

# 2010-12-20 Monday Morning Notes

Monday, December 20, 2010  
6:00 AM

## Stacking and Transfers

- Stacked 25.3mA/hr with a production of 20.58 pbar/Mp with 8.05 Tp on target
- Unstacked 1528.8 E10 in 182 transfers over 59 sets
- Averaged 509.6E10 in 61 transfers over 20 sets per day
- Average efficiency was 95.9%

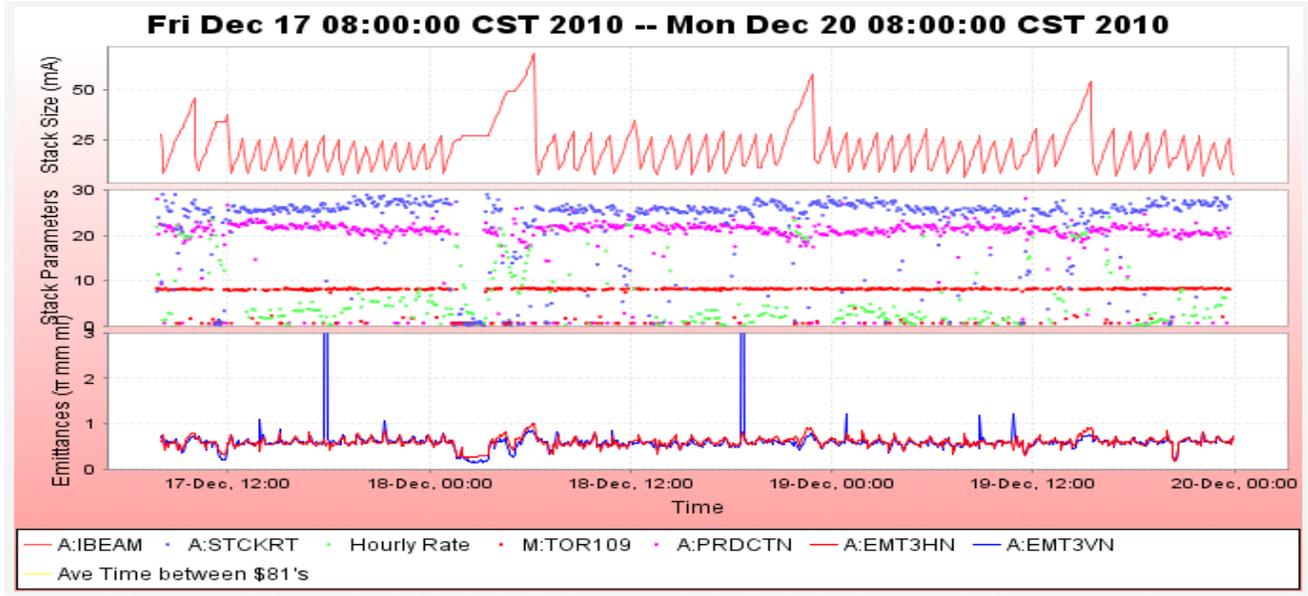
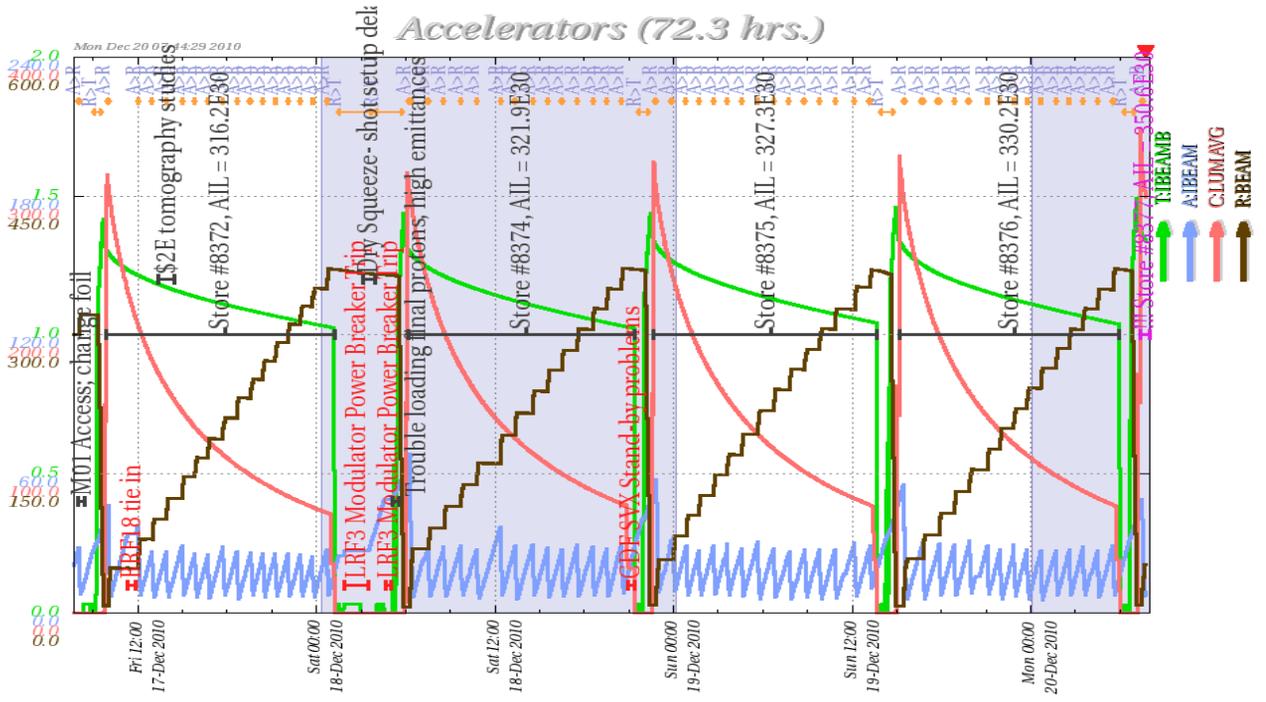
## Interesting Happenings

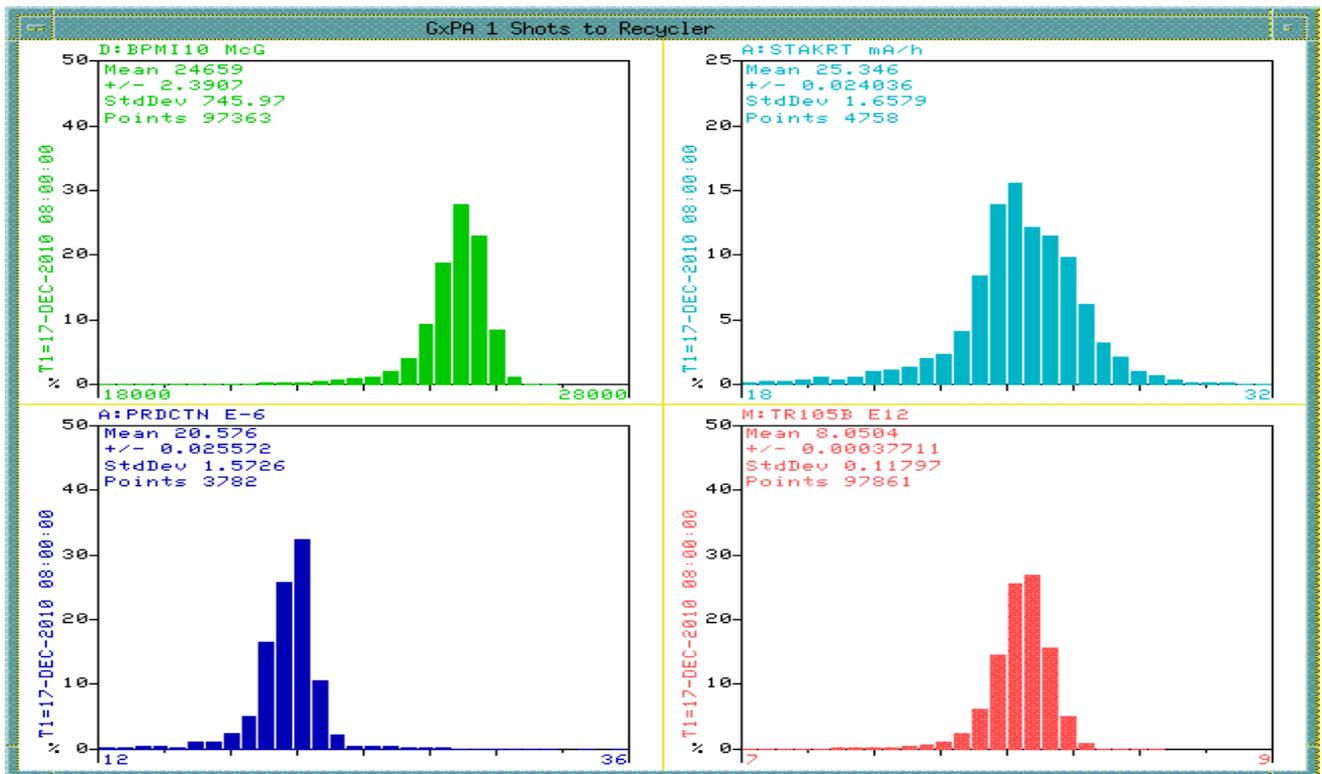
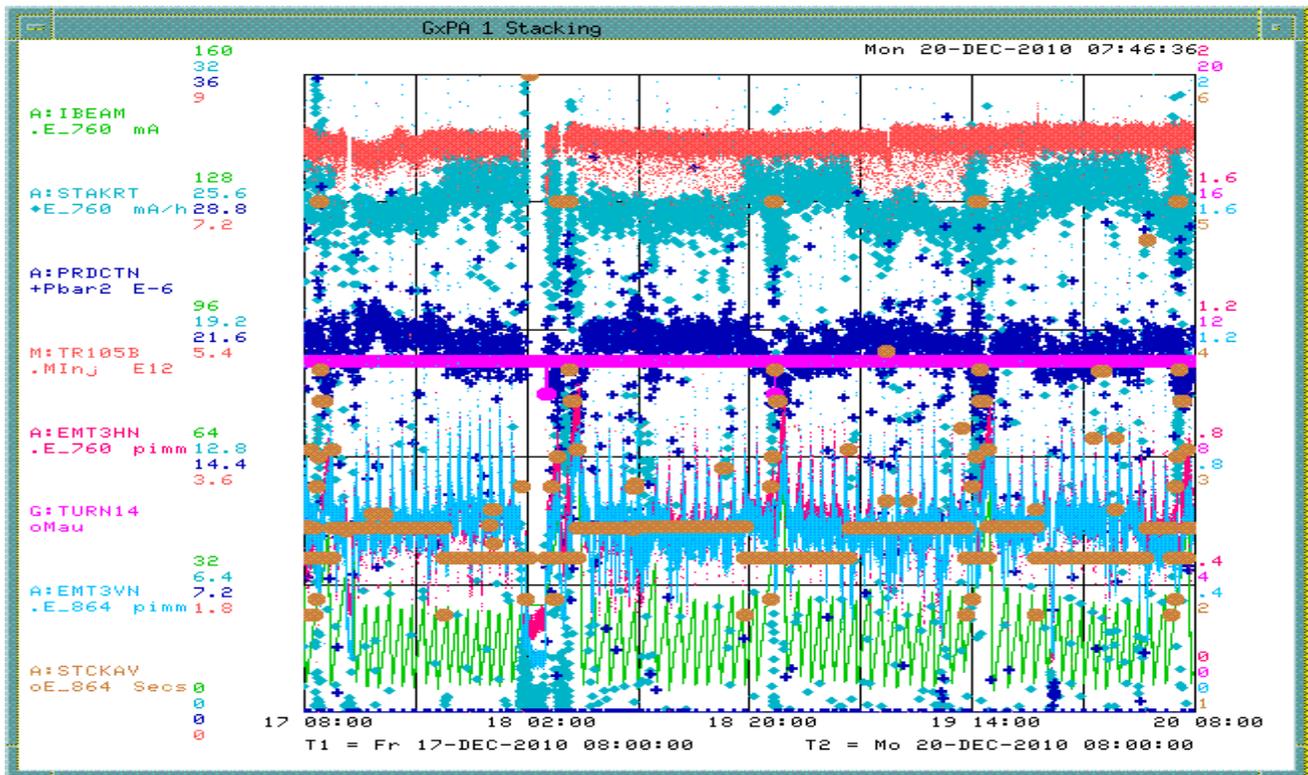
- Stacktail monitor occasionally hangs while waiting to see the \$80 event
- A:PLC03 tripped off
- I:HVF11 still not following ramp on occasion
- I:QF12 not following ramp

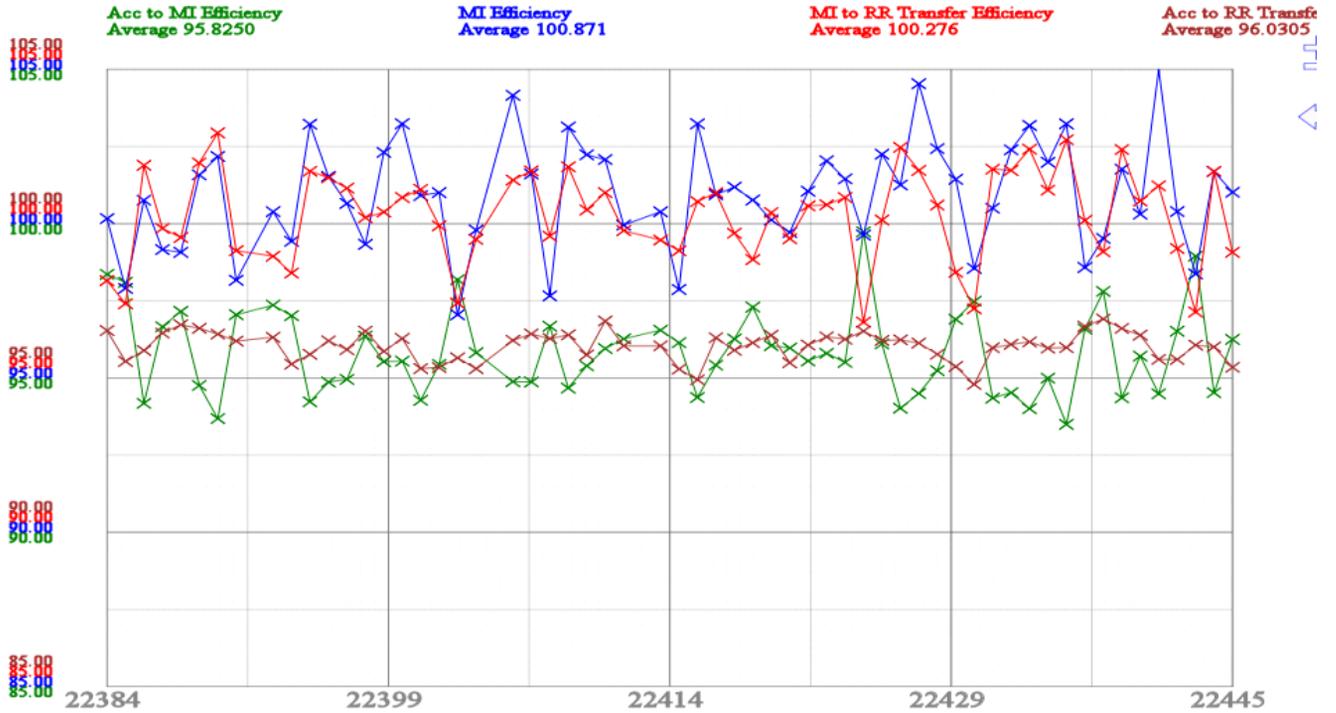
## Numbers

- Stacking
  - Pbars stacked: 1614.20 E10
  - Time stacking: 69.65 Hr
  - Average stacking rate: 23.18 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 103472
  - Number of pulses with beam: 97522
  - Fraction of up pulses was: 94.25%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 65.64 Hr
  - Possible average stacking rate: 24.59 E10/Hr
  - Could have stacked: 1712.68 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 1609.12 E10
  - Number of transfers : 190
  - Number of transfer sets: 62
  - Average Number of transfer per set: 3.06
  - Time taken to shoot including reverse proton tuneup: 00.66 Hr
  - Transfer efficiency: 95.69%
- Other Info
  - Average POT : 8.05 E12
  - Average production: 20.57 pbars/E6 protons

## Plots







Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number_20_A-I BEAMB sampled on \$91 (A:BEA M7), E10	Column 22 Number_21_A-I BEAMB sampled on \$94 (A:BEA M9), E10	Unstacked (mA)	Column 23 Number_22_R- BEAMS (R:BEA ME0[0]) pre fer E10	Column 24 Number_23_R- BEAM (R:BEA ME0[1]) post fer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Trans fers	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>505.47</b>			<b>484.59</b>	<b>95.87%</b>	<b>95.75%</b>	<b>96.89%</b>	<b>92.77%</b>	<b>61</b>	<b>20</b>	<b>5.9014</b>	<b>5.5421</b>	<b>1.9356</b>	
<b>Daily Average =&gt;</b>				<b>505.47</b>			<b>484.59</b>					<b>61</b>	<b>20</b>				
22445	Monday, December 20, 2010	5:31	29.21	7.29	24.54	348.91	371.88	23.44	95.52%	96.58%	96.83%	93.51%	3	1	6	5.28	1.954
22444	Monday, December 20, 2010	4:30	27.08	6.76	22.96	328.13	349.89	22.05	96.00%	94.51%	96.14%	90.87%	3	1	5.761	5.126	1.96
22443	Monday, December 20, 2010	3:31	28.68	7.36	23.95	306.05	328.84	23.02	96.12%	98.14%	97.46%	95.64%	3	1	6.202	5.118	1.958
22442	Monday, December 20, 2010	2:35	27.20	7.31	22.55	285.26	306.63	21.55	95.55%	97.09%	97.23%	94.40%	3	1	6.069	5.953	1.939
22441	Monday, December 20, 2010	1:42	27.02	7.36	22.39	264.33	285.66	21.45	95.80%	94.67%	99.37%	94.08%	3	1	5.933	5.65	1.965
22440	Monday, December 20, 2010	0:41	26.98	5.55	23.23	242.49	264.70	22.44	96.59%	95.72%	97.20%	93.03%	3	1	5.369	5.255	1.92
22439	Sunday, December 19, 2010	23:45	27.46	5.84	23.65	220.19	242.88	22.82	96.49%	93.91%	96.28%	90.42%	3	1	5.426	5.475	1.906
22438	Sunday, December 19, 2010	22:52	26.62	7.16	22.10	199.39	220.49	21.37	96.71%	97.56%	97.67%	95.29%	3	1	6.073	5.872	1.966
22437	Sunday, December 19, 2010	21:56	27.36	5.58	23.55	177.08	199.63	22.75	96.59%	96.95%	95.40%	92.48%	3	1	5.384	5.256	1.901
22436	Sunday, December 19, 2010	21:04	28.81	7.76	23.67	154.75	177.33	22.77	96.23%	94.32%	97.06%	91.55%	3	1	6.248	5.915	1.963
22435	Sunday, December 19, 2010	19:53	31.00	8.30	25.34	130.92	155.07	24.36	96.14%	95.53%	96.41%	92.11%	3	1	6.442	5.771	1.969
22434	Sunday, December 19, 2010	18:51	29.40	7.17	24.78	107.50	131.06	23.83	96.19%	95.04%	96.64%	91.84%	3	1	5.821	5.413	1.954
22433	Sunday, December 19, 2010	17:51	29.67	7.45	24.84	84.11	107.71	23.81	95.88%	94.11%	96.06%	90.40%	3	1	5.962	5.499	1.946
22432	Sunday, December 19, 2010	16:46	31.09	5.99	26.85	58.73	84.24	25.71	95.74%	94.82%	95.53%	90.58%	3	1	5.15	5.182	1.893
22431	Sunday, December 19, 2010	15:27	55.45	5.43	54.83	7.74	58.86	51.71	94.31%	97.15%	95.98%	93.24%	5	1	6.934	6.483	1.894
22430	Sunday, December 19, 2010	13:13	28.83	10.09	20.01	351.53	370.43	19.09	95.39%	96.77%	97.93%	94.76%	2	1	6.002	5.494	1.889
22429	Sunday, December 19, 2010	12:10	30.58	7.04	26.05	327.68	352.30	24.90	95.60%	95.59%	97.12%	92.84%	3	1	6.109	5.79	1.91
22428	Sunday, December 19, 2010	10:50	27.34	6.52	23.33	306.31	328.50	22.43	96.15%	94.42%	99.22%	93.69%	3	1	6.14	5.722	1.944
22427	Sunday, December 19, 2010	9:49	27.69	5.89	23.78	284.28	306.94	22.89	96.27%	94.79%	96.06%	91.05%	3	1	5.447	5.185	1.925
22426	Sunday, December 19, 2010	8:50	27.23	6.64	23.08	262.75	284.77	22.20	96.19%	96.00%	98.05%	94.12%	3	1	5.556	5.403	1.956

Column 1 Number 0_Pbar Transfer Shot #	Column 4 Number_3_ Transfer Time	Column 21 Number _20_A-I BEAMB sampled on \$91 (A:BEA M7), E10	Column 22 Number _21_A-I BEAMB sampled on \$94 (A:BEA M9), E10	Unstacked (mA)	Column 23 Number _22_R- BEAMS (R:BEA ME0[I]) pre sfer E10	Column 24 Number _23_R- BEAM (R:BEA ME0[I]) post sfer, 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>1528.84</b>			<b>1466.57</b>	<b>95.93%</b>	<b>95.92%</b>	<b>96.79%</b>	<b>92.84%</b>	<b>182</b>	<b>59</b>	<b>5.9203</b>	<b>5.6071</b>	<b>1.9382</b>	
<b>Daily Average =&gt;</b>				<b>509.61</b>			<b>488.86</b>					<b>61</b>	<b>20</b>				
22445	Monday, December 20, 2010	5:31	29.21	7.29	24.54	348.91	371.88	23.44	95.52%	96.58%	96.83%	93.51%	3	1	6	5.28	1.954
22444	Monday, December 20, 2010	4:30	27.08	6.76	22.96	328.13	349.89	22.05	96.00%	94.51%	96.14%	90.87%	3	1	5.761	5.126	1.96
22443	Monday, December 20, 2010	3:31	28.68	7.36	23.95	306.05	328.84	23.02	96.12%	98.14%	97.46%	95.64%	3	1	6.202	5.118	1.958
22442	Monday, December 20, 2010	2:35	27.20	7.31	22.55	285.26	306.63	21.55	95.55%	97.09%	97.23%	94.40%	3	1	6.069	5.953	1.939
22441	Monday, December 20, 2010	1:42	27.02	7.36	22.39	264.33	285.66	21.45	95.80%	94.67%	99.37%	94.08%	3	1	5.933	5.65	1.965
22440	Monday, December 20, 2010	0:41	26.98	5.55	23.23	242.49	264.70	22.44	96.59%	95.72%	97.20%	93.03%	3	1	5.369	5.255	1.92
22439	Sunday, December 19, 2010	23:45	27.46	5.84	23.65	220.19	242.88	22.82	96.49%	93.91%	96.28%	90.42%	3	1	5.426	5.475	1.906
22438	Sunday, December 19, 2010	22:52	26.62	7.16	22.10	199.39	220.49	21.37	96.71%	97.56%	97.67%	95.29%	3	1	6.073	5.872	1.966
22437	Sunday, December 19, 2010	21:56	27.36	5.58	23.55	177.08	199.63	22.75	96.59%	96.95%	95.40%	92.48%	3	1	5.384	5.256	1.901
22436	Sunday, December 19, 2010	21:04	28.81	7.76	23.67	154.75	177.33	22.77	96.23%	94.32%	97.06%	91.55%	3	1	6.248	5.915	1.963
22435	Sunday, December 19, 2010	19:53	31.00	8.30	25.34	130.92	155.07	24.36	96.14%	95.53%	96.41%	92.11%	3	1	6.442	5.771	1.969
22434	Sunday, December 19, 2010	18:51	29.40	7.17	24.78	107.50	131.06	23.83	96.19%	95.04%	96.64%	91.84%	3	1	5.821	5.413	1.954
22433	Sunday, December 19, 2010	17:51	29.67	7.45	24.84	84.11	107.71	23.81	95.88%	94.11%	96.06%	90.40%	3	1	5.962	5.499	1.946
22432	Sunday, December 19, 2010	16:46	31.09	5.99	26.85	58.73	84.24	25.71	95.74%	94.82%	95.53%	90.58%	3	1	5.15	5.182	1.893
22431	Sunday, December 19, 2010	15:27	55.45	5.43	54.83	7.74	58.86	51.71	94.31%	97.15%	95.98%	93.24%	5	1	6.934	6.483	1.894
22430	Sunday, December 19, 2010	13:13	28.83	10.09	20.01	351.53	370.43	19.09	95.39%	96.77%	97.93%	94.76%	2	1	6.002	5.494	1.889
22429	Sunday, December 19, 2010	12:10	30.58	7.04	26.05	327.68	352.30	24.90	95.60%	95.59%	97.12%	92.84%	3	1	6.109	5.79	1.91
22428	Sunday, December 19, 2010	10:50	27.34	6.52	23.33	306.31	328.50	22.43	96.15%	94.42%	99.22%	93.69%	3	1	6.14	5.722	1.944
22427	Sunday, December 19, 2010	9:49	27.69	5.89	23.78	284.28	306.94	22.89	96.27%	94.79%	96.06%	91.05%	3	1	5.447	5.185	1.925
22426	Sunday, December 19, 2010	8:50	27.23	6.64	23.08	262.75	284.77	22.20	96.19%	96.00%	98.05%	94.12%	3	1	5.556	5.403	1.956
22425	Sunday, December 19, 2010	7:47	26.56	6.06	22.99	241.12	263.09	22.20	96.57%	99.42%	98.52%	97.94%	3	1	5.431	5.199	1.924
22424	Sunday, December 19, 2010	6:44	28.31	6.61	24.28	218.29	241.50	23.37	96.22%	96.20%	96.65%	92.98%	3	1	5.774	5.425	1.937
22423	Sunday, December 19, 2010	5:40	30.71	5.79	26.88	192.85	218.60	25.93	96.49%	95.14%	97.72%	92.98%	3	1	5.324	4.985	1.894
22422	Sunday, December 19, 2010	4:34	27.84	7.06	23.40	170.89	193.15	22.48	96.04%	96.11%	96.88%	93.11%	3	1	6.034	5.398	1.953
22421	Sunday, December 19, 2010	3:36	27.60	7.46	22.81	149.33	171.12	21.81	95.63%	95.80%	96.12%	92.09%	3	1	6.058	5.495	1.943
22420	Sunday, December 19, 2010	2:41	28.82	7.74	23.74	126.82	149.51	22.92	96.55%	95.91%	96.20%	92.27%	3	1	6.205	5.47	1.952
22419	Sunday, December 19, 2010	1:43	27.05	7.31	22.44	105.63	126.98	21.58	96.16%	96.90%	98.11%	95.07%	3	1	6.191	5.489	1.956
22418	Sunday, December 19, 2010	0:51	28.85	7.54	23.94	82.98	105.77	22.92	95.77%	96.11%	97.44%	93.65%	3	1	6.392	5.566	1.949
22417	Saturday, December 18, 2010	23:59	32.94	9.01	26.57	57.78	83.06	25.52	96.07%	95.50%	96.25%	91.92%	3	1	6.731	5.593	1.948
22416	Saturday, December 18, 2010	22:50	57.61	8.70	52.57	8.76	57.98	49.75	94.63%	95.30%	97.51%	92.93%	4	1	7.135	6.361	1.845
22415	Saturday, December 18, 2010	20:29	29.74	8.02	24.39	349.38	372.31	23.31	95.56%	96.66%	94.93%	91.76%	3	1	6.086	5.501	1.96
22414	Saturday, December 18, 2010	19:30	27.58	6.73	23.45	328.20	350.38	22.51	96.01%	96.52%	97.13%	93.75%	3	1	5.515	5.652	1.945

22412	Saturday, December 18, 2010	17:31	29.26	7.12	24.72	283.40	306.76	23.73	96.00%	95.96%	95.72%	91.85%	3	1	5.883	5.52	1.934
22411	Saturday, December 18, 2010	16:30	27.67	6.96	23.33	261.70	283.96	22.55	96.64%	96.24%	97.91%	94.24%	3	1	6.157	5.502	1.975
22410	Saturday, December 18, 2010	15:31	28.20	6.69	24.09	239.25	262.15	23.10	95.89%	96.22%	97.60%	93.91%	3	1	6.039	5.393	1.939
22409	Saturday, December 18, 2010	14:31	29.70	7.12	25.19	215.64	239.62	24.28	96.39%	95.16%	97.47%	92.75%	3	1	5.82	5.312	1.953
22408	Saturday, December 18, 2010	13:21	28.89	5.30	25.43	191.75	215.99	24.51	96.38%	96.96%	95.08%	92.19%	3	1	5.462	4.781	1.905
22407	Saturday, December 18, 2010	12:22	37.40	7.52	32.27	161.30	192.07	31.12	96.42%	94.14%	96.70%	91.03%	3	1	5.871	5.43	1.857
22406	Saturday, December 18, 2010	10:47	27.42	5.88	24.02	138.70	161.63	23.16	96.45%	94.76%	98.87%	93.68%	3	1	5.619	5.535	1.929
22404	Saturday, December 18, 2010	8:35	28.77	6.73	24.62	91.83	115.20	23.49	95.41%	95.56%	96.19%	91.92%	3	1	5.818	5.849	1.955
22403	Saturday, December 18, 2010	7:31	28.59	6.98	24.18	68.99	91.92	23.11	95.56%	98.41%	95.98%	94.46%	3	1	5.75	5.805	1.95
22402	Saturday, December 18, 2010	6:16	69.14	6.85	66.81	6.71	69.22	63.35	94.82%	95.32%	96.50%	91.98%	5	1	6.849	6.09	1.847
22401	Saturday, December 18, 2010	0:42	27.83	7.43	23.11	349.85	371.64	22.09	95.58%	94.79%	95.79%	90.80%	3	1	6.098	5.926	1.967
22400	Friday, December 17, 2010	23:44	24.59	6.37	20.85	330.92	350.67	20.11	96.47%	95.71%	97.98%	93.77%	3	1	5.709	5.919	1.968
22399	Friday, December 17, 2010	22:56	25.49	6.85	21.24	311.41	331.55	20.37	95.92%	95.16%	98.16%	93.41%	3	1	5.96	5.987	1.981
22398	Friday, December 17, 2010	22:05	25.51	6.87	21.33	291.74	312.02	20.57	96.42%	96.77%	96.21%	93.11%	3	1	5.74	6.077	1.976
22397	Friday, December 17, 2010	21:14	25.70	7.04	21.36	271.97	292.24	20.48	95.87%	95.21%	95.18%	90.62%	3	1	5.758	6.244	1.972
22396	Friday, December 17, 2010	20:24	25.55	6.92	21.33	252.09	272.36	20.50	96.12%	94.08%	96.28%	90.58%	3	1	6.007	6.168	1.957
22395	Friday, December 17, 2010	19:36	26.31	7.45	21.58	231.85	252.39	20.66	95.71%	94.03%	97.54%	91.72%	3	1	5.726	5.621	1.987
22394	Friday, December 17, 2010	18:39	26.60	5.76	22.88	210.40	232.09	21.90	95.72%	96.80%	95.97%	92.90%	3	1	5.36	5.452	1.942
22393	Friday, December 17, 2010	17:43	28.49	7.22	23.90	187.85	210.68	23.00	96.23%	97.63%	97.79%	95.47%	3	1	6.04	5.829	1.978
22391	Friday, December 17, 2010	16:42	25.16	6.17	21.54	167.62	188.19	20.71	96.14%	97.02%	95.92%	93.06%	3	1	5.827	5.729	1.954
22390	Friday, December 17, 2010	15:50	25.78	6.40	22.02	146.87	167.86	21.24	96.46%	93.29%	96.21%	89.75%	3	1	5.739	5.526	1.97
22389	Friday, December 17, 2010	14:58	29.16	7.07	24.66	123.41	147.10	23.87	96.79%	95.13%	96.23%	91.55%	3	1	5.864	5.592	1.919
22388	Friday, December 17, 2010	13:55	26.60	6.18	22.99	101.57	123.64	22.25	96.78%	97.16%	96.55%	93.80%	3	1	5.623	5.536	1.952
22387	Friday, December 17, 2010	12:58	26.90	6.35	23.15	79.48	101.68	22.34	96.50%	97.34%	95.84%	93.29%	3	1	5.734	5.404	1.954
22386	Friday, December 17, 2010	12:02	38.01	7.56	32.81	48.37	79.68	31.49	95.97%	95.01%	95.58%	90.81%	3	1	5.536	5.337	1.84
22385	Friday, December 17, 2010	10:01	46.44	7.02	43.01	7.99	48.48	41.07	95.50%	97.86%	96.37%	94.31%	4	1	6.503	6.21	1.908
22384	Friday, December 17, 2010	8:02	28.49	7.48	23.51	300.36	322.68	22.65	96.33%	98.34%	98.01%	96.38%	3	1	5.899	6.071	1.967

GxPC 1: CAMAC Crate Status

12/20/10 0814

RESPONSE FROM EACH SLOT TO CAMAC A(0)F(6) IS DISPLAYED  
COMMERCIAL CAMAC CARDS SHOWN IN CYAN

MI

CAMAC CRATE

ADDR=#F7

17 18 19 20

4 4 4 4 4 4 4 4

I:Q711 [13] I:Q712 [13] I:Q713 [13] I:Q714 [13] I:HV F11 [13] I:QF11A [13] I:QF11B [13] I:QF12 [13]

4 4 4 4 4 4 4 4

I:F02204 [6] I:T37200 [4] I:Q711P [6] T:SCC

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Find All Names

Prev Next

MADC #74

SLOT 23

PWR TEMP ON OFF

00: I:Q711P I:Q711N I:Q711V I:Q711E I:Q711F T:ILAMV I:Q712P I:Q712N

03: I:Q712V I:Q712E I:Q712F T:ILAME I:Q713P I:Q713N I:Q713V I:Q713E

16: I:Q713F I:REGRF1 I:Q714P I:Q714N I:Q714V I:Q714E I:Q714F I:QF11B

24: I:HV F11P I:HV F11N I:HV F11V I:HV F11E I:HV F11F I:QF11A I:QF11AP I:QF11AN

32: I:QF11AV I:QF11AE I:QF11AF I:HV F11 I:QF11BP I:QF11BN I:QF11BP I:QF11BN

40: I:QF11BF ..... I:QF12P I:QF12N I:QF12V I:QF12E I:QF12F ..... I:QF11BE

48: I:H703P I:Q701AI I:H703N I:Q702AI I:V714P I:Q710AI I:V714N I:Q711AI

56: I:Q701P I:Q712AI I:Q701N I:Q713AI I:Q710P I:Q710AI I:Q710N I:QF12

