

# 2010-10-25 Monday Morning Notes

Monday, October 25, 2010  
6:00 AM

## On-call

- Monday and Tuesday: Stan Johnson
- Wednesday and Thursday: Vladimir Nagaslaev
- Friday: Keith Gollwitzer

## Stacking

- Some testing of 2.4 second cycle time
- ARf1 Ramp
- Problems with stacktail gain ramping
- DRF1 autotune
- D:Q804 had no control power. 110VAC fuse blown due to a frozen shaft in a dual centrifugal blower that was drawing excessive current. Clipped out the circuit since there were other fans in the supply that more directly cool the important parts.
- Stacking Numbers
  - <stacking rate> = 26.6 mA/hr
  - <production> = 23.7 pbar/Mp
  - <POT> = 8.5 Tp

## Transfers

- A10 BPM house
  - CPU replaced for the second time this year.
- Sequencer not bringing pages up
- Transfer numbers
  - Unstacked 1569E10 in 190 transfers over 61 sets.
  - Daily average for the weekend is 523E10 in 63 transfers over 20 sets.
  - Overall efficiency is 96.3%
  - Removing all transfers over 45E10, we are at 96.7%.

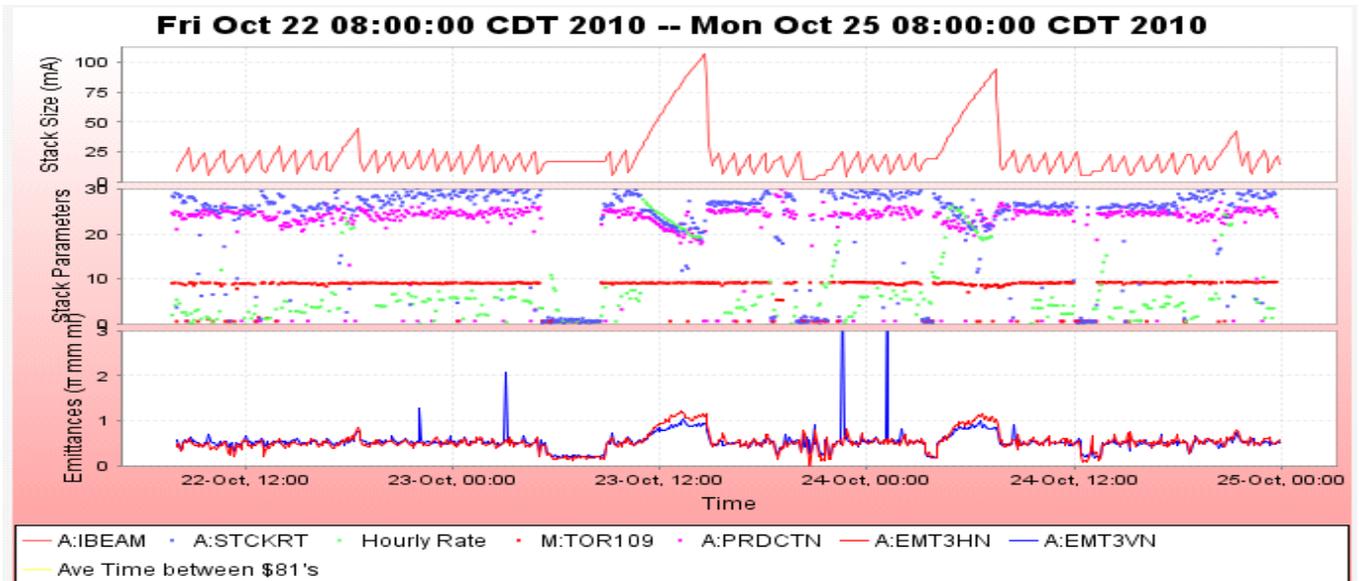
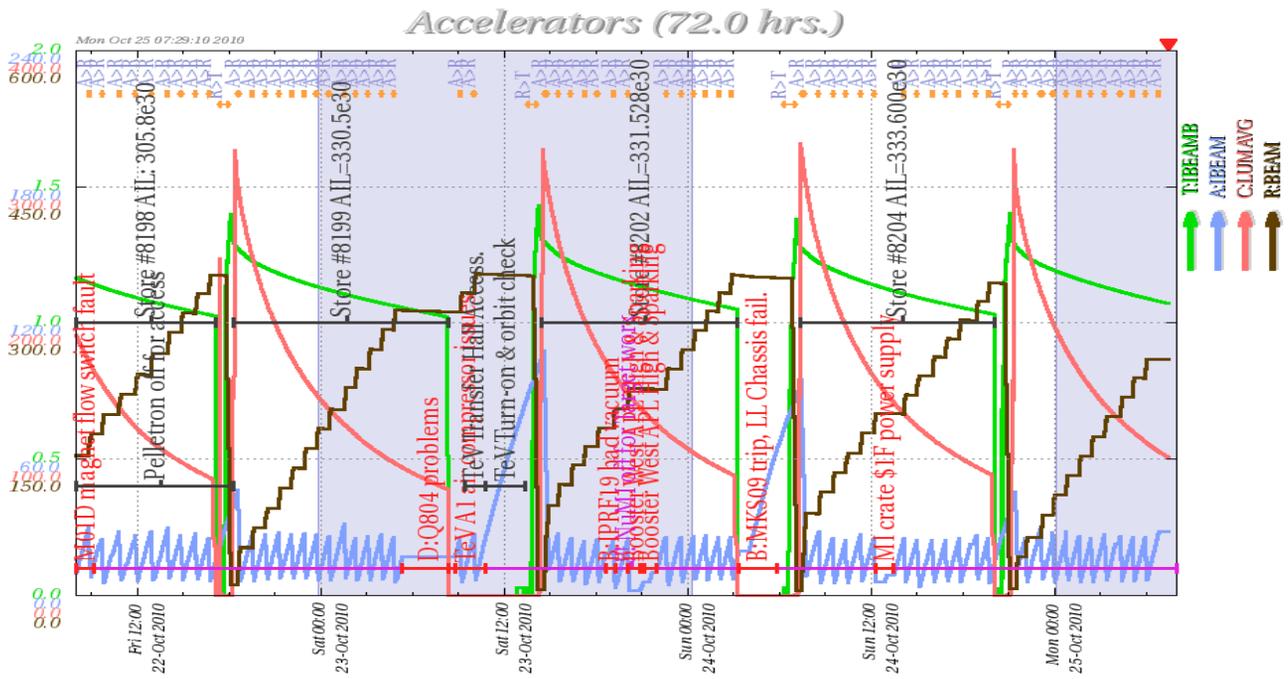
## Requests

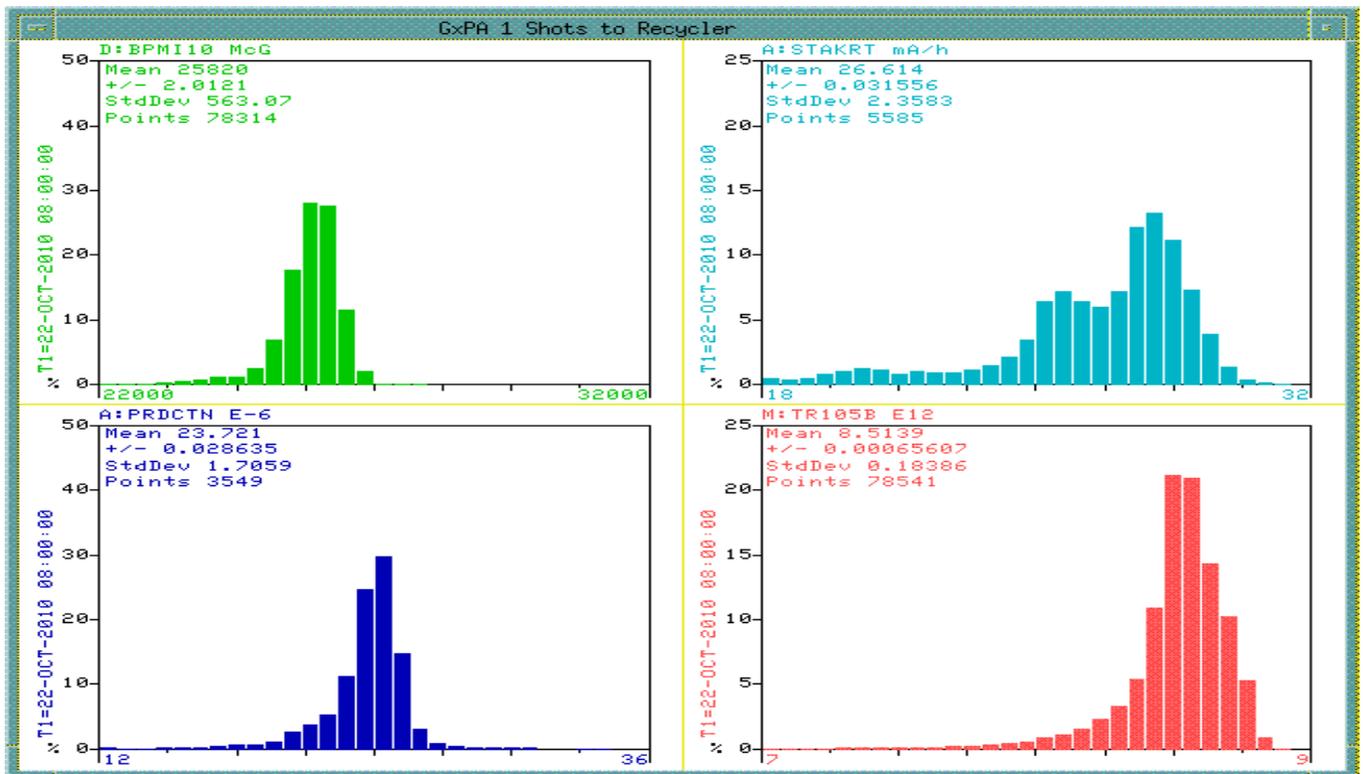
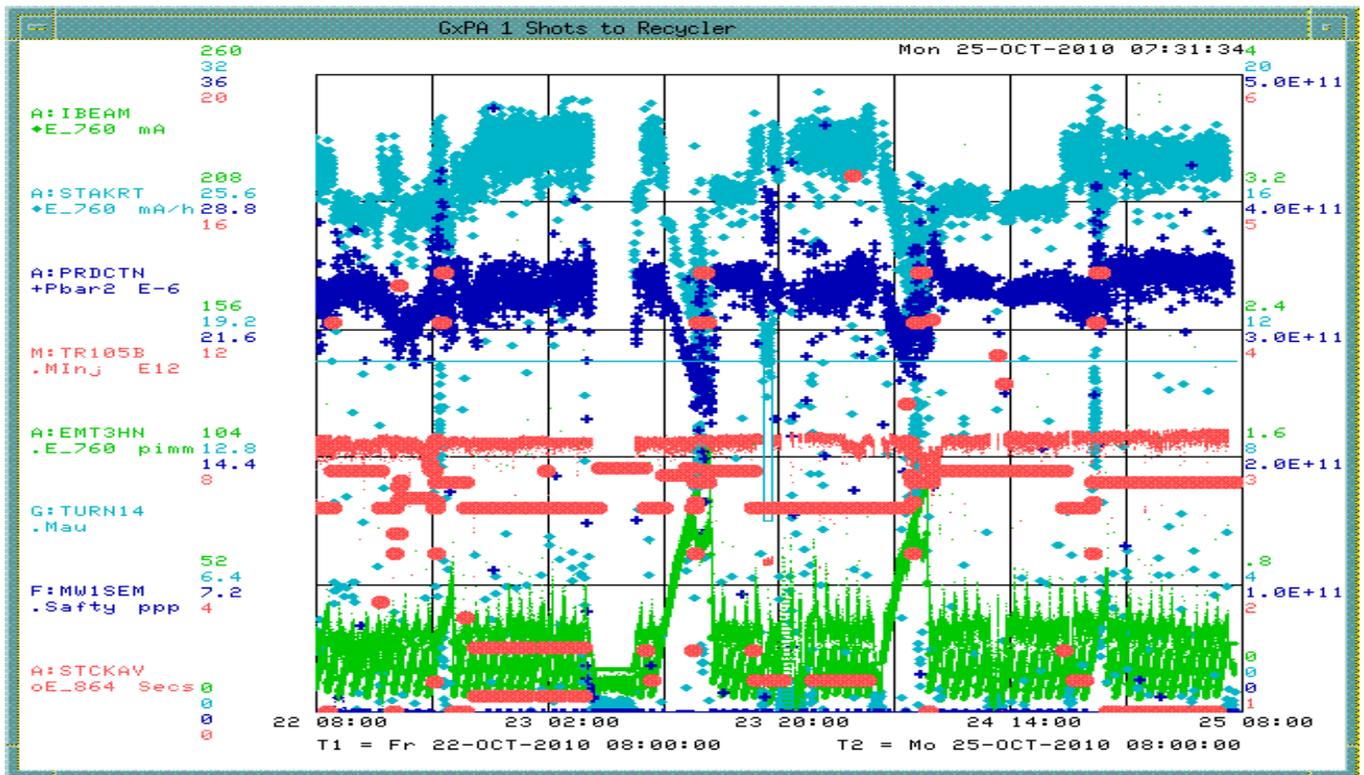
## Numbers

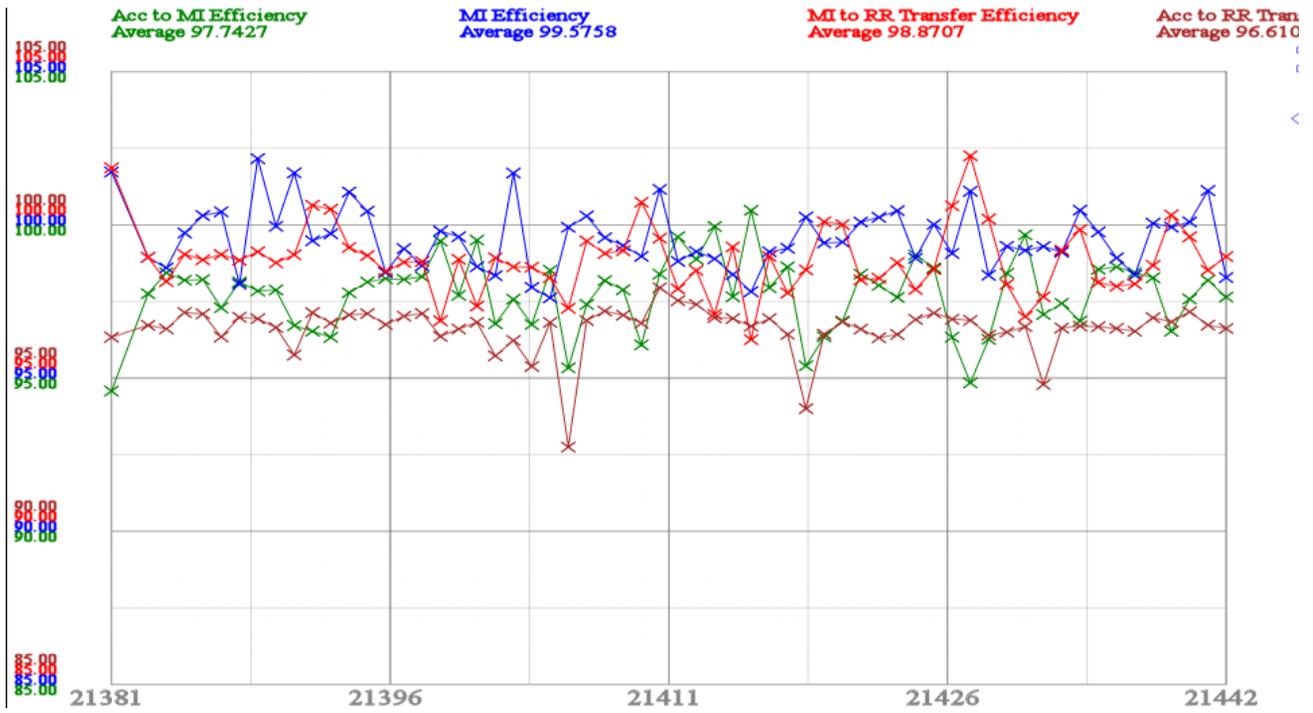
- Stacking
  - Pbars stacked: 1606.25 E10
  - Time stacking: 65.40 Hr
  - Average stacking rate: 24.56 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 84361
  - Number of pulses with beam: 80201
  - Fraction of up pulses was: 95.07%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 62.18 Hr
  - Possible average stacking rate: 25.83 E10/Hr
  - Could have stacked: 1689.56 E10/Hr

- Recycler Transfers
  - Pbars sent to the Recycler: 1590.25 E10
  - Number of transfers : 192
  - Number of transfer sets: 59
  - Average Number of transfer per set: 3.25
  - Time taken to shoot including reverse proton tuneup: 00.67 Hr
  - Transfer efficiency: 96.07%
- Other Info
  - Average POT : 8.48 E12
  - Average production: 23.63 pbars/E6 protons

Plots







Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number_20_A:1 BEAMB sampled on \$91 (A:BEAM7), E10	Column 22 Number_21_A:1 BEAMB sampled on \$94 (A:BEAM9), E10	Unstacked (mA)	Column 23 Number_22_R: BEAMS (R:BEAM0[0]) pre sfer E10	Column 24 Number_23_R: BEAM (R:BEAM0[1]) 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>				1569.46			1508.75	96.13%	97.41%	97.12%	94.60%	190	61	5.0628	4.8648	1.9175	
<b>Daily Average =&gt;</b>				523.15			502.92					63	20				
21442	Monday, October 25, 2010	5:56	25.73	6.32	22.01	239.25	260.45	21.28	96.67%	97.89%	96.63%	94.59%	3	1	5.095	4.659	1.946
21441	Monday, October 25, 2010	5:07	25.47	6.06	21.99	218.42	239.53	21.24	96.59%	98.31%	98.76%	97.09%	3	1	4.641	4.732	1.927
21440	Monday, October 25, 2010	4:19	26.42	6.33	22.68	196.70	218.64	22.03	97.13%	97.70%	97.76%	95.51%	3	1	4.884	4.682	1.934
21439	Monday, October 25, 2010	3:17	27.24	6.49	23.41	174.48	197.05	22.65	96.74%	96.51%	96.20%	92.84%	3	1	4.91	5.015	1.927
21438	Monday, October 25, 2010	2:24	25.30	5.88	21.96	153.47	174.65	21.29	96.99%	98.44%	98.00%	96.47%	3	1	4.916	4.721	1.918
21437	Monday, October 25, 2010	1:35	25.85	5.94	22.50	131.97	153.60	21.73	96.56%	98.12%	97.06%	95.23%	3	1	5.248	4.916	1.918
21436	Monday, October 25, 2010	0:46	26.06	6.19	22.44	110.51	132.11	21.69	96.64%	98.35%	97.79%	96.17%	3	1	5.305	4.524	1.912
21435	Sunday, October 24, 2010	23:54	25.62	5.27	22.83	88.52	110.58	22.11	96.85%	98.31%	98.16%	96.50%	3	1	4.446	4.266	1.903
21434	Sunday, October 24, 2010	23:07	30.17	7.15	25.62	63.99	88.64	24.74	96.58%	97.13%	97.18%	94.39%	3	1	5.442	4.876	1.915
21433	Sunday, October 24, 2010	22:06	25.45	5.57	22.42	42.42	64.09	21.69	96.75%	97.68%	97.02%	94.77%	3	1	4.453	4.32	1.916
21432	Sunday, October 24, 2010	21:28	46.10	11.20	37.40	7.31	42.52	35.37	94.56%	97.12%	96.32%	93.55%	3	1	6.913	5.95	1.831
21431	Sunday, October 24, 2010	19:39	25.43	5.30	21.82	323.68	344.56	21.09	96.65%	99.40%	98.67%	98.08%	3	1	4.778	4.507	1.946
21430	Sunday, October 24, 2010	18:53	26.69	6.88	22.18	302.87	324.18	21.41	96.53%	98.19%	97.47%	95.71%	3	1	5.437	4.999	1.962
21429	Sunday, October 24, 2010	17:45	24.97	5.76	21.84	282.57	303.49	21.07	96.45%	96.86%	95.71%	92.71%	3	1	5.292	4.795	1.879
21428	Sunday, October 24, 2010	16:53	24.35	5.67	21.31	262.50	282.98	20.63	96.78%	95.67%	96.27%	92.10%	3	1	4.667	4.803	1.947
21427	Sunday, October 24, 2010	16:00	24.63	5.60	21.60	241.99	262.84	20.93	96.91%	96.39%	95.72%	92.26%	3	1	4.681	4.988	1.914
21426	Sunday, October 24, 2010	15:00	24.60	3.86	22.33	220.80	242.35	21.68	97.11%	98.04%	98.32%	96.39%	3	1	4.593	4.044	1.877
21425	Sunday, October 24, 2010	14:09	25.08	5.59	22.01	199.84	221.08	21.33	96.92%	98.59%	97.81%	96.44%	3	1	5.643	4.838	1.938
21424	Sunday, October 24, 2010	12:11	25.63	5.62	22.62	178.67	200.35	21.80	96.39%	97.27%	98.07%	95.39%	3	1	4.87	4.948	1.922
21423	Sunday, October 24, 2010	11:19	27.17	6.15	23.66	156.24	178.91	22.78	96.26%	97.95%	98.33%	96.31%	3	1	5.378	4.792	1.914
21422	Sunday, October 24, 2010	10:21	24.66	5.47	21.80	135.51	156.42	21.03	96.49%	98.00%	98.84%	96.87%	3	1	5.122	4.77	1.922
21421	Sunday, October 24, 2010	9:29	25.31	5.52	22.41	114.10	135.65	21.72	96.91%	96.69%	96.50%	93.30%	3	1	4.778	4.944	1.898
21420	Sunday, October 24, 2010	8:34	28.17	4.93	25.15	90.07	114.26	24.25	96.40%	96.72%	96.16%	93.01%	3	1	4.517	4.576	1.869
21419	Sunday, October 24, 2010	7:29	95.97	8.40	91.63	5.73	90.35	85.40	93.20%	95.02%	95.10%	90.36%	6	1	7.196	6.043	1.751
21418	Sunday, October 24, 2010	2:49	25.75	6.53	21.77	332.66	353.37	20.98	96.40%	98.93%	98.28%	97.23%	3	1	4.934	4.965	1.949
21417	Sunday, October 24, 2010	2:01	25.62	6.40	21.61	312.74	333.43	20.92	96.80%	97.66%	96.94%	94.68%	3	1	5.35	4.845	1.937
21416	Sunday, October 24, 2010	1:12	26.53	6.37	22.59	291.65	313.32	21.83	96.64%	100.07%	98.15%	98.22%	3	1	5.509	5.243	1.932
21415	Sunday, October 24, 2010	0:23	26.45	6.74	22.23	270.75	292.11	21.53	96.86%	97.41%	96.10%	93.61%	3	1	5.174	5.031	1.953
21414	Saturday, October 23, 2010	23:33	25.80	5.85	22.43	249.49	271.14	21.77	97.04%	99.26%	97.97%	97.24%	3	1	4.942	4.63	1.909
21413	Saturday, October 23, 2010	22:37	25.72	4.08	23.44	227.17	249.87	22.87	97.55%	98.90%	97.94%	96.86%	3	1	5.118	4.332	1.846
21412	Saturday, October 23, 2010	20:06	25.01	1.96	23.04	205.56	227.91	22.45	97.40%	99.47%	98.44%	97.92%	3	1	3.734	3.479	1.804
21411	Saturday, October 23, 2010	19:09	23.92	3.32	22.19	184.20	205.79	21.70	97.81%	98.45%	99.27%	97.73%	3	1	3.639	3.88	1.821
21410	Saturday, October 23, 2010	18:05	24.72	6.04	21.11	164.07	184.47	20.49	97.04%	96.20%	95.54%	91.91%	3	1	5.757	5.019	1.943

21409	Saturday, October 23, 2010	17:14	23.76	5.04	21.36	143.57	164.26	20.75	97.12%	97.84%	97.56%	95.45%	3	1	4.441	4.63	1.918
21408	Saturday, October 23, 2010	16:23	25.54	5.72	22.50	122.00	143.77	21.87	97.21%	97.49%	97.98%	95.53%	3	1	4.192	4.591	1.934
21407	Saturday, October 23, 2010	15:31	27.32	6.18	23.80	99.25	122.18	23.03	96.79%	97.29%	97.59%	94.94%	3	1	5.232	4.645	1.933
21406	Saturday, October 23, 2010	14:38	108.01	11.48	101.88	6.70	99.56	93.74	92.01%	94.76%	94.60%	89.65%	6	1	8.425	7.244	1.696
21405	Saturday, October 23, 2010	10:01	27.01	6.65	22.85	332.73	354.61	22.08	96.63%	98.37%	96.41%	94.84%	3	1	4.956	4.868	1.953
21404	Saturday, October 23, 2010	9:07	25.50	5.57	22.57	312.08	333.35	21.48	95.17%	96.79%	95.37%	92.31%	3	1	4.427	4.782	1.889
21403	Saturday, October 23, 2010	4:46	26.12	5.74	22.71	292.58	314.29	21.86	96.22%	97.55%	98.68%	96.27%	3	1	5.047	4.82	1.956
21402	Saturday, October 23, 2010	3:58	27.30	6.51	23.32	270.84	292.98	22.30	95.63%	96.86%	95.57%	92.57%	3	1	5.013	4.777	1.925
21401	Saturday, October 23, 2010	3:07	26.26	6.22	22.52	249.67	271.28	21.79	96.78%	98.93%	97.45%	96.41%	3	1	4.594	4.761	1.93
21400	Saturday, October 23, 2010	2:16	25.43	6.24	21.73	229.14	250.05	21.02	96.74%	97.83%	97.83%	95.70%	3	1	4.983	4.731	1.943
21399	Saturday, October 23, 2010	1:32	31.52	7.85	26.18	204.34	229.47	25.24	96.41%	99.29%	98.90%	98.20%	3	1	5.002	5.011	1.958
21398	Saturday, October 23, 2010	0:32	26.27	6.40	22.33	183.60	205.18	21.68	97.09%	97.84%	96.52%	94.43%	3	1	4.818	4.863	1.955
21397	Friday, October 22, 2010	23:44	26.94	6.66	22.77	161.90	183.82	22.06	96.88%	98.31%	97.46%	95.81%	3	1	4.919	4.981	1.956
21396	Friday, October 22, 2010	22:55	27.23	6.87	22.81	140.16	162.13	22.09	96.84%	98.11%	96.87%	95.03%	3	1	5.154	4.889	1.966
21395	Friday, October 22, 2010	22:05	27.08	6.86	22.63	118.39	140.30	22.00	97.18%	98.75%	99.22%	97.98%	3	1	4.878	4.853	1.952
21394	Friday, October 22, 2010	21:15	28.01	7.20	23.26	96.11	118.55	22.58	97.05%	97.66%	98.68%	96.37%	3	1	4.953	4.873	1.965
21393	Friday, October 22, 2010	20:23	26.91	6.93	22.38	74.72	96.27	21.68	96.87%	96.77%	96.48%	93.36%	3	1	5.237	5.069	1.919
21392	Friday, October 22, 2010	19:31	26.74	6.36	22.91	52.68	74.85	22.23	97.03%	96.67%	96.77%	93.55%	3	1	4.631	4.962	1.906
21391	Friday, October 22, 2010	18:35	46.37	6.19	43.71	11.39	52.79	41.61	95.20%	96.59%	97.45%	94.13%	4	1	6.222	5.799	1.851
21390	Friday, October 22, 2010	16:40	25.59	6.34	21.80	332.31	353.18	21.07	96.65%	98.17%	98.17%	96.37%	3	1	5.056	4.957	1.973
21389	Friday, October 22, 2010	15:49	27.69	6.97	23.22	310.65	332.93	22.50	96.89%	98.47%	100.24%	98.70%	3	1	5.407	4.993	1.982
21388	Friday, October 22, 2010	14:51	26.64	6.59	22.54	289.61	311.26	21.85	96.95%	97.88%	96.26%	94.22%	3	1	5.014	5.059	1.956
21387	Friday, October 22, 2010	13:59	29.81	7.41	24.76	266.37	290.05	23.85	96.30%	97.10%	97.56%	94.73%	3	1	5.011	4.91	1.953
21386	Friday, October 22, 2010	12:54	28.37	6.47	24.41	243.33	266.82	23.68	97.00%	98.10%	98.22%	96.35%	3	1	4.763	5.03	1.934
21385	Friday, October 22, 2010	11:53	26.41	5.93	22.96	221.70	243.73	22.26	96.95%	98.80%	98.70%	97.52%	3	1	4.704	4.852	1.942
21384	Friday, October 22, 2010	10:48	28.28	6.72	24.09	199.08	222.12	23.25	96.49%	98.07%	97.25%	95.37%	3	1	4.636	4.898	1.948
21383	Friday, October 22, 2010	9:42	24.83	5.24	22.16	178.24	199.46	21.43	96.70%	97.55%	96.82%	94.45%	3	1	4.518	4.797	1.93
21381	Friday, October 22, 2010	7:49	28.06	7.18	23.28	131.91	154.10	22.34	96.00%	94.62%	95.71%	90.56%	3	1	5.235	4.973	1.967

