
DVCS / GMp

Run coordinator report

March 17–24, 2015

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JLab

Hall A 1:30pm Meeting

March 24, 2015

History / Notable Events

- **Last week (Wed—Friday)**
 - Lots of problems with Accelerator
 - persistent BLM trips at 7S, 9S, 1C12, ...
 - RF separation (required for A + D operation) marginal
 - Energy oscillation w/ 30s period throughout machine
 - Issues with A and C lasers in injector
 - C-laser is better and is back to serving Hall A
 - Unable to get >5 μA of current to Hall A, problems got worse late in week
→ eventually no beam to Hall A
 - East Arc LCW cooling tower fault (8 hour down, Thursday)
 - CHL trip Friday afternoon
 - Ongoing issues with Hall A Harps
 - Hall A mostly in good shape
 - Some progress on LQ1 (now up to 3.4 GeV)
 - Issue with LHRS dipole being software limited to 3.2 GeV (fixed)

History / Notable Events

- **Weekend**
 - Progress!
 - 30s energy oscillation traced to LCW cooling of NL
 - PID loops tuned, seems to have stabilized
 - RF separation (required for A + D operation) was shelved for a bit
 - magnetically separated A and B, works!
 - Hall A restarted physics program
 - Dump ion chamber calibration completed (?)
 - Took DVCS data at 3.4 GeV (10 uA typical beam current)
 - Changed LHRS polarity on Sunday
 - Started elastics calibration run plan
 - RHRS preliminary optics looks good

History / Notable Events

- **Monday**
 - Hall A completed a BCM calibration (0–20 uA) in morning
 - Beam shut off to Hall A at 1pm to work on Hall B / D
 - RF Separator restarted so A + D can both receive beam
 - seems to work now thanks to optics work and LCW-related fixes over the weekend
 - Good progress until late swing shift when
 - vacuum problems in SL
 - CHL crashed again
 - Took machine down overnight (more or less)...
- **Tuesday**
 - A little beam to A in the morning to investigate Harps, then down for B/D work
 - Should get beam again around 1:30pm

To Do List

- **Fix the Harps**
 - 1H04A/B is “OK”
 - 1C07A/B works
 - 1C18A/B still needs work
- **Arc Energy scan (needs C18 harps to work, dispersive optics from Yves)**
- **Hall A Issues**
 - RHRS air conditioner not working
- **Physics program**
 - Understand a 1% shift in reconstructed elastics peak in LHRS
 - Understand a 30% difference between our calibrated Unser BCM and what Accelerator is using
 - GMp RQ1 momentum scan (should happen today)
 - Continue with DVCS elastics study
 - BPM calibration (needs Harps)
 - DVCS Flip LHRS polarity back (Wed. DAY?) and continue production

RHRS Optics Foils

