

H1 Status



G. Eckerlin

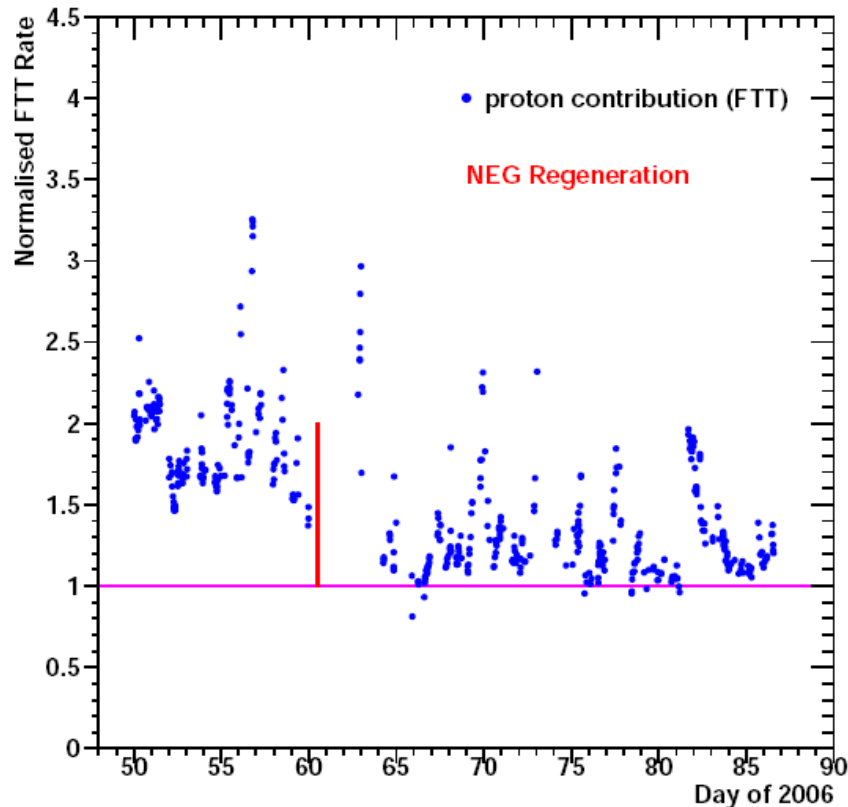
HERA coordination meeting

March 28th 2006

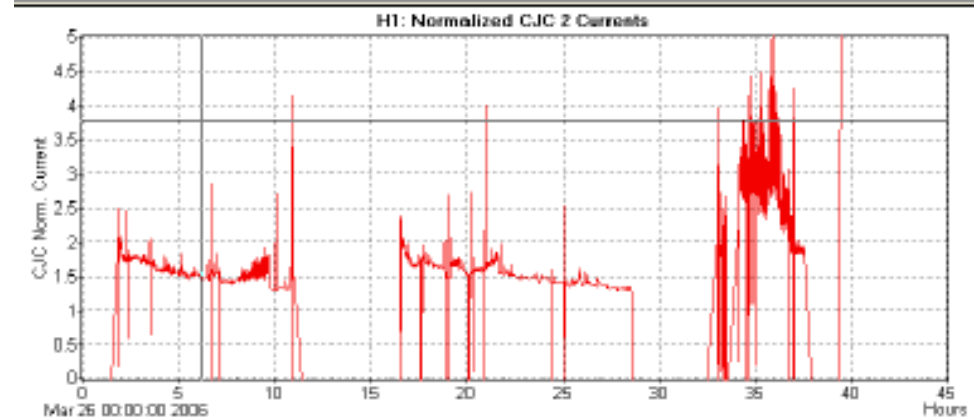
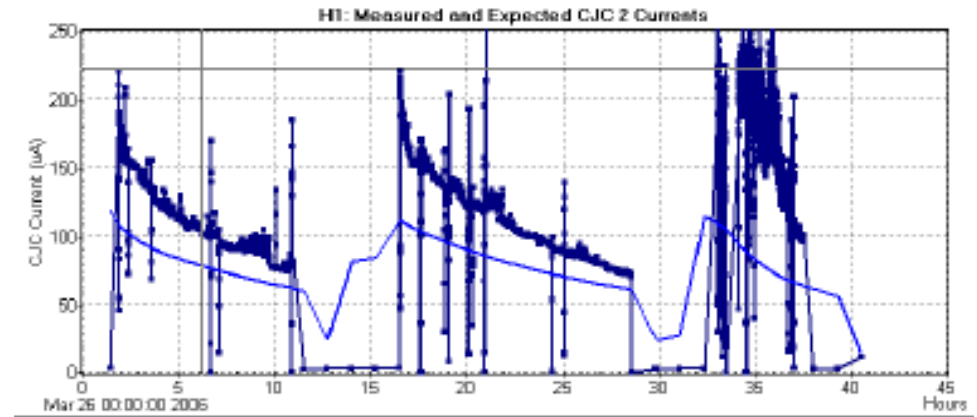
- Background
- Data
- Plans

Background

Time Dependence of Proton Background in 2006

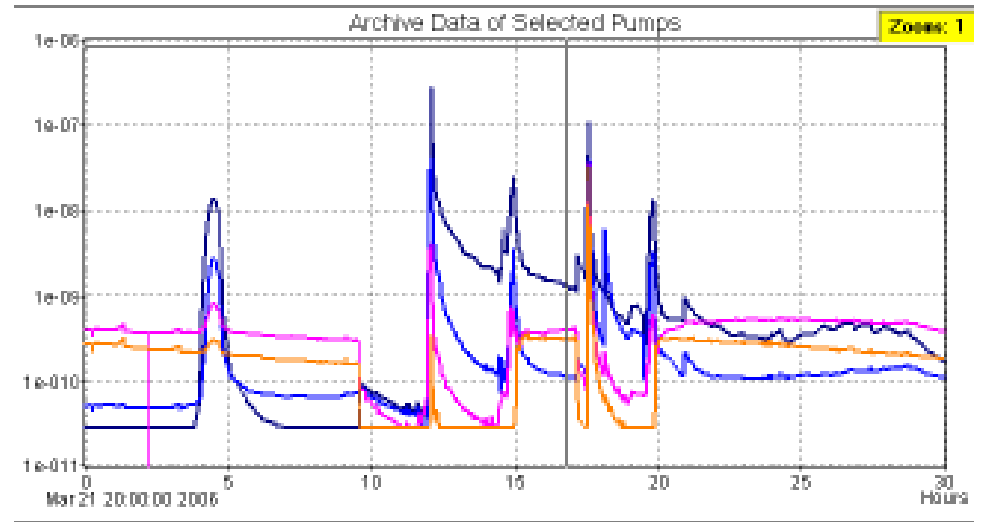
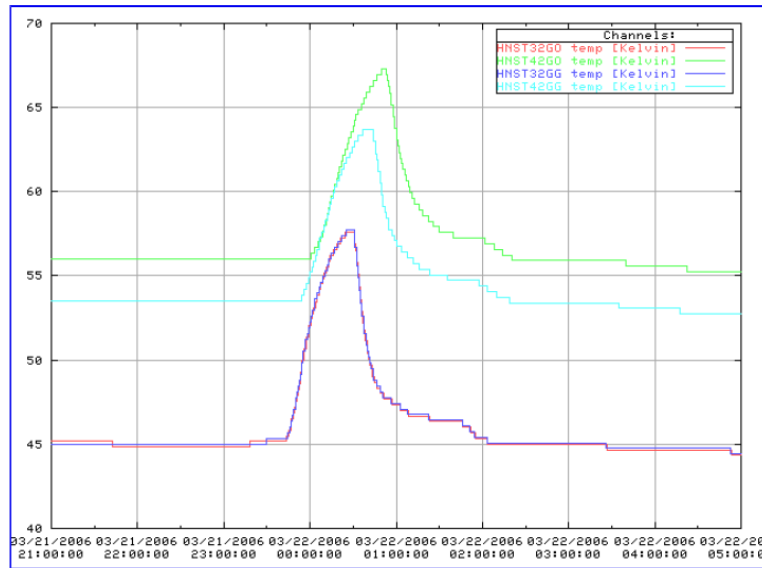


little improvement with time except for
clear steps after NEG regeneration
next step should reach Oct/Nov 05 cond.



in general smooth HV operation
still some trips (up to 2/3 due to 'short' spikes)
some fills are particularly bad though

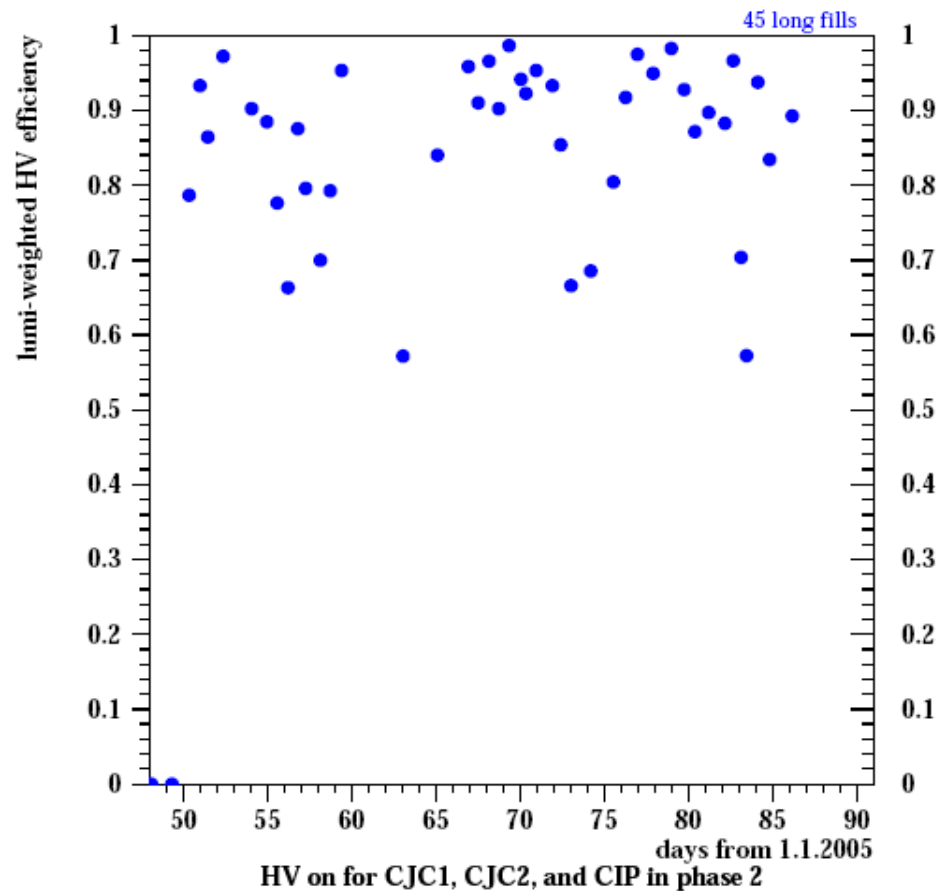
Vacuum incident



problem with cryogenics on March 22nd
warming up GO/GG shield by 10 deg
evaporating gas into H1 beam pipe

after subsequent beam loss
increase of vacuum around H1 by 10^2
firing TSPs needed twice to recover

HV efficiency



HV efficiency (after initial HV ramp up)
in most cases above 80 %

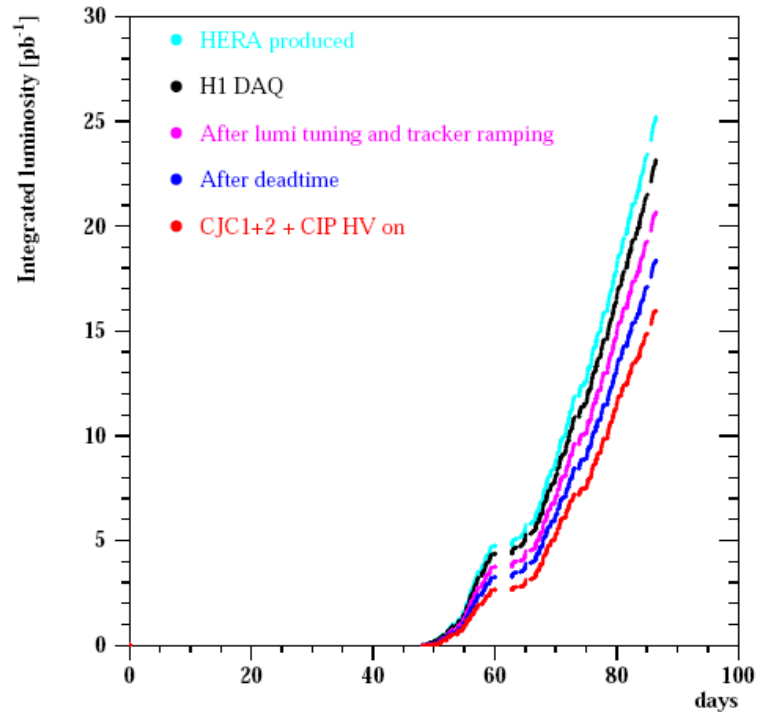
reaching 98 % in good fills

last fills below 80 % due to bad
vacuum after March 22nd

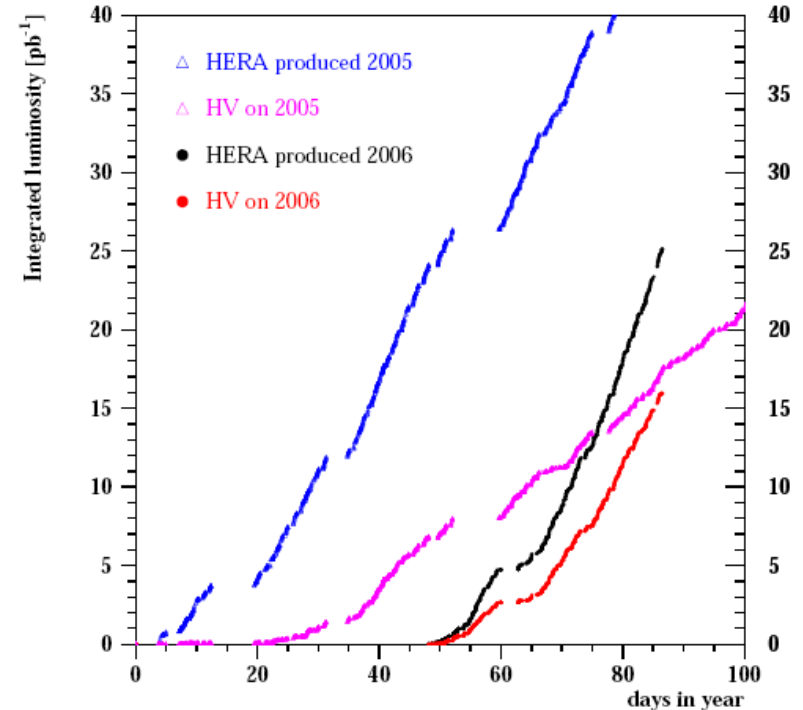
loss due to HV ramp up and lumi
tuning is not shown (10 – 15 %)

for good fills HV ramp up is ~20 nb⁻¹ loss

Data taken

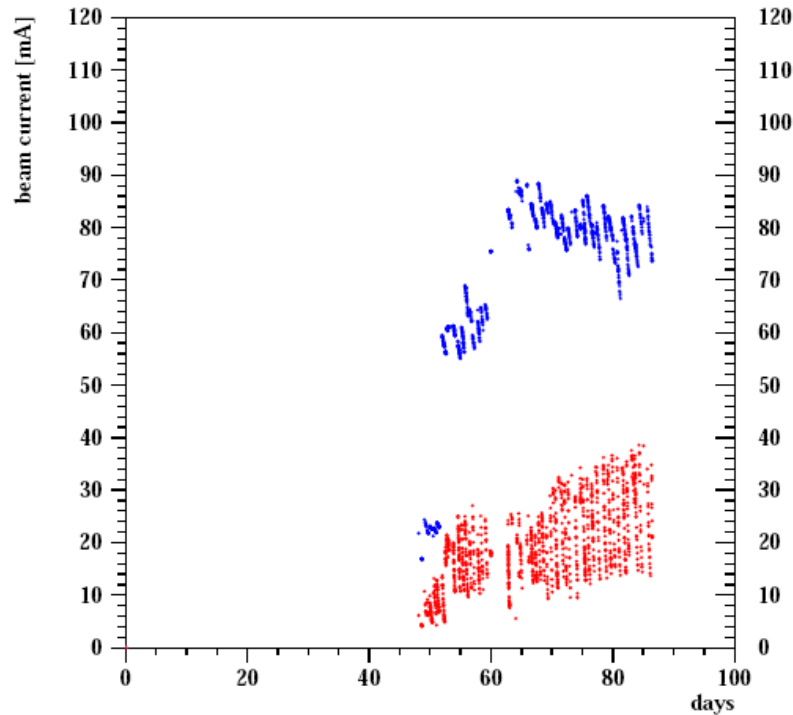


HERA delivered 25 pb⁻¹
 H1 DAQ 23 pb⁻¹
 after HV ramp up 21 pb⁻¹
 after deadtime 18 pb⁻¹
 HV ON 16 pb⁻¹

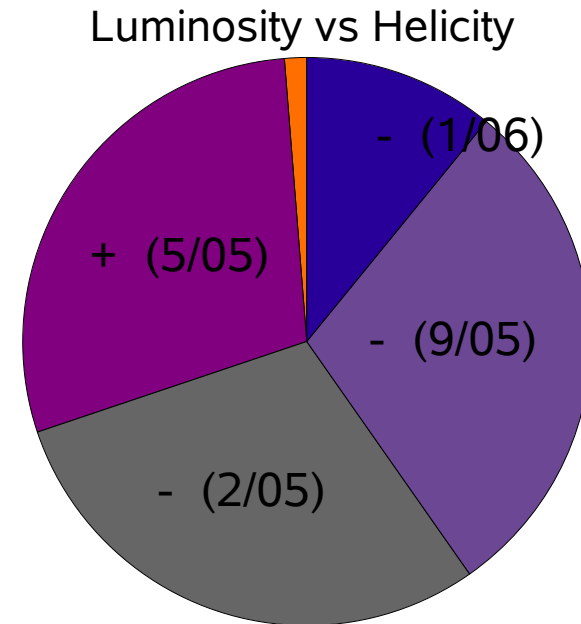


comparing 2005 with 2006
 similar slope, less breaks
 much better backgrounds resulting in
 much higher HV efficiency

Plans



NEG regeneration next maintenance day
no I_e or I_p limit due to chamber operation
180 bunches ok



helicity : + = 38.6 pb^{-1} - = 89.9 pb^{-1}

expect $\sim 20 \text{ pb}^{-1}$ / month

helicity flip early May