

2011-06-09 Thursday Morning Notes

Thursday, June 09, 2011
7:39 AM

Stacking and Transfers

- Stacked 26.3mA/hr with an average production of 23.3 pbars/Mp with 8.19 Tp on target.
- Unstacked 521E10 in 57 transfers over 18 sets with an average overall efficiency of 95.4%.
 - Take out the three transfers > 30mA, (25151 31mA, 25146 46mA and 25143 78mA) we still only get 95.9%.

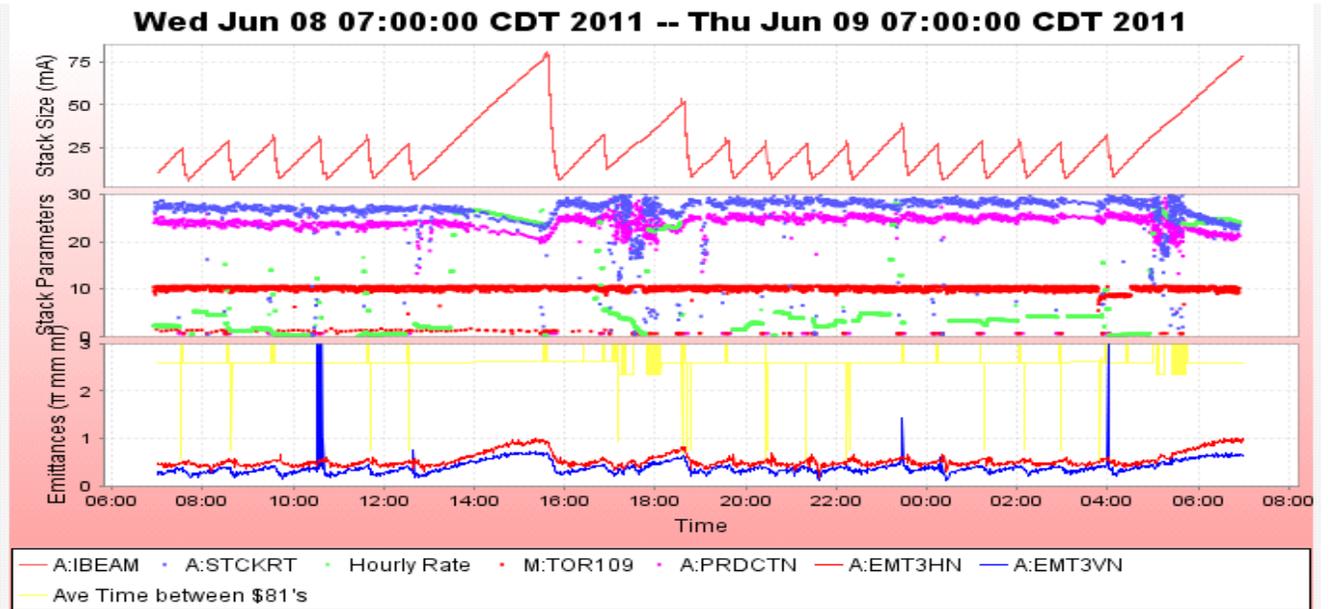
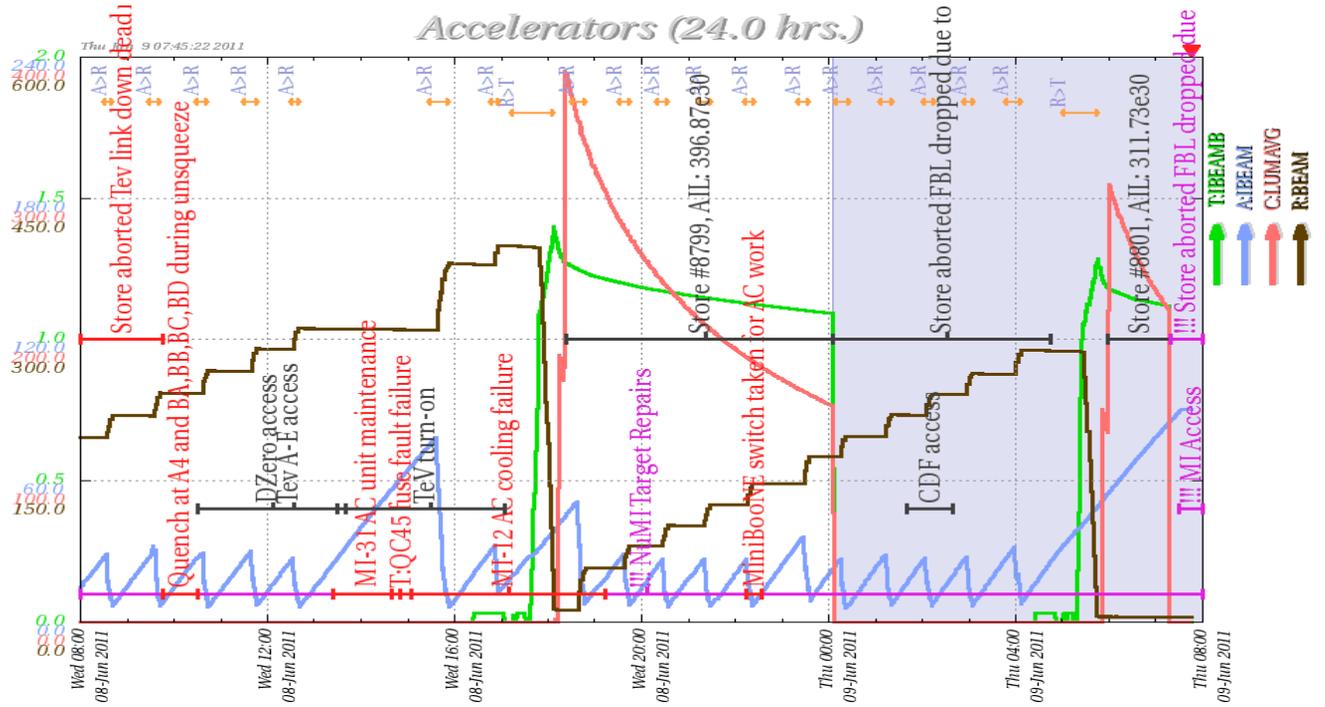
Operational Notes

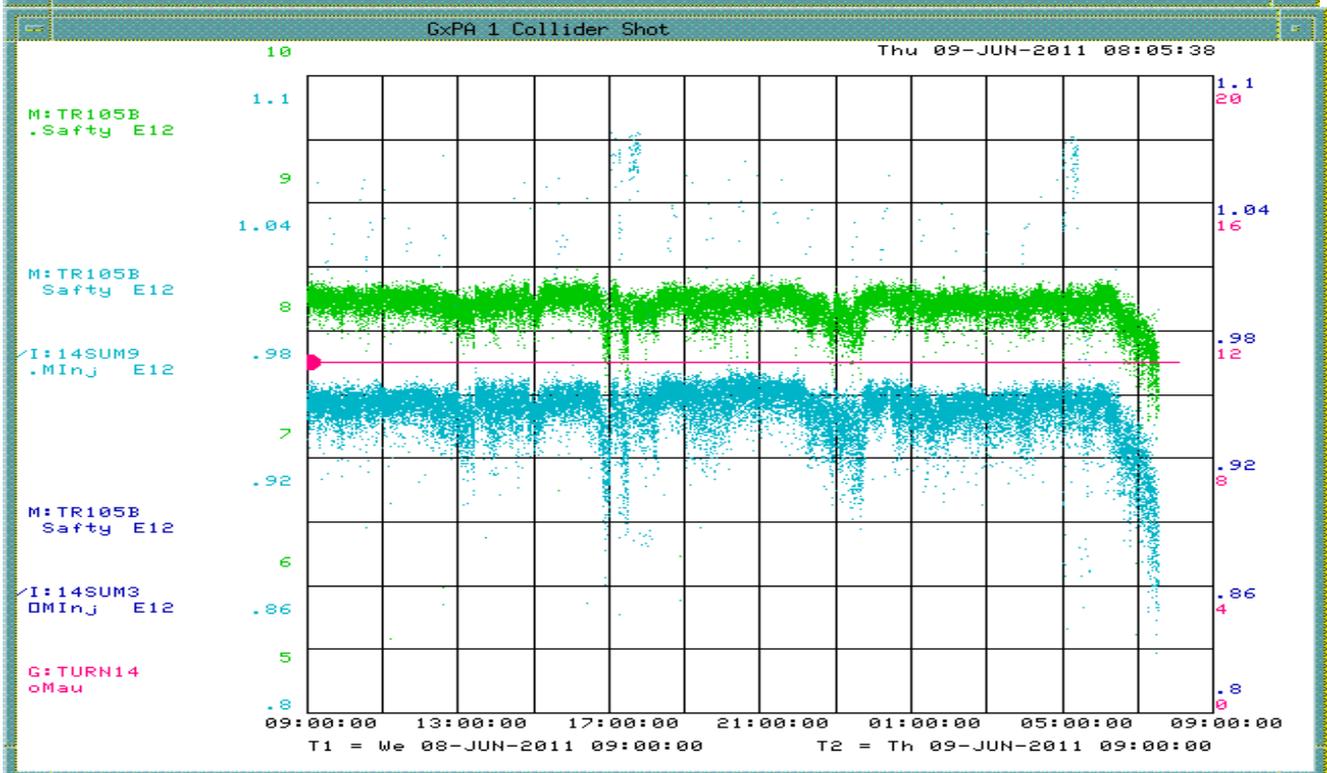
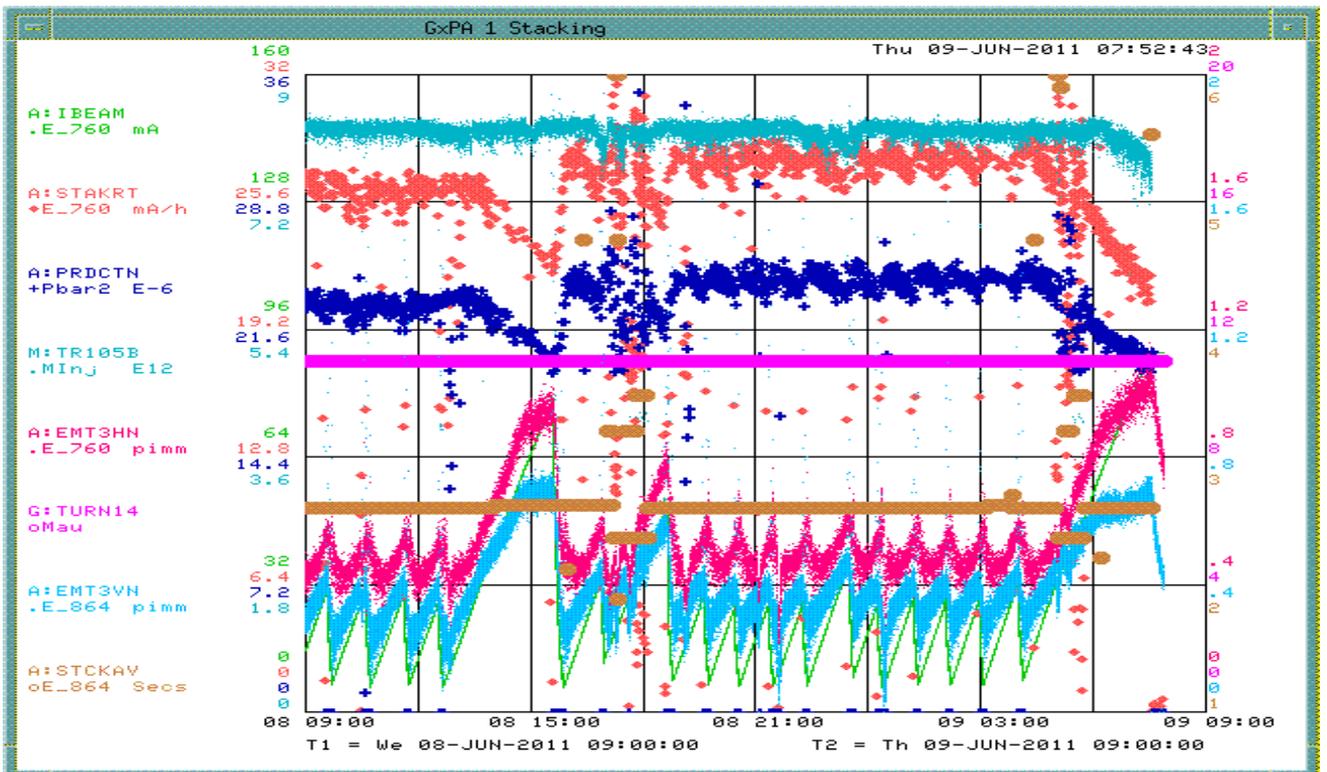
- B Sweeping system tripped and reset without incident
- The Pbar 95° LCW system has maintained temperature regulation throughout this weeks hot and humid weather. The recent Pbar HE9 heat exchanger cleaning and the fact we have run seven towers throughout appears to have helped. The web bulb temperature indicator from FESS has been between 70°F and 76°F since noon on Monday. Even with the high wet bulb temperatures, the heat exchanger temperature control valve has spent most of the time comfortably between 75% and 90% open, with a brief excursion where it got to 97% open.
- This morning running only 4.5 towers?
- A:V504 output is starting to drift. Not causing huge orbit excursions, so we can live with it for now.
- JPM made an accumulator orbit correction with a monster mult to fix a 1.5mm oscillation.
- Beam on target taking a nose dive at the end of shift?????

Numbers

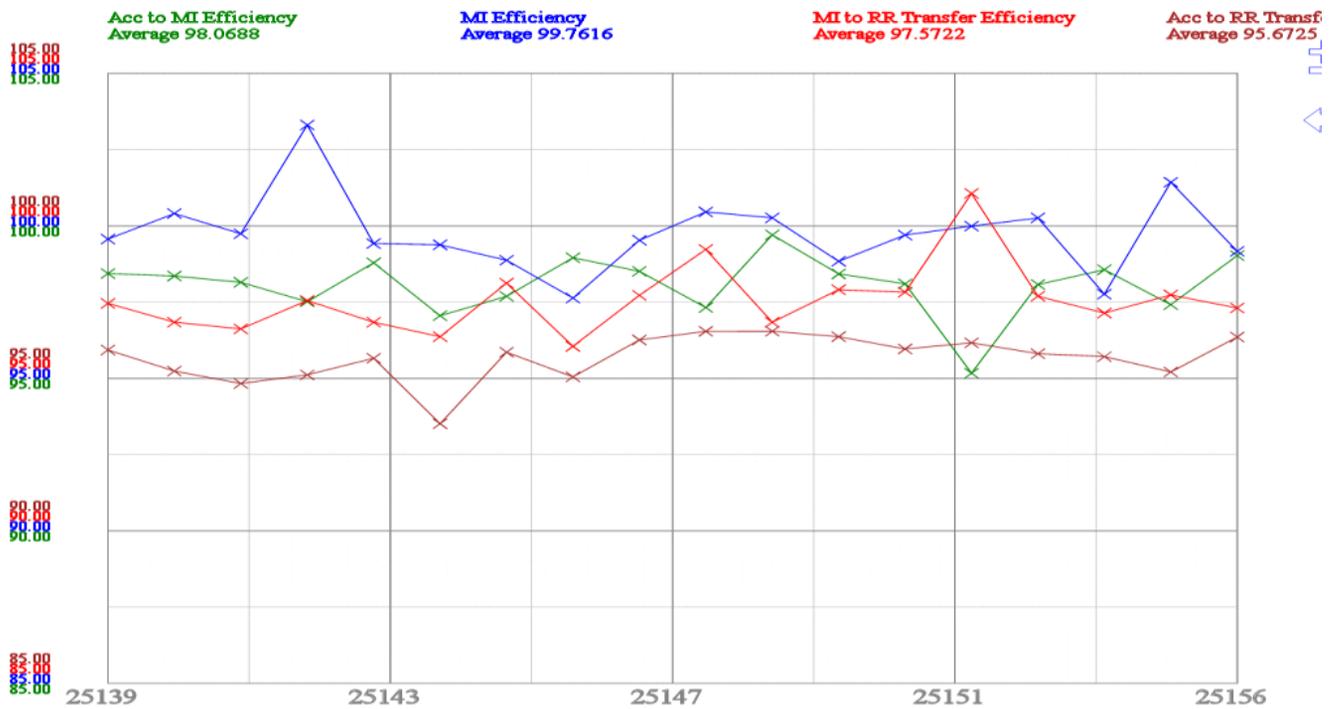
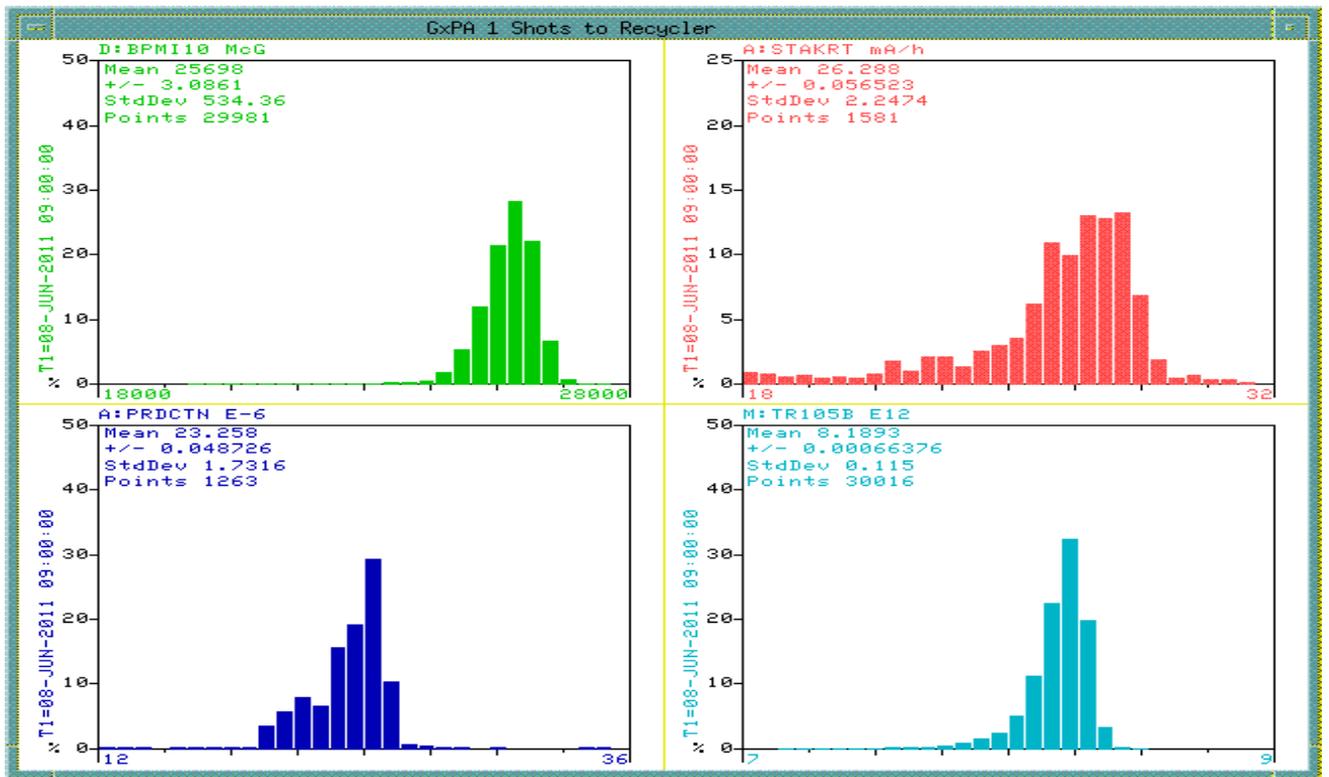
- Stacking
 - Pbars stacked: 590.40 E10
 - Time stacking: 23.55 Hr
 - Average stacking rate: 25.07 E10/Hr
- Uptime
 - Number of pulses while in stacking mode: 32165
 - Number of pulses with beam: 31630
 - Fraction of up pulses was: 98.34%
- The uptime's effect on the stacking numbers
 - Corrected time stacking: 23.16 Hr
 - Possible average stacking rate: 25.49 E10/Hr
 - Could have stacked: 600.38 E10/Hr
- Recycler Transfers
 - Pbars sent to the Recycler: 502.31 E10
 - Number of transfers : 55
 - Number of transfer sets: 18
 - Average Number of transfer per set: 3.06
 - Time taken to shoot including reverse proton tuneup: 00.19 Hr
 - Transfer efficiency: 95.17%
- Other Info
 - Average POT : 8.19 E12
 - Average production: 22.80 pbars/E6 protons

Plots

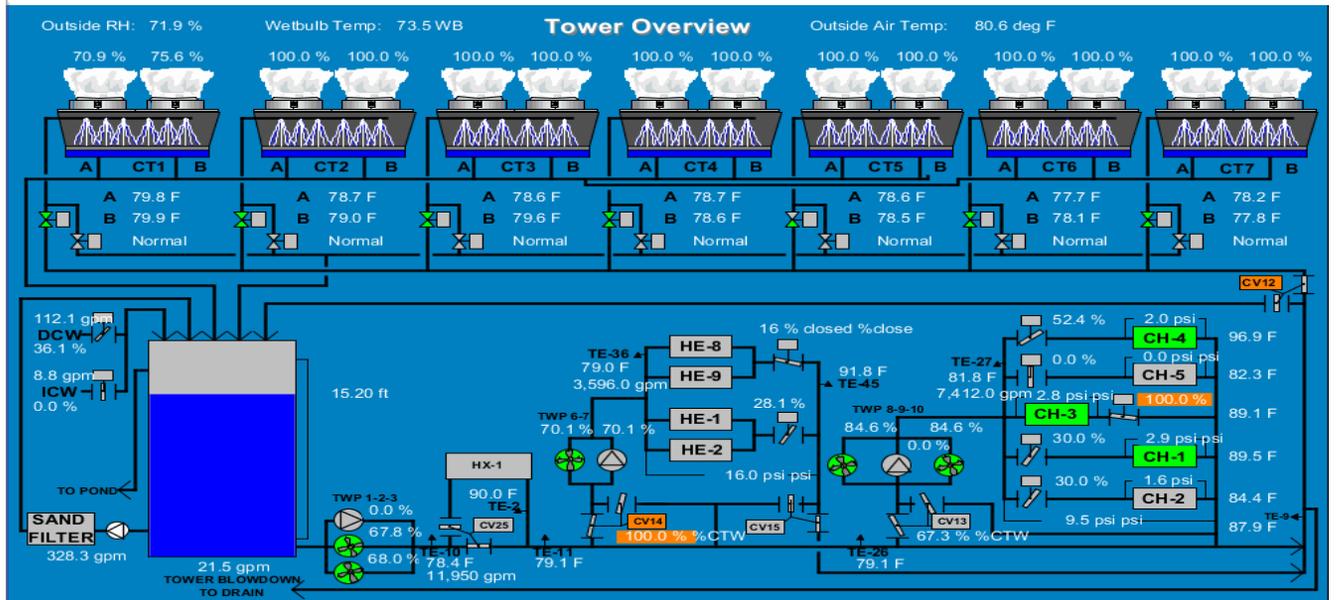
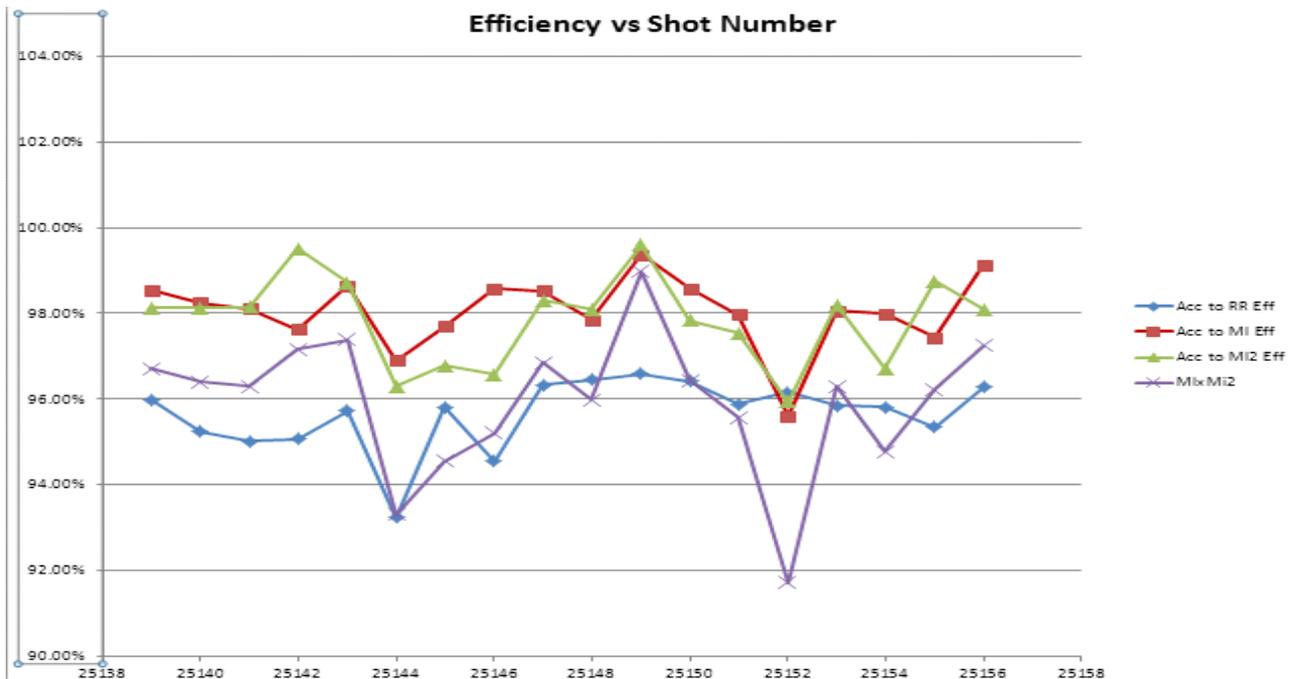


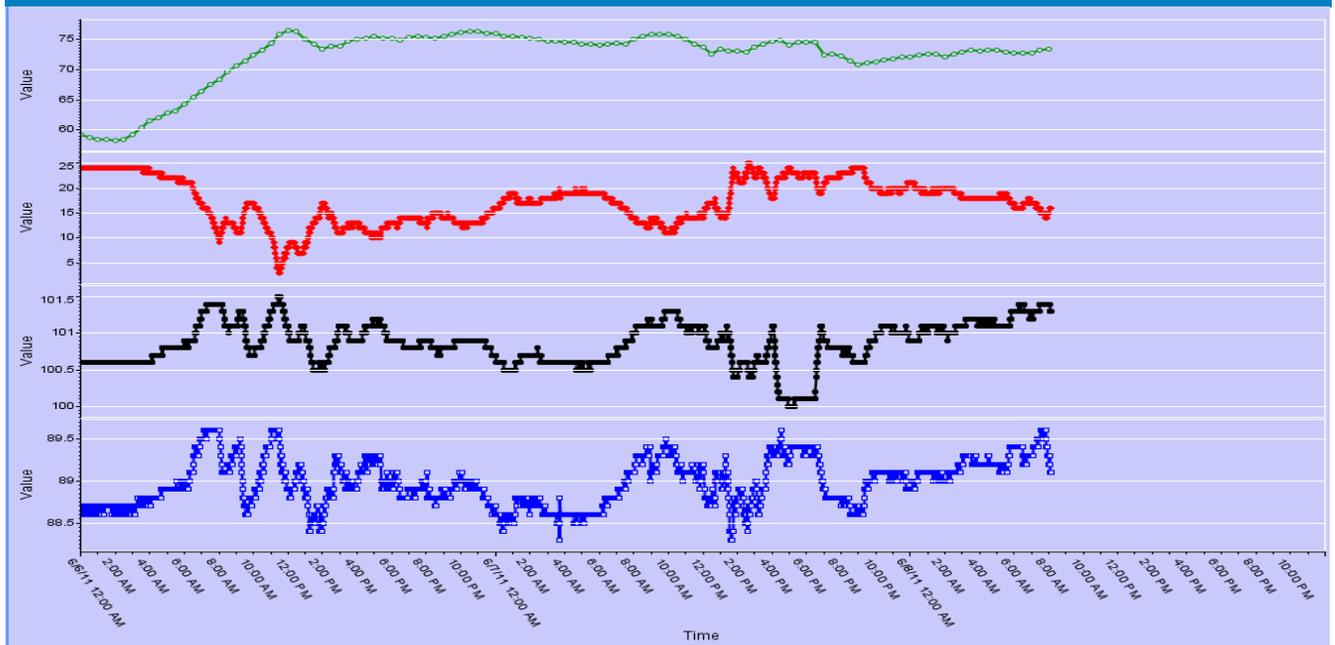
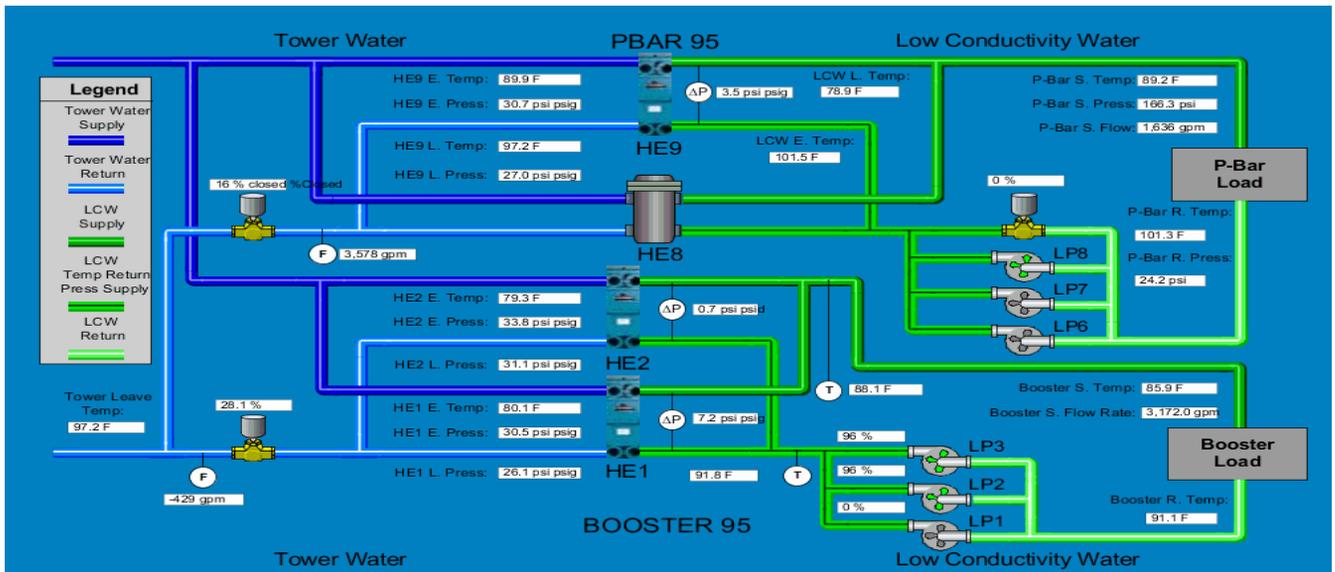


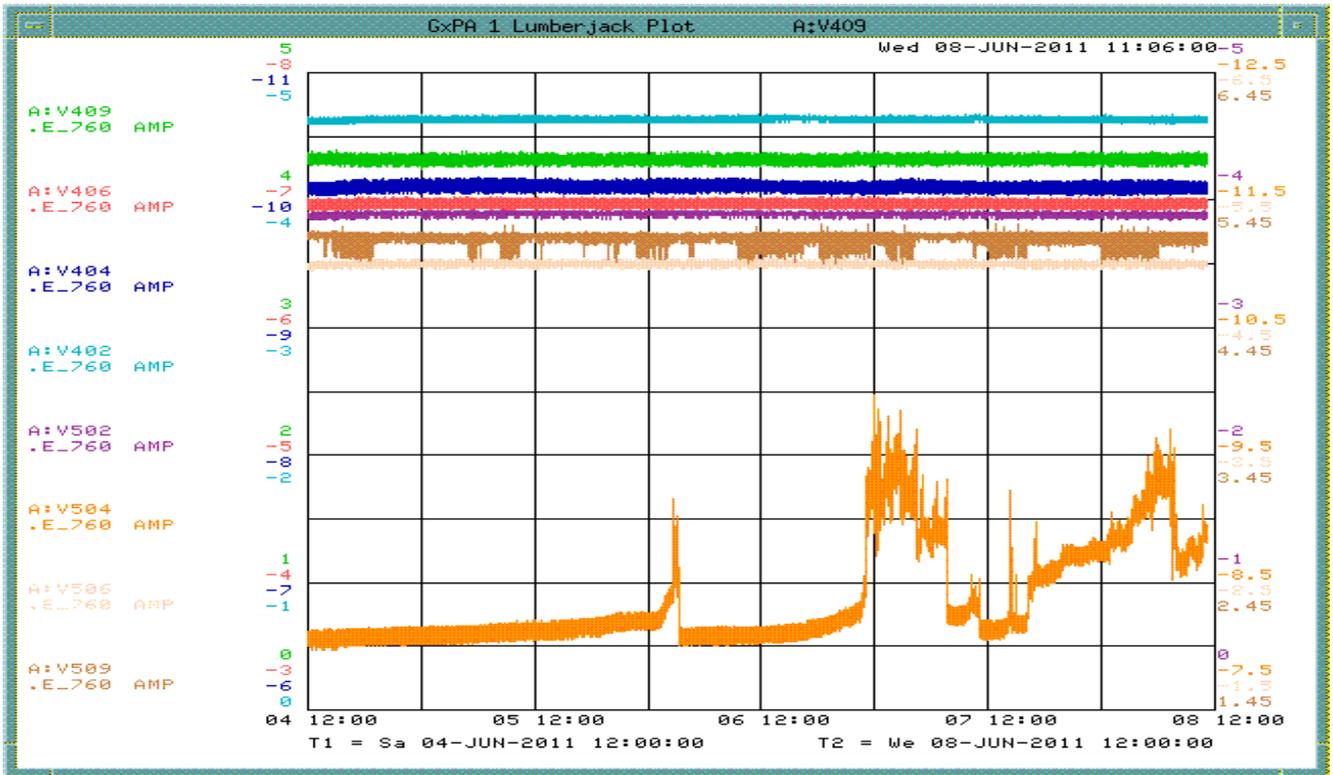
Beam on target dying at the end of shift



Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number_20_A:1 BEAMB sampled on #91 (A-BEA M7), E10	Column 22 Number_21_A:1 BEAMB sampled on #94 (A-BEA M9), E10	Unstacked (mA)	Column 23 Number_22_R:BEAMS (R-BEA ME0[0]) pre ster E10	Column 24 Number_23_R:BEAM (R-BEA ME0[1]) post ster, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	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 =>				521.80			497.52	95.35%	97.96%	97.64%	95.66%	57	18	5.0379	3.4268	1.9993	
Daily Average =>				521.80			497.52					57	18				
25156	Thursday, June 09, 2011	4:00	32.51	7.93	27.28	263.17	289.11	26.27	96.28%	99.13%	98.10%	97.25%	3	1	5.201	3.218	1.999
25155	Thursday, June 09, 2011	2:57	28.15	6.82	23.79	241.68	264.07	22.69	95.34%	97.44%	98.76%	96.23%	3	1	4.739	3.085	1.988
25154	Thursday, June 09, 2011	2:05	28.19	6.89	23.80	219.82	242.30	22.80	95.81%	97.99%	96.72%	94.78%	3	1	4.765	3.326	2.016
25153	Thursday, June 09, 2011	1:13	29.05	7.01	24.44	197.15	220.33	23.43	95.84%	98.06%	98.20%	96.29%	3	1	4.974	3.469	1.999
25152	Thursday, June 09, 2011	0:15	27.19	6.24	23.37	175.39	197.60	22.47	96.15%	95.60%	95.93%	91.71%	3	1	4.716	3.142	2.019
25151	Wednesday, June 08, 2011	23:29	37.08	8.82	30.65	146.62	175.76	29.39	95.88%	97.97%	97.55%	95.56%	3	1	5.203	3.902	1.98
25150	Wednesday, June 08, 2011	22:16	27.46	6.66	23.18	124.68	146.92	22.35	96.42%	98.58%	97.83%	96.44%	3	1	4.845	3.2	2.01
25149	Wednesday, June 08, 2011	21:21	27.38	6.60	23.18	102.63	124.91	22.39	96.59%	99.38%	99.60%	98.98%	3	1	4.68	3.272	2.036
25148	Wednesday, June 08, 2011	20:27	26.93	6.51	22.87	80.93	102.87	22.06	96.45%	97.86%	98.09%	95.99%	3	1	4.961	3.528	2.011
25147	Wednesday, June 08, 2011	19:38	29.47	7.00	24.90	57.29	81.10	23.98	96.33%	98.52%	98.31%	96.85%	3	1	5.126	3.423	2.024
25146	Wednesday, June 08, 2011	18:38	51.86	7.89	47.44	13.17	57.62	44.85	94.54%	98.58%	96.57%	95.20%	4	1	6.103	4.221	1.971
25145	Wednesday, June 08, 2011	16:52	33.06	12.43	21.96	379.33	400.17	21.04	95.81%	97.70%	96.78%	94.55%	2	1	5.309	3.815	1.963
25144	Wednesday, June 08, 2011	15:37	78.84	6.16	78.12	310.22	381.39	72.83	93.23%	96.90%	96.29%	93.31%	6	1	6.352	4.174	1.932
25143	Wednesday, June 08, 2011	12:33	27.75	6.09	23.83	289.61	312.12	22.81	95.72%	98.65%	98.72%	97.39%	3	1	4.651	3.062	2.017
25142	Wednesday, June 08, 2011	11:39	30.47	6.91	25.84	266.25	290.57	24.57	95.07%	97.63%	99.51%	97.16%	3	1	4.918	3.031	1.995
25141	Wednesday, June 08, 2011	10:37	29.86	6.18	25.94	242.81	267.19	24.65	95.01%	98.12%	98.14%	96.29%	3	1	4.866	3.211	1.994
25140	Wednesday, June 08, 2011	9:35	30.69	6.84	26.18	218.96	243.59	24.93	95.25%	98.24%	98.12%	96.40%	3	1	4.565	3.398	2.019
25139	Wednesday, June 08, 2011	8:34	29.40	6.65	25.03	195.82	219.62	24.02	95.98%	98.55%	98.13%	96.71%	3	1	4.708	3.205	2.015







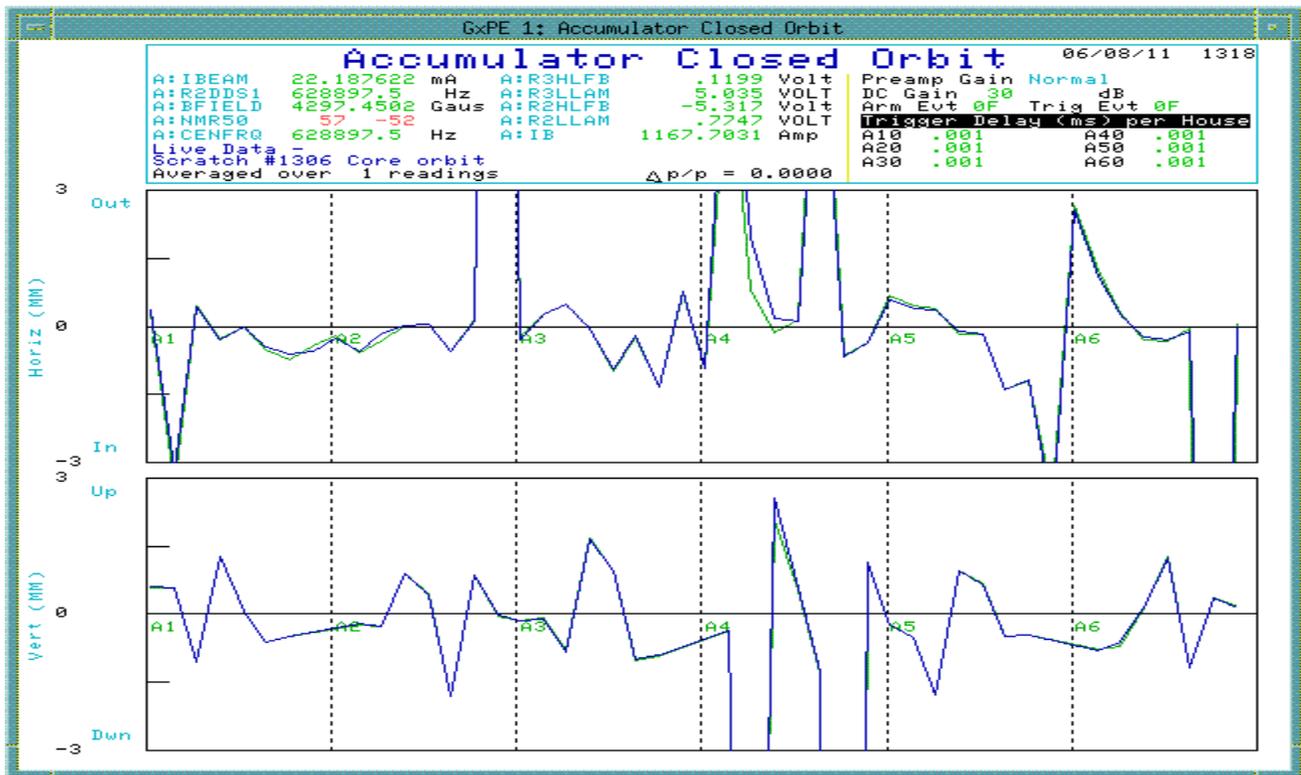
PE P60 POWER SUPPLY PARAM

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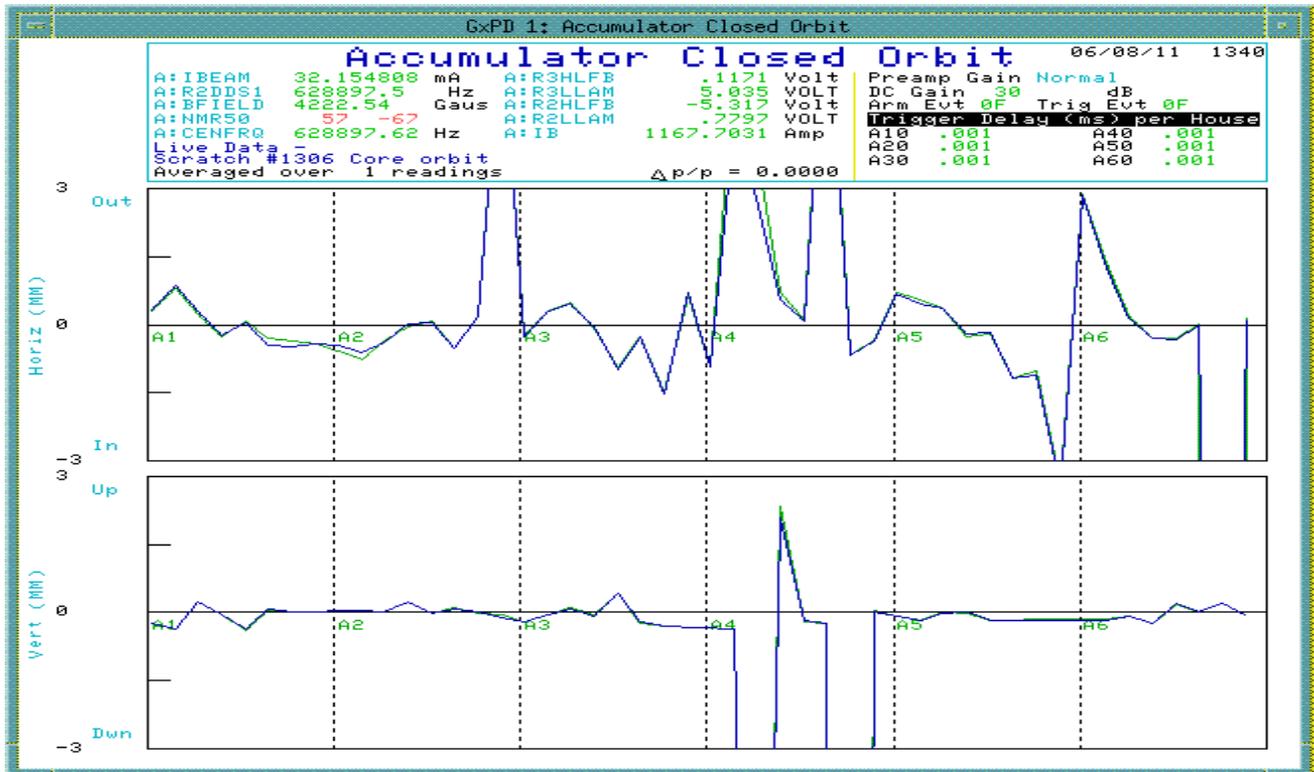
P60 AP10 TRIMS SET D/A A/D Con-U *PTools*
-<FTP>+ *SA+ X-A/D X=TIME Y=A:STCKRT, A:PRDCTN, TRP28
COMMAND ---- Eng-U I= 0 I= 0 , 0 , -8
-< 2>+ One+ AUTO F= 600 F= 32 , 32 , 28 , 8
ACC10 acc30 acc50 deb10 deb30 deb50 protn inj dtoa ext bostr

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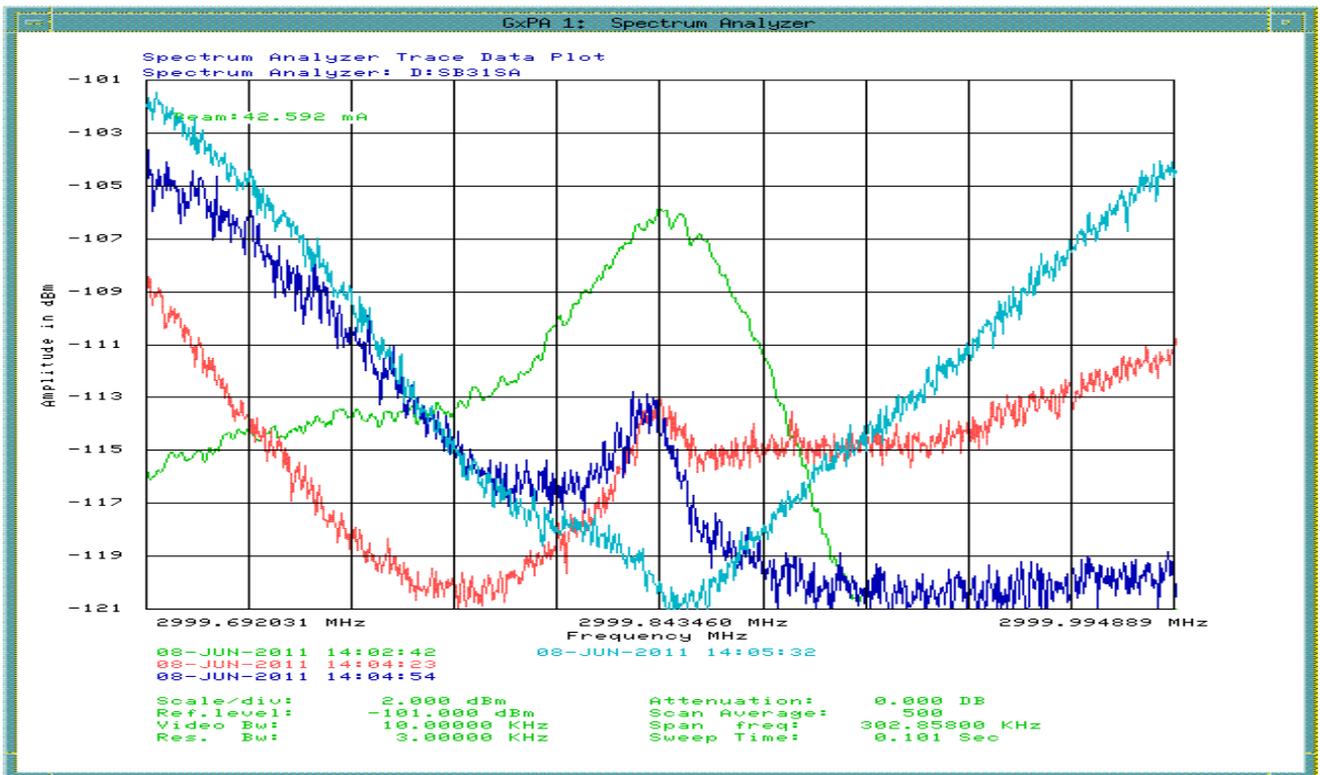
Channel	Parameter	Value 1	Value 2	Value 3	Value 4	Unit
-A:VT104	Pbar Acc Vert Trim	-16.32	-16.89	*-16.87		Amps
-A:VT106	Pbar Acc Vert Trim	-12.23	-11.76	*-11.74		Amps
-A:VT109	Pbar Acc Vert Trim	9.79	9.482	* 9.483		Amps
-A:V206	A206-V 25A/25V C	.187	1.1	* 1.087		AMP
-A:V204	A204-V 25A/25V C	-13.44	-12.9	*-12.08		AMP
-A:V202	A202-V 25A/25V C	-6.75	-6	*-6.013		AMP
-A:V304	A304-V 25A/25V C	-9.375	-10.01	*-9.976		AMP
-A:V309	A309-V 25A/25V C	10	9.5	* 9.449		AMP
-A:V404	A404-V 25A/25V C	-10.12	-10.8	*-10.73		AMP
-A:V502	A502-V 25A/25V C	-4	-3.538	*-3.438		AMP
-A:V504	A504-V 25A/25V C	-8.425	-7.537	*-7.301		AMP
-A:V506	A506-V 25A/25V C	-5.037	-4.475	*-4.426		AMP
-A:V509	A509-V 25A/25V C	5.075	4.713	* 4.812		AMP
-A:VT606	Pbar Acc Vert Trim	-3.099	-2.704	*-2.701		Amps



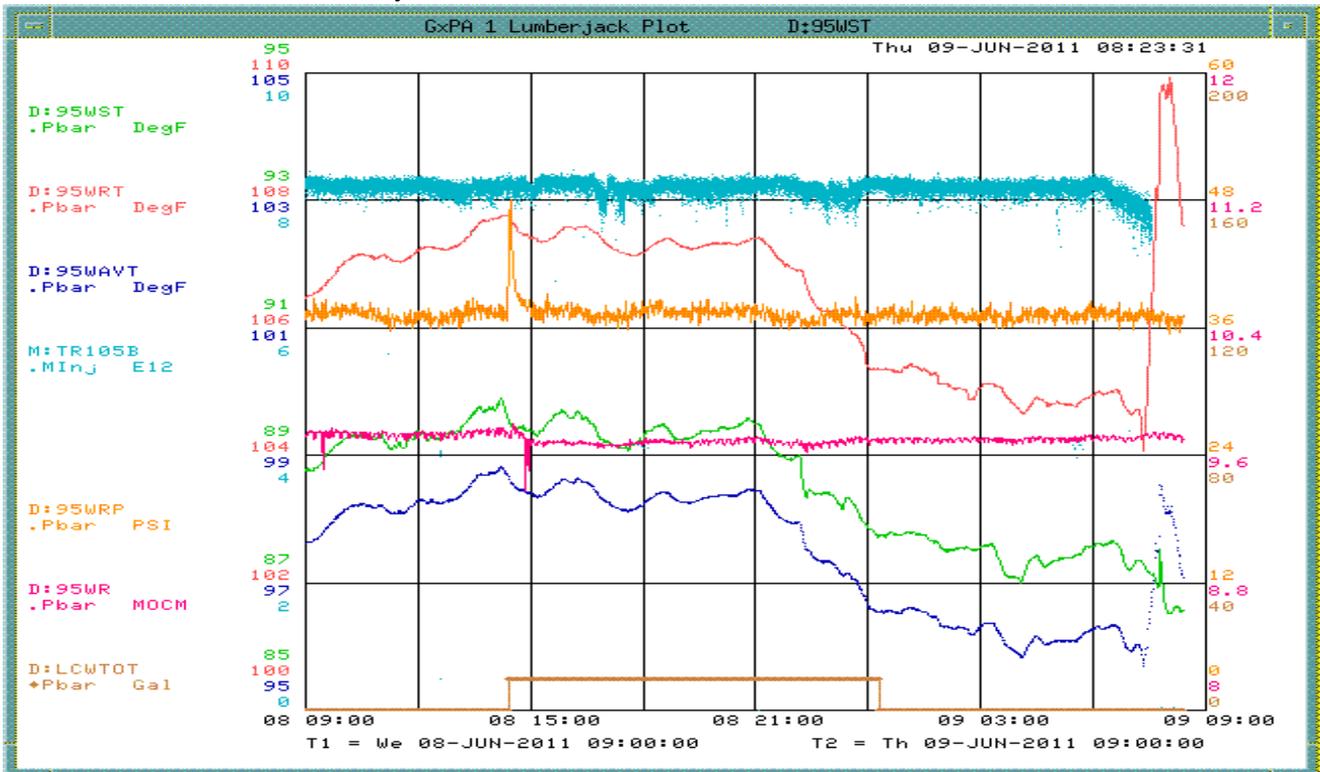
Vertical orbit is on bottom - start

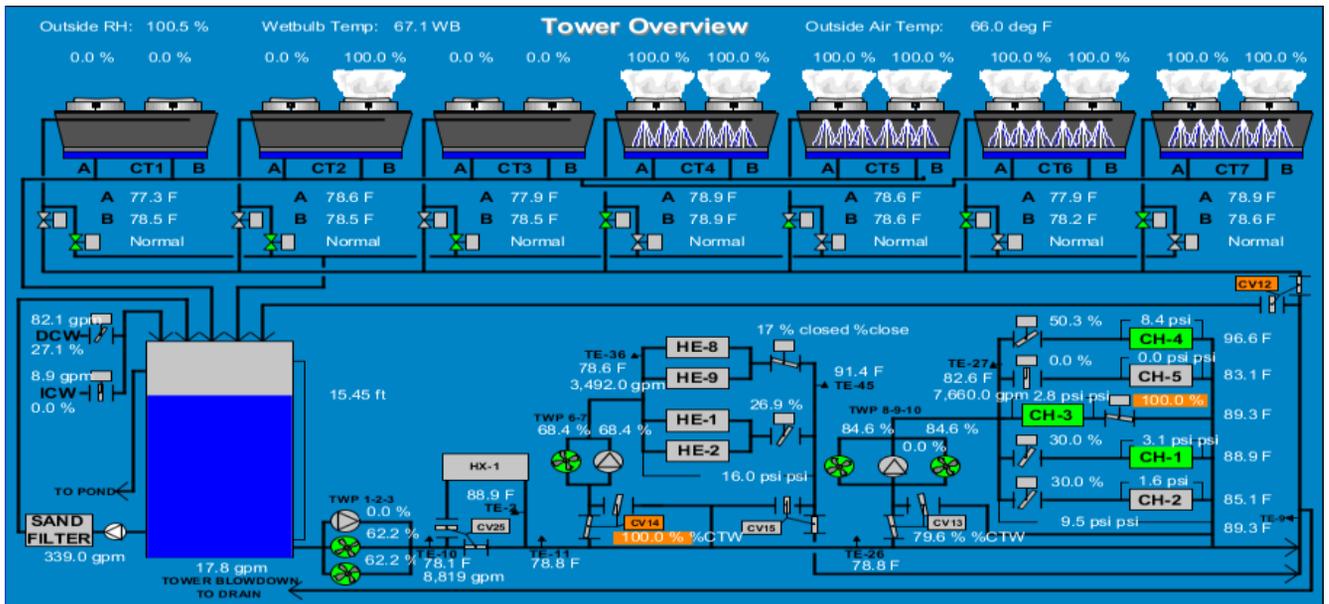


Vertical orbit on the bottom - after mult

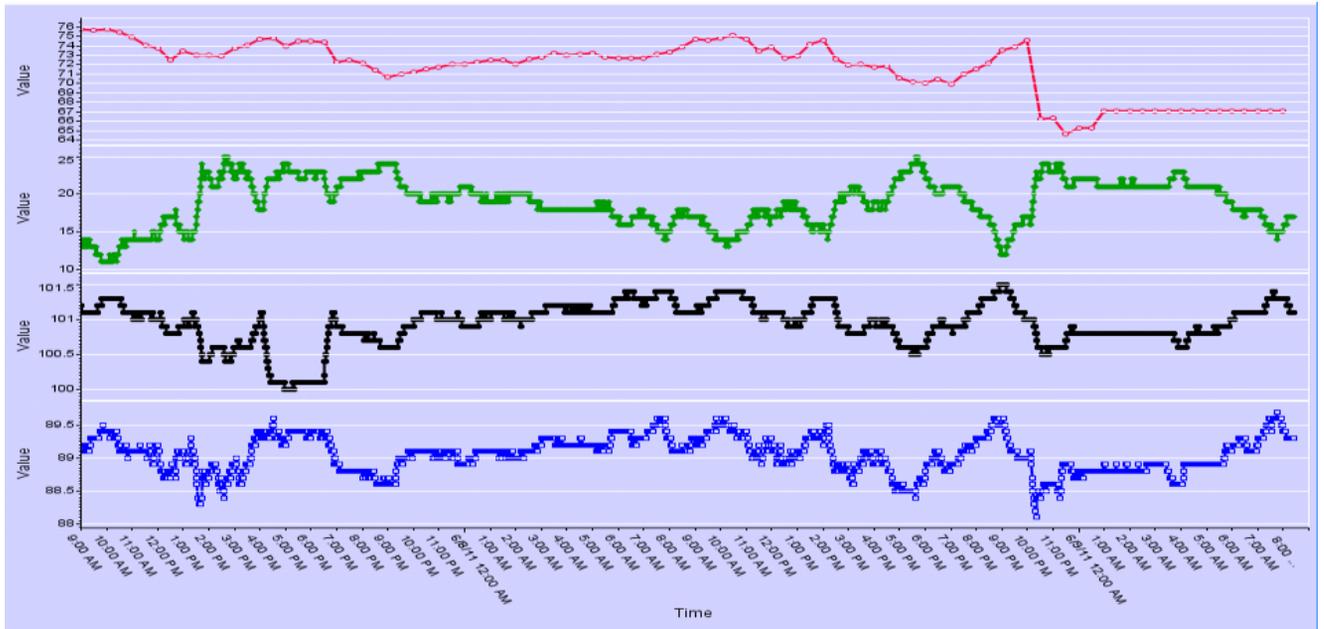


Stacktail Filters - notch #1 was adjusted.





Current



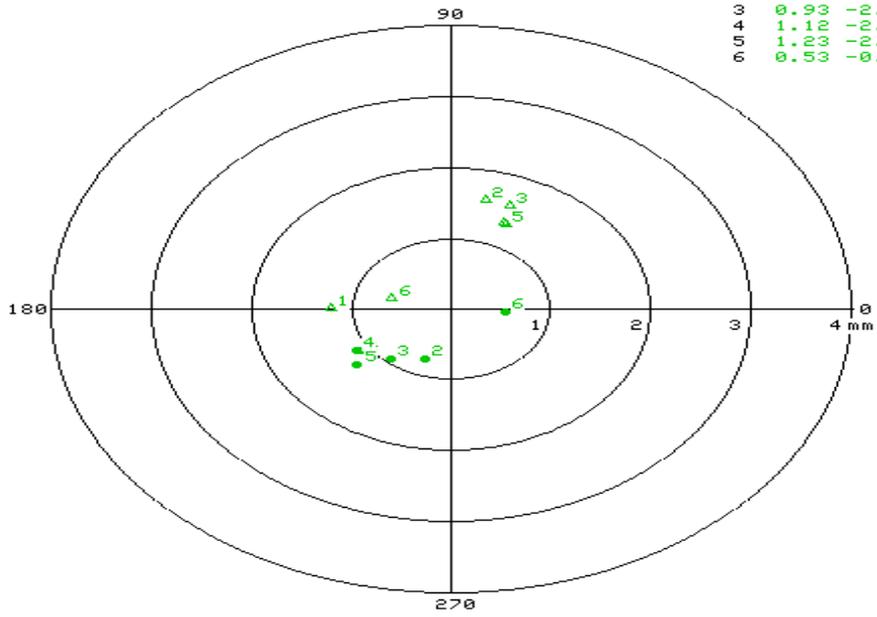
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<input checked="" type="checkbox"/>		214PBR95 LCWST.CUB PBAR95 LCW SUPPLY TEMP	FESS-CNTRLS-CUB:NAE4/N2-1.NC22-HW DX-2.214PBR95 LCWST.Trend1
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Bullseye Re-play

Pbar ACC->MI line 52
 H ● V Δ

08-JUN-2011 23:29:17

#	HORZ			VERT		
	ampl	phas	rms	ampl	phas	rms
1	1.08	-2.57	0.07	1.21	3.13	0.02
2	0.76	-1.93	0.02	1.57	1.35	0.03
3	0.93	-2.29	0.03	1.55	1.19	0.03
4	1.12	-2.59	0.02	1.31	1.17	0.02
5	1.23	-2.45	0.03	1.30	1.15	0.03
6	0.53	-0.07	0.02	0.61	2.91	0.04



#	CLK	DAQ-Time	Sent?	H	V
1	94	08-JUN 23:29:17	Y	Y	
2	94	09-JUN 00:15:41	Y	Y	
3	94	09-JUN 01:13:48	Y	Y	
4	94	09-JUN 02:05:52	Y	Y	
5	94	09-JUN 02:57:55	Y	Y	
6	94	09-JUN 04:00:24	Y	Y	