

# 2011-04-18 Monday Morning Notes

Monday, April 18, 2011  
7:57 AM

## Stacking and Transfers

- Stacked 23.2mA/hr with a production of 18.6 and 8.13 Tp on target
- Unstacked 1582E10 (527/day) in 185 transfers (62/day) over 58 sets (19/day) with an overall efficiency of 93.1%
  - Take out the larger transfers and we get 95.1%
    - Transfer 24083 (289mA 4/15/11 15:37)
    - Transfer 24084 (180mA 4/15/11 16:05)
    - Transfer 24128 (54mA 4/18/11 05:01)
    - Transfer 24120 (444mA 4/17/11 10:04)
    - Transfer 24103 (45mA 4/16/11 16:09)
    - Transfer 24087 (41mA 4/15/11 22:43)

## Operational Notes

- Pbar Dump water work
- Target blower died
- Cycled busses, noise on A:QDF
- Chilled water regulation loop problems
- ARF1-2 tripped a couple of times on driver fault\
- Dump water circuit #1 is holding!
- LCW leak rate is up a bit

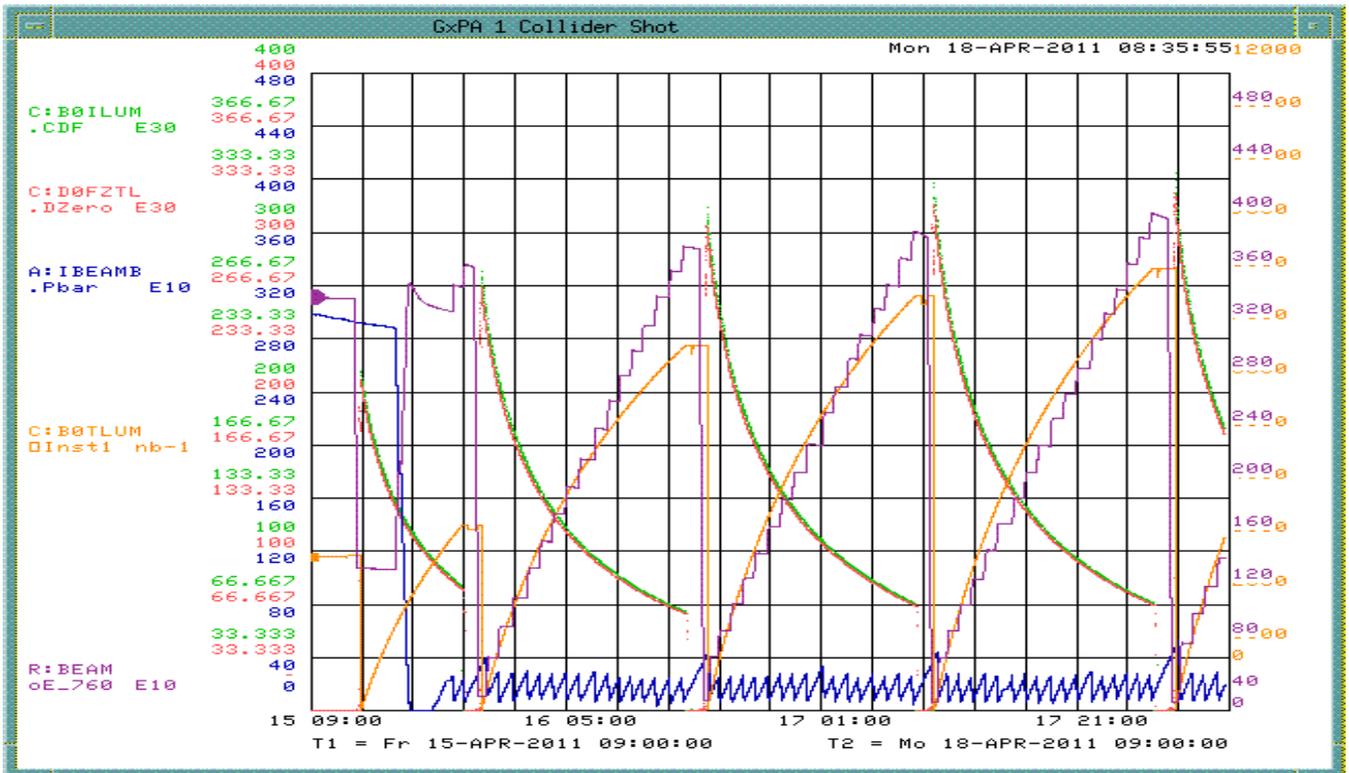
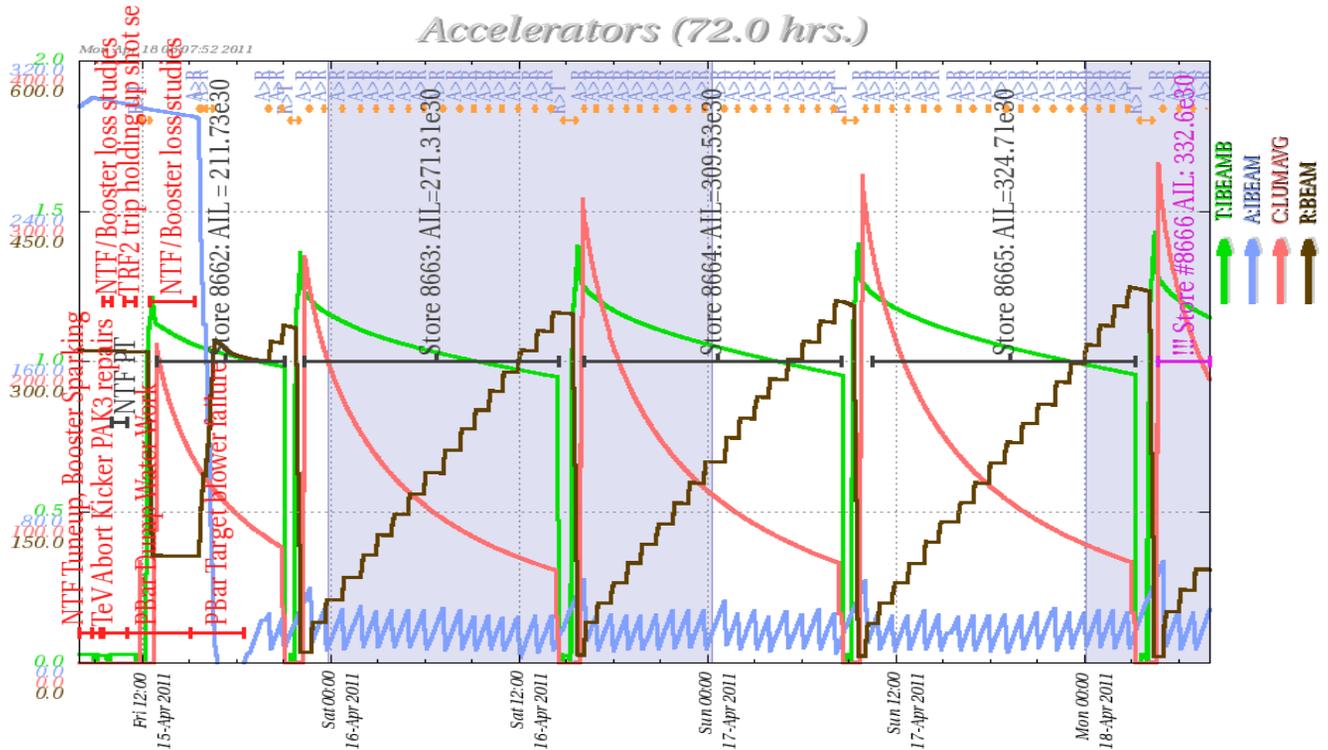
## Numbers

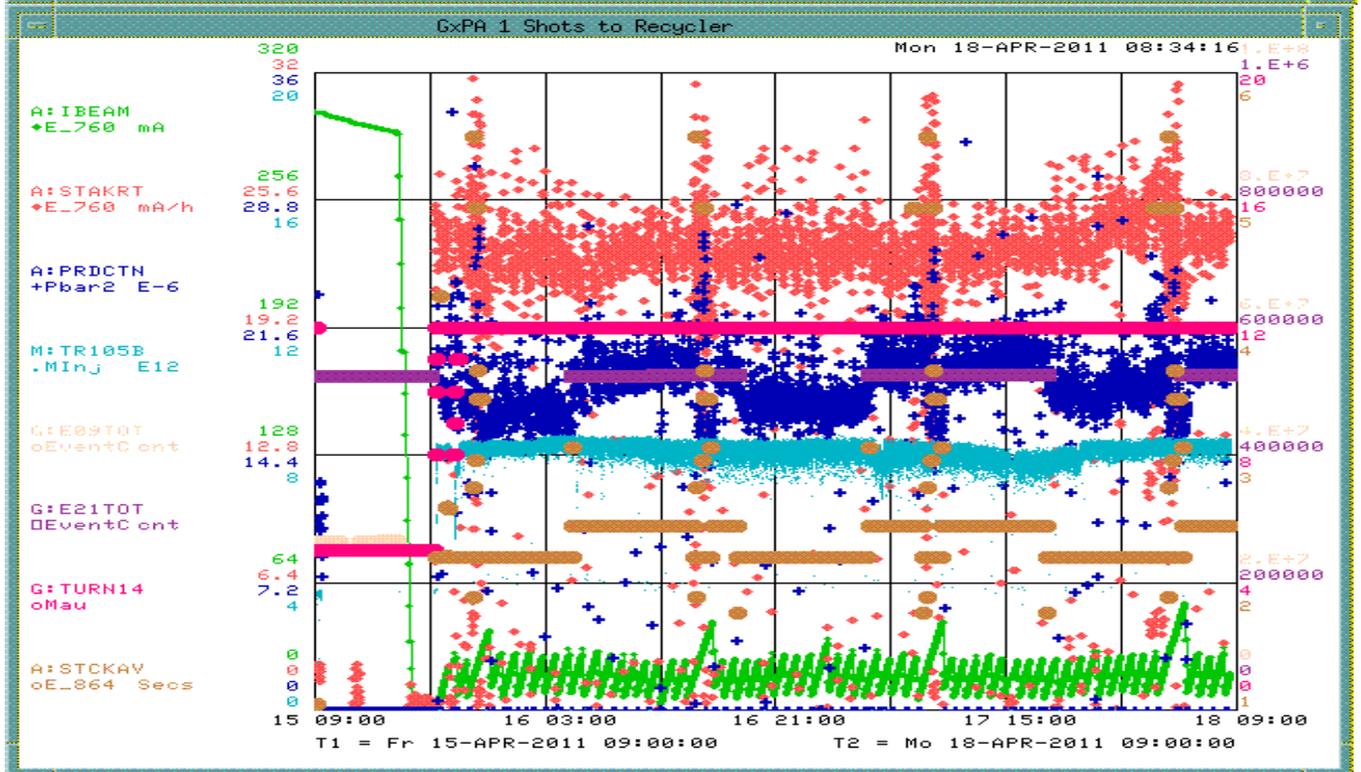
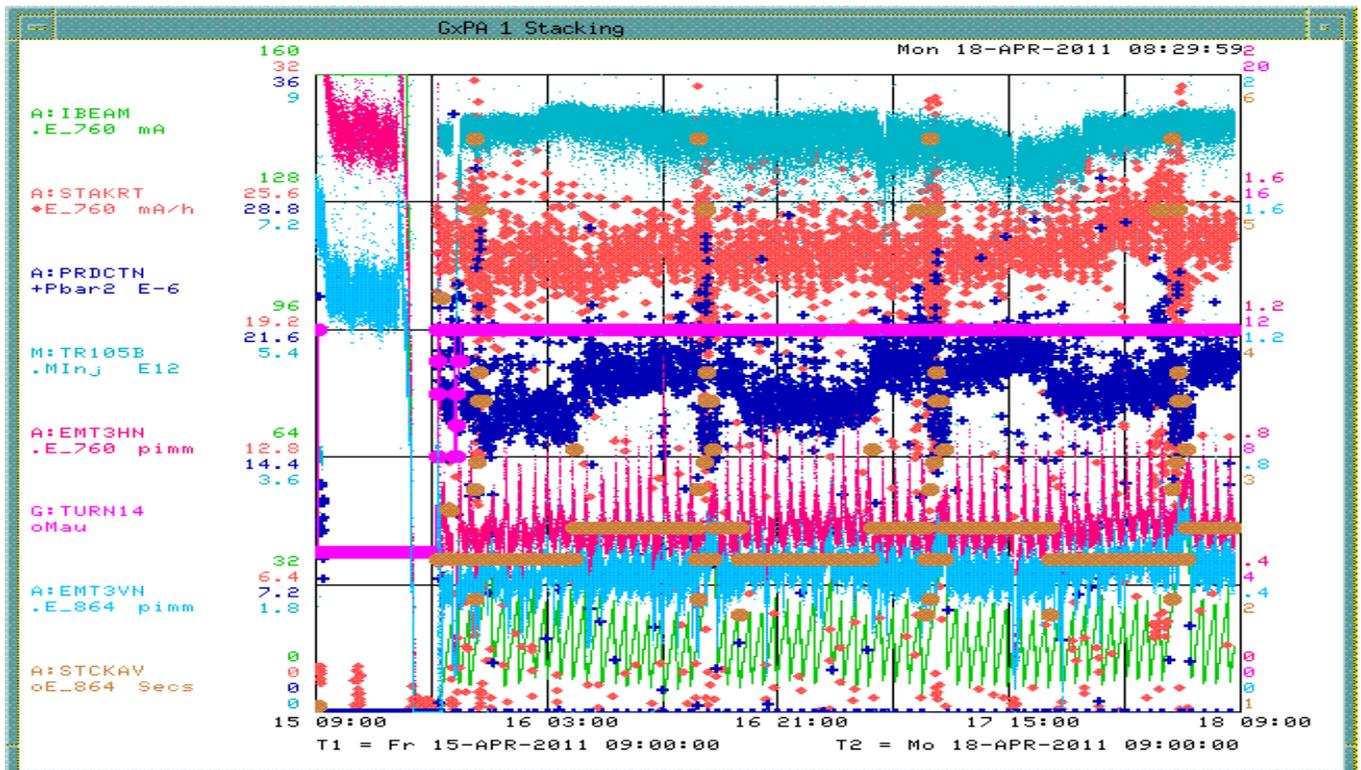
- Stacking
  - Pbars stacked: 1347.88 E10
  - Time stacking: 63.79 Hr
  - Average stacking rate: 21.13 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 94284
  - Number of pulses with beam: 89960
  - Fraction of up pulses was: 95.41%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 60.86 Hr
  - Possible average stacking rate: 22.15 E10/Hr
  - Could have stacked: 1412.67 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 1592.96 E10
  - Number of transfers : 186
  - Number of transfer sets: 59
  - Average Number of transfer per set: 3.15
  - Time taken to shoot including reverse proton tuneup: 00.65 Hr
  - Transfer efficiency: 92.34%
- Other Info
  - Average POT : 8.12 E12

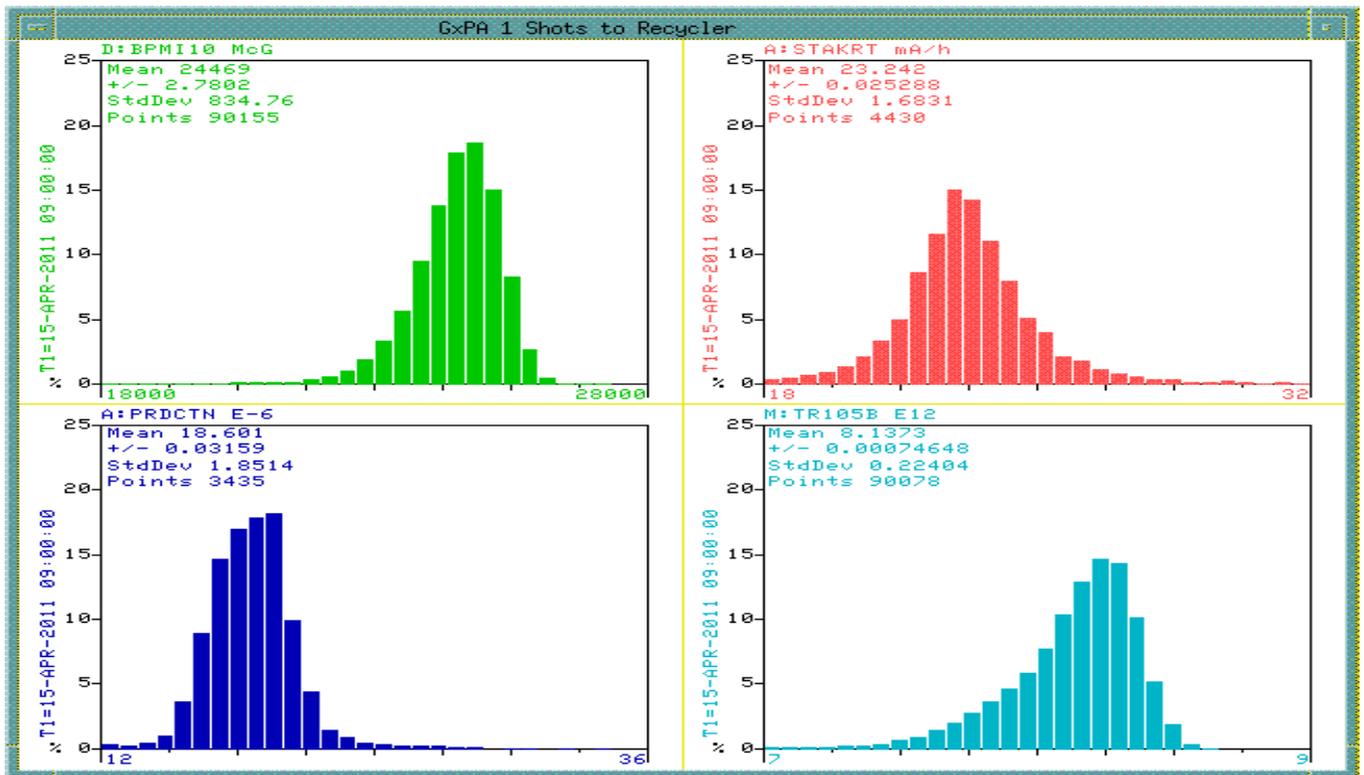
○ Average production: 18.46 pbars/E6 protons

- \* Red indicates a problem during data retrieval. See the message window for details.

### Plots

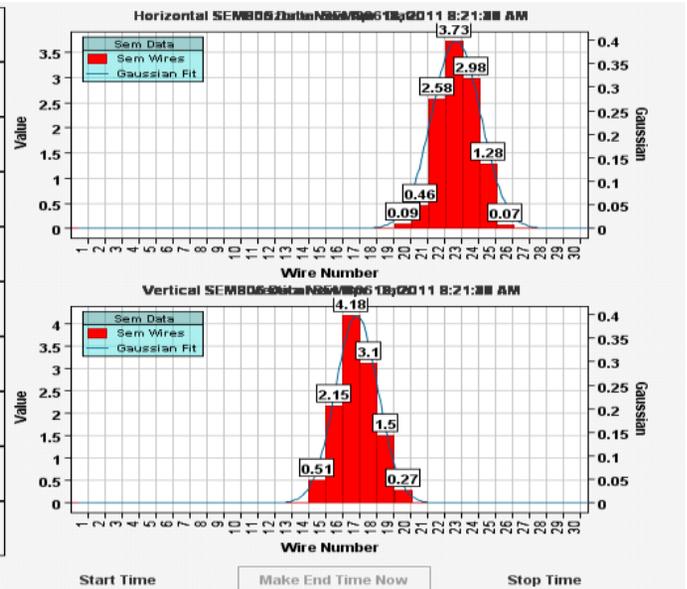






Horizontal Area New	<b>11.18</b>	Intensity
Horizontal Area Calc	<b>198.22</b>	Intensity
Horizontal Sigma New	<b>3.31</b>	mm
Horizontal Sigma Calc	<b>3.12</b>	mm
Horizontal Mean	<b>24.53</b>	mm
Vertical Area New	<b>11.71</b>	Intensity
Vertical Area Calc	<b>202.56</b>	Intensity
Vertical Sigma New	<b>3.34</b>	mm
Vertical Sigma Calc	<b>3.14</b>	mm
Vertical Mean	<b>6.96</b>	mm

View Lumberjack Data    Pause    Old Hardware



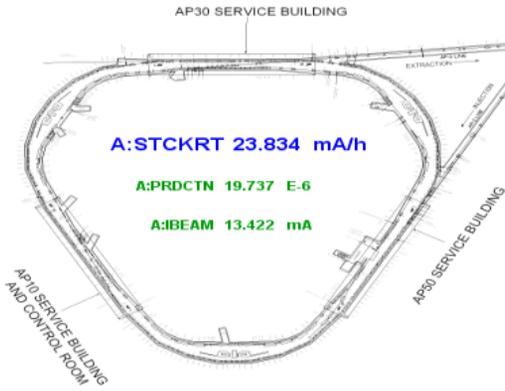
Pbar Source Accumulator, Debuncher, AP1, AP2, & AP3 Beamline Views

Program Running: **Yes**

V:APSMOD: **Stacking**

A:IBMINJ 16.55 e07    A:FRWDTH 28.531 Hz    A:EMT3HN 0.59 pimm  
 A:LFTOVR 1.647 %    A:CENFRQ 628895. Hz    A:EMT3VN 0.437 pimm  
 A:STMEDS 12.609 MeV    A:R2DDS1 628897. Hz    A:XFRNXT 75.0 mA  
 A:R1HLFB 26.9 kV

MI EFF 0.89  
 M:TR105B 8.292 E12  
 G:TURN14 12.0 Turns  
 I:14SUM3 9.302 E12



D:724TOR 8.317 E09  
 G:RD2116 3.15 mRem

D:INJFLX 26.442 McG  
 D:FLXBTL 1.544 uSec  
 D:R1HLFB 5.15 MV  
 D:BPMI10 24398.4 McG  
 Z:PRDCTD 28.61 E-6

Pbar Beamlines BPM House Status

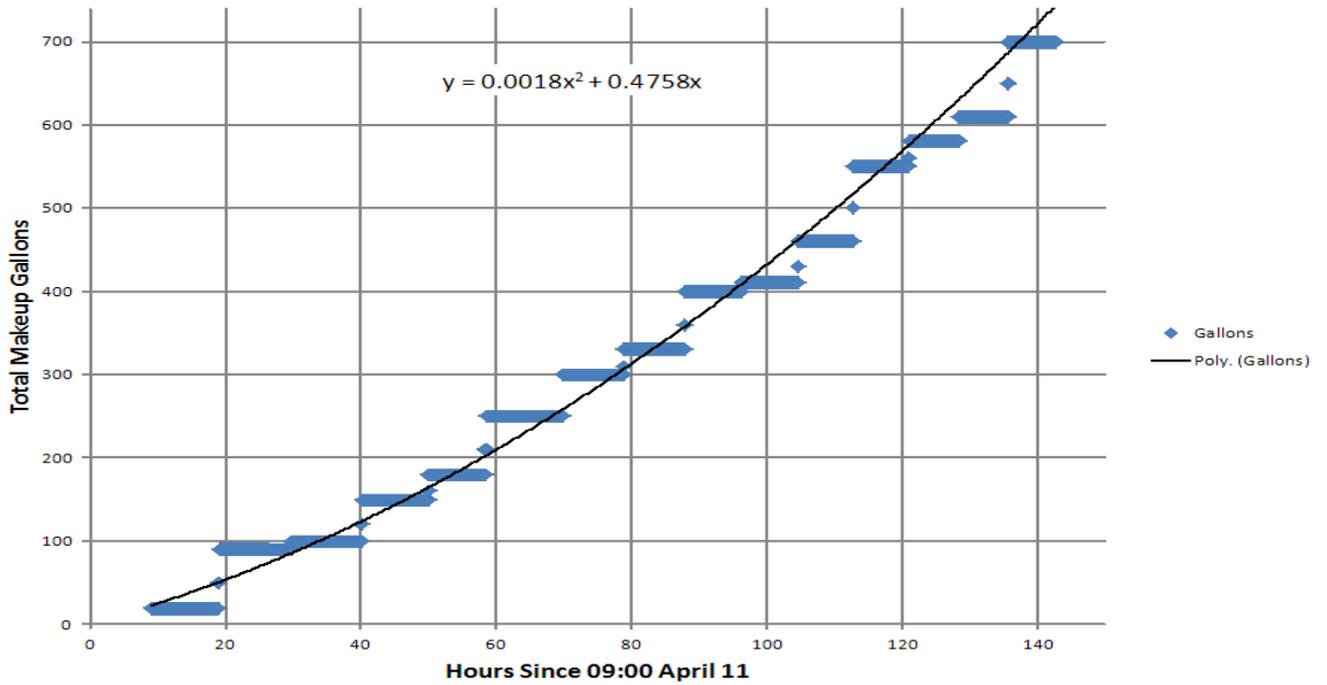
- P1
- P2
- AP1
- AP2 F27
- AP2 AP50

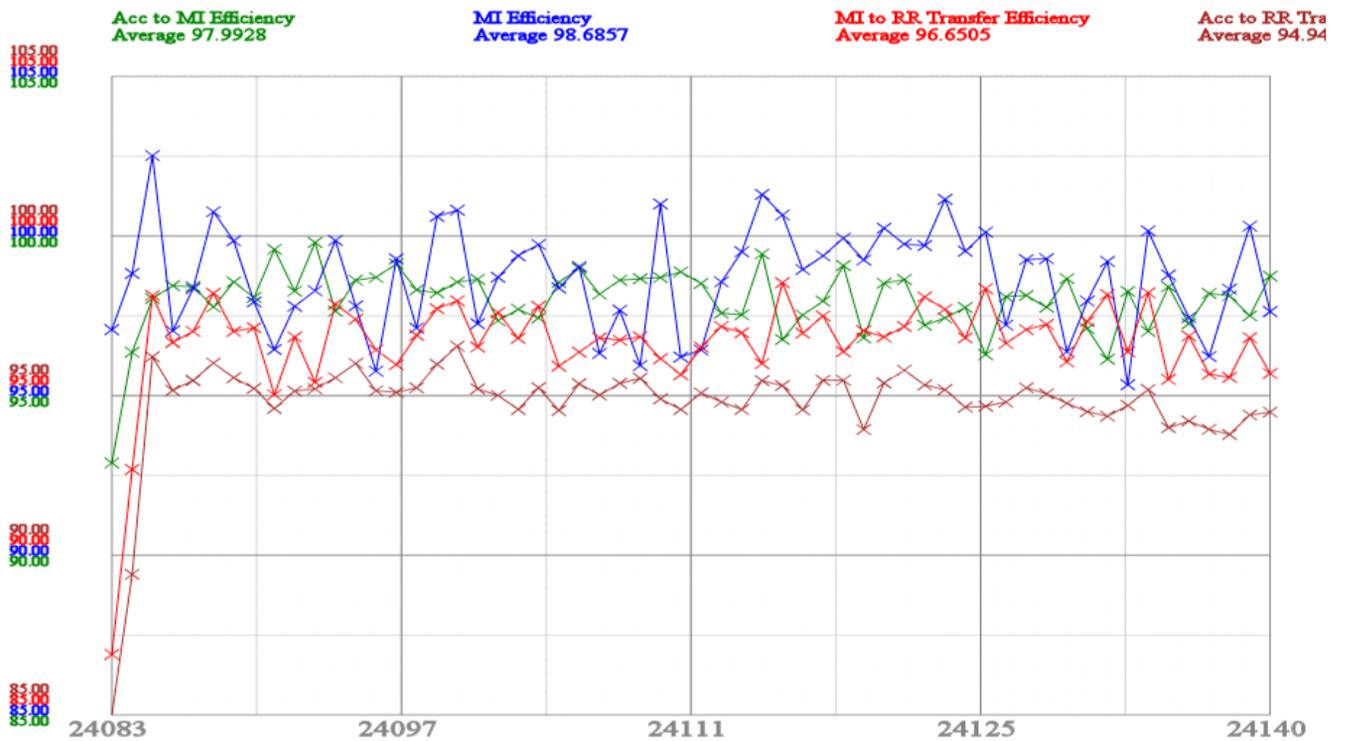
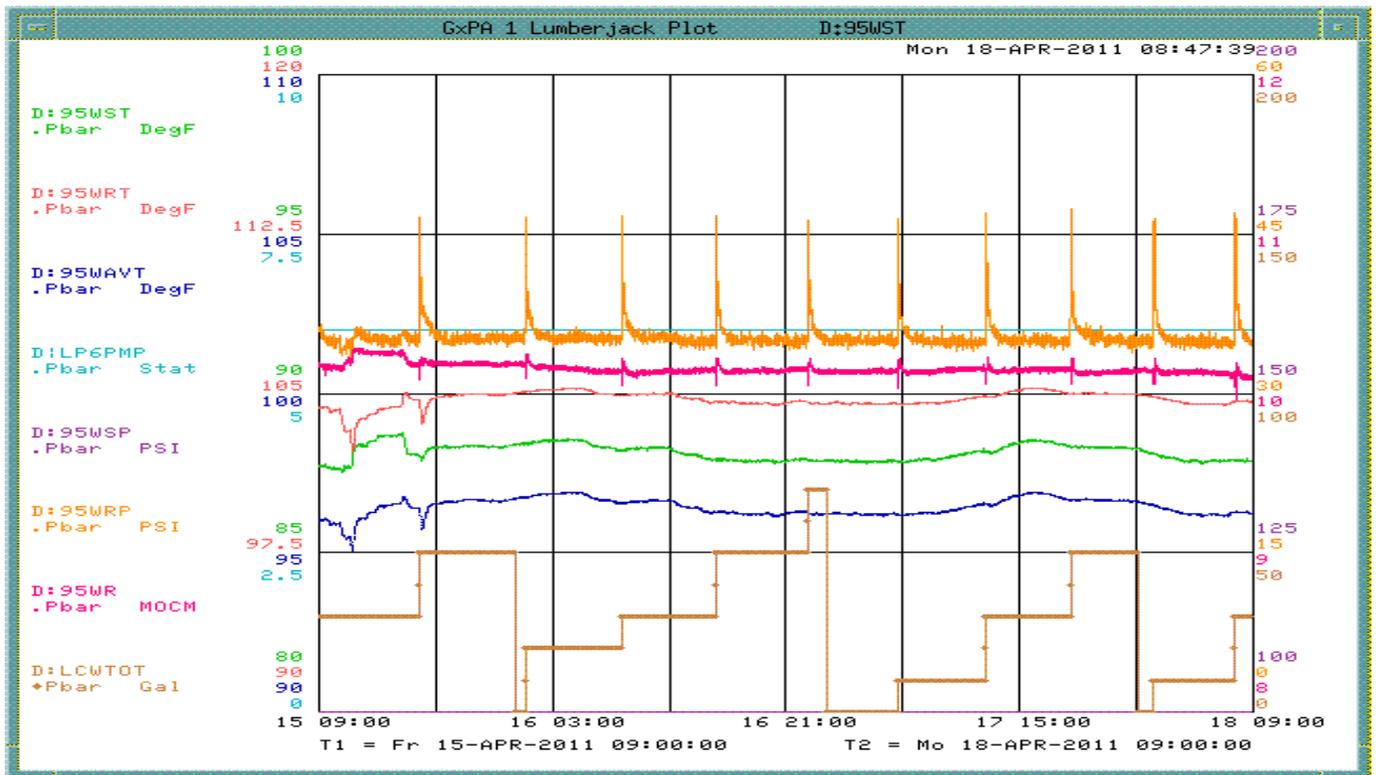
0x80 Event Detected

A:STCKAV 2.45 Secs

Overthruuster Status

Pbar 95 LCW Makeup





Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Trasfer Time	Column 21 Number_20_A:IBEAMB sampled on #91 (A:BEAM7), E10	Column 22 Number_21_A:IBEAMB sampled on #94 (A:BE	Uartack #d (mA)	Column 23 Number_22_R:BEAMS (R:BE AME0[0])	Column 24 Number_23_R:BEAM (R:BE AME0[1])	Starhad	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Efficiency	Traff	Set	Column 5 Number_4_Acc Horizatol Emittance	Column 6 Number_5_Acc Vertic al Emittance	Column 8 Number_7_Acc Longit udinal Emittance	
<b>Totals =&gt;</b>				<b>1582.14</b>			<b>1473.65</b>	<b>93.14%</b>	<b>97.45%</b>	<b>95.90%</b>	<b>93.45%</b>	<b>185</b>	<b>58</b>	<b>5.92</b>	<b>4.37</b>	<b>1.96</b>	
<b>Daily Average =&gt;</b>				<b>527.38</b>			<b>491.22</b>					<b>62</b>	<b>19</b>				
24140	Monday, April 18, 2011	6:58	27.00	7.42	22.04	72.83	93.45	20.81	94.48%	98.71%	96.48%	95.24%	3	1	5.487	4.264	1.993
24139	Monday, April 18, 2011	6:01	28.60	7.23	23.80	50.86	73.06	22.43	94.24%	97.56%	96.97%	94.60%	3	1	5.785	4.205	1.958
24138	Monday, April 18, 2011	5:01	54.09	8.90	48.62	6.43	51.27	45.58	93.74%	98.12%	96.76%	94.94%	4	1	6.424	4.793	1.879
24137	Monday, April 18, 2011	2:45	27.17	8.09	21.53	355.27	374.82	20.12	93.45%	98.37%	94.39%	92.85%	3	1	6.454	4.332	2.003
24136	Monday, April 18, 2011	1:49	28.07	8.10	22.45	335.80	356.50	21.11	94.91%	97.29%	94.91%	92.34%	3	1	6.285	4.425	2.004
24135	Monday, April 18, 2011	0:54	28.06	8.58	21.98	316.54	336.80	20.66	93.56%	98.30%	97.28%	95.63%	3	1	5.884	4.478	2.025
24134	Monday, April 18, 2011	0:01	27.21	9.23	20.46	298.44	317.51	19.49	95.22%	97.80%	96.97%	94.83%	3	1	5.862	4.471	2.025
24133	Sunday, April 17, 2011	23:04	26.78	8.07	21.23	279.66	299.42	20.06	94.50%	98.47%	93.64%	92.23%	3	1	6.062	4.376	1.997
24132	Sunday, April 17, 2011	22:07	29.61	6.94	25.10	257.27	280.45	23.58	95.49%	96.61%	95.24%	92.05%	3	1	5.937	4.306	1.944
24131	Sunday, April 17, 2011	20:57	27.01	7.95	21.48	238.27	258.20	20.30	94.51%	97.19%	95.17%	92.50%	3	1	5.892	4.359	2.005
24130	Sunday, April 17, 2011	19:58	25.40	7.17	20.64	219.73	239.05	19.54	94.64%	98.16%	95.24%	93.45%	3	1	5.898	4.288	2.003
24129	Sunday, April 17, 2011	18:57	25.76	5.67	22.54	199.20	220.34	21.43	95.87%	97.86%	96.24%	94.18%	3	1	5.524	3.836	1.933
24128	Sunday, April 17, 2011	17:54	25.74	6.29	21.85	179.21	199.71	20.84	95.36%	98.56%	97.17%	95.77%	3	1	5.534	3.953	1.974
24127	Sunday, April 17, 2011	16:55	25.52	6.80	21.17	159.85	179.65	20.08	94.84%	98.04%	95.81%	93.94%	3	1	5.498	4.125	2
24126	Sunday, April 17, 2011	15:59	25.18	6.81	20.77	140.72	160.15	19.69	94.79%	96.91%	96.24%	93.39%	3	1	5.514	4.044	2.009
24125	Sunday, April 17, 2011	14:44	26.08	6.78	21.75	120.71	141.09	20.60	94.71%	97.62%	96.82%	94.52%	3	1	5.638	4.101	1.975
24124	Sunday, April 17, 2011	13:46	27.90	6.97	23.18	99.17	121.00	22.06	95.16%	97.73%	97.90%	95.68%	3	1	5.395	4.126	1.966
24123	Sunday, April 17, 2011	12:44	25.26	6.97	20.69	79.84	99.40	19.71	95.24%	97.56%	96.73%	94.37%	3	1	5.591	4.002	2.004
24122	Sunday, April 17, 2011	11:47	25.46	6.37	21.39	59.74	80.02	20.46	95.69%	98.07%	98.48%	96.48%	3	1	5.53	4.113	1.984
24121	Sunday, April 17, 2011	10:51	26.02	6.90	21.53	39.63	60.01	20.57	95.54%	98.63%	98.38%	97.04%	3	1	5.53	4.19	1.99
24120	Sunday, April 17, 2011	10:04	44.32	11.07	35.49	6.89	39.87	33.28	93.76%	96.70%	95.79%	92.63%	3	1	5.808	4.47	1.896
24119	Sunday, April 17, 2011	8:04	26.55	5.02	23.38	339.35	361.13	22.32	95.49%	98.14%	98.78%	97.94%	3	1	5.066	3.71	1.94
24118	Sunday, April 17, 2011	7:03	28.57	7.26	23.66	319.28	341.23	22.53	95.23%	98.26%	96.91%	95.22%	3	1	5.528	4.251	1.979
24117	Sunday, April 17, 2011	6:00	26.31	7.77	20.97	301.70	321.03	19.77	94.29%	97.48%	95.74%	93.33%	3	1	5.651	4.132	2.008
24116	Sunday, April 17, 2011	5:02	28.18	8.02	22.57	282.00	303.08	21.51	95.32%	97.22%	96.84%	94.15%	3	1	5.478	4.085	2.007
24115	Sunday, April 17, 2011	3:53	24.58	6.59	20.20	264.47	283.40	19.30	95.53%	99.38%	100.50%	99.87%	3	1	5.831	4.068	1.982
24114	Sunday, April 17, 2011	3:01	28.29	7.05	23.71	243.38	265.45	22.43	94.59%	97.67%	96.61%	94.36%	3	1	5.55	4.245	1.975
24113	Sunday, April 17, 2011	1:57	26.40	7.12	21.64	224.13	244.36	20.53	94.98%	97.75%	96.11%	93.95%	3	1	5.685	4.286	1.982
24112	Sunday, April 17, 2011	1:06	33.70	9.57	26.46	200.07	224.84	25.11	94.19%	98.30%	95.86%	93.44%	3	1	6.911	4.378	1.986
24111	Saturday, April 16, 2011	23:46	28.22	7.28	23.01	179.25	200.80	21.76	94.57%	98.77%	95.24%	94.09%	3	1	5.301	4.013	2.008
24110	Saturday, April 16, 2011	22:45	27.79	8.11	22.04	159.11	179.76	20.91	94.91%	98.46%	99.14%	97.62%	3	1	6.036	4.281	2.026
24109	Saturday, April 16, 2011	21:47	28.35	8.08	22.67	138.09	159.50	21.70	95.62%	98.62%	95.12%	93.81%	3	1	5.767	4.366	2.025
24108	Saturday, April 16, 2011	20:44	25.95	7.29	21.07	118.53	138.44	20.13	95.52%	98.27%	96.18%	94.52%	3	1	5.817	4.292	1.993
24107	Saturday, April 16, 2011	19:43	25.05	7.00	20.35	99.52	118.73	19.40	95.33%	97.72%	95.98%	93.71%	3	1	6.021	4.159	2.015
24106	Saturday, April 16, 2011	18:50	25.38	7.14	20.60	80.23	99.70	19.69	95.57%	98.79%	97.76%	95.57%	3	1	5.908	4.235	1.991
24105	Saturday, April 16, 2011	17:53	25.86	6.32	22.00	59.81	80.43	20.75	94.32%	98.34%	96.85%	95.25%	3	1	5.497	3.943	1.97
24104	Saturday, April 16, 2011	16:54	25.01	6.95	20.55	40.61	59.94	19.53	95.87%	97.99%	97.34%	95.39%	3	1	5.656	4.055	2.011
24103	Saturday, April 16, 2011	16:09	44.97	11.93	35.24	8.02	40.94	33.24	94.31%	97.58%	96.75%	94.40%	3	1	5.851	4.599	1.922
24102	Saturday, April 16, 2011	14:03	25.21	6.80	20.79	330.31	349.67	19.75	95.83%	97.58%	95.96%	93.64%	3	1	5.569	4.19	1.996
24101	Saturday, April 16, 2011	13:04	25.43	5.89	21.70	311.10	331.41	20.62	95.82%	98.45%	96.14%	94.64%	3	1	5.266	3.876	1.98
24100	Saturday, April 16, 2011	11:57	24.88	2.91	23.78	289.39	312.01	22.94	96.46%	98.26%	97.48%	95.79%	3	1	4.634	2.779	1.805
24099	Saturday, April 16, 2011	10:55	24.42	6.36	20.42	270.84	290.20	19.63	96.86%	98.31%	98.11%	96.44%	3	1	5.386	4.138	1.991
24098	Saturday, April 16, 2011	10:03	25.60	7.24	20.79	251.92	271.47	19.80	95.22%	98.35%	95.84%	94.28%	3	1	5.539	4.181	2.023
24097	Saturday, April 16, 2011	9:07	24.85	6.72	20.57	233.16	252.48	19.58	95.19%	98.76%	98.18%	96.96%	3	1	5.598	4.114	1.985
24096	Saturday, April 16, 2011	8:14	28.29	7.38	23.24	211.98	233.78	22.12	95.19%	98.50%	94.42%	93.00%	3	1	5.736	3.958	1.993
24095	Saturday, April 16, 2011	7:10	29.70	6.78	24.76	189.17	212.57	23.76	95.96%	98.40%	96.80%	95.25%	3	1	5.388	4.023	1.984
24094	Saturday, April 16, 2011	5:57	28.19	7.50	23.07	167.96	189.66	21.99	95.35%	97.58%	97.07%	94.73%	3	1	5.553	4.165	1.999
24093	Saturday, April 16, 2011	4:55	28.16	8.54	21.95	147.79	168.39	20.91	95.23%	99.54%	97.92%	97.47%	3	1	5.76	4.379	2.007
24092	Saturday, April 16, 2011	3:54	28.19	8.32	22.21	127.27	148.13	21.13	95.12%	97.82%	95.59%	93.51%	3	1	5.603	4.195	2.017
24091	Saturday, April 16, 2011	2:54	27.70	8.49	21.61	107.27	127.57	20.50	94.19%	99.16%	96.58%	95.77%	3	1	5.797	4.353	2.025
24090	Saturday, April 16, 2011	1:56	30.54	8.70	24.16	84.83	107.56	22.95	95.88%	98.49%	96.06%	94.62%	3	1	5.61	4.137	1.999
24089	Saturday, April 16, 2011	0:45	28.71	7.51	23.33	63.04	85.08	22.30	95.59%	98.20%	98.27%	96.50%	3	1	5.389	3.973	1.989
24088	Friday, April 15, 2011	23:38	28.97	6.69	24.43	40.14	63.36	23.43	95.93%	97.85%	97.59%	95.49%	3	1	4.803	3.531	1.951
24087	Friday, April 15, 2011	22:43	40.66	11.40	31.52	10.62	40.43	30.09	95.46%	98.32%	96.71%	95.08%	3	1	5.535	4.379	1.953
24086	Friday, April 15, 2011	20:54	23.67	7.03	19.10	318.93	336.39	18.20	95.29%	98.70%	96.45%	95.19%	3	1	5.706	3.95	2.018
24085	Friday, April 15, 2011	20:05	26.56	7.32	21.66	300.55	320.74	20.87	96.34%	98.24%	99.98%	98.22%	3	1	5.38	3.775	2.008
24084	Friday, April 15, 2011	16:05	179.98	3.88	175.68	186.04	322.47	153.17	97.19%	95.44%	93.65%	89.38%	11	1	8.444	6.059	1.628
24083	Friday, April 15, 2011	15:37	289.84	180.52	107.57	106.64	188.59	86.93	99.81%	92.98%	90.25%	83.84%	5	1	18.462	15.13	1.212

