TCS (E12-12-001)

Draft Requirements for Run Group A:

* Beam: ≥ 10 GeV electrons, polarization > 70%
* Torus
	+ Reverse the Polarity for one day out of every seven
	+ Torus field ≥ 75% of maximum (still under study for impact on J/Psi resolution and acceptance)
		- Earlier FASTMC studies obtained sigma~15 MeV at max field.
		- Entire RG-A should participate in study of quantitative trade-off between acceptance and resolution. CLAS-6 experience not necessarily sufficient guidance.
* Luminosity Goal: 1.e35
	+ ≤ 3% DC Occupancy
	+ DAQ > 10 KHz
* Trigger Goals
	+ Single Electron trigger (not including Forward Tagger)
	+ TCS two-electron trigger (expect low rate: to be verified)
* Priorities if Occupancy and/or DAQ is exceeded:
	+ If needed sacrifice tracking efficiency for luminosity by going higher than 3% occupancy
	+ Prescale Forward Tagger/Hadronic trigger to <20% of Bandwidth
	+ Prescale Single Electron trigger at low threshold and include a non-prescaled Single Electron Trigger at high EC threshold (n.b. low-xB counts at high rate, probably not statistics limited).
* Effort needed this fall (from entire collaboration) to establish DC occupancy, trigger rates, trigger purities.
	+ What strategies could improve electron trigger purity (CLAS was <10%)?