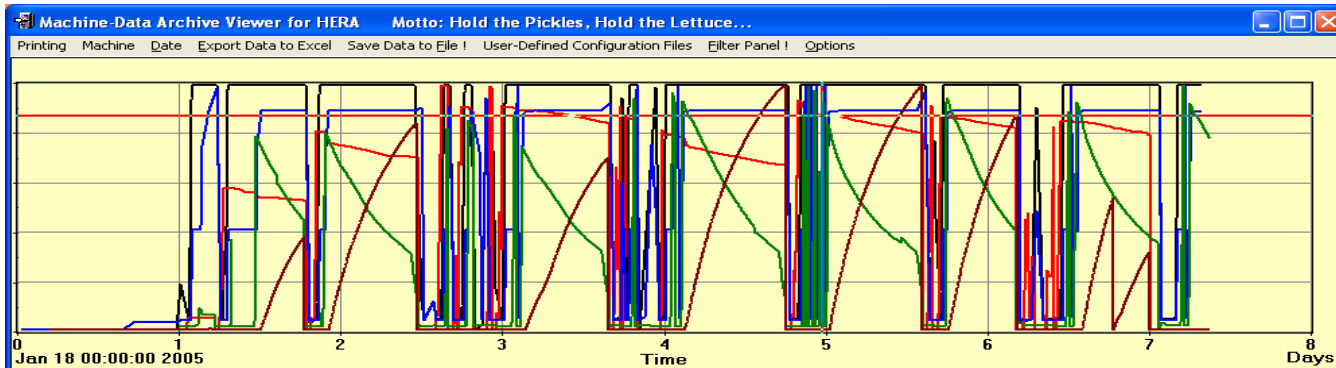


HERA Week # 3



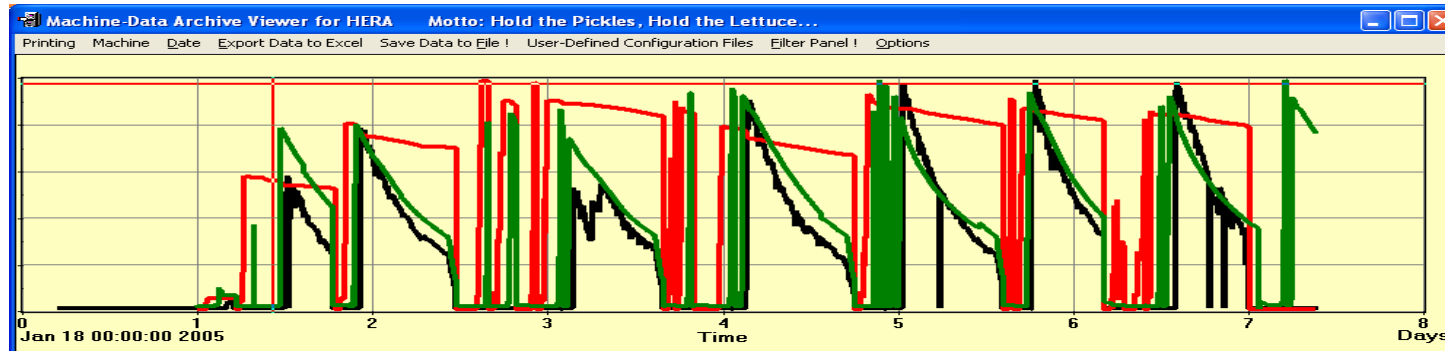
Fast recovery of operation after repair of GN

Reasonable Luminosity Production $\int_{\text{week\#3}} L dt = 4.12$, 1 run per day

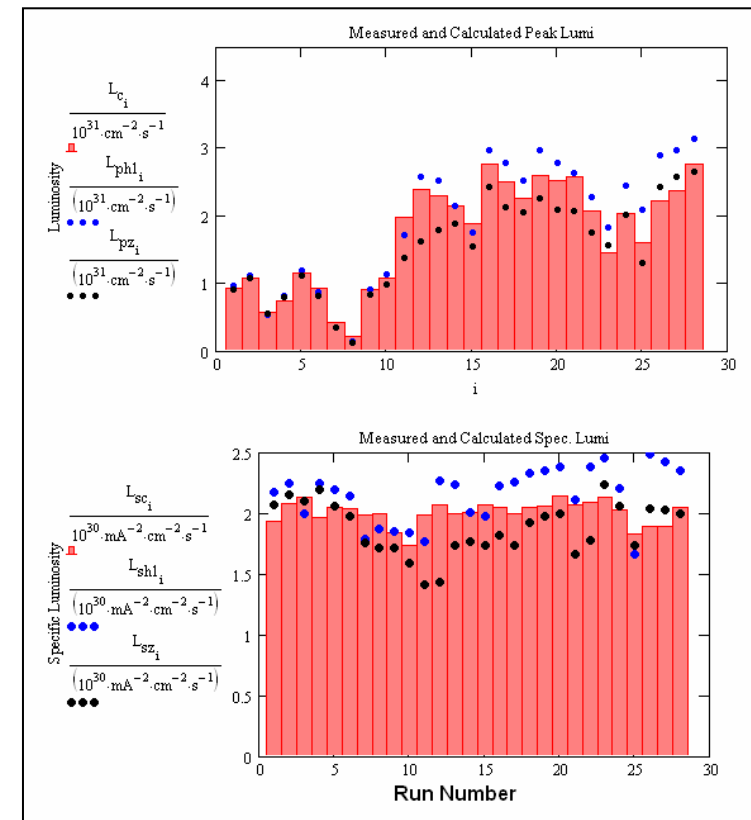
Backgrounds: clear connection to collimator settings

Polarization: Continue Bump tuning, polarization up to 40%

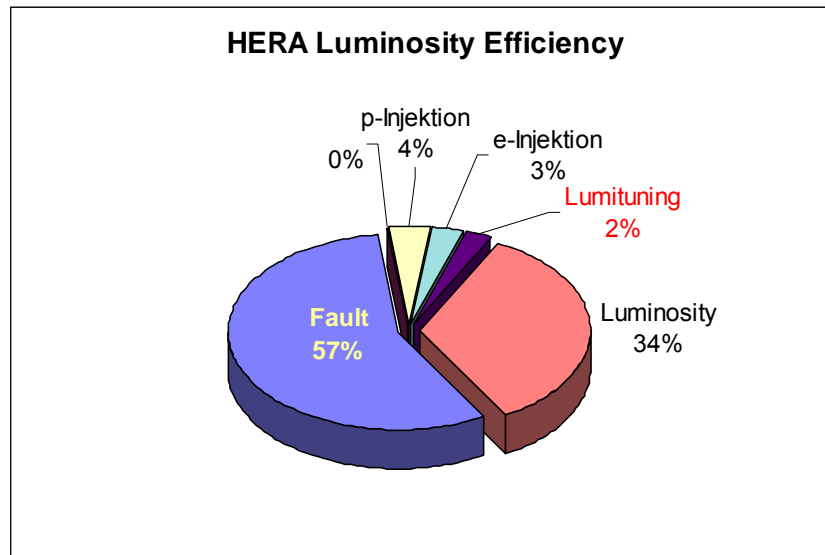
Luminosity



- P currents around 60mA (deliberately reduced)
- e-Currents approaching 30mA in 126 bunches
- Peak luminosity exceeds $3 \times 10^{31} \text{ cm}^{-2}\text{s}^{-1}$
- Specific luminosity continues to be larger than calculated
- Luminosity life time is very close to e-beam lifetime



Operation



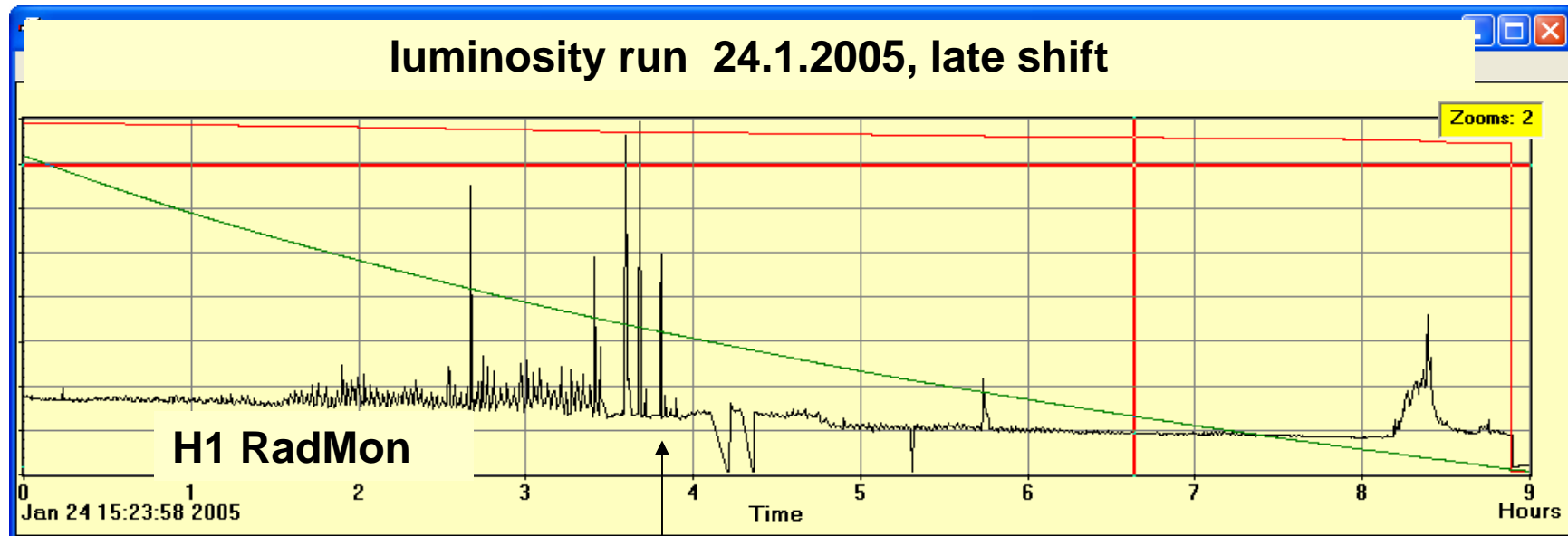
From an operational point of view accelerator is fairly well under control

Luminosity tuning speeded up

Injection without problems

Technical problems continue to take quite some time, 21 faults in week #3, 19 h of operation time lost

Backgrounds



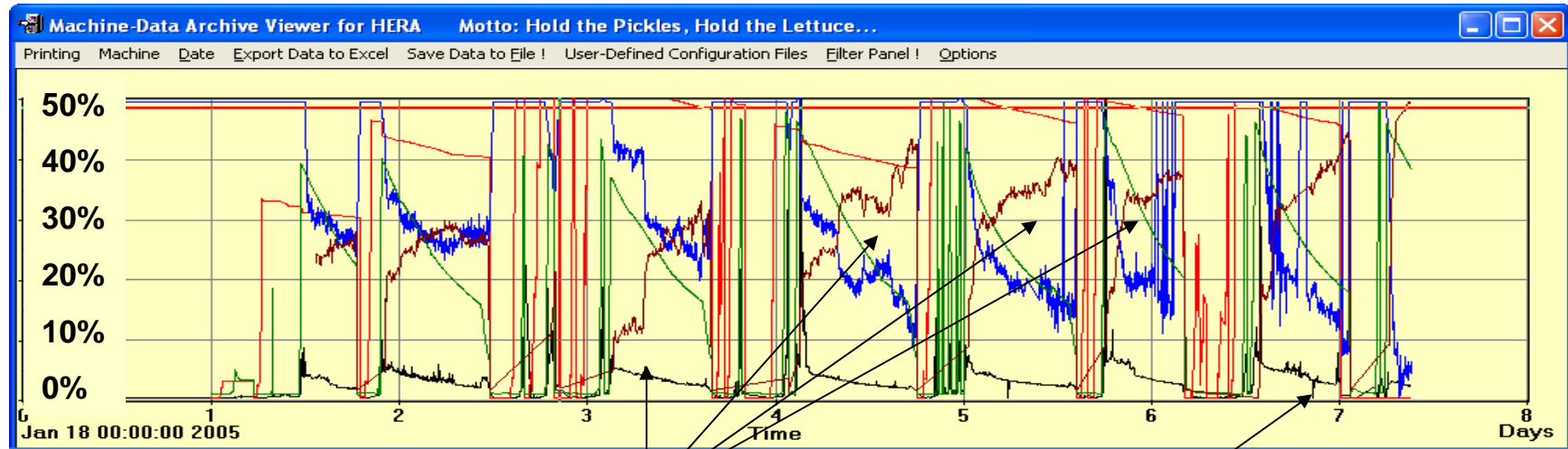
Readjusting
collimators

A series of test with collimators is planned:

Is damaged collimators surface the problem?

GA magnet circuit HERA North shows unstable behavior sometimes

Polarization



Tuning with bumps continued:

Polarization colliding Bunches ~40%

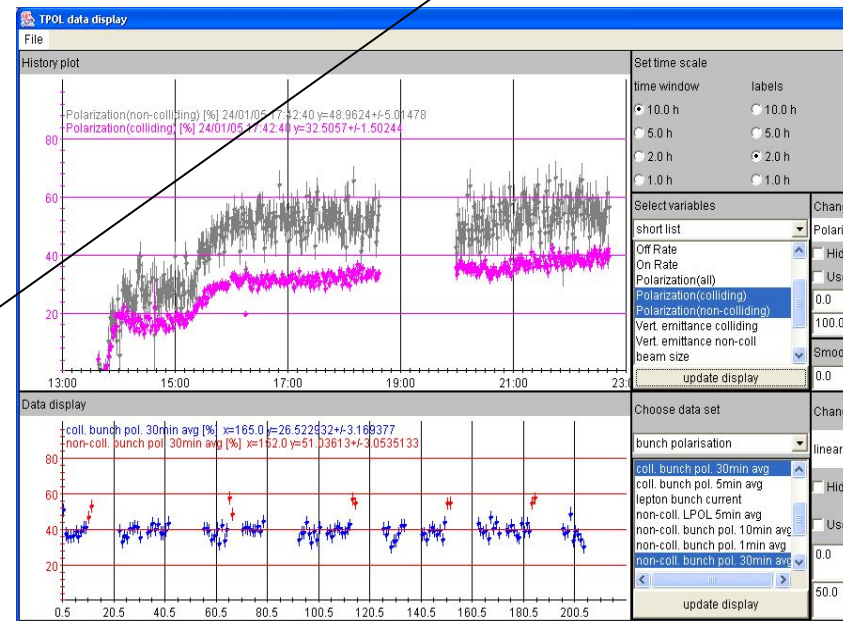
Polarization noncoll. ~50%

Two fold beam-beam effect

(unscheduled exper'ts Jan 24, late shift)

➤ On optimum Tunes for collid. bunches

➤ Direct beam-beam effect



Furthermore

- GN Magnet coils analysis
- To discuss: Parasitic polarisation studies instead of high density studies
- Maintenance day: Proposal to warm up WWZ North
- Stay with 120 Bunches
- Switch rotator (for diagnostic reasons)