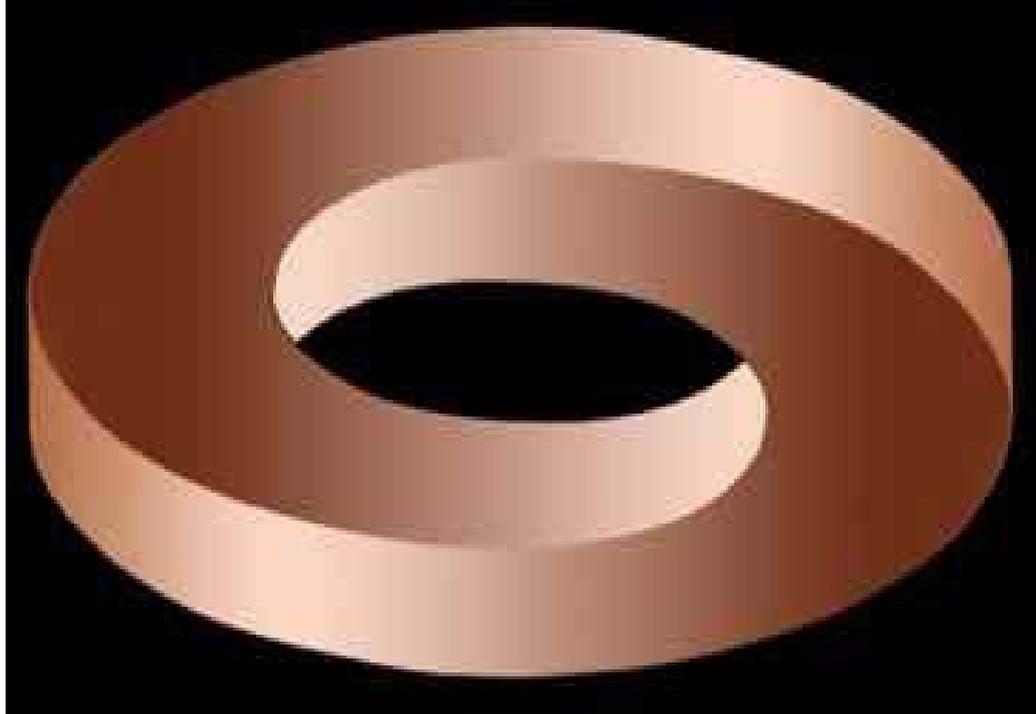




# Machine status



Machine-Experiments  
January 5, 2005





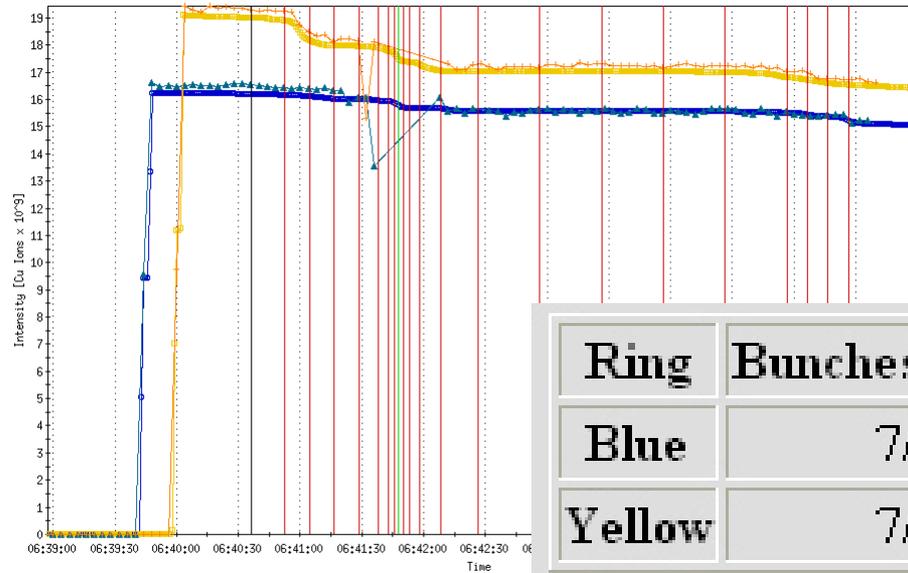
## Chronology last week

- Mon Dec 27** **yellow** ring ready (late night)
- Tue Dec 28** start **set-up**, discover yellow **aperture** problem
- Wed Dec 29** further diagnostics with beams (owl)
- Wed Dec 29** cut vacuum 11am, **beam in yellow** at ~9pm
- Fri Dec 31** **both beams at store**, ramp tuning
- Sat Jan 1** bunch intensity, #bunches (early collisions)
- Sun Jan 2** continue intensity, #bunches, fight gammat4 loss
- Mon Jan 3** development ramp with **R-2-R synchro collisions** at Phenix and Star
- Tue Jan 4** collisions set-up (4 experiments), **collimation**  
→ collisions overnight (28x28 ~3e9)
- Wed Jan 5** experiments magnets set-up  
Star, Phenix, Phobos

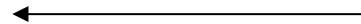


# Yellow ramp development – 7bunches

Window Event



Friday owl



Ring	Bunches/Cycles	Avg Bunch in RHIC ( $10^6$ ions)	Avg
Blue	7/2	3259	
Yellow	7/2	3502	

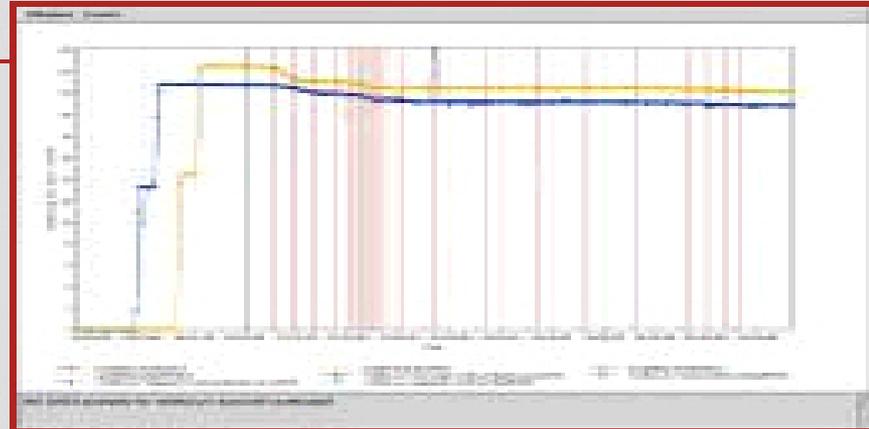
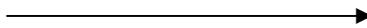
-AutoEntry

● blueDCCtotal5692:0  
 ● yeIDCCtotal5692:1  
 ● relMon\_ev-accramp:relEv  
 ● relMon\_ev-bganmat:relEventNum:value5692  
 ● relMon\_ev-uganmat:relEv

NO DATA available for relMon.ev-lumi:relEventNumM

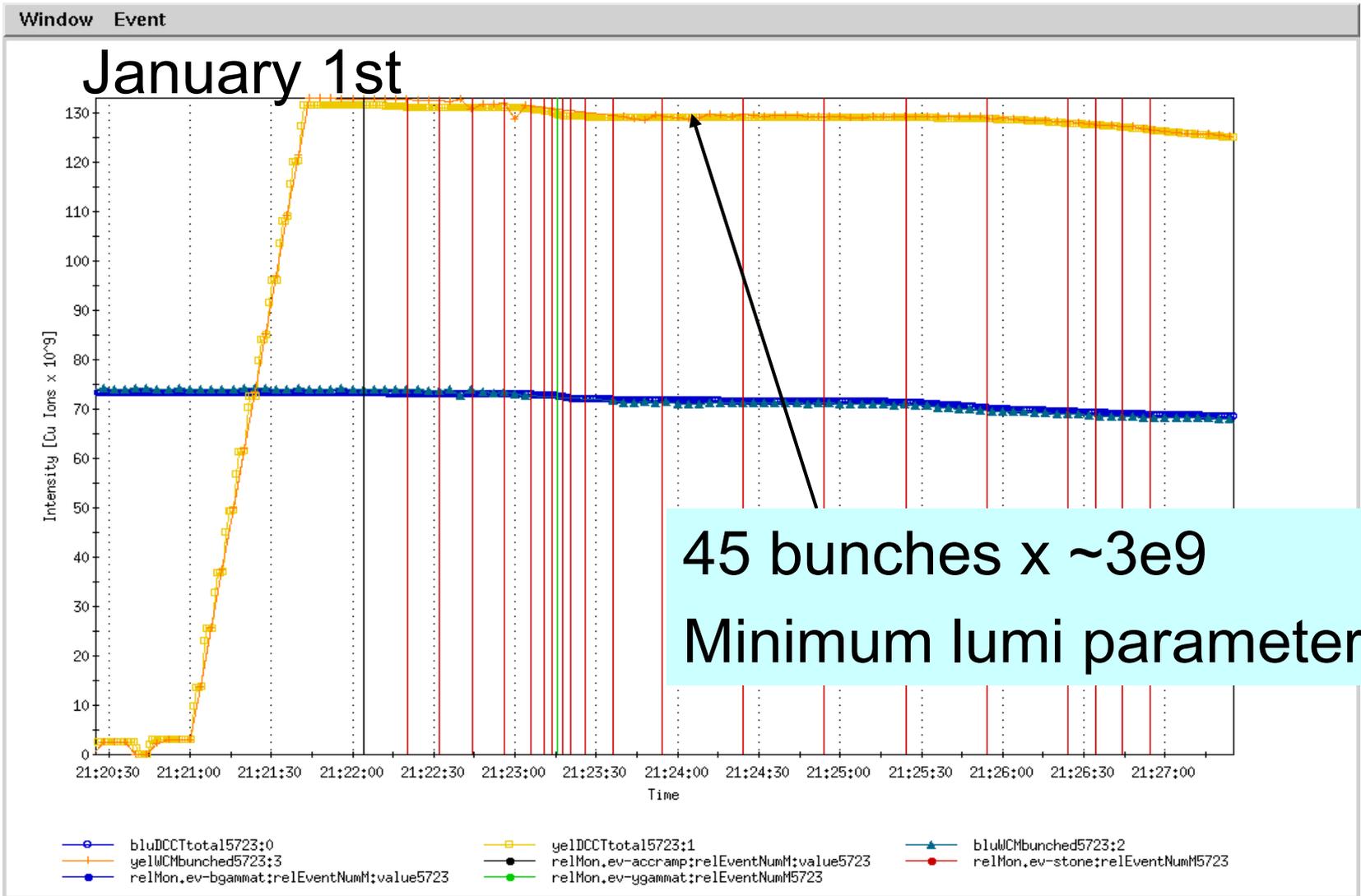
Jan-01-2005 00:17

Friday eve





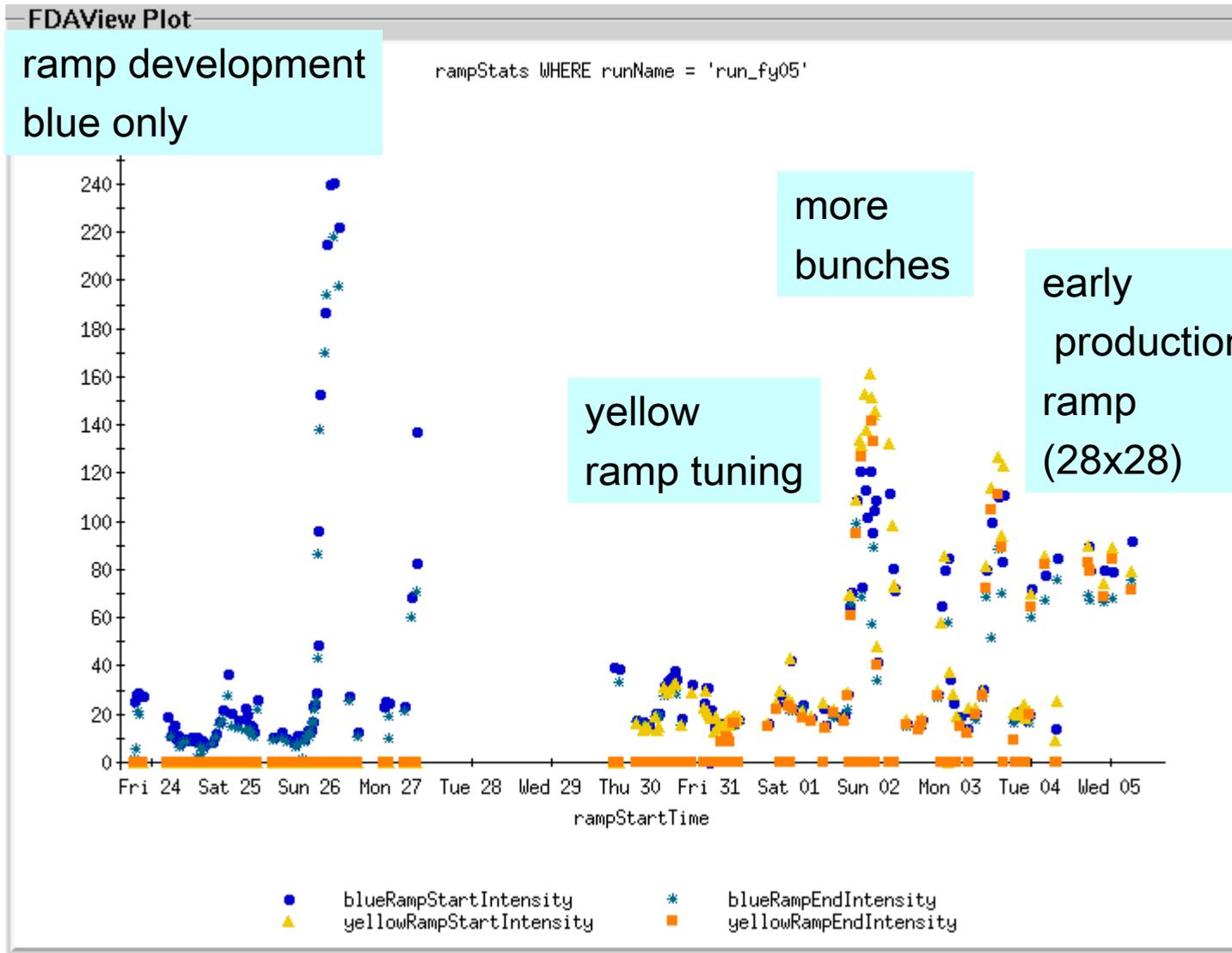
# Total intensity development



NO DATA available for relMon.ev-lumi:relEventNumM

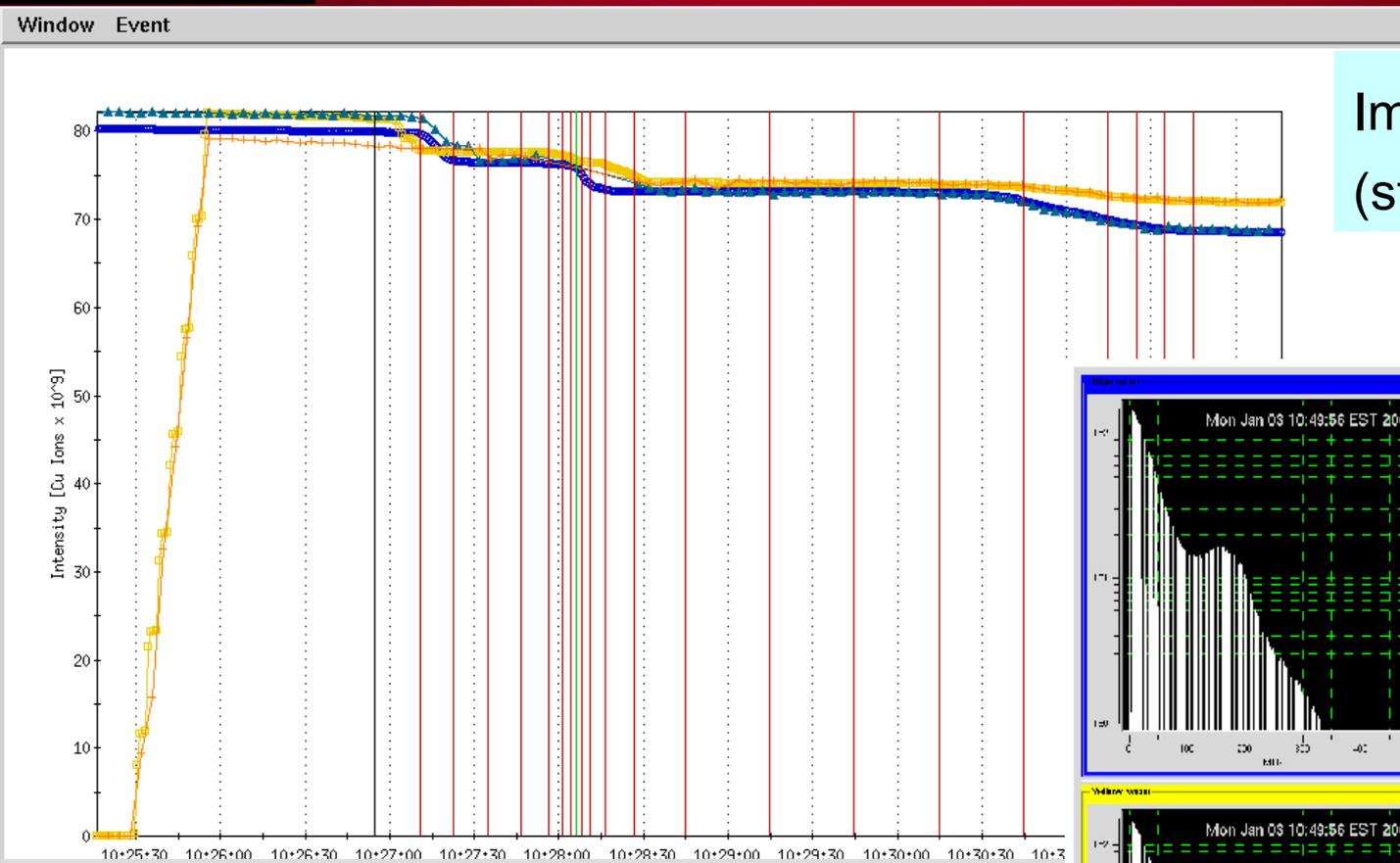


# Intensity history

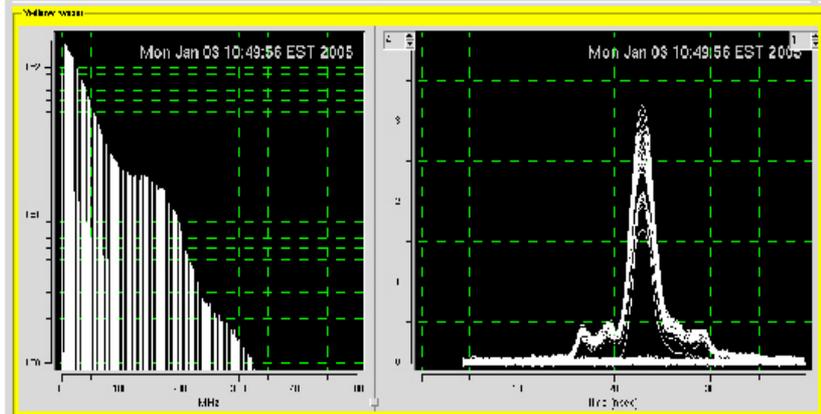
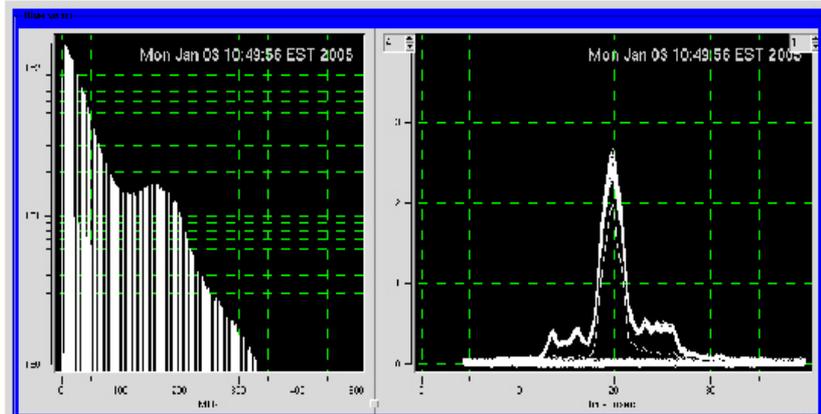




# Early production ramp



Improve transmission  
(steering, collimation)



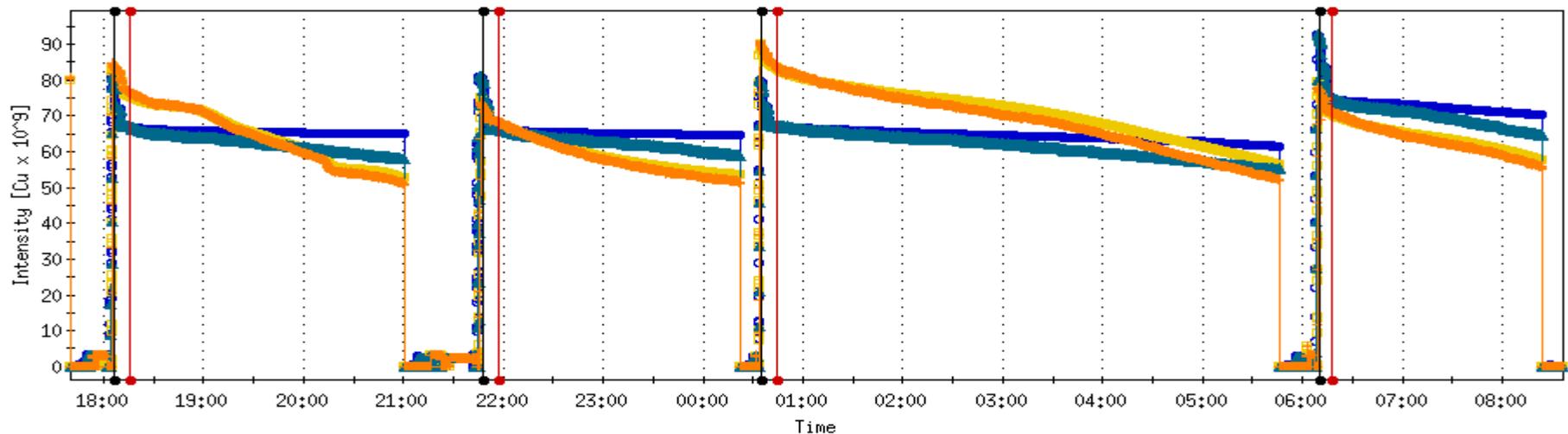
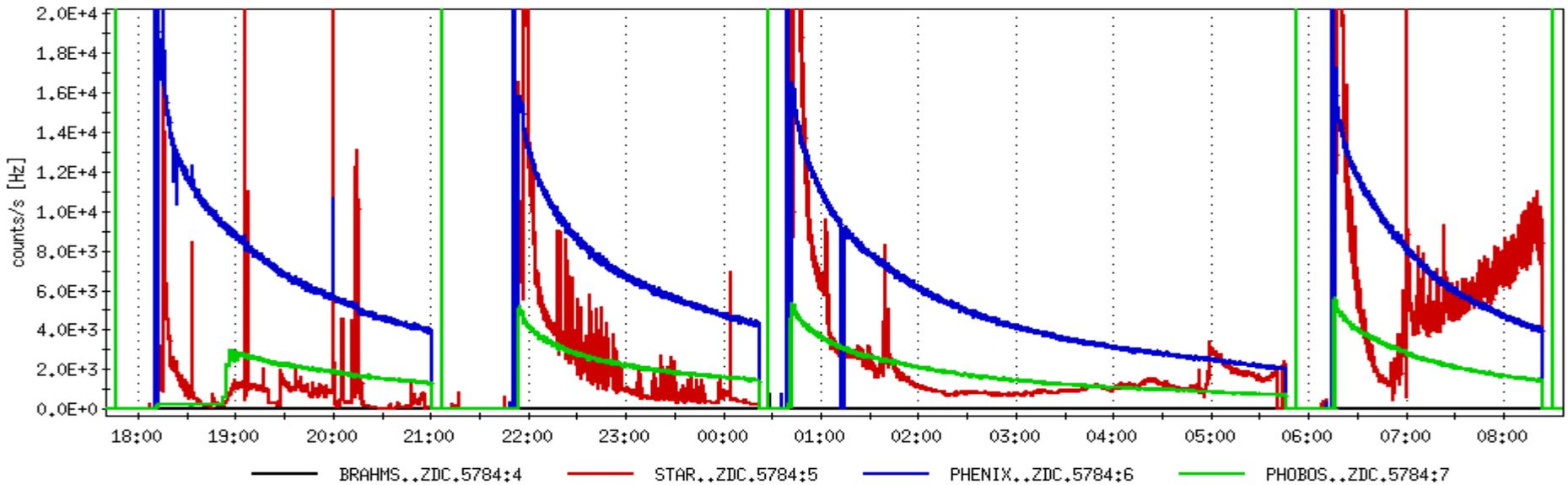
## Injected Beam Statistics for Fill number 5755

Injection start time: Mon Jan 3 10:24:49 2005  
 Injection complete time: Mon Jan 3 10:25:53 2005

Ring	Bunches/Cycles	Avg Bunch in RHIC (10 <sup>6</sup> ions)	Avg Efficiency - XCBM to RHIC
Blue	28/7	2866	0.916
Yellow	28/7	2932	0.957



# Collisions last night





# Physics, ramp-up, development

## Start of Physics:

- ❑ Experiment **magnets** on
- ❑ Improve ramp **transmission** to 90-95% in both rings  
(now at ~82-85% blue, 92-94% in yellow)
- ❑ **Collision** rates from all experiments (now Phenix, Phobos)
- ❑ **Collimation**

## Lumi development: expected limitations:

- ❑ Pressure rises (Phobos, transition, re-bucketing), e-clouds
- ❑ Beam-beam
- ❑ background