

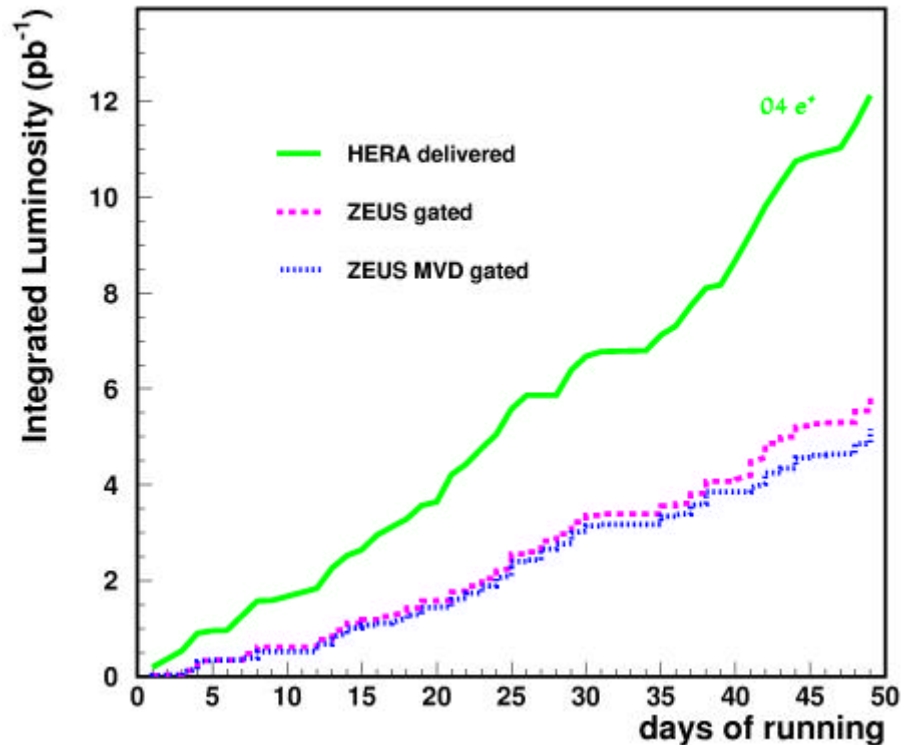
ZEUS Status Report

HERA Coordination Meeting

February 24, 2004

W. Zeuner

Luminosity since Jan 4, 2004



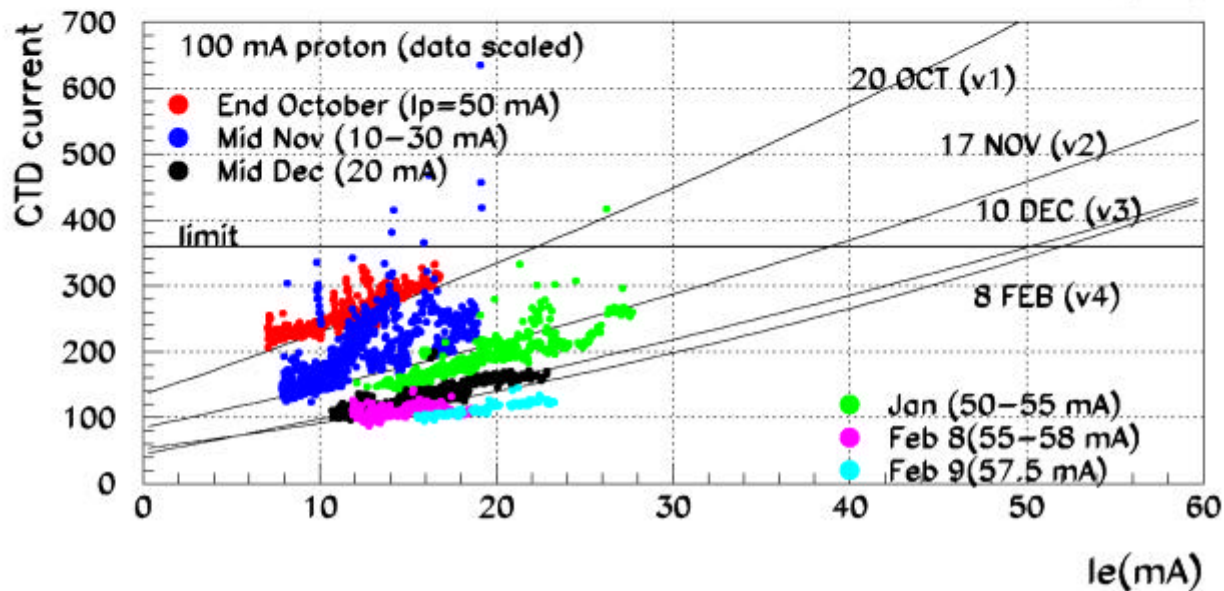
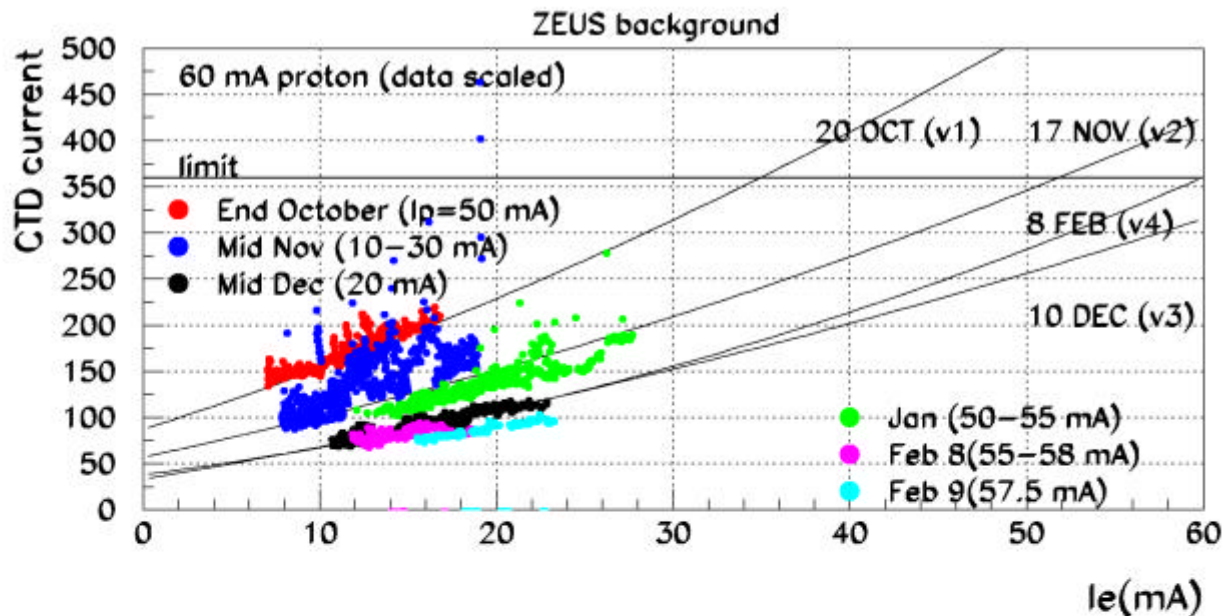
All detector components are working

Data taking efficiency is improving

Solenoid stable since one week

Background

In general fine....

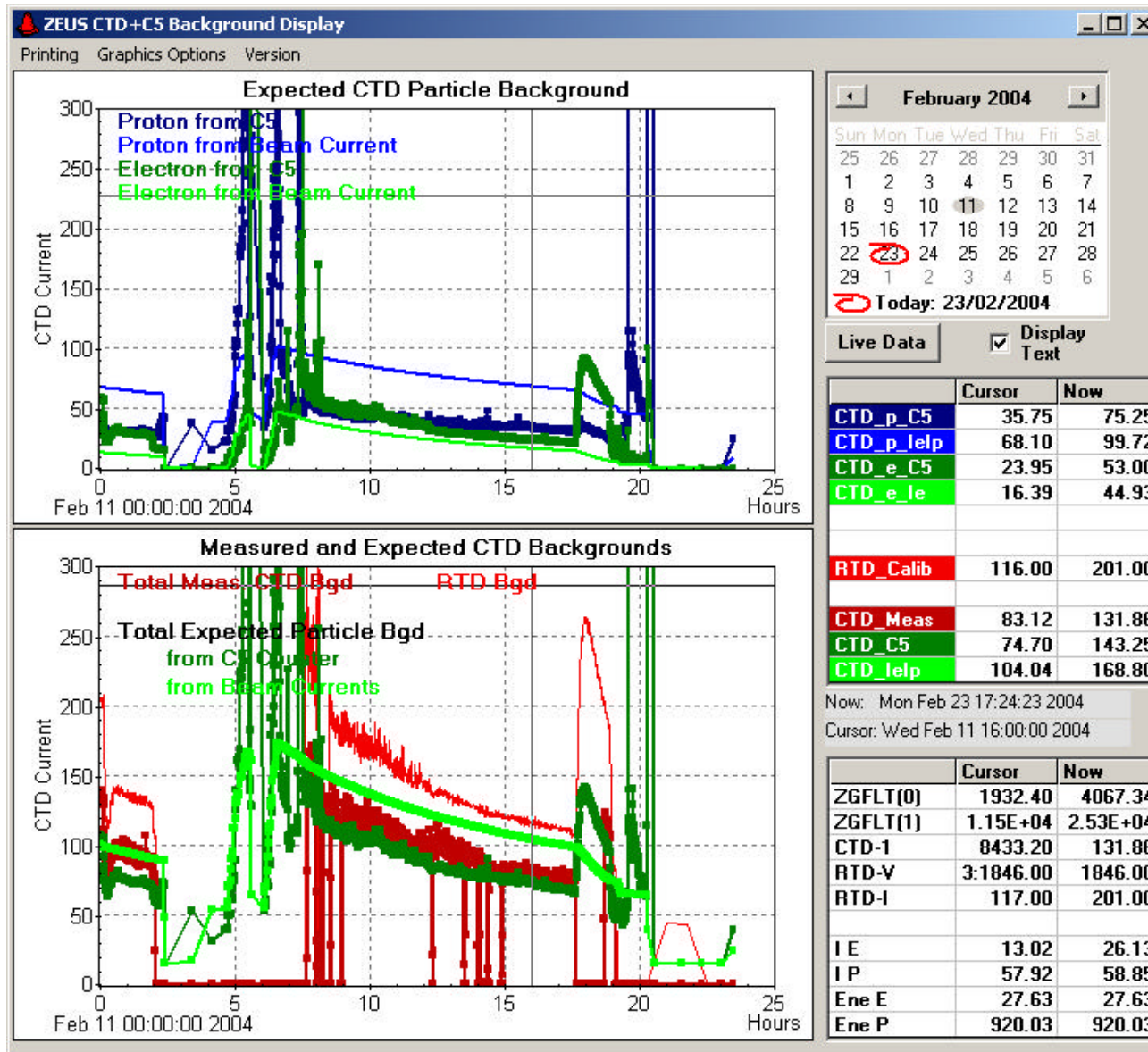


Background

However, in practice there is still room for improvement ...

Stability of
positron tune
and p-tune

Beam-beam effects
Emittance etc.



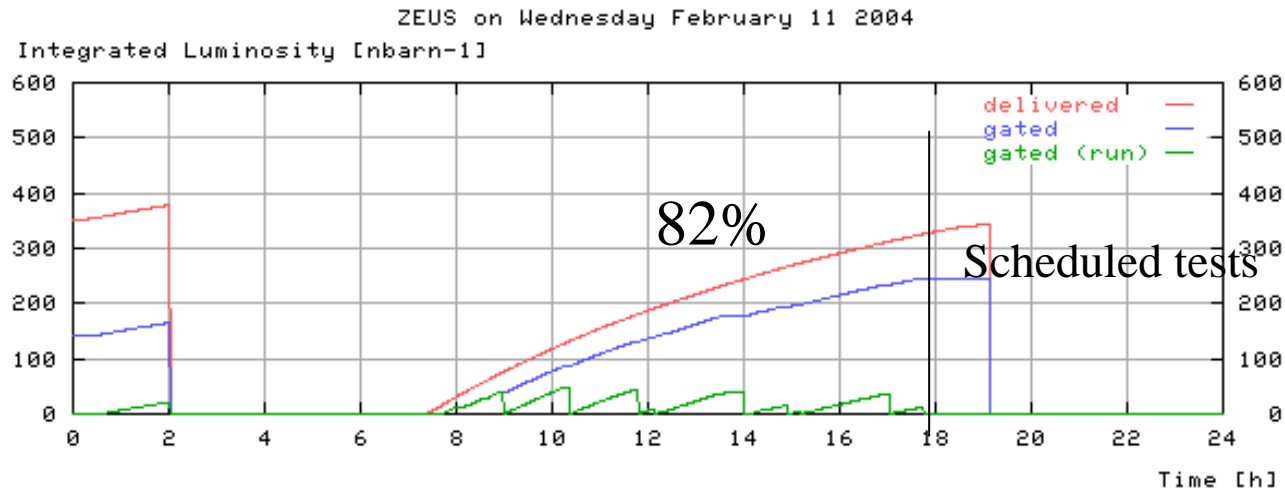
Background

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Going to 180 bunches will hopefully help

Data Taking Efficiency



Efficiency finally around 70% - 80%

- 5-10% loss due to initial lumi tuning – monitor start integrating before lumi run starts
- 5-10% loss due to trips
- ~5% DAQ deadtime

Stability of DAQ system improved during the last weeks

We still have a few loose ends... further improvements are expected.

ZEUS Solenoid

Since begin of the year occasional fast discharges observed without apparent reason.

Begin of Feb. discharge frequency increased.

On Feb. 5 missing ground connection at the power supply re-installed
Then stable operation until Feb 12. Afterwards not operational at all.

Feb. 16, power supply as source of problem identified with help of MKK
Relays changed
Symptoms can be explained plausibly
with aging effects on these relays.

Since Feb. 17 running stable

Major maintenance and overhaul of solenoid electronics (quench protection and power supply) planned for August shut down

For the time being keep your fingers crossed....

Next Steps

Change of spin direction on March 3/4 ?

ZEUS prefers not to change the spin direction now

- Avoid any additional disturbance on the machine operation
- Improve understanding of the polarization first

Change to 180 bunches – highly welcome, the sooner the better...

Exact dates of summer/autumn shutdown must be fixed very soon
– keep it short !!!!

Decision on electron running after the shutdown must be taken soon

Decision on whether or not running over Christmas should be taken before the summer