

RHIC Machine/Detector Planning Meeting

Questions for the day:

Experiments (Bill and Mike):

- **Comments/suggestions on criteria for ending stores**

Machine (Angelika):

- **Once Physics mode is declared what will still be left to be done?**

RHIC Machine/Detector Planning Meeting

Usual Agenda

- **Scheduling Physicist Issues (Gardner)**
- **Machine Issues - (Drees)**
- **Experiment Issues**
 - **PHENIX (Leitch)**
 - **STAR (Christie)**
- **RHIC Beam Experiments - (Pilat)**
- **RCF Issues - (Throwe)**

RHIC Run 7 as run/planned

3/6/07

- 12 Feb – cool-down begins
- 17 Feb – blue cold
- 20 Feb – 1st beam in blue ring
- 23 Feb – Initial cold wave through yellow ring, not ready for beam
- 24 Feb – cryo problems, cool-down interrupted
- 26 Feb – cryo problems persist, begin warming up cryo plant
- 8 Mar – Blue cold again, ready for power supply setup/beam
- 13 Mar – Yellow cold, ready for power supply setup
- 15 Mar – Yellow ready for beam, begin 10 day setup with beams
- 25 Mar – begin ramp-up mode, overnight stores for experiments
- 1 Apr – physics mode, 100 x 100 GeV/n Au-Au

- 26 Jun –end physics (~12.3 weeks), begin warm-up to LN2
- 30 Jun – RHIC Cryo switch to LN2 complete, end 19.7 weeks of cryo operation

A topic of discussion for this meeting

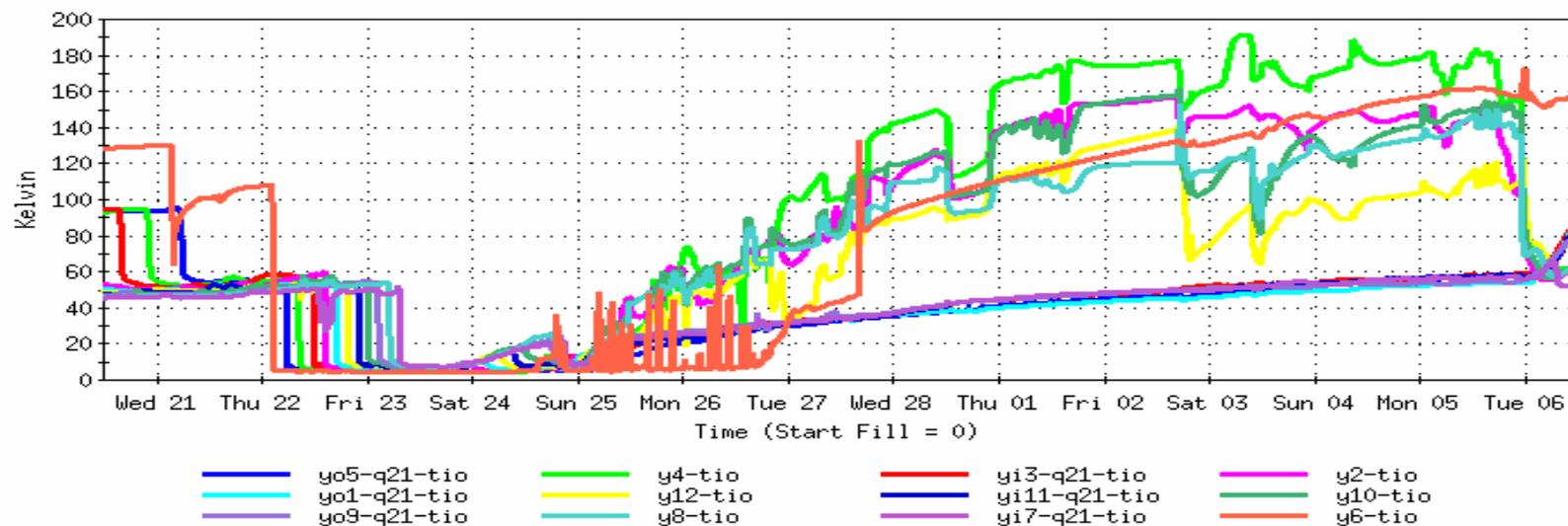
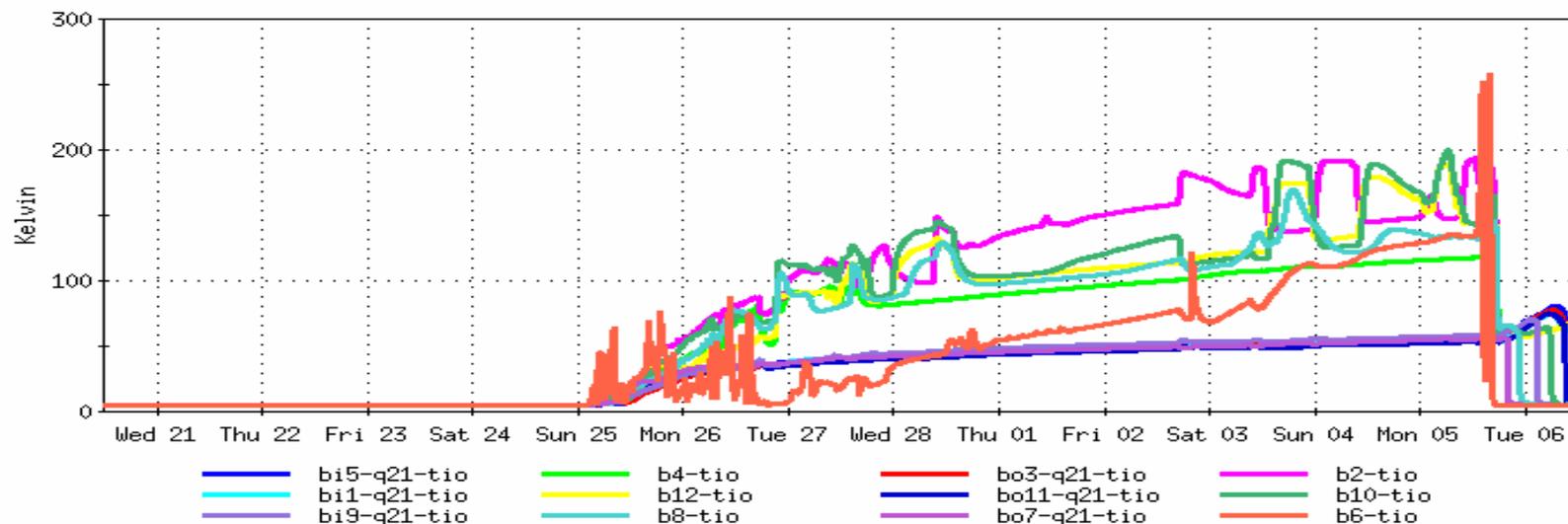
Straw-man End of Store

- Each experiment calculates optimum store time for their experiment. We take the average as the nominal time at store. This calculation should be revisited at least weekly and details of the calculation defended at our Machine/Experiments Meeting.
- Experiments have the option to end the store early or extend the store – in either case, requires both experiments to agree, otherwise the store will end as scheduled.

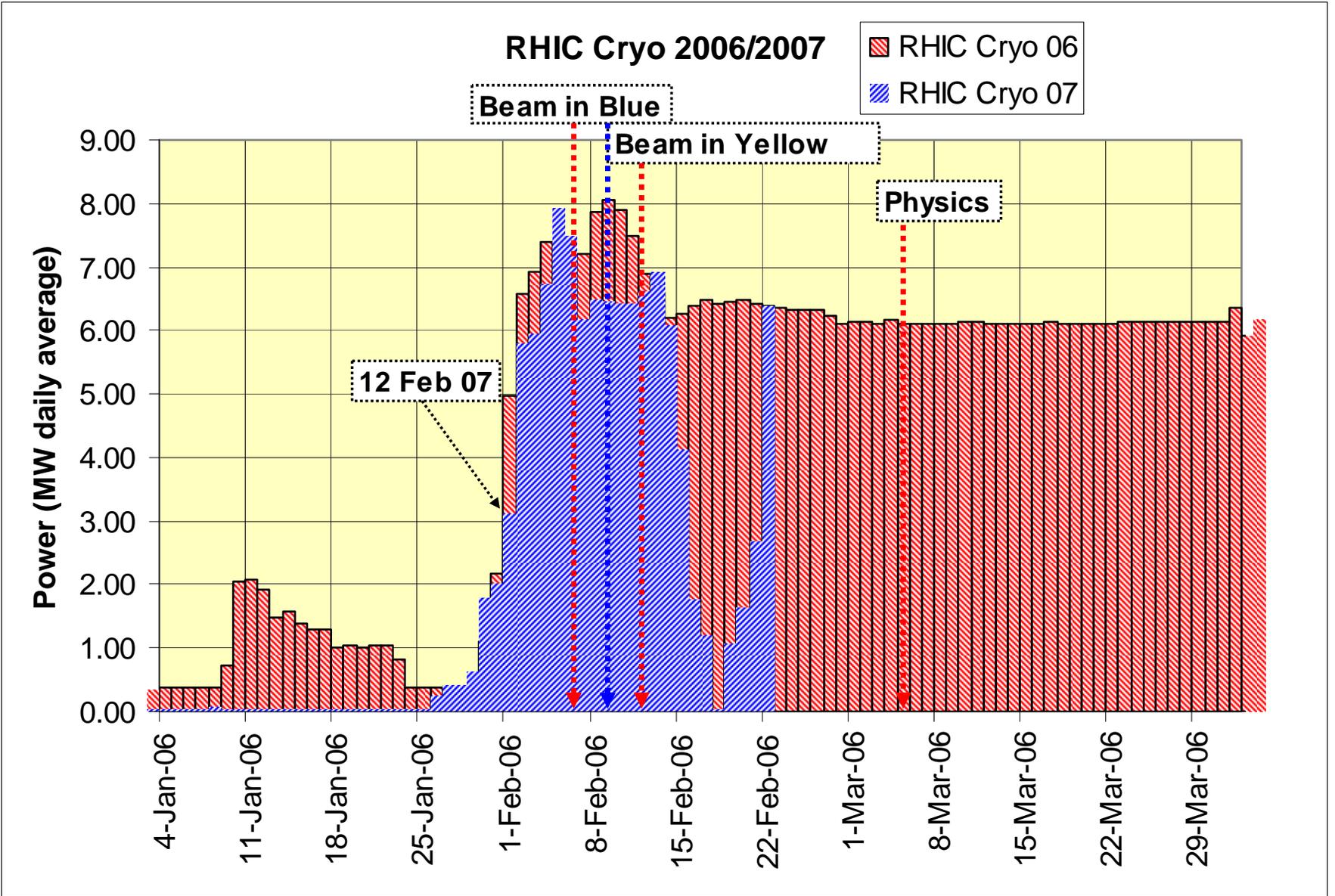
Cryogenic Blue & Yellow Rings (14 days)

[Ring Summary \(1 day\)](#) [Sector Plots \(1 day\)](#) [Sector Plots \(14 days\)](#)

Window Event Analysis

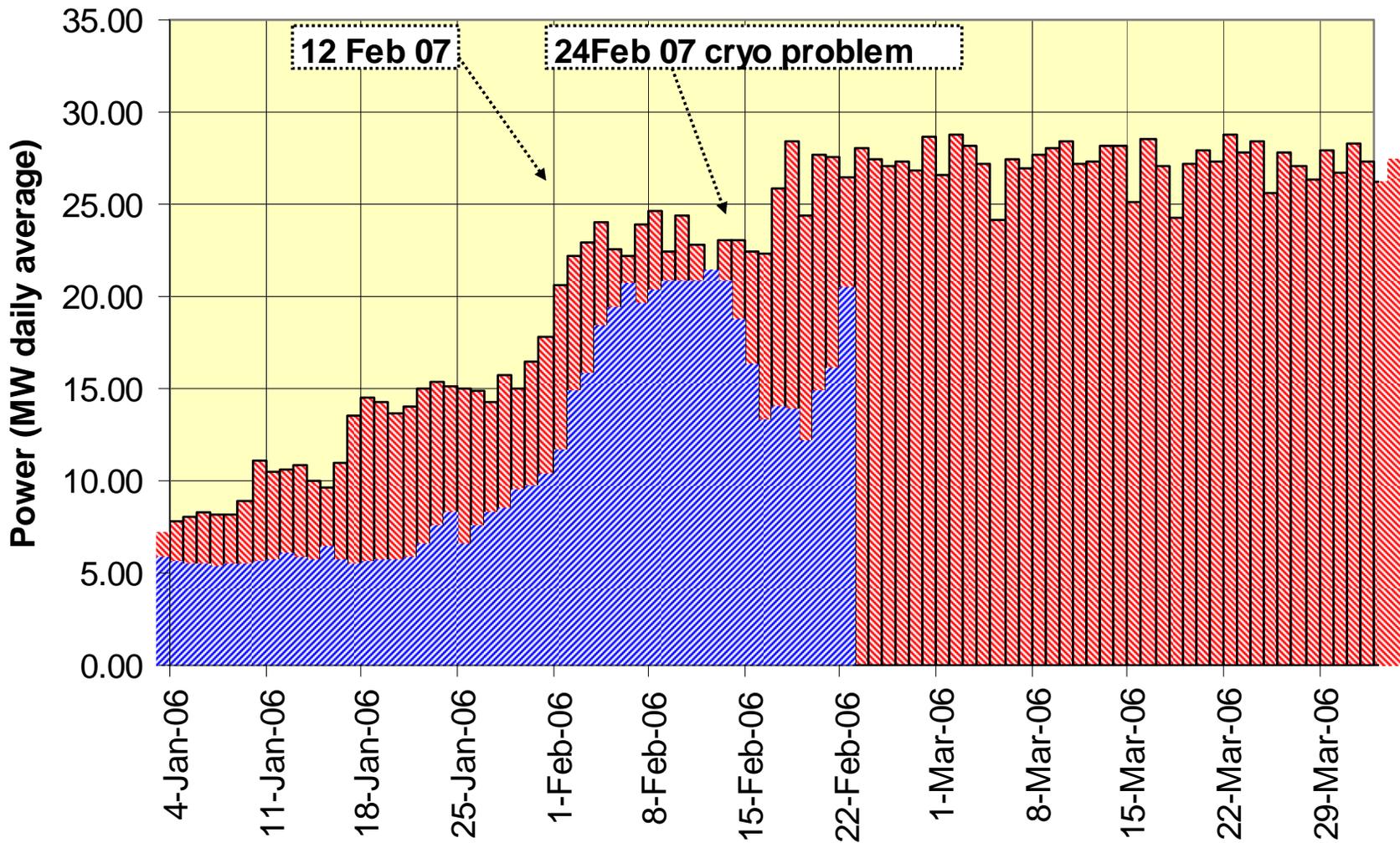
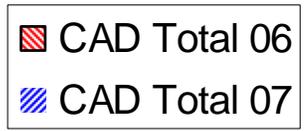


As of 5 Mar



As of 5 Mar

C-AD Power 2006/2007



RHIC Machine/Detector Planning Meeting

Next Meeting

Tuesday, March 13, after Time Meeting

RHIC Machine/Detector Planning Meeting

Archive

RHIC Machine/Detector Planning Meeting

Answer to Questions from the 6 Feb meeting (to be revisited)

- (1) **Experiments – What are your luminosity goals for the Au-Au run, Delivered and Sampled?**
- **PHENIX goals for 100 x 100 GeV/n Au-Au**
 - **Delivered Luminosity = 2700 μb^{-1}**
 - **Sampled Luminosity = 1100 μb^{-1}**
 - **Assumes 68% live time, 60% vertex cut = 40.5% efficient**
 - **However, Run5 efficiency factor was 25% (if so, the Run7 requirement is 4400 μb^{-1} delivered)**

 - **STAR goals for 100 x 100 GeV/n Au-Au**
 - **Delivered Luminosity = 1800 μb^{-1}**
 - **Sampled Luminosity = 300 μb^{-1} with 60M usable min-bias events**
 - **~50% live time**

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Answer to Questions from the 6 Feb meeting (to be revisited)

(2) Experiments and Machine - If the Au-Au run goes well and luminosity goals are met with a week or two left to go, what should we do?

– **PHENIX**

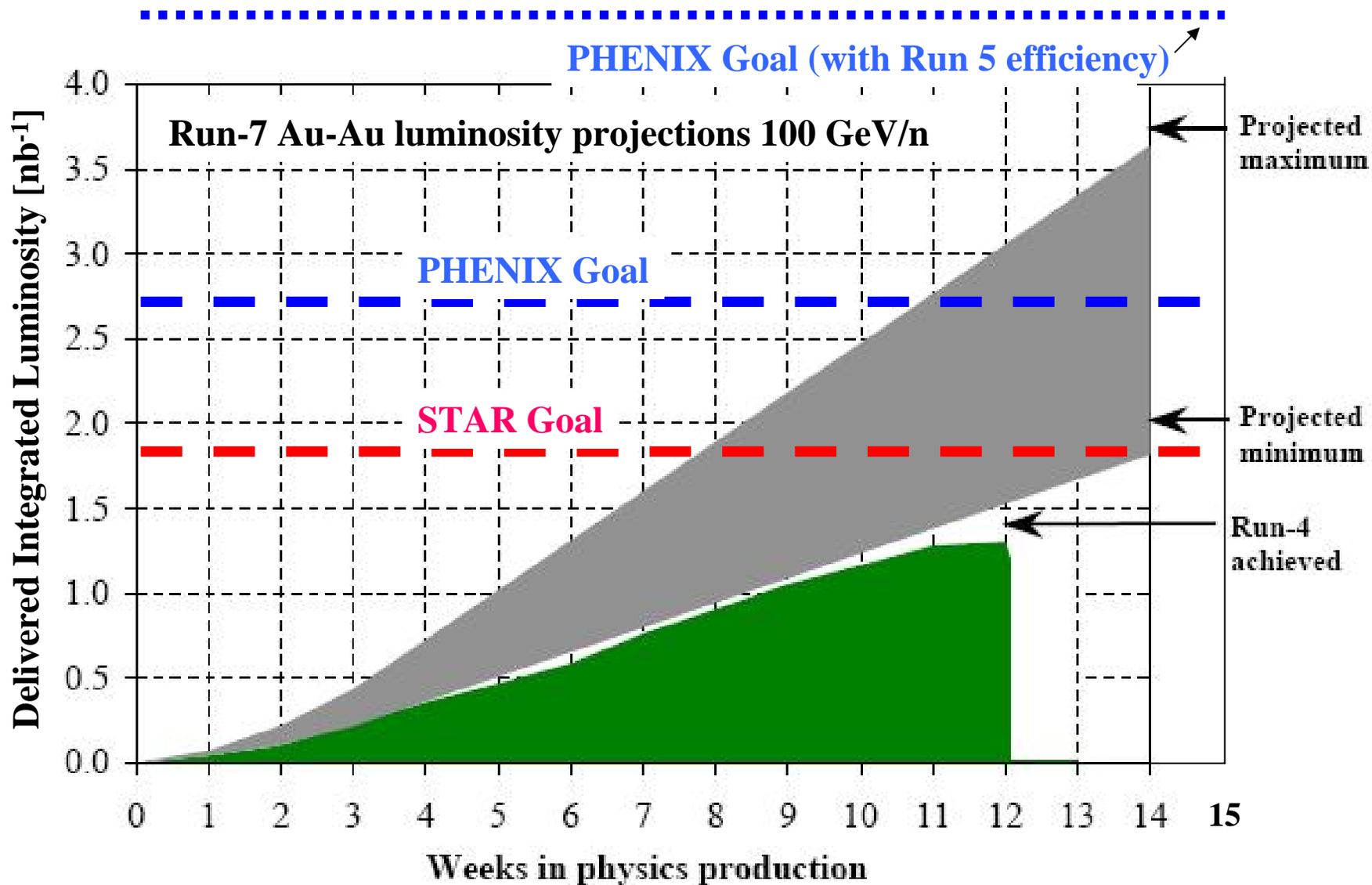
- **Probably need 15 weeks to achieve Au-Au goals – highest priority**
- **pp development if well motivated/justified**
 - **Studies to maximize Run8 figure of merit**
 - **500 GeV development**

– **STAR**

- **Low energy Au-Au development, collider issues, triggering...**

– **Machine**

- **1-2 days low energy Au-Au development at 0.5 injection energy**
- **pp development –**
 - **1st priority new RHIC working point (needs ~2 weeks)**
 - **2nd priority 500 GeV development**

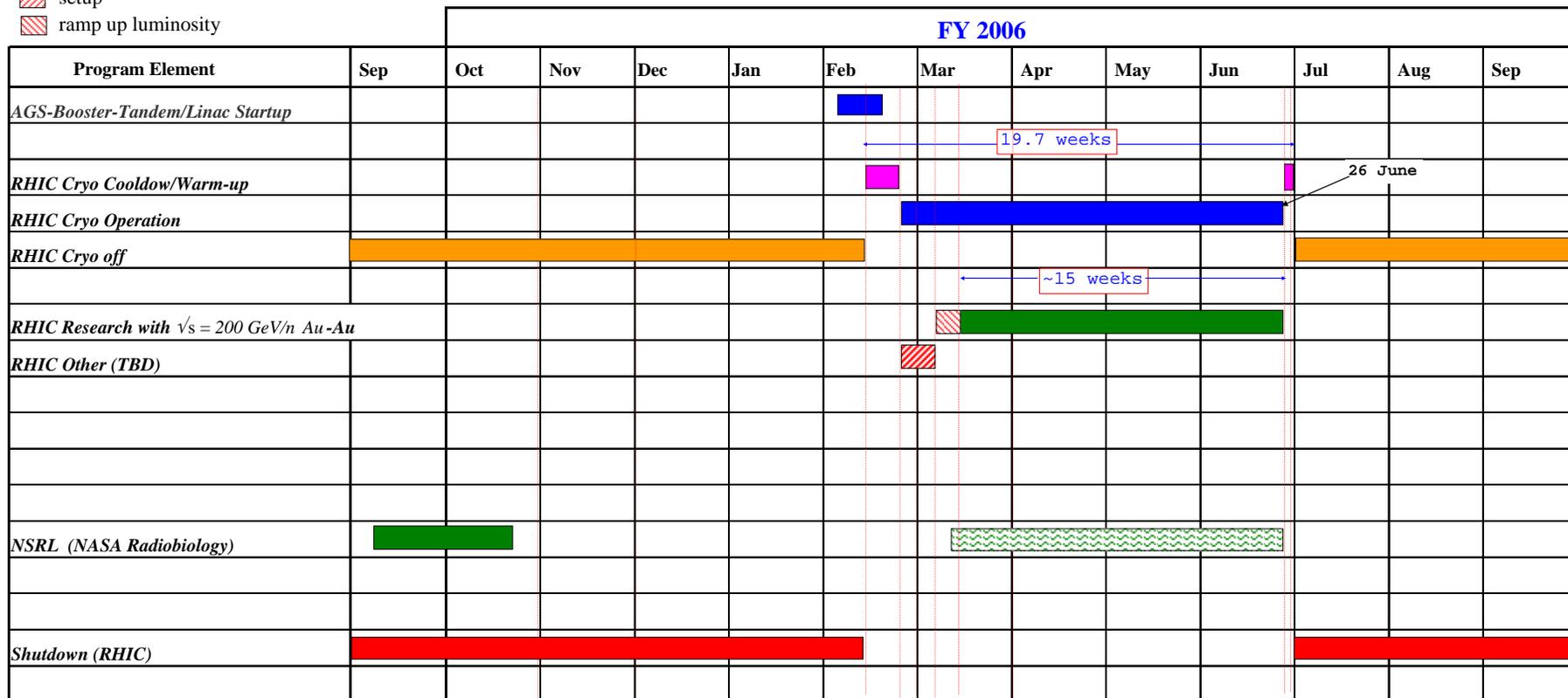


C-A Operations-FY07

15 Feb 07

Plan, subject to change

-  concurrent with RHIC
-  setup
-  ramp up luminosity



BNL Energy Use FY 2006-7

(C-AD Bldg 911 power is in AGS-Exp/Mach)

- RHIC Cryo
■ AGS-Mach
■ Tandem
■ AGS-Exp
■ Site Base
- \$/MWhr
- RHIC other
■ CAD Bldg less SMD
■ Booster
■ NSRL
■ Peak-Av

