

# 2011-04-07 Thursday Morning Notes

Thursday, April 07, 2011  
7:33 AM

## On-call

- Monday/Tuesday: Keith
- Wednesday/Thursday: Al
- Friday: JPM

## Stacking and Transfers

- Stacked 26.1mA/hr with a production of 21.6 pbars/Mp with 8.24 Tp on target.
  - With normal stack sizes, overnight stacked 27.2mA/hr with a production of 22 pbars/Mp
- Unstacked 340E10 in 37 transfers in 13 sets with an average overall efficiency of 93.7%
  - Take out lost transfer - set 23950
  - Take out transfer from 70mA - set 23939
  - Overall efficiency becomes 96.4%.

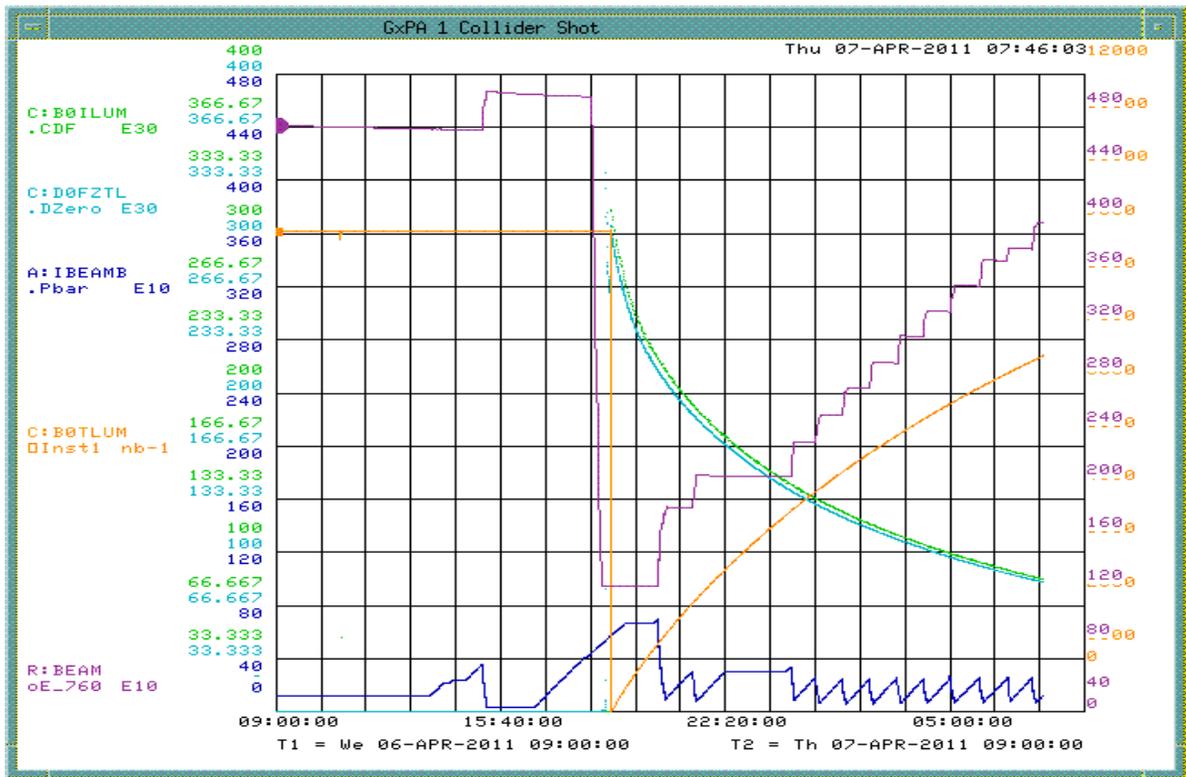
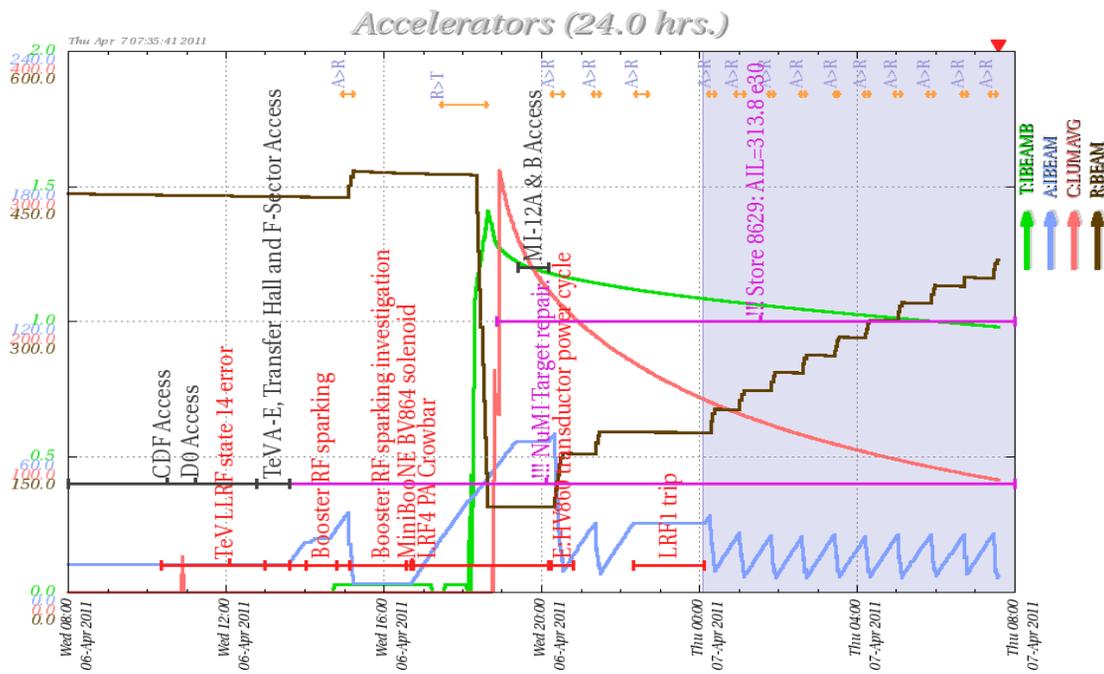
## Operational Happenings

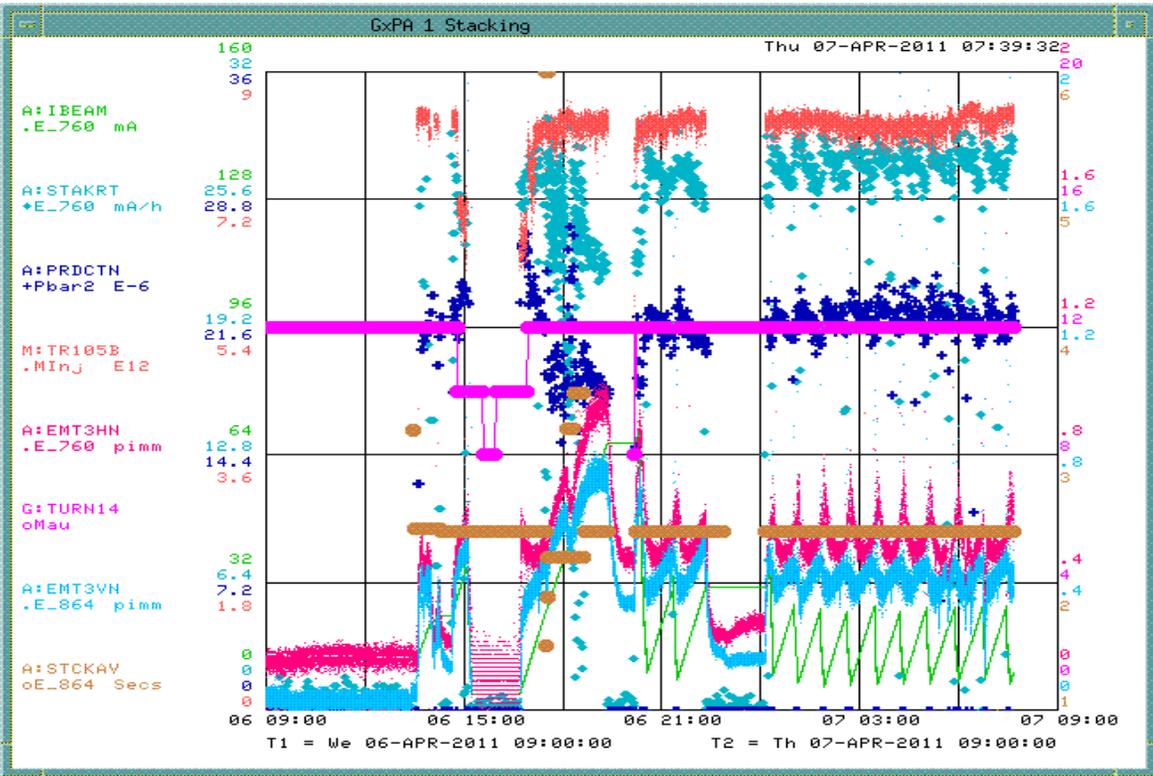
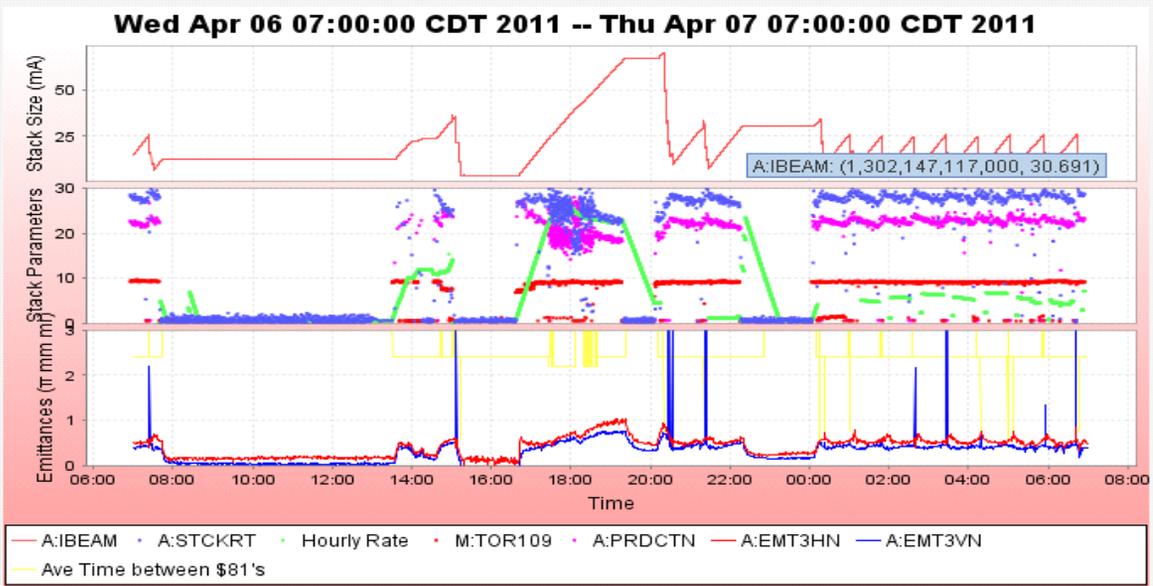
- During F-Sector access we accessed the water cage to flush the pulsed magnet collimator strainer. Flow rates increased after the flushing.

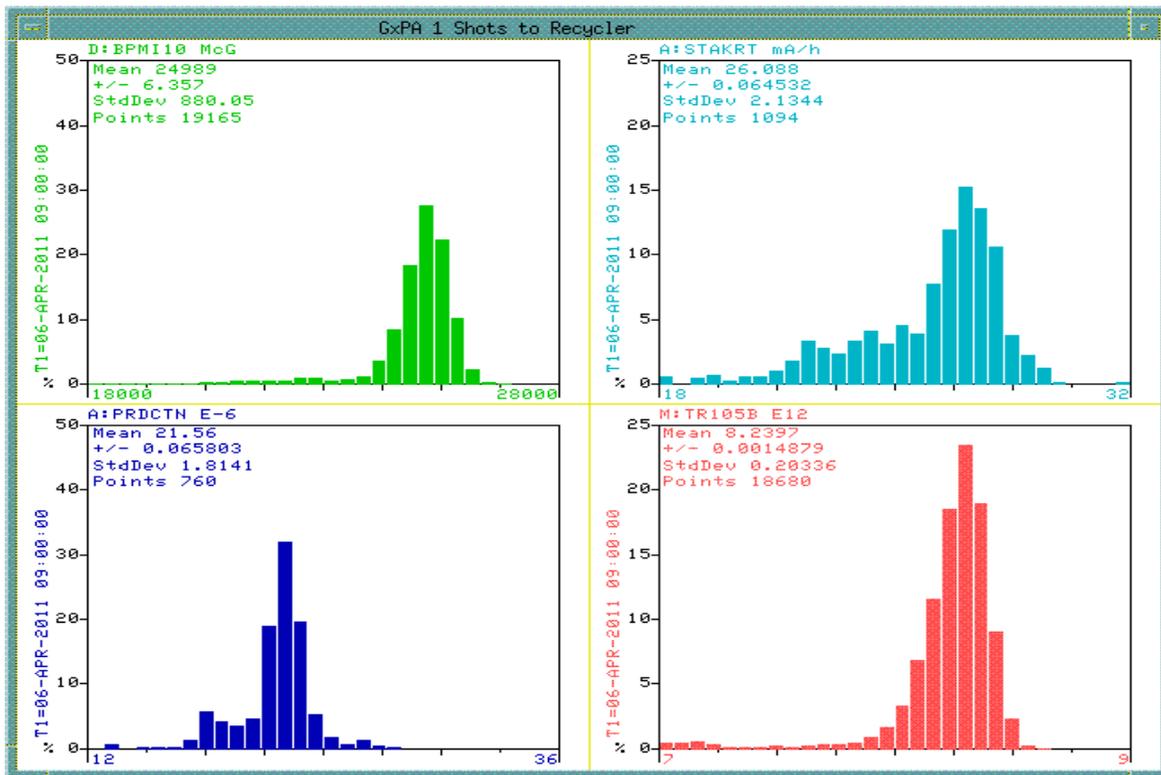
## Numbers

- Stacking
  - Pbars stacked: 351.63 E10
  - Time stacking: 17.38 Hr
  - Average stacking rate: 20.24 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 23798
  - Number of pulses with beam: 19231
  - Fraction of up pulses was: 80.81%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 14.04 Hr
  - Possible average stacking rate: 25.04 E10/Hr
  - Could have stacked: 435.13 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 323.10 E10
  - Number of transfers : 38
  - Number of transfer sets: 13
  - Average Number of transfer per set: 2.92
  - Time taken to shoot including reverse proton tuneup: 00.13 Hr
  - Transfer efficiency: 93.45%
- Other Info
  - Average POT : 8.19 E12
  - Average production: 22.32 pbars/E6 protons

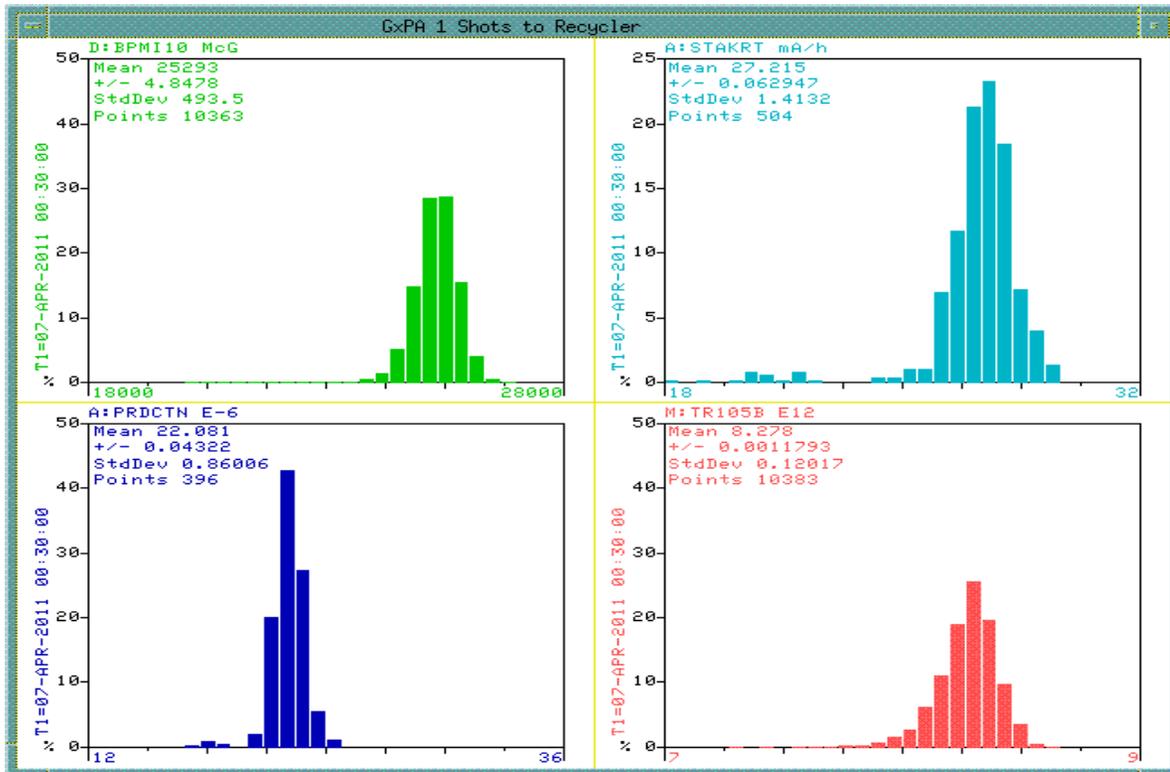
# Plots







24 hours

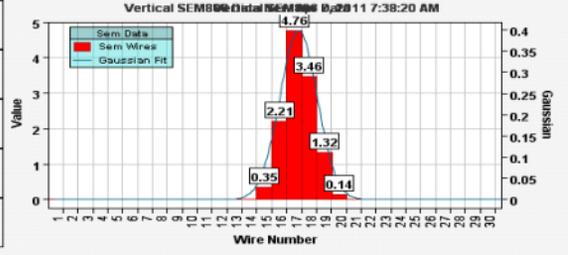
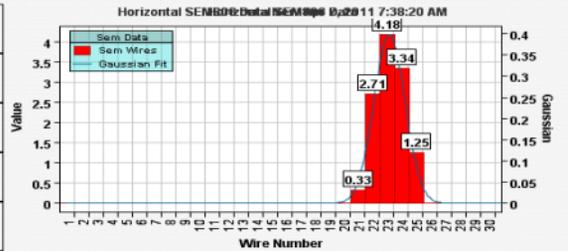


Overnight, normal stack sizes, best stacking

Horizontal Area New	<b>11.81</b>	Intensity
Horizontal Area Calc	<b>209.46</b>	Intensity
Horizontal Sigma New	<b>3.0</b>	mm
Horizontal Sigma Calc	<b>2.84</b>	mm
Horizontal Mean	<b>24.63</b>	mm
Vertical Area New	<b>12.24</b>	Intensity
Vertical Area Calc	<b>211.76</b>	Intensity
Vertical Sigma New	<b>3.04</b>	mm
Vertical Sigma Calc	<b>2.85</b>	mm
Vertical Mean	<b>6.88</b>	mm

View Lumberjack Data    Pause    Old Hardware

Get Logged Sem Data    Animate    Animation Delay 1000 milliseconds



Start Time    Make End Time Now    Stop Time

04/07/2011 07:33:02    04/07/2011 07:38:02

Pbar Source Accumulator, Debuncher, AP1, AP2, & AP3 Beamline Views

A:IBMINJ 16.247 e07    A:FRWDTH 26.059 Hz    A:EMT3HN 0.527 pimm  
 A:LFTOVR 1.162 %    A:CENFRQ 628895. Hz    A:EMT3VN 0.412 pimm  
 A:STMEDS 11.528 MeV    A:R2DDS1 628897. Hz    A:XFRNXT 75.0 mA  
 A:R1HLFB 27.945 KV

Program Running: Yes    V:APSMOD: Stacking

MI EFF 0.0  
 M:TR105B 8.368 E12  
 G:TURN14 12.0 Turns  
 I:14SUM3 0.0 E12



D:724TOR 8.643 E09  
 G:RD2116 2.85 mRem  
 D:INJFLX 26.874 McG  
 D:FLXBTL 1.536 uSec  
 D:R1HLFB 5.15 MV  
 D:BPM10 25784.5 McG  
 Z:PRDCTD 28.77 E-6

Pbar Beamlines BPM House Status

- P1
- P2
- AP1
- AP2 F27
- AP2 AP50

0x80 Event Detected

A:STCKAV 2.4 Secs

Overthruster Status

Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number_20_A:1 BEAMB sampled on \$91 (A-BEA M7), E10	Column 22 Number_21_A:1 BEAMB sampled on \$94 (A-BEA M9), E10	Unstacked (mA)	Column 23 Number_22_R: BEAMS (R-BEA ME0[0]) post E10	Column 24 Number_23_R: BEAM (R-BEA ME0[1]) post 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_Horizantal Emittance	Column 6 Number_5_Vertical Emittance	Column 8 Number_7_Longitudinal Emittance	
Totals =>				340.63			319.22	93.71%	96.17%	95.99%	92.31%	37	13	5.2579	3.9081	1.9615	
Daily Average =>				340.63			319.22					37	13				
23951	Thursday, April 07, 2011	7:27	26.03	6.35	21.79	348.39	368.92	20.97	96.25%	97.47%	97.04%	94.59%	2	1	5.16	3.786	1.957
23950	Thursday, April 07, 2011	6:43	25.98	7.98	18.35	339.40	349.38	10.20	55.60%	56.67%	57.81%	32.76%	2	1	4.407	3.382	1.888
23949	Thursday, April 07, 2011	5:52	25.72	6.66	21.30	320.47	340.58	20.55	96.44%	97.95%	98.56%	96.54%	3	1	5.188	3.957	2.002
23948	Thursday, April 07, 2011	5:02	25.90	6.53	21.63	301.10	321.49	20.81	96.19%	99.93%	98.03%	97.96%	3	1	5.344	4.114	1.989
23947	Thursday, April 07, 2011	4:13	24.72	6.39	20.58	282.46	302.00	19.88	96.60%	98.63%	98.78%	97.43%	3	1	5.358	3.877	2
23946	Thursday, April 07, 2011	3:26	26.04	6.44	21.81	262.51	283.22	21.04	96.47%	97.70%	98.05%	95.79%	3	1	5.374	3.965	1.999
23945	Thursday, April 07, 2011	2:36	24.79	6.04	20.94	243.32	263.28	20.24	96.63%	98.44%	96.00%	94.50%	3	1	5.278	3.756	1.974
23944	Thursday, April 07, 2011	1:49	25.34	5.92	21.61	223.39	244.00	20.85	96.46%	98.12%	99.57%	97.70%	3	1	5.36	3.922	1.973
23943	Thursday, April 07, 2011	1:01	26.36	6.76	22.20	202.77	223.90	21.40	96.41%	98.55%	98.71%	97.28%	3	1	5.316	3.924	2.001
23942	Thursday, April 07, 2011	0:17	34.31	9.05	27.38	177.18	203.22	26.41	96.43%	98.76%	98.21%	96.99%	3	1	5.296	4.124	1.967
23940	Wednesday, April 06, 2011	21:22	31.12	7.70	25.61	153.81	178.11	24.63	96.17%	99.36%	100.50%	99.85%	3	1	5.419	4.13	1.957
23939	Wednesday, April 06, 2011	20:20	70.47	9.36	65.78	94.49	154.45	61.78	93.92%	97.81%	96.81%	94.69%	5	1	6.939	5.075	1.902
23938	Wednesday, April 06, 2011	15:06	35.61	3.96	31.66	437.66	467.52	30.49	96.29%	98.98%	99.39%	98.38%	3	1	3.914	2.793	1.89

### Acc->Rec Table Plotter

