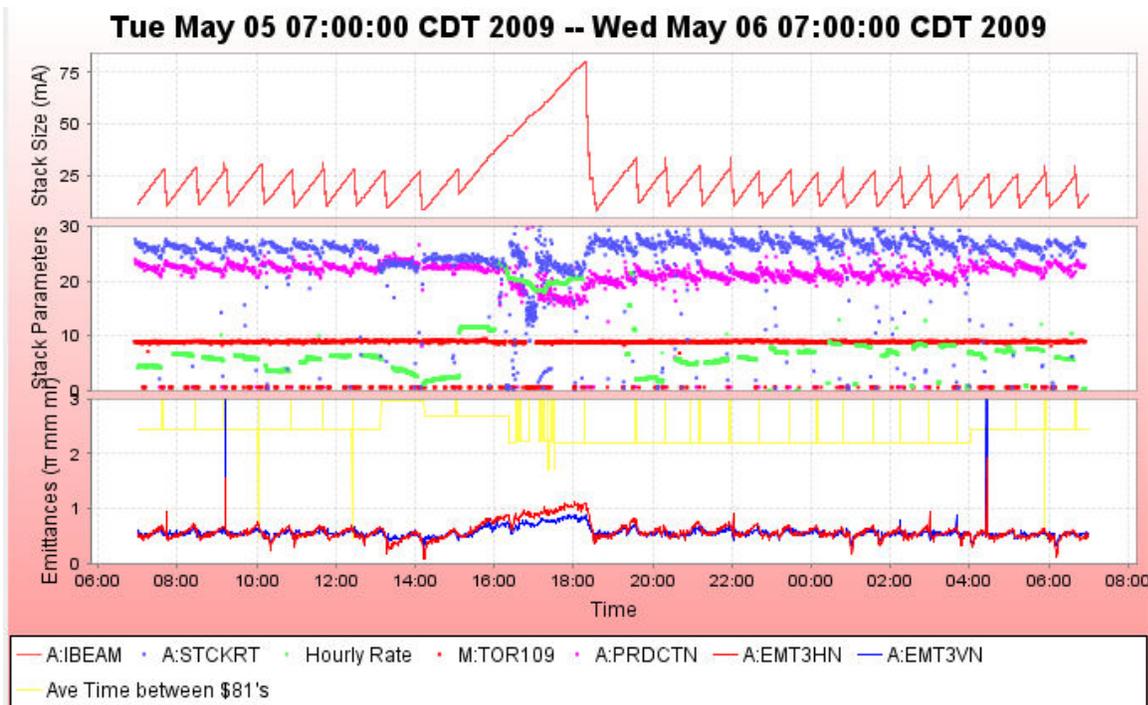


### Stacking

- Stacked 572mA in 23.6 hours of stacking
  - <stacking rate> = 25.3mA/hr
  - <production> = 21 e-6/p
  - <beam on target> = 8.3e12
  - Number is comparable to yesterday but doesn't reflect how well we stacked overnight since we did not stack quite as well during the day due to a number of factors.
  - The Stacking VSA hung once overnight. It just needed a simple restart.
  - D:EKIK module #1 timer took a 100nsec walk down and had to be re-adjusted this morning. We will keep an eye on this.
  - AP1 loss monitors took a jump up at around 6am. Orbits look to be consistent and no obvious TLG changes happened at that time. We will look into this today.

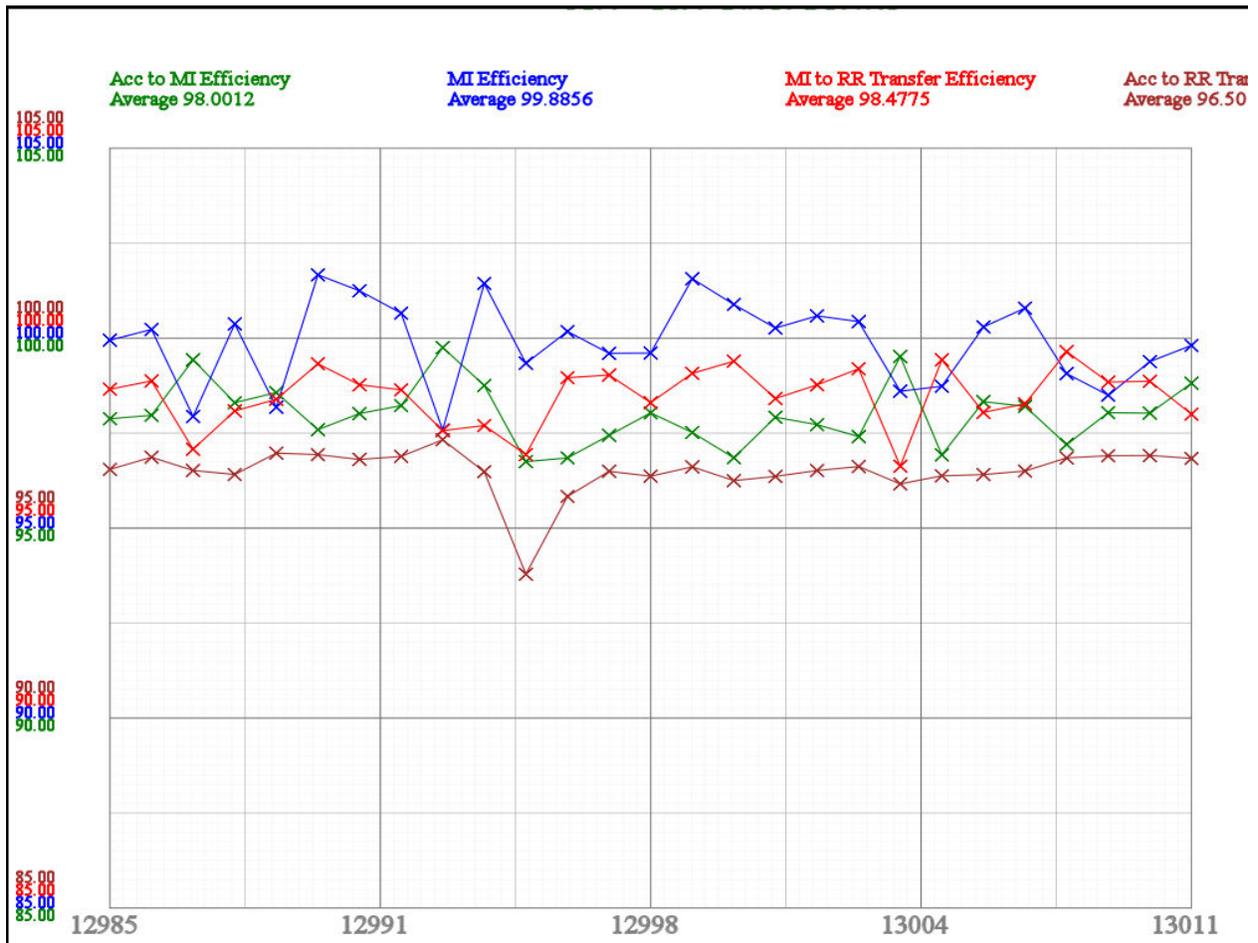


### Transfers

- Unstacked 562e10 in 57 transfers over 27 sets
  - Average Accumulator to Recycler efficiency 96%
  - Removing Transfers 12995 (set of six transfers from 81mA), our efficiency is closer to the normal 96.5%.

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 sfer E10	Column 24 Number _23_R: BEAM (R:BEA ME0[1]) post sfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Trans fers	Set s	Column 5 Number_ 4_Acc Horizont al Emittanc e	Column 6 Number _5_Acc Vertical Emittanc e	Column 8 Number _7_Acc Longitu dinal Emittanc e	
<b>Totals =&gt;</b>				<b>567.66</b>			<b>544.98</b>	<b>96.01%</b>	<b>97.76%</b>	<b>97.69%</b>	<b>57</b>	<b>27</b>	<b>5.2359</b>	<b>4.8567</b>	<b>1.8797</b>	
13011	Wednesday, May 06, 2009	6:41	25.31	9.52	17.11	349.27	365.73	16.57	96.84%	98.73%	98.25%	2	1	4.805	4.57	1.895
13010	Wednesday, May 06, 2009	5:12	26.46	9.17	18.58	332.62	350.48	18.00	96.90%	98.15%	97.56%	2	1	4.998	4.533	1.892
13009	Wednesday, May 06, 2009	4:28	25.49	9.07	17.74	316.52	333.59	17.20	96.97%	97.98%	96.62%	2	1	4.669	4.447	1.918
13008	Wednesday, May 06, 2009	3:41	25.41	9.17	17.57	300.57	317.44	17.00	96.75%	97.33%	96.78%	2	1	4.591	4.647	1.908
13007	Wednesday, May 06, 2009	2:59	25.71	8.43	18.24	283.81	301.38	17.59	96.42%	98.31%	99.00%	2	1	4.795	4.696	1.86
13006	Wednesday, May 06, 2009	2:16	25.44	8.90	17.79	267.45	284.51	17.15	96.40%	98.30%	98.26%	2	1	5.055	4.532	1.869
13005	Wednesday, May 06, 2009	1:35	24.94	8.99	17.26	251.42	268.03	16.64	96.40%	97.01%	96.01%	2	1	5.256	5.171	1.886
13004	Wednesday, May 06, 2009	0:48	26.87	9.71	18.42	234.30	251.96	17.72	96.20%	99.50%	98.39%	2	1	5.565	4.776	1.88
13003	Wednesday, May 06, 2009	0:09	25.09	9.00	17.36	218.11	234.83	16.77	96.60%	97.53%	97.74%	2	1	5.466	4.804	1.853
13002	Wednesday, May 06, 2009	23:28	26.42	9.67	18.02	201.12	218.45	17.37	96.42%	97.85%	98.82%	2	1	5.277	5.077	1.887
13001	Tuesday, May 05, 2009	22:41	27.65	9.91	18.99	183.08	201.35	18.29	96.31%	98.04%	98.37%	2	1	5.573	5.012	1.878
13000	Tuesday, May 05, 2009	21:59	26.98	9.42	18.83	165.27	183.37	18.11	96.15%	97.08%	97.87%	2	1	5.458	4.965	1.885
12999	Tuesday, May 05, 2009	21:12	29.32	9.92	20.62	145.63	165.49	19.89	96.48%	97.56%	99.06%	2	1	5.519	5.052	1.848
12998	Tuesday, May 05, 2009	20:20	29.82	10.38	20.64	126.04	145.85	19.88	96.30%	97.84%	97.55%	2	1	5.872	5.177	1.871
12997	Tuesday, May 05, 2009	19:35	28.62	9.94	19.94	106.96	126.22	19.24	96.47%	97.55%	97.47%	2	1	5.05	4.793	1.89
12996	Tuesday, May 05, 2009	18:18	33.31	11.40	23.10	85.07	107.12	22.11	95.72%	96.94%	96.90%	2	1	6.049	5.099	1.887
12995	Tuesday, May 05, 2009	15:05	80.90	8.03	78.52	12.76	85.25	72.73	92.62%	96.00%	95.84%	6	1	6.951	5.991	1.97
12994	Tuesday, May 05, 2009	14:07	27.99	15.75	12.24	368.36	380.16	11.81	96.48%	98.75%	100.17%	1	1	4.981	4.735	1.868
12993	Tuesday, May 05, 2009	13:13	26.93	8.10	19.75	350.75	369.87	19.22	97.31%	99.81%	97.48%	2	1	3.983	4.08	1.816
12992	Tuesday, May 05, 2009	12:27	27.34	8.88	19.60	333.37	352.17	18.98	96.82%	98.07%	98.81%	2	1	4.637	4.515	1.871
12991	Tuesday, May 05, 2009	11:41	27.73	9.93	19.08	316.04	334.36	18.45	96.72%	98.17%	99.65%	2	1	5.258	5.012	1.885
12990	Tuesday, May 05, 2009	10:53	28.02	9.92	19.38	298.26	316.91	18.77	96.87%	97.52%	98.91%	2	1	5.428	5.008	1.871
12989	Tuesday, May 05, 2009	10:07	27.87	9.64	19.49	280.30	299.08	18.91	96.98%	98.35%	96.55%	2	1	4.923	4.641	1.859
12988	Tuesday, May 05, 2009	9:14	30.44	10.88	20.81	260.96	280.96	20.04	96.29%	98.03%	98.32%	2	1	5.204	4.804	1.865
12987	Tuesday, May 05, 2009	8:28	28.22	10.04	19.46	242.96	261.69	18.76	96.41%	99.21%	97.41%	2	1	5.208	5.089	1.875
12986	Tuesday, May 05, 2009	7:39	29.13	10.46	19.94	224.34	243.47	19.29	96.75%	97.84%	98.19%	2	1	5.518	4.935	1.873
12985	Tuesday, May 05, 2009	6:55	28.02	10.09	19.18	206.33	224.80	18.50	96.46%	98.15%	98.16%	2	1	5.28	4.969	1.892

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 sfer E10	Column 24 Number _23_R: BEAM (R:BEA ME0[1]) post sfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Trans fers	Set s	Column 5 Number_ 4_Acc Horizont al Emittanc e	Column 6 Number _5_Acc Vertical Emittanc e	Column 8 Number _7_Acc Longitu dinal Emittanc e
<b>Totals =&gt;</b>			<b>489.14</b>			<b>472.26</b>	<b>96.55%</b>	<b>98.05%</b>	<b>97.98%</b>	<b>57</b>	<b>26</b>	<b>5.1699</b>	<b>4.813</b>	<b>1.8762</b>



Studies

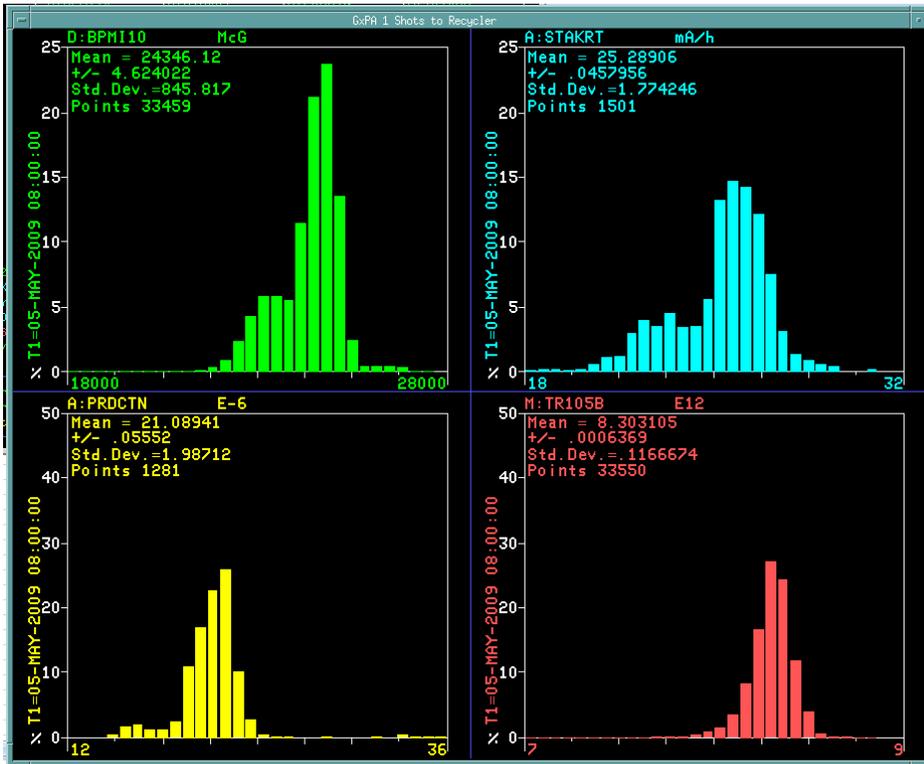
Requests

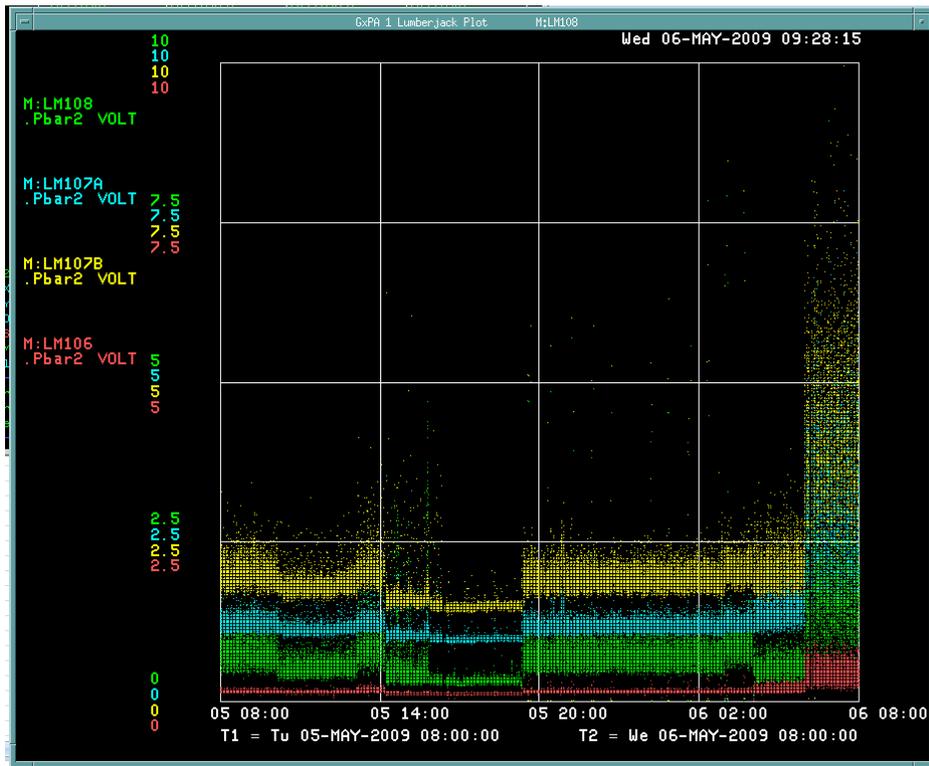
### The Numbers (7am to 7am):

- Paul's Numbers
  - Most in a half hour: 13.34 mA at Tue May 05 21:45:42 CDT 2009
  - Best Hour: 28.56 mA on 20-Dec-08
  - Average Production 19.61 e-6/proton Best: 25.41 e-6/proton on 01/30/2008
  - Average Protons on Target 6.92 e12 Best: 8.77 e12 on 07/24/2007
- AI's Numbers
  - Stacking
    - Pbars stacked: 572.38 E10
    - Time stacking: 23.62 Hr
    - Average stacking rate: 24.23 E10/Hr
  - Uptime
    - Number of pulses while in stacking mode: 35750
    - Number of pulses with beam: 34421
    - Fraction of up pulses was: 96.28%
  - The uptime's effect on the stacking numbers
    - Corrected time stacking: 22.74 Hr
    - Possible average stacking rate: 25.17 E10/Hr
    - Could have stacked: 594.48 E10/Hr
  - Recycler Transfers
    - Pbars sent to the Recycler: 567.66 E10

- Number of transfers : 57
  - Number of transfer sets: 27
  - Average Number of transfer per set: 2.11
  - Time taken to shoot including reverse proton tuneup: 00.32 Hr
  - Transfer efficiency: 96.28%
- Other Info
    - Average POT : 8.30 E12
    - Average production: 20.04 pbars/E6 protons
  - \* Missed one or more A:IBEAM7 events somewhere in the middle of the user selected time span. Calculated time shot using 13 secs per transfer.

Misc





Logbooks