DRAFT LEDEX meeting minutes – 2006/05/26 (rg) **DRAFT**

Steffen will be here for 2 weeks starting June 11. Michael Paolone of So. Carolina, who will be doing his thesis on the 4He(e,e'p) experiment, is already on site.

Jonathan and Yannick tell us the first tungsten slug calibration will be Tuesday, in vacuum. Arne found calibrations with the Aluminum slug are reproducible at 10^-3 level.

Emily has started work on the upgraded BCM system. She is building little metal boxes to hold amplifiers.

Jackie is continuing work on the FPP C++ analyzer, sorting out technical software problems.

Adam and Sharon have continued work on the run plan. Adam shows a preliminary kinematics plot from his website: www.ap.smu.ca/~sarty/kinplot_May26.pdf. We discuss the run plan extensively. The basic plan is to alternate between ep runs (check beam polarization, calibrate FPP) and deuteron photo-disintegration runs. Because we might run out of time, and because we need the ep runs at low momentum to know how well the calorimeter will work, the plan is (approximately) to measure ep at 150 MeV proton energy, gamma d at 20 deg cm, ep at 140 MeV, gamma d at 40 deg cm, ep at 130 MeV, gamma d at 60 deg cm, ... There are up to 7 ep and 10 gamma d angle settings. When the ep shows the measurement becomes too hard, we set a lower limit on what momentum we go to, and thus how far out our gamma d kinematics go. At this point we can fill in the missing gamma d angles.

Some additional points are as follows. At each c.m. angle we run the gamma d at fixed lab angle. This way the shift crews have to cycle through targets (carbon pointing, gamma d, ed and gamma p backgrounds, and ep background) and drop the spectrometer momentum once, without fine tuning the spectrometer angle, and cycle through the targets again. This is easier for the shift crew and probably prevents some errors. Two momentum settings are probably enough to cover the desired energy range. Even though we can, particularly for back angles, get down in principle to ~200 MeV photon energy before we hit the pi^0 production limit, it appears from the earlier data that agreement starts getting bad ~ 300 MeV. So ~270 MeV is a more reasonable goal. Also, at forward angles we can only cleanly reach about 270 MeV before we hit pion production. With 2 gamma d settings per angle, we have 22 ~12-hour data settings to run in about 26 days of beam time. We need at least 7 ep setting to check the beam and FPP; these also need to be run ~ 12 hours to match statistics. We will also do perhaps 5 settings of gamma p -> p pi^0 as a further check of spin transport, again to similar statistics. This already implies 70 % efficiency, which is why we likely run out of time. (Note we need higher Q^2 ep during the 687 MeV ed running, to reach higher proton momenta.)

Adam is going to improve the run plan. Sharon is going to look at rates and uncertainty estimates. It appears, to achieve the desired uncertainties at backward angles / low momentum, we would need a rate of 20 kHz for 12 hours. So uncertainties here are likely to be 3 times bigger. Ron cannot recall exactly what went into the proposal estimates, so he is going to look at this. Also, we need to consider the ed run plan.

Ron shows some initial planning activities, to see if we have things for everyone to do and everything has someone responsible for it. A draft (Imendio) planner output is posted to http://www.jlab.org/~gilman/sum06/sum06proj.html. The times are largely not yet defined. Some tasks do not have people; collaborators are welcome to review and volunteer.