Pole Status 06/1998
Expedition 98/99

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Amanda-Meeting, Zeuthen, July 1998

Pole Status 06/98

- **Array**
  - Bad Tubes: high rate from remote DAQ scan May/June 98
    ADC's : 215,216,234,249,258,357
    TDC's : 40, 190, 234, 331 (partly: $Nhit_{TDC}$=16)
  - SWAMPS - very sensitive
  - HV - $\sim$ stable now ?
  - Fiber OMs & ORB's - ? analyzed/stable ?
  - Temperature Monitor for 1 CAMAC-, 1 ORB-Crate:
    10min. intervals since Feb. 1998
- **DAQ**
  - **Stable operating:** uptime **99.3%** last week, 97% since March
  - **Reader98** improved (histo's, rate watching, extraction)
  - **EVIEW now online over satellite** (f2000-events via rcp)
  - Data extraction routinely: SPASE2-, AB - Coincidences;
    SPAM_Link under development
  - Problems:
    * Trigger "hangs" $\sim$ once per week (observed in summer: CORBO blocked ?)
    * VME_TDC Calibration mid June started (first 16 chan runs available)
    * W.O. Monitoring of Array Status not yet started
  - SNMP: running
  - GRB: was part time running, off since $\sim$ April, since MAC is crashing

- **Offline Computing**
  - Data storage ok
  - Big effort partly to run satellite (ASA people ...!)
  - Data handling not yet completed (Spase,...)
  - troubles with DECs:
    Lingon, Spice2 = dead
    Jordgubb = few crashes/day
    Hjortron = no display
    Simple repairs impossible
    Slow DEC software licences response

    (Station: Cyprus dead, Magnolia on Amanda disks)
  - 19" PC's very stable, also IBM disks

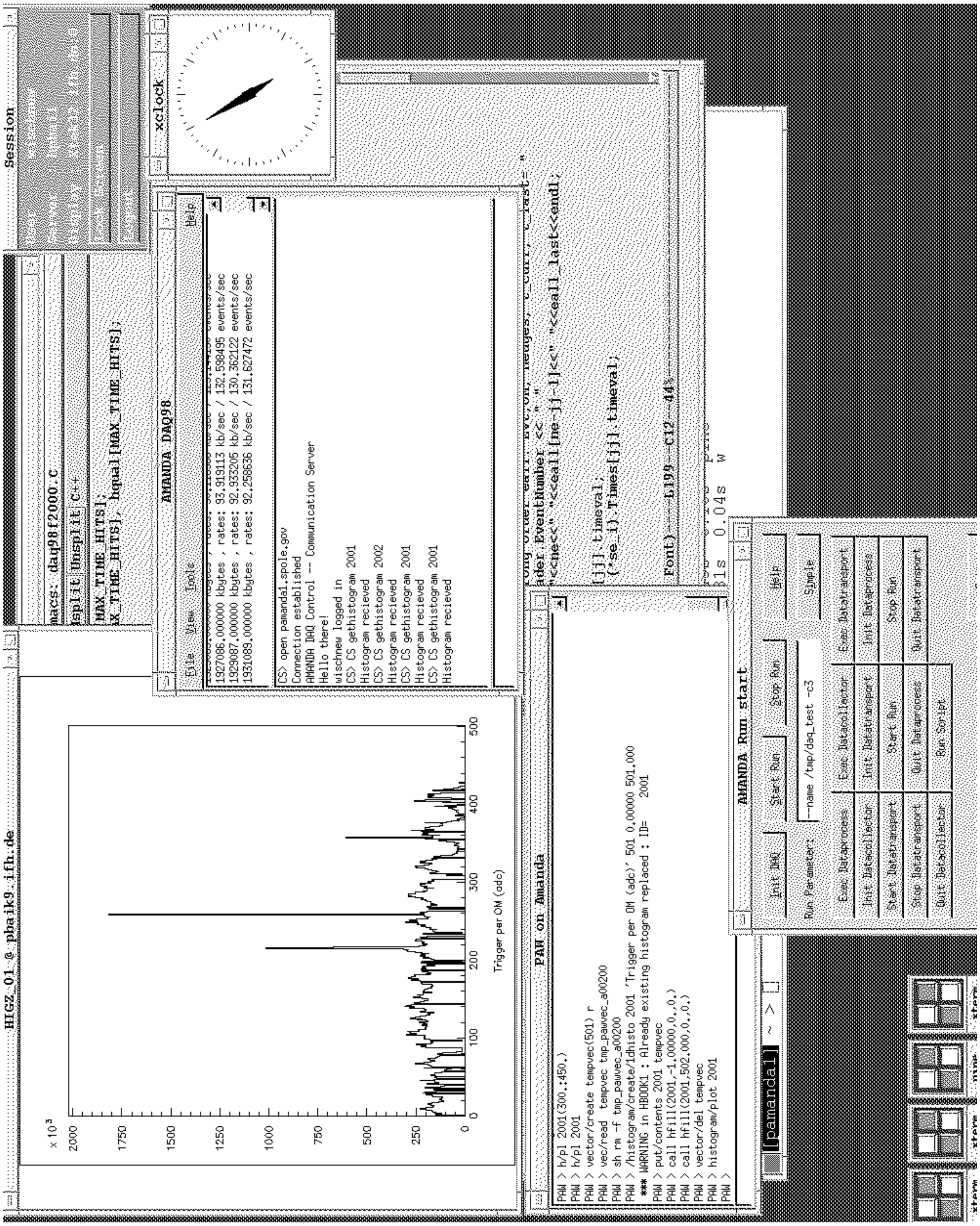
Expedition 1998/99

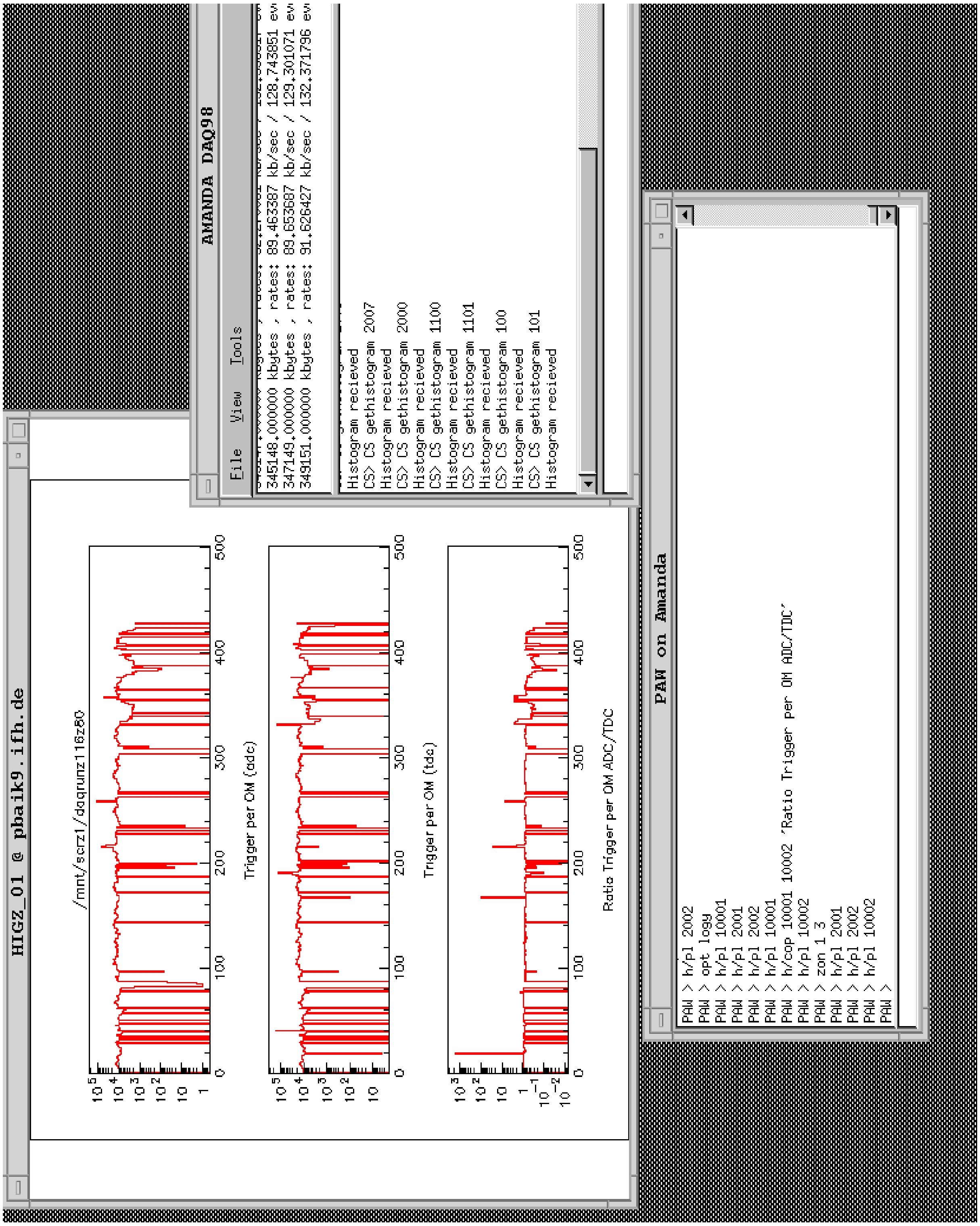
- **Upgrades:**
  - DAQ
    - DMAD Slow Control (setup in Zeuthen with spare DMAD...?) $\Longrightarrow$ **T0- and gain-calibration possible from Main-DAQ**
    - VME_Counter, JW73-Controller, VME_GPS
    - SNMP-DAQ GRB-DAQ:
      Keep MAC-Systems running (string 1-10).
      New channels with VME-Counters ($\sim$ 150 DM / OM) ??
    - HV Control to be reinstalled ? (Peter Niessen)
    - Features: automatic DAQ warning calls $\rightarrow$ galley/UpperBerthing/...
  - New trigger: random trigger
  - Offline Computing:
    - 1-2 new DLT drives !!
    - Add more Linux-PC's ? (19" with 2 PentII-CPU's)
- **Tasks**
  - Calibrations: t0, gain, interstring
  - Dedicated Muon runs: Low Multiplicity trigger (String, SubString)
    $N_{OM} \geq 2, 3, ...$
  - Upgrade hardware: DAQ, SWAMP, ORB, HV crates
  - Do we want test/install 8-string electronics prior to 1999/00 ?
    DMAD/Disc/HV/...
  - Special tests:
    DOM components in ice ??
    Make in-situ cable measurements (Xtalk, Timing - dead OM's) ??

– Define new W.O.'s:
  Experts in PC's/Linux/...,
  possibly participate in DAQ upgrade Zeuthen !
– **Summer Shifts**: find balance between Students and Senior's

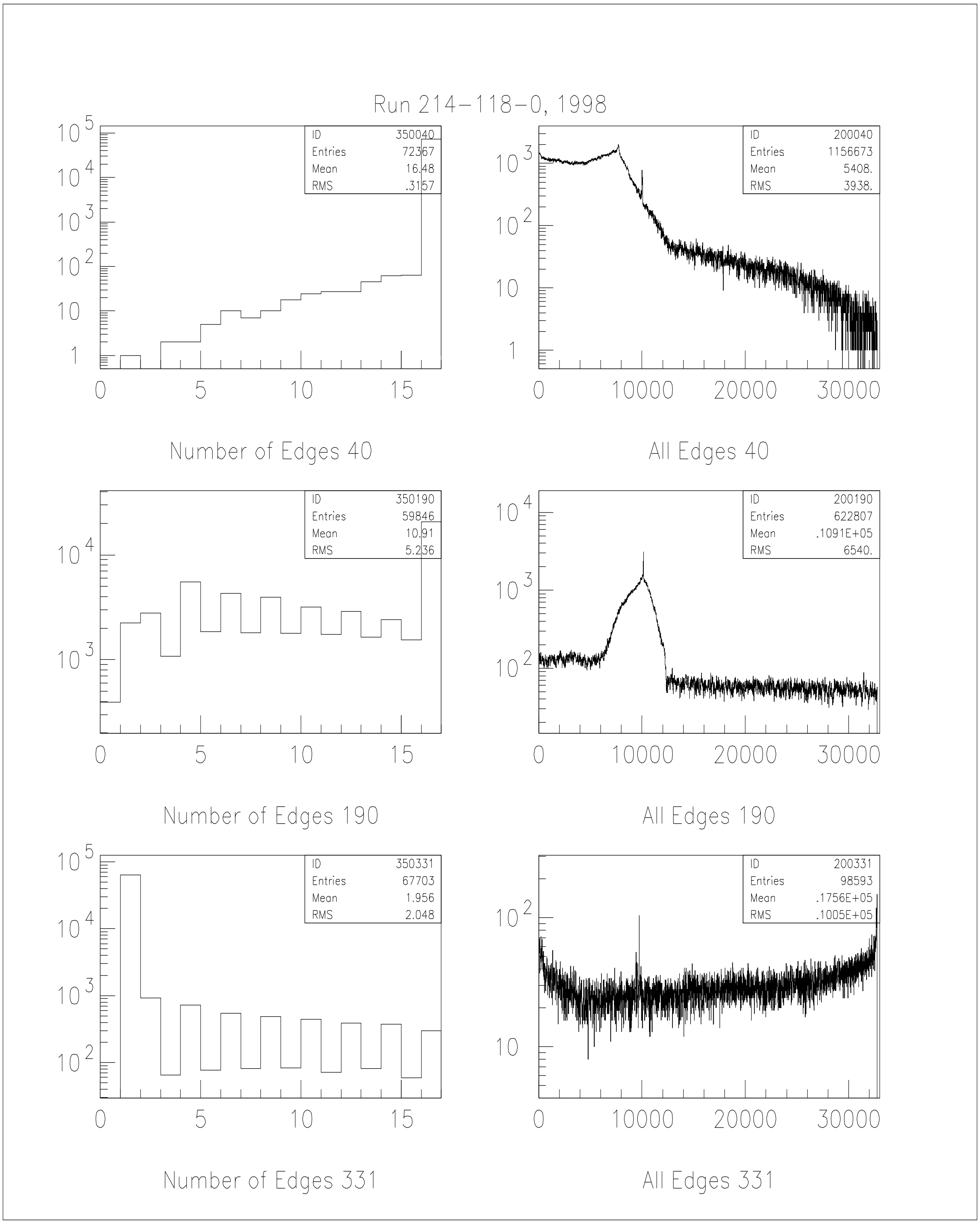
  We need professional ExpPhysicists and Electronics Engineers during summer (Holger, Pavel, Thomas were excellent!)

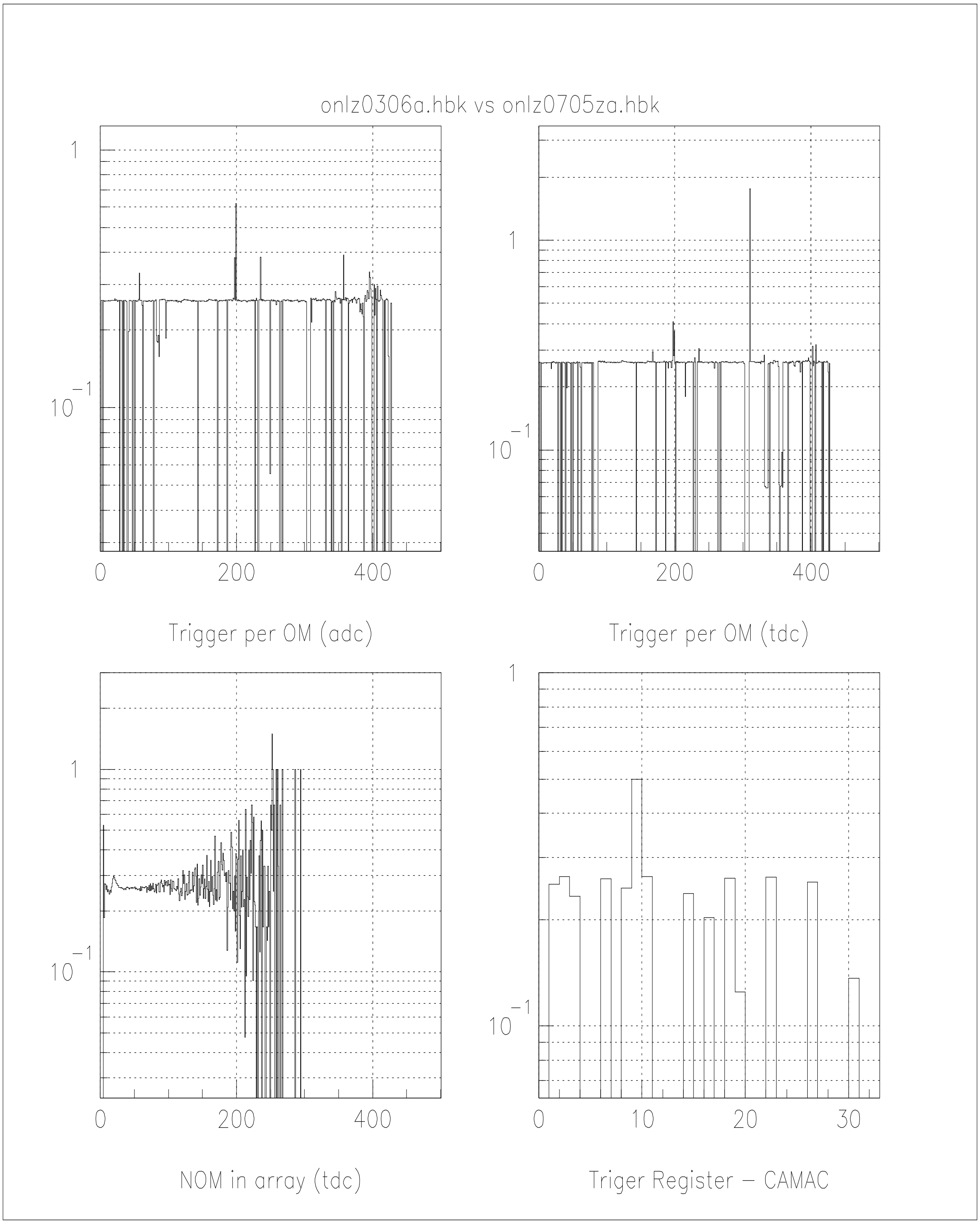
  Also: Minimize load onto those who always go
  (The experiment cannot rely on 5-6 people !)


HIGZ_01 @ pbaik9.ifh.de
Trigger per OM (adc)
PAW on Amanda
AMANDA DAQ98
AMANDA Run start
Init DAQ
Start Run
Stop Run
Help
Simple
Run Parameter:
--name /tmp/daq_test -c3
Exec Dataprocess
Exec Datacollector
Exec Datatransport
Init Datacollector
Init Datatransport
Init Dataprocess
Start Datatransport
Start Run
Stop Run
Stop Datatransport
Quit Dataprocess
Quit Datatransport
Quit Datacollector
Run Script
xclock
Session
macs: daq98f2000.c
CS> open pamandal.spole.gov
Connection established
AMANDA DAQ Control -- Communication Server
Hello there!
Histogram recieved
PAW > histogram/plot 2001

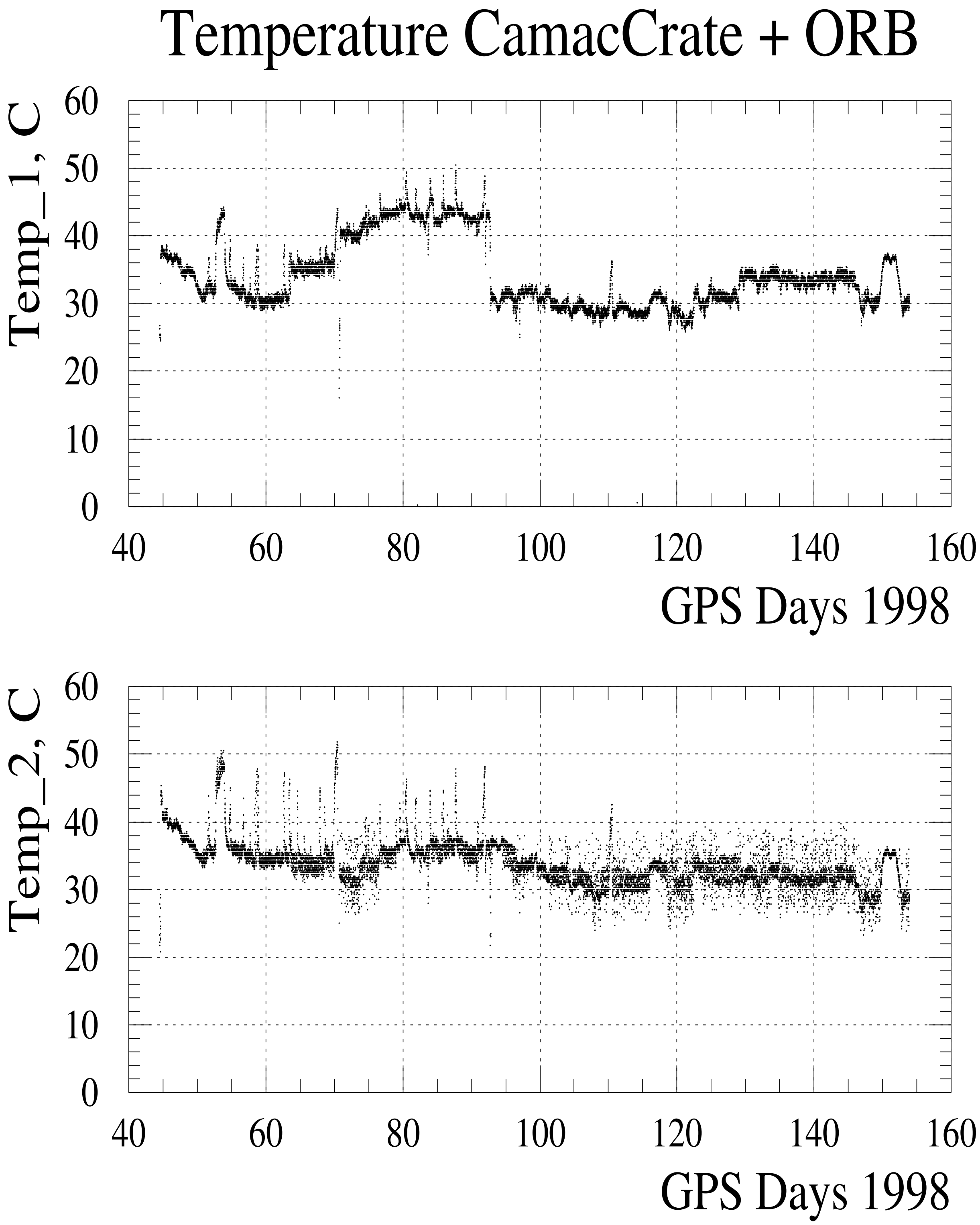


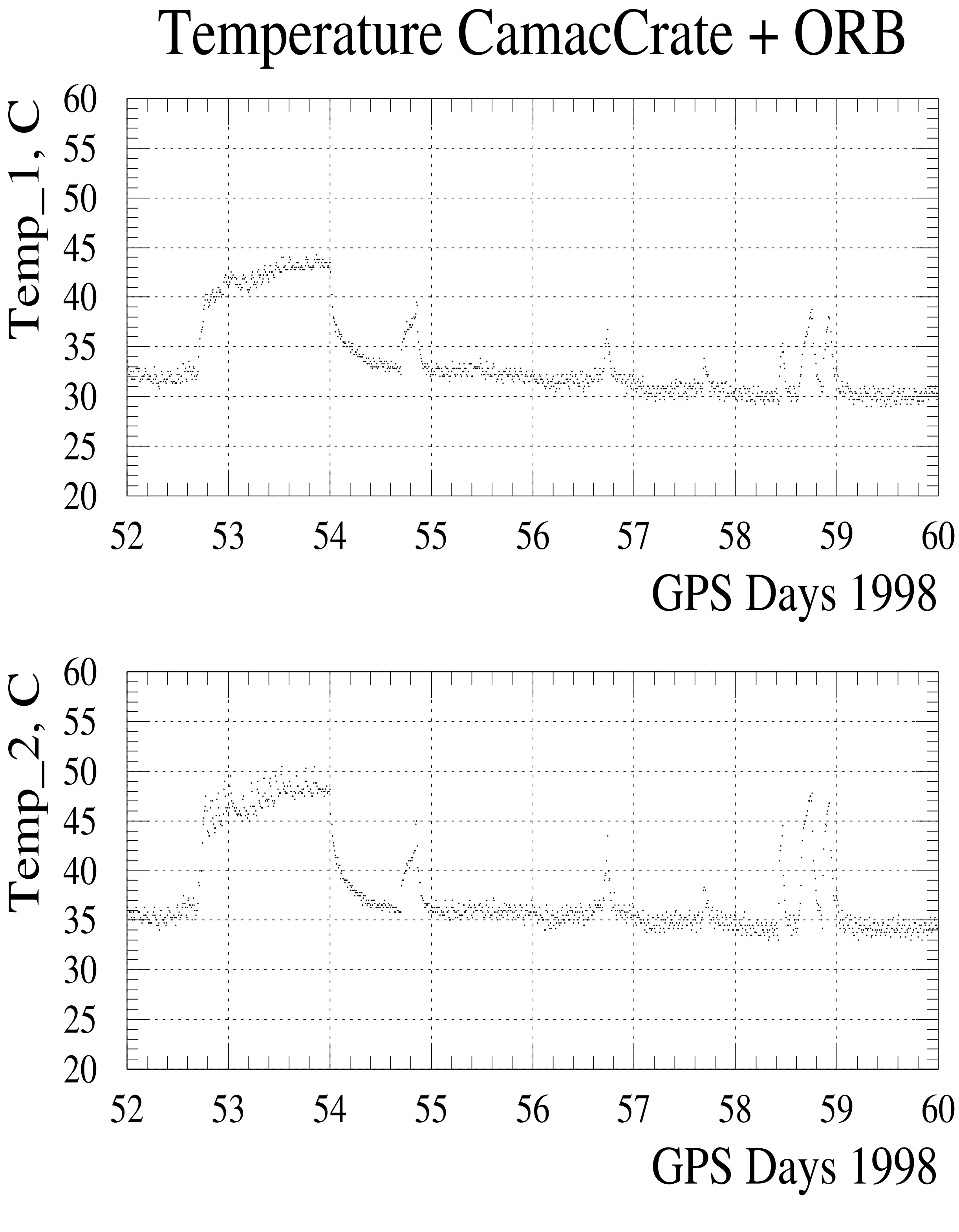
HIGZ_01 @ pbaik9.ifh.de
/mnt/scrz1/daqrunz116z80
Trigger per OM (adc)
Trigger per OM (tdc)
Ratio Trigger per OM ADC/TDC
AMANDA DAQ98
File View Tools
345148.000000 kbytes , rates: 89.463387 kb/sec / 128.743851 ev
347149.000000 kbytes , rates: 89.653687 kb/sec / 129.301071 ev
349151.000000 kbytes , rates: 91.626427 kb/sec / 132.371796 ev
Histogram recieved
CS> CS gethistogram 2007
Histogram recieved
CS> CS gethistogram 2000
Histogram recieved
CS> CS gethistogram 1100
Histogram recieved
CS> CS gethistogram 1101
Histogram recieved
CS> CS gethistogram 100
Histogram recieved
CS> CS gethistogram 101
Histogram recieved
PAW on Amanda
PAW > h/pl 2002
PAW > opt logy
PAW > h/pl 10001
PAW > h/pl 2001
PAW > h/pl 2002
PAW > h/pl 10001
PAW > h/cop 10001 10002 'Ratio Trigger per OM ADC/TDC'
PAW > h/pl 10002
PAW > zon 1 3
PAW > h/pl 2001
PAW > h/pl 2002
PAW > h/pl 10002
PAW >

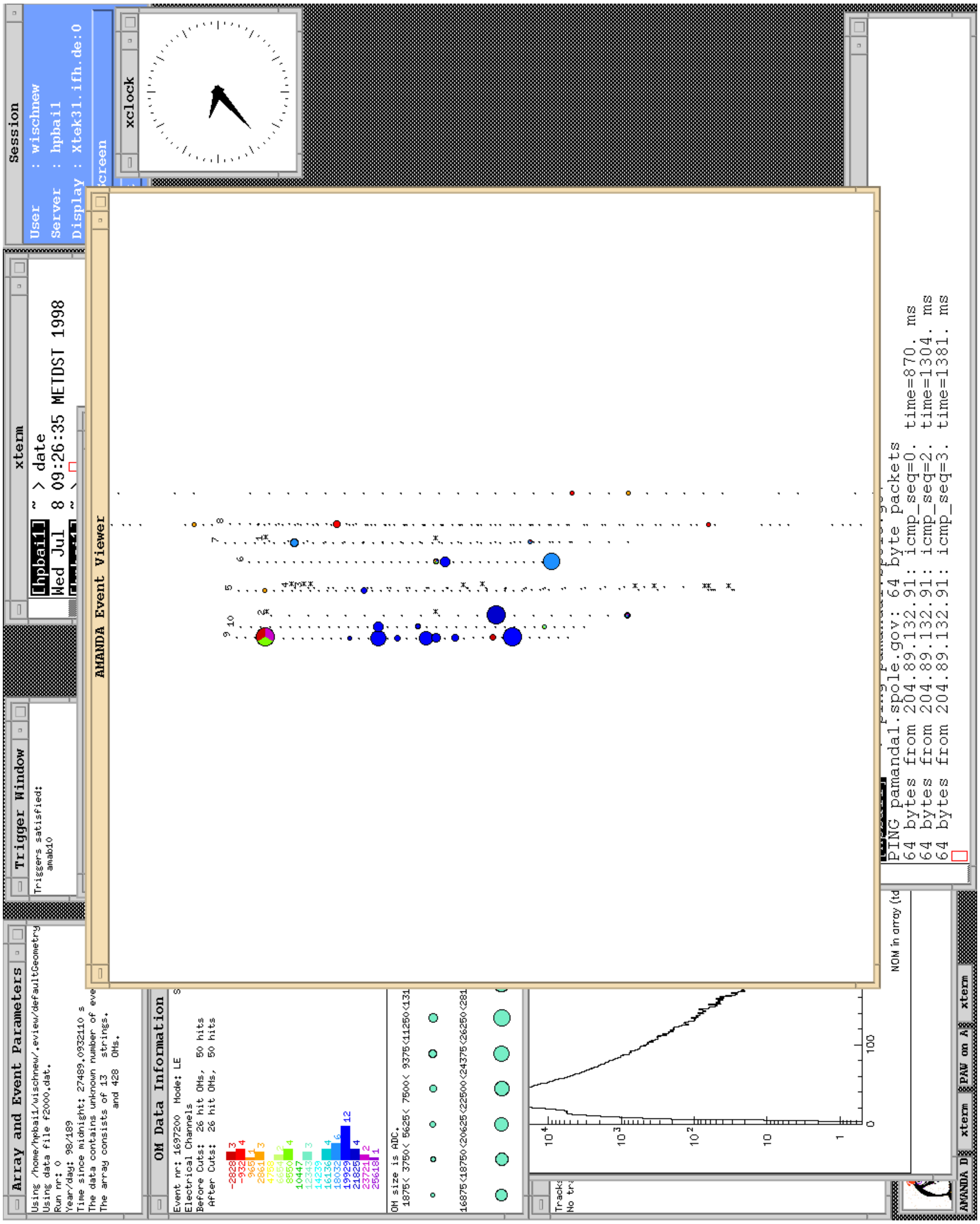

Run 214−118−0, 1998
ID 350040
Entries 72367
Mean 16.48
RMS .3157
Number of Edges 40
ID 200040
Entries 1156673
Mean 5408.
RMS 3938.
All Edges 40
ID 350190
Entries 59846
Mean 10.91
RMS 5.236
Number of Edges 190
ID 200190
Entries 622807
Mean .1091E+05
RMS 6540.
All Edges 190
ID 350331
Entries 67703
Mean 1.956
RMS 2.048
Number of Edges 331
ID 200331
Entries 98593
Mean .1756E+05
RMS .1005E+05
All Edges 331

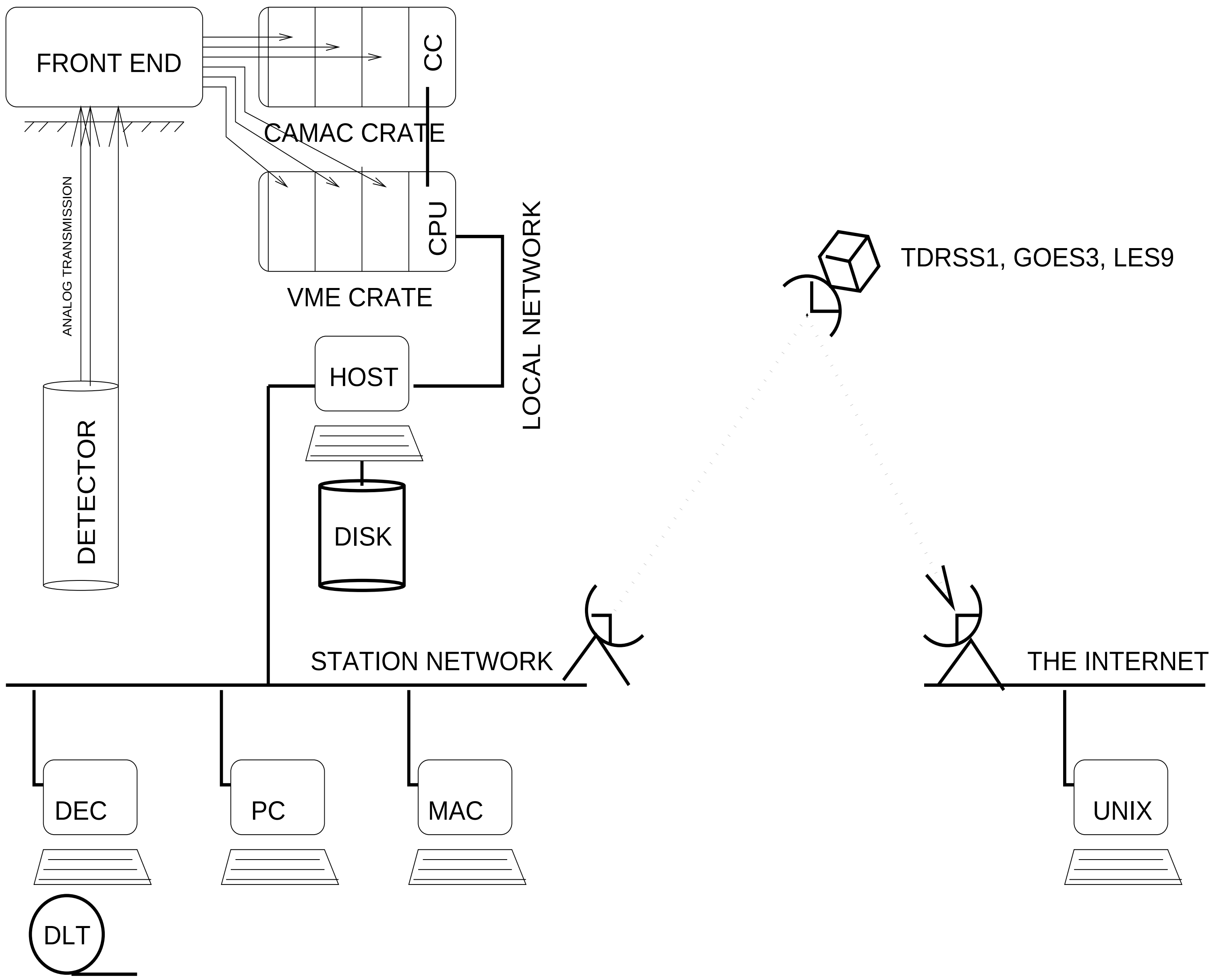


onlz0306a.hbk vs onlz0705za.hbk
1
10^{-1}
0
200
400
Trigger per OM (adc)
1
10^{-1}
0
200
400
Trigger per OM (tdc)
1
10^{-1}
0
200
400
NOM in array (tdc)
1
10^{-1}
0
10
20
30
Triger Register – CAMAC


Temperature CamacCrate + ORB
Temp_1, C
GPS Days 1998
Temp_2, C
GPS Days 1998


Temperature CamacCrate + ORB
Temp_1, C
60
55
50
45
40
35
30
25
20
52
53
54
55
56
57
58
59
60
GPS Days 1998
Temp_2, C
60
55
50
45
40
35
30
25
20
52
53
54
55
56
57
58
59
60
GPS Days 1998


Array and Event Parameters
OM Data Information
Trigger Window
xterm
Wed Jul 8 09:26:35 METDST 1998
Session
xclock
AMANDA Event Viewer
PING pamandal.spole.gov: 64 byte packets
64 bytes from 204.89.132.91: icmp_seq=0. time=870. ms
64 bytes from 204.89.132.91: icmp_seq=2. time=1304. ms
64 bytes from 204.89.132.91: icmp_seq=3. time=1381. ms


FRONT END
CC
CAMAC CRATE
CPU
VME CRATE
ANALOG TRANSMISSION
DETECTOR
HOST
LOCAL NETWORK
DISK
TDRSS1, GOES3, LES9
STATION NETWORK
THE INTERNET
DEC
PC
MAC
UNIX
DLT

From steffen@pamanda1.spole.gov Fri Oct 9 12:29:42 1998
Date: Fri, 26 Jun 1998 17:23:21 +1200 (NZST)
From: Steffen Richter <steffen@pamanda1.spole.gov>
To: Ralf Wischnewski <wischnew@ifh.de>
Subject: SP Network

Hi,

here is an outline of our AMANDA subnet. We have a quarter class C for
AMANDA which means 64 addresses.

```
   pamanda1--| BNC
   pamanda2--|
   pamanda3--|
   abrafax---|                               fibre->10BaseT
             |                                    __
             |                               ----|__|---jorgubb
          ___|____                           |
         | Hub    |                          |
         |________|                          |
             |   __     optical fibre        |
         ----|--|__|----------/ /------------|
         |   |___________                           __________
         |--|           |                          |          |- NoMac
rice2      -|  Switch   |  __ optical fibre __     |  Switch  |- smilla (LJ)
amandadaq  -|           |-|__|-----/ /-----|__|----|          |- spbert
radio      -|           |                          |          |- spice2
berlin     -|           |                     -----|          |- Liverpool
(goosberry)-|___________|               __   |  ---|__________|
                                   |---|__|--|  |
                                   |            |
                                   |          -------
                               Ginko/Comms    | Hub  |- buster
                                              |      |- hjortron
                                              -------
```

There are a couple of things to do. The computers in MAPO which are
connected via 2BaseT (BNC) to the Hub and then to the switch need to be
connected directly to the switch to keep traffic of the same wire
(especially pamanda1). I already started cleaning our very weired network
installation in MAPO up. A lot of cables were just looping around on the
cable trays without beeing connected to anywhere. Others where labled
"bad", which is no surprise considering that somebody plug them into the
CARA hub.
If I find the time I will install two 10BaseT jacks at every desk in MAPO.
Another strange thing is, that buster and hjortron refuse to talk to our
switch in BOS directly. The have to be connected using a hub. I haven't
looked into this myself. So, I don't know what the problem is.

Cheers,
        Steff