

# 2011-04-19 Tuesday Morning Notes

Tuesday, April 19, 2011  
7:21 AM

## Stacking and Transfers

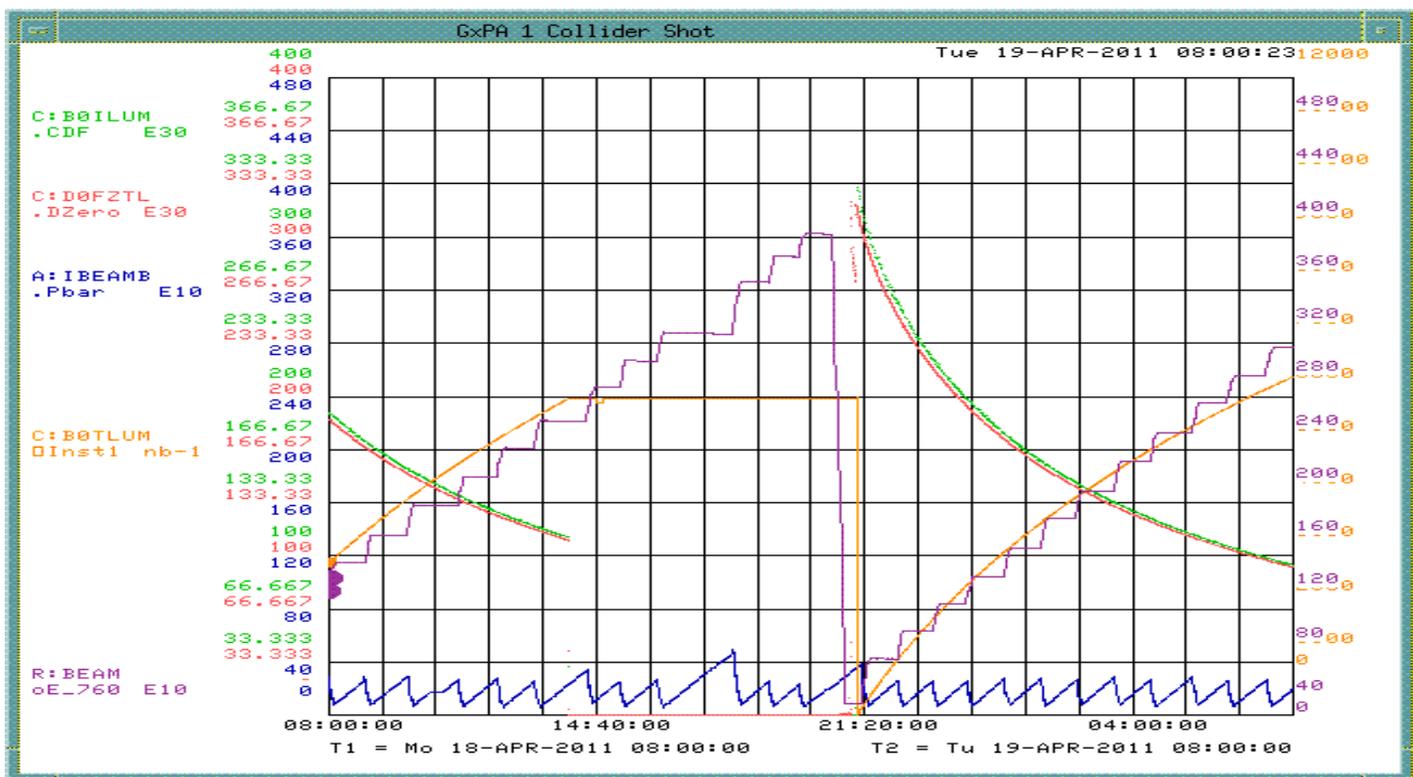
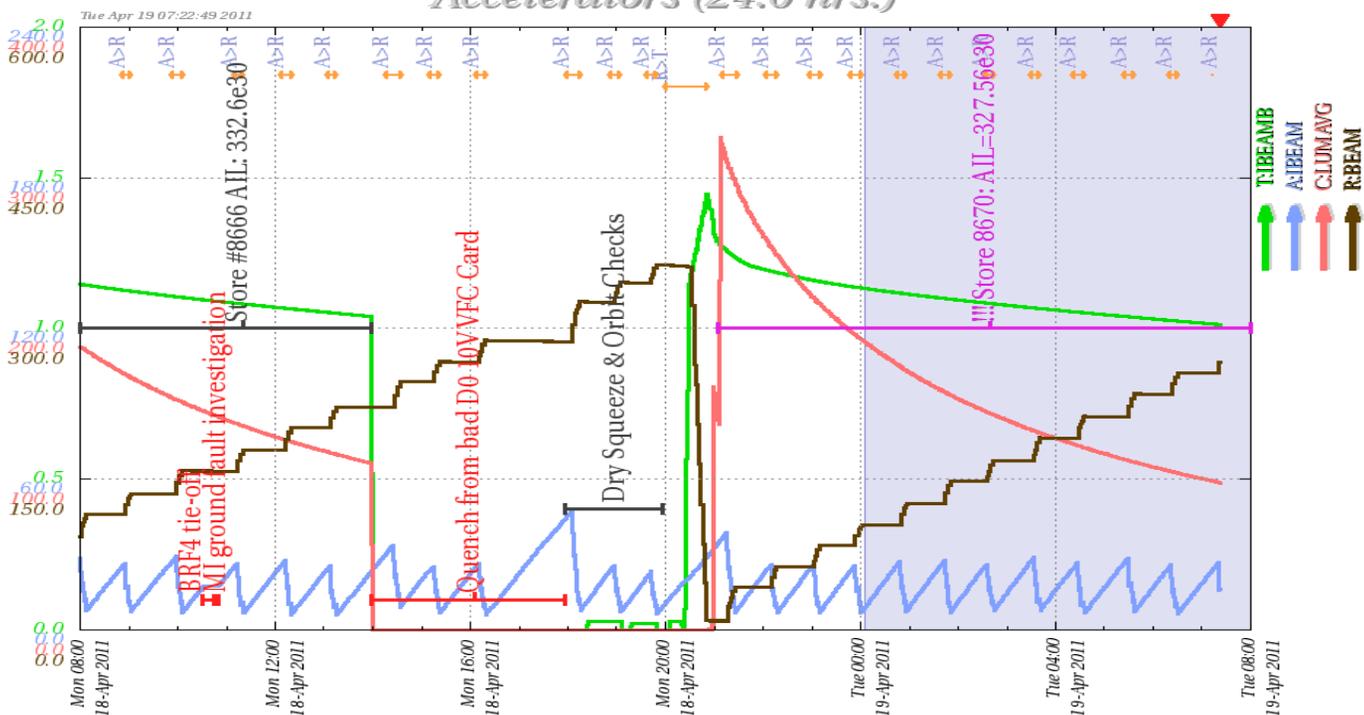
- Stacked 25.3mA/hr with a production of 19.8 pbars/Mp with 8.27 Tp on target
- Unstacked 539E10 in 68 sets over 22 transfers with an overall efficiency of 94.7%.

## Numbers

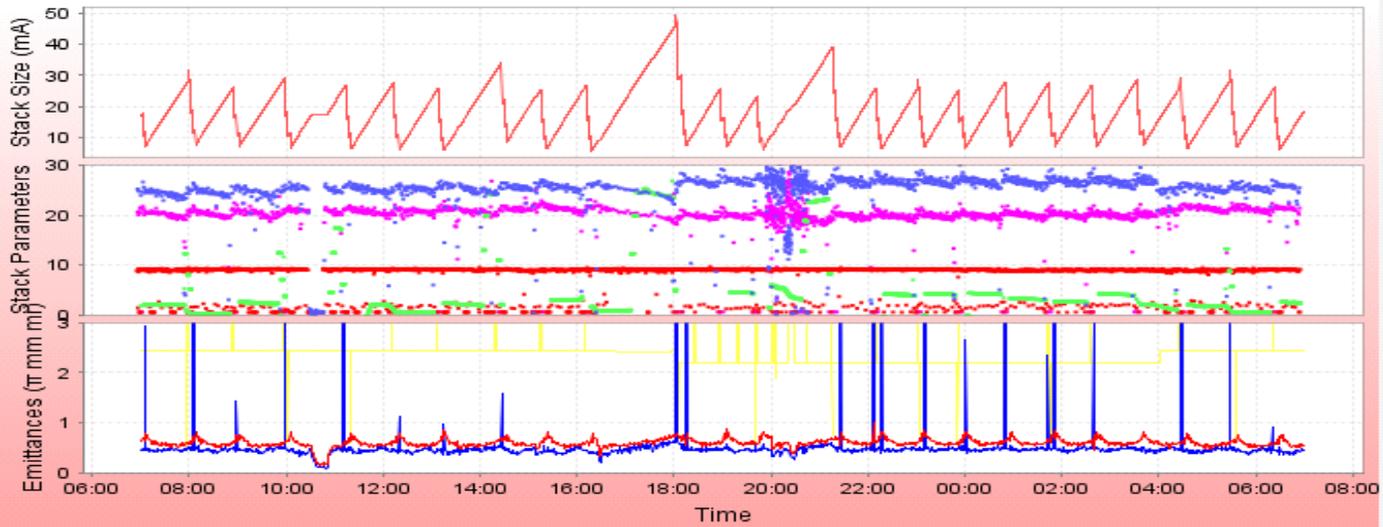
- Stacking
  - Pbars stacked: 581.66 E10
  - Time stacking: 23.50 Hr
  - Average stacking rate: 24.75 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 35758
  - Number of pulses with beam: 35327
  - Fraction of up pulses was: 98.79%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 23.22 Hr
  - Possible average stacking rate: 25.05 E10/Hr
  - Could have stacked: 588.75 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 585.10 E10
  - Number of transfers : 74
  - Number of transfer sets: 24
  - Average Number of transfer per set: 3.08
  - Time taken to shoot including reverse proton tuneup: 00.26 Hr
  - Transfer efficiency: 94.38%
- Other Info
  - Average POT : 8.27 E12
  - Average production: 19.90 pbars/E6 protons

## Plots

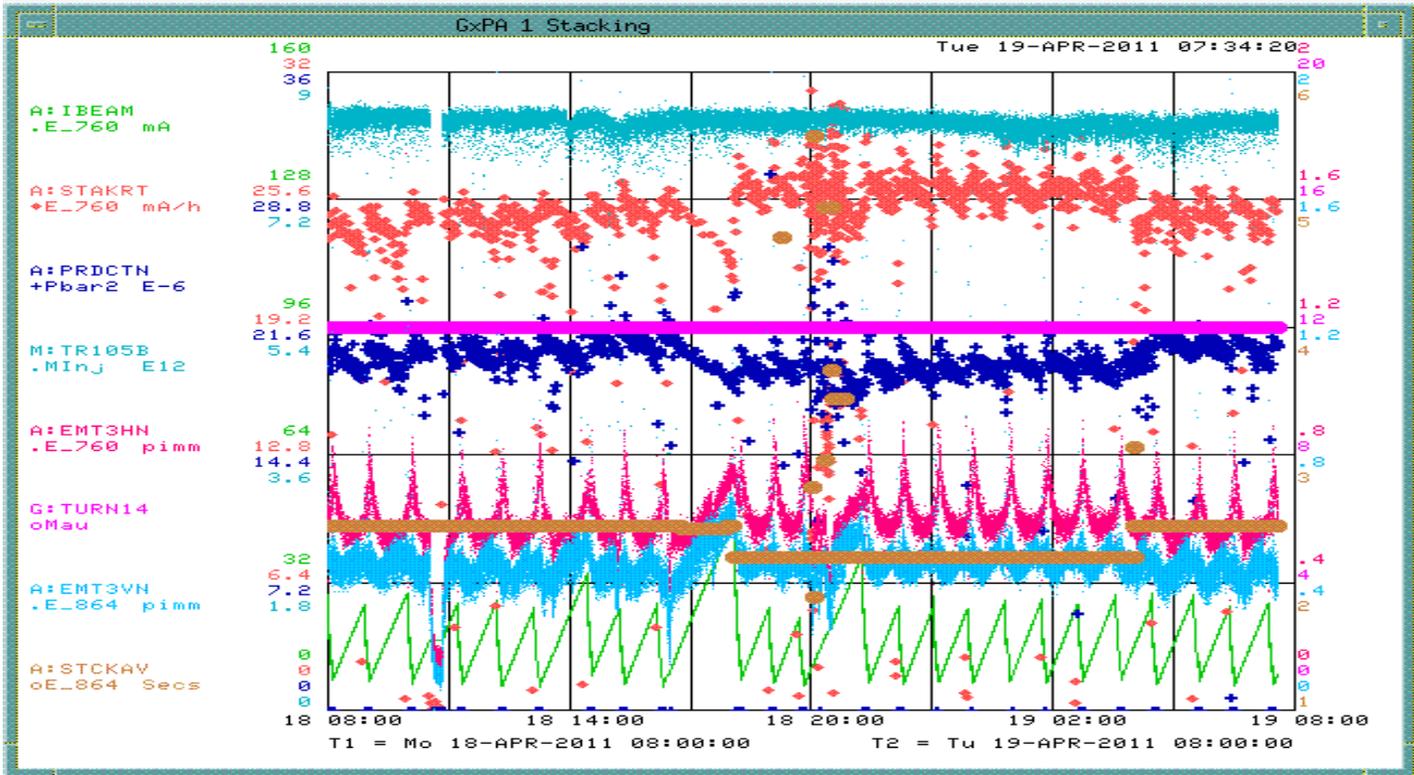
# Accelerators (24.0 hrs.)

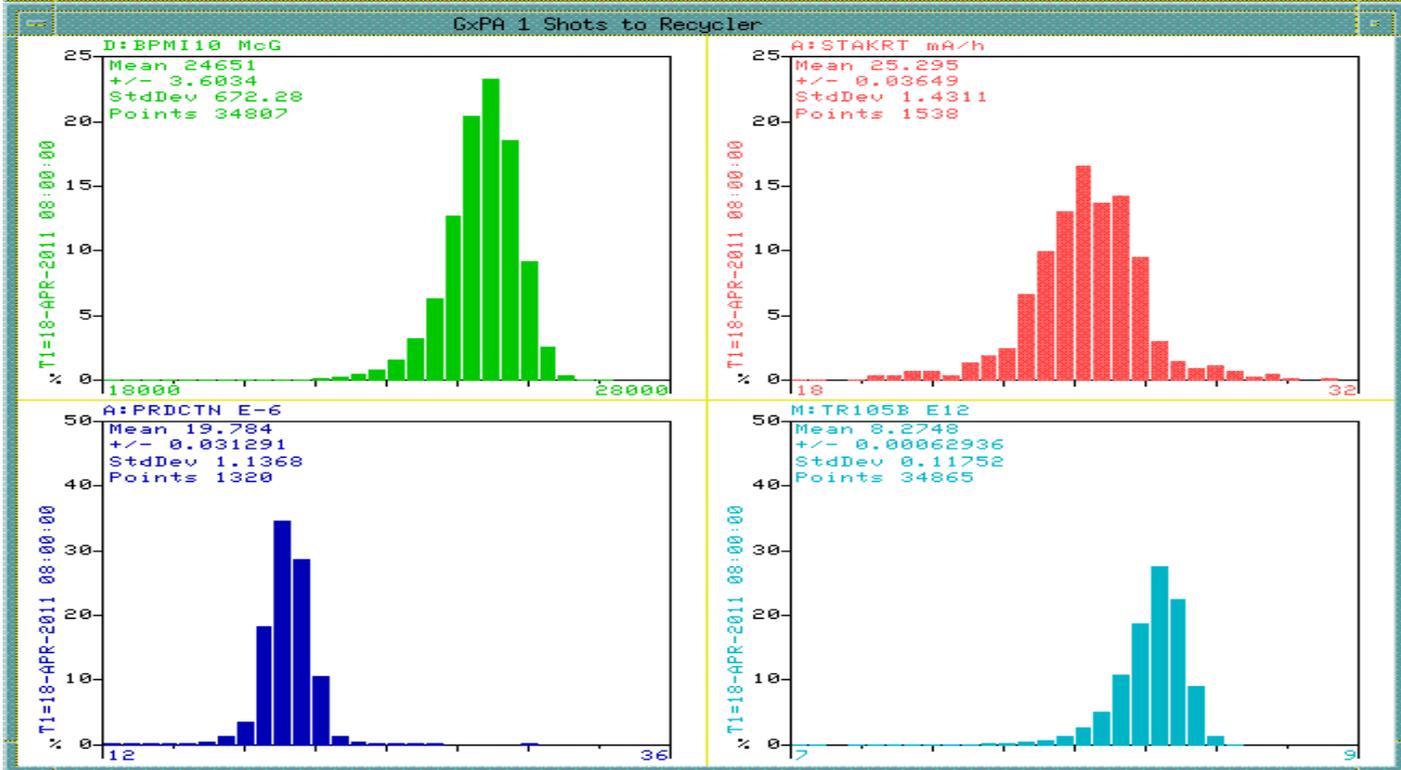
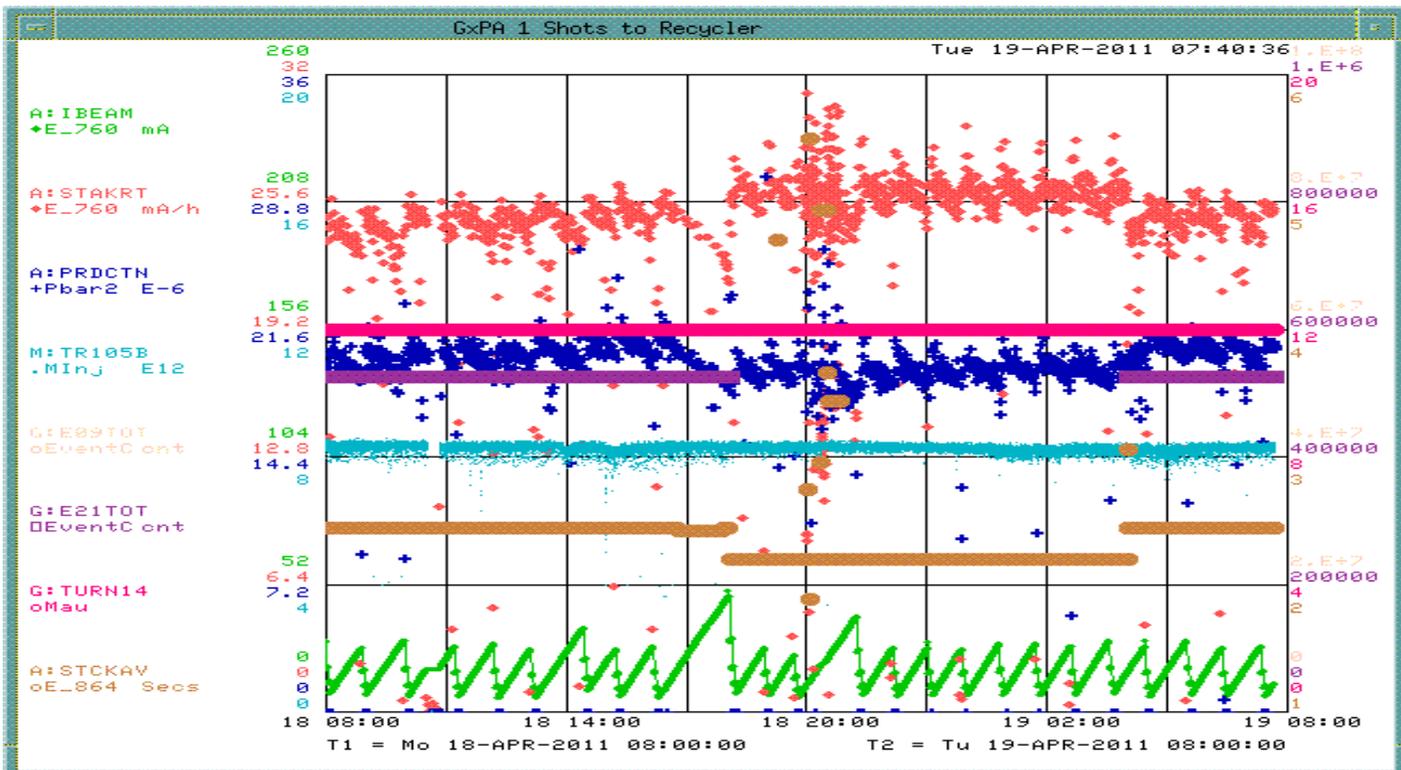


Mon Apr 18 07:00:00 CDT 2011 -- Tue Apr 19 07:00:00 CDT 2011



— A:IBEAM    • A:STCKRT    • Hourly Rate    • M:TOR109    • A:PRDCTN    — A:EMT3HN    — A:EMT3VN  
 — Ave Time between \$81's

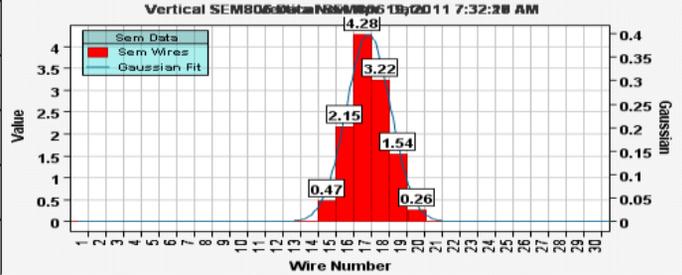
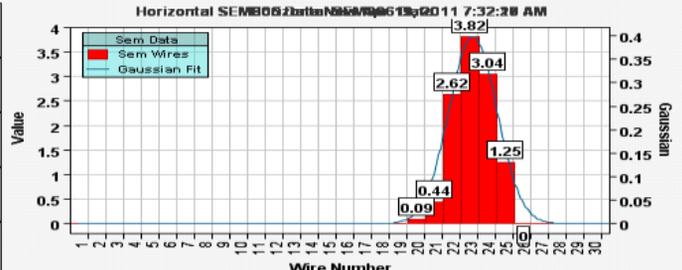




Horizontal Area New	<b>11.26</b>	Intensity
Horizontal Area Calc	<b>199.64</b>	Intensity
Horizontal Sigma New	<b>3.22</b>	mm
Horizontal Sigma Calc	<b>3.04</b>	mm
Horizontal Mean	<b>24.47</b>	mm
Vertical Area New	<b>11.92</b>	Intensity
Vertical Area Calc	<b>206.17</b>	Intensity
Vertical Sigma New	<b>3.3</b>	mm
Vertical Sigma Calc	<b>3.1</b>	mm
Vertical Mean	<b>7.0</b>	mm

View Lumberjack Data    Pause    Old Hardware

Get Logged Sem Data    Animate    Animation Delay  milliseconds



Start Time    Make End Time Now    Stop Time

04/19/2011 07:27:03    04/19/2011 07:32:03

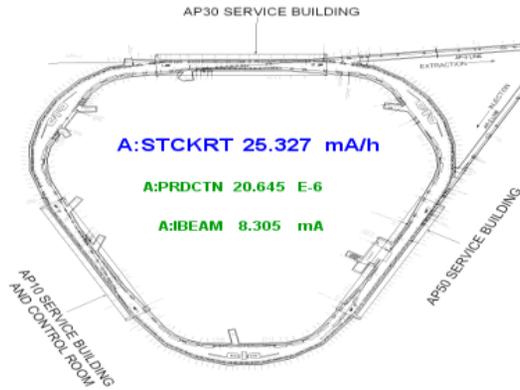
Pbar Source Accumulator, Debuncher, AP1, AP2, & AP3 Beamline Views

A:IBMINJ 15.441 e07    A:FRWIDTH 27.622 Hz    A:EMT3HN 0.63 pimm  
 A:LFTOVR 1.162 %    A:CENFRQ 628895. Hz    A:EMT3VN 0.394 pimm  
 A:STMEDS 11.378 MeV    A:R2DDS1 628897. Hz    A:XFRNXT 75.0 mA  
 A:R1HLFB 28.868 kV

Program Running: Yes

[Close] V:APSMOD: Stacking

MI EFF 0.9  
 M:TR105B 8.281 E12  
 G:TURN14 12.0 Turns  
 I:14SUM3 9.173 E12



A:STCKRT 25.327 mA/h

A:PRDCTN 20.645 E-6

A:IBEAM 8.305 mA

D:724TOR 8.108 E09

G:RD2116 3.0 mRem

D:INJFLX 26.699 McG

D:FLXBTL 1.548 uSec

D:R1HLFB 5.145 MV

D:BPM10 24886.4 McG

Z:PRDCTD 27.71 E-6

Pbar Beamlines BPM House Status

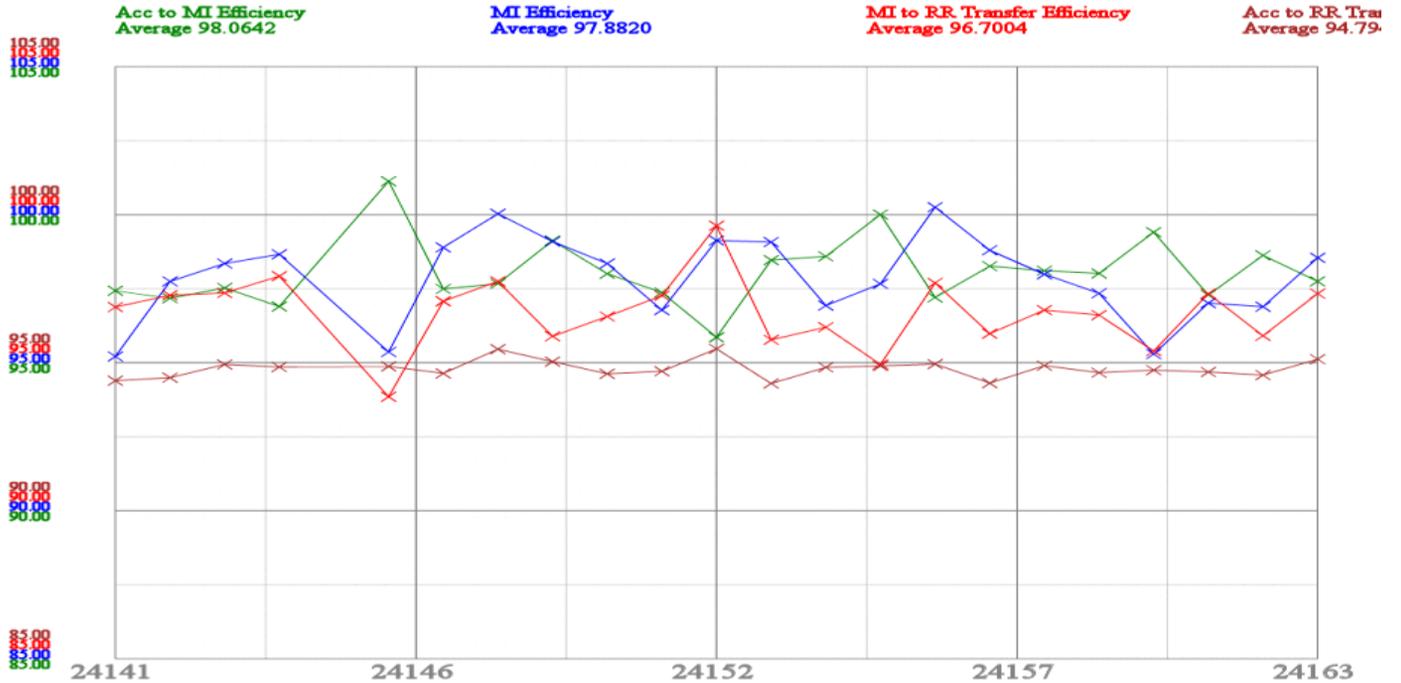
P1  
 P2  
 AP1  
 AP2 F27  
 AP2 AP50

0x80 Event Detected

A:STCKAV 2.45 Secs

Overthruuster Status

## Acc->Rec Table Plotter



Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number_20_A:BEAMB sampled on \$91 (A:BEAM7), E10	Column 22 Number_21_A:BEAMB sampled on \$94 (A:BEAM7), E10	Unstacked (mA)	Column 23 Number_22_R:BEAMS (R:BEAM0) pre transfer, E10	Column 24 Number_23_R:BEAMS (R:BEAM0) post transfer, 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	
<b>Totals =&gt;</b>				<b>538.91</b>		<b>510.36</b>	<b>94.70%</b>	<b>98.06%</b>	<b>96.03%</b>	<b>94.17%</b>	<b>68</b>	<b>22</b>	<b>5.8647</b>	<b>4.3157</b>	<b>1.9679</b>		
<b>Daily Average =&gt;</b>				<b>538.91</b>		<b>510.36</b>						<b>68</b>	<b>22</b>				
24163	Tuesday, April 19, 2011	6:22	26.24	6.44	22.43	234.68	255.81	21.36	95.21%	97.92%	96.59%	94.58%	3	1	5.652	4.23	1.968
24162	Tuesday, April 19, 2011	5:29	29.14	7.35	24.35	212.23	235.03	23.03	94.56%	98.32%	95.59%	93.99%	3	1	5.785	4.091	1.955
24161	Tuesday, April 19, 2011	4:27	27.08	6.55	23.08	190.99	212.57	21.82	94.54%	97.39%	94.66%	92.19%	3	1	5.671	4.131	1.927
24160	Tuesday, April 19, 2011	3:33	29.17	7.54	24.27	168.44	191.26	23.03	94.91%	98.82%	94.82%	93.69%	3	1	5.839	4.425	1.965
24159	Tuesday, April 19, 2011	2:36	26.87	7.28	22.25	147.93	168.77	21.02	94.48%	97.55%	95.30%	92.96%	3	1	5.907	4.463	1.966
24158	Tuesday, April 19, 2011	1:44	28.11	7.11	23.59	125.96	148.15	22.39	94.94%	98.34%	96.17%	94.57%	3	1	5.984	4.419	1.983
24157	Tuesday, April 19, 2011	0:49	27.92	7.45	23.11	104.45	126.16	21.84	94.50%	98.50%	97.52%	96.06%	3	1	6.204	4.51	1.985
24156	Monday, April 18, 2011	23:52	25.66	6.92	22.03	83.89	104.67	20.91	94.91%	97.44%	97.35%	94.86%	3	1	5.763	4.356	1.983
24155	Monday, April 18, 2011	23:03	26.67	7.15	22.11	63.18	84.01	20.97	94.84%	99.46%	97.33%	96.80%	3	1	6.013	4.487	1.999
24154	Monday, April 18, 2011	22:10	26.23	6.65	22.12	42.47	63.33	21.01	94.96%	98.66%	95.99%	94.71%	3	1	5.76	4.294	1.978
24153	Monday, April 18, 2011	21:16	39.19	7.13	35.92	9.04	42.60	33.83	94.19%	98.23%	97.10%	95.38%	4	1	6.203	4.467	1.949
24152	Monday, April 18, 2011	19:42	23.46	6.21	19.79	345.07	363.57	18.92	95.59%	96.42%	95.85%	92.42%	3	1	5.895	4.145	1.97
24151	Monday, April 18, 2011	18:58	26.17	7.02	21.81	325.89	346.16	20.63	94.58%	97.26%	93.84%	91.26%	3	1	5.866	4.247	1.973
24150	Monday, April 18, 2011	18:05	47.36	7.64	43.52	286.88	327.08	41.04	94.29%	98.06%	95.91%	94.04%	4	1	6.378	4.863	1.945
24149	Monday, April 18, 2011	16:11	26.95	5.99	23.31	266.57	288.38	22.10	94.84%	99.03%	97.94%	97.00%	3	1	5.575	3.791	1.946
24148	Monday, April 18, 2011	15:15	25.64	6.68	21.59	246.77	267.13	20.60	95.46%	97.98%	97.43%	95.53%	3	1	5.562	4.126	1.985
24147	Monday, April 18, 2011	14:26	34.42	8.98	28.00	221.36	247.36	26.39	94.28%	97.55%	96.09%	93.73%	3	1	6.025	4.64	1.963
24146	Monday, April 18, 2011	13:07	25.87	6.08	22.36	201.03	221.98	21.20	94.78%	100.44%	96.40%	96.82%	3	1	5.658	4.208	1.931
24144	Monday, April 18, 2011	11:13	27.01	6.81	22.77	158.10	179.46	21.59	94.82%	97.38%	96.06%	93.54%	3	1	5.803	4.12	1.985
24143	Monday, April 18, 2011	9:58	29.41	6.85	25.10	135.01	158.52	23.83	94.94%	97.25%	95.79%	93.16%	3	1	6.053	4.339	1.953
24142	Monday, April 18, 2011	8:55	26.52	7.38	21.62	115.16	135.34	20.41	94.38%	97.65%	95.33%	93.09%	3	1	5.74	4.292	2.014
24141	Monday, April 18, 2011	8:01	29.18	7.86	23.82	93.15	115.40	22.47	94.37%	97.47%	93.35%	90.99%	3	1	5.687	4.3	1.971