# Weekly Coordinator report
# July 30th – August 6th

Murphys Law: ***If anything can go wrong, it will.***

and of course the add-on

***If anything just cannot go wrong, it will anyway.***

Eric's Observation:

**Catastrophies coming in sequentially, always wait for the previous one to be mastered.**

# History

ok

problem

catastrophy

## Friday July 30th:

- smooth data taking
  (usual problems: some noise, few channels / FE- cards broken …)

## Saturday July 31th:

- around midnight: **DAQ problems**
  - normal: pccoeb16 & 17, RAID, …
  - strange: programms disappeared from ~onl/bin; connection to richctrl sometimes did not work; online calibrator was not running anymore …

  solved around 10:30
- noon: **RICH $CH_4$ supply faliure**
  - we are not allowed to have a key to the gas building 908
  - TCR could not open it
  - 1st attempt by fire brigade failed also

  $\rightarrow$ system did not switch bottles

  $\Rightarrow$ **RICH PD‘s contaminated by Ar (6h flushing required)**

catastrophy

prob

catastr

ok

pr

- Sunday August 1st:
  - data taking until … ~ 15:25 → **main water house of SM2 broke**; **fountain sprayed water over the trackers** directly downstream
    about 1.5t of water flooded the spectrometer from RICH to HCAL2
  - fire brigade removed water in 3h
  - detectors drying over night
- Monday August 2nd:
  - around 11:30 **brake of interlock** by opening the excape door on the gallery to „ventilate the hall“ …
  - house already „repaired“ around noon: opening of valve caused drop in cooling water pressure
    ⇒ **loss of polarisation** (safety system of solenoid power supply)
    ⇒ shutdown of SPS (safety system suspected water leak …)
- Tuesday August 3rd:
  - miraculously **no severe damage** to GEM‘s, MPWC‘s, FI07 or H3
  - all detectors on again; beam back in the area !!!
  - **false gas alarm**

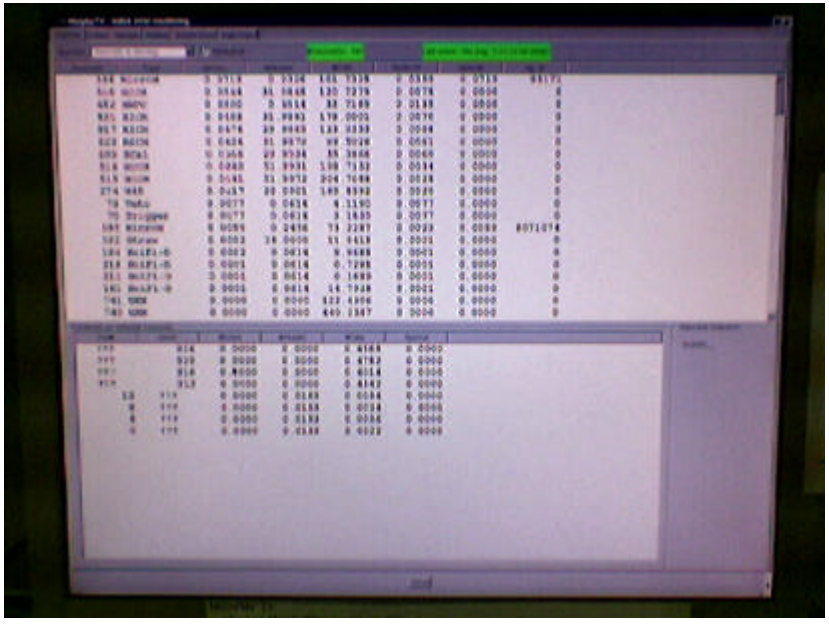
ok

prob

ok

prob

- Wednesday August 4rd (short MD):
  - no major interventions
  - evening shift: **WE ARE TAKING DATA AGAIN !!!!!!**
    problems: GM10, richctrl
- Thursday August 5th :
  - alignment
  - no beam for 2.5h (thunderstorm ⇒ **CPS problems**)
- Friday August 6th :
  - very unstabe beam during night
  - apart from this smooth data taking again
  - THE **perfect run** was taken: 38580
  - still unstabe beam conditions



# persistent problems

- richctrl → communication problems
- PVSS  communication losses
- beam line files sometimes have wrong readings
  (some new event timing system being tested !?!)
- air conditioning
- human to human communication flow …

# interruptions of data taking …

… are essentially due to communication problems, which comes in two flavours:

1. technical: DAQ or PVSS $\leftrightarrow$ something

2. human $\Rightarrow$ much more severe !

Comments:

- the period coordinator is THE primary focus of information
- experts „on call“ have to be reachable
- do not hesitate to call the experts, even at 3:00

# some statistics

Period From: Fri, 30 Jul 2004 12:00 To: Fri, 06 Aug 2004 12:00 Calculated At: Fri, 06 Aug 2004 12:07

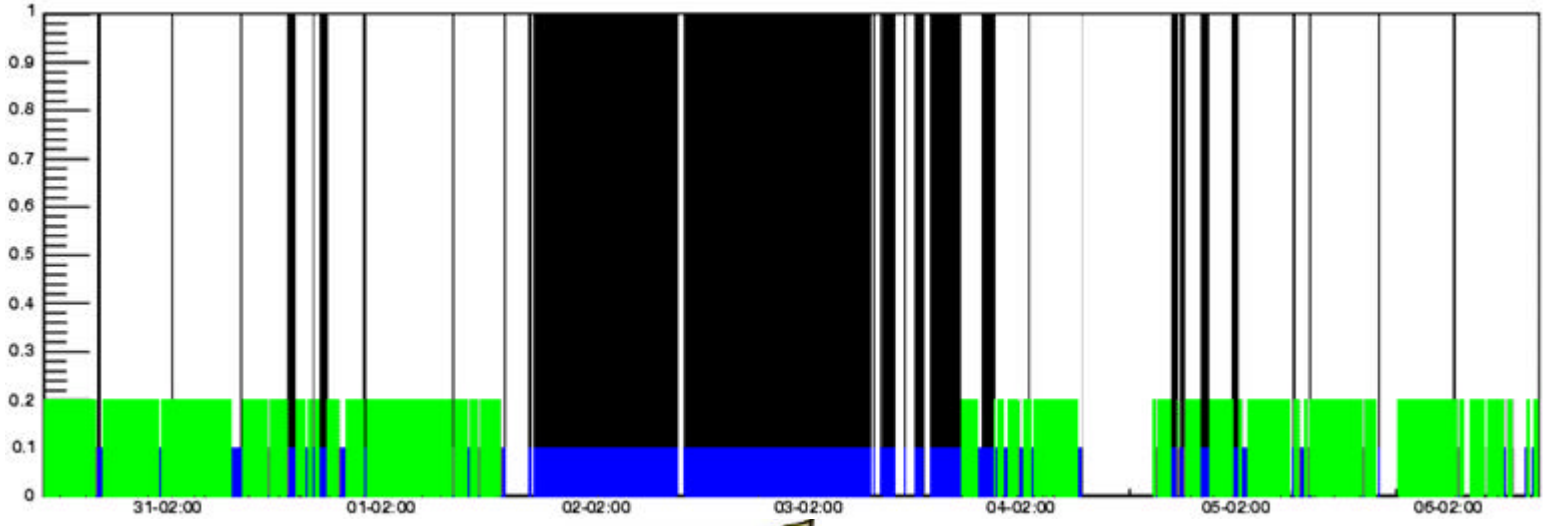
Length of time excluding scheduled MD: 168.00 hours

**** Efficiency of PS/SPS
a: Total SPS Circle (exclude scheduled MD): 35802.0
b: SPS spill with T6 current >30.0: 30691
c: Sum of T6 current 3822098.4
d: (=b/a) PS/SPS Efficiency: 85.7%

**** Muon Beam In HALL 888
f: SPS spill In Hall with Muon Count >100000.0: 20091
g: Sum of In Hall Muon Count: 3587447240890.0
h: (=f/b) SPS Spill Get in 888: 65.5%

**** Use of SPS/Inhall Spill in COMPASS
i: Spill used with ion chamber counting >100.0: 16477
j: (=i/f) Inhall spill used: 82.0%
k: (=i/b) SPS spill used: 53.7%

Distribution of used spills:
field_rotation runs used 359 spills, 2.2%
random_trig runs used 38 spills, 0.2%
beam_test runs used 488 spills, 3.0%
physics- runs used 6186 spills, 37.5%
physics+ runs used 7085 spills, 43.0%
detector_test runs used 1968 spills, 11.9%
DAQ_test runs used 40 spills, 0.2%
alignement runs used 297 spills, 1.8%




**GREEN**:DAQ working time

**BLACK**: beam not in hall

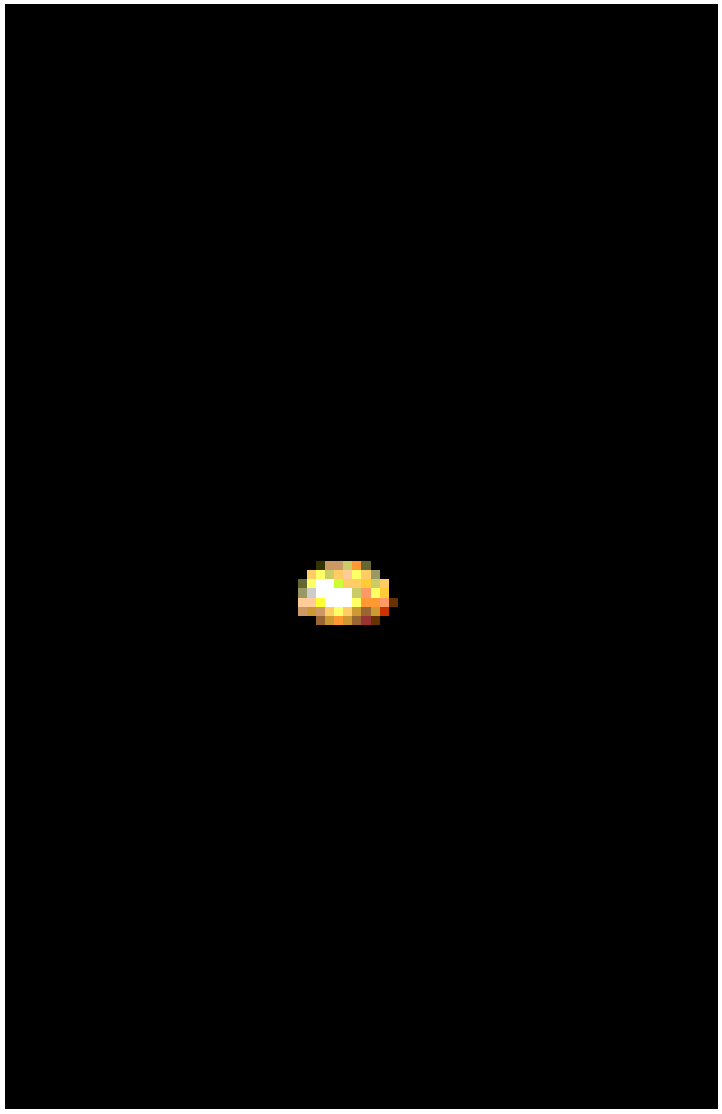
**BLUE**:SPS working time

The real McCoy:  consumption: > 2 kg / day

The whole time I was waiting for the real big, final bang …

… ***furtunately it did not come!***

( Nevertheless Jörg, you owe me something … ;-)



Thanks to the shift crews and all helping hands !