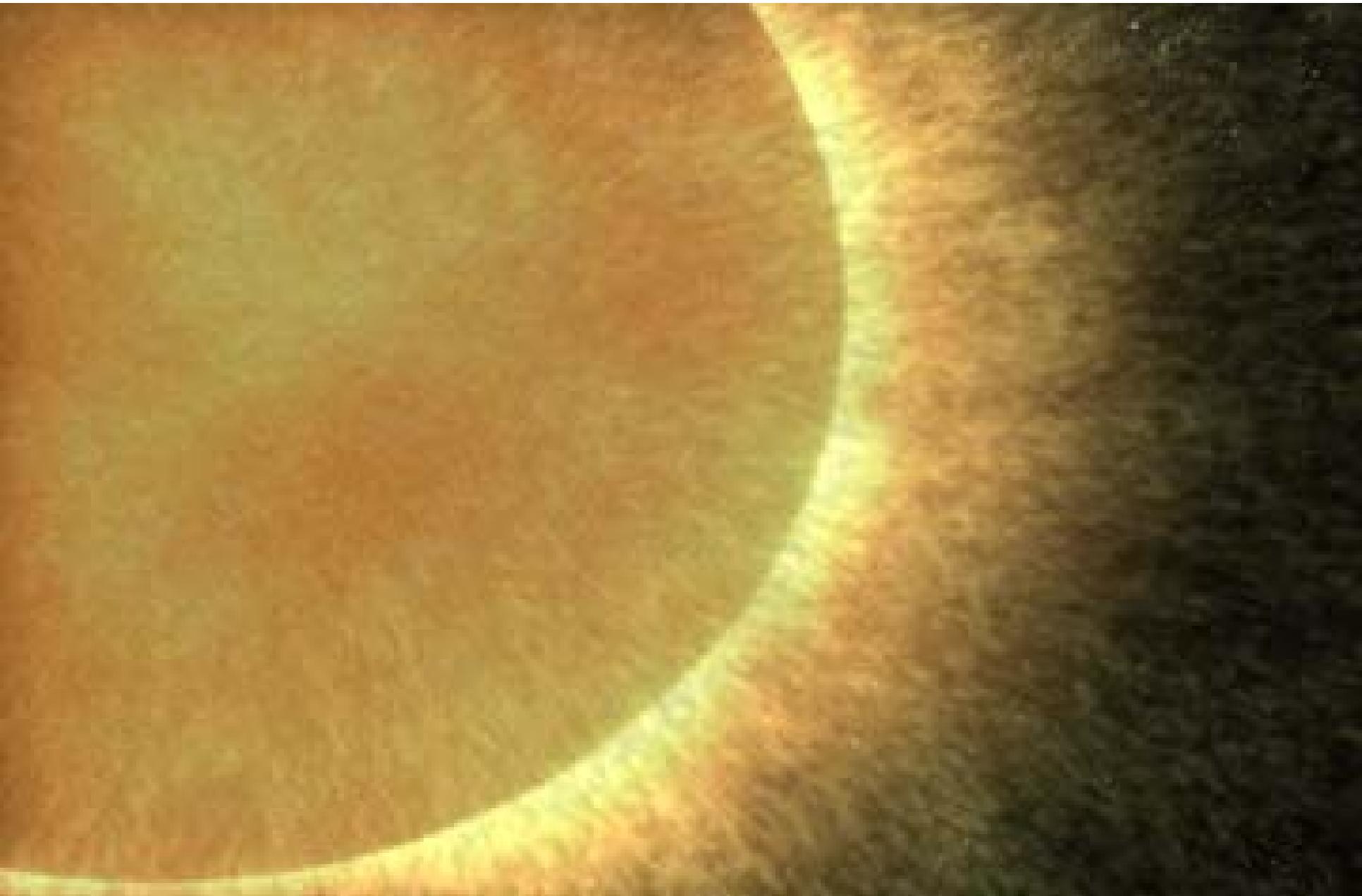


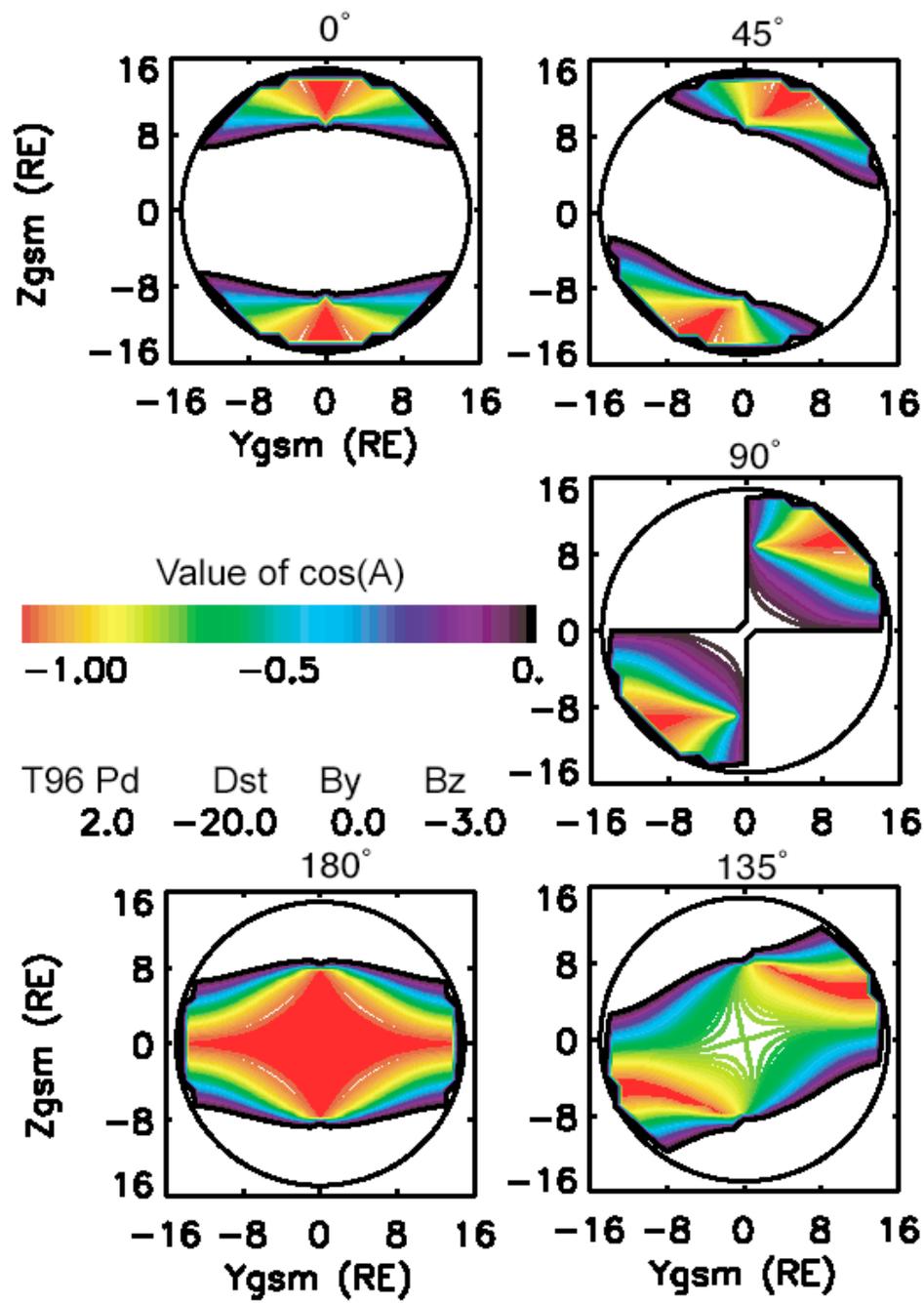
**Figure 2.** IMAGE/SI12 proton aurora image (in magnetic local time-latitude) on 2002-03-18 at 14:58:56 UT during the time Cluster was crossing the reconnecting MP tailward of the cusp. A bright proton spot poleward of the oval appears at  $\sim 14$  MLT and  $\sim 81^\circ$  latitude.

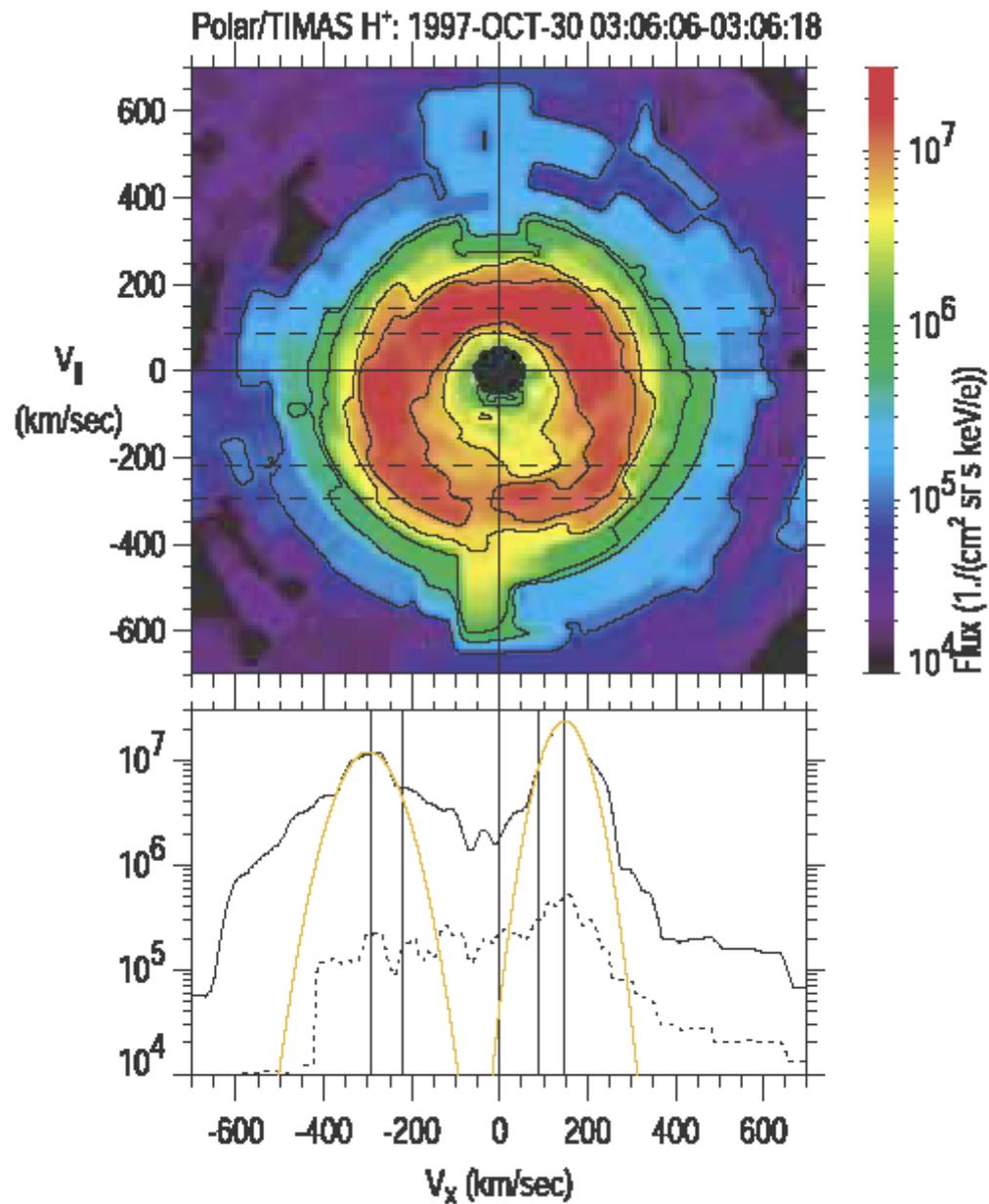


**Figure 3.** The effective trajectory of Cluster through the high-latitude reconnecting MP. The X-line moved tailward past the spacecraft during the MP crossing.





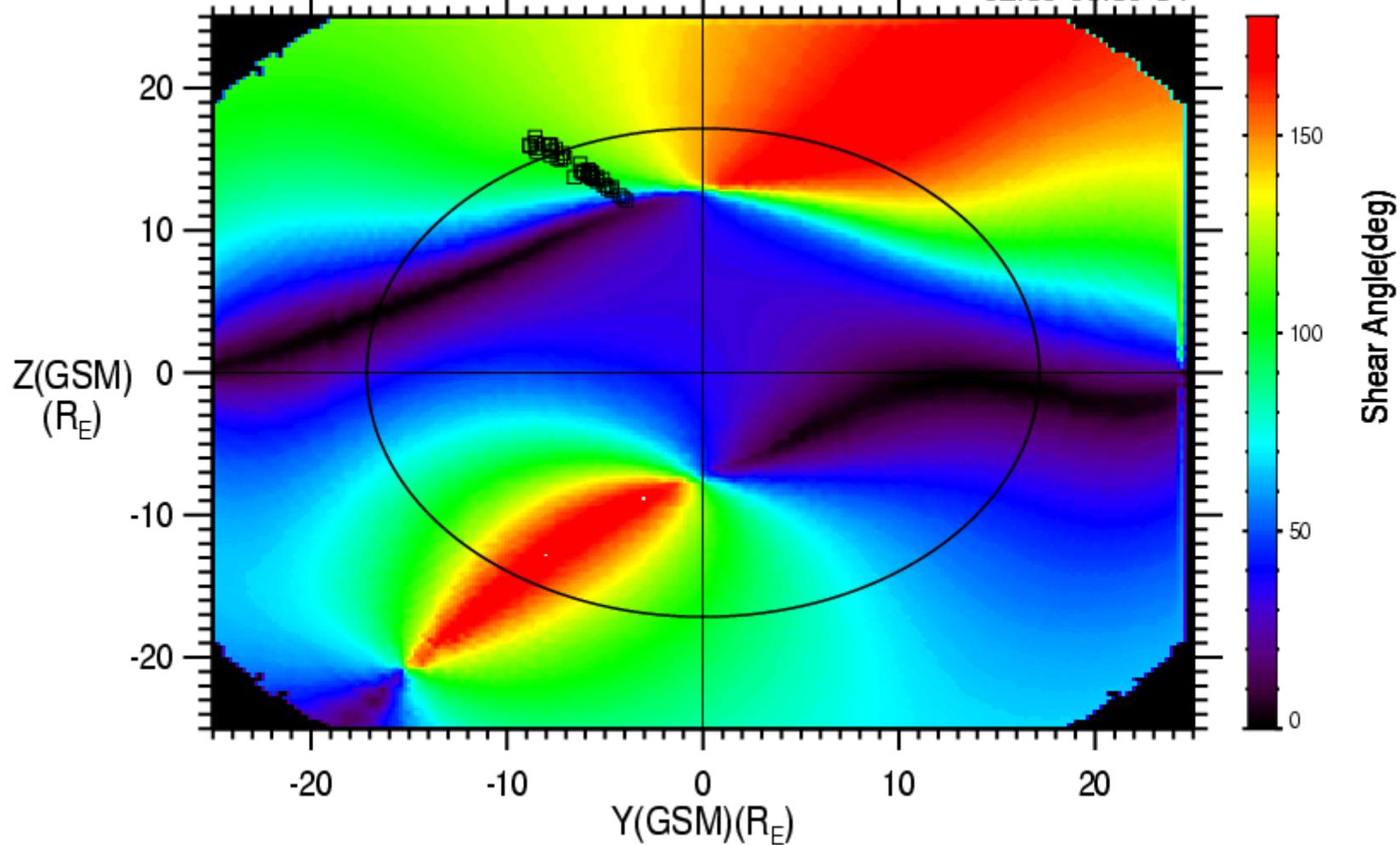




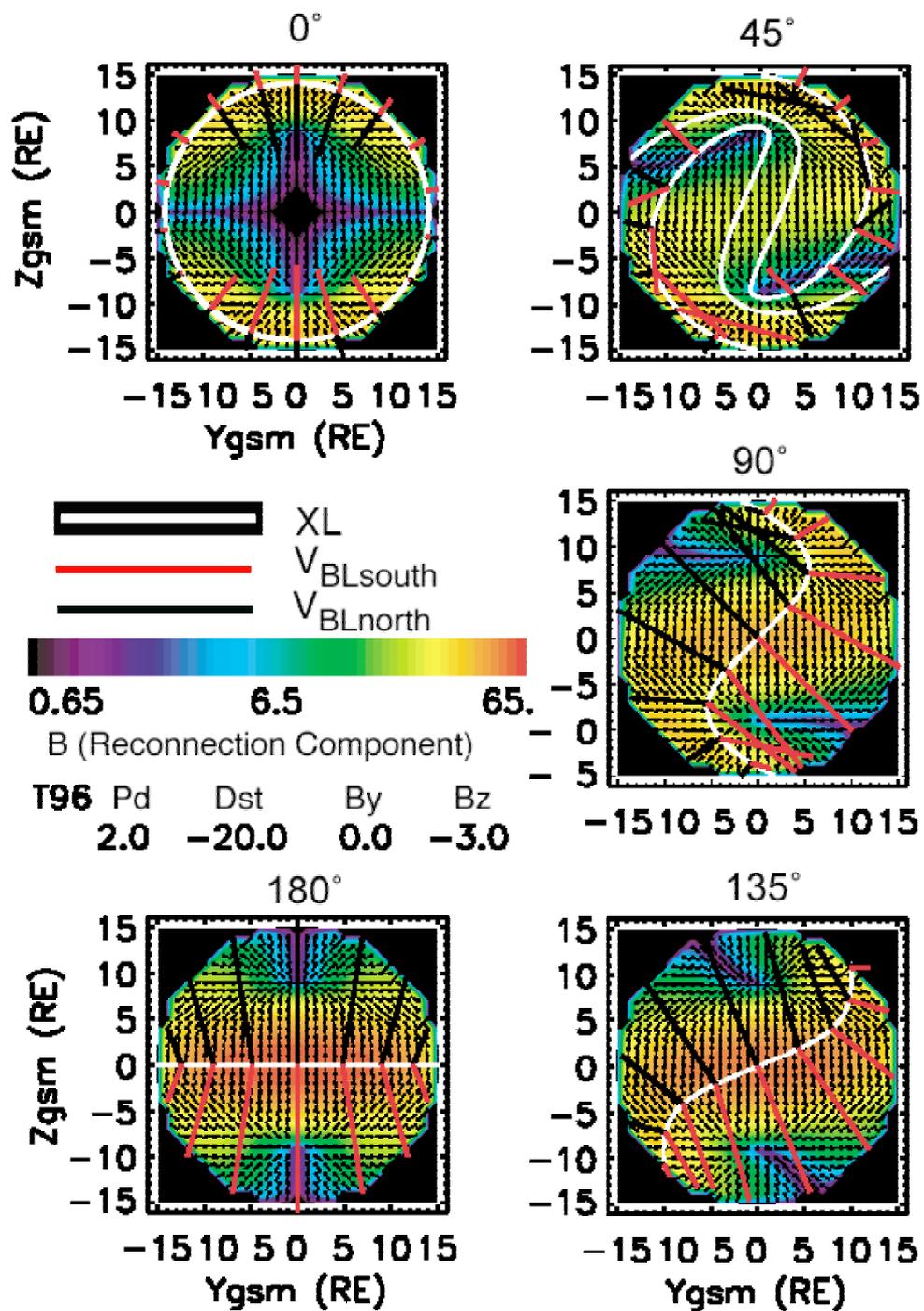
**Figure 5.** Sample distribution function from TIMAS, along with Gaussian fits and estimated velocity cutoffs.

Magnetopause 30-OCT-1997

02:50-03:30 UT



Data convected to MP: 19min 45sec



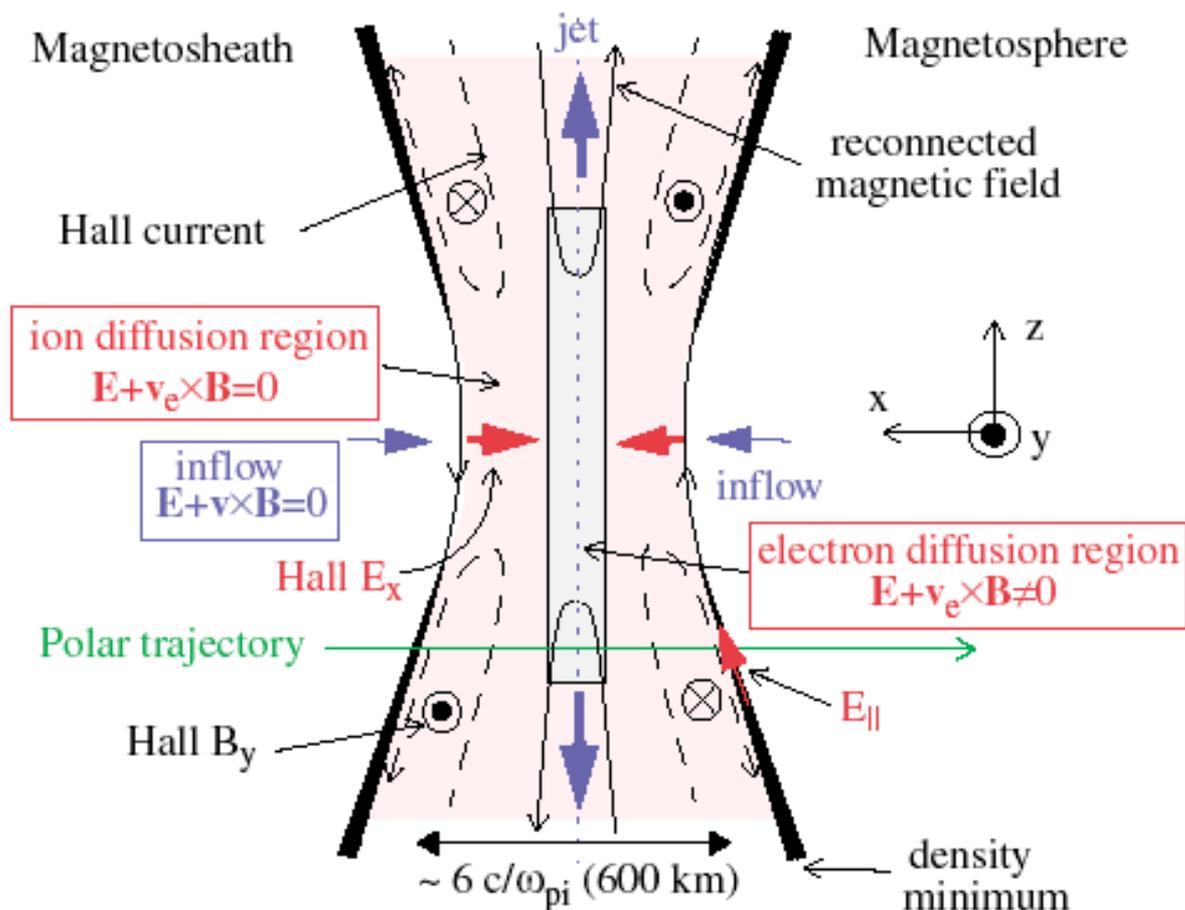
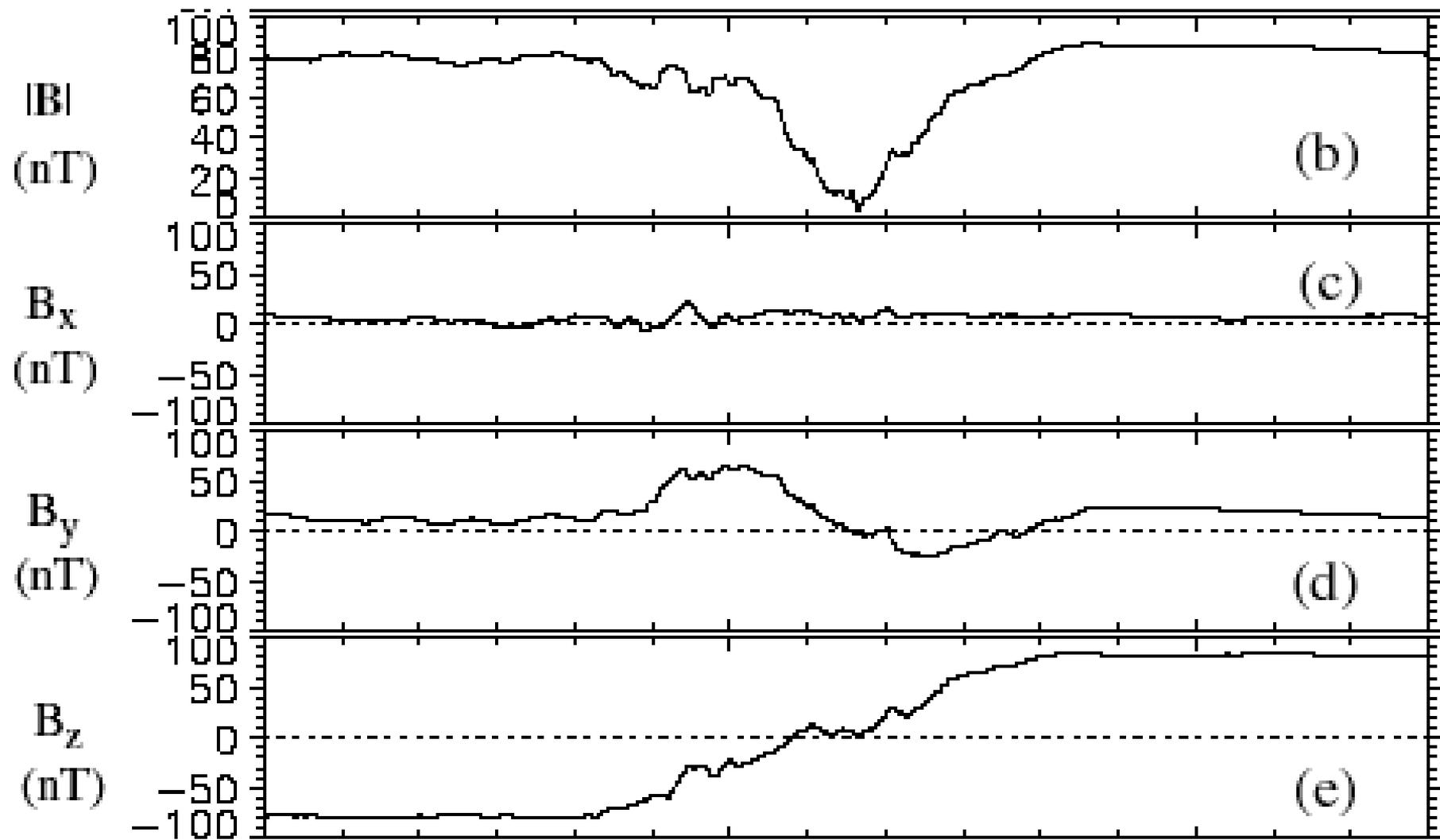
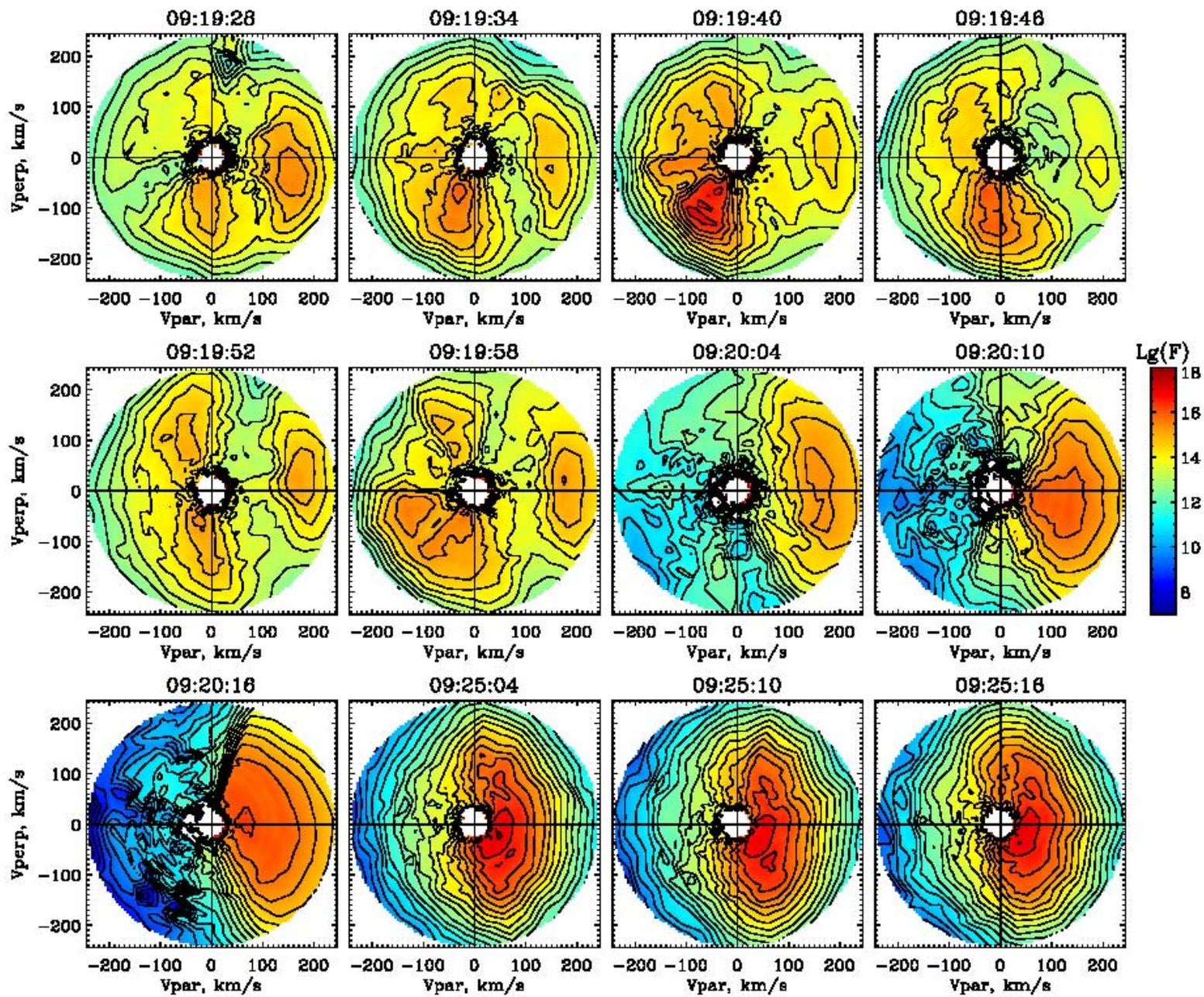
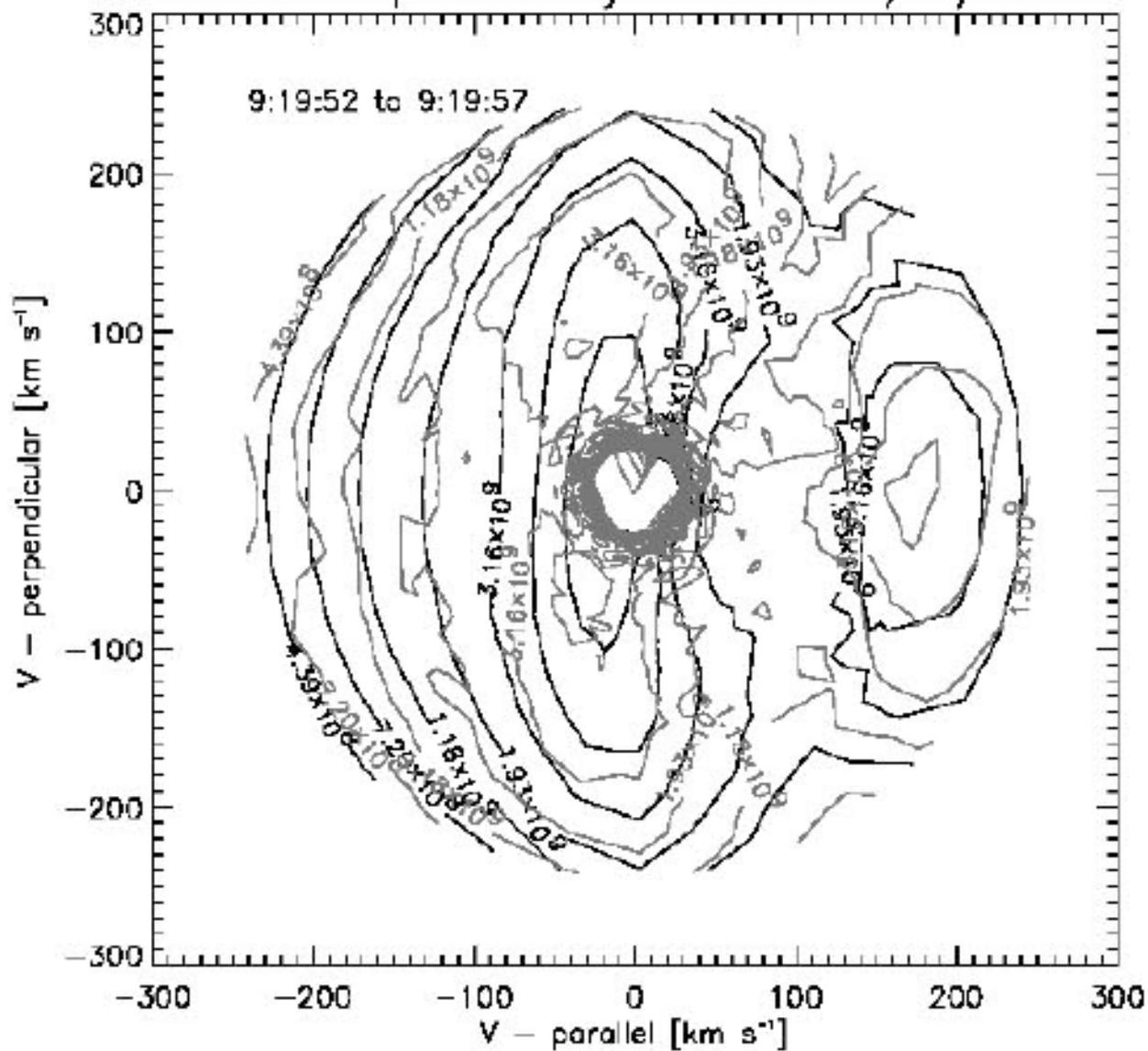


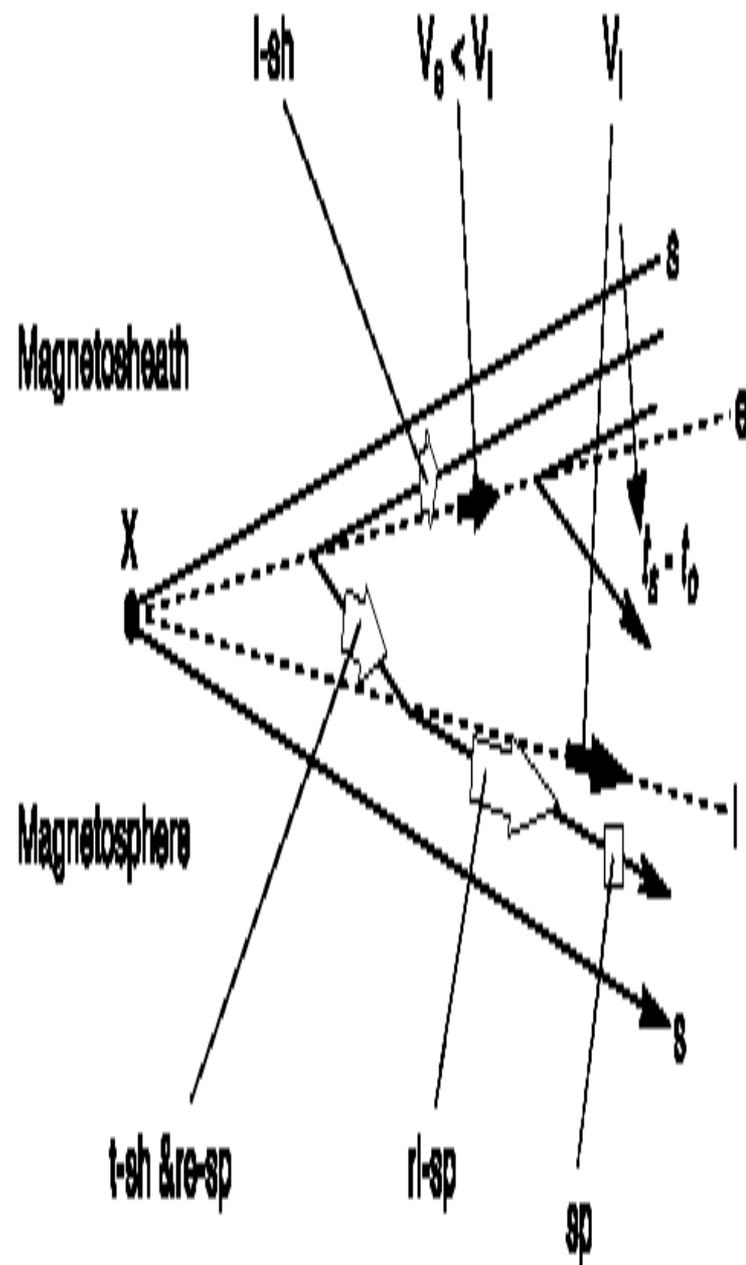
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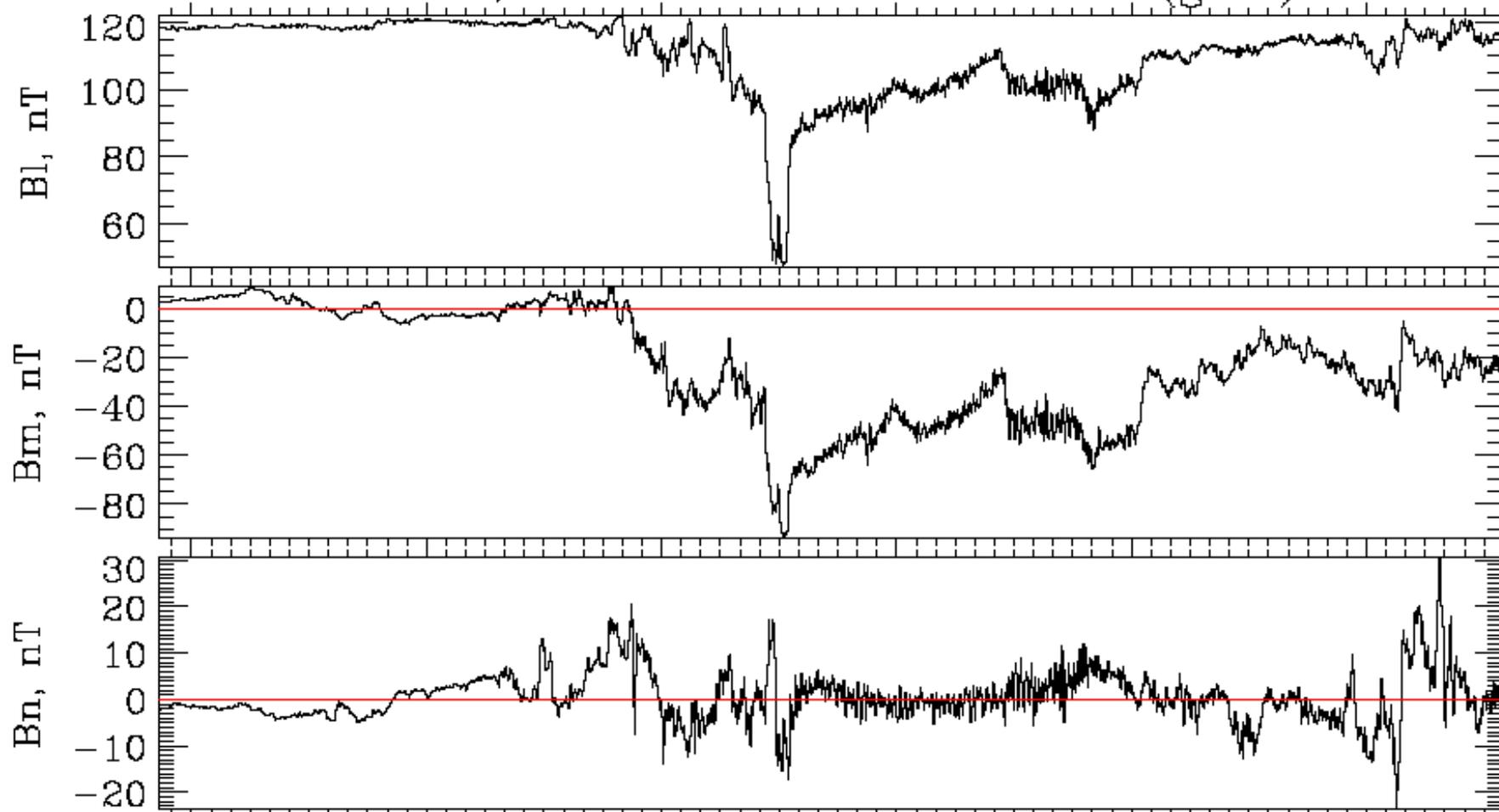


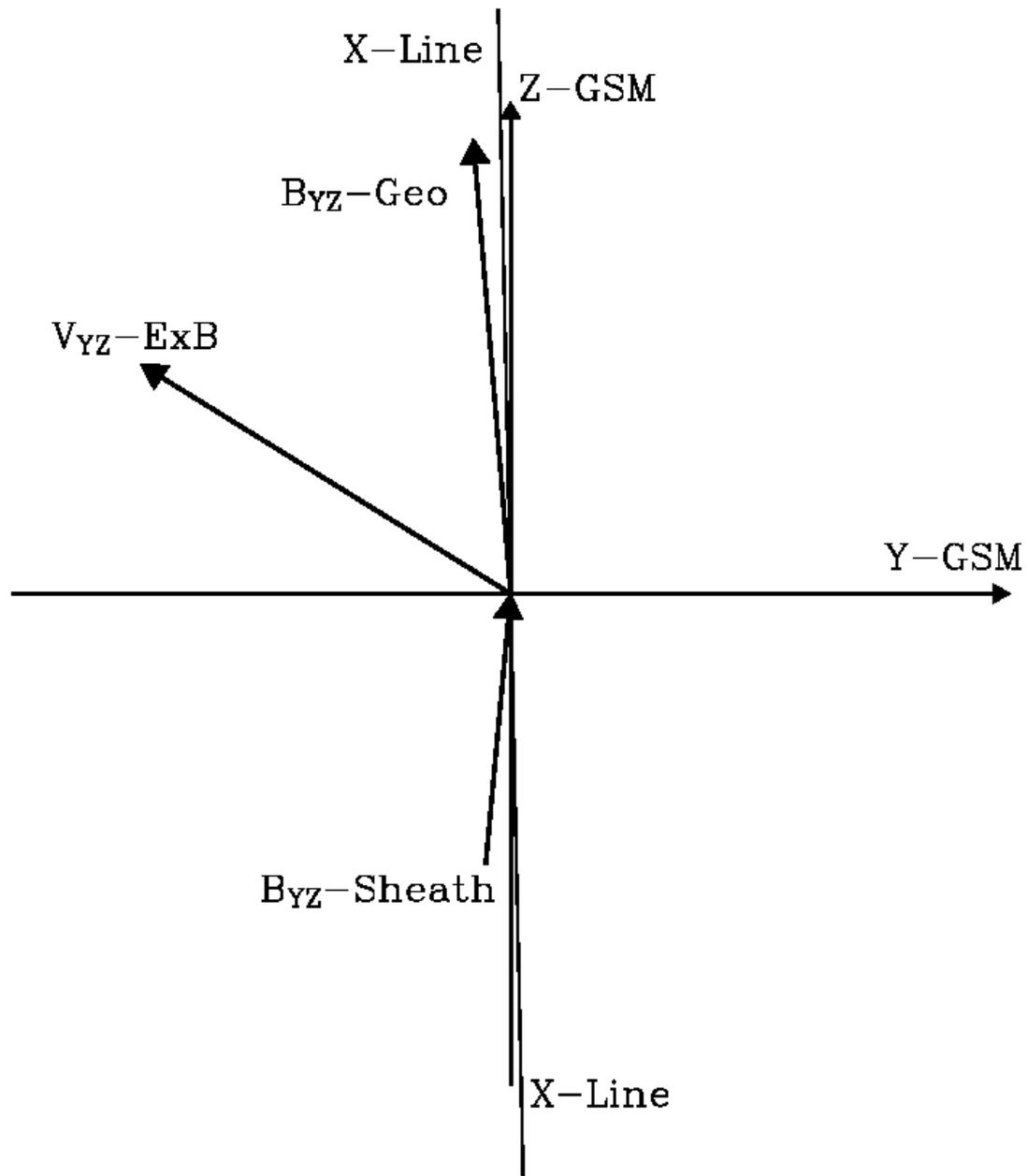
Phase Space Density from TIDE 03/22/00

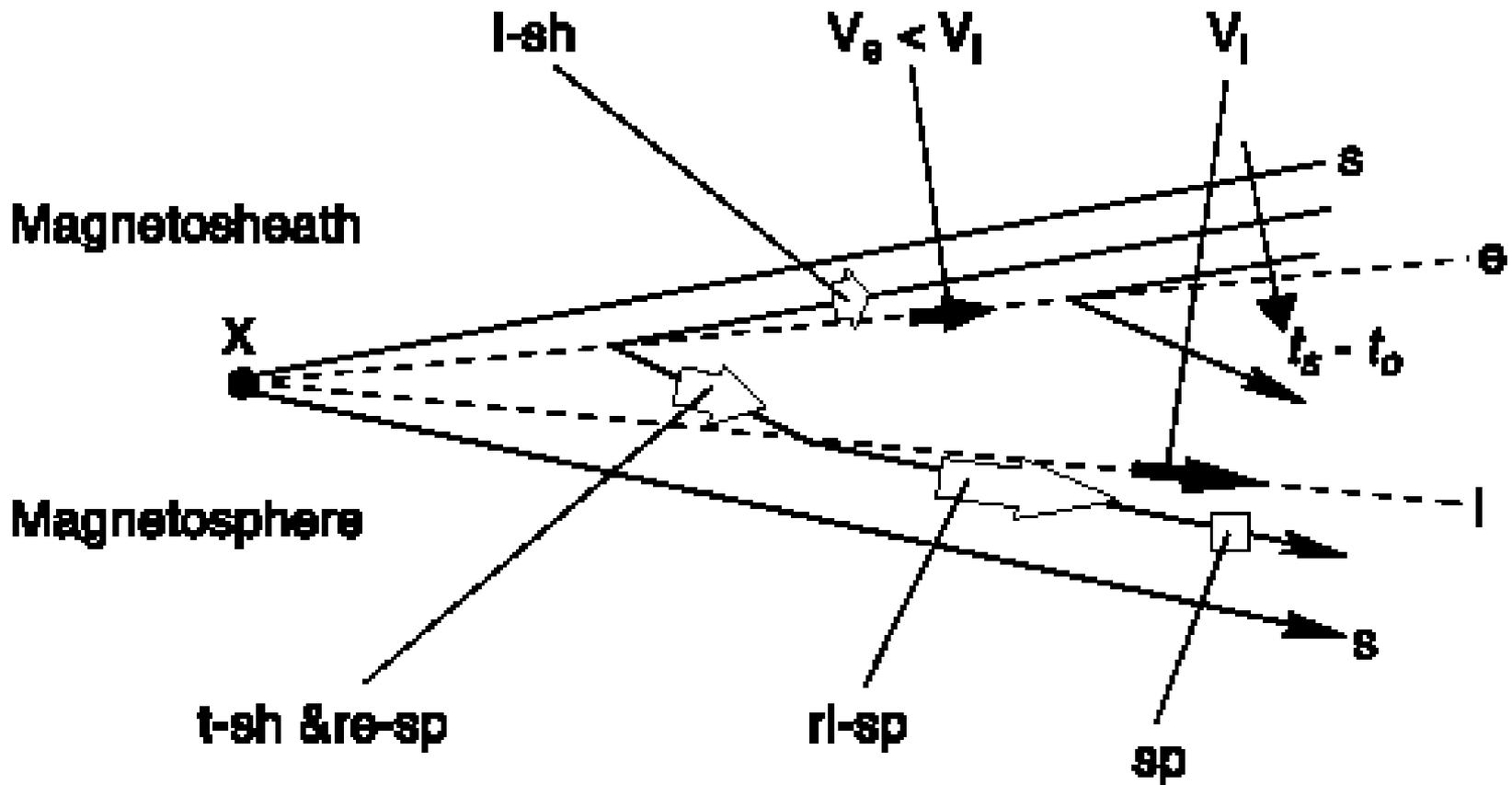


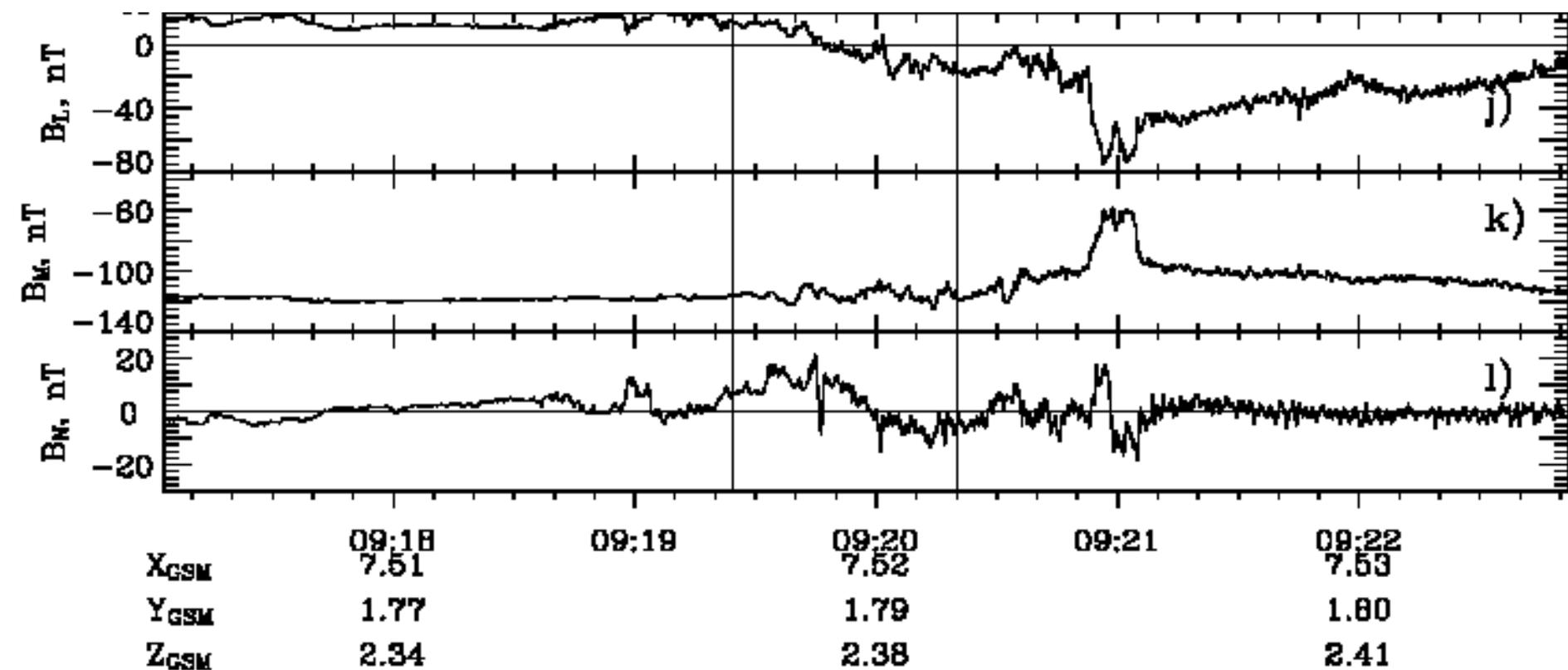


Polar, MF 20000322\_0915\_0927 (gsm)

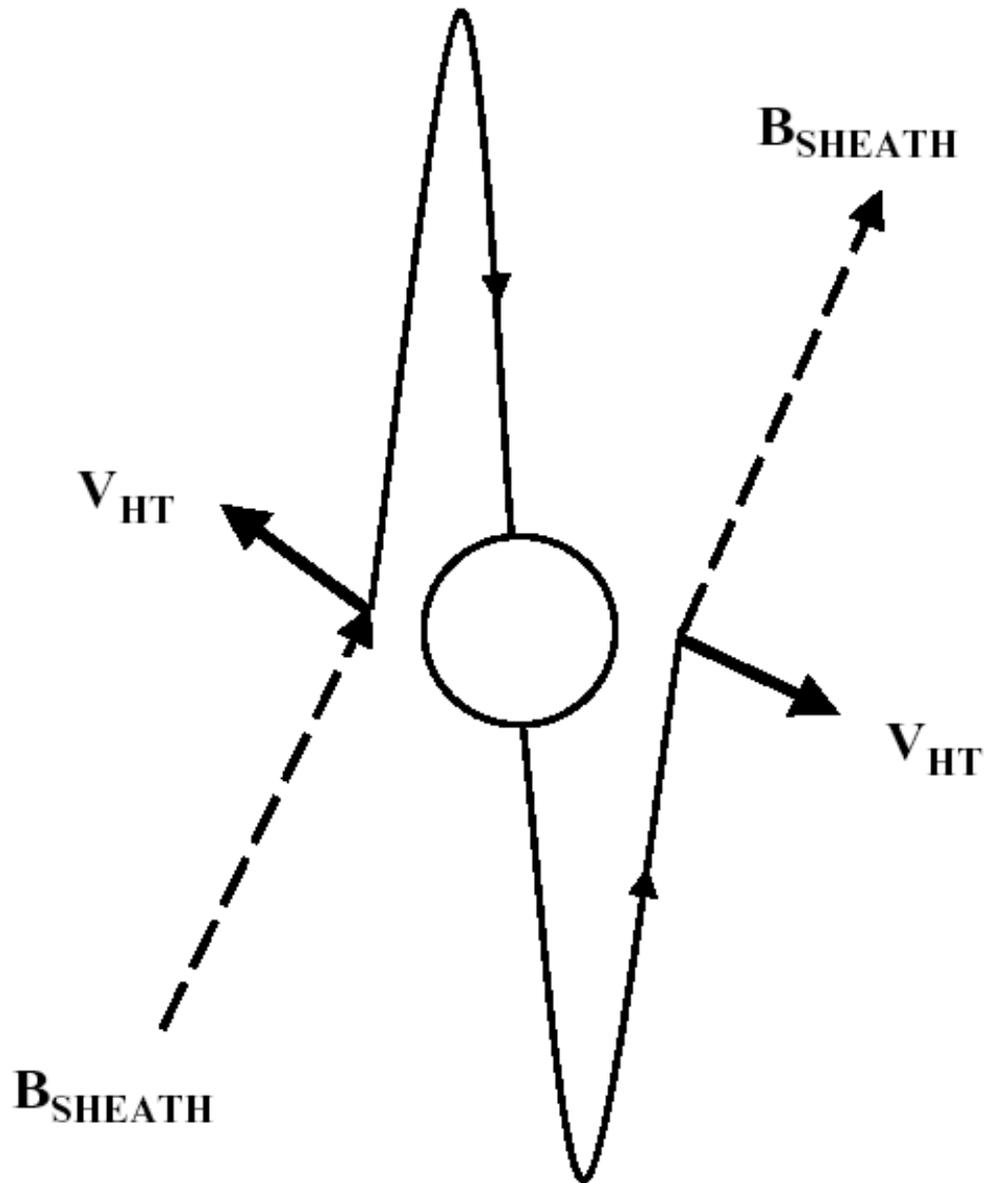








# View from Sun



## Conclusions (score):

Topology -	anti-parallel (high magnetic shear)	Y
	component (low magnetic shear)	?
Time Scale -	steady, quasi-steady	Y
	pulsed	Y?