

RHIC Machine/Detector Planning Meeting

17 November 2004

Agenda

- **Schedule Issues (Montag)**
- **General Remarks (Pile)**
- **Report from Accelerators (Pilat)**
 - **The plan to get to Cu-Cu physics operation**
 - **Other**
- **Polarized Proton Update (Bai)**
- **Report from experiments (STAR,PHOBOS,PHENIX,BRAHMS)**
 - **Work left to be done in preparation for Cu-Cu physics run**
 - **When do 24 hr shifts begin**
 - **Physics goals for Cu-Cu run**
 - **Required run conditions to achieve goals – luminosity, β^* etc.**
 - **Special requests**
- **RCF Issues (Throwe)**
- **Other business**

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Purpose of this meeting:

- To address issues and priorities relating to the optimization of physics output from RHIC experiments.
- To discuss and promulgate policy (when needed).

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PAC Recommendations (very short summary):

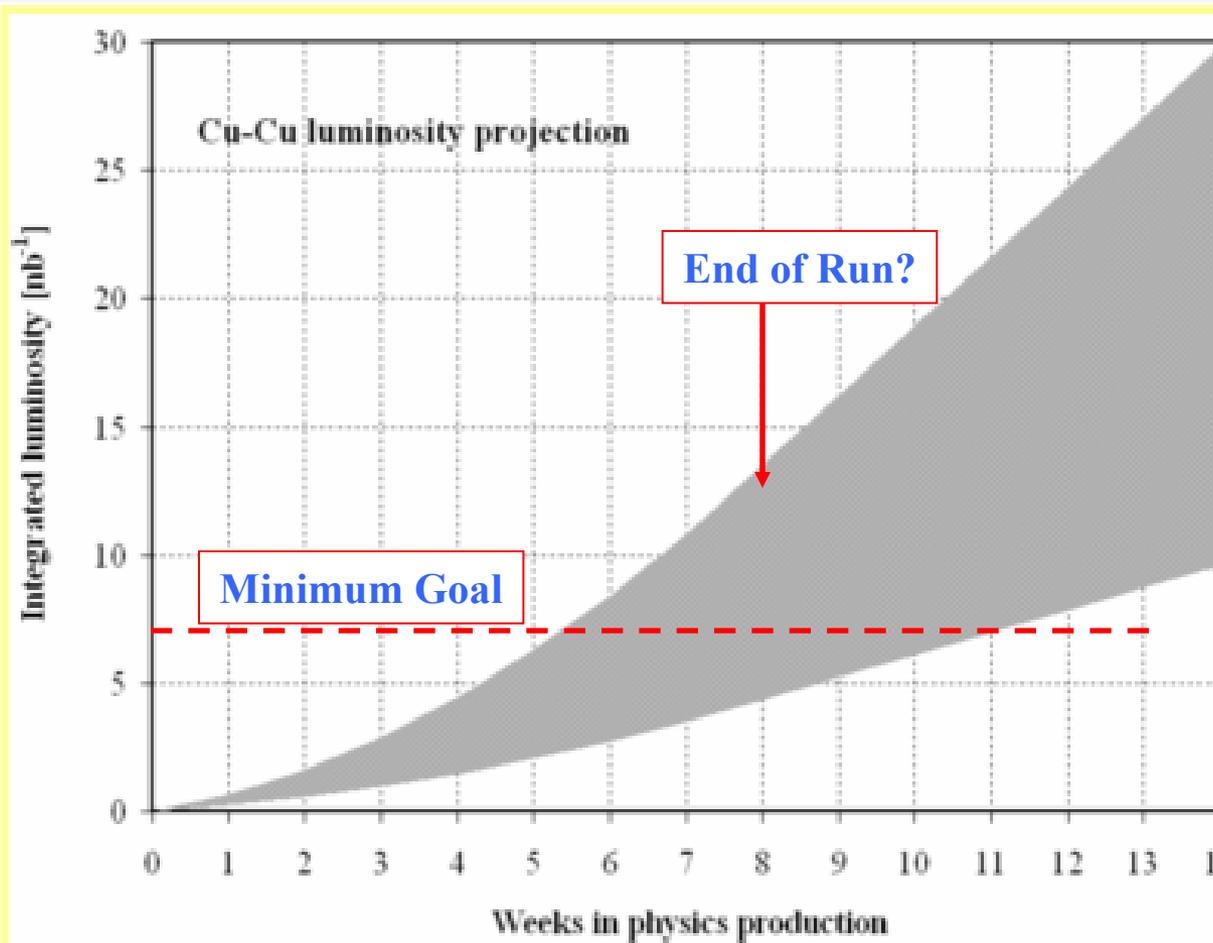
- 8-10 week pp run should have highest priority
- Cu-Cu run should accumulate an integrated delivered luminosity of at least 7 nb^{-1} at $\sqrt{s} = 200 \text{ GeV}$
- Cu-Cu at $\sqrt{s} = 62.4 \text{ GeV}$ and 1 day at injection is advisable if above goals are met
- 1-2 day pp (unpolarized) run at $\sqrt{s} = 400\text{-}500 \text{ GeV}$ desirable

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- **Overall Plan** (based on presidential budget)
 - **18 Nov 04 - Cryo on**
 - **19 May 04 – RHIC Run 4 ends**
 - **26 May 04 – RHIC cryo switched to LN₂ (27 weeks total)**
- **Details – as run/planned** (*some details based on '04 run and are subject to change*)
 - **18 Nov 04 – Cool down begins**
 - **25 Nov 04 – Blue Ring Cold**
 - **2 Dec 04 – Yellow Cold**
 - **3 Dec 04 - “2 week” RHIC setup with beam begins**
 - **16 Dec 04 – “2 week” ramp-up with colliding beams begins**
 - **Late evening stores for experiments**
 - **2, 8 hr accesses for experiments if needed (based on last year’s plan)**
 - **30 Dec 04 – 8 week physics with 100 GeV/n x 100 GeV/n Cu-Cu begins**
 - **12 Jan 05 - First experiment access, bi-weekly thereafter (all up to 8 hrs and only if needed)**
 - **5 Jan 05 - First beam experiment, weekly thereafter (up to 12 hrs/week)**
 - **24 Feb 05 – Nominal end of 8 week Cu-Cu run**
 - **24 Feb 05 – begin 3 week pp setup**
 - **17 Mar 05 – Begin 9 week pp Physics run**
 - **19 May 05 – end 9 week pp run, RHIC Run 5 ends**
 - **26 May 04 – Cryo switch to LN₂ complete, 27 weeks of RHIC cryo operation ends**

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Projections based on the following beam intensity:

Minimum :
 $45 * 2.9 \times 10^9$

Maximum:
 $28 * 6.6 \times 10^9$

Luminosity evolution:
8 weeks ramp-up during physics production

BNL Energy Use FY 2003-2005

as of 16 Nov 04

(C-AD Bldg power is in site base)

