# 2011-05-24 Tuesday Morning Notes

Tuesday, May 24, 2011
7:49 AM

Stacking and Transfers

Operational Notes

- Ecool is broken, so we have big stacks

Numbers

- Stacking
  - Pbars stacked: 406.59 E10
  - Time stacking: 23.47 Hr
  - Average stacking rate: 17.32 E10/Hr

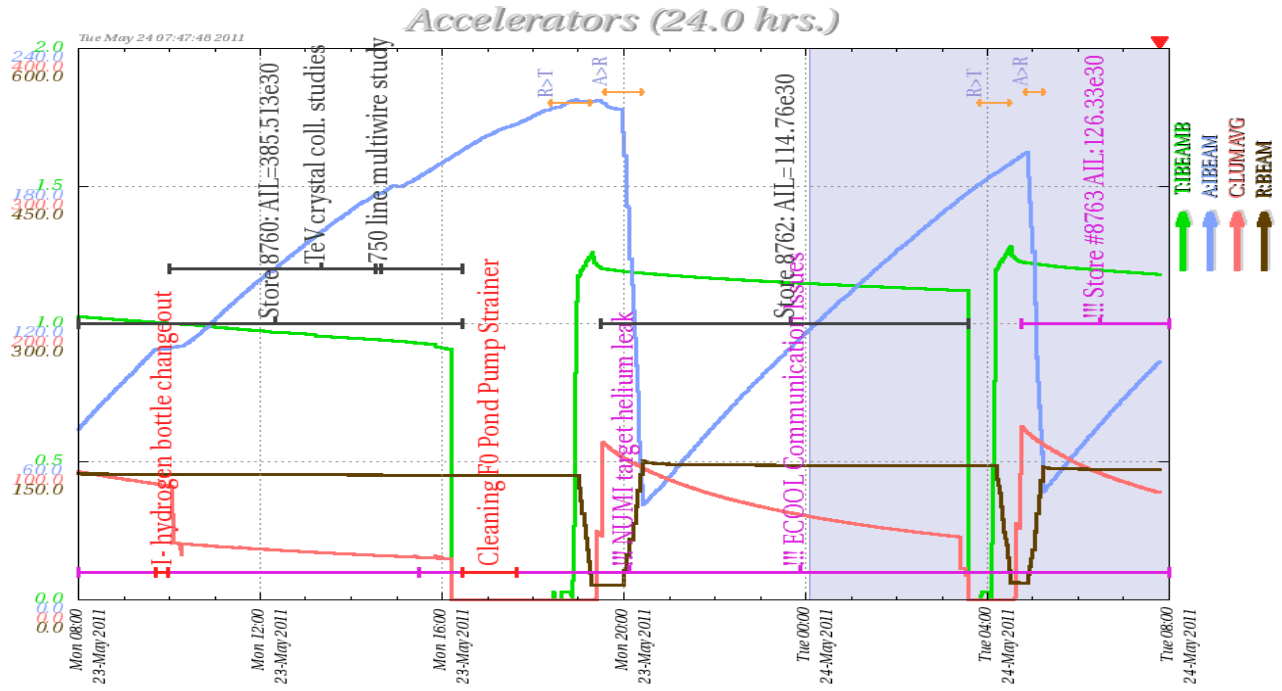
- Uptime
  - Number of pulses while in stacking mode: 29860
  - Number of pulses with beam: 28440
  - Fraction of up pulses was: 95.24%

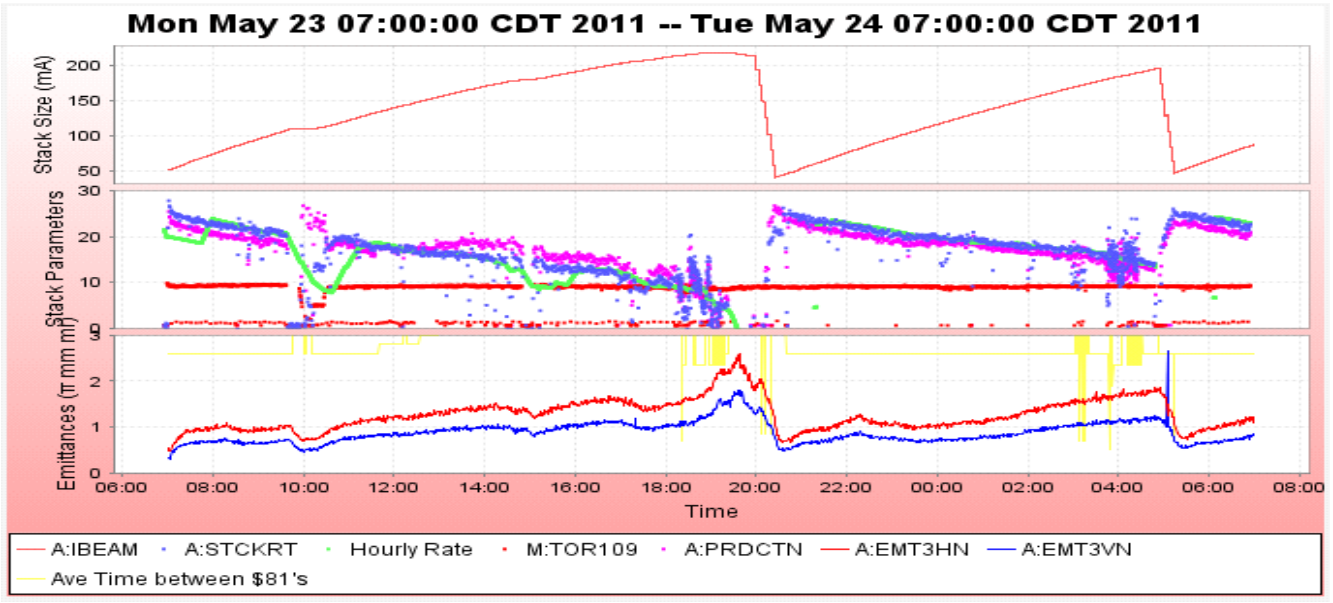
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 22.35 Hr
  - Possible average stacking rate: 18.19 E10/Hr
  - Could have stacked: 426.89 E10/Hr

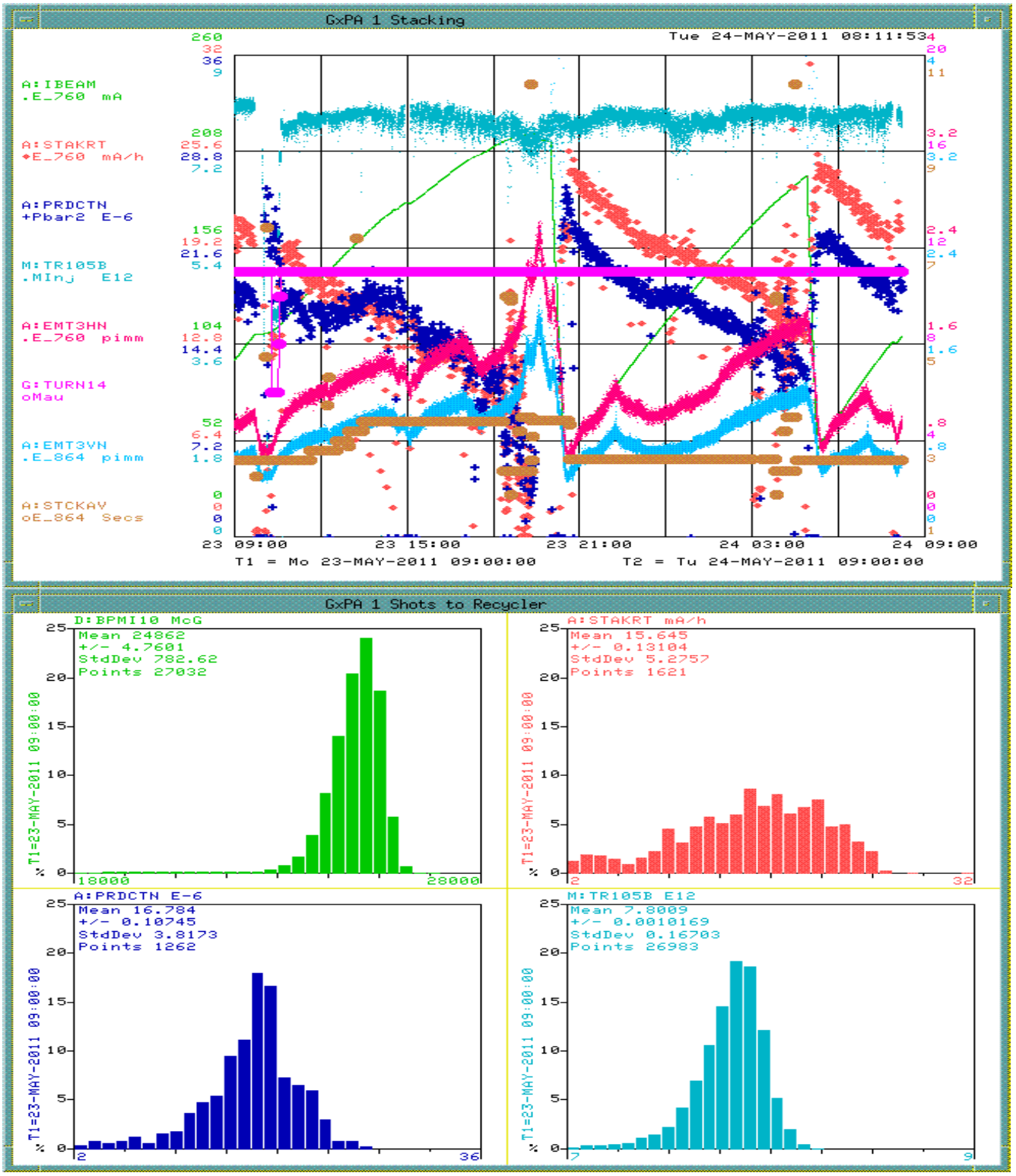
- Recycler Transfers
  - Pbars sent to the Recycler: 323.52 E10
  - Number of transfers : 15
  - Number of transfer sets: 2
  - Average Number of transfer per set: 7.50
  - Time taken to shoot including reverse proton tuneup: 00.05 Hr
  - Transfer efficiency: 83.11%

- Other Info
  - Average POT : 7.76 E12
  - Average production: 18.43 pbars/E6 protons

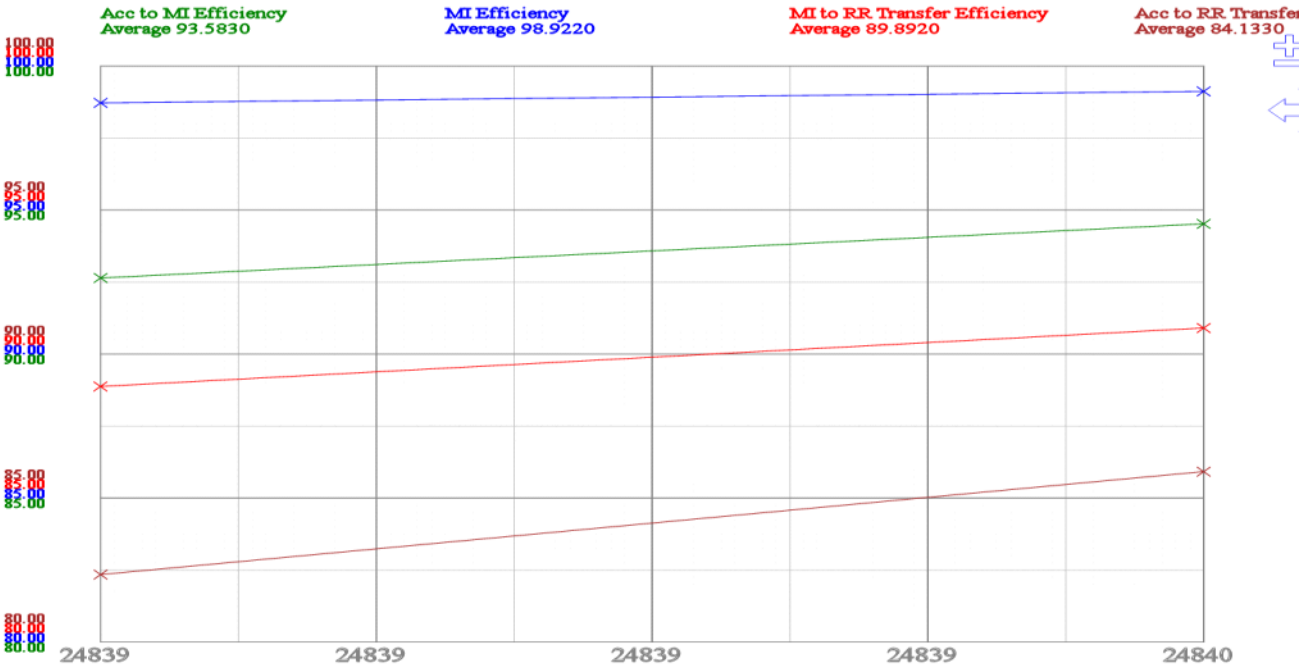
Plots


Accelerators (24.0 hrs.)
Tue May 24 07:47:48 2011
Store 8760: AIL=385.513e30
TeV crystal coll. studies
750 line multiwire study
R>T
A>R
Store 8762: AIL=114.76e30
R>T
A>R
!!! Store #8763 AIL: 126.33e30
T:IBEAMB
A:IBEAM
C:I:M:AVG
R:IBEAM
I- hydrogen bottle changeout
Cleaning F0 Pond Pump Strainer
!!! NUMI target helium leak
!!! ECOOL Communication Issues
Mon 08:00 23-May 2011
Mon 12:00 23-May 2011
Mon 16:00 23-May 2011
Mon 20:00 23-May 2011
Tue 00:00 24-May 2011
Tue 04:00 24-May 2011
Tue 08:00 24-May 2011


Mon May 23 07:00:00 CDT 2011 -- Tue May 24 07:00:00 CDT 2011
Stack Size (mA)
Stack Parameters
Emittances (π mm mr)
Time
06:00 08:00 10:00 12:00 14:00 16:00 18:00 20:00 22:00 00:00 02:00 04:00 06:00 08:00
A:IBEAM
A:STCKRT
Hourly Rate
M:TOR109
A:PRDCTN
A:EMT3HN
A:EMT3VN
Ave Time between $81's


GxPA 1 Stacking
Tue 24-MAY-2011 08:11:53
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
oMau
A:EMT3VN
.E_864 pimm
A:STCKAV
oE_864 Secs
23 09:00
23 15:00
23 21:00
24 03:00
24 09:00
T1 = Mo 23-MAY-2011 09:00:00
T2 = Tu 24-MAY-2011 09:00:00
GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 24862
+/- 4.7601
StdDev 782.62
Points 27032
A:STAKRT mA/h
Mean 15.645
+/- 0.13104
StdDev 5.2757
Points 1621
A:PRDCTN E-6
Mean 16.784
+/- 0.10745
StdDev 3.8173
Points 1262
M:TR105B E12
Mean 7.8009
+/- 0.0010169
StdDev 0.16703
Points 26983
T1=23-MAY-2011 09:00:00

## Acc->Rec Table Plotter




| Column 1 Number_0_Pbar Transfer Shot # | Column 4 Number_3_Transfer Time | | Column 21 Number_20_A:IBEAMB sampled on $91 (A:BEA | Column 22 Number_21_A:IBEAMB sampled on $94 (A:BEA | 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 => | | | | 323.95 | | | 271.89 | 83.93% | 93.47% | 92.42% | 86.39% | 15 | 2 | 14.863 | 9.908 | 1.452 |
| | Daily Average => | | | | 323.95 | | | 271.89 | | | | | 15 | 2 | | | |
| 24840 | Tuesday, May 24, 2011 | 4:54 | 194.83 | 46.93 | 151.42 | 18.56 | 144.64 | 130.02 | 85.87% | 94.51% | 93.66% | 88.52% | 7 | 1 | 14.367 | 9.24 | 1.481 |
| 24839 | Monday, May 23, 2011 | 19:59 | 213.39 | 41.34 | 172.53 | 15.93 | 151.47 | 141.87 | 82.23% | 92.55% | 91.34% | 84.54% | 8 | 1 | 15.358 | 10.575 | 1.423 |