

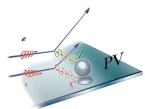
# Run Coord. Weekly Report

Dustin E. McNulty

UMass

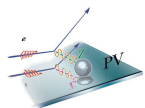
*mcnulty@jlab.org*

September 22, 2009



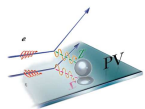
## Experiment Status

- MCC has been beam tuning all morning/trying to understand FFB–ep ion chamber trip problem
- We are currently on production slug11
- There are no planned accesses
-



## Timeline of Notable Events

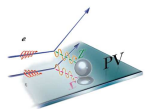
- 9/15 day/swing – No beam: Accel Beam Studies (RFrecover...); hallA problems with Rarm magnet iocha16
- 9/16 owl – No beam: Accel still recovering (injector vacuum problems, tuning beam through rest of machine); still Rarm IOC problems
- 9/16 day – Rarm IOC back, magnets stable...Q2 trip at end of shift; MCC tuning for Compton all day
- 9/16 swing – MCC takes beam away for from 14:00-20:00 trying to resolve large beam losses in the machine (with known hot spots in accel); after beam pos./spot/compton tuning, production resumes at 23:00; at 23:23 Alex adjusts Compton photon PMT gain and Compton bkgd rates become beautiful—and still are (see figure)
- 9/17 owl – Start of very efficient production data taking which lasts until 9/21 owl



## HAPPEX Collaboration

Jefferson Lab Hall A

- 9/17 swing – Did a Moller measurement (meas 88.6%)
- 9/18 owl – Changed to bigger raster, 11x11 (MCC units), performed detailed pos.scans/boiling studies
- 9/18 swing – 1hr access at 23:00 to reset Moller quads
- 9/21 owl – ep ion chamber trips start at 02:00 and seem to be somewhat correlated with dithering cycles
- 9/21 day – investigation into ep ion chamber trip problem...find out that it is FFB problem
- 9/22 owl – ep ion chamber trips starting up again
- 9/23 day – MCC trying to further understand FFB issues

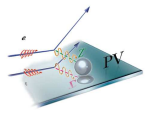


## Weekly Beamtime Accounting

- 152 hours scheduled
- 105 hrs (69%) CW Beam on Target
- 94 hrs Acceptable Beam in Use
- 47 hrs BANU

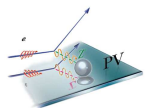
## Major causes of lost time

- 8+ hrs recovering from beam studies (inj vacuum, beam tuning)
- 6 hrs understanding beam losses in the machine
- FFB issues during dithering cycle and ep ion trips
- Compton tuning

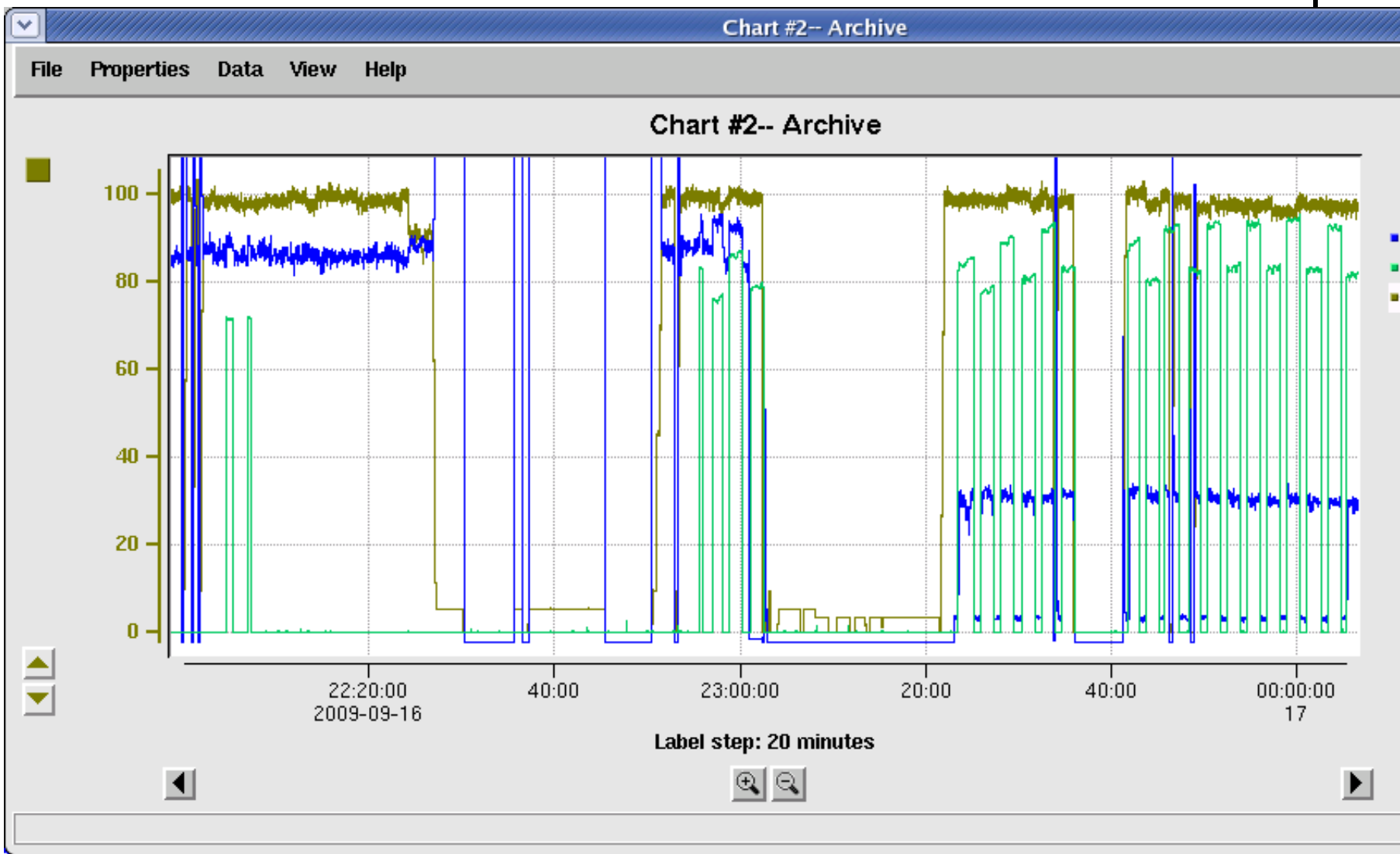


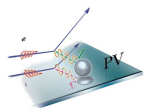
## Upcoming Plans

- Setup phase-advance for dithering system today (Kent, Jay, Alex Bogacz)
- Do another BPM/BCM calibration/current scan (Rupesh, Mark)
- Moller measurement tomorrow evening (Sasha, Arun)
- $Q^2$  meas. and bkgd studies tomorrow afternoon (Dustin, Bob)
- Note that next Tuesday, we're down for 16 hrs (RF recovery/C-50 commissioning)



## Compton Bkgd rates Good and Stable





## EP Ion Chamber Trips Start – Accel FFB Problem

