

## Stacking

- Stacking Numbers
  - Stacked 242mA
  - <stack rate> = 21.1 mA
  - <production> = 22.1 e-6/p
  - <beam on target> = 6.2 e 12
- At 10:38 the P1 line permit started to trip on I:HT702 too high. This was caused by the MI-52 kicker drooping in current, which was in turn related to increasing humidity in the building.
  - This was the first indication of a problem with the MI-52 kicker, which held off stacking through the afternoon and into the evening shift.
- GPIB issues at AP50 that was resolved by power cycling the Ethernet to GPIB interface box. A:IBPSI, D:IBPSI and A:LQPSI all had 57 -52 errors. These devices connect to ENET box [Pbar-GPIB-07](#) in rack B56R02 at AP50. This ENET box talks to ACNET through the AP5001 front end. No LED error codes were on the ENET box. Power cycled the ENET box and rebooted AP5001. After a 10 minute delay, everything came back to life.
  - Ran into further GPIB communication problems at AP10 that required a reboot of the AP001 front end. We had lost communication with Spectrum Analyzer #1 through P44 and the SA emulator.
  - Rebooting AP1001 broke OAC calculations on DCE11.
  - In addition DCE11 had to be restarted restore functionality of an OAC that calculates scope parameters.
- We have some lumberjack problems. Devices sampled on event in the PbarEH lumberjack (\$94s, \$99s and \$81s) are not collecting data.

## Transfers

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:BEAME0[0]) pre fer E10	Column 24 Number_23_R: BEAM (R:BEAME0[1]) post fer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	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>236.82</b>			<b>220.08</b>	<b>92.93%</b>	<b>77.59%</b>	<b>96.27%</b>	<b>24</b>	<b>11</b>	<b>5.8687</b>	<b>6.471</b>	<b>1.8921</b>	
13861	Wednesday, September 23, 2009	6:44	25.87	7.94	18.96	142.92	160.57	17.63	92.97%	96.23%	95.19%	2	1	5.968	6.354	1.872
13860	Wednesday, September 23, 2009	5:49	26.43	7.93	19.47	124.89	143.24	18.34	94.23%	97.00%	97.10%	2	1	5.872	6.558	1.88
13859	Wednesday, September 23, 2009	4:54	27.17	8.11	20.01	105.92	125.06	19.22	96.05%	48.12%	98.59%	2	1	4.64	5.307	1.867
13858	Wednesday, September 23, 2009	3:40	25.22	6.87	18.92	88.40	106.15	17.85	94.31%	95.93%	97.54%	2	1	5.18	5.563	1.822
13857	Wednesday, September 23, 2009	2:45	26.98	8.36	19.63	70.05	88.50	18.49	94.20%	18.46%	95.28%	2	1	5.626	6.636	1.888
13856	Wednesday, September 23, 2009	1:41	25.69	7.84	18.83	53.11	70.28	17.27	91.72%	53.97%	96.70%	2	1	6.272	6.454	1.864
13855	Wednesday, September 23, 2009	0:31	52.20	6.35	48.63	8.93	53.16	44.53	91.57%	84.75%	95.43%	4	1	6.294	6.432	1.932
13854	Tuesday, September 22, 2009	11:51	27.28	8.24	20.02	292.60	310.56	18.06	90.22%	95.05%	94.56%	2	1	5.211	6.263	1.881
13853	Tuesday, September 22, 2009	10:06	26.54	12.19	15.36	280.74	294.69	14.09	91.73%	60.05%	95.52%	2	1	7.294	7.856	1.971
13852	Tuesday, September 22, 2009	9:13	28.39	11.39	18.01	265.60	282.20	16.70	92.74%	95.90%	96.92%	2	1	6.526	7.323	1.948
13851	Tuesday, September 22, 2009	8:10	27.59	9.23	19.00	249.36	267.10	17.91	94.26%	96.46%	97.30%	2	1	5.673	6.425	1.888

- Unstacked 237 mA in 24 transfers over 11 sets.
  - Overall efficiency was 93% (still down 2-3%)
    - TBT looks good
    - Orbit looks good
    - Emittances are better
    - It would be helpful to have MI and RR also check to make sure there

- are not any problems further downstream.
- MI SBD intensities are still having issues.
- Made a small negative ARF4 to MIRF phase mismatch. Added 5-deg to A:R4MIPS.

## Requests

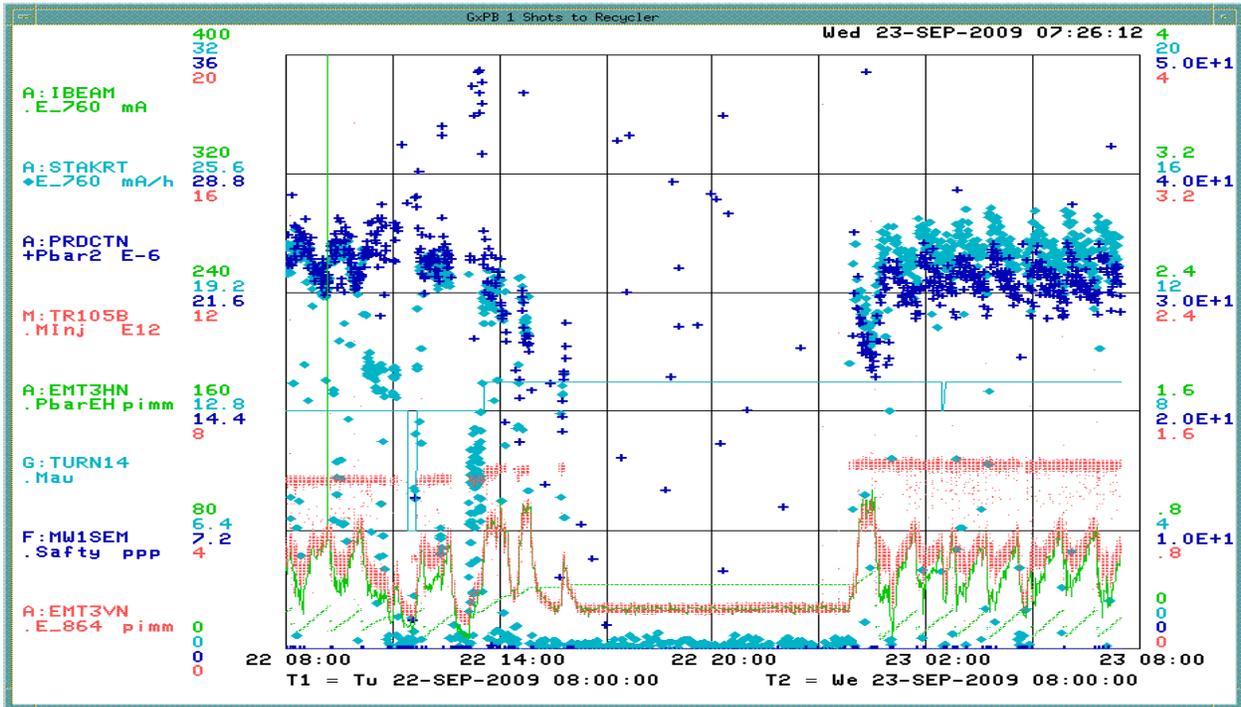
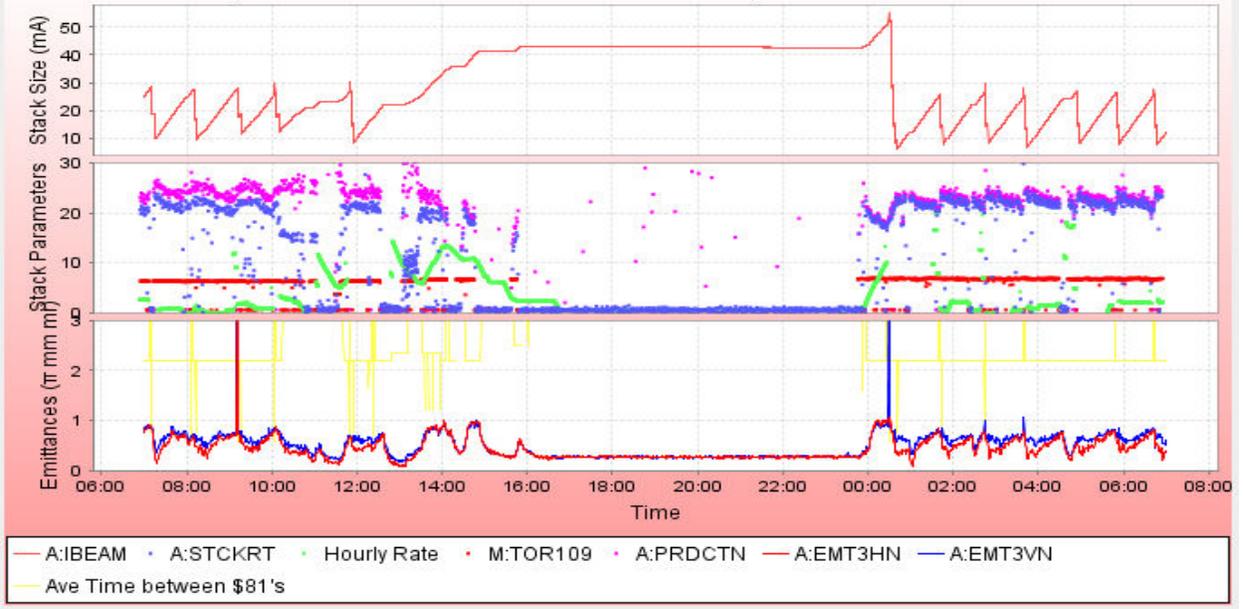
- Likely spin the beam that is left over in the Accumulator.
- May request beam studies later.
- Change the wet engine controller.

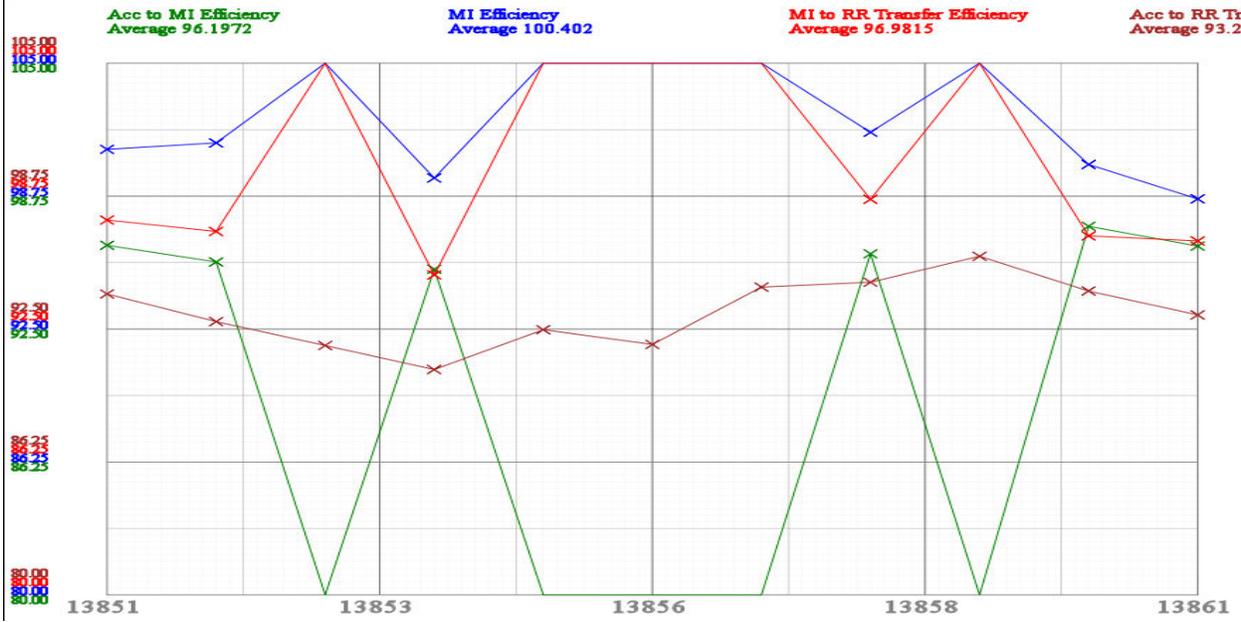
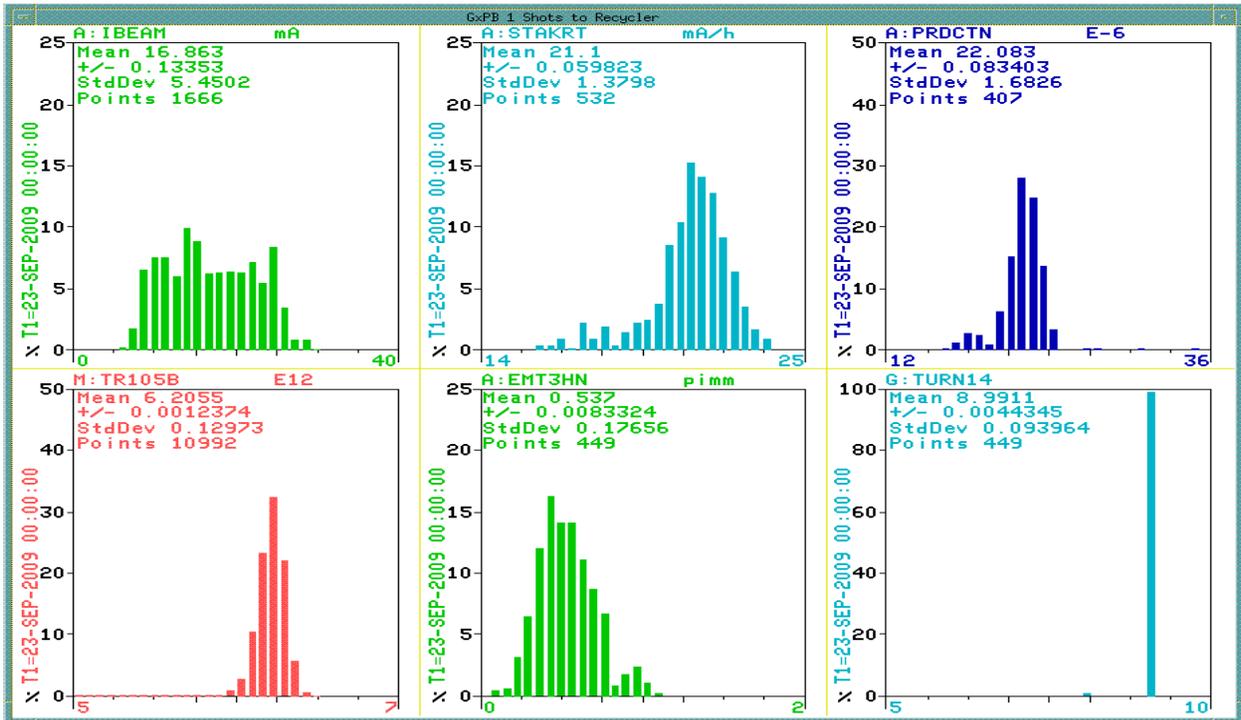
### The Numbers: 7am to 7am

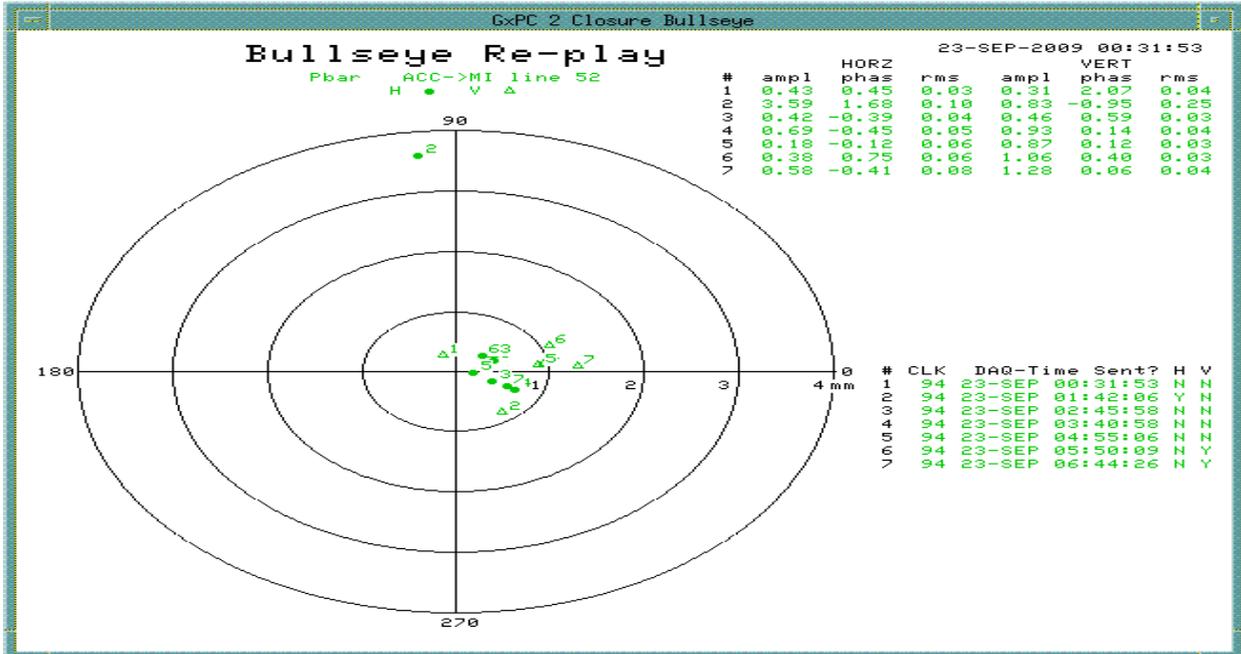
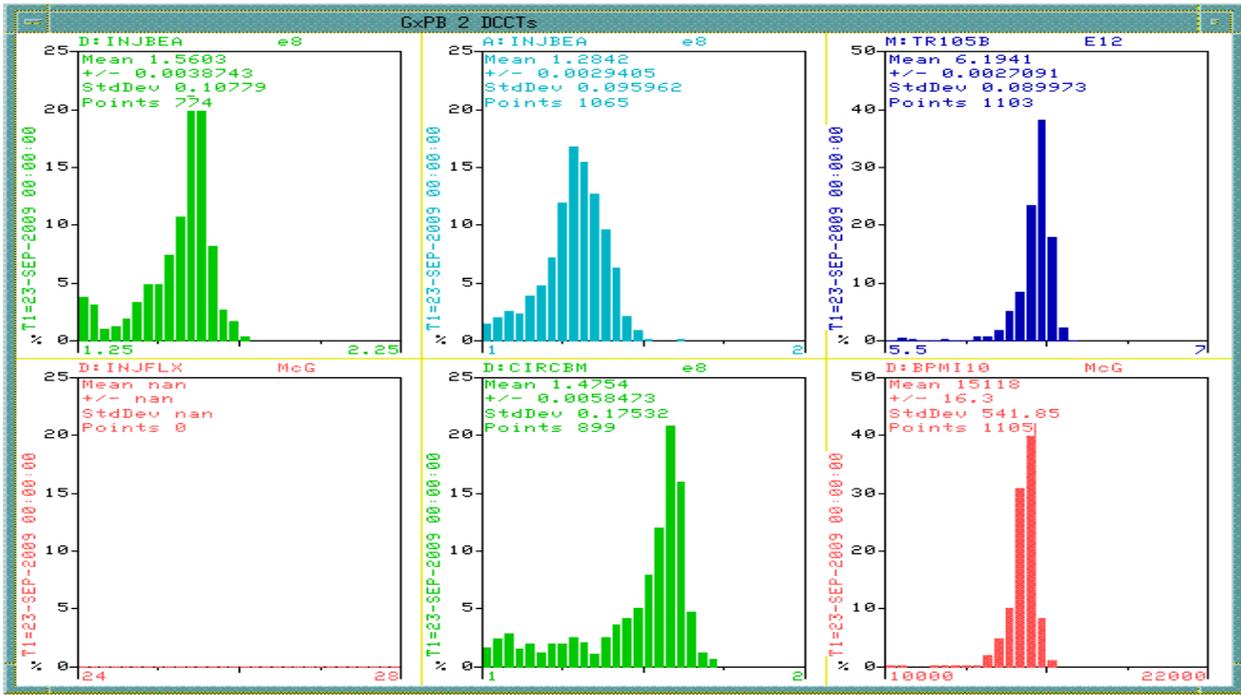
- Stacking
  - Pbars stacked: 242.50 E10
  - Time stacking: 14.73 Hr
  - Average stacking rate: 16.46 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 22341
  - Number of pulses with beam: 19201
  - Fraction of up pulses was: 85.95%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 12.66 Hr
  - Possible average stacking rate: 19.16 E10/Hr
  - Could have stacked: 282.16 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 255.61 E10
  - Number of transfers : 26
  - Number of transfer sets: 12
  - Average Number of transfer per set: 2.17
  - Time taken to shoot including reverse proton tuneup: 00.09 Hr
  - Transfer efficiency: 93.13%
- Other Info
  - Average POT : 5.97 E12
  - Average production: 21.16 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.
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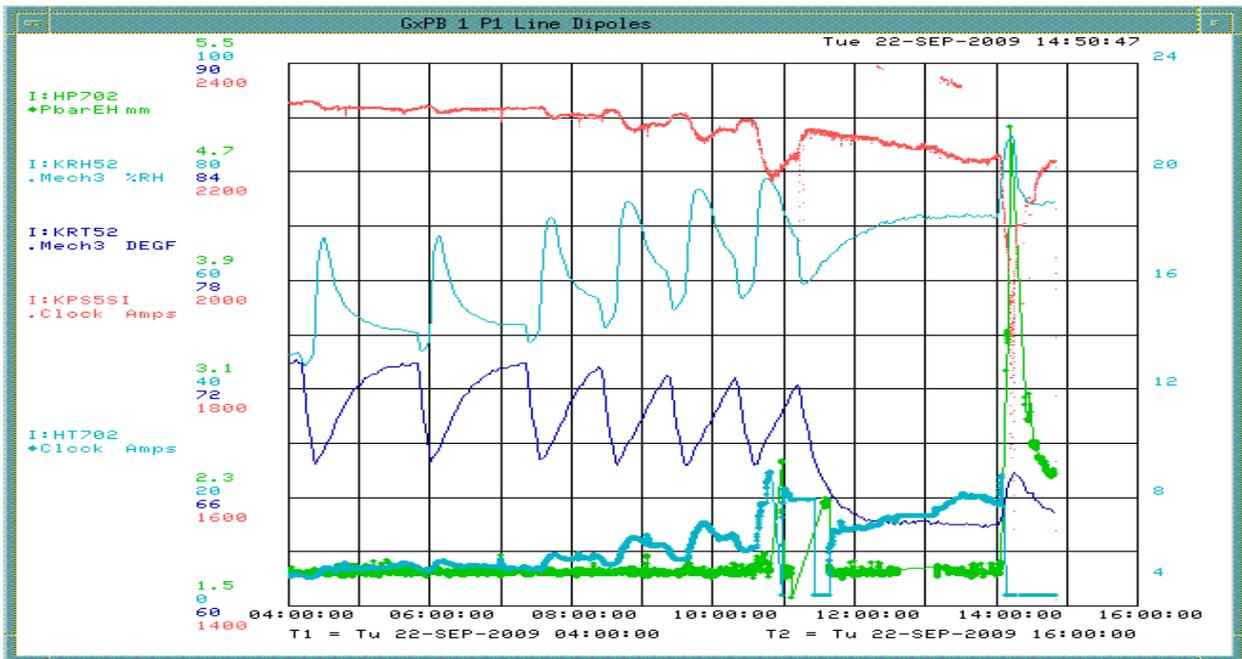
### Plots

Tue Sep 22 07:00:00 CDT 2009 -- Wed Sep 23 07:00:00 CDT 2009









Elogs

- MCR
- Pbar
- RunCo
- Cryo