

Run Coord. Report: April 22 - 29, 2008

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Run Plans Accomplished (total ABU: ~ 110 hrs (65%))

Kin.	E_b (GeV)	Q^2 (GeV)	HRS θ (deg)	HRS P_0 (GeV)	BB θ (deg)
I	1.2	0.148	20.5	0.960	43.6
J	1.2	0.099	16.5	0.986	43.6
K	1.2	0.077	14.5	0.997	43.6
L	1.2	0.058	12.5	1.007	43.6
E	1.2	0.058	12.5	1.007	48.0

- Started Kinematics I at 08:00 on 4/22
- Finished Kin. I with 0.31C at 09:00 on 4/23...Started Kin. J
- Finished Kin. J with 0.36C at 08:50 on 4/25...Started Kin. K
- Finished Kin. K with 0.45C at 09:00 on 4/27...Started Kin. L
- Finished Kin. L with 0.22C at 20:00 on 4/28...Back to Kin. E

Accelerator Down (total BNA: ~ 39 hrs (23%))

- Tue 4/22: Lost 4 hrs for beam-studies
- Tue 4/22: Lost 2 hrs due to ion pump problem
- Wed 4/23: Lost 15.5 hrs due to vacuum problem in South LINAC
- Thu 4/24: Lost 2 hrs while faulty PS (zone 21 RF) replaced...Following this fix, beam trip rate reduced by factor of 2 (from 15/hr to ~ 7 /hr)
- Sun 4/27: Lost 1.1 hr due to RF trip
- Mon 4/28: Lost 0.6 hr due to RF trip
- Above losses equal 25 hrs, the remaining losses (14 hrs) are mostly from beam-trip recovery
- Occasionally ($\sim 2 - 3$ times/day) bad beam position caused BB HV trip

Experiment Down (total BANU: ~20 hrs (12%))

- Target not ready 1.8 hrs (1.1%)—target glitch 0.5 hr, moving target 1.3 hr
- DAQ not ready 11.8 hrs (7.0%)—mostly from time lost in between runs (7.1 hrs), time lost rebooting ROCs (3.5 hrs), and 1.2 hours adjusting prescales
- Planned Configuration Changes: 1.3 hrs (0.8%) to perform 3 of 4 config changes
- BB not ready 5.0 hrs (3.0%)—primarily due to HV trips, 1.0 hr spent filling He bag (3 times) and replacing Ethane Bottle
- Tue 4/22: Lost 0.5 hr due to target power glitch – HPH setpoint \rightarrow 600 W
- Mon 4/28: Moller beam pol. measurment failed due to moller daq problems

Hall Accesses

- Tue 4/22 morning: Replace BB He bottle (during beam studies)
- Tue 4/22 23:50 - 00:30: Reboot ROC 9 and 10
- Thu 4/24 15:30 - 16:00: Refill BB He bags
- Sun 4/27 09:00 - 10:00: Move HRSL to 12.5 degrees (for Kin L),
Refill BB He bags
- Sun 4/27 21:30 - 22:00: Move BB to 48 degrees (for Kin E)

π^0 Threshold Experiment

Jefferson Lab Hall A

		ABU	BANU	BNA	Not Ready (hrs)			
Date	Shift	hrs	hrs	hrs	Targ	DAQ	HRSL	BB
Tue:4/22	Day	1.6	0.4	6.0	0.0	0.1	0.0	0.3
Tue:4/22	Swing	4.5	2.7	0.8	0.5	1.8*	0.0	0.4
Wed:4/23	Owl	4.8	0.8	2.4	0.0	0.5	0.0	0.3
Wed:4/23	Day	0.0	0.0	8.0	0.0	0.0	0.0	0.0
Wed:4/23	Swing	0.4	0.1	7.6	0.0	0.1	0.0	0.0
Thu:4/24	Owl	6.7	0.7	0.6	0.2	0.5	0.0	0.0
Thu:4/24	Day	4.2	0.9	2.9	0.0	0.9	0.0	0.0
Thu:4/24	Swing	7.2	0.5	0.3	0.0	0.3	0.0	0.2
Fri:4/25	Owl	7.2	0.5	0.3	0.2	0.3	0.0	0.0
Fri:4/25	Day	5.8	1.6	0.6	0.0	0.8	0.8	0.0
Fri:4/25	Swing	6.9	0.8	0.3	0.0	0.6	0.0	0.6

π^0 Threshold Experiment

Jefferson Lab Hall A

		ABU	BANU	BNA	Not Ready (hrs)			
Date	Shift	hrs	hrs	hrs	Targ	DAQ	HRSL	BB
Sat:4/26	Owl	6.8	0.5	0.7	0.0	0.1	0.0	0.4
Sat:4/26	Day	6.9	0.6	0.5	0.0	0.4	0.0	0.2
Sat:4/26	Swing	5.0	2.5	0.5	0.3	1.0	0.0	1.2
Sun:4/27	Owl	6.9	0.4	0.7	0.0	0.3	0.0	0.1
Sun:4/27	Day	4.0	2.1	1.7	0.2	0.9	0.6*	0.4*
Sun:4/27	Swing	6.8	0.9	0.3	0.0	0.5	0.0	0.4
Mon:4/28	Owl	6.7	0.5	0.8	0.0	0.5	0.0	0.0
Mon:4/28	Day	6.2	0.7	1.1	0.2	0.5	0.0	0.0
Mon:4/28	Swing	4.8	1.5	1.7	0.1	0.9	0.0	0.5*
Tue:4/29	Owl	6.6	1.0	0.4	0.2	0.8	0.0	0.0
Total	all	65%	12%	23%	1.1%	7.0%	0.8%	3.0%

Summary

- Hall A took over energy lock Tue 4/22 – since then, beam energy very stable.
- Achieved 85% use of beam when it was available.
- Machine running very stable following vacuum problem and PS fix.
- We still need a Moller measurement at this energy/wein.
- Plan to change to 2nd pass running next Monday or Tuesday.