Bill Bugg's suggestion of July 6, 2005

1) Undulator motion must be improved. We need to be able to do smooth scans with undulator using our detectors i.e. pcal.
2) In general, some of our detectors are needed in SCP: e.g. PCALE, AG1, Ag1SiC. Alternatively Zen and I have talked about a run type which would allow us to do a pseudoscan. For example, 100 data pulses-followed by pause and update of MCC data- another 100 points etc. Within 5 minutes one can have results of a magnet or undulator scan.
3) We should think of ways to move positron conversion point further from analyzer magnet if possible.
4) Install 4 way counter in front of 3mm collimator to monitor gamma line steering (probably need to remove the CsI holder to permit this. We envision an 8 channel detector mounted directly on front of 3mm collimator with center of 4 small pads over the hole and 4 larger pads surrounding them. It will put 300 microns of silicon in photon beam. Nothing else.
5) Improve positron counter to cover magnet opening completely. Again a small pad structure centered on the hole with surrounding pads to measure surrounding area. I have talked to Zen about the extra ADC's required. (probably 2)

Operational

6) Need a procedure to alert shifters to watch that counters are not saturating ADC's or having them with an insensitive gain or attenuator setting. Would be better to have DAQ warn us.
7) We need an expert on every shift who understands the counters and system to concentrate on quality of data taken and do preliminary analysis as needed. I suggest 3 people on every shift (expert and 2 others) or a 9-12 man complement for the experiment. I think now of Karim, Roman, Bugg and perhaps Duncan if he gets a chance to look at data before the run. It would be very useful to have the experts present for the entire run to provide continuity. I suggest a 2 day training session for all non expert shifters to become familiar with the SCP, counter properties and locations, the DAQ, and rudiments of the data analysis. All shifters need to be here at least 2 weeks during the run and we need to know well in advance who and when. Also any constraints on SLAC personnel.
8) If possible we need to fix the display so that its asynchronous nature doesn’t confuse the shifters and operators trying to tune on the display signals. This is particularly bad for the 1:1 undulator on-off mode which is our common mode of operations.
9) There is no advantage to taking runs so short that the statistics from a single run are insufficient to determine a good transmission measurement or to be used in an asymmetry measurement. If beam can’t be kept stable enough to permit this we are in serious trouble.

Rule of thumb should be don’t stop a run unless there is a need for beam retuning. No excuse for stooping a run before good statistics are acquired unless you find it necessary to retune. If you don’t retune you have gained nothing by stopping run and restarting the run.
10) we need some written procedures to follow to be sure beam is set up properly i.e. maximum transmission thru the gamma collimater and minimum scraping on the undulator. I will have a go at writing these for critique by others.

11) Suggest collaboration meeting to discuss status of experiment and analysis well before Sept. run. Early august or just before Snowmass.

12) We need to record data when we are making studies of various kinds. Write in logbook what is being done and your belief that the data is not useful. An example is that we took no data with a tuned beam and the undulator out.