

date/time	Ladder	Voltage	Comments
4/1 4:50 PM	13	45	set to 35 V
5:03 PM	10	45	set to 35 V
6:52 PM	3	20	set to 19 V
6:56 PM	3	19	set to 15 V
03/04/07			
There was tripped in Ladder # 10.			
we tried to HV in ladder 10 to 40 but tripped again.			
Now Ladder # 10 has HV = 20 20 volt			
24/06/07 02:00 AM			
	3	31	→ 20
15/04/07 00:45			
	13	45	→ 20 (A less than 1 hour)
15/04/07 6:52			
	3	20	→ 20
5/04/07 2:30			
	3	20	→ 10
2/4/07 6:39			
	13	45	→ 20
7:05			
	3	31	→ 20
	10	45	→ 20

date	Ladder	Voltage	Comments
2007/2:59pm	15 & 16	46 34	"Christmas tree" pattern, started w/ ladders 15 & 16 and propagated throughout the detector. (Christmas tree)
4/07 6:36pm			Max. Maximum ladder turn yellow (Christmas tree)
8/06/07			we recycle 100 crabs ① & ②
11:42	all		Xmas Tree. Rebooted crabs 1, 2 twice. (X) Used the "pink button" method. (Pr. SED tripped the moment with FIDC & PHD). Seem O.K. Back to the game.
15/05	3	10	Set @ 5

March 29th 2007

Testing pedestal evolution

~~Exam~~ 17h 46 (15 min)

Ped 8088032
PedAsPhys 8088033

17h 51

Pedestal 8088034
PedAsPhys 8088035

17h 56

Ped 8088036
PedAsPhys 8088037

18h 01

Ped 8088038
PedAsPhys 8088039

18h 04

Ped 8088040
PedAsPhys 8088041

18h 14

Ped 8088042
PedAsPhys 8088043

18h 21

Ped 8088044
PedAsPhys 8088045

18h 26

Ped 8088046
PedAsPhys 8088047

18h 32

Ped 8088048
PedAsPhys 8088049

18h 37

Ped 8088050
PedAsPhys 8088051

18h 42

Ped 8088052
PedAsPhys 8088053

18h 47

Ped 8088054
PedAsPhys 8088055

11 March 21

2P $\Rightarrow$ 22

No forced modules
Read bias file to be bypassed OK

2N $\Rightarrow$ 2

1 force modules while read bias
files (read bypass)

March ~~21st~~ 31st

Physics Run
Deadtime = 55% for TPC
39% for SSD

~~8090121~~ 8090121

Errors for SSD 1.6% in acquisition

* Seems SSD slow down a little (No hangs the DAQ)
maybe related to HV trip / STAG pb?

Errors DAQ for SSD = 1.9%

* CRATE CAEN 12V of 4V

CRATE 0: 15N $\rightarrow$ 18N

CRATE 1
1P $\rightarrow$ 4P 4V
5P $\rightarrow$ 8P 4V
11P $\rightarrow$ 14P 4V
1P $\rightarrow$ 4P 12V
15P $\rightarrow$ 18P 4V

8090139 Pedestal

11 March 21

1148

[0] [19] [0] [2]
[1] [16] [0] [4]
[0] [19] [0] [2]
[4] [16] [0] [1]

Deadtime 52 (vs 70
for TPC)

Occupancy last week with alternative config. = 22%
Now with bias files to bypass + MUXB = 2 15%

Run PedAsPhys today 8090159 for occupancy analysis

Another Pedestal 8090160

Pedest 8091109 500 events 2d¹⁵ (Run @ 130)

04/03
3:50 pm

we took pedestal & during the pedestal
run Ladder No. 10 trips.

(LADDER 10 HV was at 45 V)
 $\rightarrow$ forget to decrease HV (Jonathan)

4/03
3:55 pm

Jonathan wants another ~~ped~~ pedestal run.

but there are lots of yellow buttons, so we Recycle

Crate 0 & CRATE 1

(Did the procedure x2 to get an acquisition mode ready)

04/03
5:00 AM

Christmas Tree appears suddenly

Did not do the recover procedure because the dump was scheduled
in 10 min.

Turn off HV, LV, R00

Better wait 2mn after CRATE1 & CRATE2 ON / OFF

12.40 SSD in (Run 8095089)

R00 1M indicates 'busy'
1P indicates 'busy'

GA indicates SPURIOUS = 54%

13.50 Turn on HV, LV, R00

04/07 9.50 AM Take pedestal Run after Dump (8097053)
but take another after and stop it (8097054)
↳ so the CURRENT PEDESTAL is empty
⇒ Take another one to update

04/07 4.30 PM Christmas Tree

Did the procedure one time

04/07 5:43 AM VINHAM = change HV default value in the Database for ladder 3, 10 & 13 (10, 20 & 20 V)

04/09 8.30 AM SSD OFF (LV, R00, HV OFF) but alarm Handler said "white"

+ we're not able to read temps from ladder

1) Did a superset → not work

2) did a start from scratch (LV, R00, HV on) + STARTSSD

⇒ Temp's get back but alarm handler still white

3) Reboot the alarm Handler

⇒ SSD OK

10-Apr-2007

15:35 - To do for tests tomorrow

Testing Ladders 2, 10, 13, 3, 20

put the voltage up to operating voltage for cooling test tomorrow

Expect 20 to be OK

but 2, 3, 10, 13 may overheat + trip.
History is that 2, 3, 10, 13 usually trips within 1 hour. Will the extra cooling extend the duration of the run before a trip?

11-Apr-2007

Christie -

Varley regulators

West end @ ~~5 bar~~ 5.5 bar

and cannot be regulated. Appear to be broken but wide open.

East end was 4.0 bar

so Soja increased it to 5.0 bar

10:00

Shut down SSD and prepare a full restart so we can read co-stars and get temperatures

10:15

Power on @ 10:15

The air cooling is still @ 70° ... we did not change the input air temperature

Note sent to SSD list ... do not fiddle until further notice.

11-APR-07

Photos on SSD website for cooling
show examples of short black tubes
on input.

The input to ladder 1 & 19 are on
the East end. So outlet must go
to the Vortex on the west end.

Hypothesis that all odd ladders
go to Vortex on west end.

Perhaps

1, 3, 5, 7, 9	on SW vortex
11, 13, 15, 17, 19	on NW vortex
2, 4, 6, 8, 10	on SE vortex
12, 14, 16, 18, 20	on NE vortex

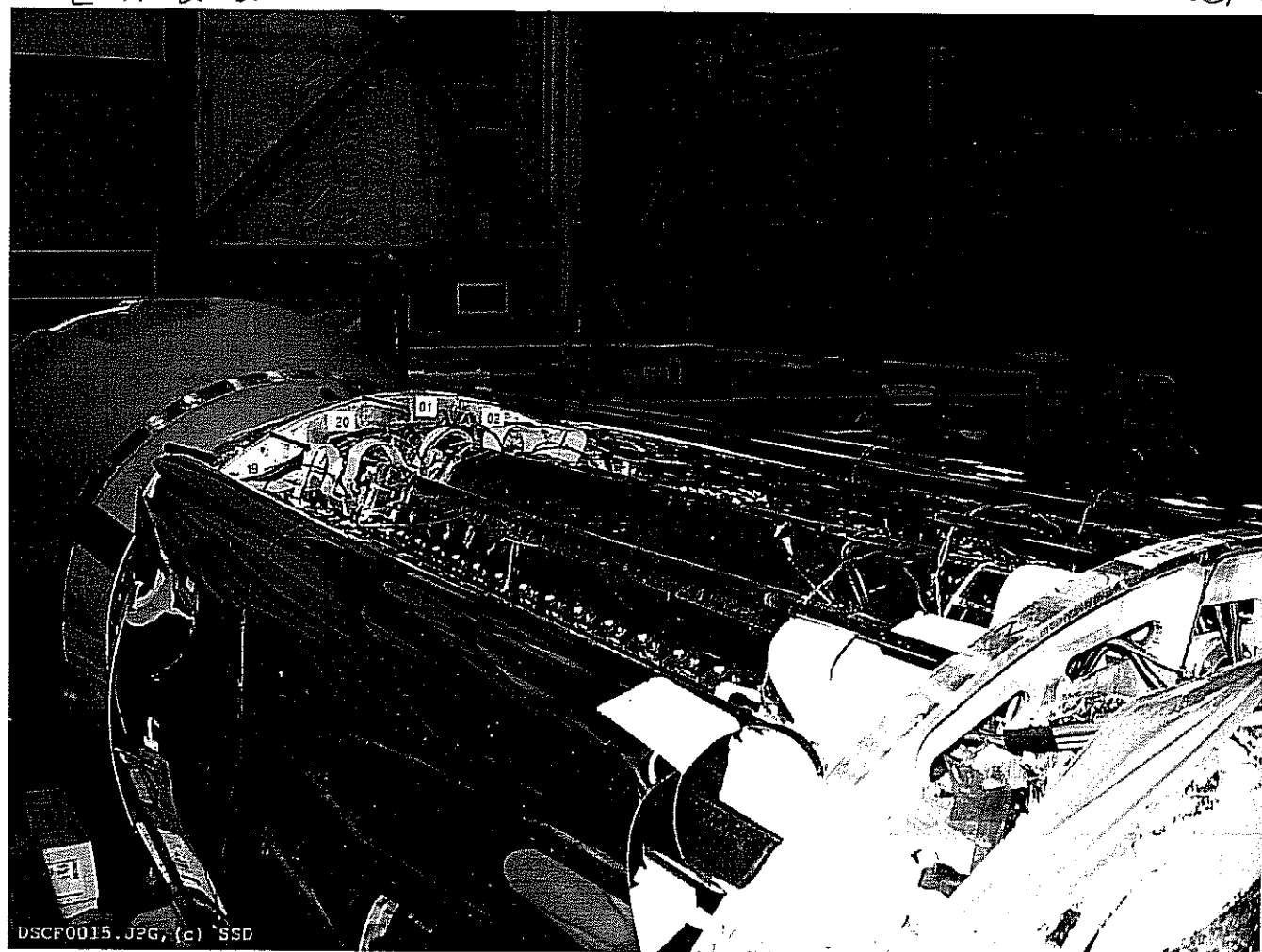
Gues

SSD Shielding: Full Image Frame

East End

http://www.star.bnl.gov/STAR/ssd/STAR_documents/Phototheque

West End



18. After 1 sec, measuring the temperature once
again (by rebooting VME) => FAIL.

27. Starting SSD again. (X)

30. Turn off the CAEN crates & ON again.

33. Reboot VME.

New start of SSD.

15. Turn off SSD (until now, no trip).

Reboot

↳ Documented the temperatures.

20. Reboot SSD

↳ Temperature Documentation

30. The ~~SSD~~ Refrigeration is off.

30. Every 20' Full Control → Start SSD
& Temperature documentation. ✓.

15. Refrigeration is back.

10:00:00
CA IVLP → L Kristmas 1 ver

⇒ CAEN 57527 Universal Multichannel
Power Supply System

Shift @ 16:30 - 00:30

Ladder 20 is ~~was~~ changed to its
nominal value

April.
SSD TRIP Log

04/14/07 7:00 am (cannot read FPGA) → SysReset

04/15/07 2:40 am Reset SSD, due to can't off RDO

04/15/07 5:45 am Christmas tree appears. RDO can

04/15/07 6:00 am Reset

There is a problem in the ladder 230
voltage, so we reset the system
two times after that it becomes
fine.

dd/mm/Year.
April 15th, 2007
08:17 am

Ladder 15
started the
avalanche;
ladders 5, 8, 16, etc.

Some of the LVs didn't come up after powercycling
crates 1 & 2 → solve print lot of Caen errors

Fixed 2x → suprock of solve → success!

15 April 07

SSD is taken off the RUN
As the air compressor is blown up (?)

DO NOT OPERATE UNTIL
FURTHER NOTICE.

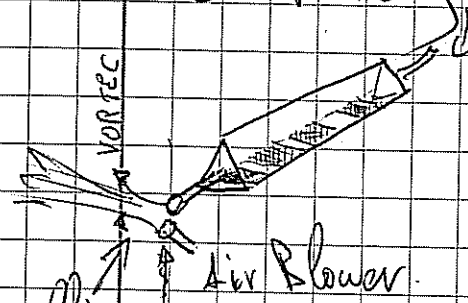
LV, LV, RDO & CRATES 1 & 2
ARE
OFF

we get the connection. vme.

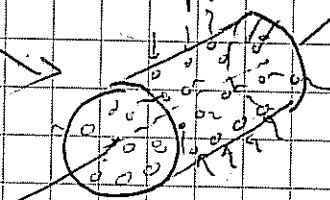
This compressor failed a gr/ago, during
all you suggest to find a temporary solution.
Find out the maximum strength of how
much suction can it be done.
35 Horse
power.

It is imperative that SSD return to the actual run.

Because of the "possible" delay for the Air-Blower to be repaired, SSD group is urged to come up with a temporary solution for the cooling system.



Too much suction will possibly create problems to the cover.



and also possible SiO_2 wafers

can be damaged.

→ Air Cooler is back and the air pressure (110)

Reboot ch3 linux 15:39

16:21 → VME Reboot ON OFF

→ Power Cakes CAEN-ON. (why?)

16:25 → LV, PDO's

16:30 → HV ON (seems good!)

16:34 → unproblematic

16:48 →

8108034
8108035
8108036
8108037
Physid.

17:50 → Turn HV, LV, PDO ON (between after dump and beam-cogged)

Expected beam in 30mn

Connect Terminal to CAEN crate
note that "trip" time is 0/0.0 (0 sec)
on all channels. This is not consistent
with David Bonetti's ~~claim~~ memory
that we are using trip = 300 (30 seconds)

Two channels on crate are (lower)
are set to "inf."
David says these do not trip
but they will become current
limited.

He does not like this idea. He
recommends that we change the trip
time on these channels to 0/0.0
with like the others.

Crate 1 (lower)
page 4

4/26/2007

20:40 - RDO Board #4 faulted on SSD
the shift crew started it out.

So we turned everything off, including
the CAEN crate, and will try again.
(also rebooted VME for good luck)

20:45

The shift crew says everything is OK
so now they are ready to run.

4/27/2007

11:00 AM

Recover from QPA fault at RHIC
Shut down computer
reboot was not smooth --
had to log on and type "startx"
it did not happen automatically.

Shut down CAEN crate
Shut down VME
Restart all
Let SSD warm up 5 minutes

4/28/2007

4:20 am ladder 16 tripped

4:30 am ladder 16 tripped again

8:15 am. Ladder 16 tripped
— called expert (1153) — Jonathan —
he fixed it remotely.

8:56 am again! Ladder 16 and MV trip
we stopped the run (took laser TPC in between)
switched OFF MV, wait 1 min, switch MV on. OK!

9:20 am Again Ladder 16 and MV trip
+ recovered by switching off and on MV

8:55 am Ladder 16 tripped again

8:57 am again tripped Ladder 16

regarding Ladder 16
LV set (decreased) to 30.0 Volts by the expert.
Ladder 16 now OK!

04/29 9:50 : Ladder 16 → 32V

04/30 14:32 LADDER 16 tripped. (Voltage was observed
to be set at 34V)

04/30 14:40 Ladder 16 tripped again, called Jonathan (expert)
Voltage for Ladder 16 decreased to 4V = 32 Volts

05/01 06:26 Ladder 15 LV current, yellow alarm

05/01 6:46pm Ladder 16 tripped

05/01 11:14PM Ladder 16 tripped

05/01 11:23PM Ladder 16 tripped

05/01 11:29 PM. Ladder 16 tripped

05/01 11:32 P.M. Ladder 16 tripped - called expert (Jonathan)
decreased nominal voltage from 34 to 32

05/02 8:35 LNTV. dead
Restarted everything

05/02 7:30 AM RDGs was not going off
Reboot VME Board → OK

113 Change the configuration in the default parameter in the Shw Control
db and use the file to bypass the modules at the edge of each
ladder

Redial Run: 8123042, 9123049

Redial Run: 9123048, 9123050

05/07 1923 Multiple trips - tried to reset individually, but more tripped.
tried powering LV, HV, & RDG off and on, but did not fix problem (did not).
Ladder 1 "N" turned red ~~giving~~ indicating a problem
Expert ~~said~~ said there was danger in setting voltages to full strength
with low air pressure (15 psi)

05/07 Air Pressure Failure

around 18:15-18:30 (for river). (Artemios)
(Chrishe use notified). 21:28.

SSD running out of the concurrent RUNS
until further notice.

For SSD Strip tool for Air Pressure - must run on 503 for now.
SSH - X Sys user @ Sec 3 tank bn / geo

Strip Tool SSD AIR

(planned
dr. 4/20/08)

(Bill
Wagner)

Difference between after and before the replacement of the compressor

- Ladder 7P: Wafer 2, 3, 5 : OFF

- Ladder 8P: wafer 9 : High Occupancy

- Ladder 3N: wafer on the middle (4 to 13) : Occupancy higher than in previous Run

⇒ have to check with another RedAs Phy

Status of Temperatures (5.50 AM)

1p: 56°

2p: 55°C

3N: 54°C

2N: 55°C

Pedestal

Ladder 14N $\langle rms \rangle \sim 120 \text{ adc}$

From pedestal 8097058:

$\langle rms \rangle \sim 100 \text{ adc}$

Ladder 2aW $\langle rms \rangle \sim 120 \text{ adc}$

From pedestal 8097058

$\langle rms \rangle \sim 50 \text{ adc}$

Temperatures (8.45 PM) (After 2 ON/KEF of HV)

1p: 57

2p: 55

1n: 55

2n: 55

04/2-

Checking the C4EN crates.

6.20 am

After Scam dump

(RDO didn't getting off)

System Reset

May 15th

Morning RDO 2P busy $\Rightarrow$ 100% deadtime at the DAQ.
Ladder 3 HV tripped @ 10V
set @ 5V

17:51 $\Rightarrow$ Ladder 17 / p-side (problem)
Appears to be red "P-side"

After VME reboot, the problem
remains. Contacted Experts.

Tried to diminish HV of 17L
(current value is 50)

Stop operation for beam?

May 16th

SSD Ladder 3 center turned RED (HV)
on 4:35 am

May 18th = Forced module 4 in ladder 17 P.

conf. saved in the DB.

Several pulser runs taken: 1k cuts each.

4 strips / chip = pulse level 40 8136037
100 8136038

4 strips / chips - shift 15

pulser level 400 8136039
40 8136040

- Pedestal Run taken before physics beam.

MAX 18th

2 successive strips on the ladder
3 - at 7:40, 8:10 pm

May 16th

8:20 pm ~~channel 8~~ tripped Crater Channel ~~5~~
(Ladder 16.)

8:22 p Ladder 3 ~~tripped~~

8:45 pm Ladder 16 tripped

8:47 pm ———— // ————

8:58 pm ———— // ————

Ladder 3 & 16

Change L3: 10 $\Rightarrow$ 17 volts

L16: $\rightarrow$

(Jonathan)

3 can be covered to 5.

16 if its tripping put 16 (min 29)

(1533 bin ham)

05, 17

1:15 AM ALL connection lost

Reboot and bring LV HV RDO Back

Ladder 16 has a red "N"

Called expert Jonathan

hyld 12

0x3dfe
4200

15870
16896

0x39fe = 14814

C621 = 50721

65355
FFFF

15870
- 14814

1056

4200

4600

4a00

35 fe

2dfe & 5200

ladder hybrid 12

05, 18

5:52 am Ladder 16 HV trip

cleared and trip again in 1 min
cleared again

05, 19

1:25 am

Ladder 16 HV trip

05, 21

3:45 am

Ladder 17 HV trip

05/25 3:20 am
20:00
Ladder 17 HV trip
Power down CAEN
crates + reboot VME
to clear problem on
RDX

05/26 06:25 am
"Christmas Tree" started to
develop.
⇒ full power - cycle (Steps 1-7)
⇒ Ladder 9P still yellow
⇒ ramp-up not successful
⇒ sys - reset of VME crate
⇒ okay

5/27 13:30
"Start SSD" stuck at
"Loading FPGA v4"
⇒ Turned off HV, LV, RDO
⇒ RDO won't turn off
⇒ Steps 1-5
⇒ CRATES won't turn off
⇒ Steps 9-10 (still no)
⇒ reboot VME on SSD VME window
⇒ Steps 6-7
⇒ OK

05/28 4:40 am
"All ladders not ready"
"N" block for ladders 1-5, 8-10
⇒ full power cycle + sys - reset
⇒ okay

05/29 5:55 am

05/30 Pulsar (Run by log evom)
#4878
For pulser run.
DAQ → RCF, evtRaw (#1000)
{set calibration pulse} → 1 100
↑
space

Runs: 8150043
— // — 44
— // — 45

svtRaw,
svtRaw,
svtRaw,

{05/30}

06/01/2007 - High Voltage trip on ladder 16
4:00 (at the end of the fill)

06/02/2007 - High Voltage trip on 17 many times

06/02/2007 - trips on ladder 17
9:04 PM voltage down to 50 volts

6/3/07

2:01 PM Tried to start SSD, received
"Can't Program any FPGA" error

Error Line: 15912
Error code: -286392320

We tried Power Cycle Crates 1 and 2 but
did not work
Reset Switches - - - - -

6/03/07 3:00 PM

Letter 'P' was red - we called Jim Thomas
The system was reset but it didn't work
Experts were working remotely to recover

6/05/07 0:36 AM

Ladder 13 trip. Can not recover by turning OFF and On
Expert said the HV should be lowered

0:51 Expert lowered to 15V

3:53 AM Ladder 16 HV trip

4:21 AM 16 HV trip again

4:24 AM 16 HV trip again

5:50 AM RDOs button didn't work.
Did step 9-10 then power cycled. This
fixed the problem

6:05 AM Ladder 13 HV trip
... and again.
... and again.

7:22 AM Ladder 17 HV trip

7:37 AM Ladder 17 HV trip

6/5 8:40 AM

Ladder 16 HV tripped
Tried power cycle, but high current caused
another trip (at this time the yellow beam
grasped and many other detectors also
tripped).

Changed nominal value from 31V to 25V.
(done remotely by Artemis).

6/5 5:44 AM

Ladder 13 HV tripped
Artemis changed nominal voltage remotely.

6/5 5:51 AM

Ladder 13 HV current fluctuating just above
threshold

6/5 14:31 PM

Ladder 13 HV tripped

Access day: 6/6/07

pedestal: 8157030

Median SCdn 0-18

Jonathan & Artemis
(RCE & DISU,)
✓

Configuration

8152035 (1.100) ✓

8152038 (2.) ✓

8152042 (3.) ✓

8152044 (4.) ✓

81520506 ()

8152077-2 ()

+ 49, 52

8157060

12

8157061

14

8157062

16

8157063

18

8157065

20

8157066

21?

8157067

22

8157068

25k $\rightarrow$

8157069

1k $\rightarrow$

8157070

$\rightarrow$

8157071

$\rightarrow$

8157072

$\rightarrow$

8157073

8157074

8157075

8157076

8157077

8157078

8157079

8157080

Ladder

Date/Time

Problem

17

06/08/07 12:55pm

tripped

8159078

16

06/08/07 22:12pm

tripped

twice

Set voltage

31 $\rightarrow$ 30V

Current $\sim$ 19.5

SSd expert did 30 $\rightarrow$ 29V

(Aftermath)

17

06/09/07 1:56 AM

tripped

2

06/09/07 7:28 AM

tripped

06/09/07

8:47 AM

Ladder 16

tripped (HV)

06/09/07

9:02 AM

Ladder 16

tripped again

06/09/07

9:15 AM

Ladder 6

tripped

06/11/07

7:40 AM

HV 17

tripped

06/11/07

7:40 AM

HV 17

tripped again

06/11/07

11:30 AM

HV 13

tripped

06/11/07

14:03 PM

Ladder 13

tripped

...again

06/11/07 16:32 Ladder 13 tripped
 06/11/07 16:35 Ladder 13 tripped
 06/11/07 16:50 Ladder 13 tripped
 06/11/07 16:55 Ladder 13 tripped

Ladder 13 lowered 15 → 13
 06/12/07 2:24 am Ladder 17 trip again

06/12/07 Ladder 2 tripe 2:35 am

06/12/07 3:03 am Ladder 2 trip

06/12/07 3:30 am Ladder 2 trip again and again

3:40 am Ladder 2 trip again

3:58 am Ladder 2 trip again

4:48 am Ladder 2 tripped

5:10 am Ladder 2 trip

5:18 am Ladder 16 tripped

10:25 am Ladder 13 tripped

10:35 am " 13 "

2:30 A Ladder 13 tripped twice,

06/13/07 21:47 trip at Ladder 17

21:46 " " "

Christmas tree at 22:20
 first attempt left rail N 19
 the second was successful.

06/14/07 16:50 Ladder 7 TRIPPED
 20:00 " " "
 20:15 Ladder 17 " " " twice in
 20:16 Ladder 7 " " "
 20:20 Ladder 17 " " "
 3:12 am Ladder 2 trip run number 8160

3:35 am Ladder 2 trip

3:43 am Ladder 2 trip

3:49 AM Ladder 2 trip

4:05 AM Ladder 2 trip again

06/15/07 8:40 AM Ladder 17 tripped

8:45 AM " 17 "

8:47 AM " 17 "

10:45 AM " 17 "

10:47 " 17 "

10:50 " 17 "

11:10 AM " 17 "

12:00 " 2 "

2:10 pm " 2 "

06/16/07 3:25 pm " 2 " 5 times

3:25-4:15 2 + 17 tripped again + again

16:50 ~~Am~~ Ladder 17 tripped seven

times. The voltage SD ~~was~~ was set 16
 still too high

16:50 Ladder 2 tripped

16:57 ladder 2 tripped

17:00 - " - " - " -

17:03 - " - " - " -

17:05 - " - " - " -

Voltage set to 18.00

(check was 20.00V, signal 11)

17:55 - " - " - ~~17~~ - " -

17:55 Christmas Tree

17:50 Ladder 17 tripped

21:32 - " - " - " -

21:34 - " - " - " -

Voltage set to 55

(instead of 58)

23:00 - " - " - 16 tripped

23:05 - " - " - 16

23:05 - " - " - 16

Voltage 30 V set

(instead of 37)

23:05 - " - 17 tripped

23:07 - " - 17 - " -

Voltage set to 55 V

23:20 - " - 17 - " -

23:25 - " - " - " -

Voltage set to 52 V.

09:35 - " - " - " -

Voltage set to 51 V

09:53 - " - " - " -

Voltage set to 49 V

09:10 - 7 -

Tripped

voltage at 46 V.

09:14 - 7 -

Tripped

Voltage set to 43.00

09:17 - 7 -

Tripped

Voltage set to 42.00

09:26 - 7 -

Tripped

Voltage set to 41.00

09:43 - 7 -

Tripped

Voltage set to 40.00

12:18 pm - 13 - Trip

14:48 - 13 - Trip

reset

14:51 - 13 - Trip

reset

14:53 - 13 - Trip

set voltage 20.00V → 19.00V

15:04 - 13 - Trip

Reset

15:07 - 13 - Trip

Reset

15:12 - 13 - Trip

Reset

15:23 - 13 - Trip

set voltage 19.00 → 18.00 V

15:31 - 13 - Trip

Set Voltage 18.00 → 17.00 V

15:40 - 20 - Trip

15:56 - 20 - Trip

Set Voltage 39.00 → 38.00 V

16:04 - 20 - Trip

set voltage 38.00 → 37.00 V

16:09 - 20 - Trip

Set voltage 37.00 → 36.00 V

16:13 - 20 - Trip

Set Voltage 36.00 → 35.00 V

16:25 - 20 - Trip

Set voltage 35.00 → 34.00 V

16:35 - 11 - Trip

16:37 - 11 - Trip

Set voltage 34.00 → 33.00 V

17:05 - 13 - trip

reset

17:15 20 trip

set voltage 32.00 → 29.00 V

17:25 20 trip (3 times)

set voltage 29.00 → 28.00 V

17:30 16 trip

reset

17:35 20 trip (3 times)

set voltage 28.00 → 27.00

18:00	13	trip	set voltage 17.00 → 14.00
18:07	13	trip	14 → 13.00
18:17	20	trip (3 times)	set voltage 27 → 26
18:20	16	trip	reset
19:20	16	trip	reset
19:21	16	trip (2 times)	set voltage 30 → 29
22:20	17	trip	
23:10	16	trip	
23:13	16	trip	set voltage 30 → 30
23:48	2	trip	reset
23:52	2	trip	set voltage 20 → 19
00:17	16	trip (2 times)	reset
00:21	16	trip (3 times)	
00:27	16	trip	set volt. to 29 (30 → 29)
2:55 am	13	trip	
3:17 AM	13	trip (3 times)	(reset voltage 20 → 19)
3:21 AM	13	trip 2 times	set voltage 19 → 18
	17	trip twice	
3:31	10	trip	
3:32	17	trip	lower voltage 64 → 63
3:33	17	trip 3 times	
3:38	17	trip	voltage 63 → 62
3:40	17	trip	voltage 62 → 61
4:06 AM	2	trip	
4:15 AM	17	trip	voltage 61 → 60 → 59 → 58
	10	trip	
5:13 AM	2	trip	
6:11	2	trip	
6:23	2	trip	
6:25	2	trip	voltage down 19 → 18
6:33	13	trip	

7:18	Ladder	17	trip	
8:00 AM	(ladder)	13	tripped	set to 18 volts
8:05 AM		10	"	
8:10 AM		15	"	set to 15 volts
				tripping again & again
8:12 AM		2	"	
8:16 AM	"	13	"	set to 13 volts
8:18	"	11	"	
8:20	"	11	"	
8:21	"	2	"	
	"	10	"	
	"	13	"	
	"	17	"	
8:31	"	17	"	set to 15.5 volts
8:40	"	13	"	
8:50 am	"	13	"	
8:54 am	"	2	"	
8:54 am	"	13	"	
8:54 am	"	10	"	
14:37		13	Trip	reset (held)
15:00		12	tripped	
15:13		15	tripped	
15:20		13	tripped	reset + held
20:37		13	trip	reset
20:42		13	trip (2 times)	reset
21:35		17	trip	
21:57		17	trip	set 64 → 63 V

2am 16, 17 trip
 4am 16 trip again
 5am 17 trip again
 set voltage 64 → 63
 4am 16, 17 trip
 17 trip again
 set voltage 63 → 62
 3am 16 trip again
 set voltage 31 → 30
 3am 2 trip
 set voltage at 20
 am 2 trip again
 set voltage at 20
 am 2 trip again
 set voltage 20 → 19
 am Ladder 2 trip
 am 17 overcurrent
 17 trip
 17 trip
 voltage lowered 64 → 60
 2 trip
 2 trip
 17 voltage changed to 43
 2 voltage changed to 15 14
 17 trip
 voltage change 20 → 19
 SSD Trip 17
 SSD Trip 1-17
 Voltage 64 → 60 by Arcom 10.3

10:50 Ladder 16 + ripped
 20:23 2 trip (2 times) reset
 20:33 10 trip (2 times) reset
 20:35 10 trip (3 times) set voltage 20 → 18
 20:39 2 trip (7 times) ladder would not stay reset
 3/20 5:04 AM Ladder 17 tripped reset
 5:39 AM Ladder 17 tripped again again reset
 5:41 AM Ladder 16
 5:45 AM Ladder 17 tripped set voltage 64 → 63
 6:05 AM Ladder 16 tripped again again again again power off, wait for 5 minutes, power on
 set voltage 31 → 30
 reset
 6:17 AM Ladder 17 tripped again reset
 6:20 am Ladder 16 tripped Ladder 17 tripped wait
 6:23 am Ladder 16 tripped again set voltage 10 → 29
 Ladder 17 tripped again set voltage 63 → 62
 6:25 am Ladder 16 tripped again
 Ladder 17 tripped again
 6:33 am Ladder 17 tripped set voltage 62 → 61
 6:40 am Ladder 16 tripped reset
 6:41 am Ladder 17 tripped reset
 22:00 Christmas tree restored by standard procedure
 12/1 8:45 AM Ladder 17 trip

				1:23	Final Ladder 2 HV is blank, turn on
5 PM	trip 10 th Channel	voltage set 26 volts	Alarm did not go	1:26	Ladder 16 tripped, set voltage 31 → 30
10	trip ladder channel 10	multiple trips	Sound	1:38	Ladder 17 tripped reset
		setting voltage to 19		1:40	Ladder 17 tripped again wait for 5 minutes
				1:45	Ladder 17 tripped again set voltage 30 → 29
11:4	trip ladder channel 10	voltage 19 → 18		2:10	When we preparing for beam dump, found that Ladder 2 tripped but there is not alarm for this ladder.
11:18		voltage lowered by expert to 17			
11:37	ladder 17 trip	voltage 64 → 63			<u>SysReset</u>
12:10	ladder 2 trip	voltage 20			
12:27	ladder 2 trip	voltage 20		4:35	Ladder 17 tripped reset
13:0	ladder 2 trip	voltage 20 → 19			tripped again
10:2				4:40	Ladder 17 tripped again
10:4	ladder 16 trip			5:00	Ladder 2 tripped
				5:48	Ladder 17 tripped
06	ladder 16 trip	voltage 30 → 29		5:56	Ladder 17 tripped
				6:05	Ladder 17 tripped
2	After beam dump, we attempted to bring SSD HV back up for pedestal. After hitting "Start SSD" we got error: "Could not program FPGA." Did SysReset on the VME crate.				wait for 5 minutes reset
				6:10	Ladder 17 tripped set voltage 64 → 62
2	trip 17	reset		6:19	Ladder 17 tripped set voltage 62 → 60
3	trip 2	reset		6:38	Ladder 16 tripped again
5	trip 2	reset		6:42	Ladder 16 tripped set voltage 31 → 29
				6:46	Ladder 17 tripped
				7:27	Ladder 2 trip
11	Ladder 16 tripped	reset		7:33	Ladder 2 trip voltage 20 → 19
	tripped again	reset			
				8:36	Ladder 17 trip Voltage 60 → 59
	Ladder 17 tripped				
	Ladder 16 tripped			19:45	Ladder 2 trip
				19:53	Ladder 2 trip
				19:57	"
				20:38	"
					voltage 20 → 19
					voltage 19 → 18
					reset

ladder 17 trip reset
ladder 16 trip (2 times) reset
ladder 17 trip reset
ladder 10 trip reset
ladder 16 trip reset
ladder 16 trip reset

beam dump we turned HV back on. After we hit "Start 550,"
north side "N"s went red. We powered down and did
Reset on the crates.

ladder 2 tripped reset
ladder 2 tripped again set voltage 20 → 18

ladder 2 trip

ladder 2 trip voltage ~~18~~ 18 → 17

ladder 17 tripped.
voltage 64 → 60

ladder 17 tripped (3 times) set voltage 60 → 57
ladder 17 tripped reset

voltage 57 → 55
voltage 55 → 53

ladder 17 tripped reset

ladder 17 tripped reset
ladder 17 tripped set voltage 53 → 51
again
again

wait for 5 minutes
ladder 17 tripped again set voltage 51 → 49
ladder 17 tripped set voltage 49 → 47

again
reset
set voltage 47 → 45
set voltage 45 → 43

2:02 ladder 17 tripped set voltage 43 → 41
2:07 ladder 17 tripped ~~set voltage 41 → 39~~

2:55 ladder 2 tripped
~~2:58~~ again

2:58 ladder 2 tripped again set voltage 20 → 18
2:15 ladder 16 tripped reset

again reset
again reset
again set voltage 30 → 28

3:21 ladder 17 tripped reset
again reset

again set voltage 41 → 39
again reset

7:10 network not connect. Sys Reset

ladder 17 set voltage 60
ladder 16 set voltage 29

17:15 ladder 2 tripped reset
17:22 ladder 10 tripped reset

6/28
2:10am ladder 2 tripped reset
again reset
again

4:00 Christmas tree affect

4:56 ladder 10 tripped reset
again reset
again set voltage 20 → 18

20:12 ladder 2 tripped reset

20:08.07
15:35 ladder 2 tripped