Beam line parity instrumentation: equipping A and C lines the same

At the A and C Collaboration meetings this week Rolf and Thia raised the idea of equipping the A and C lines with parity instrumentation so either could be used for parasitic measurement of the beam's parity quality on high passes. Only PREX and CREX, first pass, will run before MOLLER and SoLID. Thia would like cost and schedule information to make the two lines as equivalent as possible given layout differences. Since the MOLLER Director's Review is likely in early April and the PREX/CREX meeting is February 15/16, February 13 seems a reasonable date for a first cut so the results can be discussed with the parity collaboration. Here's my first attempt at an outline.

1. BPM sample and hold cards
    1. additions to injector?
    2. additions to Hall A line?
    3. additions to Hall C line?
2. Slow orbit lock between Compton and Moller polarimeters
    1. Hall C has two girders between the spectrometers so adding a BPM right before the Moller target would likely suffice.
    2. Hall A has only one girder between the spectrometers so two corrector pairs and two BPMs would likely be needed. *My MOLLER beam line design adds a second girder, do that now?*
    3. An alternative for both might be to upgrade arc BPMs to allow FFB at sub-microamp currents but I suspect this isn't cost effective compared to (2.1) and (2.2).
3. ADCs like those from TRIUMF for Qweak
    1. Where?
    2. How many?
    3. Associated DAQ?
4. BCMs
    1. How many more for A? Where?
    2. Cost of Musson electronics?
5. Halo Monitors
    1. Where should one be placed in C? Qweak location?
    2. When is needed specification going to be delivered to I&C for Hall A?
6. Software: In Happex? days, there was a software tool which allowed Ops to see histograms of Aq and helicity correlated positions vs injector BPM for a few minutes of data, with updates when a screen button was pushed. This allowed Ops to steer gently on apertures in 100 keV region to minimize helicity correlated values. Something of this functionality will be needed. Having it for PREX would be nice.
7. Dithering trim cards and function generator: Can coils be driven in both halls during PREX/CREX without disturbing the Hall C experiments? Energy dithering only in A.
8. Run beam through Compton at all times to collect background information there and in halo monitor?
9. What am I missing?