

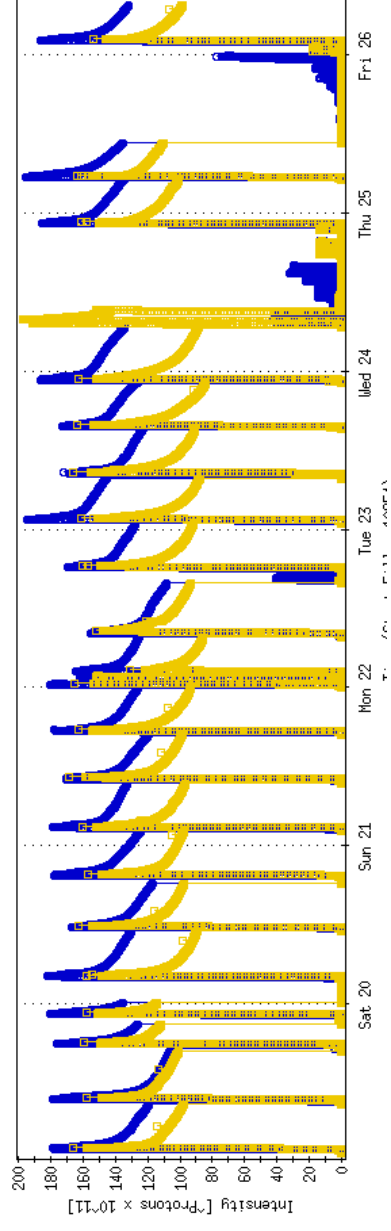
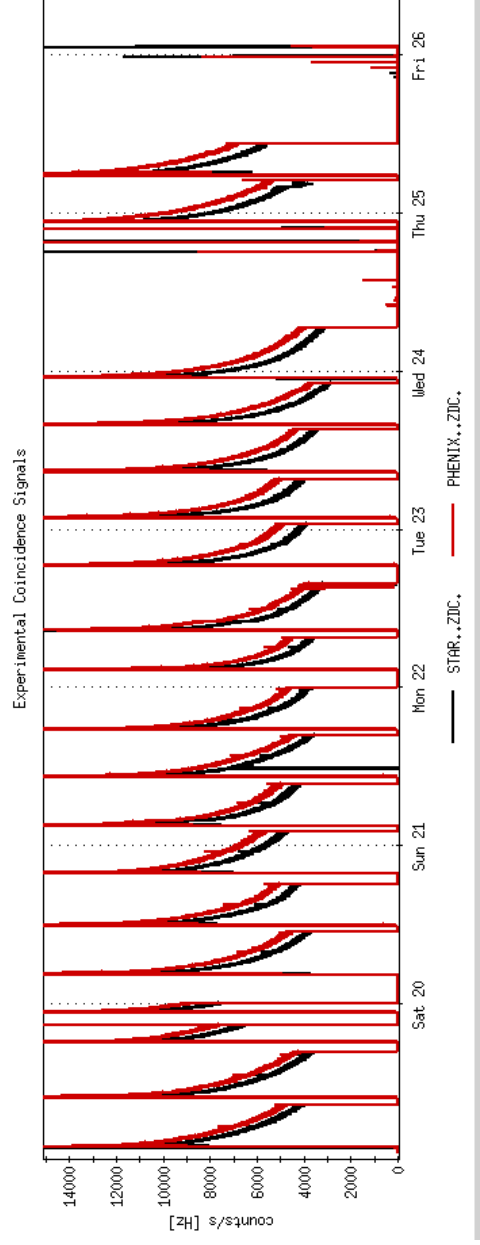
100 GeV Polarized Proton Run

http://www.cadops.bnl.gov/AP/Spin2009_100GeV/

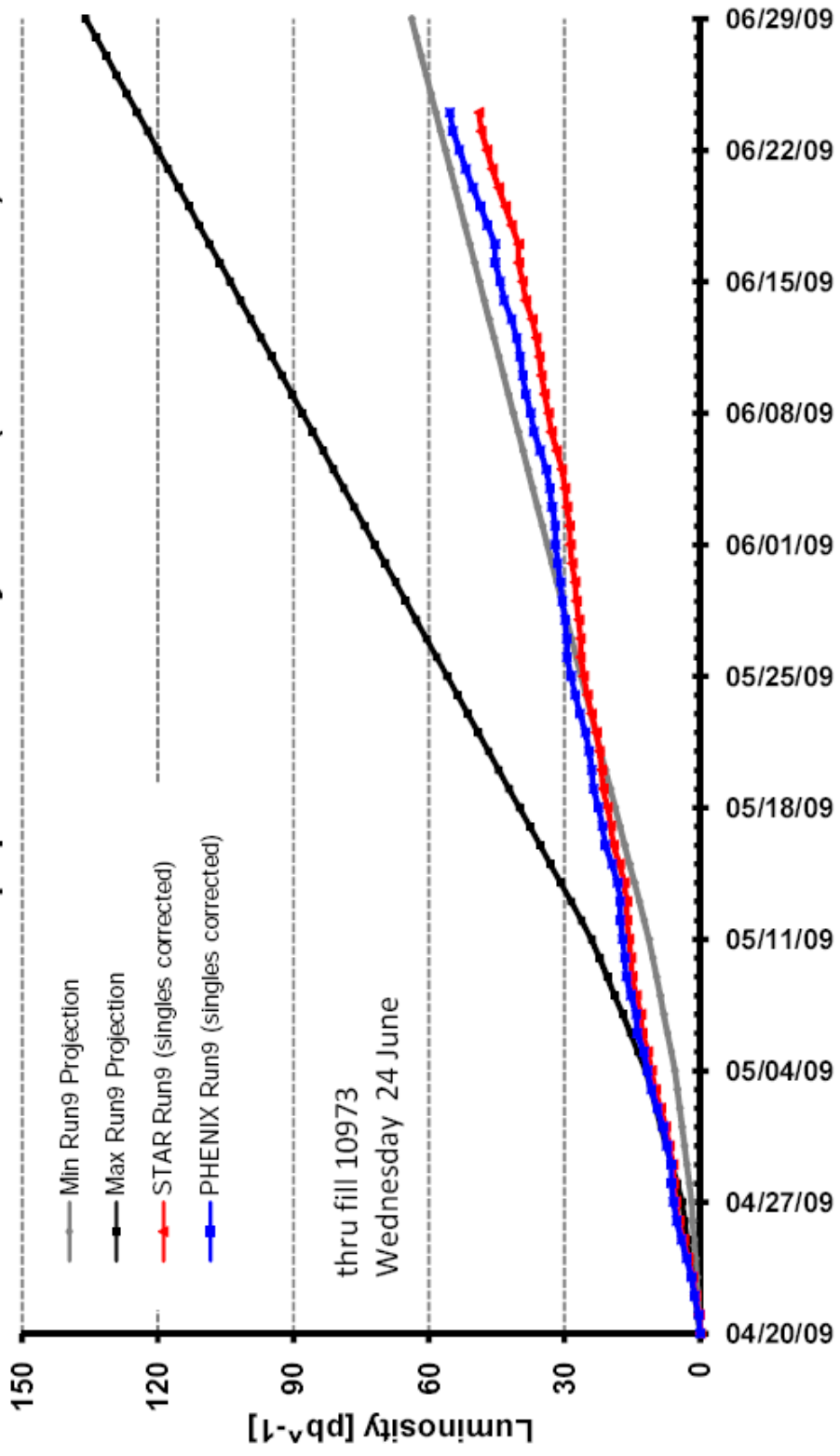
June 26, 2009

Present status

- Back-to-back physics stores



RHIC Delivered $p^A p^A$ Luminosity Run-9 ($\sqrt{s}=200$ GeV)



- APEX Wednesday:
 1. Spin flipper commissioning: scanned phase between two AC dipoles. Phase is shifted by 30 degrees compared to expectation, and maximum is not full polarization. No sign of reduced mirror resonance strength.
 2. Solved mystery of intensity losses early in the bunch train: injection kicker ringing.
 3. 250 GeV near-integer ramp development: maximum achieved polarization at store is only 17 percent this time.

4. Yellow ramp development for better efficiency and polarization transmission: efficiency got worse, but polarization transmission improved.
 - 10 h LLRF development yesterday. Reverted to old system.
 - Scanned 10- and 12-poles during stores. Beam decay improved by 1 percent/hour.

Plan for the rest of the run

- Physics, physics, physics...!
- pp2pp starts 6/29 at 8 AM

pp2pp

- 6/29 – 30: Ramp development for pp2pp (pp100-90pp2pp)
- 7/1: pp2pp physics run
- Maximum total intensity per beam: $5 \cdot 10^{12}$ protons
 - $0.5 \cdot 10^{11}$ protons/bunch in 109 bunches
 - PHENIX peak luminosity around $5 \cdot 10^{30} \text{ cm}^{-2} \text{ sec}^{-1}$
(factor 10 – 15 below present luminosity; $\beta^* = 1.0 \text{ m}$)
- Goal: 40 hours of physics
- APEX/Machine Development until end of run, 7/6/09
at 8 AM