# 2010-10-04 Monday Morning Notes

Friday, October 01, 2010
12:55 PM

## On-call

- Friday: Tony Leveling
- Saturday: Jim Morgan
- Sunday: Keith Gollwitzer
- Monday: Vladimir Nagaslaev

## Stacking

- Friday:
  - Stacktail Fanout phasing
  - Added 1.25" to the dump water skid
  - Completed Target Blower Maintenance.
  - Stacking returns just after 15:00 following MI downtime
  - Accumulator emittances worse with Stacktail changes in, so reverted. This could be an indication that something else is wrong with the stacktail. Need to look into this further.
- Experimented with various cycle times. Found with the current cooling, 2.8 seconds seemed to be optimal.
- AP5001 devices showed 57 -10 errors. Charlie Briegel came in and made modifications to the startup script. Accumulator NMR probe still reads back zero.
- D:Q702 and D:QS703 output oscillations got much worse after 6am on Saturday. D:Q702 now has an output oscillation of 5A and D:QS703 has a noise oscillation of 10A.
- Stacking Numbers
  - <stacking rate> = 26.9mA/hr
  - <production>= 24.4 pbar/Mp
  - <beam on target> = 8.56 Tp
  - Average stacking is up 4% from Friday's numbers

## Transfers

- Unstacked 1550.7e10 in 192 transfers over 63 sets.
- Daily average was 517e10 in 64 transfers over 21 sets
- <efficiency> = 95.3%
- Efficiency was down about 0.5 to 1.0% from Friday's numbers

## MISC

- Temperature regulation in the Booster West Towers is an issue.
- This morning offices were only 56.7-deg F!
- Tony reports that the boiler maintenance at CUB is behind schedule. We should expect the cold office temperatures for one to two more weeks.

## The Numbers

- Stacking
  - Pbars stacked: 1542.77 E10
  - Time stacking: 61.38 Hr
  - Average stacking rate: 25.14 E10/Hr

- Uptime
  - Number of pulses while in stacking mode: 79583
  - Number of pulses with beam: 74730

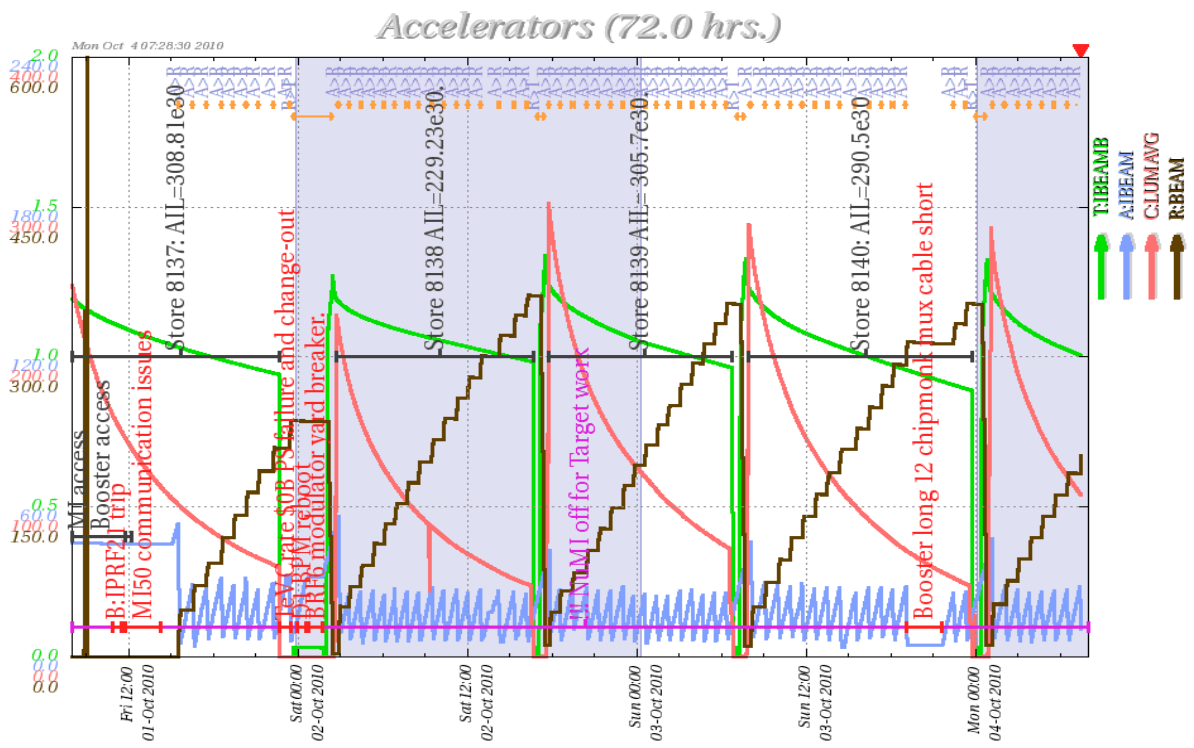
- Fraction of up pulses was: 93.90%

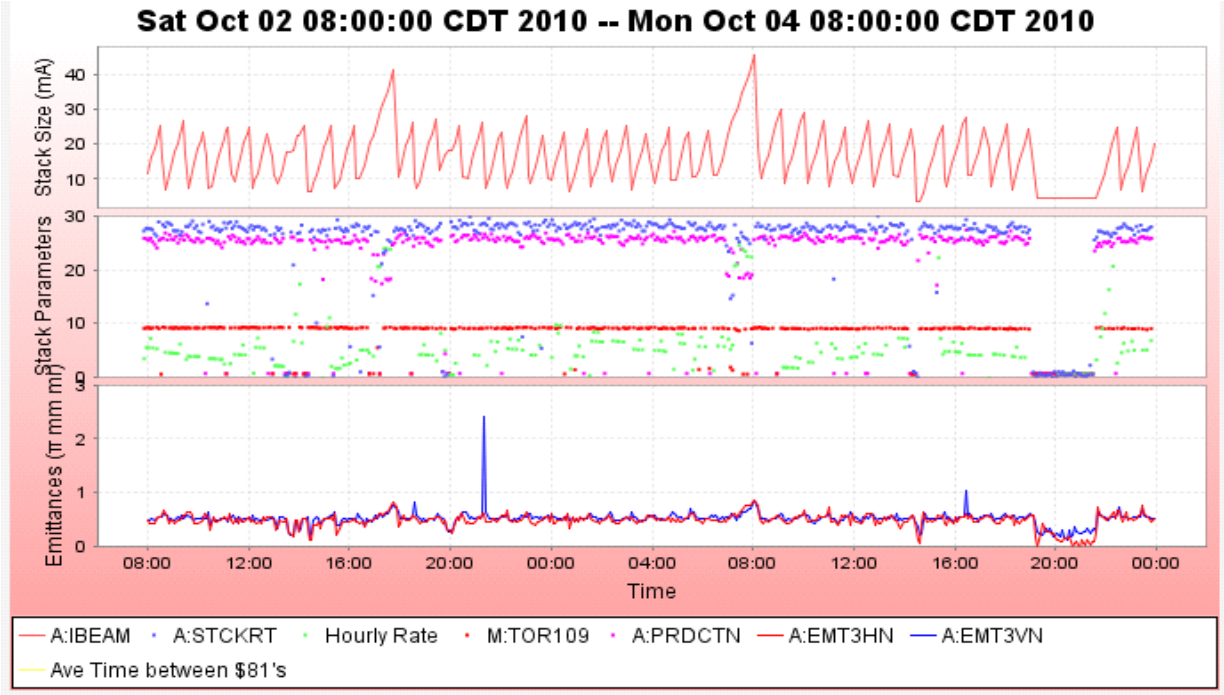
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 57.63 Hr
  - Possible average stacking rate: 26.77 E10/Hr
  - Could have stacked: 1642.96 E10/Hr

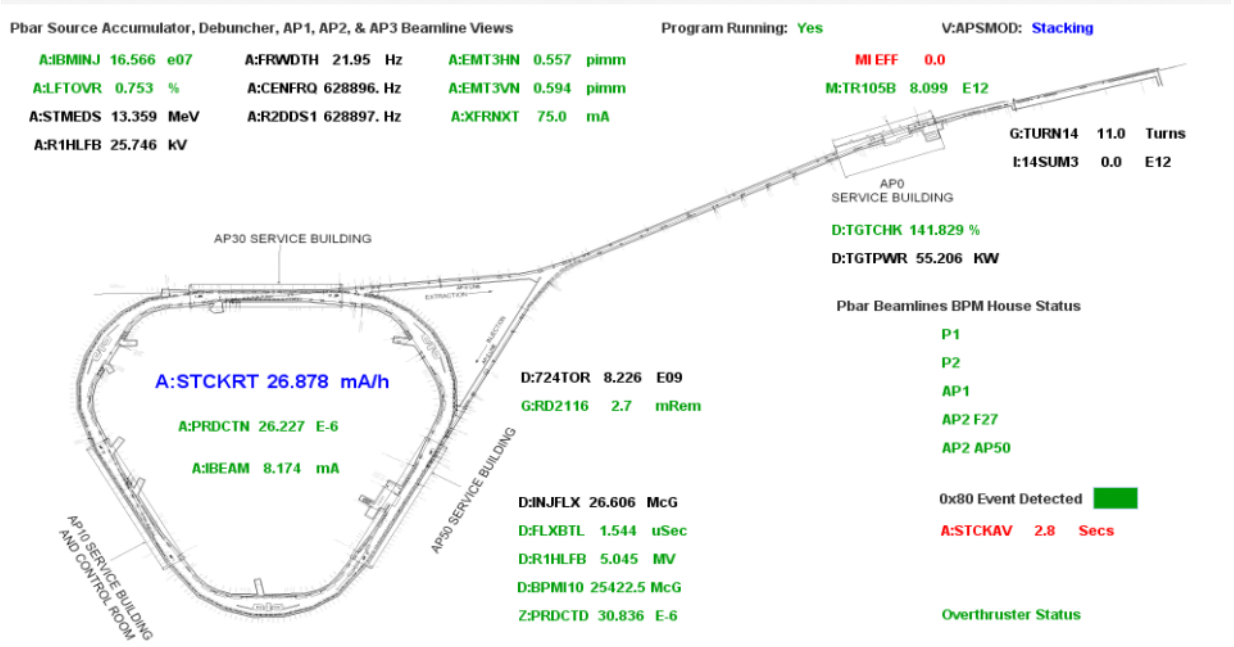
- Recycler Transfers
  - Pbars sent to the Recycler: 1545.61 E10
  - Number of transfers : 191
  - Number of transfer sets: 64
  - Average Number of transfer per set: 2.98
  - Time taken to shoot including reverse proton tuneup: 00.67 Hr
  - Transfer efficiency: 95.45%

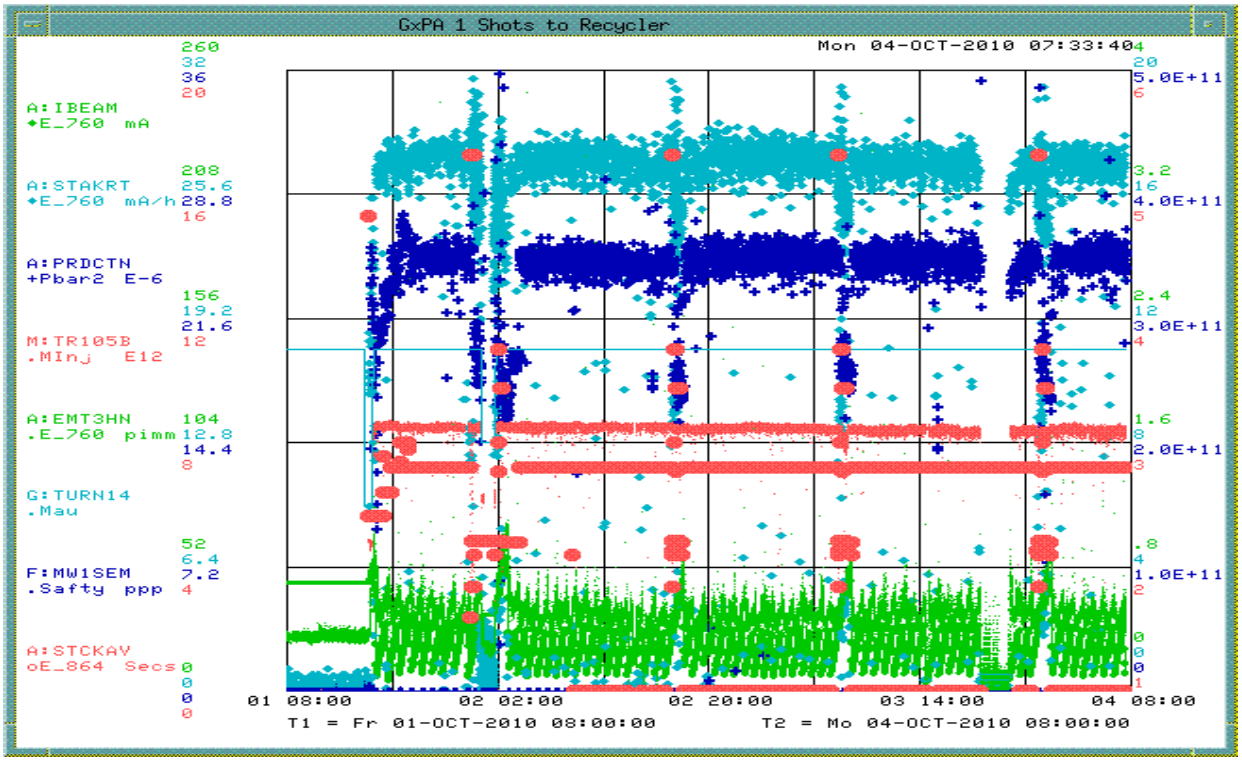
- Other Info
  - Average POT : 8.43 E12
  - Average production: 24.49 pbars/E6 protons

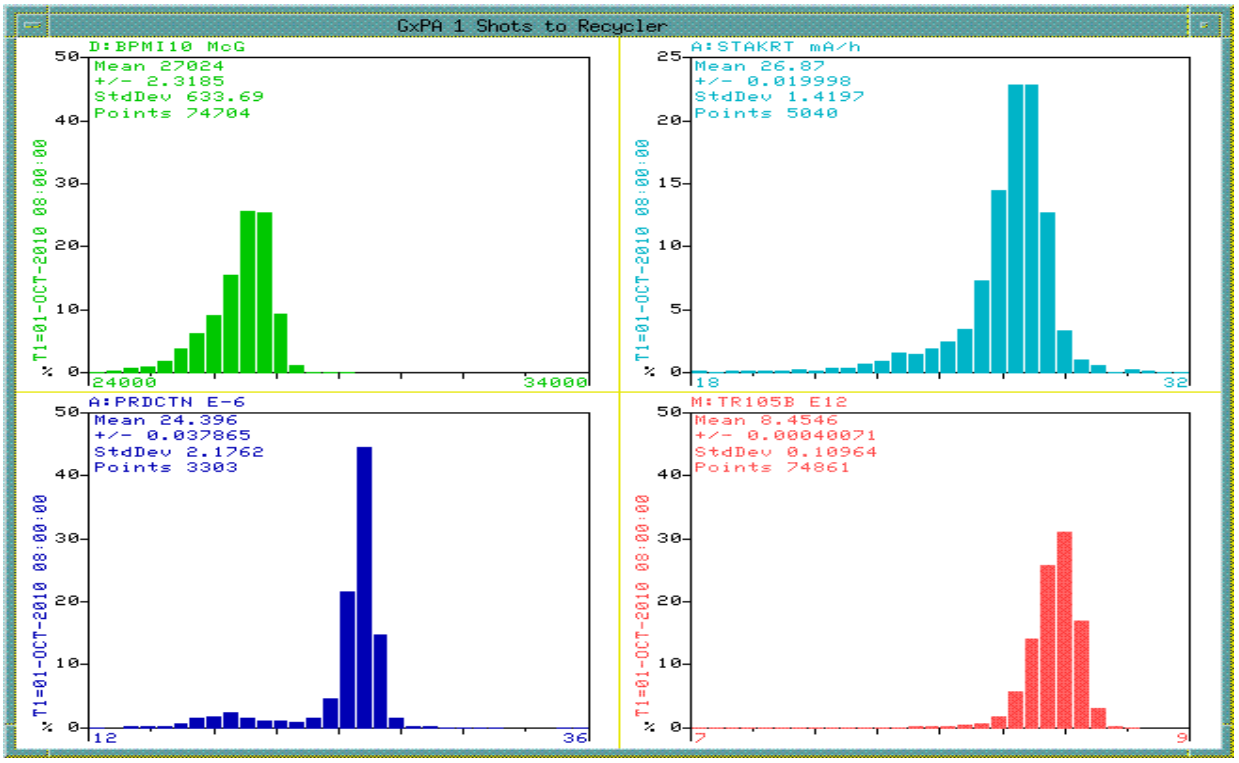
## The Plots

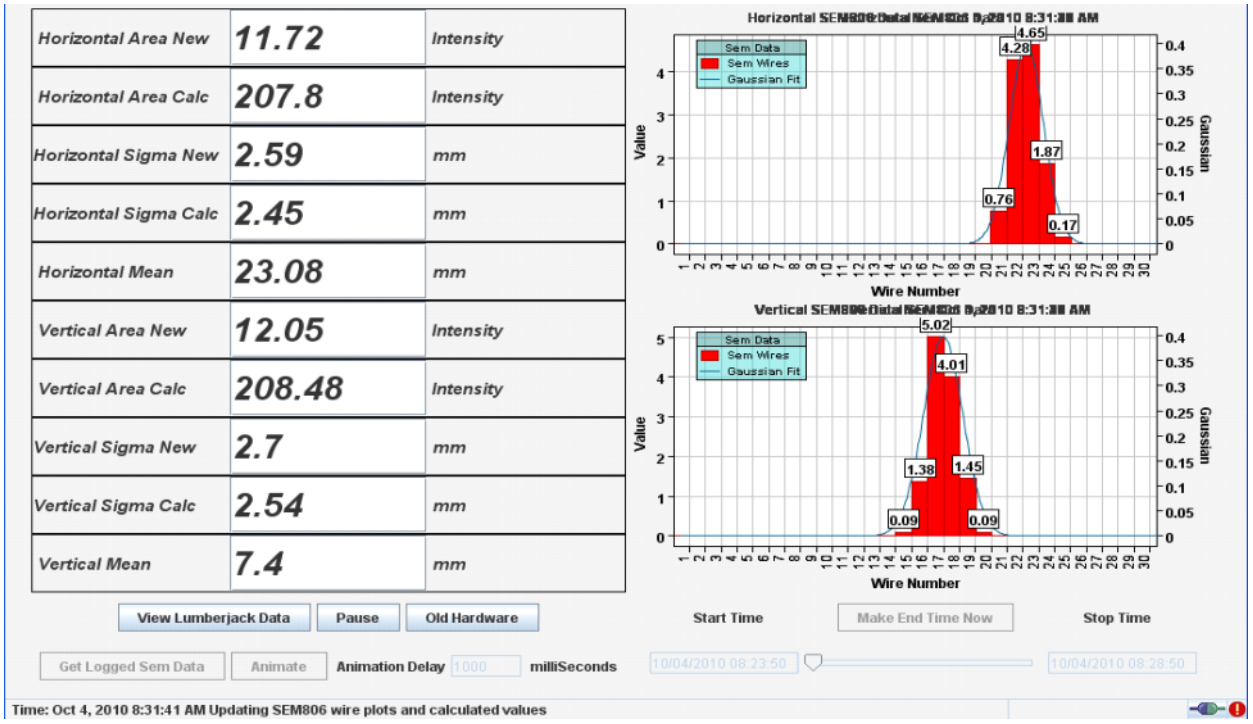


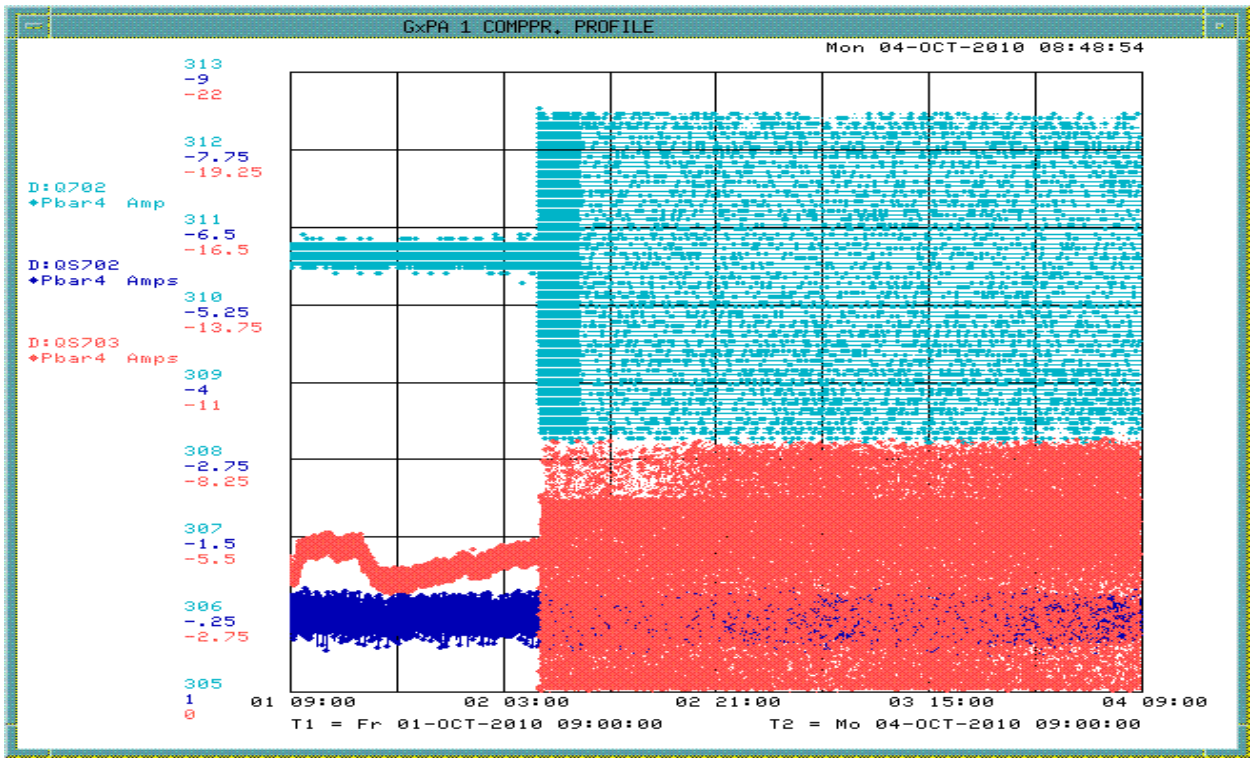

Sat Oct 02 08:00:00 CDT 2010 -- Mon Oct 04 08:00:00 CDT 2010
Stack Size (mA)
Stack Parameters
Emittances (π mm mr)
08:00
12:00
16:00
20:00
00:00
04:00
08:00
12:00
16:00
20:00
00:00
Time
A:IBEAM
A:STCKRT
Hourly Rate
M:TOR109
A:PRDCTN
A:EMT3HN
A:EMT3VN
Ave Time between $81's

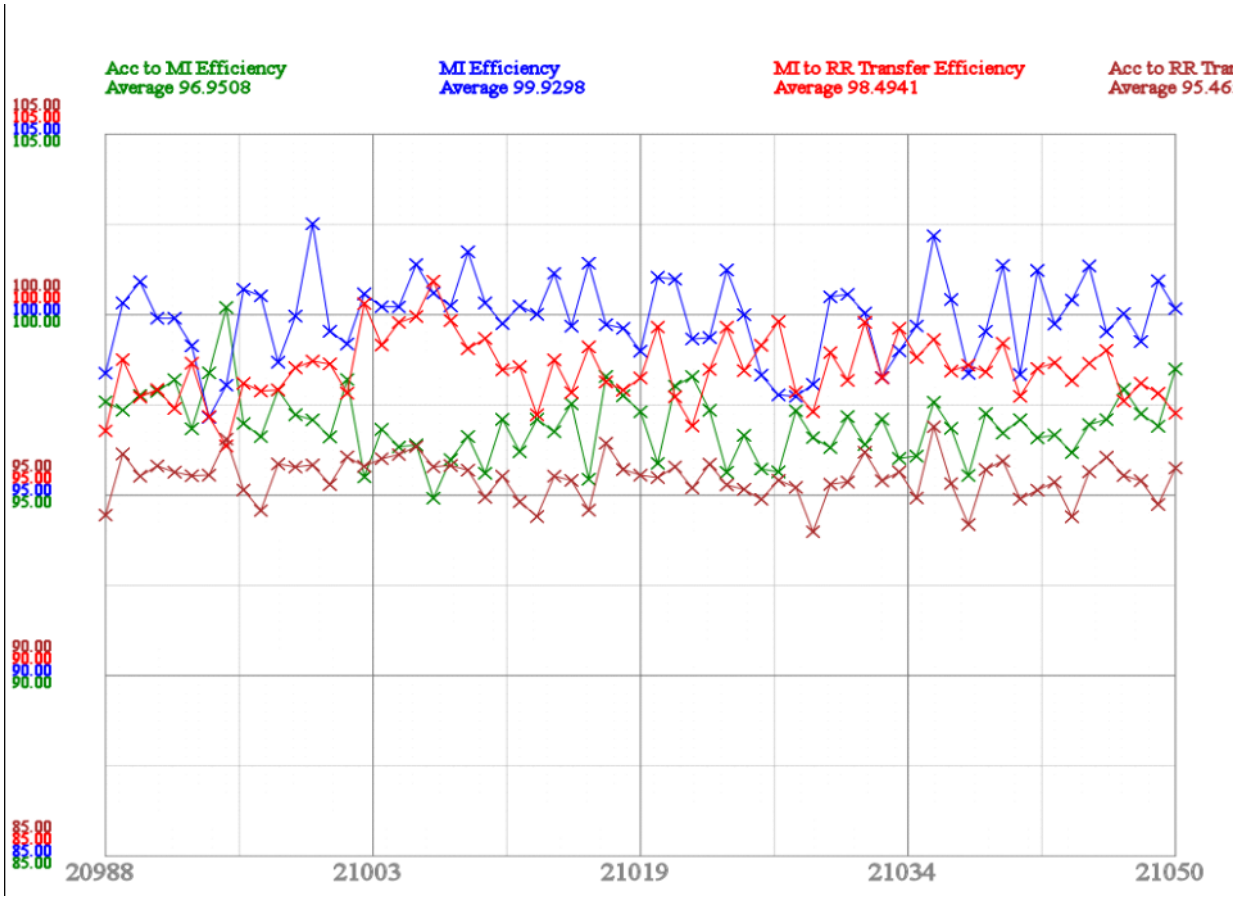

Pbar Source Accumulator, Debuncher, AP1, AP2, & AP3 Beamline Views
Program Running: Yes
V:APSMOD: Stacking
A:IBMINJ 16.566 e07
A:LFTOVR 0.753 %
A:STMEDS 13.359 MeV
A:R1HLFB 25.746 kV
A:FRWDTH 21.95 Hz
A:CENFRQ 628896. Hz
A:R2DDS1 628897. Hz
A:EMT3HN 0.557 pimm
A:EMT3VN 0.594 pimm
A:XFRNXT 75.0 mA
MI EFF 0.0
M:TR105B 8.099 E12
G:TURN14 11.0 Turns
I:14SUM3 0.0 E12
AP0 SERVICE BUILDING
D:TGTCHK 141.829 %
D:TGTPWR 55.206 KW
AP30 SERVICE BUILDING
Pbar Beamlines BPM House Status
P1
P2
AP1
AP2 F27
AP2 AP50
A:STCKRT 26.878 mA/h
A:PRDCTN 26.227 E-6
A:IBEAM 8.174 mA
D:724TOR 8.226 E09
G:RD2116 2.7 mRem
AP50 SERVICE BUILDING
AP10 SERVICE BUILDING AND CONTROL ROOM
D:INJFLX 26.606 McG
D:FLXBTL 1.544 uSec
D:R1HLFB 5.045 MV
D:BPMI10 25422.5 McG
Z:PRDCTD 30.836 E-6
0x80 Event Detected
A:STCKAV 2.8 Secs
Overthruster Status


GxPA 1 Shots to Recycler
Mon 04-OCT-2010 07:33:40
A:IBEAM
+E_760 mA
A:STAKRT
+E_760 mA/h
A:PRDCTN
+Pbar2 E-6
M:TR105B
.MInj E12
A:EMT3HN
.E_760 pimm
G:TURN14
.Mau
F:MW1SEM
.Safty ppp
A:STCKAY
oE_864 Secs
01 08:00
02 02:00
02 20:00
03 14:00
04 08:00
T1 = Fr 01-OCT-2010 08:00:00
T2 = Mo 04-OCT-2010 08:00:00

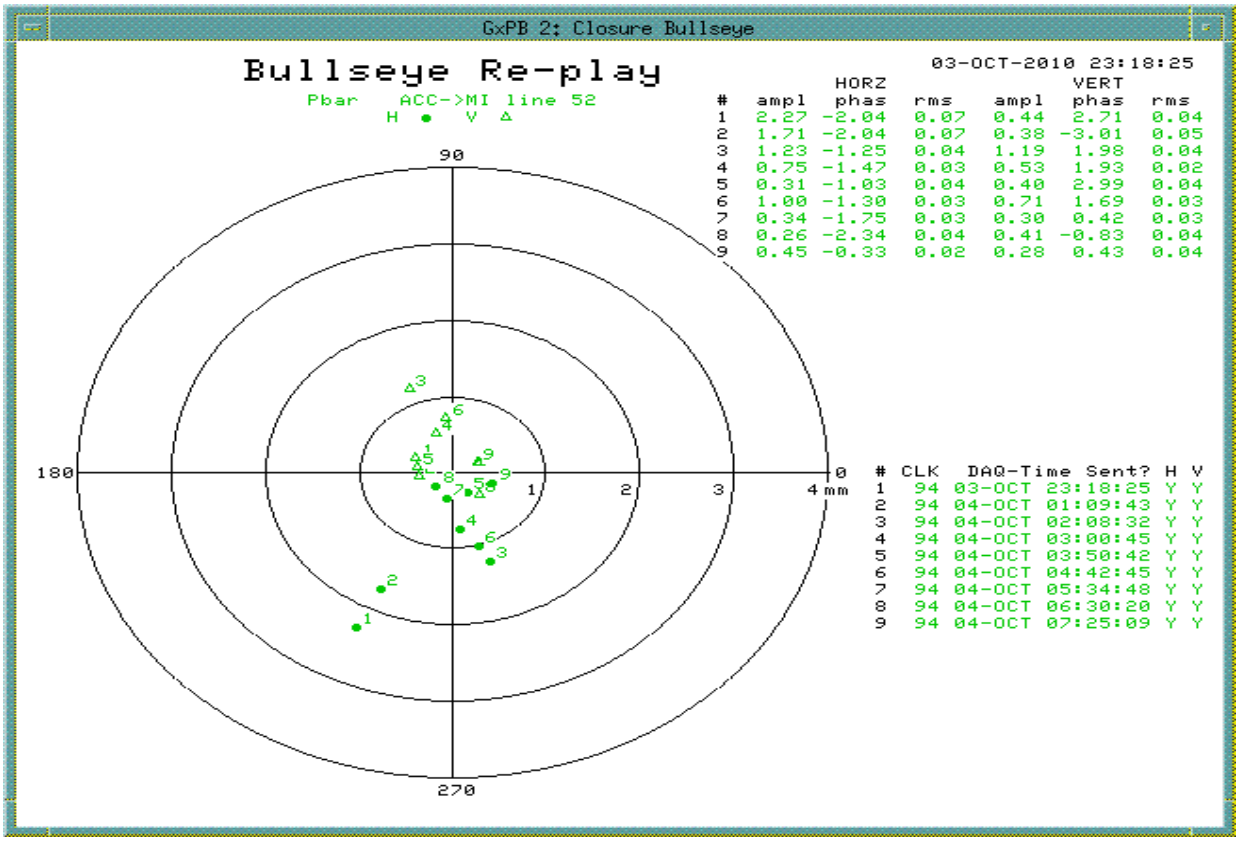

GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 27024
+/- 2.3185
StdDev 633.69
Points 74704
A:STAKRT mA/h
Mean 26.87
+/- 0.019998
StdDev 1.4197
Points 5040
A:PRDCTN E-6
Mean 24.396
+/- 0.037865
StdDev 2.1762
Points 3303
M:TR105B E12
Mean 8.4546
+/- 0.00040071
StdDev 0.10964
Points 74861
T1=01-OCT-2010 08:00:00


Horizontal Area New 11.72 Intensity
Horizontal Area Calc 207.8 Intensity
Horizontal Sigma New 2.59 mm
Horizontal Sigma Calc 2.45 mm
Horizontal Mean 23.08 mm
Vertical Area New 12.05 Intensity
Vertical Area Calc 208.48 Intensity
Vertical Sigma New 2.7 mm
Vertical Sigma Calc 2.54 mm
Vertical Mean 7.4 mm
Sem Data
Sem Wires
Gaussian Fit
Value
Gaussian
Wire Number
View Lumberjack Data
Pause
Old Hardware
Start Time
Make End Time Now
Stop Time
Get Logged Sem Data
Animate
Animation Delay
milliSeconds
Time: Oct 4, 2010 8:31:41 AM Updating SEM806 wire plots and calculated values


GxPA 1 COMPPR. PROFILE
Mon 04-OCT-2010 08:48:54
D:Q702
Pbar4 Amp
D:QS702
Pbar4 Amps
D:QS703
Pbar4 Amps
T1 = Fr 01-OCT-2010 09:00:00
T2 = Mo 04-OCT-2010 09:00:00


Acc to MI Efficiency
Average 96.9508
MI Efficiency
Average 99.9298
MI to RR Transfer Efficiency
Average 98.4941
Acc to RR Tra
Average 95.46
105.00
100.00
95.00
90.00
85.00
20988
21003
21019
21034
21050

| Column 1 Number_0_Pbar Transfer Shot # | Column 4 Number_3_Transfer Time | | Column 21 Number_20_A:IBEAMB sampled on $91 (A:BEAM7), E10 | Column 22 Number_21_A:IBEAMB sampled on $94 (A:BEAM9), E10 | Unstacked (mA) | Column 23 Number_22_R:BEAMS (R:BEAME0[0]) pre xfer E10 | Column 24 Number_23_R:BEAM (R:BEAME0[1]) post xfer, E10 | Stashed | Acc to RR Eff | Acc to MI Eff | Acc to MI2 Eff | Acc to MI * Acc to MI2 Efficiency | Transfers | Sets | Column 5 Number_4_Acc Horizontal Emittance | Column 6 Number_5_Acc Vertical Emittance | Column 8 Number_7_Acc Longitudinal Emittance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Totals => | | | | 1550.71 | | | 1478.10 | 95.32% | 96.90% | 96.84% | 93.84% | 192 | 63 | 5.0605 | 5.0507 | 1.934 |
| | Daily Average => | | | | 516.90 | | | 492.70 | | | | | 64 | 21 | | | |
| 21050 | Monday, October 04, 2010 | 6:30 | 27.24 | 6.69 | 23.10 | 161.96 | 183.94 | 22.13 | 95.77% | 98.07% | 97.63% | 95.74% | 3 | 1 | 4.989 | 4.913 | 1.973 |
| 21049 | Monday, October 04, 2010 | 5:34 | 26.69 | 6.45 | 22.83 | 140.60 | 162.17 | 21.64 | 94.80% | 96.82% | 97.55% | 94.45% | 3 | 1 | 4.976 | 5.122 | 1.965 |
| 21048 | Monday, October 04, 2010 | 4:42 | 26.53 | 6.46 | 22.52 | 119.32 | 140.79 | 21.52 | 95.54% | 97.34% | 97.17% | 94.58% | 3 | 1 | 4.917 | 5.298 | 1.964 |
| 21047 | Monday, October 04, 2010 | 3:50 | 25.78 | 5.92 | 22.23 | 98.30 | 119.49 | 21.25 | 95.59% | 97.52% | 97.73% | 95.31% | 3 | 1 | 4.67 | 4.834 | 1.958 |
| 21046 | Monday, October 04, 2010 | 3:00 | 27.16 | 6.36 | 23.24 | 76.15 | 98.43 | 22.32 | 96.04% | 97.66% | 97.18% | 94.91% | 3 | 1 | 4.973 | 4.969 | 1.958 |
| 21045 | Monday, October 04, 2010 | 2:08 | 28.88 | 6.59 | 24.73 | 52.75 | 76.27 | 23.61 | 95.44% | 96.96% | 98.07% | 95.09% | 3 | 1 | 5.141 | 5.391 | 1.946 |
| 21044 | Monday, October 04, 2010 | 1:09 | 47.25 | 7.12 | 43.67 | 12.11 | 52.88 | 41.00 | 93.89% | 96.06% | 96.35% | 92.56% | 4 | 1 | 6.578 | 6.412 | 1.88 |
| 21043 | Sunday, October 03, 2010 | 23:18 | 25.97 | 6.26 | 22.26 | 333.00 | 353.96 | 21.19 | 95.18% | 96.12% | 96.56% | 92.81% | 3 | 1 | 5.306 | 5.118 | 1.975 |
| 21042 | Sunday, October 03, 2010 | 22:27 | 25.71 | 6.12 | 22.06 | 313.01 | 333.74 | 20.93 | 94.86% | 96.15% | 96.93% | 93.20% | 3 | 1 | 5.196 | 5.397 | 1.964 |
| 21041 | Sunday, October 03, 2010 | 19:03 | 28.15 | 4.64 | 24.84 | 292.20 | 315.58 | 23.59 | 94.94% | 97.03% | 95.70% | 92.86% | 3 | 1 | 4.339 | 4.544 | 1.895 |
| 21040 | Sunday, October 03, 2010 | 18:08 | 27.11 | 6.40 | 23.21 | 270.85 | 292.92 | 22.26 | 95.92% | 96.95% | 97.85% | 94.87% | 3 | 1 | 4.896 | 4.907 | 1.955 |
| 21039 | Sunday, October 03, 2010 | 17:18 | 28.14 | 7.62 | 23.06 | 249.57 | 271.45 | 22.04 | 95.59% | 97.30% | 96.82% | 94.20% | 3 | 1 | 5.048 | 5.368 | 1.821 |
| 21038 | Sunday, October 03, 2010 | 16:25 | 27.95 | 7.33 | 23.17 | 228.30 | 249.99 | 21.82 | 94.19% | 95.52% | 94.57% | 90.33% | 3 | 1 | 4.866 | 5.066 | 1.86 |
| 21037 | Sunday, October 03, 2010 | 15:31 | 25.95 | 6.52 | 21.93 | 207.89 | 228.70 | 20.93 | 95.44% | 97.40% | 97.31% | 94.78% | 3 | 1 | 4.88 | 5.15 | 1.917 |
| 21036 | Sunday, October 03, 2010 | 14:23 | 27.86 | 3.74 | 24.64 | 184.56 | 208.27 | 23.85 | 96.77% | 97.88% | 99.86% | 97.74% | 3 | 1 | 3.35 | 4.278 | 1.939 |
| 21035 | Sunday, October 03, 2010 | 13:29 | 27.77 | 6.70 | 23.63 | 162.55 | 184.86 | 22.45 | 94.99% | 96.50% | 96.45% | 93.07% | 3 | 1 | 4.926 | 5.11 | 1.973 |
| 21034 | Sunday, October 03, 2010 | 12:36 | 27.45 | 6.84 | 23.18 | 140.62 | 162.73 | 22.16 | 95.59% | 96.19% | 95.57% | 91.93% | 3 | 1 | 5.437 | 5.133 | 1.972 |
| 21033 | Sunday, October 03, 2010 | 11:44 | 26.78 | 6.56 | 22.71 | 119.21 | 140.81 | 21.66 | 95.38% | 97.32% | 95.65% | 93.09% | 3 | 1 | 4.936 | 5.231 | 1.965 |
| 21032 | Sunday, October 03, 2010 | 10:53 | 28.23 | 7.72 | 23.03 | 97.38 | 119.39 | 22.14 | 96.14% | 96.62% | 96.56% | 93.30% | 3 | 1 | 5.632 | 5.053 | 1.892 |
| 21031 | Sunday, October 03, 2010 | 10:00 | 29.26 | 7.27 | 24.53 | 74.11 | 97.50 | 23.42 | 95.48% | 96.86% | 97.88% | 94.81% | 3 | 1 | 5.16 | 5.059 | 1.951 |
| 21030 | Sunday, October 03, 2010 | 9:04 | 30.03 | 7.12 | 25.42 | 50.07 | 74.22 | 24.25 | 95.40% | 96.19% | 96.68% | 92.99% | 3 | 1 | 5.161 | 4.969 | 1.96 |
| 21029 | Sunday, October 03, 2010 | 8:06 | 46.42 | 7.99 | 42.19 | 10.88 | 50.18 | 39.54 | 93.71% | 96.49% | 94.97% | 91.63% | 4 | 1 | 6.503 | 5.887 | 1.893 |
| 21028 | Sunday, October 03, 2010 | 6:19 | 25.85 | 6.57 | 21.86 | 333.25 | 353.82 | 20.79 | 95.07% | 96.91% | 95.01% | 92.07% | 3 | 1 | 4.631 | 4.94 | 1.978 |
| 21027 | Sunday, October 03, 2010 | 5:29 | 25.68 | 6.36 | 21.85 | 313.19 | 333.83 | 20.83 | 95.32% | 95.66% | 93.78% | 89.71% | 3 | 1 | 4.991 | 4.918 | 1.986 |
| 21026 | Sunday, October 03, 2010 | 4:40 | 24.98 | 6.12 | 21.46 | 293.56 | 313.69 | 20.32 | 94.66% | 95.80% | 94.71% | 90.73% | 3 | 1 | 4.532 | 4.916 | 1.981 |
| 21025 | Sunday, October 03, 2010 | 3:54 | 26.92 | 6.73 | 22.76 | 272.50 | 293.99 | 21.66 | 95.15% | 96.67% | 96.92% | 93.69% | 3 | 1 | 5.183 | 5.173 | 1.962 |
| 21024 | Sunday, October 03, 2010 | 3:02 | 26.34 | 6.41 | 22.51 | 251.59 | 272.86 | 21.42 | 95.15% | 95.74% | 96.54% | 92.43% | 3 | 1 | 4.756 | 5.165 | 1.962 |
| 21023 | Sunday, October 03, 2010 | 2:12 | 24.68 | 6.21 | 21.04 | 231.94 | 251.89 | 20.14 | 95.73% | 97.39% | 97.07% | 94.53% | 3 | 1 | 4.58 | 4.912 | 1.954 |
| 21022 | Sunday, October 03, 2010 | 1:25 | 24.63 | 6.08 | 21.13 | 212.21 | 232.19 | 20.12 | 95.25% | 97.74% | 97.20% | 95.01% | 3 | 1 | 4.804 | 4.829 | 1.991 |
| 21021 | Sunday, October 03, 2010 | 0:34 | 25.52 | 5.65 | 22.13 | 191.44 | 212.45 | 21.16 | 95.60% | 97.64% | 98.77% | 96.43% | 3 | 1 | 4.873 | 4.824 | 1.946 |
| 21020 | Saturday, October 02, 2010 | 23:45 | 24.72 | 6.31 | 20.96 | 171.68 | 191.62 | 20.03 | 95.58% | 96.63% | 96.96% | 93.69% | 3 | 1 | 4.577 | 4.916 | 1.95 |
| 21019 | Saturday, October 02, 2010 | 23:00 | 28.04 | 7.00 | 23.60 | 149.53 | 171.88 | 22.53 | 95.44% | 96.73% | 96.32% | 93.17% | 3 | 1 | 5.203 | 4.683 | 1.978 |
| 21018 | Saturday, October 02, 2010 | 22:07 | 26.51 | 6.58 | 22.54 | 128.24 | 149.70 | 21.56 | 95.66% | 97.73% | 97.34% | 95.13% | 3 | 1 | 5.242 | 5.026 | 1.984 |
| 21017 | Saturday, October 02, 2010 | 21:17 | 26.93 | 6.66 | 22.81 | 106.58 | 128.42 | 21.96 | 96.28% | 98.51% | 97.86% | 96.41% | 3 | 1 | 4.787 | 5.081 | 1.964 |
| 21016 | Saturday, October 02, 2010 | 20:27 | 27.95 | 6.94 | 23.58 | 84.51 | 106.74 | 22.37 | 94.85% | 95.77% | 96.80% | 92.71% | 3 | 1 | 4.7 | 5.156 | 1.983 |
| 21015 | Saturday, October 02, 2010 | 19:29 | 28.88 | 10.91 | 19.25 | 66.25 | 84.58 | 18.37 | 95.42% | 97.24% | 97.04% | 94.36% | 2 | 1 | 5.64 | 5.017 | 1.979 |
| 21014 | Saturday, October 02, 2010 | 18:32 | 26.83 | 6.57 | 22.82 | 44.58 | 66.33 | 21.81 | 95.58% | 96.48% | 97.69% | 94.26% | 3 | 1 | 4.857 | 5.13 | 1.97 |
| 21013 | Saturday, October 02, 2010 | 17:49 | 42.77 | 10.39 | 34.77 | 12.08 | 44.69 | 32.78 | 94.29% | 97.00% | 97.11% | 94.20% | 3 | 1 | 6.332 | 5.904 | 1.897 |
| 21012 | Saturday, October 02, 2010 | 16:10 | 25.19 | 6.11 | 21.64 | 341.58 | 361.98 | 20.60 | 95.19% | 96.24% | 96.60% | 92.97% | 3 | 1 | 4.624 | 4.716 | 1.967 |
| 21011 | Saturday, October 02, 2010 | 15:18 | 26.36 | 6.92 | 22.00 | 321.26 | 342.10 | 20.99 | 95.40% | 96.81% | 96.28% | 93.20% | 3 | 1 | 4.841 | 5.051 | 1.865 |
| 21010 | Saturday, October 02, 2010 | 14:13 | 26.46 | 6.11 | 22.62 | 300.56 | 321.78 | 21.43 | 94.71% | 95.78% | 95.93% | 91.88% | 3 | 1 | 4.199 | 4.843 | 1.939 |
| 21009 | Saturday, October 02, 2010 | 12:54 | 26.96 | 6.51 | 22.89 | 279.45 | 301.20 | 21.92 | 95.76% | 96.85% | 97.85% | 94.76% | 3 | 1 | 4.597 | 4.825 | 1.97 |
| 21008 | Saturday, October 02, 2010 | 12:02 | 25.77 | 6.39 | 21.95 | 259.00 | 279.88 | 21.04 | 95.87% | 96.17% | 96.51% | 92.82% | 3 | 1 | 4.701 | 4.904 | 1.964 |
| 21007 | Saturday, October 02, 2010 | 11:14 | 26.86 | 7.04 | 22.26 | 238.19 | 259.35 | 21.31 | 95.74% | 94.82% | 95.61% | 90.65% | 3 | 1 | 4.696 | 4.587 | 1.886 |
| 21006 | Saturday, October 02, 2010 | 10:18 | 26.61 | 6.89 | 22.26 | 217.27 | 238.54 | 21.44 | 96.29% | 96.27% | 97.48% | 93.84% | 3 | 1 | 5.245 | 4.791 | 1.884 |
| 21005 | Saturday, October 02, 2010 | 9:28 | 27.93 | 6.91 | 23.60 | 195.06 | 217.59 | 22.68 | 96.13% | 96.49% | 96.71% | 93.31% | 3 | 1 | 5.224 | 5.04 | 1.976 |
| 21004 | Saturday, October 02, 2010 | 8:33 | 26.06 | 6.50 | 22.18 | 174.14 | 195.32 | 21.32 | 96.08% | 96.83% | 97.30% | 94.22% | 3 | 1 | 4.835 | 5.121 | 1.975 |
| 21003 | Saturday, October 02, 2010 | 7:43 | 25.97 | 6.44 | 22.09 | 153.22 | 174.33 | 21.21 | 96.02% | 95.75% | 96.49% | 92.39% | 3 | 1 | 4.945 | 4.684 | 1.978 |
| 21002 | Saturday, October 02, 2010 | 6:52 | 24.27 | 6.03 | 20.80 | 133.55 | 153.41 | 19.96 | 95.95% | 98.02% | 97.16% | 95.23% | 3 | 1 | 4.983 | 4.796 | 1.974 |
| 21001 | Saturday, October 02, 2010 | 6:06 | 25.19 | 6.37 | 21.44 | 113.36 | 133.69 | 20.45 | 95.36% | 96.73% | 95.79% | 92.65% | 3 | 1 | 5.02 | 4.624 | 1.986 |
| 21000 | Saturday, October 02, 2010 | 5:19 | 26.48 | 6.61 | 22.45 | 92.02 | 113.45 | 21.52 | 95.87% | 97.21% | 99.43% | 96.66% | 3 | 1 | 5.448 | 4.933 | 1.988 |
| 20999 | Saturday, October 02, 2010 | 4:26 | 26.01 | 5.71 | 22.80 | 70.35 | 92.13 | 21.86 | 95.86% | 97.57% | 97.38% | 95.01% | 3 | 1 | 4.891 | 4.799 | 1.957 |
| 20998 | Saturday, October 02, 2010 | 3:37 | 25.40 | 7.04 | 20.96 | 50.43 | 70.43 | 20.08 | 95.80% | 97.62% | 97.21% | 94.90% | 3 | 1 | 5.441 | 5.087 | 2.017 |
| 20997 | Saturday, October 02, 2010 | 2:51 | 56.33 | 9.48 | 50.30 | 3.54 | 50.58 | 47.33 | 94.10% | 96.37% | 96.64% | 93.14% | 4 | 1 | 7.56 | 6.62 | 1.821 |
| 20996 | Friday, October 01, 2010 | 23:24 | 32.74 | 6.03 | 28.97 | 209.00 | 236.41 | 27.60 | 95.26% | 96.96% | 97.20% | 94.24% | 3 | 1 | 3.574 | 3.539 | 1.864 |
| 20995 | Friday, October 01, 2010 | 22:11 | 29.34 | 7.31 | 24.61 | 185.86 | 209.40 | 23.71 | 96.33% | 99.91% | 97.80% | 97.71% | 3 | 1 | 4.938 | 5.311 | 1.849 |
| 20994 | Friday, October 01, 2010 | 21:10 | 27.01 | 6.89 | 22.74 | 164.55 | 186.16 | 21.77 | 95.74% | 98.00% | 96.21% | 94.29% | 3 | 1 | 4.856 | 4.993 | 1.849 |
| 20993 | Friday, October 01, 2010 | 20:20 | 28.98 | 7.27 | 24.26 | 141.74 | 164.77 | 23.17 | 95.49% | 96.75% | 96.17% | 93.04% | 3 | 1 | 5.475 | 5.121 | 1.849 |
| 20992 | Friday, October 01, 2010 | 19:26 | 28.79 | 7.18 | 24.24 | 118.92 | 141.94 | 23.17 | 95.57% | 98.04% | 98.05% | 96.13% | 3 | 1 | 5.348 | 5.26 | 1.849 |
| 20991 | Friday, October 01, 2010 | 18:34 | 32.05 | 7.92 | 26.64 | 93.74 | 119.05 | 25.44 | 95.50% | 97.40% | 97.32% | 94.79% | 3 | 1 | 5.286 | 5.432 | 1.849 |
| 20990 | Friday, October 01, 2010 | 17:31 | 28.07 | 6.88 | 23.73 | 71.36 | 93.91 | 22.62 | 95.29% | 97.33% | 98.48% | 95.85% | 3 | 1 | 5.213 | 5.247 | 1.849 |
| 20989 | Friday, October 01, 2010 | 16:33 | 29.25 | 4.23 | 25.68 | 46.93 | 71.48 | 24.64 | 95.97% | 97.25% | 97.51% | 94.83% | 3 | 1 | 4.607 | 4.249 | 1.849 |
| 20988 | Friday, October 01, 2010 | 15:30 | 53.63 | 5.69 | 50.34 | 0.32 | 47.18 | 47.36 | 94.07% | 97.38% | 96.04% | 93.52% | 4 | 1 | 6.695 | 5.824 | 1.849 |


GxPB 2: Closure Bullseye
Bullseye Re-play
Pbar ACC->MI line 52
H ● V △
03-OCT-2010 23:18:25
90
180
0
270
1
2
3
4 mm
# ampl HORZ phas rms ampl VERT phas rms
1 2.27 -2.04 0.07 0.44 2.71 0.04
2 1.71 -2.04 0.07 0.38 -3.01 0.05
3 1.23 -1.25 0.04 1.19 1.98 0.04
4 0.75 -1.47 0.03 0.53 1.93 0.02
5 0.31 -1.03 0.04 0.40 2.99 0.04
6 1.00 -1.30 0.03 0.71 1.69 0.03
7 0.34 -1.75 0.03 0.30 0.42 0.03
8 0.26 -2.34 0.04 0.41 -0.83 0.04
9 0.45 -0.33 0.02 0.28 0.43 0.04
# CLK DAQ-Time Sent? H V
1 94 03-OCT 23:18:25 Y Y
2 94 04-OCT 01:09:43 Y Y
3 94 04-OCT 02:08:32 Y Y
4 94 04-OCT 03:00:45 Y Y
5 94 04-OCT 03:50:42 Y Y
6 94 04-OCT 04:42:45 Y Y
7 94 04-OCT 05:34:48 Y Y
8 94 04-OCT 06:30:20 Y Y
9 94 04-OCT 07:25:09 Y Y