

Hall A “LEDEX” RunPlan
2nd Low-Energy Beam Period ($E_0 = 362$ MeV): Aug. 20 – Sep. 1, 2006
E05-004

PROCEDURES FOR “SPECIAL” ELASTIC SEQUENCE with $Q = 0.200$ GeV

1. Ensure Spectrometers/Triggers/BPM/etc. Prepared Properly

- Change electron HRS momentum & angle settings to those specified for the $Q=0.200$ GeV measurement: $\theta_e = 32.57^\circ$, $p_e = 0.3612$ GeV/c.
- Make sure the other spectrometer (the Luminosity Monitor) is still set in its fixed position/setting, and ready to take data: : $\theta = 28.30^\circ$ and $p = 0.3538$ GeV/c
- Small 2 msr Collimator will be (should be!) already bolted in place on both spectrometers.
- Will use Singles Triggers (T3 for HRS-L, T1 for HRS-R) - Prescale for singles trigger on current measurement elastic-electron spectrometer should be **set as LOW as feasible**; prescale for singles trigger on Luminosity spectrometer should be set for about 1 kHz DAQ rate. T2 and T4 triggers are needed for trigger efficiency (and rate of T2, T4 should \approx T1, T3 rates); make sure to keep sufficient amount of these triggers, too. **Keep deadtimes less than 10%.**
- Make sure HRS-L and HRS-R DAQ's are **SYNCH'd** Order of STARTING DAQ's for each RUN is: start HRS-R, then start HRS-L; Order of STOPPING is: stop HRS-L, then stop HRS-R.
- Check beam position on BPMs (few-tenths of mm on each); set **Raster ON: ASK MCC for “6 x 4.5”** ($\pm \approx 3$ mm in X and Y)
- See notes on Kin-Table about expected rates, and “rules” about setting currents (min ≈ 0.5 μ A, max ≈ 10 μ A).

2. Sequence of Runs for this Kinematic Point

Momentum Setting #	Target	# Counts Wanted	Purpose
1 (0.3612 GeV)	Ta	~100 k	Pointing / Kin-Fit
	C	3 runs \times 1 M	eD prod. / Kin-Fit
	Al (4 cm dummy)	100 k	eD prod. (bgnd) / Kin-Fit
	LD ₂	3 runs \times 1 M	eD prod. @ $\delta=-3\%$ / Kin-Fit
2 (0.3513 GeV)	Ta	~100 k	Pointing / Kin-Fit
	C	3 runs \times 1 M	eD prod. @ $\delta=+3\%$ / Kin-Fit
	Al (4 cm dummy)	100 k	eD prod. (bgnd) / Kin-Fit
	LD ₂	3 runs \times 1 M	eD prod. / Kin-Fit
	LH ₂	3 runs \times 1 M	eD prod. @ $\delta=-3\%$ / Kin-Fit

Last Updated: 28 July 2006

3 (0.3413 GeV)	LH ₂	3 runs × 1 M	eD prod. / Kin-Fit
	LD ₂	3 runs × 1 M	eD prod. @ $\delta=+3\%$ / Kin-Fit
	Al (4 cm dummy)	100 k	eD prod. (bgnd) / Kin-Fit