2010-10-07 Thursday Morning Notes

Thursday, October 07, 2010
6:00 AM

On-call:

Tuesday: Al Sondgeroth
Wednesday: Steve Werkema

Stacking

- During the downtime we circulated our stack
- Stacking Numbers
  - Stacked 373mA
  - <stacking rate> = 26.6 mA/hr
  - <production> = 25.0 pbar/e6 p
  - <on target>= 8.32 Tp

Transfers

- Unstacked 380e10 in 49 transfers over 16 sets
- <overall efficiency>=96.2%

Studies

- Plan some Stacktail gain ramping studies
  - We will turn on gain ramping to verify that it works during the day. This will be transparent.
  - Thursday evening we would like to plan a couple hours of dedicated studies. This should be mostly transparent; however, studiers may ask to change cycle times.
  - Jim Morgan is the studier
- Debuncher Momentum Cooling Phasing
  - Up to 8 hours in 4 hour chunks
  - Ralph and Steve are the studiers.

The Numbers

- Stacking
  - Pbars stacked: 373.13 E10
  - Time stacking: 14.85 Hr
  - Average stacking rate: 25.13 E10/Hr

- Uptime
  - Number of pulses while in stacking mode: 18558
  - Number of pulses with beam: 17722
  - Fraction of up pulses was: 95.50%

- The uptime's effect on the stacking numbers
  - Corrected time stacking: 14.18 Hr
  - Possible average stacking rate: 26.31 E10/Hr
  - Could have stacked: 390.73 E10/Hr

- Recycler Transfers
  - Pbars sent to the Recycler: 366.56 E10
  - Number of transfers : 48
  - Number of transfer sets: 15
  - Average Number of transfer per set: 3.20
  - Time taken to shoot including reverse proton tuneup: 00.17 Hr

- Transfer efficiency: 96.40%

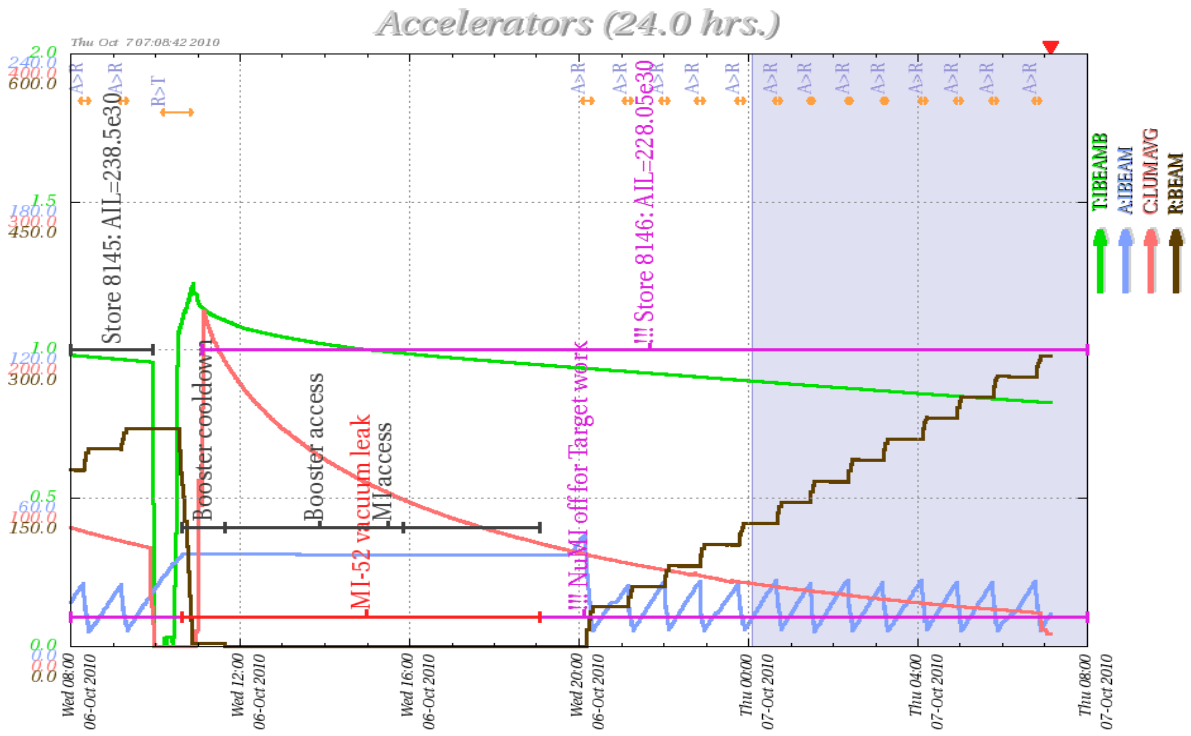
- Other Info
  - Average POT : 8.29 E12
  - Average production: 25.40 pbars/E6 protons

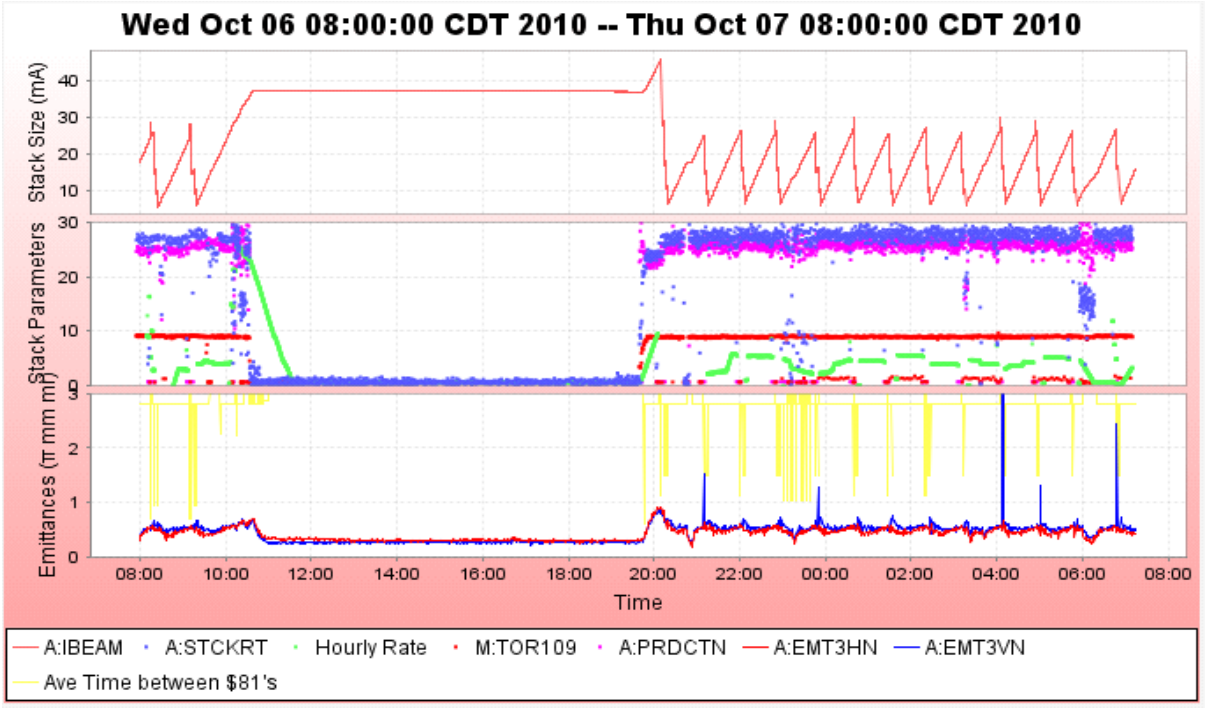
Electronic Worklist

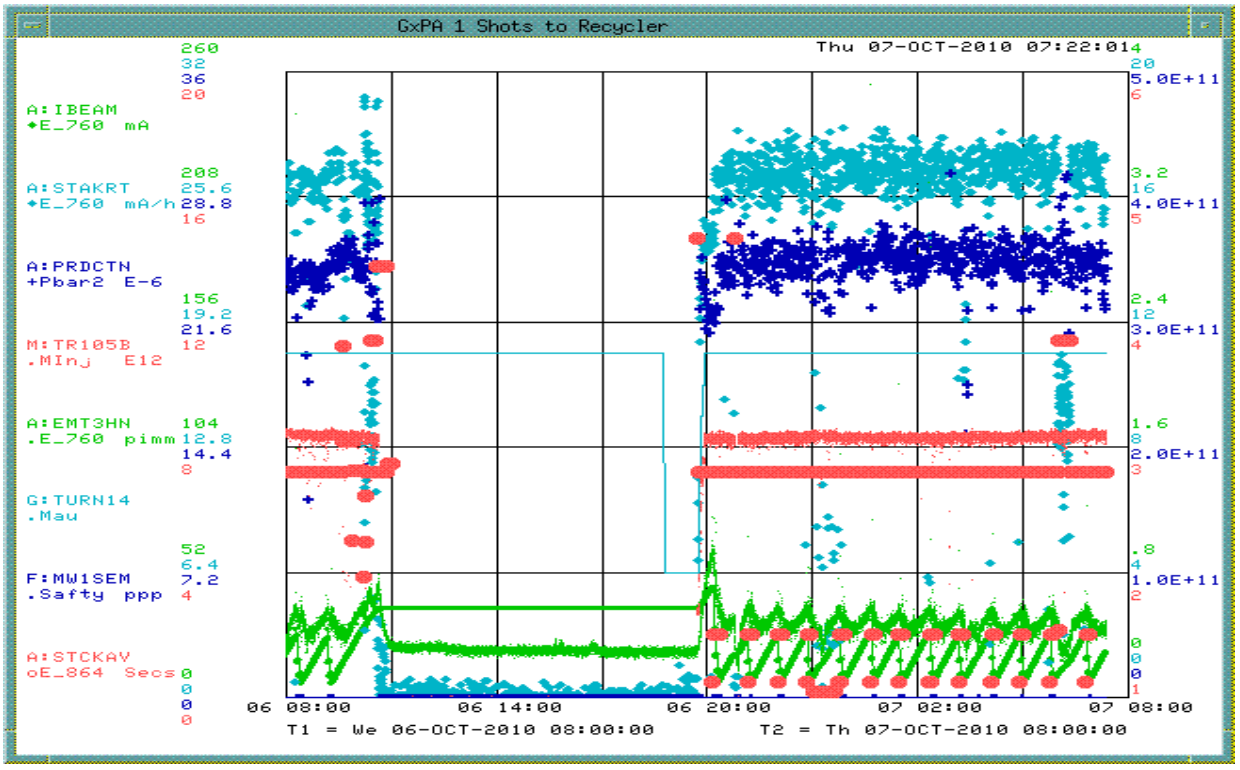
ID	Requestor	Title	Location	Type
12491	Sprosty, Susan	ODH EXH FANS QUARTERLY MAINT.PM.FOR ODH EXH FANS FESS ASSET #AP183,AP184,AP185,AP186,AP187	PBAR TUNNEL	FESS / Utilities
12474	Drendel, Brian	LCW Manifold Leak on A1B3 A1B3 has an LCW leak on the LCW manifold. The leak can be seen if you look at the manifold from the downstream end of the magnet. Under the 3" in the center of the manifold, there is a very slow LCW weaper coming from the threads on that connection. This is just above the small orange hose connector labled "9."	Pbar Rings	Water
12471	Drendel, Brian	D1Q5 LCW hose replacement D1Q5 has a slow dripper on the fitting for the orange hose that goes to the LCW return header.	Pbar Rings	Water
12470	Gollwitzer, Keith	Inspection of Pbar Rings Inspection of Pbar tunnel; search for water leaks and ground water etc.	Rings enclosure	Misc
12469	Drendel, Brian	Rollaround Console Doesnt Work Stochastic Cooling guys report that the Thinwire Ethernet rollaround cart console was not working when they tried to use it in the tunnel in the A30 region. The Thinnet repeater in the AP30 service building was power cycled, which did not fix the problem. We need the Network Guys to look at the Thinnet to see if it is operational.	Pbar Rings	Controls
12468	Leveling, Anthony	Store 10 mm-7 in coffin 10 mm-7 lens/transformer was removed from service on 8/21 following development of a transformer ground fault. While installing 10mm-1 on lens module #2, discovered that the upstream lens water line needs to be reworked so that the module water line can be connected. Drop 10 mm-1 from module #2, rework upstream water line, and finish installation of 10 mm-1 onto lens module #2.	AP0 upper vault	Target Station
12450	Leveling, Anthony	November target air blower check Perform periodic maintenance on target blower in November 2010. Last maintenance was on October 4.	AP0 Target Hall	Target Station
12406	Drendel, Brian	ARF1 calibration After changing out the Acopian +5V power supply in the ARF1 LLRF, the output of the ARF1 amplitude curve is saturated. One hour of no stacking time is needed to recalibrate the output.	AP50	Low Level RF
12378	Drendel, Brian	D:EKIK Module #1 Power Supplies D:EKIK module #1 is starting to show some timing drift. During	AP10 Service Building	Power Supply

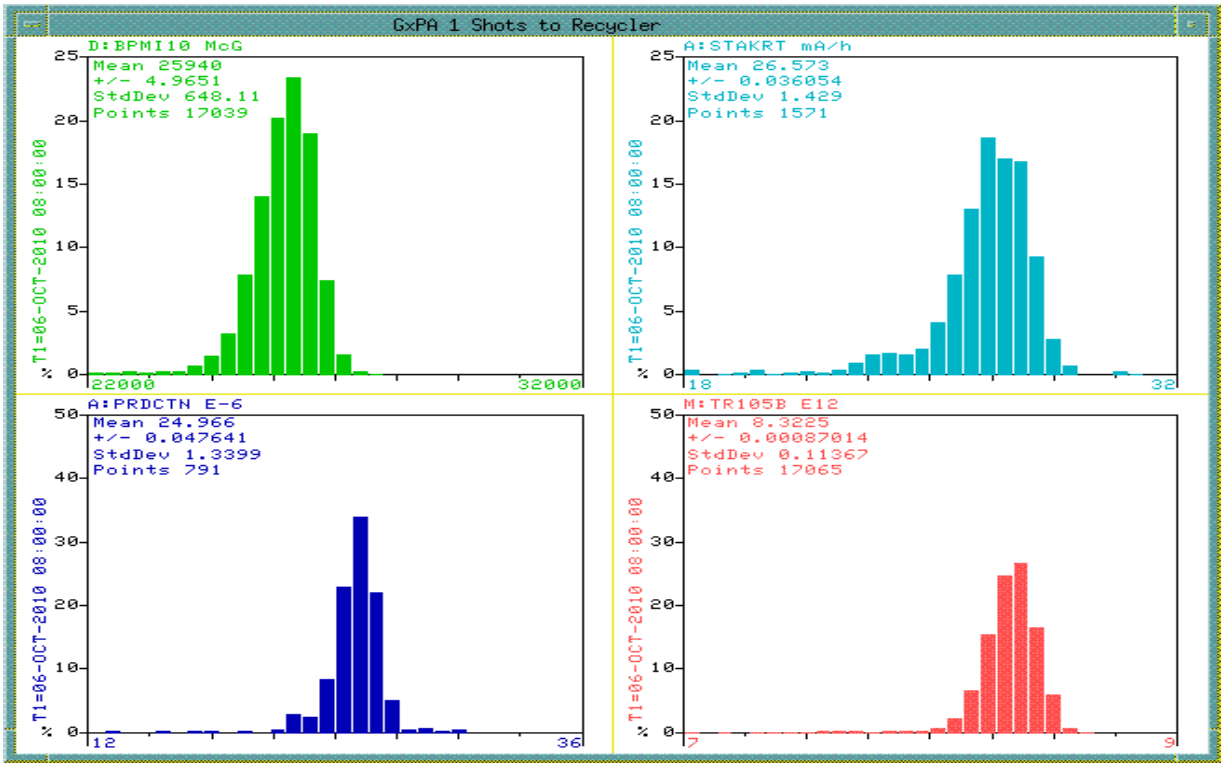
		a shutdown of a day or longer, it would be nice to open up the oil-filled thyratron tank and check the brick power supplies.		
12345	Vander Meulen, David	D:V4TW01 Tripps D:V4TW01 is tripping on reverse power. A bad cable was replaced in the tunnel, but the problem is in the tank, which means we have to let up vacuum. The job including vacuum pump down is a minimum of 6 hours.	D30 Tunnel	Stochastic Cooling
12253	Leveling, Anthony	Install new shielding blocks New concrete shielding blocks are to be installed for the JASMIN experiment. Install shield blocks at some opportunistic access when the shield blocks become available. Estimated arrival is now late August/early September.	AP0 upper vault	Target Station
12240	Sievert, Ken	Connect BV500H to A50 CIA Crate Terminate cable and connector on valve, modify crate to accept valve status.	A50	Vacuum
9310	Obrycki, Mark	Sled drawings/ panel schedules Inspect breaker panels in tunnel	AP-10 tunnel	ES&H / Interlocks
Total Requests: 13				

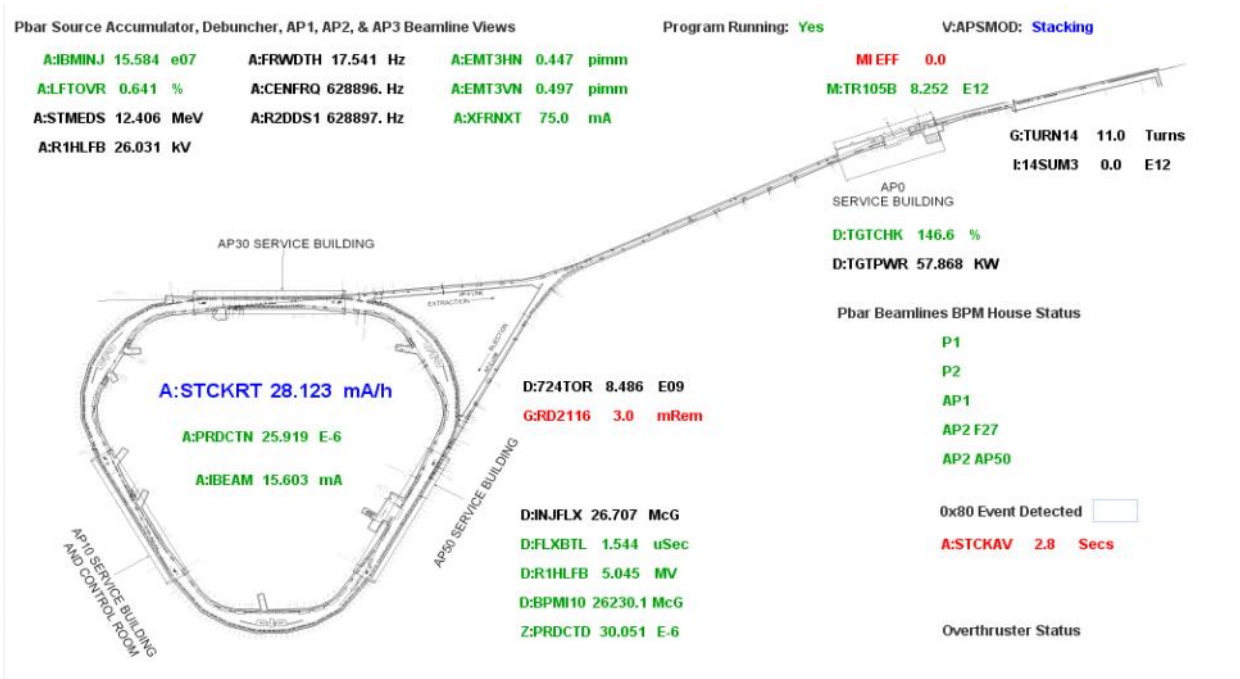
The Plots




Wed Oct 06 08:00:00 CDT 2010 -- Thu Oct 07 08:00:00 CDT 2010
Stack Size (mA)
Stack Parameters
Emittances (π mm mr)
Time
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
00:00
02:00
04:00
06:00
08:00
A:IBEAM
A:STCKRT
Hourly Rate
M:TOR109
A:PRDCTN
A:EMT3HN
A:EMT3VN
Ave Time between $81's


GxPA 1 Shots to Recycler
Thu 07-OCT-2010 07:22:01
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
.Mau
F:MW1SEM
.Safty ppp
A:STCKAV
oE_864 Secs
06 08:00
06 14:00
06 20:00
07 02:00
07 08:00
T1 = We 06-OCT-2010 08:00:00
T2 = Th 07-OCT-2010 08:00:00


GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 25940
+/- 4.9651
StdDev 648.11
Points 17039
A:STAKRT mA/h
Mean 26.573
+/- 0.036054
StdDev 1.429
Points 1571
A:PRDCTN E-6
Mean 24.966
+/- 0.047641
StdDev 1.3399
Points 791
M:TR105B E12
Mean 8.3225
+/- 0.00087014
StdDev 0.11367
Points 17065
T1=06-OCT-2010 08:00:00


Pbar Source Accumulator, Debuncher, AP1, AP2, & AP3 Beamline Views
Program Running: Yes
V:APSMOD: Stacking
A:IBMINJ 15.584 e07
A:FRWDTH 17.541 Hz
A:EMT3HN 0.447 pimm
A:LFTOVR 0.641 %
A:CENFRQ 628896. Hz
A:EMT3VN 0.497 pimm
A:STMEDS 12.406 MeV
A:R2DDS1 628897. Hz
A:XFRNXT 75.0 mA
A:R1HLFB 26.031 kV
MI EFF 0.0
M:TR105B 8.252 E12
G:TURN14 11.0 Turns
I:14SUM3 0.0 E12
AP0 SERVICE BUILDING
D:TGTCHK 146.6 %
D:TGTPWR 57.868 KW
AP30 SERVICE BUILDING
A:STCKRT 28.123 mA/h
A:PRDCTN 25.919 E-6
A:IBEAM 15.603 mA
D:724TOR 8.486 E09
G:RD2116 3.0 mRem
Pbar Beamlines BPM House Status
P1
P2
AP1
AP2 F27
AP2 AP50
0x80 Event Detected
A:STCKAV 2.8 Secs
D:INJFLX 26.707 McG
D:FLXBTL 1.544 uSec
D:R1HLFB 5.045 MV
D:BPMI10 26230.1 McG
Z:PRDCTD 30.051 E-6
AP50 SERVICE BUILDING
AP10 SERVICE BUILDING AND CONTROL ROOM
Overthruster Status

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 =>				379.56			365.03	96.17%	97.67%	97.99%	95.70%	49	16	4.9235	5.2008	1.9482
	Daily Average =>				379.56			365.03					49	16			
21105	Thursday, October 07, 2010	6:48	27.04	6.46	22.71	272.62	294.39	21.91	96.47%	97.91%	98.27%	96.22%	3	1	4.877	5.063	1.97
21104	Thursday, October 07, 2010	5:46	26.31	6.12	22.29	252.50	273.92	21.53	96.59%	97.69%	97.00%	94.77%	3	1	4.847	5.061	1.969
21103	Thursday, October 07, 2010	4:55	26.22	6.15	22.19	231.49	252.85	21.46	96.70%	99.04%	100.03%	99.08%	3	1	4.57	4.949	1.983
21102	Thursday, October 07, 2010	4:06	27.18	6.45	22.85	209.83	231.80	22.07	96.55%	97.03%	96.42%	93.56%	3	1	4.881	5.187	1.947
21101	Thursday, October 07, 2010	3:11	26.00	6.13	21.97	188.98	210.14	21.28	96.88%	99.15%	100.36%	99.51%	3	1	4.584	4.827	1.967
21100	Thursday, October 07, 2010	2:21	27.44	6.25	23.30	166.75	189.18	22.57	96.88%	96.90%	98.64%	95.58%	3	1	4.942	5.091	1.925
21099	Thursday, October 07, 2010	1:28	25.72	6.02	21.79	146.01	166.97	21.04	96.56%	99.11%	98.66%	97.77%	3	1	4.652	5.134	1.988
21098	Thursday, October 07, 2010	0:40	27.40	6.71	22.83	124.25	146.19	22.03	96.53%	98.22%	96.45%	94.73%	3	1	4.867	4.984	1.91
21097	Wednesday, October 06, 2010	23:46	26.04	6.06	22.31	102.86	124.40	21.62	96.91%	99.00%	100.49%	99.49%	3	1	4.615	5.217	1.971
21096	Wednesday, October 06, 2010	22:51	26.42	6.24	22.25	81.52	103.03	21.57	96.92%	98.54%	98.70%	97.25%	3	1	4.909	5.183	1.955
21095	Wednesday, October 06, 2010	22:01	26.24	6.57	21.76	60.65	81.65	21.10	96.98%	98.06%	98.72%	96.80%	3	1	5.1	5.153	1.855
21094	Wednesday, October 06, 2010	21:09	25.14	5.91	21.30	40.23	60.75	20.61	96.76%	97.54%	97.74%	95.34%	3	1	4.993	5.507	1.982
21093	Wednesday, October 06, 2010	20:10	46.10	6.43	43.14	0.42	40.37	40.48	93.82%	95.63%	96.35%	92.14%	4	1	6.714	6.489	1.908
21092	Wednesday, October 06, 2010	9:12	25.35	5.95	22.11	199.85	221.02	21.27	96.18%	98.06%	99.25%	97.33%	3	1	4.317	4.813	1.951
21091	Wednesday, October 06, 2010	8:18	25.91	5.73	22.79	178.53	200.14	21.73	95.37%	96.97%	96.94%	94.00%	3	1	4.958	5.205	1.959
21090	Wednesday, October 06, 2010	7:14	27.46	6.12	23.97	156.22	178.84	22.77	94.97%	95.94%	95.67%	91.78%	3	1	4.95	5.35	1.931