

1 Jan. 23, 2008

Present: J. P, Karl

We discussed Kess's request for details of manpower and cost. We met with Steve Wood, Mark Jones and Dave Gaskell to obtain more info, and to determine what resources we can scavenge from Hall C. A useful resource for info on the upcoming SANE run is http://halleweb.jlab.org/experiments/sane/wiki/index.php/Working_Meetings.

With regard to scheduling, HKS should install Jan.-April 2009 and finish before Qweak begins installation in late 2009. We would most likely run after SANE and after HKS.

Karl mentions that he will be away from JLab for 2 weeks starting on Jan 28th. We will arrange the organized meeting with Kess after this.

1. Issues

- Total Cost. First make global estimate for Hall A. Later we may make outside funding requests to make up shortfalls, or for grants.
- Determine the manpower needed for design. This is always a limited resource in Hall A.
- Manpower needed for technical setup and installation. Assistance from Target group. Septa repair and installation.
- Estimate the manpower that can be supplied by users: Software, detectors, outside technicians.
- We will also need to estimate the support needed from Radcon and Alignment group (chicane, target, beamline).

2. Major Subsystems

- Target: Donal Day has agreed to take part in future discussions on the installation. Donal is spokesman for the other Hall A polarized target experiment (low Q^2 FF).

Do we need anything new for target? Does not appear so. Existing can should be fine, and we don't plan to run at half field, unless there is some problem with the chicane.

Mark raises the issue of whether the Septa magnet will have any effect on the poltarg required uniformity at the can center. The

required uniformity is less restrictive than with the polarized He3 target so this should not be a problem.

There are 3 target support platforms used in Hall C. The target hangs from the first small platform. The second holds the helium dewer, computer racks and other electronics, (possibly the microwave power supply). The roughing pumps are located on the third platform. We can have the first two platforms, but the third is a permanent part of Hall C.

- Chicane: It looks like only one of the HKS magnets that we plan to use is available. Hall C will need some magnets to correct for the planned 1cm vertical offset from the accelerator beamline center. Presently, they plan to use a small dipole (BE) and the large FZ that we hoped to use. Dave believes the minibend can be accomplished with just two small dipoles. He is willing to let us have the FZ as long as we get Jay Benesch to provide a working solution with another small BE dipole. Dave also points out that Hall A will eventually need their own chicane for 12 GeV HKS running.

Can we use the Hall C vertical hydraulic stands also? Not likely. Dave will check with Steve and Walter.

We should also discuss with L. Tang from HKS.

- Beam Dump: Need to see if we really need to have beam dump above the beamline. This complicates few things, but seemed to be the simplest solution when writing the proposal. Mark believes we can reuse the helium bag, but may need to rotate it to accomodate our vertically up beam dump. We need to check the dimensions of SANE bag, and what length we need.

Mark also believes we may be able to use the concrete block and shielding used for SANE dump.

- Simulations: Hovanes from UVA working with James on SANE simulations. Oscar has codes/spreadsheets for target map, and chicane bending.
- Septa: Ed Folts estimates 1 year to refurbish. We need to contact Franco Garibaldi to discuss if he plans to use the superconducting septa for the hypernuclear experiment. We could use the warm septa for our lowest planned Q^2 but this complicates things due

to the long (month⁺⁺) de-installation time that would be needed to finish the large Q^2 part with just the HRS.

Karl will produce a backup kinematic coverage plot to show what we can do without septa at large Q^2 .

- Other beamline components: SEM, slow raster, BCM/BPMs, etc. Need to contact Ingo Sick to get permission to use SEM. We will need an onsite expert. Frank W. will be the expert for the Hall C runs.

Dave Gaskell informs us that we can probably use the girder on which the SEM, Harps and BCM/BPM sits on. This is only used for polarized target running. Dave believes the slow raster is not used during Qweak, but we need to confirm with Chen Yan.

According to Steve, the low current polarized target running in Hall C uses the standard hall BCMs/BPMs just with specialized electronics to boost the gain. So we can not use any of this equipment.