

Run 10 Planning Status

Run Coordination/RHIC Setup

Kevin Brown

Angelika Drees

Todd Satogata

<http://www.cadops.bnl.gov/AP/RHIC2010/>

Schedule

- ~~• Oct. 1 begin FEC/Controls Turn-on
systems are being tested~~
- ~~• Oct. 6 Begin Cryo Scrubbing~~
- ~~• Nov. 2 Begin 45 K waves~~
- ~~• Nov. 16 Booster/AGS Setup~~
- ~~• Nov. 16 – 20 RHIC Dry Run~~
- Dec. 1 4.5 K waves
- Dec. 4 Beam in RHIC (blue)
- Dec. 14 Store devel., physics setup

(conditions: $\beta^*=60$ cm , intensity = $1e9$, # of bunches > 50)

- Dec. 22 Projected Physics Start

This Week (11/23-11/25)

- Bake-out in RHIC continues on schedule
- Beam extracted from AGS to W-Dump
- Monday Day – repairs in various systems
- Today/Tomorrow – finish merge setup in AGS, check extraction energy, start tuning to reduce losses, increase intensity
- No beam activity Thursday and Friday. Possibly will work in AGS over weekend.
- Remain on schedule for Dec. 1 cooldown.

Run Preparation

- Dry Run went very well – issues were found and corrected.
 - 3 bad WFG's were replaced.
 - New LLRF was tested for 1st time
 - New logging systems tested and working.
 - Successfully ramped (to WFG's) many times.
- The Run coordinator web pages are available outside the firewall. See;

<http://www.agsrhichome.bnl.gov/AP/RHIC2010>

End

Run Preparation

- Starting Tues., Dec. 1 we will have 9 am meetings in the LCR. Cryo and P.S. groups should give reports during the first week.
- *No 9 am meetings on weekends.*
- Beginning Fri., Dec. 4 we will have 3:30 pm meetings in the MCR Conf. Room every day (including weekends) until further notice.
 - *Shift Leaders Must Write Shift Summaries!*
- The Run coordinator web pages are available outside the firewall. See;

<http://www.agsrhichome.bnl.gov/AP/RHIC2010>

Beam Set-up plan (new & optimistic)

Assume Blue is ready for beam on Fri., Dec. 4 evening.

- Fri. evening: establish injection and coasting beam
 - Setup injection kickers
 - Instrumentation checkout; losses, tunes, dcct, wcm
 - Injection orbit correction (1st iteration)
- Sat. day: P.S. testing and preparation
- Sat. evening: finish injection setup, capture
 - Setup injection damper
 - Continue instrumentation checkout: BPM's, BBQ setup
 - Check sextupole polarities, coupling angles (need BBQ)
 - Begin LLRF commissioning; synchro, capture
- Sun. day: DX training (> 1 day cold)
- Sun. evening: LLRF commissioning, no ramp
 - Cont. with BBQ at injection, tune feedback test
 - Look at Slow orbit feedback for first time

Beam Set-up plan (new & optimistic)

Assume Blue is ready for beam on Fri., Dec. 4 evening.

- Mon. day: P.S. testing, prepare Blue for ramp
- Mon. evening: possible 1st Blue ramp (6 bunch?)
 - LLRF commissioning
 - BBQ – Tune feedback on 1st ramp
 - Slow orbit feedback commissioning
 - Gamma jump – first time with new lattice
- Tue. Evening: LLRF commissioning & tune feedback
both need to be involved, it is a race who loses beam 1st
- Wed. Evening: more – beam to store (12 bunches?)
- Thu. Evening: stochastic cooling time (whether at store or inject) + yellow injection & checkout (owl)
- Fri. Evening: Yellow injection & acceleration

Mon Nov 30	Tue Dec 1	Wed Dec 2	Thu Dec 3	Fri Dec 4	Sat Dec 5	Sun Dec 6	Mon Dec 7	Tue Dec 8
2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM

RSC RHIC Checklist

RHIC Cryo

45 K cryo plant cooldown

45 K wave, both rings

Blue Cool Down 45K

Yellow Cool Down 45 K

Blue Cool Down 5K

Yellow Cool Down 5K

Vacuum Bake-out, Yellow

RHIC Magnets & P.S.'s

Ramp Defined and Approved

Hi Pot Tests

Injection current testing

Testing Ramps - Blue

Testing Ramps - Yellow

DX Training

RHIC Injection

Blue First Turn

Blue Injection Kicker Setup

Blue Injection Orbit Correction

Yellow First Turn

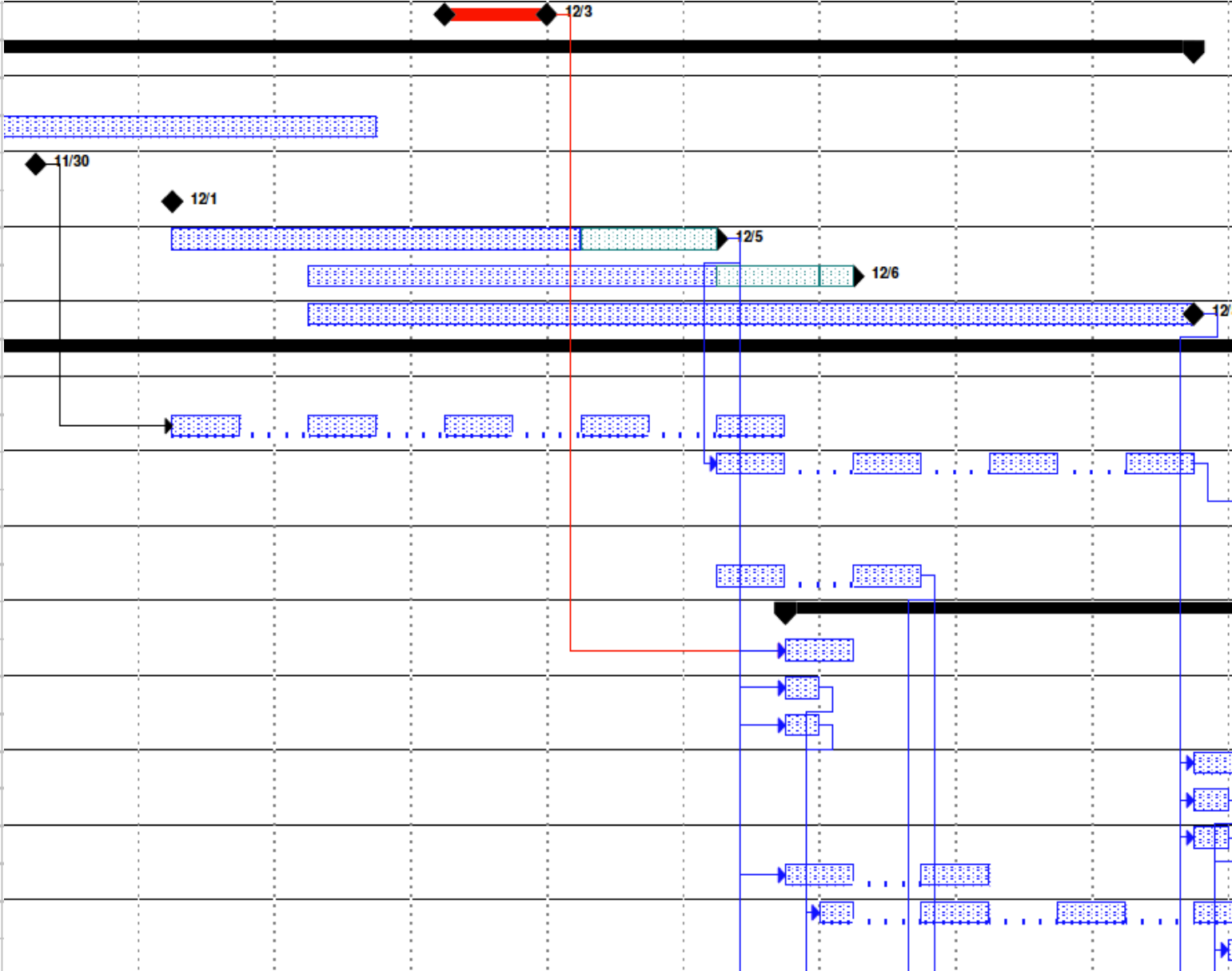
Yellow Injection Kicker Setup

Yellow Injection Orbit Correction

Injection Damper setup

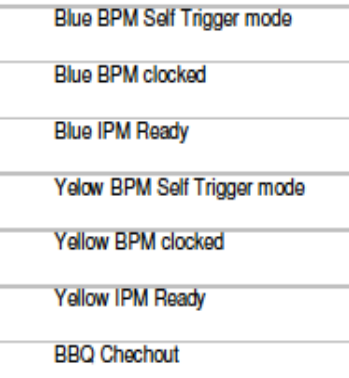
Blue Injection, Coasting Beam

Yellow Injection, Coasting Beam



Mon Nov 30	Tue Dec 1	Wed Dec 2	Thu Dec 3	Fri Dec 4	Sat Dec 5	Sun Dec 6	Mon Dec 7	Tue Dec 8
2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM	2 A 6 AM 2 P 6 PM

RHIC Instrumentation



RHIC RF

