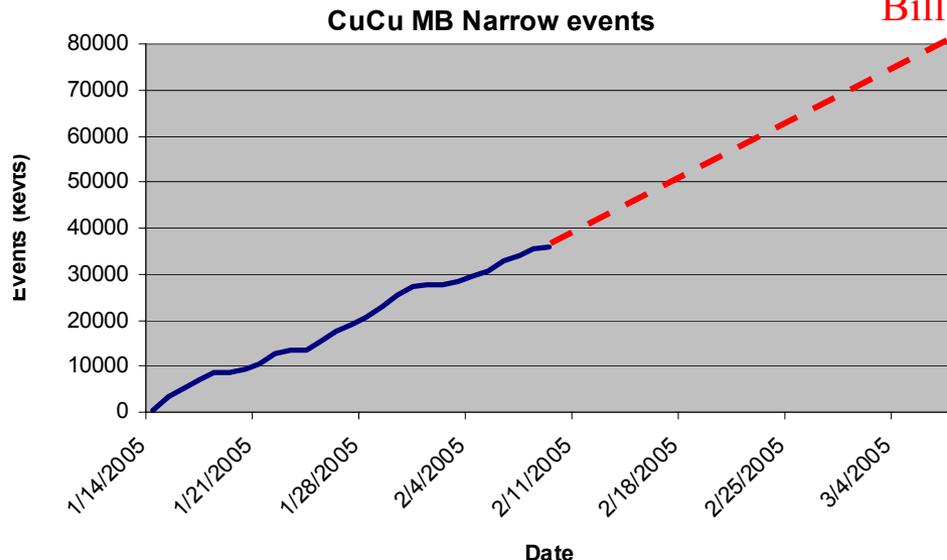


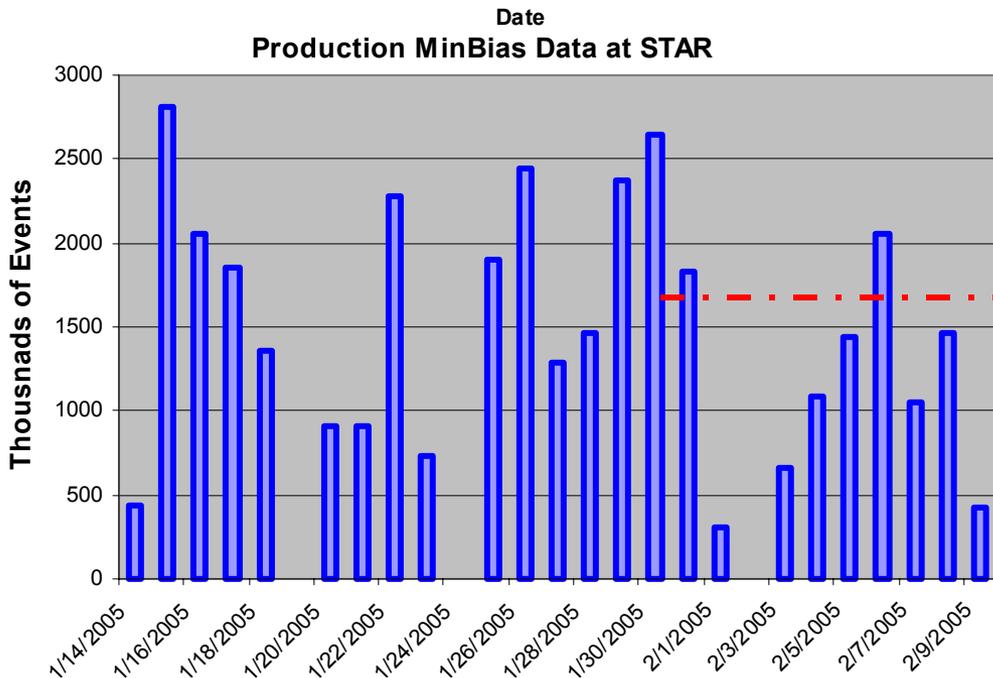
STAR CuCu Min bias Narrow Event totals (as of 2/9 10 am)

Presented at RHIC Coordination mtg. February 9, 2005.

Bill Christie



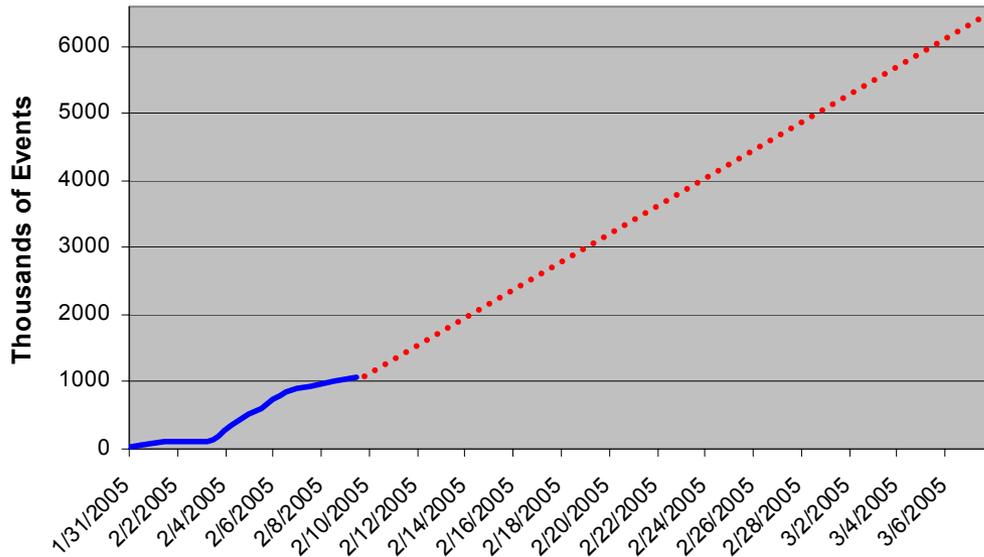
- Currently 35.8 Mevts of Min-bias
- ~ 26 days to go (till 3/7)
- $44/26 = \sim 1.7 \text{ Mevts/day}$ (to reach 80 Mevts)
- Goal is challenging, but with increased # of hours of Physics beam per week, looks to be within reach.



~ 1.7 Mevts/day

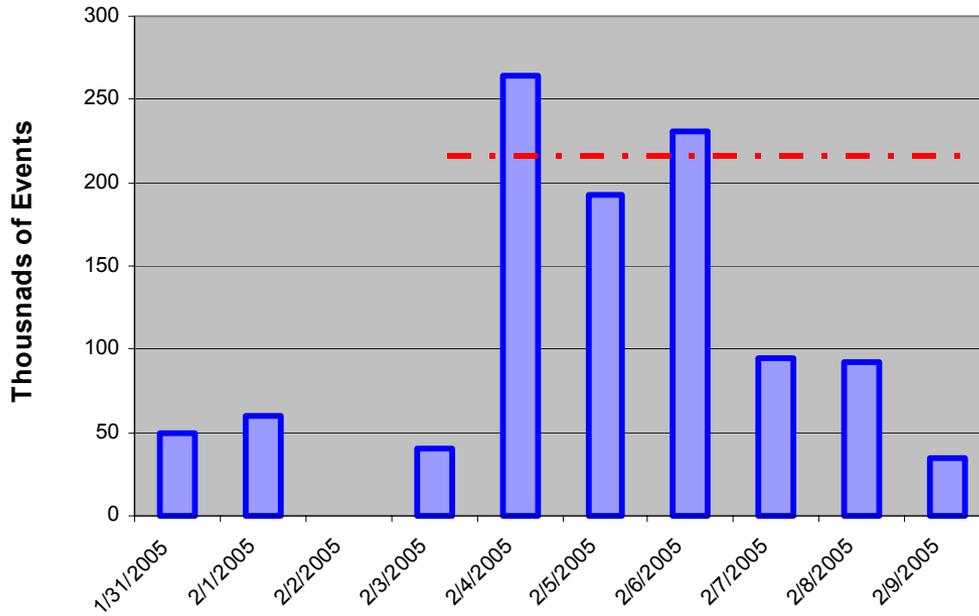
BEMC HT18 Trigger Totals (as of 2/9 ~10 am)

Integrated Rare Trigger Data at STAR

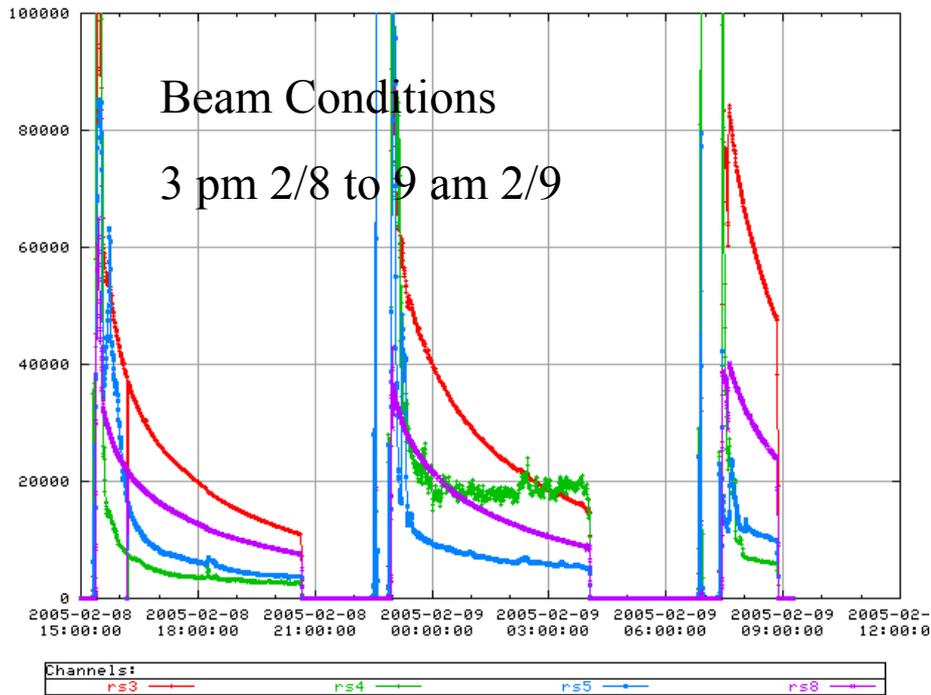


- Need about 6.6 Mevts
- 1060 kevts as of 2/9 10 am
- 26 days left until 3/7
- 5.54 Mevts/26 days ~ 213 kevts/day
- Looks ~ doable, if more uptime.

Production Rare Trigger Data at STAR



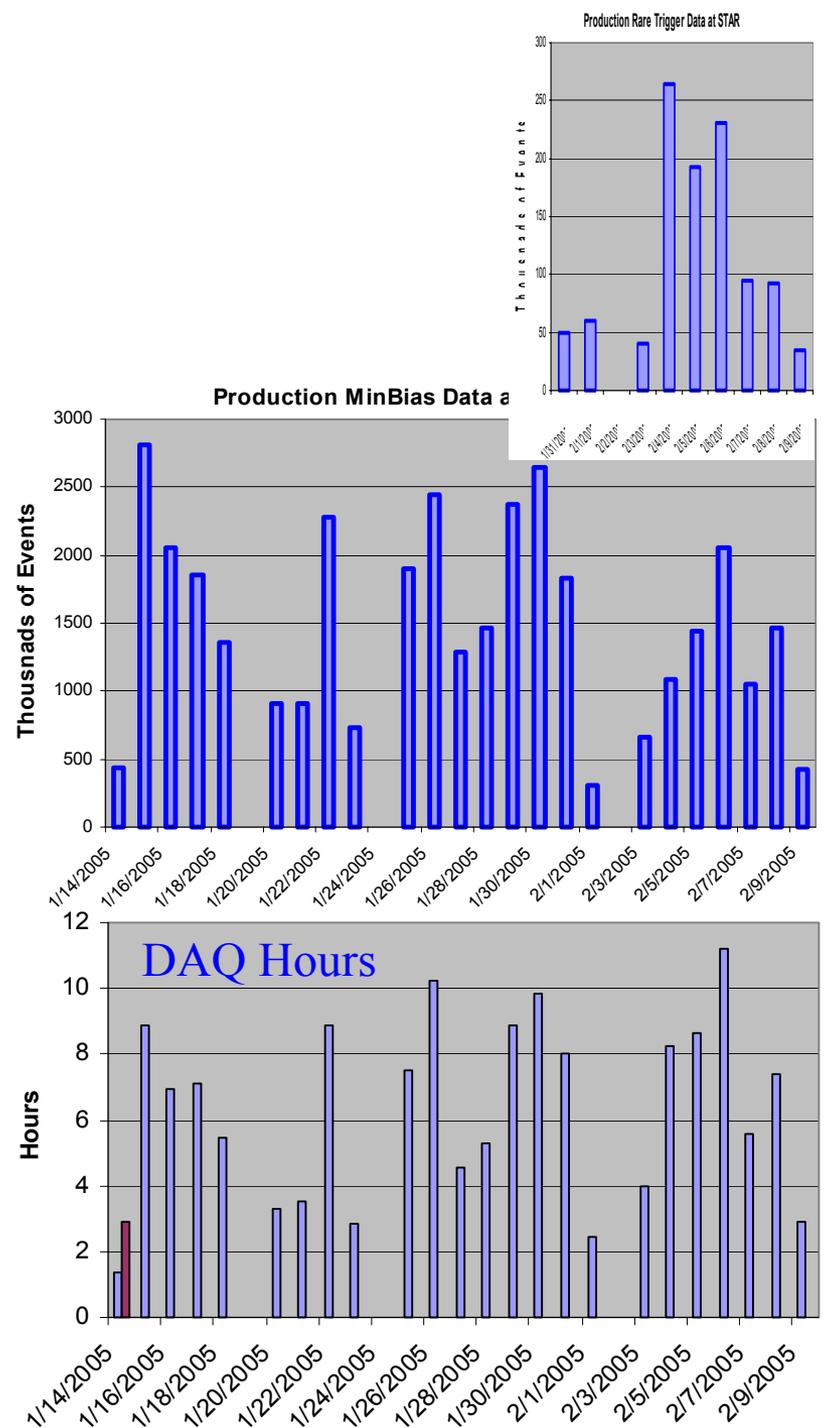
- STAR BUR Goal was to sample ~ 1 to 2 nb⁻¹ with the High Pt Trigger.
- 1 nb⁻¹ is equivalent to ~ 4.3 Mevts of this HT trigger.
- 6.6 Mevts is ~ 1.5 nb⁻¹ sampled.
- If taken at ~ 50% Detector live, requires ~ 3 nb⁻¹ delivered.



DAQ Hours

Total 1/14 to 9 am 2/9 = 153.09 hrs

<DAQ hrs/day> ~ 5.67 hrs/day



Question about increasing the β^* for the STAR IR

I was asked to respond to the question whether it would be beneficial to STAR to reduce its β^* from the current value (.85 m ?, 1 m ?) by something like a factor of two. The apparent logic being that then PHENIX gets all the background, and STAR can turn on 10 to 20 minutes sooner in each store.

STAR is not interested in this idea. Early in stores we “easily” handle all of the rare High Tower triggers presented.

Possible Strategy to maximize Physics output from remainder of top energy Cu Cu running.

As shown, since the start of the “Physics running” we’ve been averaging only ~ 5.7 hrs per day of actual Physics (excludes calibration, pedestal, testing runs) data taking. Further beam development has been presented as holding out “reasonable” possibility to increase luminosity by something like 20% (?). Reliable, reproducible stores, look to reasonably present the possibility to increase the Physics output (# of rare and mb triggers) by a factor of two.

My preference is to have near term, concerted efforts focus on Reliability of operations, reproducibility of stores, faster collimation, and more uptime hours.

Understanding the luminosity limits of RHIC is, and continues to be, crucially important. I’d suggest that, at this point, in this run (top energy CuCu), that this further study be delegated to Beam Experiments.