

Period From: Fri, 06 Aug 2004 11:30 To: Fri, 13 Aug 2004 11:30

Calculated At: Fri, 13 Aug 2004 11:28

Length of time excluding scheduled MD: 144.00 hours

**** Efficiency of PS/SPS

a: Total SPS Circle (exclude scheduled MD): 31016.0
b: SPS spill with T6 current >30.0: 25654
c: Sum of T6 current 3136820.7
d: (=b/a) PS/SPS Efficiency: 82.7%

SPS: 82.7%

Phys: 84.2%

Total: 69.7%

**** Muon Beam In HALL 888

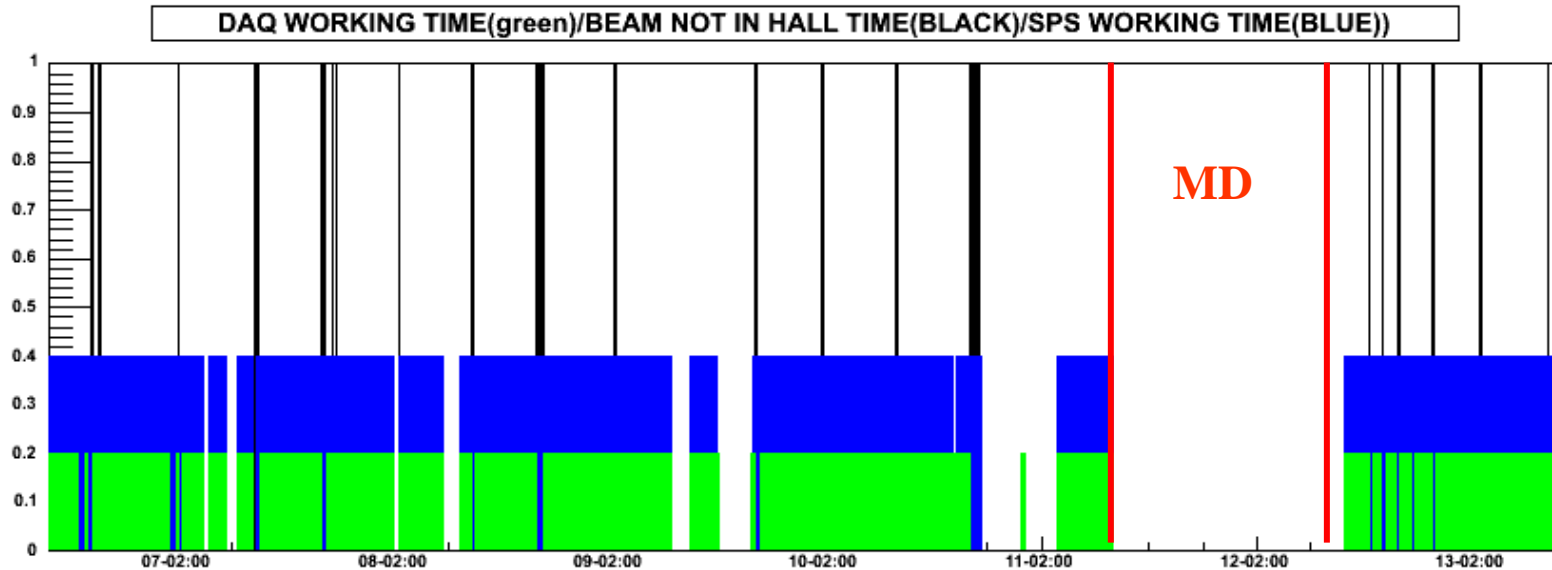
f: SPS spill In Hall with Muon Count >100000.0: 24641
g: Sum of In Hall Muon Count: 4662001348460.0
h: (=f/b) SPS Spill Get in 888: 96.1%

Distribution of used spills:

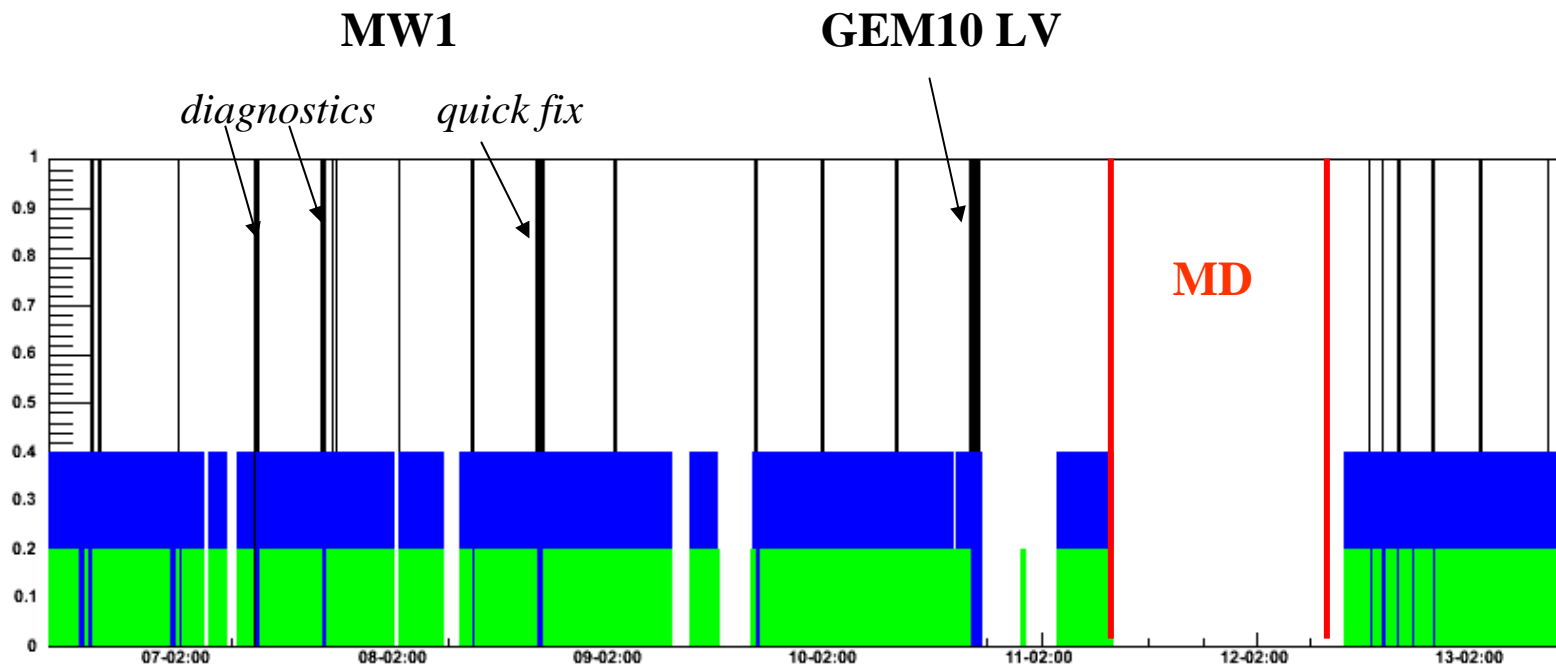
field_rotation runs used 709 spills, 3.3%
physics- runs used 10812 spills, 50.5%
physics+ runs used 9723 spills, 44.5%
detector_test runs used 160 spills, 0.7%
DAQ_test runs used 60 spills, 0.3%
alignment runs used 114 spills, 0.5%

**** Use of SPS/Inhall Spill in COMPASS

i: Spill used with ion chamber counting >100.0: 21604
j: (=i/f) Inhall spill used: 87.8%
k: (=i/b) SPS spill used: 84.2%

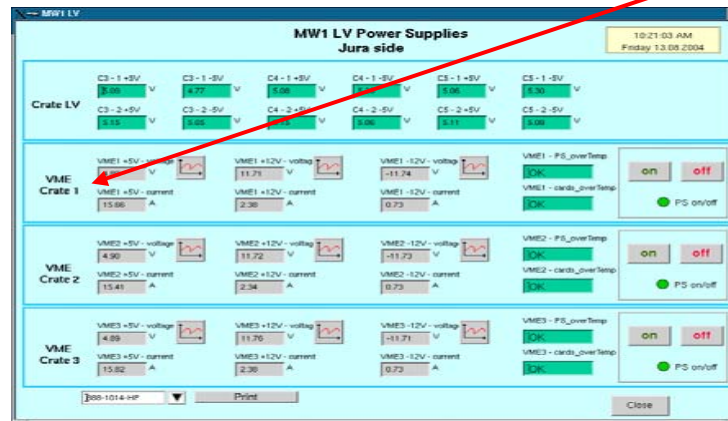


Hall accesses during 18h field rotation (to fix overheating problems)



MW1 overheating problem

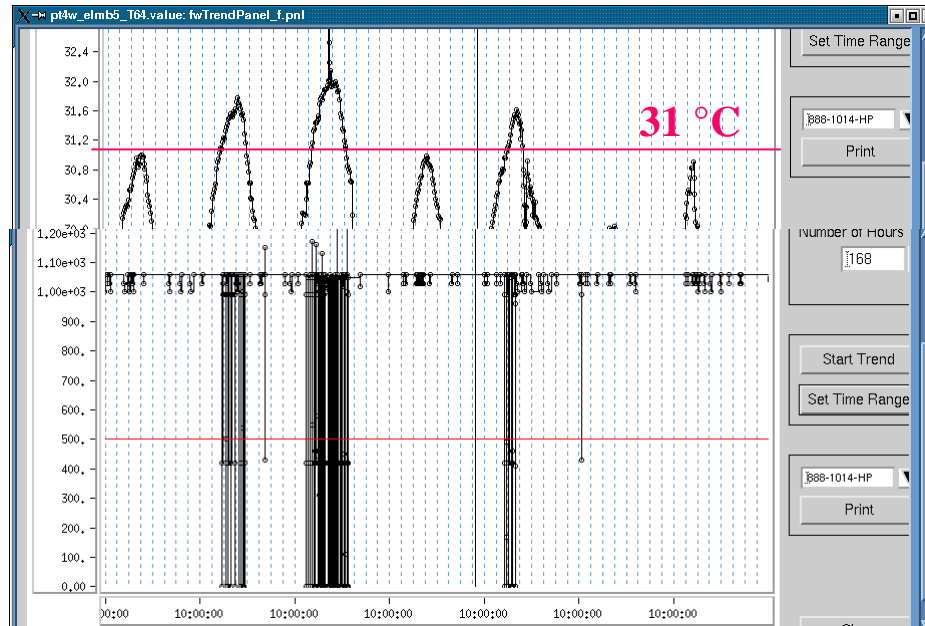
- First appears on Friday 6 afternoon; symptom: VME crate Trip + MTV errors



- Saturday afternoon: again a lot of MW1 VME crate 1 trips: 1st tentative fix with adding big fan in front of crate 1 fails - PVSS ELMB mismatch
- Sunday afternoon: move big fan to right crate (3) cures problem
- Wednesday (MD): source of problem is fans blocked in VME fan trays, all cleaned.

GEM10U overheating problem

- First appears on Saturday 7 afternoon; symptom: GEM10U LV trip + MTV errors



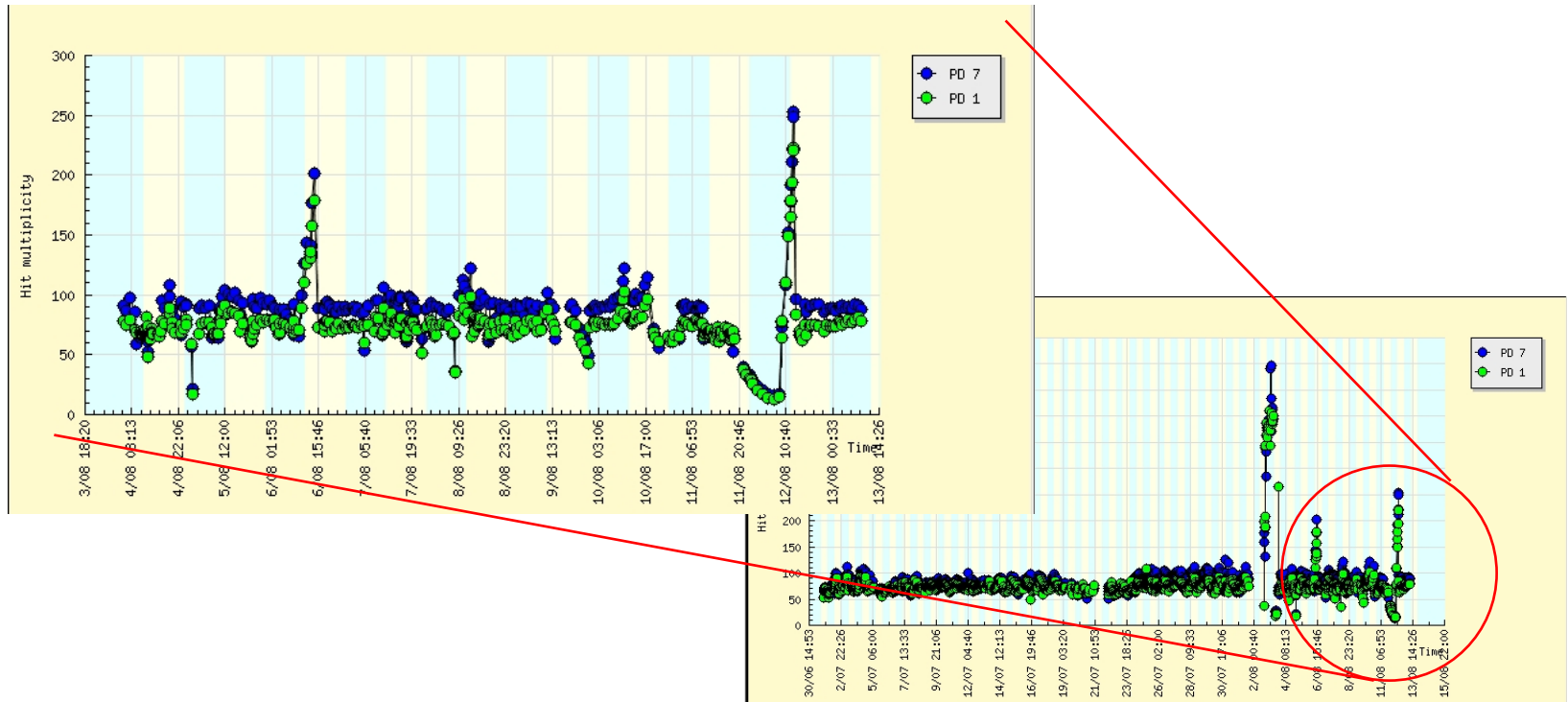
Temp Hall SM2

GEM10U LV

- Clear correlation with Temp Hall > 31 C
- Tuesday afternoon: GEM10U LV not optimally cooled in Caen crate, tried to screen empty slots.
- Wednesday MD: moved above crate up to have more air flow around Caen crate

Other small problems during the week

- Several losses of GEM7 UV: ADC card changed on MD
- A lot of RICH ctrl server problems happens since August 2, after « improvements » in SOR scripts cause sometimes lack of pedestal measurements



- Small rate of MM 384 Murphy TV errors.....

How to diagnose FE Murphy TV errors

- Initial observation: MM 384 MTV errors (source ID missing)
 - « High end special Catch diagnostics »: some events with all strips fired on MM1U

Strip	Value	Strip	Value
1	0.000000	1	0.000000
2	0.000000	2	0.000000
3	0.000000	3	0.000000
4	0.000000	4	0.000000
5	0.000000	5	0.000000
6	0.000000	6	0.000000
7	0.000000	7	0.000000
8	0.000000	8	0.000000
9	0.000000	9	0.000000
10	0.000000	10	0.000000
11	0.000000	11	0.000000
12	0.000000	12	0.000000
13	0.000000	13	0.000000
14	0.000000	14	0.000000
15	0.000000	15	0.000000
16	0.000000	16	0.000000
17	0.000000	17	0.000000
18	0.000000	18	0.000000
19	0.000000	19	0.000000
20	0.000000	20	0.000000
21	0.000000	21	0.000000
22	0.000000	22	0.000000
23	0.000000	23	0.000000
24	0.000000	24	0.000000
25	0.000000	25	0.000000
26	0.000000	26	0.000000
27	0.000000	27	0.000000
28	0.000000	28	0.000000
29	0.000000	29	0.000000
30	0.000000	30	0.000000
31	0.000000	31	0.000000
32	0.000000	32	0.000000
33	0.000000	33	0.000000
34	0.000000	34	0.000000
35	0.000000	35	0.000000
36	0.000000	36	0.000000
37	0.000000	37	0.000000
38	0.000000	38	0.000000
39	0.000000	39	0.000000
40	0.000000	40	0.000000
41	0.000000	41	0.000000
42	0.000000	42	0.000000
43	0.000000	43	0.000000
44	0.000000	44	0.000000
45	0.000000	45	0.000000
46	0.000000	46	0.000000
47	0.000000	47	0.000000
48	0.000000	48	0.000000
49	0.000000	49	0.000000
50	0.000000	50	0.000000

Sparks on 1U



Special noise



(after some tests with increased threshold)

- But problem disappears by disabling by « chance » port 15

Good 'ol HL connections?

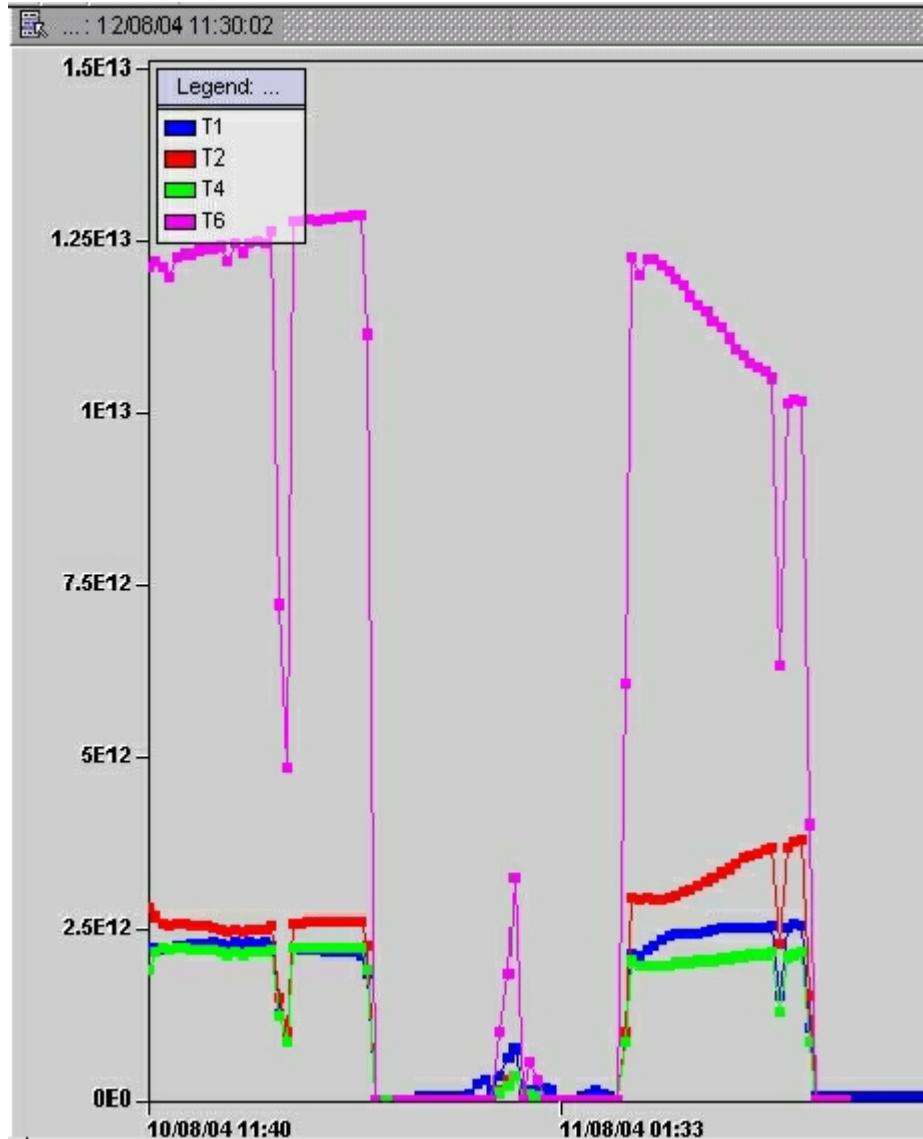


YES, not fully plugged HL



- Conclusion: need to revisit diagnostic tools

Beam « stealing »



Summary

- MW1 Vme crate overheating fixed
- GEM10U LV overheating localized, may need more work?
- GEM7 UV ADC card fixed
- RICH ctrl problems most probably due to SOR scripts
- MM 384 errors cured

- MWPC PA03X triplet cleaned, no more noise
- RICH bad optical connection (Bora 17, PD5) cured
- TRIG some dead channels fixed
- PT movement: additional measurements taken during MD

- PT micro-wave reversal during MD

Overall smooth week, tank you all