

# Recommendations following the June 21-22, 2010 PAC

For Run 11 the PAC recommends the following (*in order of priority*):

1. 8 weeks Au+Au heavy ion running at 200 GeV
  2. 10 weeks p+p polarized proton running at 500 GeV
  3. 1.5 weeks Au+Au heavy ion running at 18 GeV
  4. 1.5 weeks U+U heavy ion running at 192 GeV (Au rigidity)
  5. 1 week Au+Au heavy ion running at 27 GeV
- Run 10 should start with proton-proton collisions to allow low-multiplicity commissioning of the PHENIX VTX.
  - PHENIX must demonstrate during this commissioning period that successful operation of the VTX during full-energy Au+Au operation is likely.
  - If the likelihood of successful VTX operation in full energy Au+Au running is not demonstrated, the PAC recommends full energy Au+Au running be postponed until Run 12.

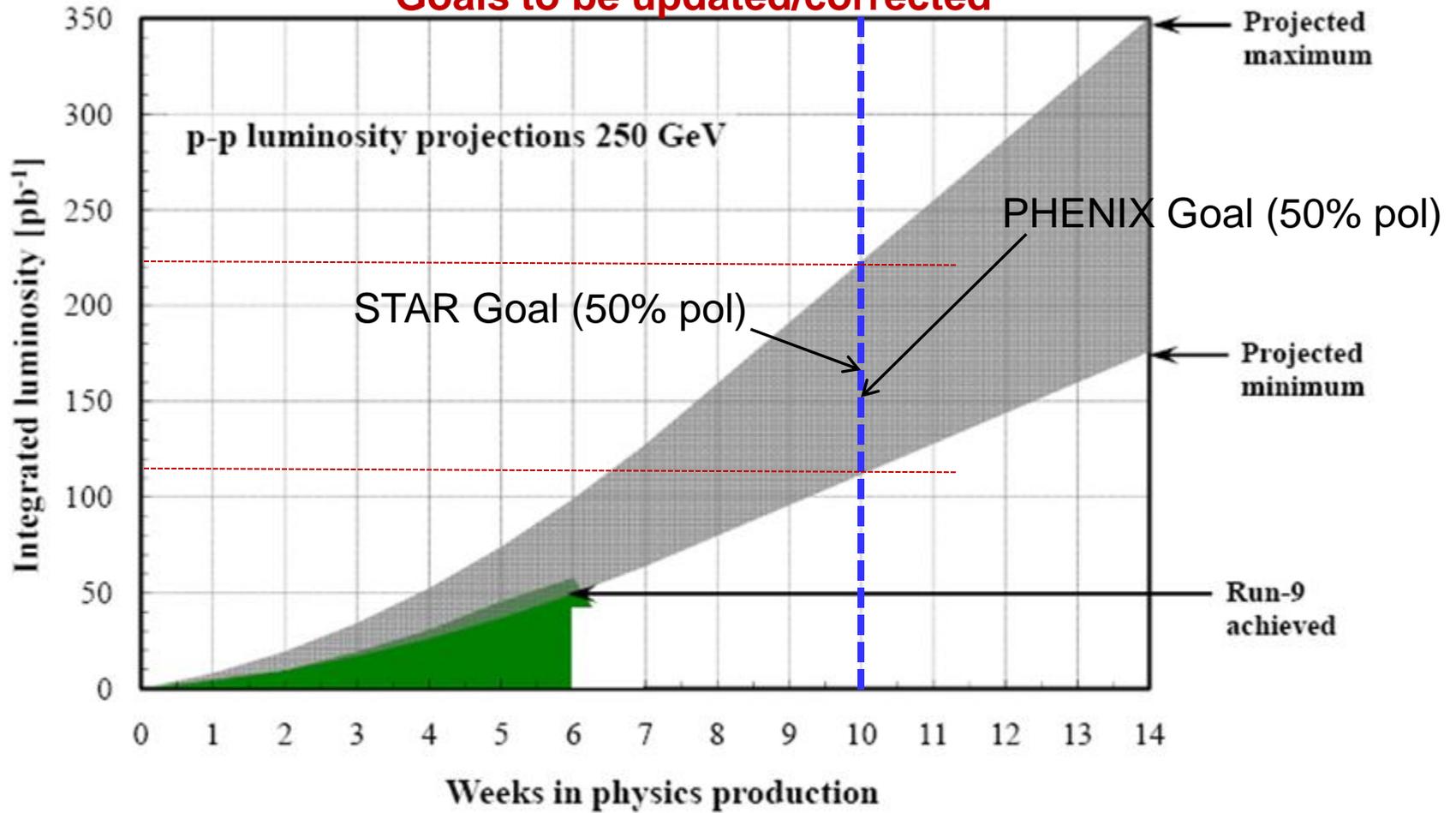
## Run 11 Plan based on PAC recommendation/ALD Guidance and 28.5 weeks cryo operation DRAFT-DRAFT

- Dec. 1, Begin cool-down to 4.5K
- Dec. 7, Cool-down to 4.5K complete in both rings
- Dec. 8, 2 ½ weeks beam setup for  $\sqrt{s} = 500$  GeV pp in RHIC begins.
- Dec 27 (Monday), 1 week Ramp-up with 8 hr/night beam to experiments
- **3 Jan, begin 10 week physics run ( $\sqrt{s} = 500$  GeV pp)**
- **14 Mar, end 10 week physics run at  $\sqrt{s} = 500$  GeV pp run**
- 14 Mar, begin 1 week setup for  $\sqrt{s} = 200$  AuAu
- 21 Mar, begin 1 week Ramp-up with 8 hr/night beam to experiments
- **28 Mar, begin 8 week physics run at ( $\sqrt{s} = 200$  AuAu)**
- **28 March – 1 April, PAC 2011**
- **23 May, end 8 week  $\sqrt{s} = 200$  AuAu run**
- 23 May, begin setup for  $\sqrt{s} = 192$  GeV UU
- **30 May, begin 1½ week physics run ( $\sqrt{s} = 192$  UU)**
- **10 Jun, end 1½ week physics run at  $\sqrt{s} = 192$  GeV**
- 10 Jun, begin setup for  $\sqrt{s} = 18$  GeV AuAu
- **10 Jun, begin 1 week physics run ( $\sqrt{s} = 18$  AuAu)**
- **17 Jun, end 1 week physics run at  $\sqrt{s} = 18$  GeV**
- 19 Jun, warm-up complete (28.6 weeks)



# Run-11 p<sup>↑</sup>-p<sup>↑</sup> luminosity projections

Goals to be updated/corrected

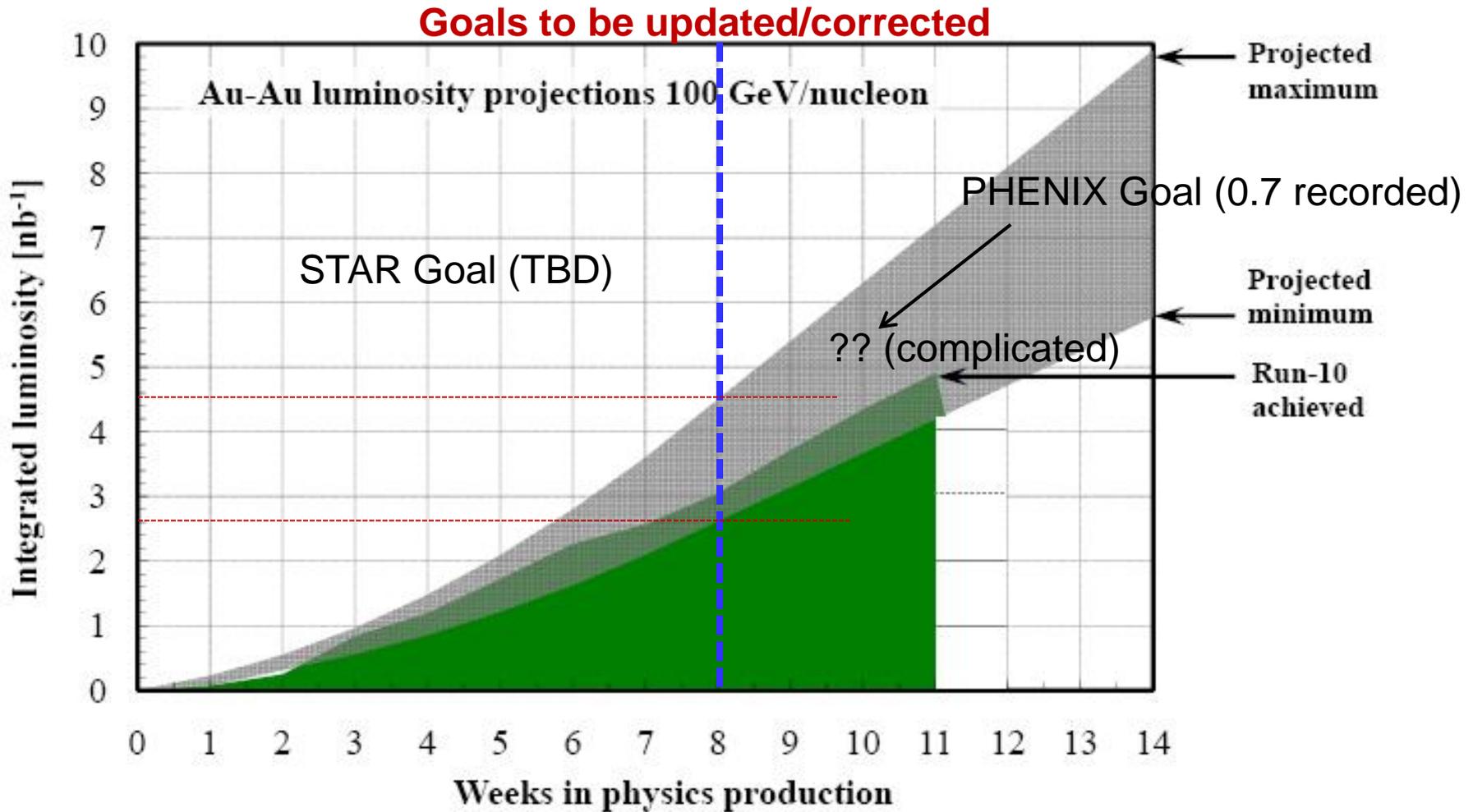


Assume 8 weeks to ramp-up for max.

Expect store  $P_{\text{avg}} = 35\text{-}50\%$ ,  $L_{\text{avg}}$  up to  $100 \times 10^{30} \text{cm}^{-2} \text{s}^{-1}$  (+80%).

[from Run-9 to max projection:  $\beta^* = 0.7 \rightarrow 0.6 \text{ m}$ ,  $N_b = 1.1 \rightarrow 1.4 \times 10^{11}$ ]

# Run-11 Au-Au luminosity projections 100 GeV/nucleon



Assume 6 weeks to ramp-up for min, and 8 weeks for max (stoch. cooling re-commissioning).

**Expect  $L_{\text{avg}}$  up to  $25 \times 10^{26} \text{cm}^{-2} \text{s}^{-1}$  (+25%).**

**[from Run-10 to max:  $\beta^* = 0.75 \rightarrow 0.65$  m,  $N_b = 1.1 \rightarrow 1.1 \times 10^9$ , more cooling]**