STAR will be Ready for Collider Cooldown by December 1, 2010.

Bill Christie

For

The STAR Collaboration

October 20, 2010.

Major Tasks remaining prior to 12/1/10:

- Complete EEMC maintenance (~ 10/27)
- Annual RESC Safety review and Emissions Doc. Update (10/27?)
- Install electronics boards for monitoring TPC anode wires (~ 11/1)
- Replace remaining TPC LV supply capacitors (11/8 or sooner)
- Global Interlocks Certification (Week of 11/8?)
- Install East Poletip (11/15 or sooner)
- Fill Magnet with water and testing (can start late the week of 11/15)
- Install BBCs and VPDs (Last week of November)
- Trigger firmware (revisions into December)

STAR BUR11

Run	Beam Energy	Time	System	Goal
11	$\sqrt{s_{NN}}$ = 18, 27 GeV*	2 weeks	Au + Au	100, 150M minbias
	$\sqrt{s_{NN}}$ = 200 GeV	4 weeks	U + U	200M minbias 200M central
	$\sqrt{s}$ = 500 GeV	5 weeks 6 weeks	$p_\uparrow p_\uparrow$ $p_\rightarrow p_\rightarrow$	trans. $P^2*L = 4\ pb^{-1}$ long. $P^2*L = 20\ pb^{-1}$
		1 week	$p_\uparrow p_\uparrow$	pp2pp at high β*

RHIC Run Plan for 2011 Physics Run

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

Run11 Physics Programs

1) Spin Physics (2011)

- W± A_L at mid-y
- Light meson AN at forward-y
- Δg measurements at 500 GeV
    - DPE and hadronic spin-flip amplitude (if pp2pp running)

2) Heavy Ion Physics* (2011)

- Complete BES at 18 and 27 GeV including di-electron program at STAR
- U+U collisions: hydro limit, (further measurements uncertain with reduced beam time allocation)
- High luminosity AuAu collisions
    - Likely physics measurements:
        - J/Psi v2
        - Try to separate Upsilon 1S and 3S states
        - high mass dilepton
        - Possibly try low pT J/Psi
        - Effectively use HLT to select events

* Request a CA-D test to determine the lowest possible collision energy at RHIC