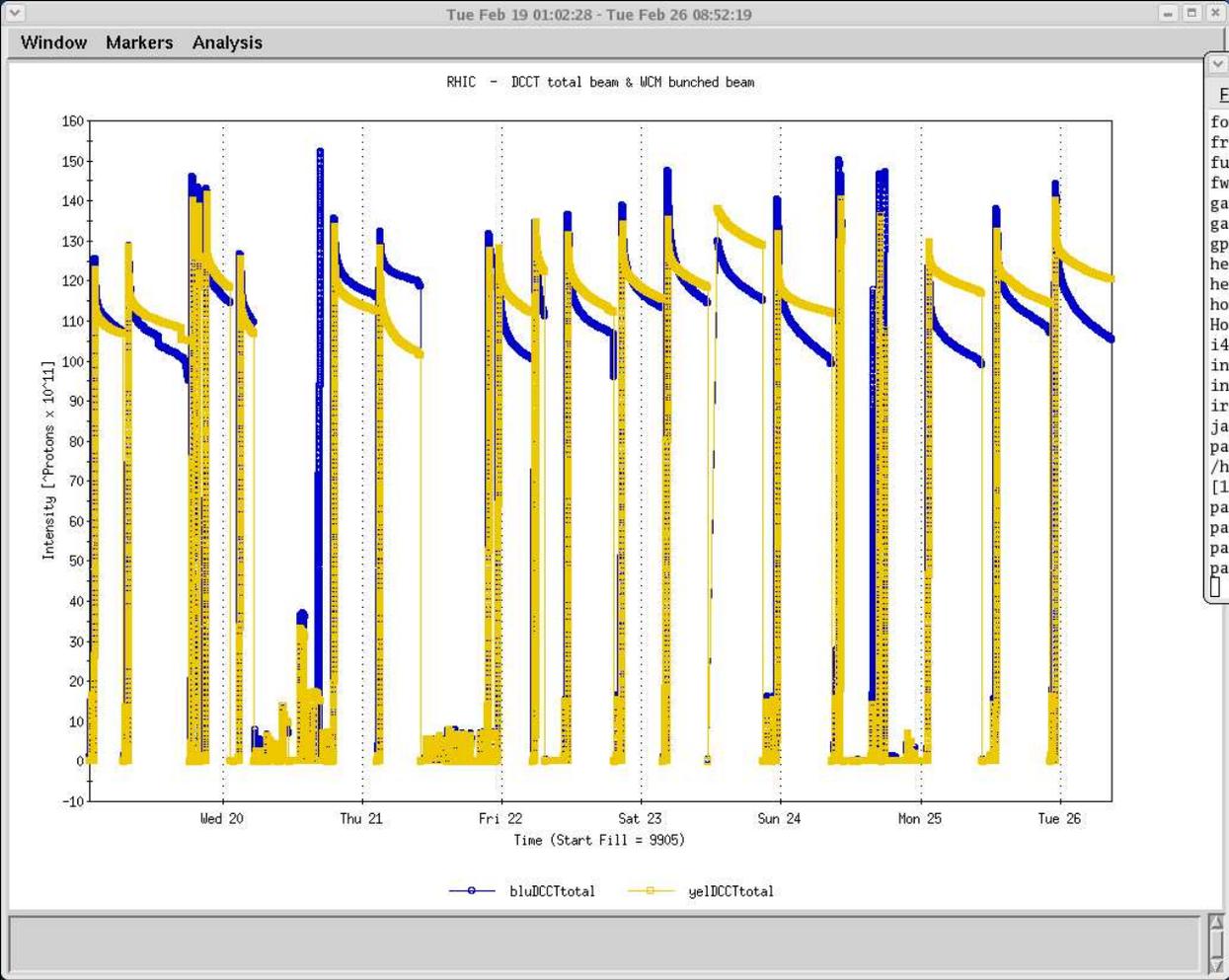


Polarized Proton Run

February 26, 2008

Beam intensities



- **Tue., Feb. 19:** Attempted to swap IR 12 orbits for Jet. Failed twice; reverted to previous setting (fill 9909, Jet on Blue beam).
- **Wed., Feb. 20:** β^* -squeeze to 60 cm during APEX looks promising.
- **Thu., Feb. 21:** Machine development to make 60 cm ramp (pp83lowbeta) operational. Development cut short due to Linac failure.
Back to regular ramp (pp83), with Jet on Yellow.
Main objective now is to provide Physics stores.
- **Fri., Feb. 22:** Rates are somewhat low (6.5 kHz instead of 8 or 9). Yellow emittance blown up; restored chromaticities to fill 9909 settings.

- **Sat., Feb. 23:** Reverted to fill 9909 to swap IR 12 orbits back to Blue.
- **Sun., Feb. 24:** Polarization in both rings is only 40 percent.
Power dip around 10:30. Back at injection after 5 hours.
An instability in the Blue ring pulls the permit three times at injection. Raising chromaticities helps.
Next ramp gets lost at accramp due to Yellow instability. Dump looks “dirty”. Investigation seems to show that abort kicker is 200 nsec late. Decide to limp along overnight with first few bunches at low intensity.

- **Mon., Feb. 25:** Investigated Blue abort kicker timing. No problem found, appears to have been a red herring all along.
Polarization is even lower than before the tune adjustments on Sunday morning. Revert those changes. Next store still has only 38 percent, but AGS had only 45 percent (instead of 50+) at time of RHIC injection.
- **Tue., Feb. 26:** Swapped IR 12 orbit back to Yellow beam. Instead of reverting to a previous ramp, this is done at store only.
Will revisit $\beta^* = 60$ cm during APEX tonight. Will be used operationally if successful.

Plan for upcoming week

- Main objective for remainder of the run is to provide Physics stores - only small changes to keep the machine going.
- One exception: May switch to new ramp with $\beta^* = 60$ cm.
- Polarization still needs some work; fine-tuning on physics ramps.
- May attempt to measure polarization on the ramp if this is considered useful.