

RUN 11 RHIC MACHINE/EXPERIMENTS MEETING

2 Nov 2010

Agenda:

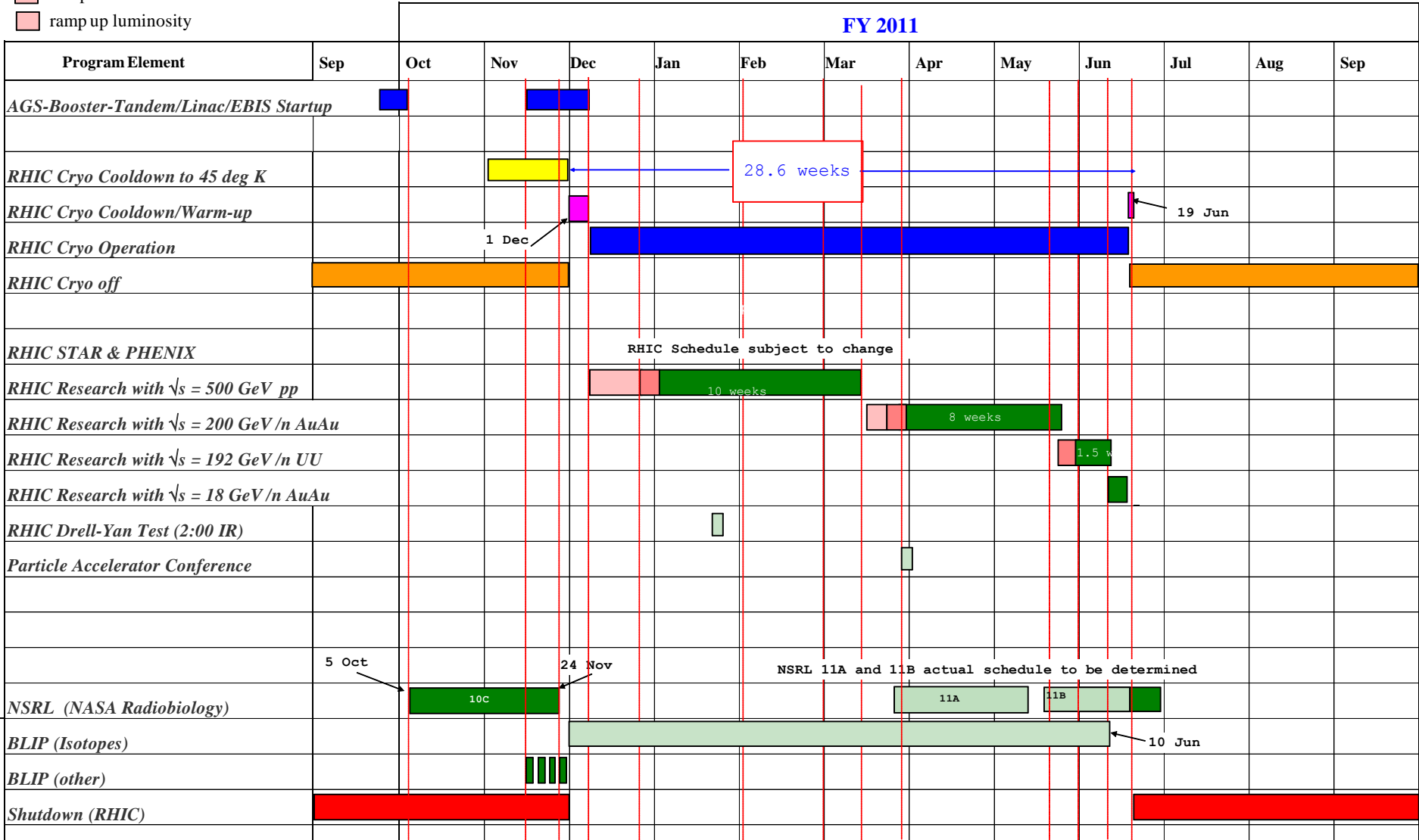
- Start Date for Run 11 - (all)
- Low Energy Test Run – C. Montag

DRAFT

C-A Operations-FY11

planned (budget permitting)

- concurrent with RHIC
- setup with beams
- ramp up luminosity



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

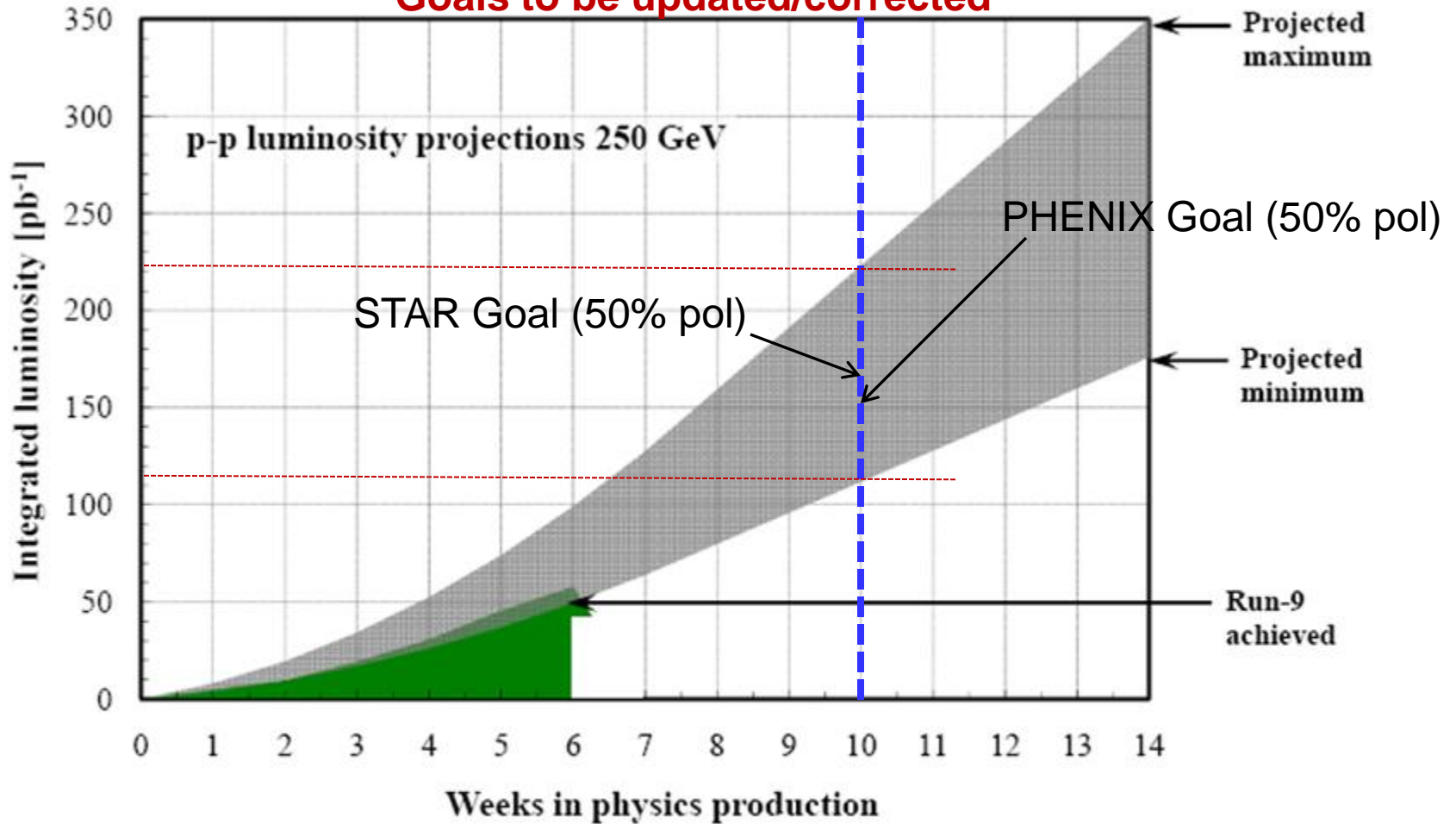
- Dec. 1, Begin cool-down to 4.5K
- Dec. 7, Cool-down to 4.5K complete in both rings
- Dec. 8, 2 ½ weeks beam setup for $\sqrt{s} = 500$ GeV pp in RHIC begins.
- Dec 27 (Monday), 1 week Ramp-up with 8 hr/night beam to experiments
- **3 Jan, begin 10 week physics run ($\sqrt{s} = 500$ GeV pp)**
- **14 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)

Possible additions:

- Low energy test run

Run-11 p[↑]-p[↑] luminosity projections

Goals to be updated/corrected

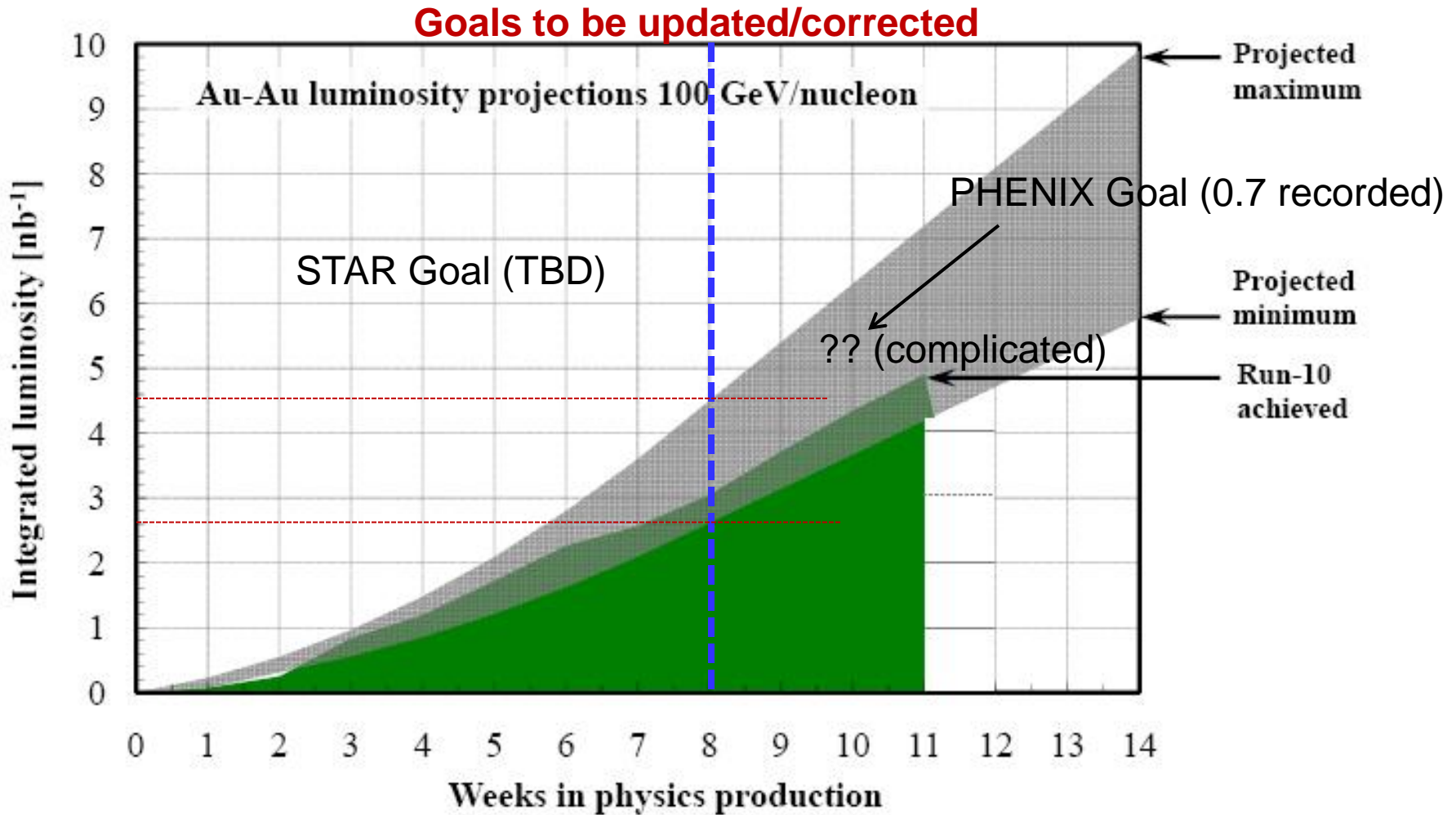


Assume 8 weeks to ramp-up for max.

Expect store $P_{\text{avg}} = 35\text{-}50\%$, L_{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_{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]