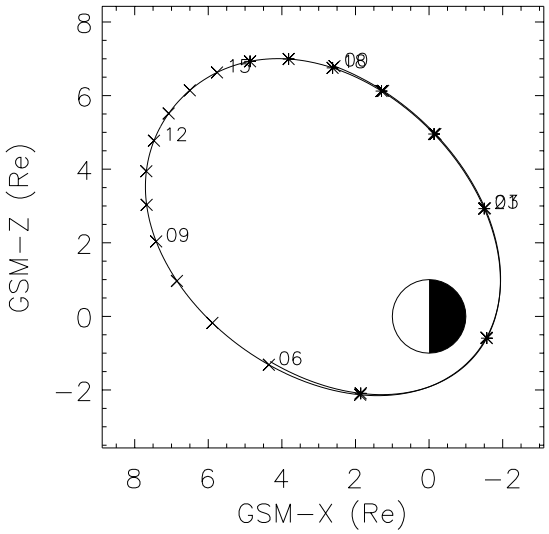
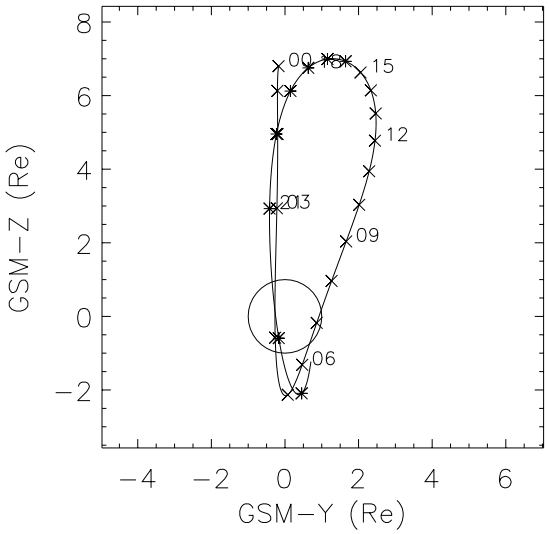
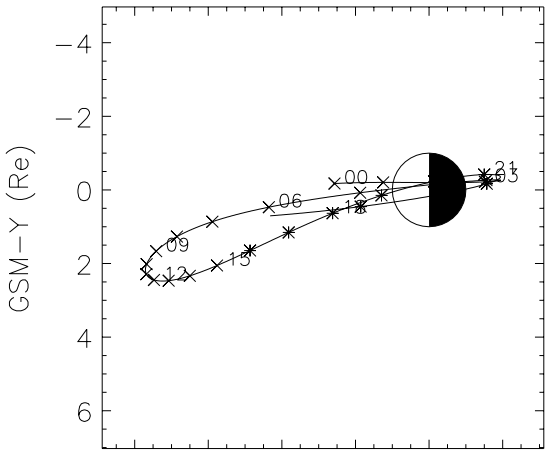


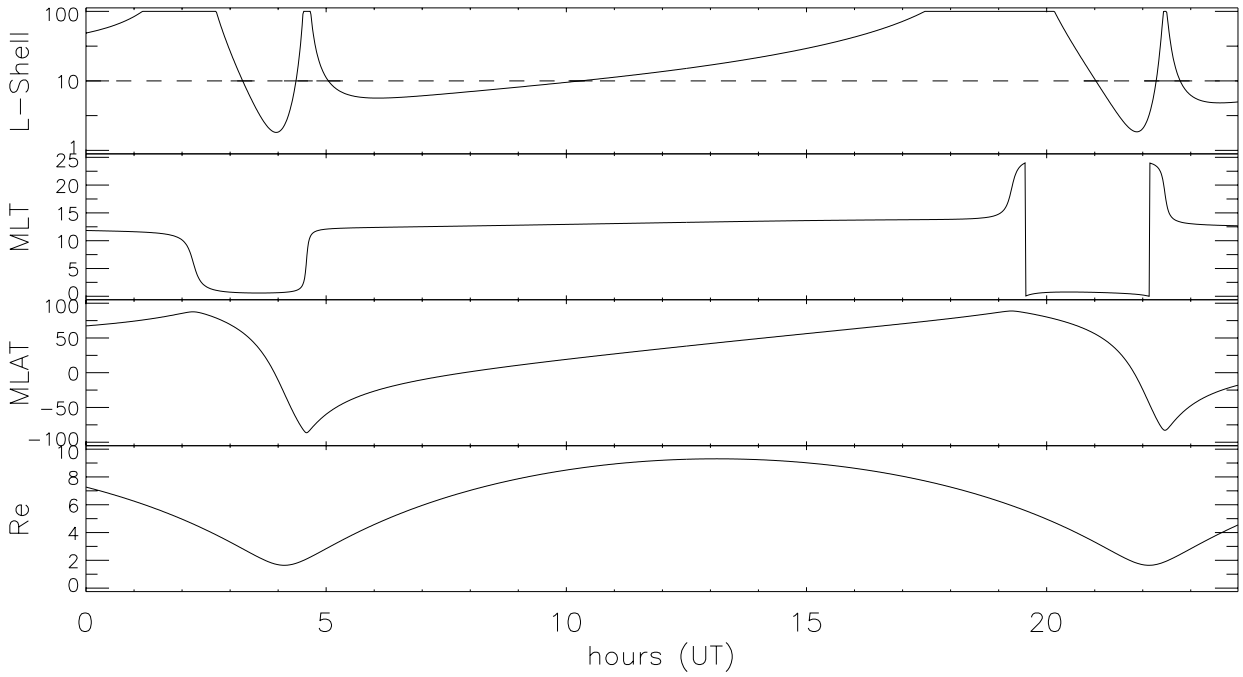




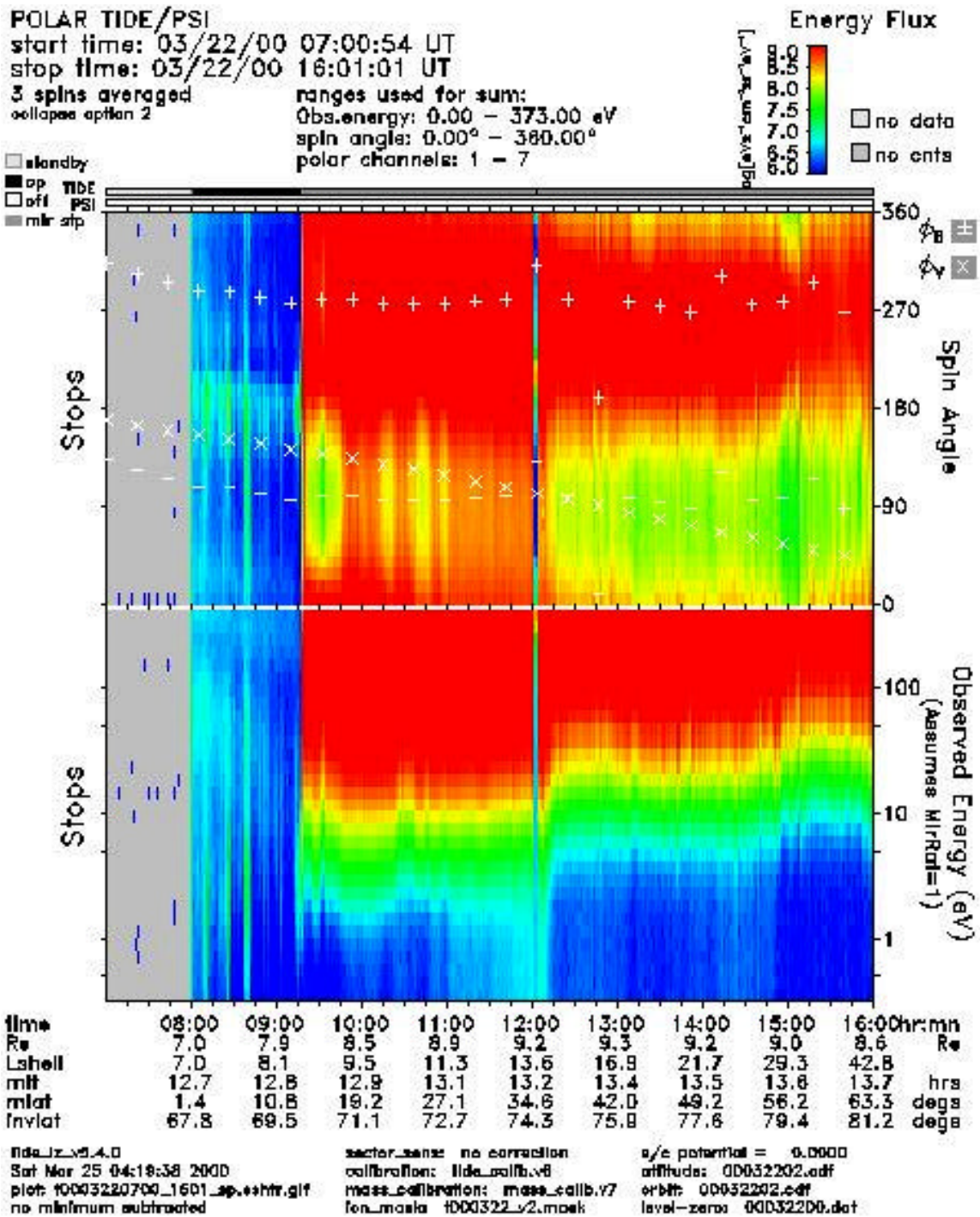
POLAR Orbit 2000/082 (03/22)
L shell of interest = 10.00

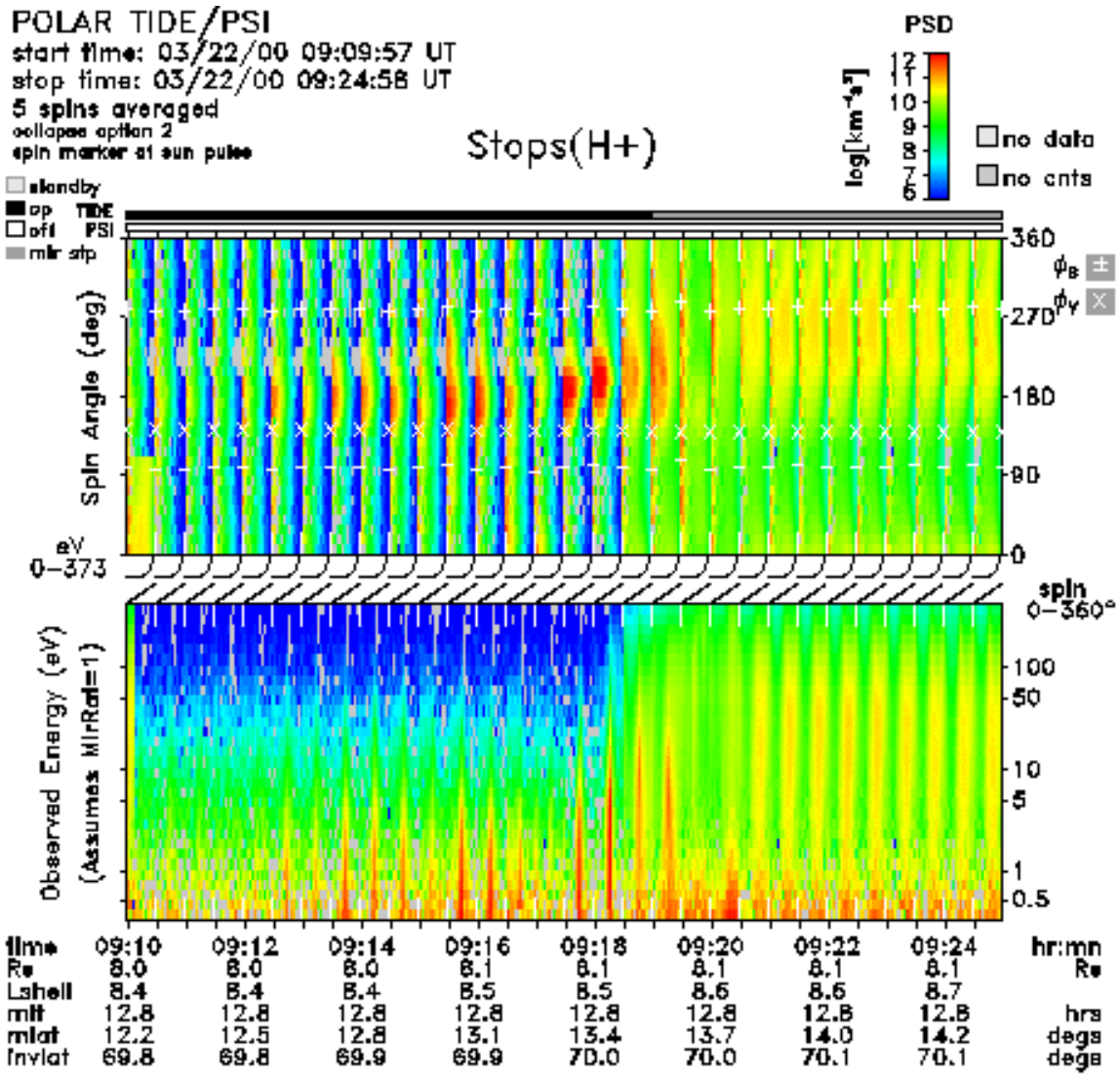
03:15:43	North Pole to Equator =	10.00
04:22:16	Equator to South Pole =	10.00
05:02:47	South Pole to Equator =	10.00
10:17:43	Equator to North Pole =	10.00
21:01:27	North Pole to Equator =	10.00
22:16:47	Equator to South Pole =	10.00
22:46:47	South Pole to Equator =	10.00

07:00:37 Ascending node crossing (2009)



Tue Apr 4 11:06:02 2000
/datafiles/orbit/pre/00032202.cdf
plot_orbit_gsml_v2.0.0

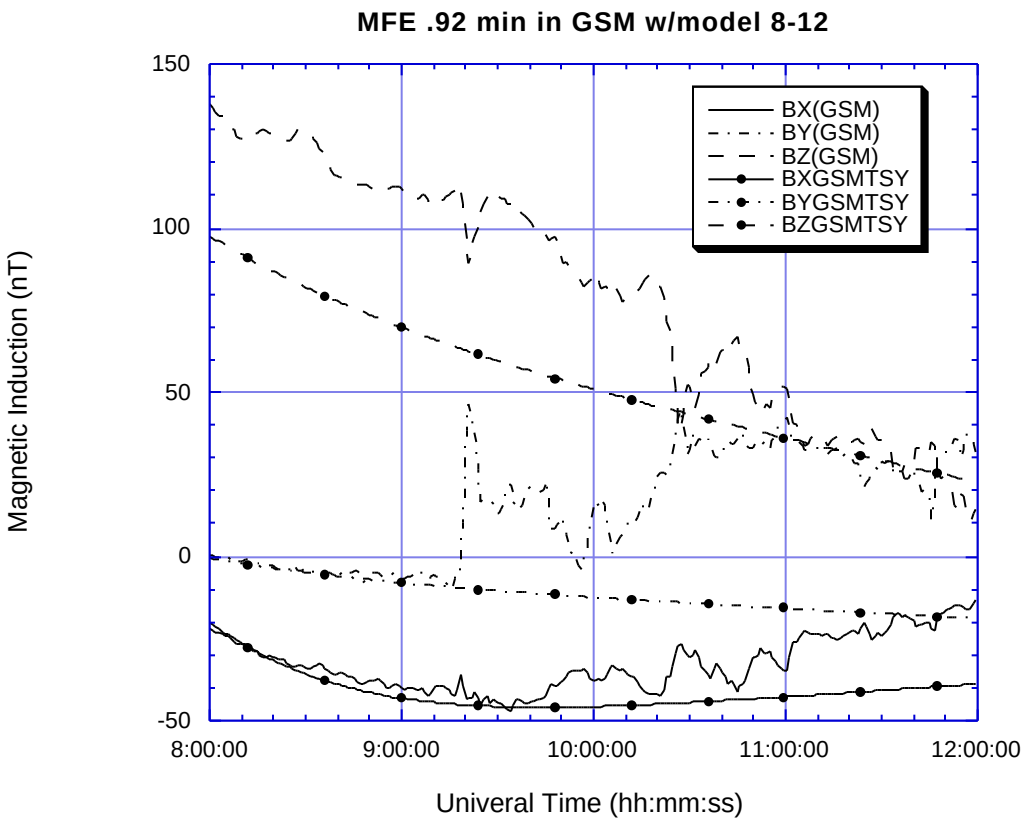

POLAR TIDE/PSI
start time: 03/22/00 07:00:54 UT
stop time: 03/22/00 16:01:01 UT
3 spins averaged
collapse option 2
ranges used for sum:
Obs.energy: 0.00 – 373.00 eV
spin angle: 0.00° – 360.00°
polar channels: 1 – 7
Energy Flux
no data
no cnts
standby
op
off
mir stp
TIDE
PSI
Stops
Spin Angle
Observed Energy (eV)
(Assumes MirRat=1)
time 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 hr:mn
Re 7.0 7.9 8.5 8.9 9.2 9.3 9.2 9.0 8.6 Re
Lshell 7.0 8.1 9.5 11.3 13.6 16.9 21.7 29.3 42.8
mlt 12.7 12.8 12.9 13.1 13.2 13.4 13.5 13.6 13.7 hrs
mlat 1.4 10.8 19.2 27.1 34.6 42.0 49.2 56.2 63.3 degs
invlat 67.8 69.5 71.1 72.7 74.3 75.9 77.6 79.4 81.2 degs
tide_iz_v5.4.0
Sat Mar 25 04:19:38 2000
plot: t0003220700_1601_sp.eshtr.gif
no minimum subtracted
sector_sens: no correction
calibration: tide_calib.v6
mass_calibration: mass_calib.v7
ion_mask: t000322_v2.mask
s/c potential = 0.0000
attitude: 00032202.cdf
orbit: 00032202.cdf
level-zero: 00032200.dat

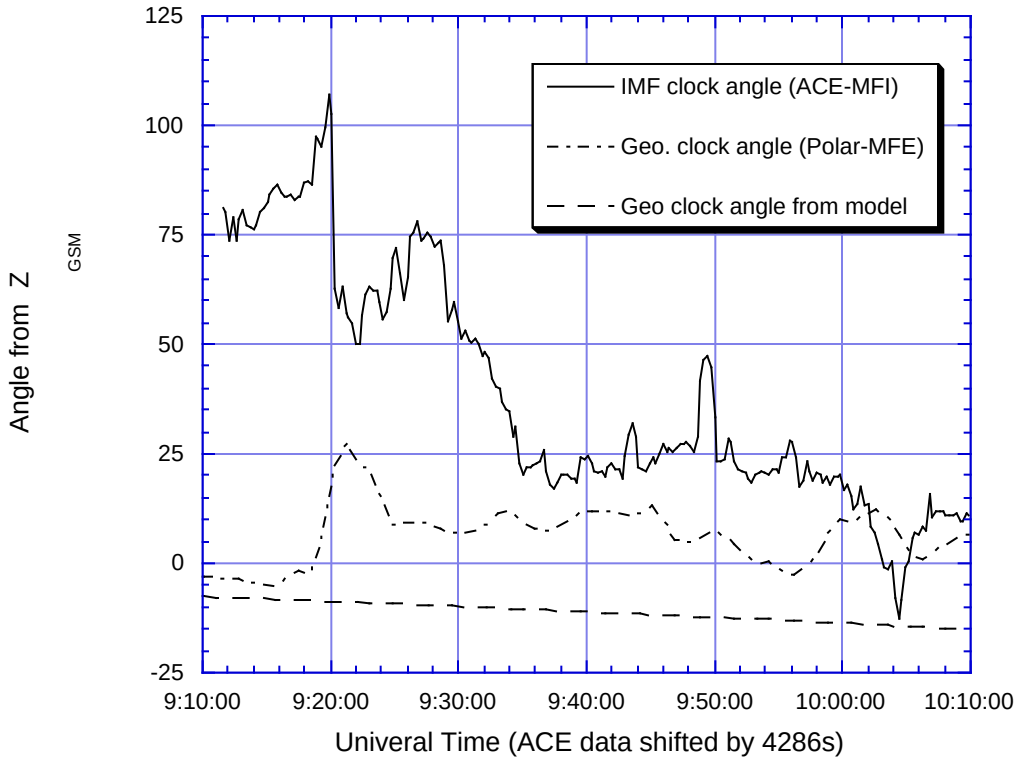


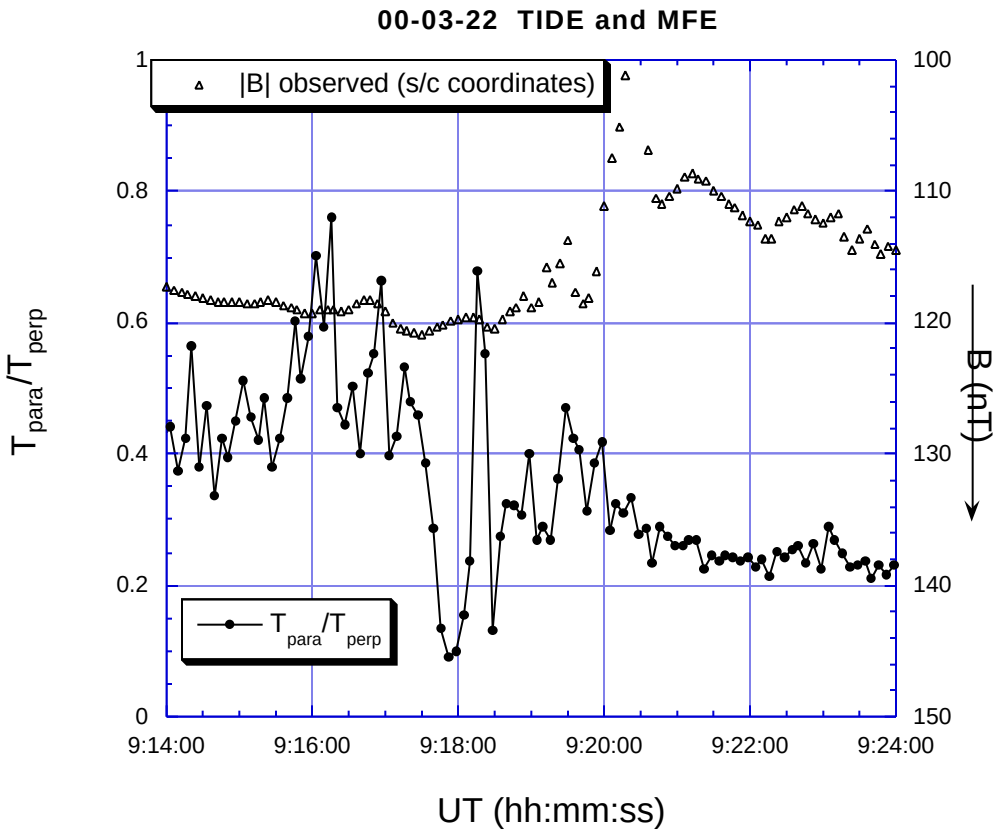
tide_iz_v5.4.0
Thu Apr 13 10:43:07 2000
plot: t0003220909_0924_sp.q9179.esse.gi
no minimum subtracted

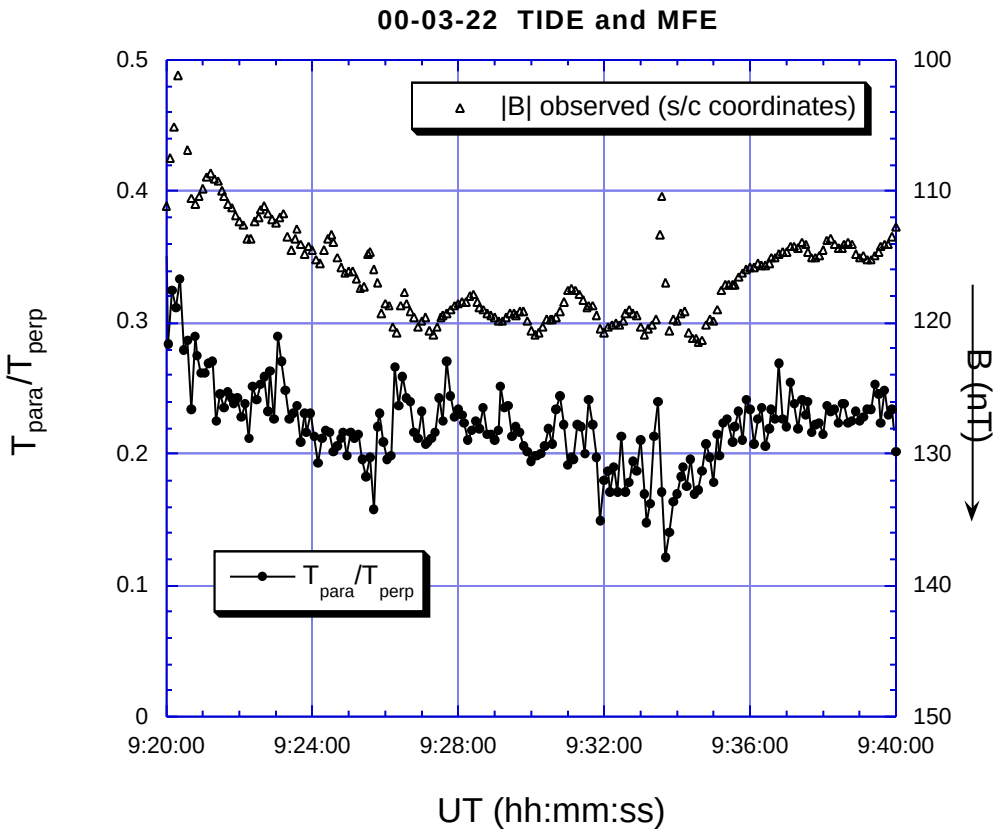
sector_sens: no correction
calibration: tide_calib.v6
mass_calibration: mass_calib.v7
fon_mask: t000322_v2.mask

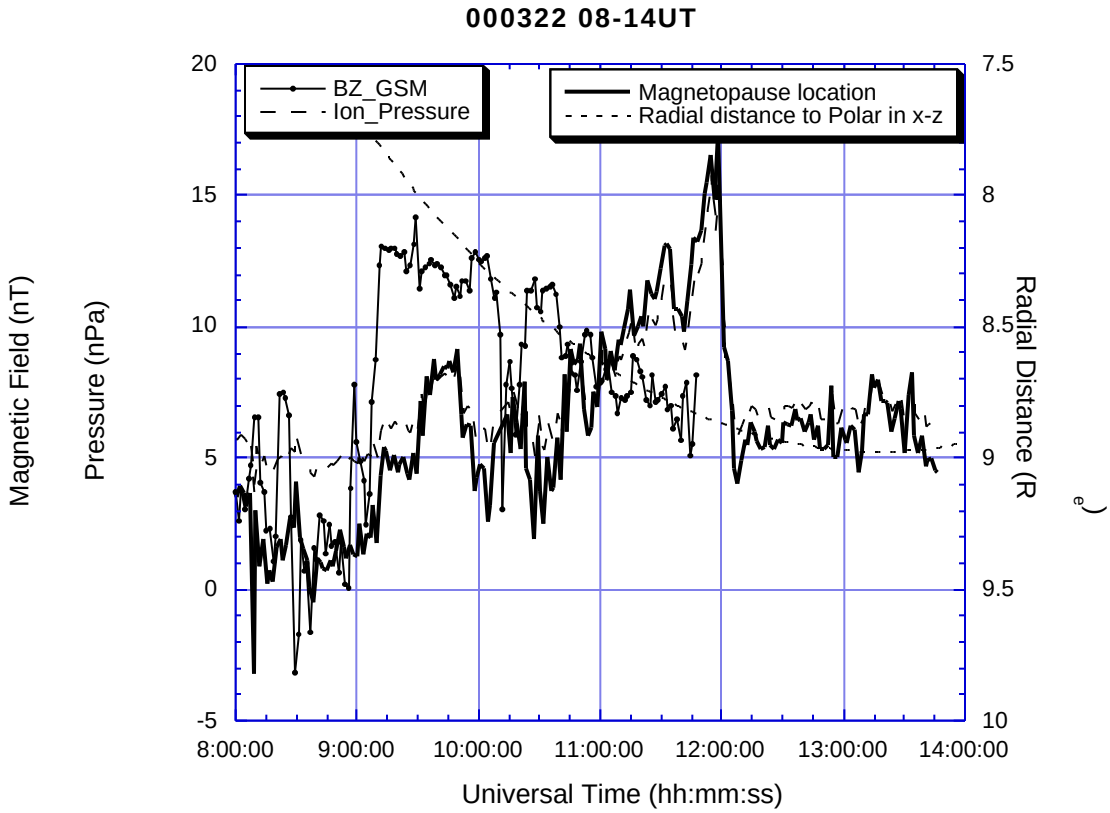
s/c potential = 0.0000
attitude: 00032202.cdf
orbit: 00032202.cdf
level-zero: 00032200.dat

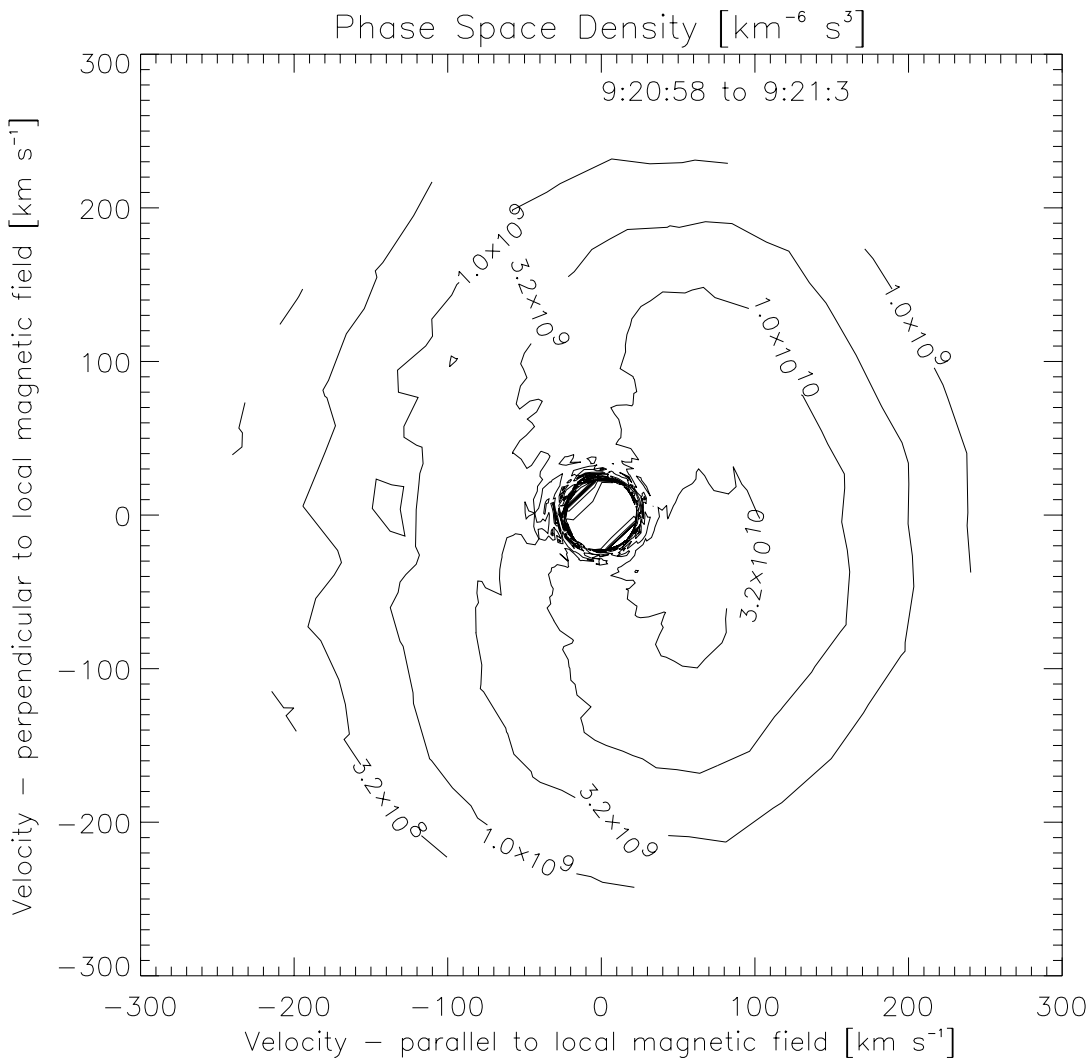

MFE .92 min in GSM w/model 8-12
150
100
50
0
-50
Magnetic Induction (nT)
8:00:00
9:00:00
10:00:00
11:00:00
12:00:00
Univeral Time (hh:mm:ss)
BX(GSM)
BY(GSM)
BZ(GSM)
BXGSMTSY
BYGSMTSY
BZGSMTSY

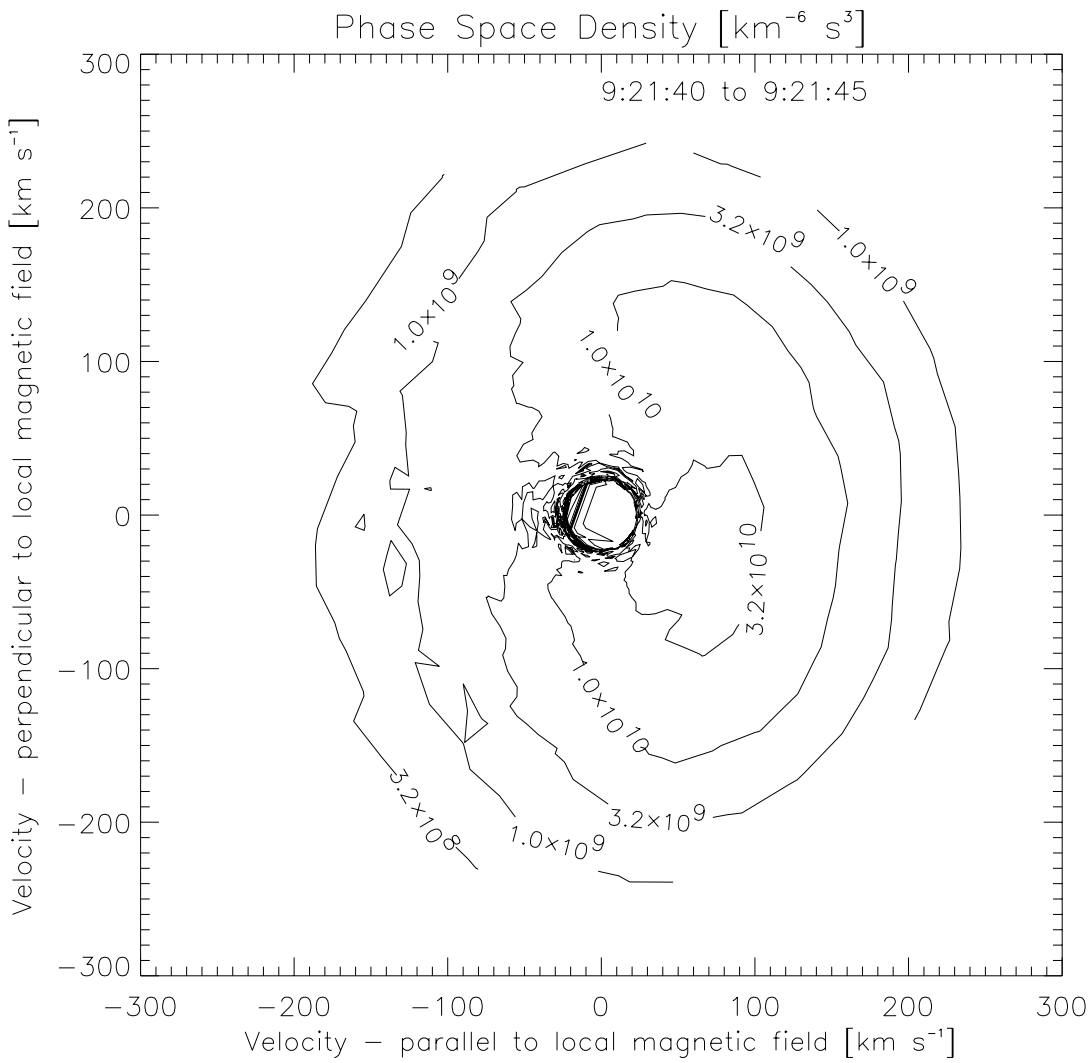

125
100
75
50
25
0
-25
Angle from Z
GSM
IMF clock angle (ACE-MFI)
Geo. clock angle (Polar-MFE)
Geo clock angle from model
9:10:00
9:20:00
9:30:00
9:40:00
9:50:00
10:00:00
10:10:00
Univeral Time (ACE data shifted by 4286s)

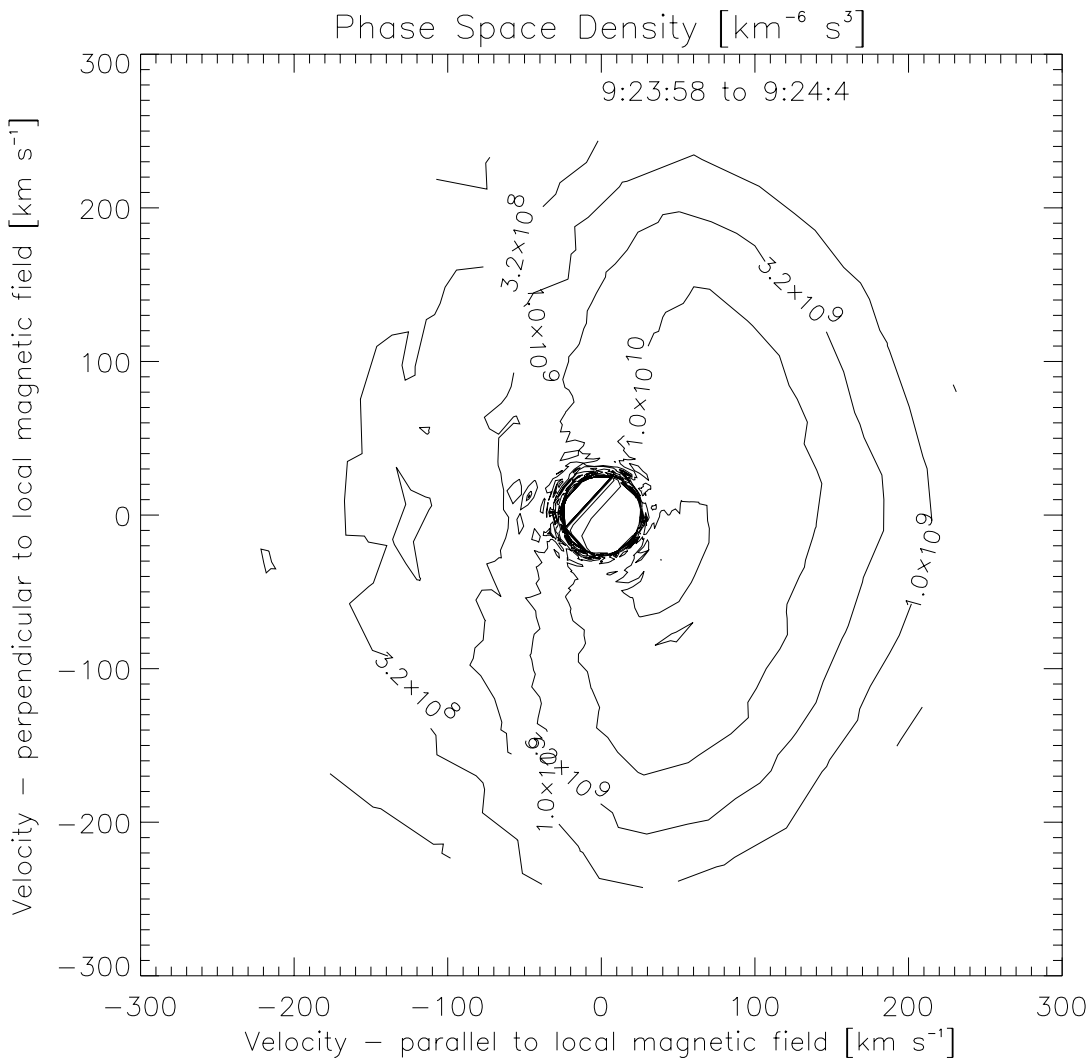

00-03-22 TIDE and MFE
|B| observed (s/c coordinates)
T para /T perp
T para /T perp
B (nT)
UT (hh:mm:ss)
1
0.8
0.6
0.4
0.2
0
100
110
120
130
140
150
9:14:00
9:16:00
9:18:00
9:20:00
9:22:00
9:24:00

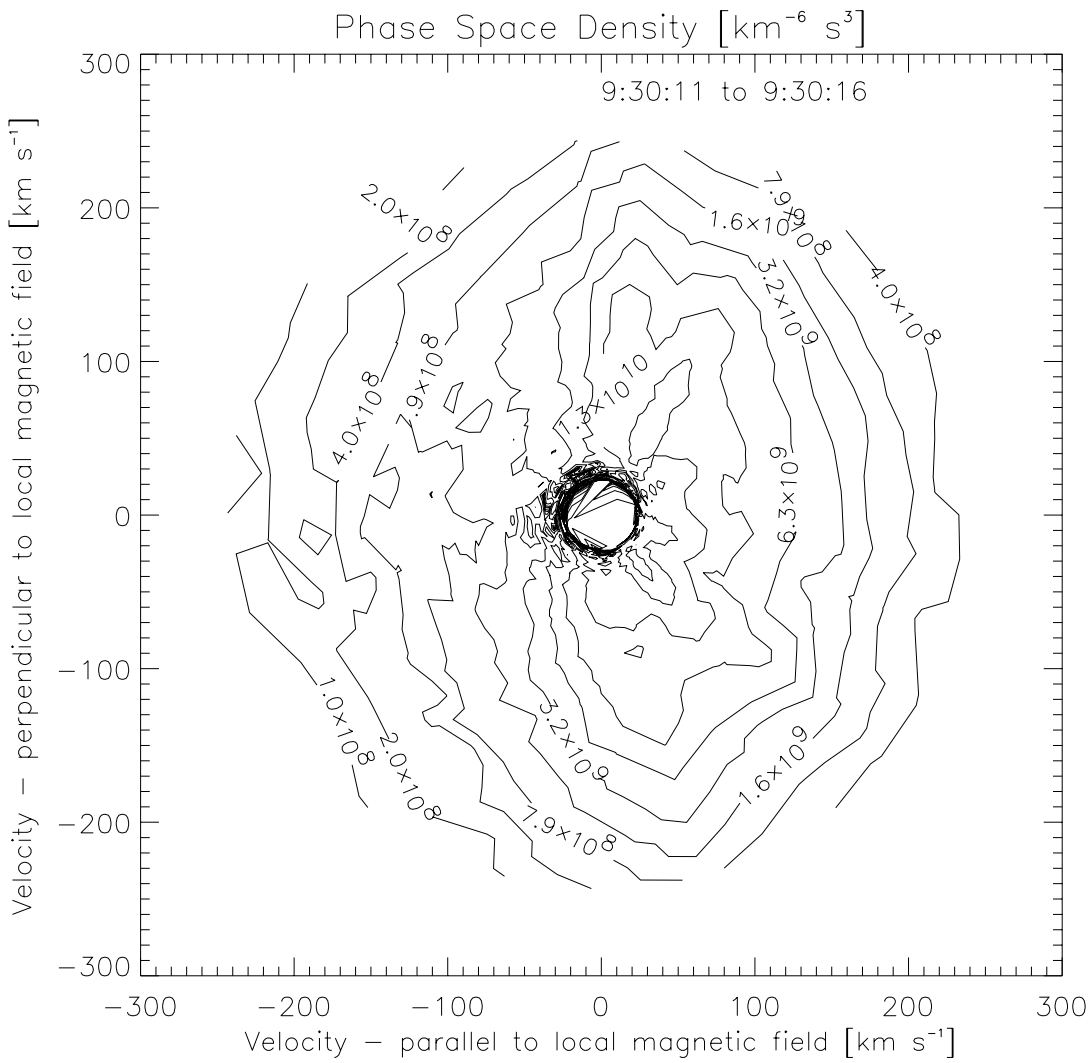

00-03-22 TIDE and MFE
|B| observed (s/c coordinates)
T para/T perp
0.5
0.4
0.3
0.2
0.1
0
100
110
120
130
140
150
B (nT)
9:20:00
9:24:00
9:28:00
9:32:00
9:36:00
9:40:00
UT (hh:mm:ss)

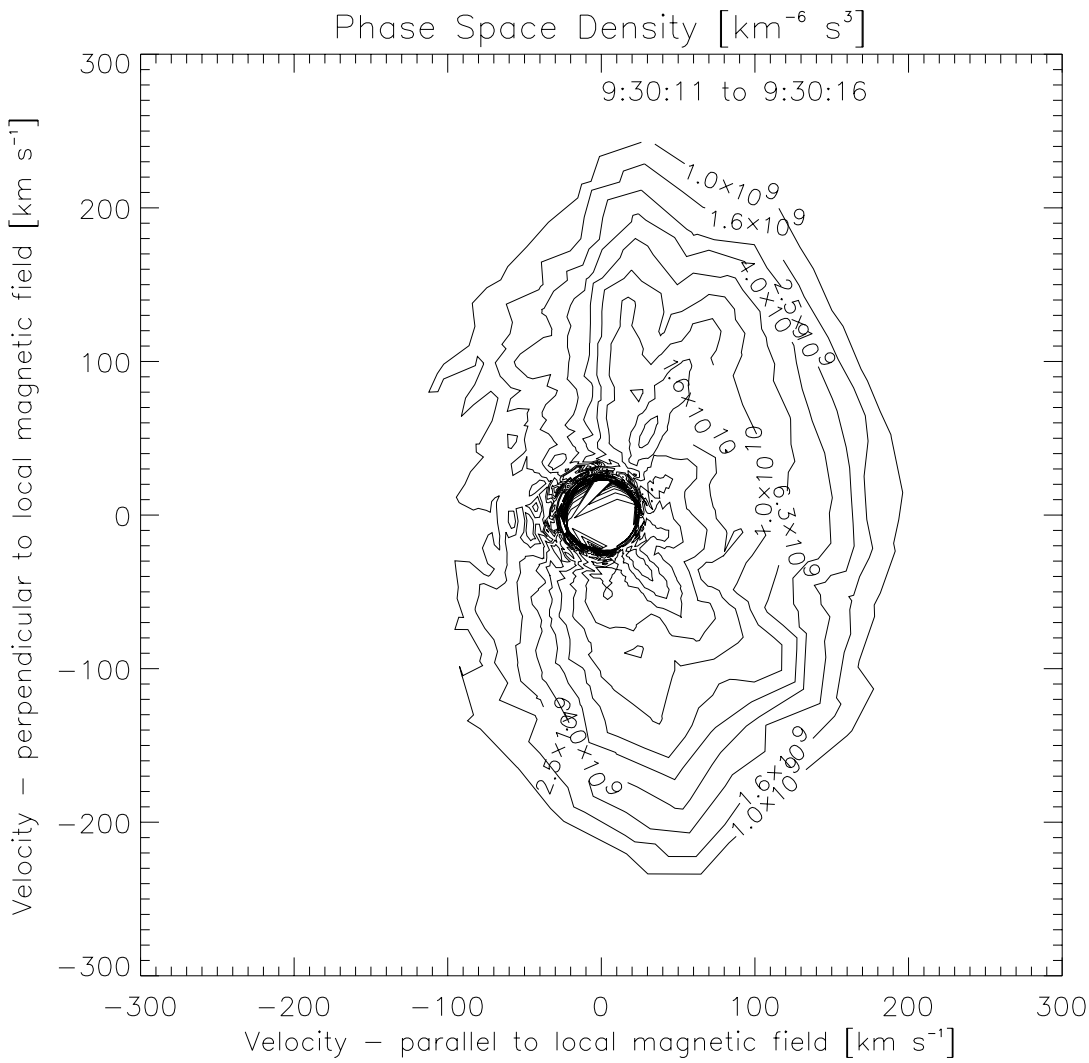

000322 08-14UT
BZ_GSM
Ion_Pressure
Magnetopause location
Radial distance to Polar in x-z
Magnetic Field (nT)
Pressure (nPa)
Radial Distance (R e)
20
15
10
5
0
-5
7.5
8
8.5
9
9.5
10
8:00:00
9:00:00
10:00:00
11:00:00
12:00:00
13:00:00
14:00:00
Universal Time (hh:mm:ss)


Phase Space Density [km^{-6} s^{3}]
9:20:58 to 9:21:3
1.0x10^{9}
3.2x10^{9}
1.0x10^{10}
1.0x10^{9}
3.2x10^{10}
3.2x10^{8}
1.0x10^{9}
3.2x10^{9}
300
200
100
0
−100
−200
−300
Velocity − perpendicular to local magnetic field [km s^{-1}]
−300
−200
−100
0
100
200
300
Velocity − parallel to local magnetic field [km s^{-1}]


Phase Space Density [km^{-6} s^{3}]
9:21:40 to 9:21:45
Velocity − perpendicular to local magnetic field [km s^{-1}]
Velocity − parallel to local magnetic field [km s^{-1}]
300
200
100
0
−100
−200
−300
−300
−200
−100
0
100
200
300
1.0×10^{9}
3.2×10^{9}
1.0×10^{9}
1.0×10^{10}
3.2×10^{10}
1.0×10^{10}
3.2×10^{9}
1.0×10^{9}
3.2×10^{8}


Phase Space Density [km^{-6} s^{3}]
9:23:58 to 9:24:4
3.2×10^{8}
1.0×10^{9}
1.0×10^{10}
3.2×10^{9}
1.0×10^{9}
3.2×10^{8}
1.0×10^{9}
3.2×10^{9}
Velocity − perpendicular to local magnetic field [km s^{-1}]
Velocity − parallel to local magnetic field [km s^{-1}]
300
200
100
0
−100
−200
−300
−300
−200
−100
0
100
200
300


Phase Space Density [km^{-6} s^{3}]
9:30:11 to 9:30:16
Velocity − perpendicular to local magnetic field [km s^{-1}]
Velocity − parallel to local magnetic field [km s^{-1}]
300
200
100
0
−100
−200
−300
2.0×10^{8}
4.0×10^{8}
7.9×10^{8}
1.6×10^{9}
3.2×10^{9}
6.3×10^{9}
1.3×10^{10}
1.0×10^{8}


Phase Space Density [km^{-6} s^{3}]
9:30:11 to 9:30:16
1.0×10^{9}
1.6×10^{9}
2.5×10^{9}
4.0×10^{9}
6.3×10^{9}
1.0×10^{10}
1.6×10^{10}
2.5×10^{9}
4.0×10^{9}
6.3×10^{9}
1.0×10^{9}
1.6×10^{9}
300
200
100
0
−100
−200
−300
Velocity − perpendicular to local magnetic field [km s^{-1}]
Velocity − parallel to local magnetic field [km s^{-1}]