2010-11-24 Wednesday Morning Notes

Wednesday, November 24, 2010
8:20 AM

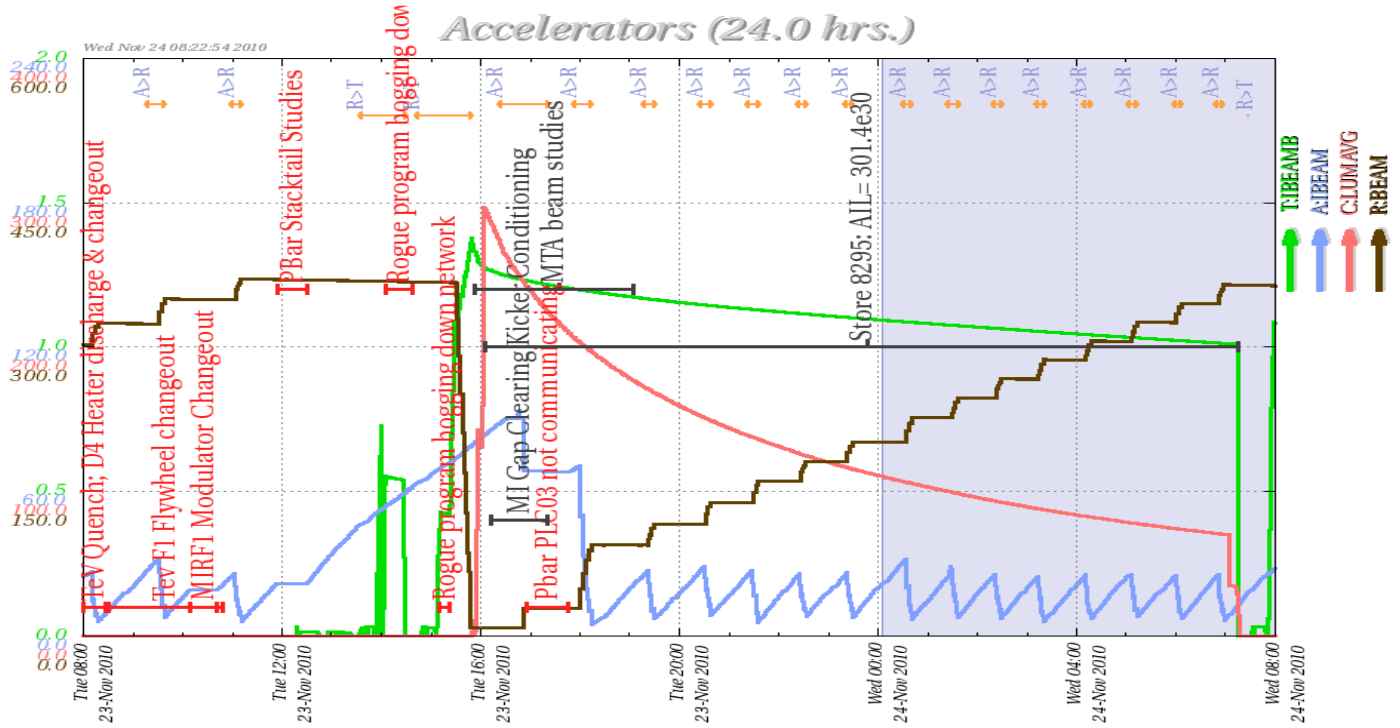
Stacking and Transfers

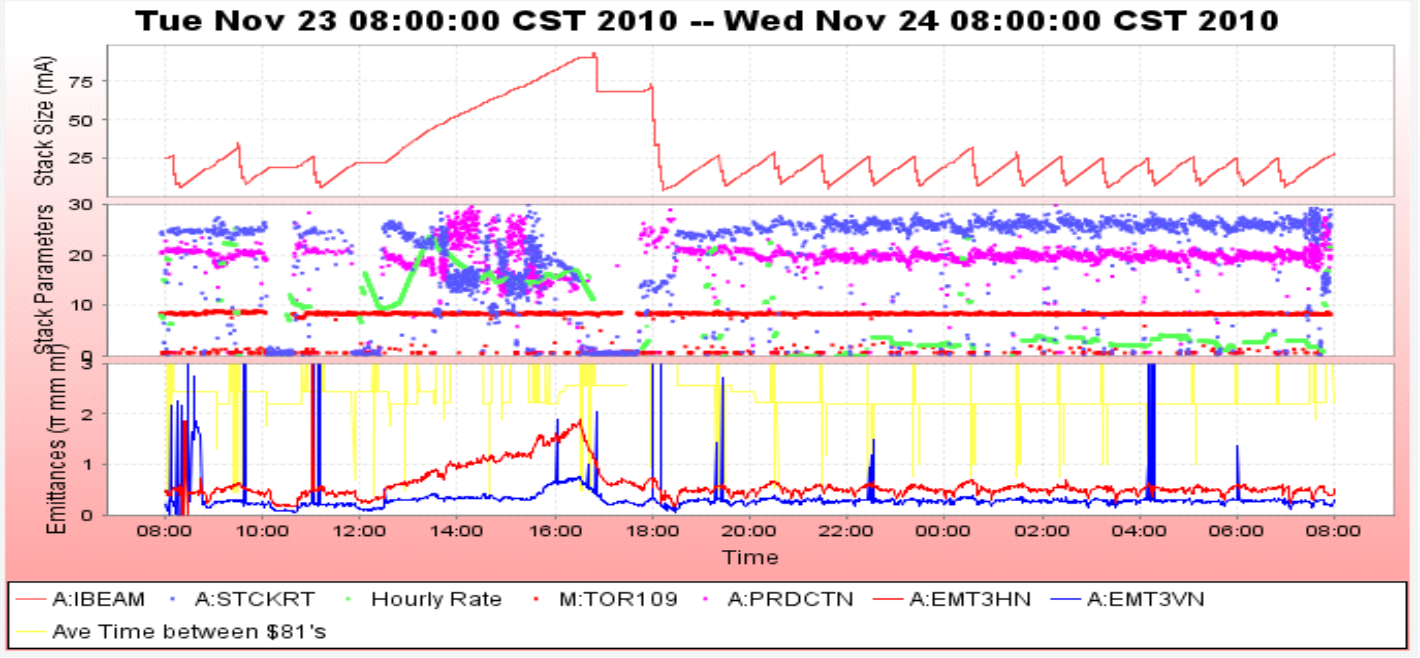
- Average stacking rate 24.5mA/hr with a production of 19.4 pbar/Mp and 8.14Tp on target.
- Unstacked 406E10 in 50 transfers over 16 sets with a 96.7% efficiency
- PLC03 - http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar10&action=view&page=304&anchor=170928&hilite=17:09:28-

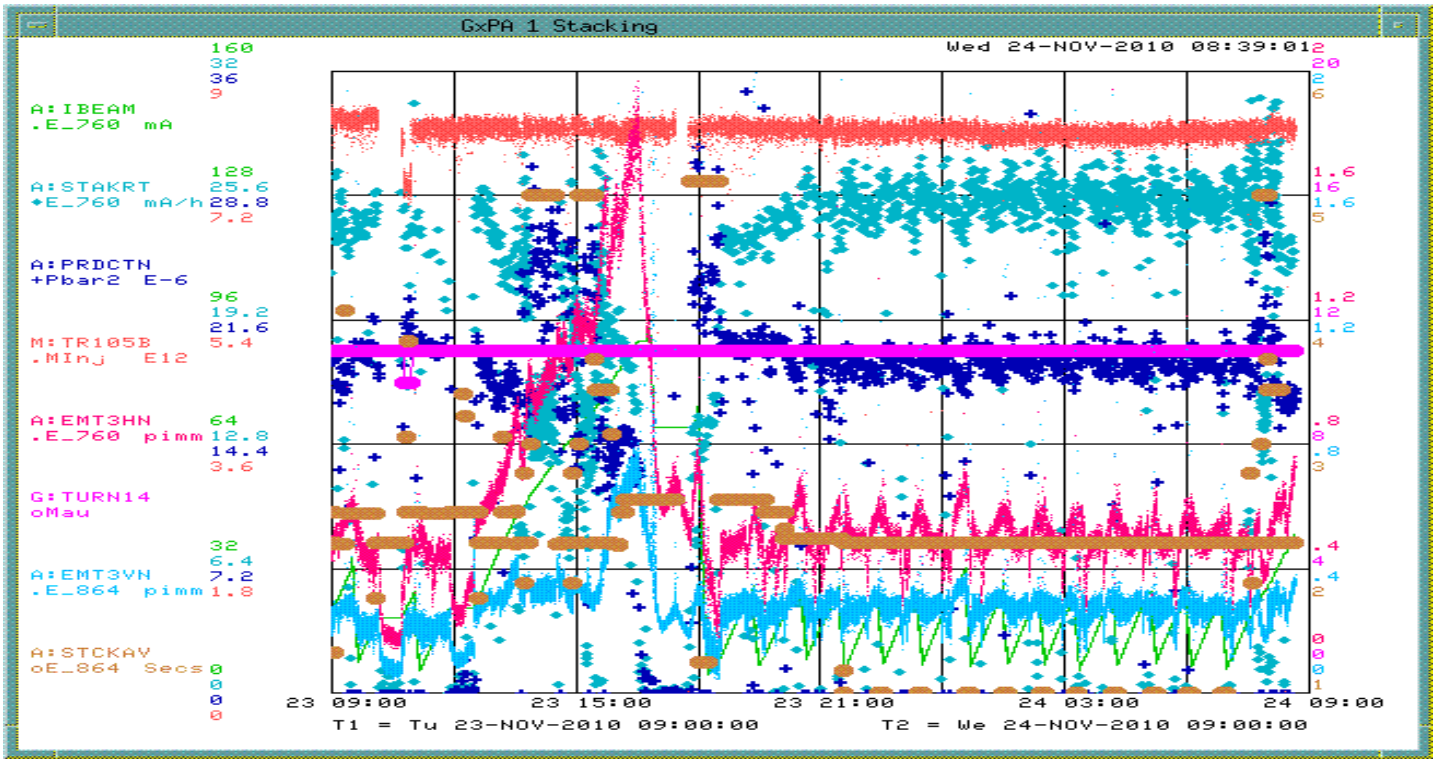
Numbers

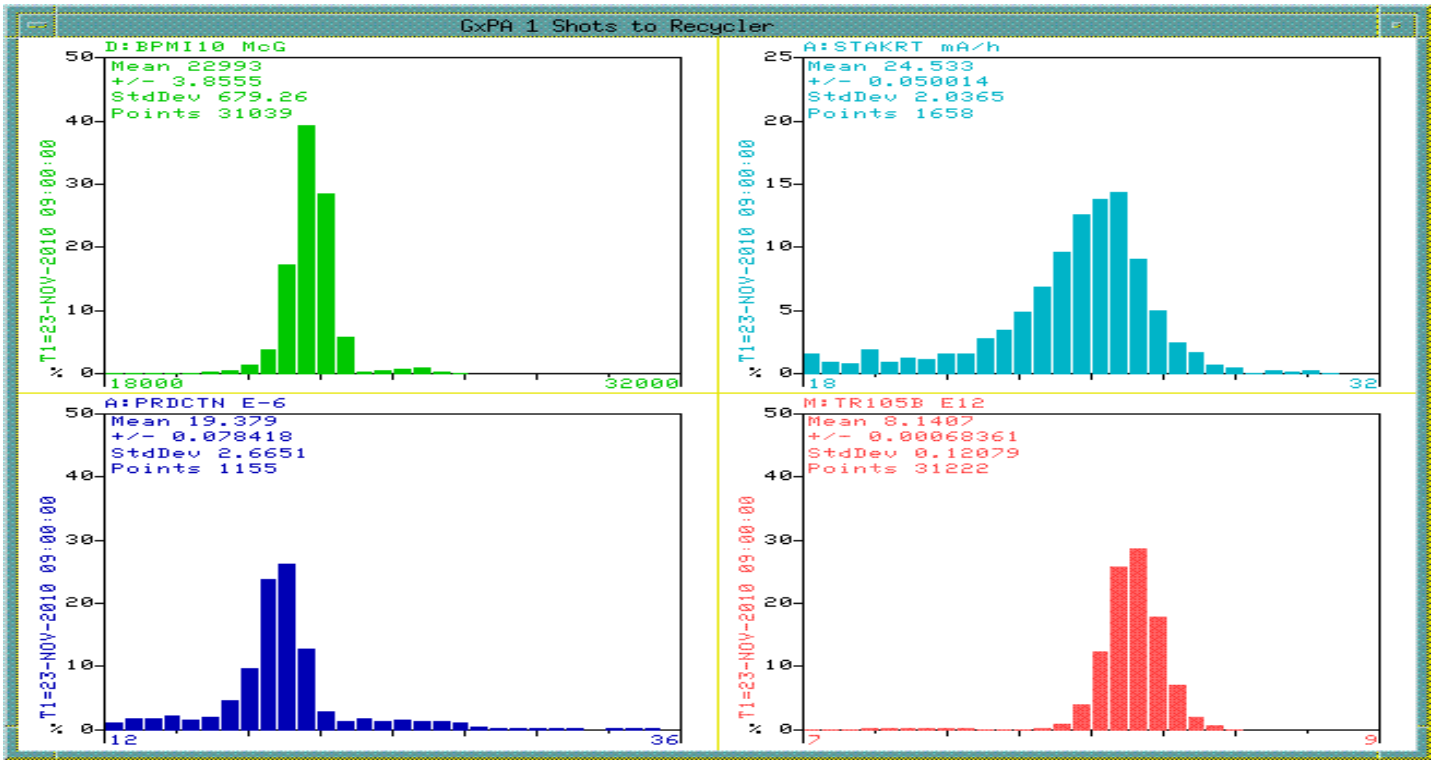
- Stacking
  - Pbars stacked: 461.33 E10
  - Time stacking: 23.23 Hr
  - Average stacking rate: 19.86 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 33620
  - Number of pulses with beam: 31243
  - Fraction of up pulses was: 92.93%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 21.59 Hr
  - Possible average stacking rate: 21.37 E10/Hr
  - Could have stacked: 496.43 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 427.22 E10
  - Number of transfers : 51
  - Number of transfer sets: 17
  - Average Number of transfer per set: 3.00
  - Time taken to shoot including reverse proton tuneup: 00.18 Hr
  - Transfer efficiency: 96.24%
- Other Info
  - Average POT : 8.14 E12
  - Average production: 18.14 pbars/E6 protons

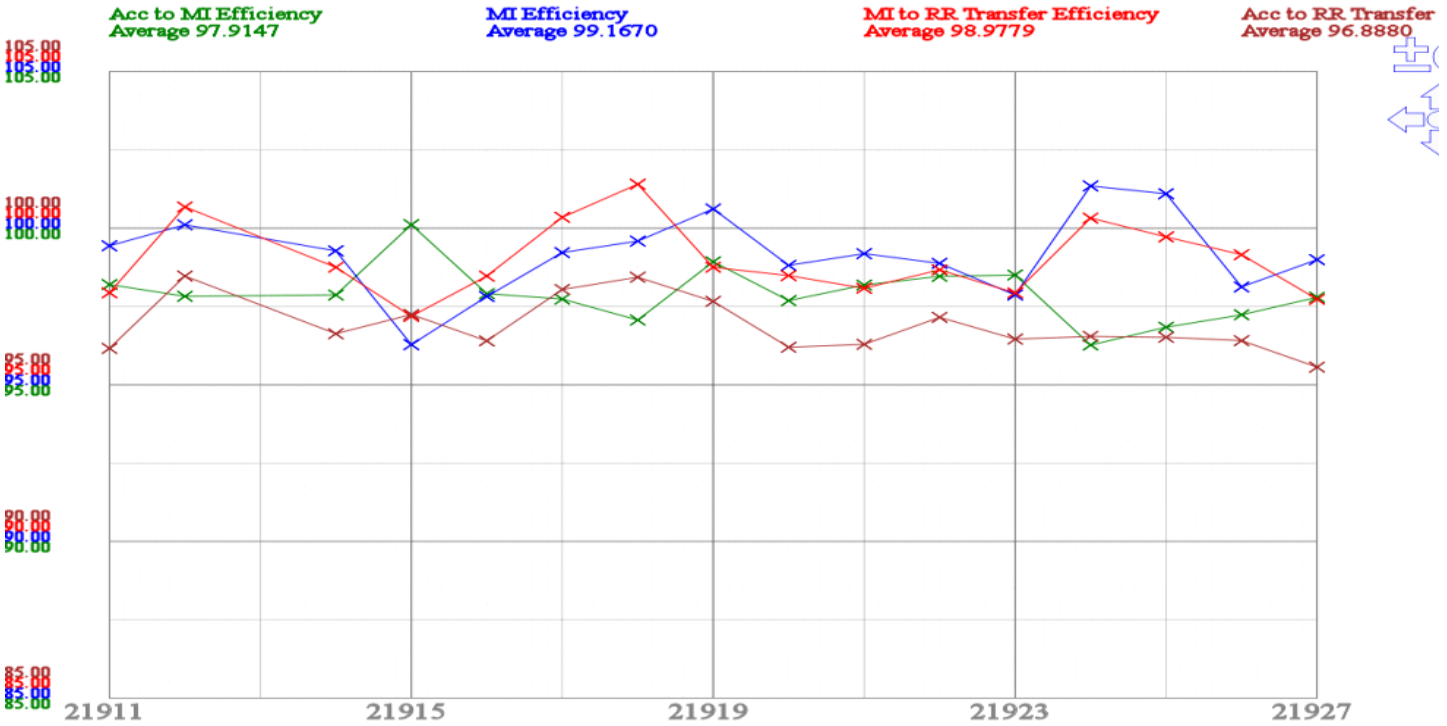
Plots


Accelerators (24.0 hrs.)
Wed Nov 24 08:22:54 2010
TeV Quench; D4 Heater discharge & changeout
TevF1 Flywheel changeout
TNIRF1 Modulator Changeout
PBar Stacktail Studies
Rogue program bogging down network
Rogue program bogging down network
MI Gap Clearing Kicker Conditioning
Pbar PLC03 not communicating
MTA beam studies
Store 8295; AIL= 301.4e30
T:IBEAMB
A:IBEAM
C:LUMAVG
R:BEAM
Tue 08:00 23-Nov 2010
Tue 12:00 23-Nov 2010
Tue 16:00 23-Nov 2010
Tue 20:00 23-Nov 2010
Wed 00:00 24-Nov 2010
Wed 04:00 24-Nov 2010
Wed 08:00 24-Nov 2010


Tue Nov 23 08:00:00 CST 2010 -- Wed Nov 24 08:00:00 CST 2010
Stack Size (mA)
Stack Parameters
Emittances (π mm mr)
Time
A:IBEAM
A:STCKRT
Hourly Rate
M:TOR109
A:PRDCTN
A:EMT3HN
A:EMT3VN
Ave Time between $81's


GxPA 1 Stacking
Wed 24-NOV-2010 08:39:01
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 = Tu 23-NOV-2010 09:00:00
T2 = We 24-NOV-2010 09:00:00


GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 22993
+/- 3.8555
StdDev 679.26
Points 31039
A:STAKRT mA/h
Mean 24.533
+/- 0.050014
StdDev 2.0365
Points 1658
A:PRDCTN E-6
Mean 19.379
+/- 0.078418
StdDev 2.6651
Points 1155
M:TR105B E12
Mean 8.1407
+/- 0.00068361
StdDev 0.12079
Points 31222
T1=23-NOV-2010 09:00:00



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 =>				406.22			392.76	96.69%	97.95%	97.38%	95.39%	50	16	5.0678	2.5805	1.9868
	Daily Average =>				406.22			392.76					50	16			
21927	Wednesday, November 24, 2010	6:51	25.62	6.24	21.11	344.99	365.04	20.15	95.47%	97.51%	96.77%	94.37%	3	1	4.685	2.359	2.004
21926	Wednesday, November 24, 2010	6:00	25.66	6.95	21.01	325.54	345.55	20.25	96.35%	97.27%	96.29%	93.66%	3	1	5.227	2.612	2.009
21925	Wednesday, November 24, 2010	5:07	26.27	7.73	21.00	306.09	326.21	20.27	96.52%	97.35%	97.64%	95.06%	3	1	5.096	2.761	2.021
21924	Wednesday, November 24, 2010	4:11	25.54	7.19	20.74	286.77	306.64	19.96	96.25%	96.58%	98.29%	94.93%	3	1	4.975	2.699	2.024
21923	Wednesday, November 24, 2010	3:14	25.16	5.94	21.09	266.83	287.18	20.40	96.71%	98.84%	96.85%	95.73%	3	1	4.651	2.352	1.976
21922	Wednesday, November 24, 2010	2:22	26.02	7.35	21.08	247.01	267.32	20.43	96.91%	98.06%	97.45%	95.56%	3	1	5.121	2.619	2.027
21921	Wednesday, November 24, 2010	1:30	26.85	7.56	21.68	226.59	247.34	20.89	96.36%	97.99%	97.71%	95.75%	3	1	5.101	2.724	2.023
21920	Wednesday, November 24, 2010	0:34	32.35	6.92	26.99	201.25	226.99	25.92	96.07%	97.85%	96.67%	94.59%	3	1	5.177	2.817	1.956
21919	Tuesday, November 23, 2010	23:22	26.45	7.32	21.49	180.95	201.64	20.95	97.49%	99.02%	99.42%	98.44%	3	1	5.029	2.53	2.019
21918	Tuesday, November 23, 2010	22:26	26.21	7.50	21.04	161.00	181.29	20.57	97.75%	97.04%	97.19%	94.31%	3	1	5.171	2.605	2.014
21917	Tuesday, November 23, 2010	21:28	27.65	5.71	23.66	138.44	161.27	23.09	97.61%	98.21%	97.95%	96.19%	3	1	4.926	2.424	1.977
21916	Tuesday, November 23, 2010	20:31	29.43	8.68	23.47	116.23	138.68	22.64	96.47%	97.57%	96.04%	93.70%	3	1	5.77	2.932	2.04
21915	Tuesday, November 23, 2010	19:22	27.51	7.10	22.84	94.35	116.42	22.18	97.10%	99.37%	96.90%	96.29%	3	1	4.971	2.731	2.004
21914	Tuesday, November 23, 2010	18:00	70.91	4.70	68.94	28.75	94.65	66.38	96.28%	98.15%	97.63%	95.82%	5	1	5.296	2.407	1.732
21912	Tuesday, November 23, 2010	11:03	26.32	5.97	22.83	349.04	371.12	22.44	98.28%	97.84%	97.77%	95.66%	3	1	4.526	2.214	1.982
21911	Tuesday, November 23, 2010	9:31	32.55	7.79	27.26	324.19	350.26	26.26	96.32%	97.96%	97.29%	95.30%	3	1	5.363	2.502	1.98