2011-02-21 Monday Morning Notes

Monday, February 21, 2011
7:45 AM

Stacking and Transfers

Interesting Happenings

Numbers

- Stacking
  - Pbars stacked: 711.96 E10
  - Time stacking: 65.43 Hr
  - Average stacking rate: 10.88 E10/Hr

- Uptime
  - Number of pulses while in stacking mode: 83865
  - Number of pulses with beam: 77757
  - Fraction of up pulses was: 92.72%

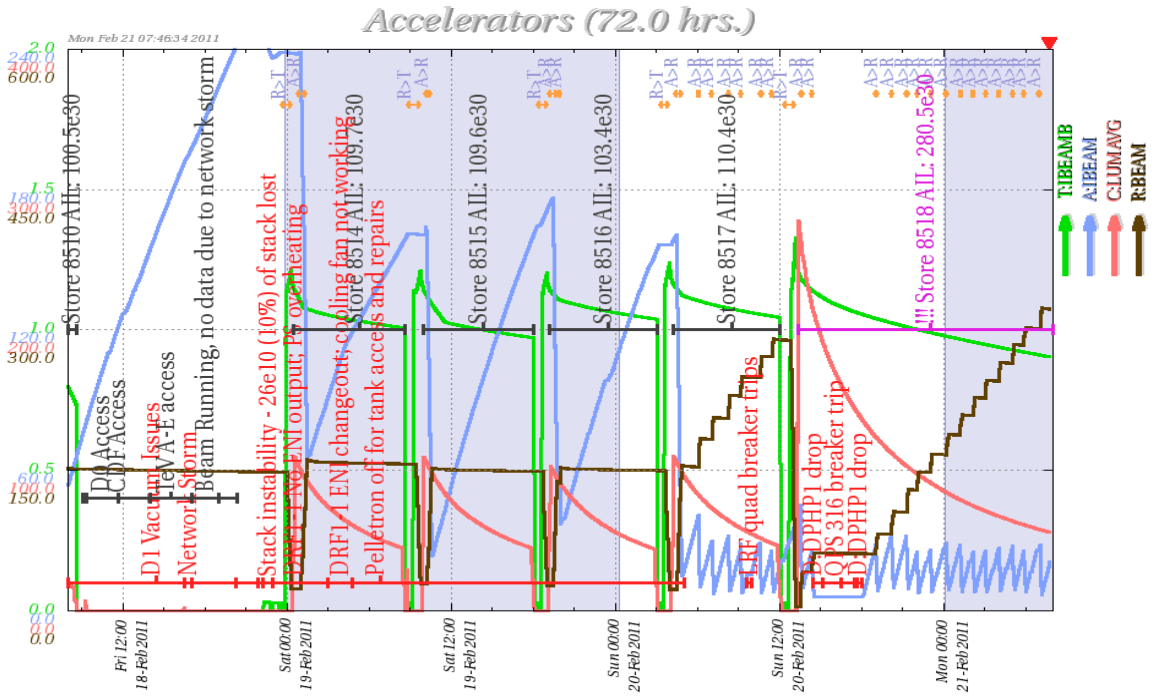
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 60.67 Hr
  - Possible average stacking rate: 11.74 E10/Hr
  - Could have stacked: 767.89 E10/Hr

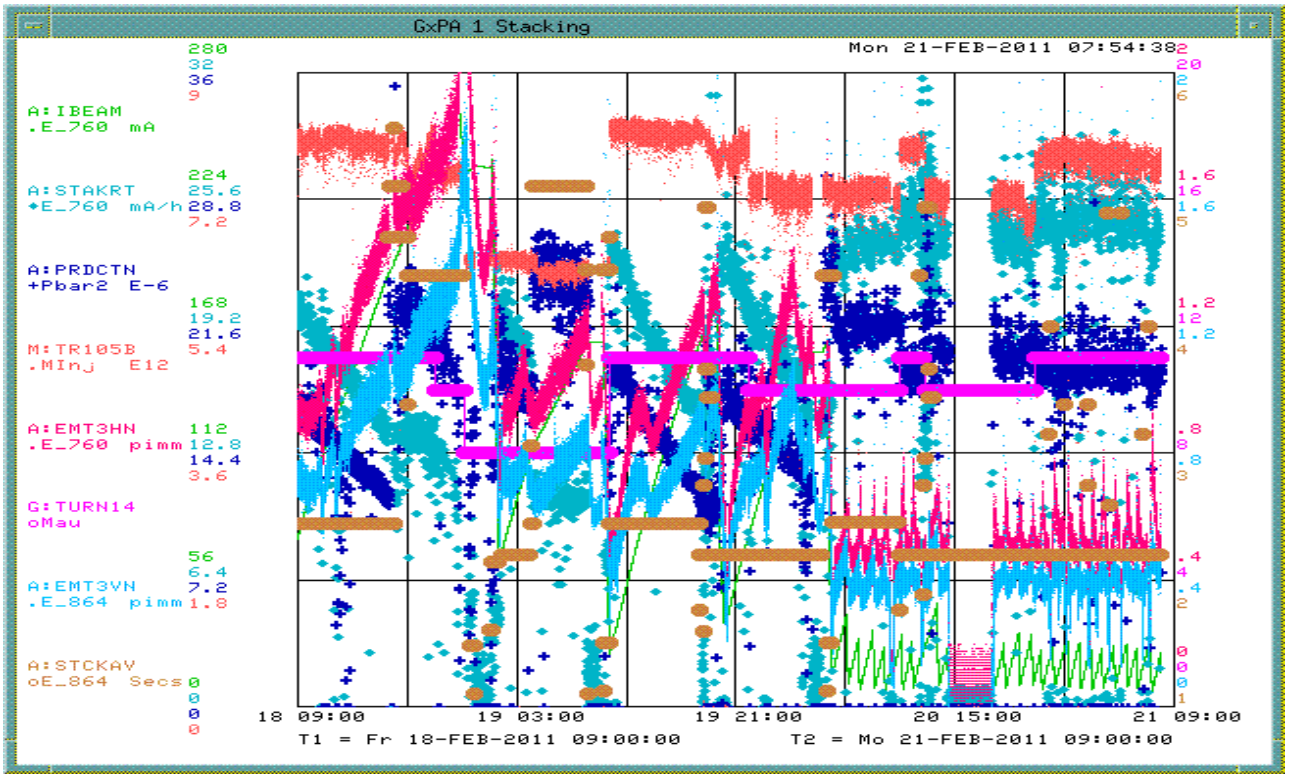
- Recycler Transfers
  - Pbars sent to the Recycler: 755.93 E10
  - Number of transfers : 47
  - Number of transfer sets: 27
  - Average Number of transfer per set: 1.74
  - Time taken to shoot including reverse proton tuneup: 00.16 Hr
  - Transfer efficiency: 88.99%

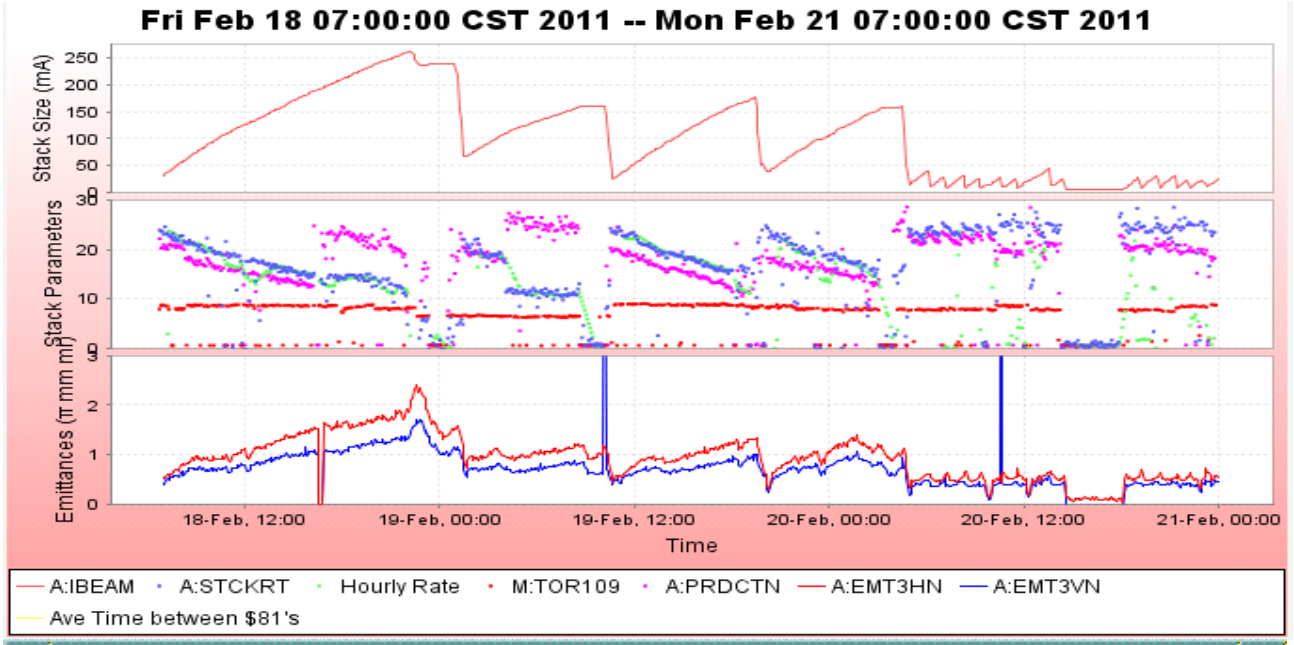
- Other Info
  - Average POT : 7.57 E12
  - Average production: 12.10 pbars/E6 protons

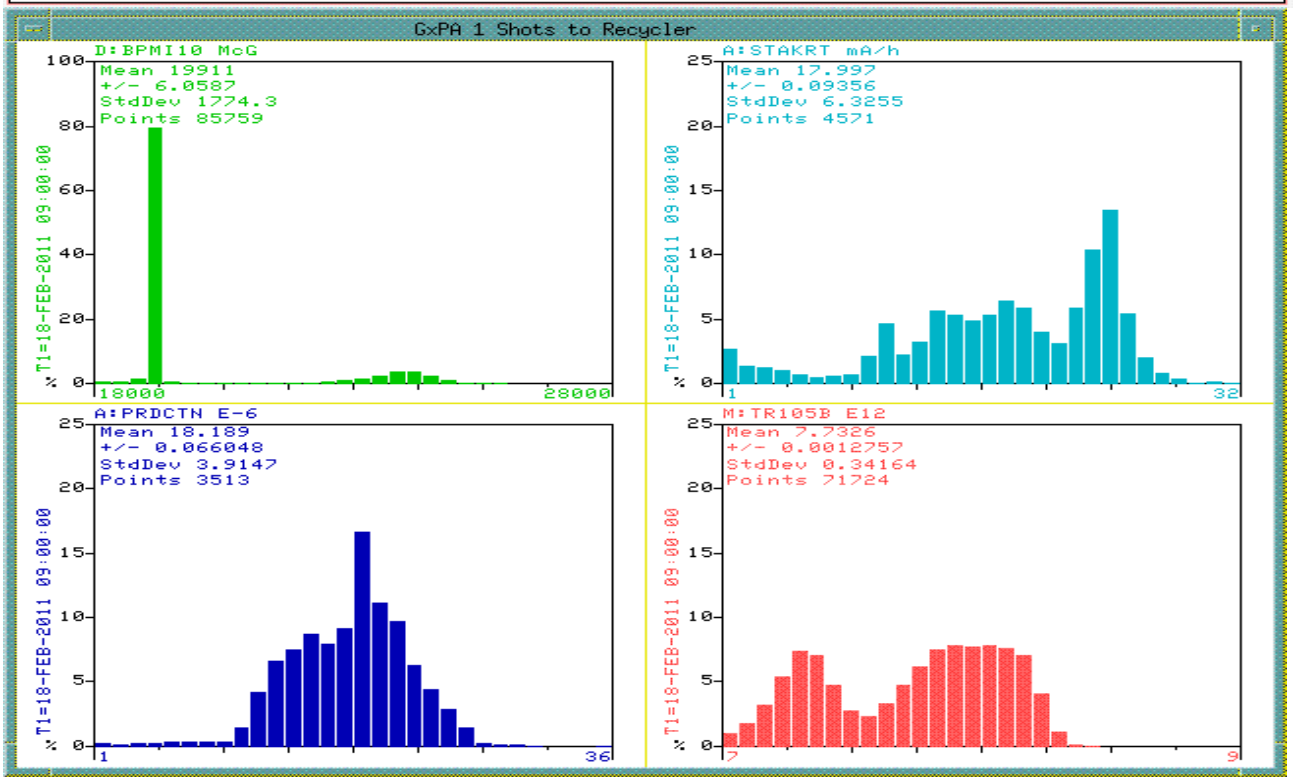
- * Red indicates a problem during data retrieval. See the message window for details.

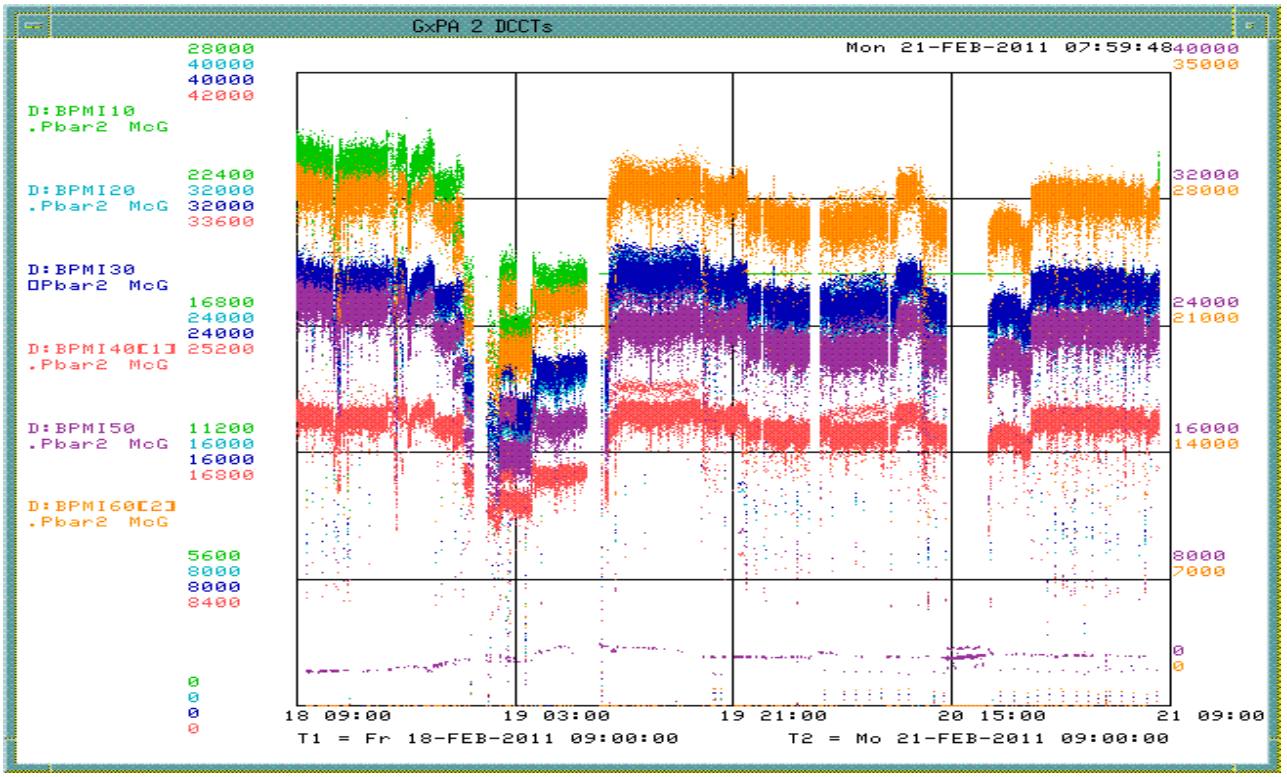
Plots


Accelerators (72.0 hrs.)
Mon Feb 21 07:46:34 2011
Store 8510 AIL: 100.5e30
Store 8515 AIL: 109.6e30
Store 8516 AIL: 103.4e30
Store 8517 AIL: 110.4e30
!!! Store 8518 AIL: 280.5e30
D0 Access
CDF Access
D1 Vacuum Issues
TeVA-E access
Network Storm
Beam Running, no data due to network storm
Stack instability - 26e10 (10%) of stack lost
DRF1-1 ENI changeout; cooling fan not working
Pelletron off for tank access and repairs
LRF quad breaker trips
DPHP1 drop
OPS 316 breaker trip
DPHP1 drop
T:IBEAMB
A:IBEAM
C:LUMAVG
R:BEAM
Fri 12:00 18-Feb 2011
Sat 00:00 19-Feb 2011
Sat 12:00 19-Feb 2011
Sun 00:00 20-Feb 2011
Sun 12:00 20-Feb 2011
Mon 00:00 21-Feb 2011

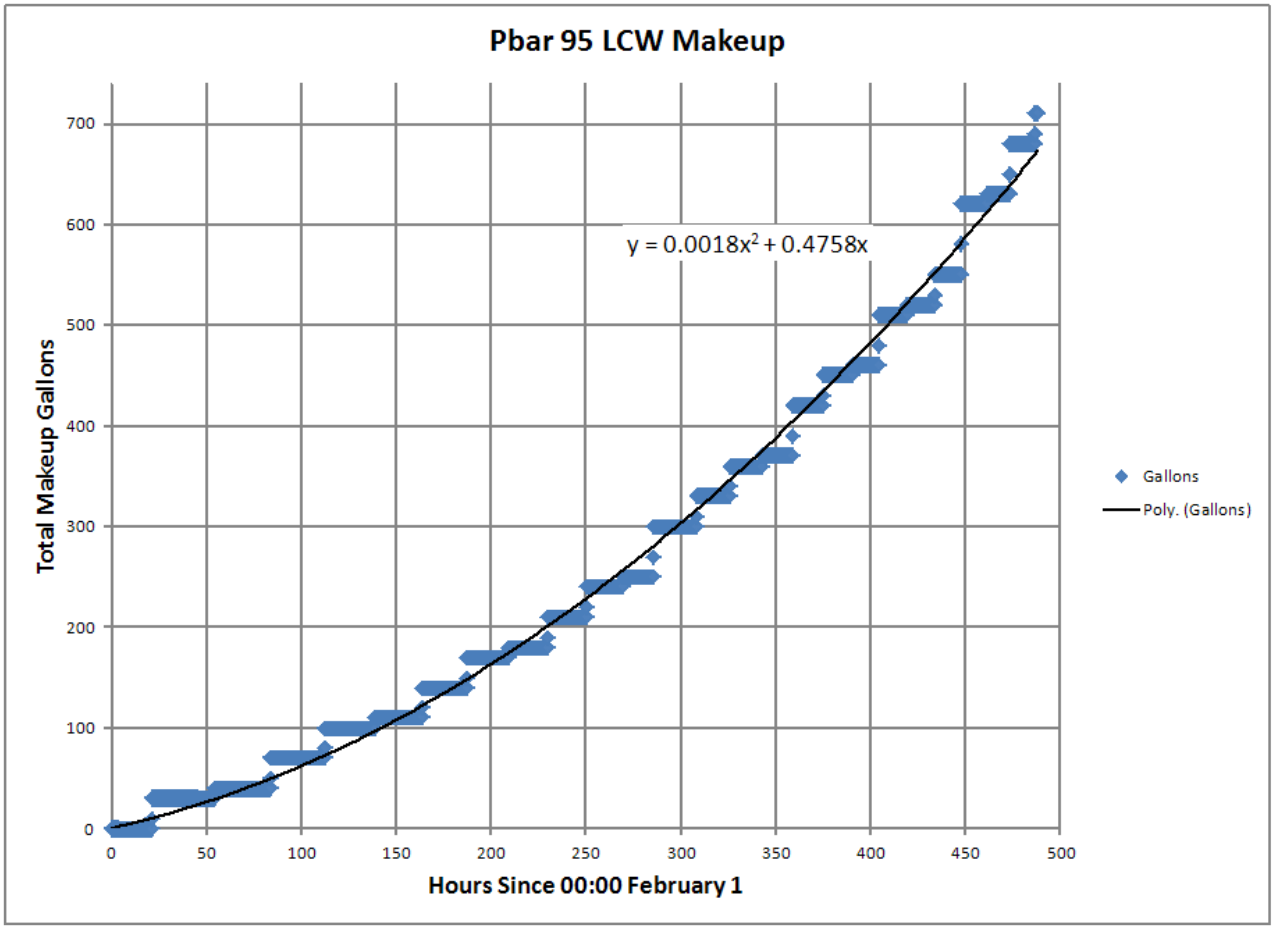

GxPA 1 Stacking
Mon 21-FEB-2011 07:54:38
A:IBEAM
.E_760 mA
A:STAKRT
+E_760 mA/h
A:PRDCTN
+Pbar2 E-6
M:TR105B
.MInj E12
A:EMT3HN
.E_760 pimm
G:TURN14
oMau
A:EMT3VN
.E_864 pimm
A:STCKAV
oE_864 Secs
18 09:00
19 03:00
19 21:00
20 15:00
21 09:00
T1 = Fr 18-FEB-2011 09:00:00
T2 = Mo 21-FEB-2011 09:00:00


Fri Feb 18 07:00:00 CST 2011 -- Mon Feb 21 07:00:00 CST 2011
Stack Size (mA)
Stack Parameters
Emittances (π mm mr)
18-Feb, 12:00
19-Feb, 00:00
19-Feb, 12:00
20-Feb, 00:00
20-Feb, 12:00
21-Feb, 00:00
Time
A:IBEAM
A:STCKRT
Hourly Rate
M:TOR109
A:PRDCTN
A:EMT3HN
A:EMT3VN
Ave Time between $81's

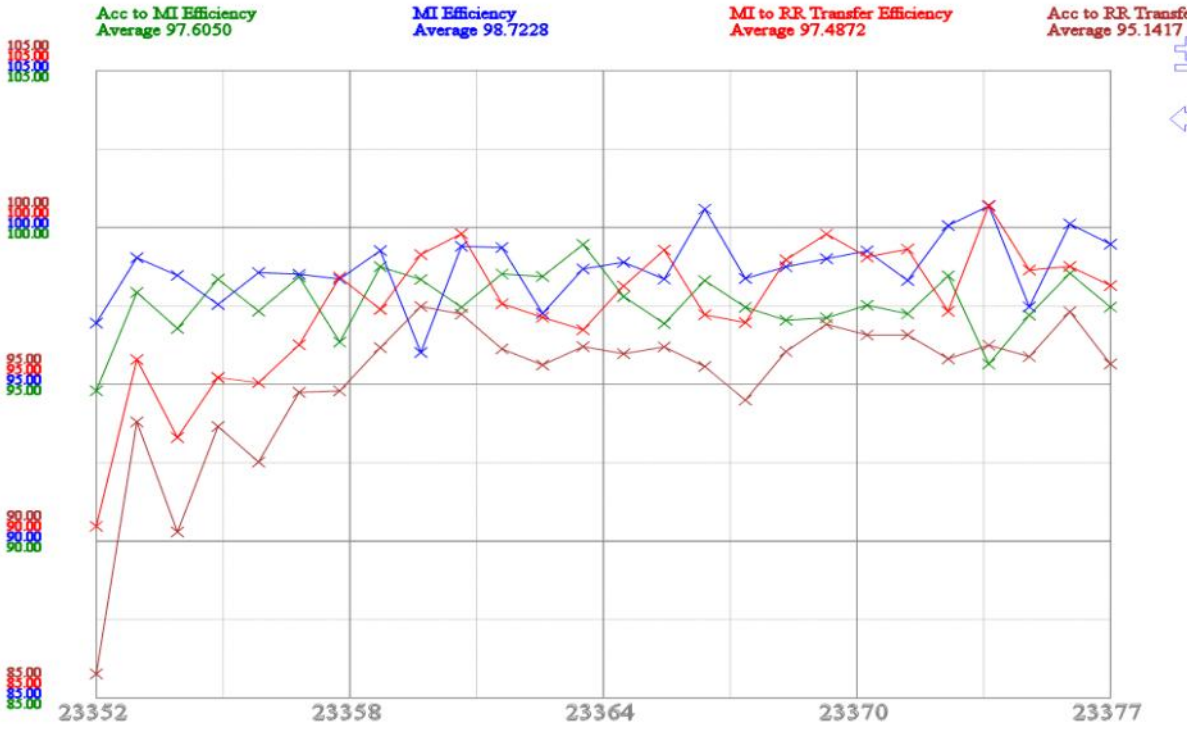

GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 19911
+/- 6.0587
StdDev 1774.3
Points 85759
A:STAKRT mA/h
Mean 17.997
+/- 0.09356
StdDev 6.3255
Points 4571
A:PRDCTN E-6
Mean 18.189
+/- 0.066048
StdDev 3.9147
Points 3513
M:TR105B E12
Mean 7.7326
+/- 0.0012757
StdDev 0.34164
Points 71724
T1=18-FEB-2011 09:00:00



Debuncher 10 house BPMs stopped updating. Resetting the ACNET communication socket brought them back to life



Pbar 95 LCW leak is still increasing


Acc to MI Efficiency
Average 97.6050
MI Efficiency
Average 98.7228
MI to RR Transfer Efficiency
Average 97.4872
Acc to RR Transf
Average 95.1417
105.00
100.00
95.00
90.00
85.00
23352
23358
23364
23370
23377

Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time		Column 21 Number_20_A:I BEAMB sampled on $91 (A:BEAM7), E10	Column 22 Number_21_A:I BEAMB 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 =>				1111.77			1031.80	92.81%	97.20%	95.72%	93.05%	94	26	6.0483	4.476	1.8947
	Daily Average =>				370.59			343.93					31	9			
23377	Monday, February 21, 2011	7:04	28.14	6.79	23.53	301.41	323.50	22.53	95.78%	97.88%	97.13%	95.07%	3	1	5.713	4.212	1.979
23376	Monday, February 21, 2011	5:53	25.64	7.77	20.35	283.64	302.90	19.79	97.26%	98.44%	98.42%	96.88%	3	1	5.246	3.859	2.022
23375	Monday, February 21, 2011	5:03	27.48	8.40	21.60	264.52	284.70	20.71	95.90%	97.17%	95.29%	92.60%	3	1	5.588	4.056	2.002
23374	Monday, February 21, 2011	4:02	26.94	8.21	21.24	245.48	265.47	20.44	96.26%	96.45%	96.84%	93.40%	3	1	5.206	3.796	2.041
23373	Monday, February 21, 2011	3:03	25.47	7.81	20.20	227.31	246.34	19.40	96.03%	98.99%	99.16%	98.16%	3	1	5.363	4	2.025
23372	Monday, February 21, 2011	2:10	25.22	7.50	20.23	208.81	227.99	19.53	96.55%	97.35%	95.51%	92.98%	3	1	5.311	3.77	2.024
23371	Monday, February 21, 2011	1:13	28.38	7.86	22.76	187.98	209.50	21.93	96.37%	97.89%	96.90%	94.85%	3	1	5.137	3.658	2.004
23370	Monday, February 21, 2011	0:14	29.02	8.47	23.04	166.80	188.51	22.24	96.53%	97.26%	96.48%	93.84%	3	1	5.111	3.879	2.005
23369	Sunday, February 20, 2011	23:02	26.14	7.85	20.81	147.75	167.36	19.94	95.82%	96.98%	96.09%	93.19%	3	1	5.349	3.953	2.013
23368	Sunday, February 20, 2011	22:03	24.94	7.37	20.03	129.31	148.04	18.95	94.61%	97.20%	95.95%	93.26%	3	1	5.11	3.781	2.018
23367	Sunday, February 20, 2011	21:18	32.03	9.31	25.08	105.73	129.56	24.01	95.72%	98.56%	98.52%	97.10%	3	1	4.838	3.806	1.99
23366	Sunday, February 20, 2011	20:12	32.52	9.19	25.65	81.93	106.13	24.60	95.88%	97.41%	95.83%	93.35%	3	1	5.197	3.901	1.991
23365	Sunday, February 20, 2011	19:03	27.93	7.99	22.34	61.05	82.19	21.46	96.08%	97.88%	96.34%	94.30%	3	1	5.26	3.796	1.985
23364	Sunday, February 20, 2011	14:23	25.61	5.71	21.60	41.29	61.71	20.75	96.07%	99.11%	97.96%	97.09%	3	1	4.45	3.264	1.951
23363	Sunday, February 20, 2011	13:31	45.37	9.02	39.86	4.29	41.60	37.96	95.22%	98.57%	96.46%	95.08%	4	1	5.599	4.39	1.969
23362	Sunday, February 20, 2011	11:27	25.82	7.89	20.45	271.34	290.48	19.62	95.94%	98.50%	97.26%	95.80%	3	1	5.379	3.972	2.026
23361	Sunday, February 20, 2011	10:35	29.32	7.32	24.52	248.87	272.20	23.82	97.15%	98.10%	97.96%	96.10%	3	1	5.158	3.913	1.996
23360	Sunday, February 20, 2011	9:10	26.53	7.25	21.68	229.72	250.22	21.05	97.07%	98.41%	95.26%	93.75%	3	1	5.106	3.861	1.962
23359	Sunday, February 20, 2011	8:16	32.03	8.22	26.18	205.81	230.49	25.11	95.91%	98.91%	98.50%	97.43%	3	1	5.103	4.118	1.938
23358	Sunday, February 20, 2011	7:04	29.94	7.18	25.12	183.46	206.66	23.73	94.46%	96.72%	95.16%	92.03%	3	1	4.926	3.883	1.937
23357	Sunday, February 20, 2011	6:05	40.76	9.98	33.11	153.66	184.30	31.30	94.54%	98.41%	97.24%	95.69%	3	1	5.385	4.274	1.913
23356	Sunday, February 20, 2011	4:29	160.83	14.65	151.20	22.75	155.79	139.21	92.07%	97.17%	95.65%	92.95%	8	1	8.275	5.675	1.593
23355	Saturday, February 19, 2011	19:58	54.93	36.88	18.05	136.58	153.49	16.91	93.66%	98.36%	95.95%	94.37%	1	1	6.762	5.508	1.8
23354	Saturday, February 19, 2011	19:27	176.49	49.95	130.44	26.35	138.48	117.73	90.26%	96.73%	95.26%	92.14%	6	1	11.328	7.99	1.333
23353	Saturday, February 19, 2011	10:12	160.76	23.22	138.51	28.58	153.18	129.67	93.62%	97.88%	96.89%	94.84%	7	1	7.894	5.432	1.494
23352	Saturday, February 19, 2011	1:01	238.55	65.69	174.21	23.55	163.00	149.41	85.77%	94.78%	91.90%	87.11%	8	1	13.461	9.628	1.251

Pelletron off at the beginning of the weekend.

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 =>				414.96			398.73	96.09%	97.93%	96.84%	94.84%	94	18	5.2289	3.8815	2.0002
	Daily Average =>				138.32			132.91					31	6			
23377	Monday, February 21, 2011	7:04	28.14	6.79	23.53	301.41	323.50	22.53	95.78%	97.88%	97.13%	95.07%	3	1	5.713	4.212	1.979
23376	Monday, February 21, 2011	5:53	25.64	7.77	20.35	283.64	302.90	19.79	97.26%	98.44%	98.42%	96.88%	3	1	5.246	3.859	2.022
23375	Monday, February 21, 2011	5:03	27.48	8.40	21.60	264.52	284.70	20.71	95.90%	97.17%	95.29%	92.60%	3	1	5.588	4.056	2.002
23374	Monday, February 21, 2011	4:02	26.94	8.21	21.24	245.48	265.47	20.44	96.26%	96.45%	96.84%	93.40%	3	1	5.206	3.796	2.041
23373	Monday, February 21, 2011	3:03	25.47	7.81	20.20	227.31	246.34	19.40	96.03%	98.99%	99.16%	98.16%	3	1	5.363	4	2.025
23372	Monday, February 21, 2011	2:10	25.22	7.50	20.23	208.81	227.99	19.53	96.55%	97.35%	95.51%	92.98%	3	1	5.311	3.77	2.024
23371	Monday, February 21, 2011	1:13	28.38	7.86	22.76	187.98	209.50	21.93	96.37%	97.89%	96.90%	94.85%	3	1	5.137	3.658	2.004
23370	Monday, February 21, 2011	0:14	29.02	8.47	23.04	166.80	188.51	22.24	96.53%	97.26%	96.48%	93.84%	3	1	5.111	3.879	2.005
23369	Sunday, February 20, 2011	23:02	26.14	7.85	20.81	147.75	167.36	19.94	95.82%	96.98%	96.09%	93.19%	3	1	5.349	3.953	2.013
23368	Sunday, February 20, 2011	22:03	24.94	7.37	20.03	129.31	148.04	18.95	94.61%	97.20%	95.95%	93.26%	3	1	5.11	3.781	2.018
23367	Sunday, February 20, 2011	21:18	32.03	9.31	25.08	105.73	129.56	24.01	95.72%	98.56%	98.52%	97.10%	3	1	4.838	3.806	1.99
23366	Sunday, February 20, 2011	20:12	32.52	9.19	25.65	81.93	106.13	24.60	95.88%	97.41%	95.83%	93.35%	3	1	5.197	3.901	1.991
23365	Sunday, February 20, 2011	19:03	27.93	7.99	22.34	61.05	82.19	21.46	96.08%	97.88%	96.34%	94.30%	3	1	5.26	3.796	1.985
23364	Sunday, February 20, 2011	14:23	25.61	5.71	21.60	41.29	61.71	20.75	96.07%	99.11%	97.96%	97.09%	3	1	4.45	3.264	1.951
23363	Sunday, February 20, 2011	13:31	45.37	9.02	39.86	4.29	41.60	37.96	95.22%	98.57%	96.46%	95.08%	4	1	5.599	4.39	1.969
23362	Sunday, February 20, 2011	11:27	25.82	7.89	20.45	271.34	290.48	19.62	95.94%	98.50%	97.26%	95.80%	3	1	5.379	3.972	2.026
23361	Sunday, February 20, 2011	10:35	29.32	7.32	24.52	248.87	272.20	23.82	97.15%	98.10%	97.96%	96.10%	3	1	5.158	3.913	1.996
23360	Sunday, February 20, 2011	9:10	26.53	7.25	21.68	229.72	250.22	21.05	97.07%	98.41%	95.26%	93.75%	3	1	5.106	3.861	1.962