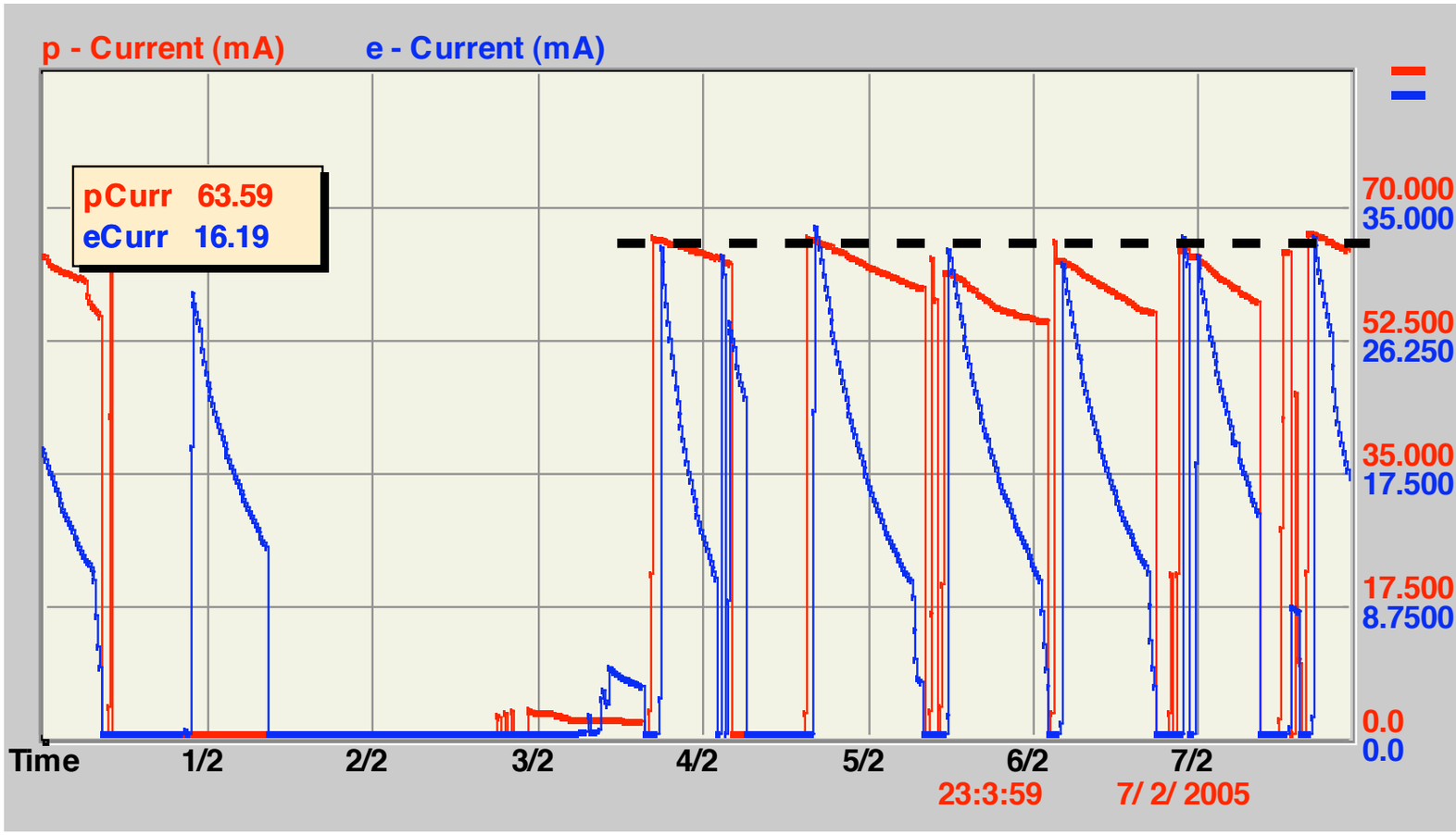
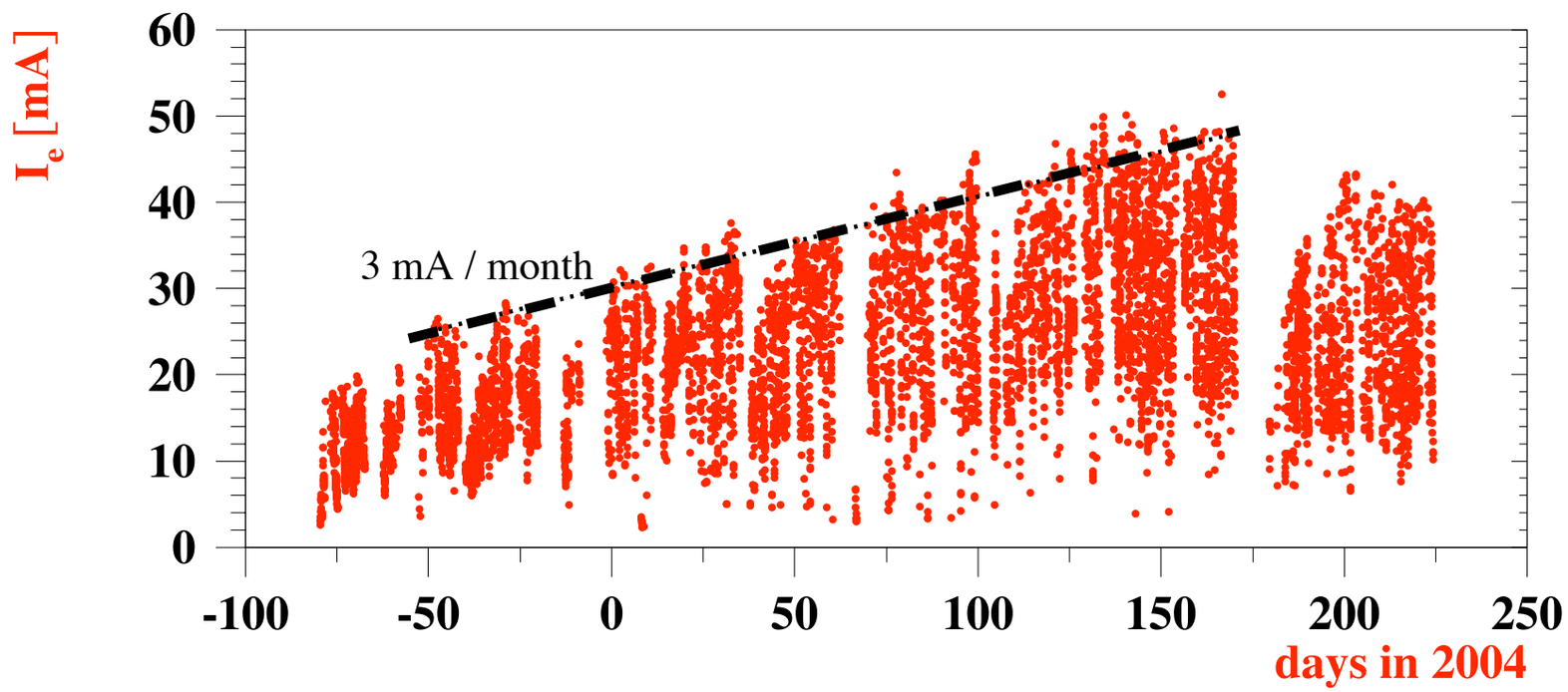
Electron Current 2004/5

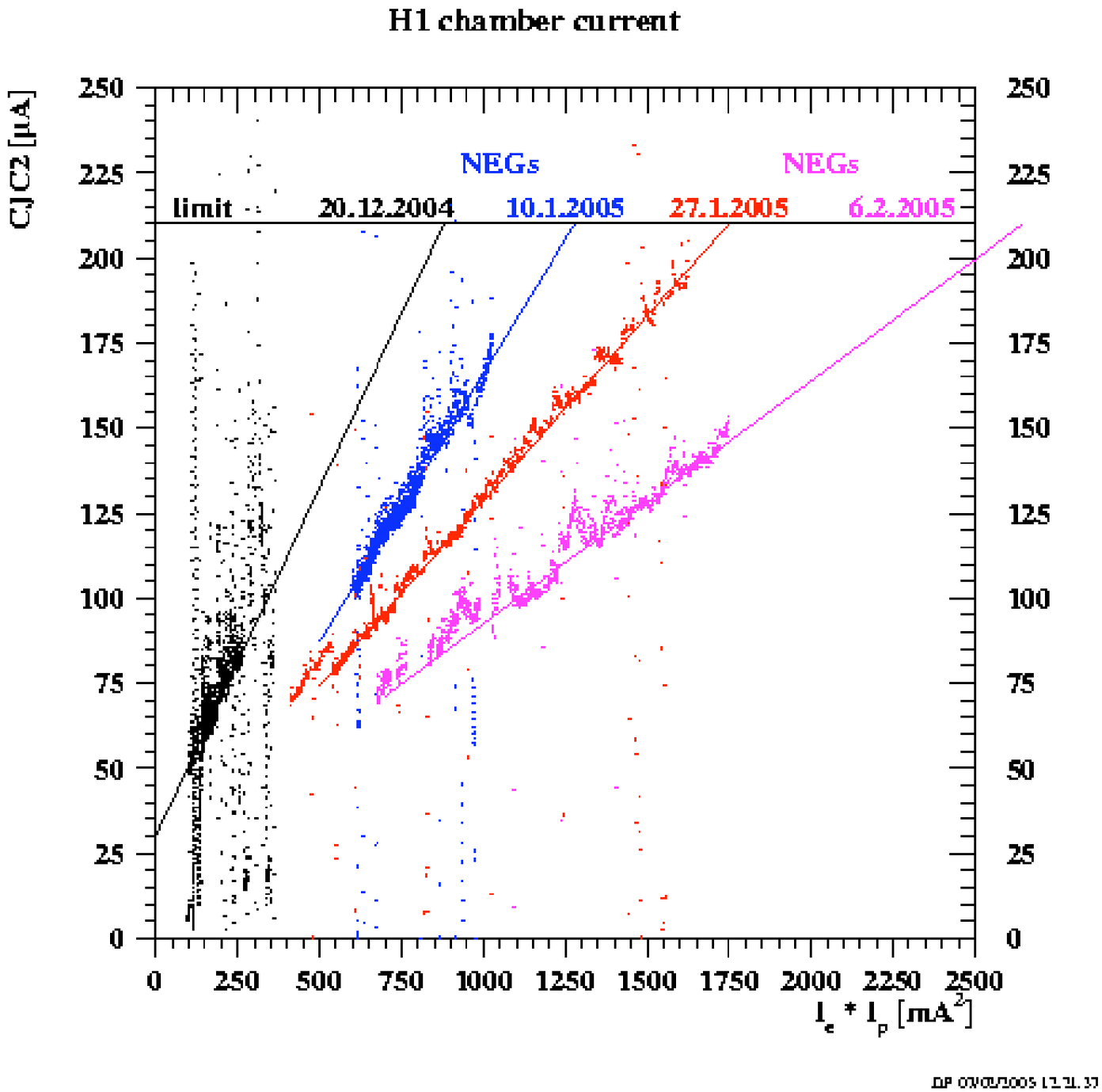
- presently Ie ≈ 32 mA at start of the fill
- slope in 2004: ~3mA/month
- => conservatively assume until beginning of March
  - Ie ≈ 36 mA (180 bunches)
  - Ie = 33 mA (120 bunches) due to bunch current limit





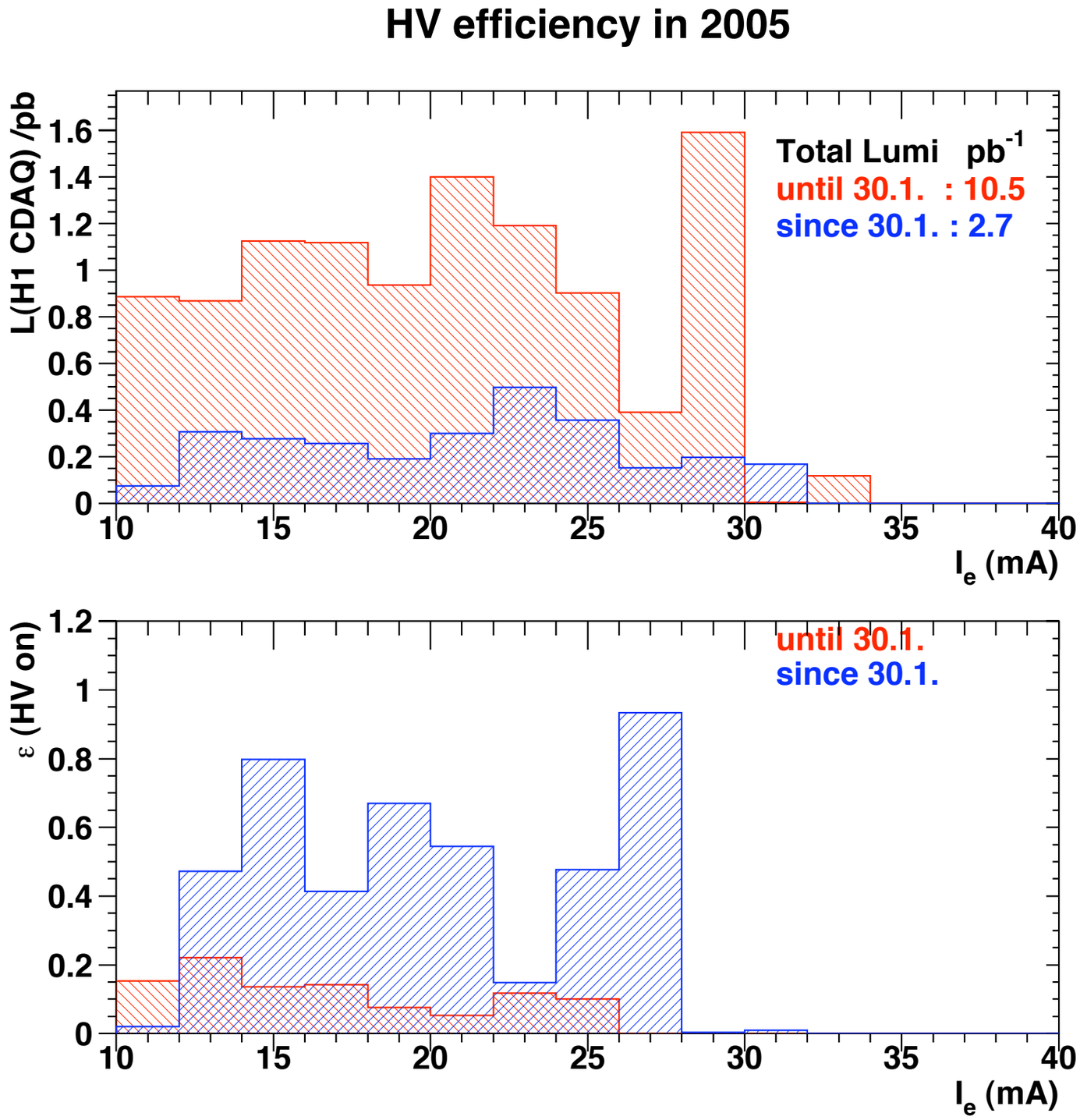
Expectations for H1

- background still factor of 2 above limit for operation at 105mA x 50mA => H1 can either run at:
  - 105 x 25 mA^2 (180 bunches)
    - i.e. H1 ON for 69% of fill
  - 70 x 37.5 mA^2 (120 bunches)
    - i.e. H1 ON for 100% of fill
- next factor ≈1.5 expected for warm up beginning of March
  - goto 180 bunches
- final improvement factor beginning of April will bring H1 fully back on track

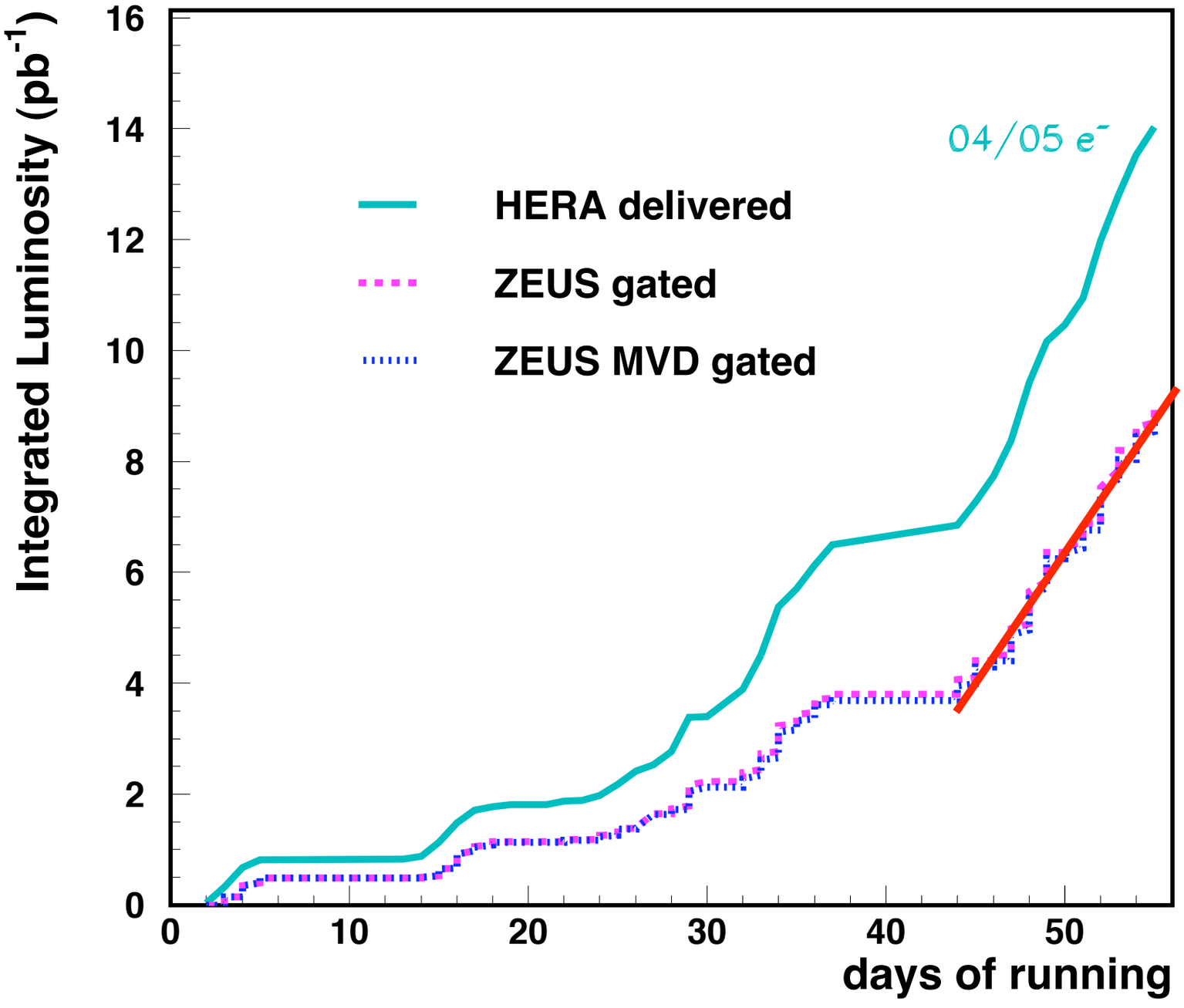


H1 Conditions

- apart form spikes H1 can switch on almost immediately at present beam currents



ZEUS Luminosity for Physics



Recent Slope:

4.5 pb^{-1} in 11 days

=> ~13 pb^{-1} per month

Expected Luminosity for February

- goal: optimise integrated e-p luminosity for spring conferences
- 180 bunches
  - marginal improvement expected for ZEUS
  - significant loss for H1
  - overall loss for ZEUS + H1 amounts to 12%
- 120 bunches
  - more steady operation
  - can concentrate on polarisation optimisation
  - explore option with extra electron pilot bunches for faster vacuum conditioning

# of bunches	120	180	Ratio
ZEUS	13,1	13,6	1,04
H1	13,1	9,4	0,72
Sum	26,2	23,0	0,88