



H1 Status Report

6th September 2005

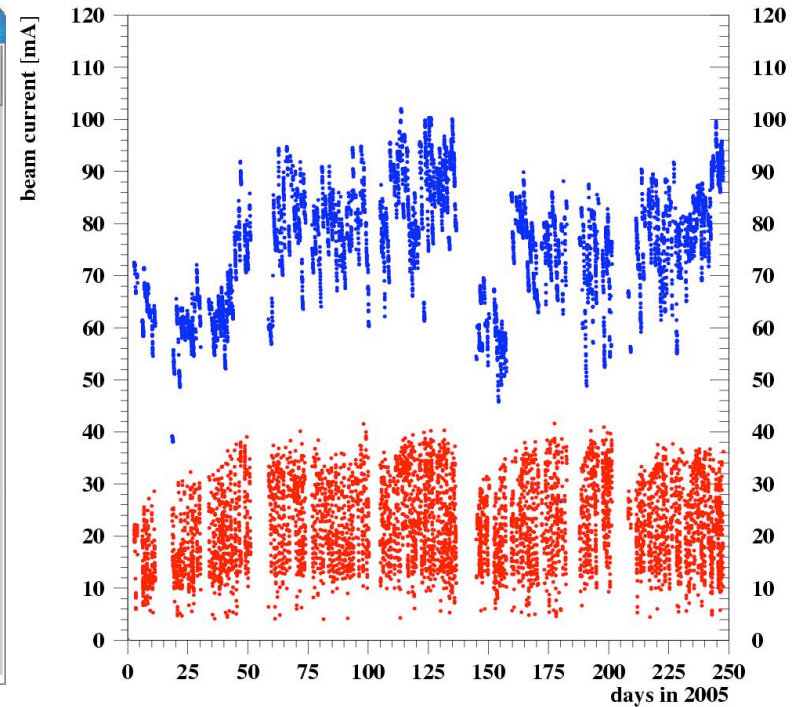
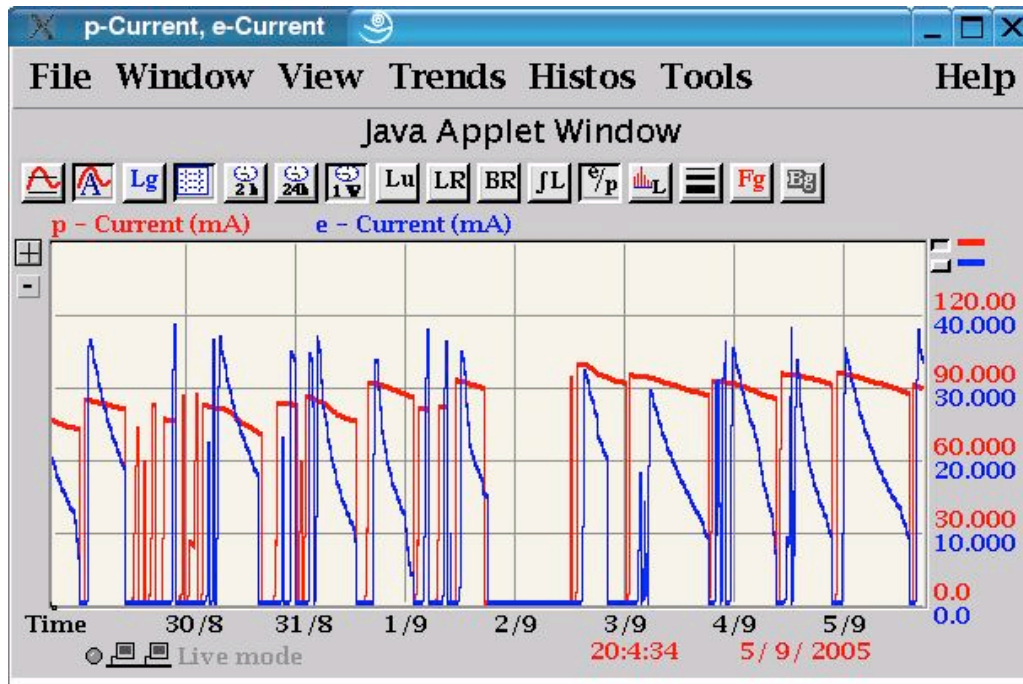
David South (DESY)



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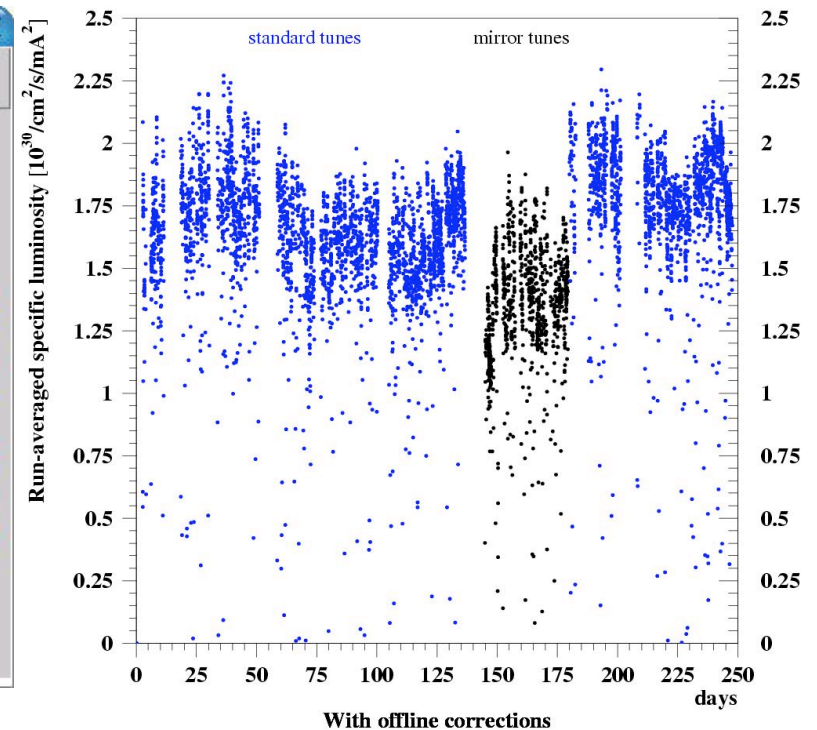
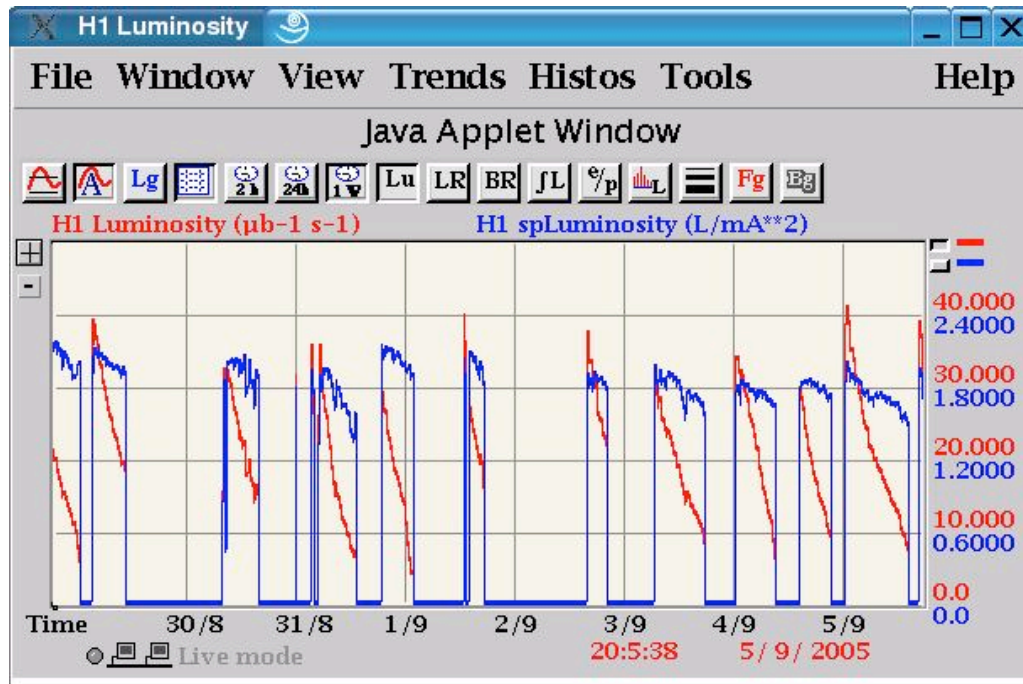
- H1 Status and Luminosity Statistics
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Beam Currents



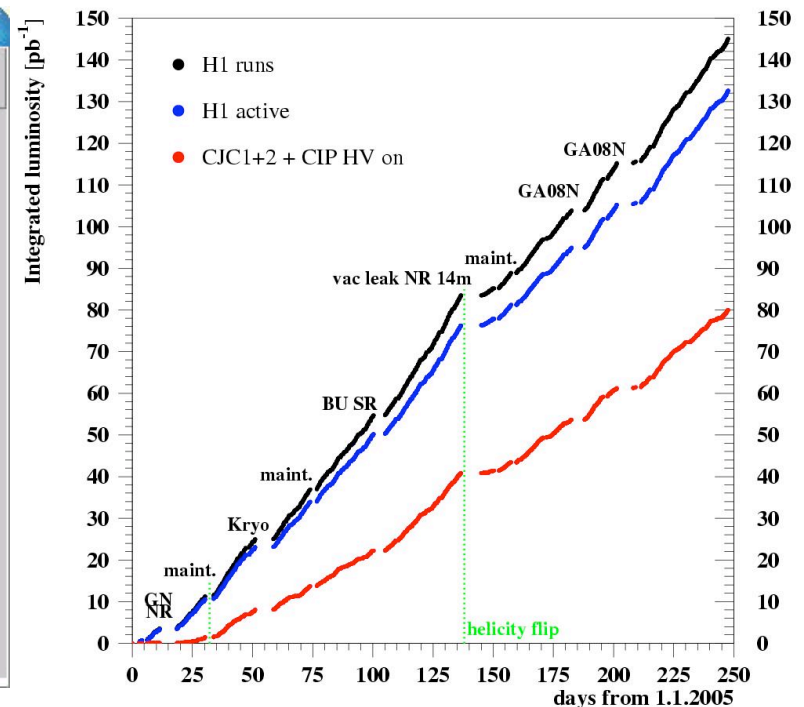
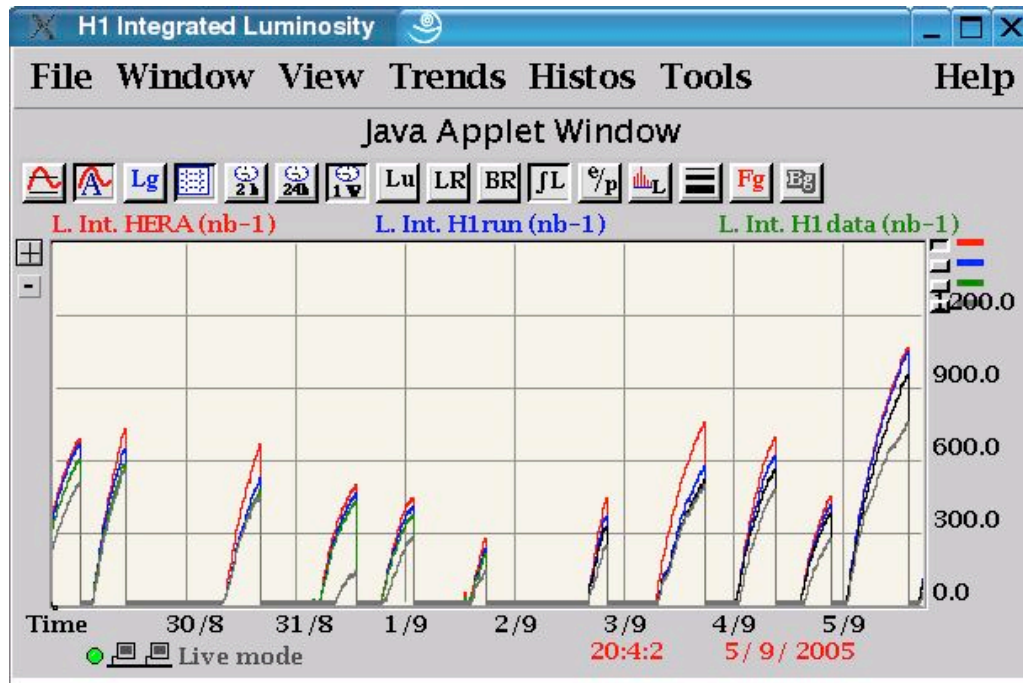
- Proton currents up to around 90mA, up to 100 mA; electron currents 30-35 mA

Luminosity



- Lower specific luminosities at H1 during middle part of week

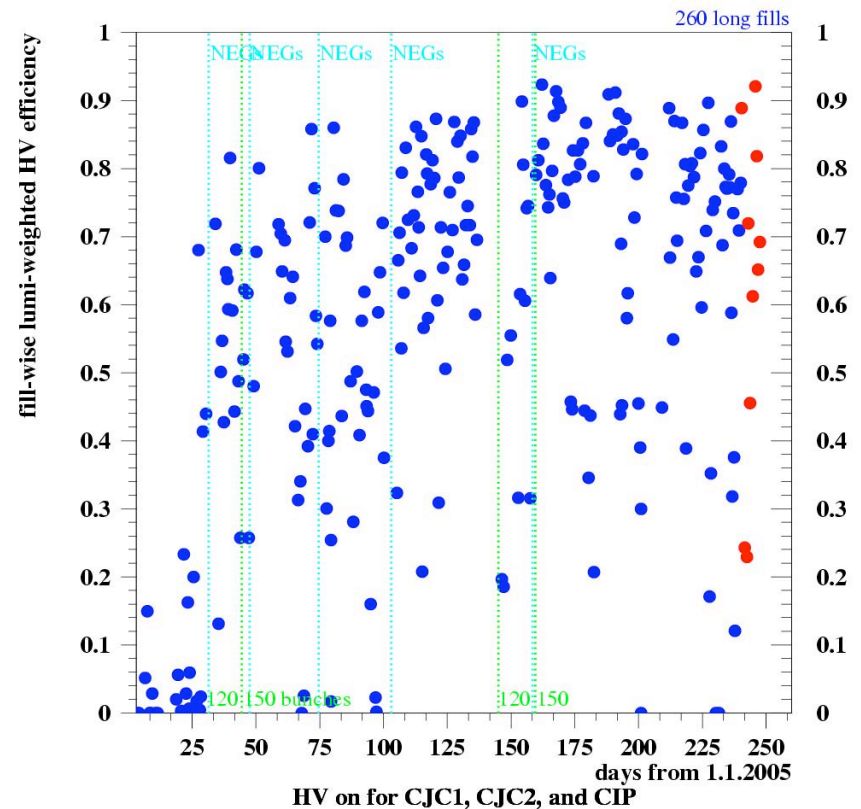
Integrated Luminosity



- Improving amount of luminosity recorded, including last fill from yesterday: $L_{\text{HERA}} = 1063 \text{ nb}^{-1}$, $L_{\text{CJC1,2}} = 757 \text{ nb}^{-1}$

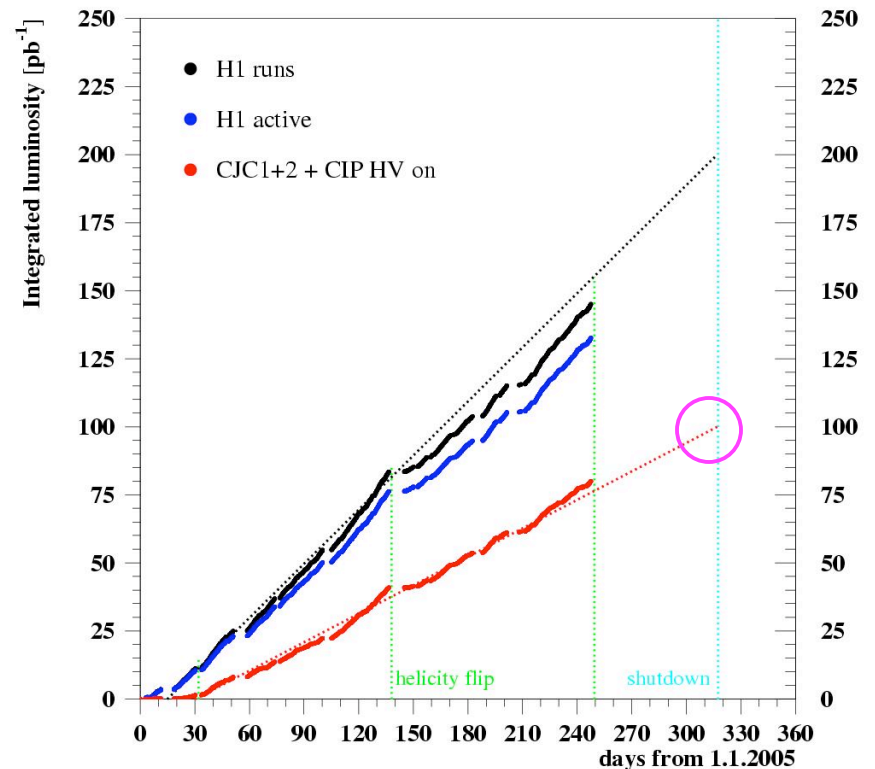
HV Efficiency

- Mostly good HV efficiency; some fills around 90%, but many fills around 60-70%
- Due to frequent CJC trips; background has been better, but still spiky and yesterday chamber trips with no obvious spikes...
- Since last Monday:
 - $L_{\text{H1 Runs}} = 5.0 \text{ pb}^{-1}$
 - $L_{\text{H1 Active}} = 4.6 \text{ pb}^{-1}$
 - $L_{\text{HV ON}} = 3.0 \text{ pb}^{-1}$ (Eff. = 65%)



Luminosity up to Shutdown..

- Still on course for more than 100 pb⁻¹ of useful data before shutdown
- Lumi statistics for 2004-05 e⁻p:
 - L_{H1 Runs} = 145 pb⁻¹
 - L_{H1 Active} = 133 pb⁻¹
 - L_{HV ON} = 80 pb⁻¹ (Eff. = 60%)





H1 Maintenance Day Activities

- HERA:

- Warm up magnets, regenerate NEG pumps - solenoid will be slow dumped and toroid switched off

- Tunnel Access:

- FPS (NL 80/90m): Low voltage repair, replace some cooling on crates, check optical cable link (3 hours)
- FNC (NL 107m): inspection of air cooling system (1 hour)
- Etag40 (NR 40m): Examine PMT

- Other:

- LAr HV to be switched off, examine consequences of trip during e ramp last week



Summary

- Good to see proton currents pushing 100mA again!
- An improving week of running for H1: lots of useful data taken, but sometimes HV efficiency has often been low due to bad background conditions
- Specific luminosity lower in middle of week, but again greater than 2.0 in most recent fills
- Several tunnel activities around H1 on Wednesday and hopefully improved vacuum after the warm up
- H1 on course to record over 100 pb⁻¹ data before the shutdown starts in November