Important CEBAF Dates

**CEBAF**

* SAD ends (Jul 2)
* CEBAF Restoration (3 weeks = Jul 5-26)
* Physics Begins (Jul 26)

**PSS/Lock-Up**

* INJ certification (Feb 15 – 26)
* NL certification (May 3 – 21)
* NL lock-ups per Steve (no sooner than June 4)
* MACHINE certification (May 24 – Jun 11)

**Cryo**

* 4K available (Apr 15)
* 2K available (May 15)

Preliminary Commissioning Plan

**Jan 25 – Apr 1 Complete Installation (10 weeks)**

* Complete assembling 6 things (H-Wien, Viewers, Cups, Wien quads, Prebuncher, Kicker)
* Install & align 4 things (Wien, A1A2, FC1)
* Bake 4 things (Prep, Gun, Wien, A1A2)
* PSS INJ certification (means possibility to advance Gun HV conditioning to March)
* Fire pipe installation completed
* Penetrations filled
* Electrical outages over

**Apr 1 – Apr 30 Hot Checkout and System Readiness (4 weeks)**

* ENG – (Magnets, Valves, Viewers, Harp, Prebuncher, Chopper, Wien HVPS, Kicker)
  + “kick-off” meeting soon, when we have a song sheet, CED/layout checked/final
* CIS – (Gun, Laser, Vacuum)
  + Gun
    - HVPS interlocks
    - HV condition 130kV/200kV
    - Remove remaining old components (150kV PS, Interlocks/board, etc)
    - Photocathode ready
  + Laser
    - 4-laser system ON, all beam modes functional
    - Laser outrigger box complete, LOSP updated/ready
    - Lasers aligned to photocathode, lens/PM/Spiricon in room ready
    - Upgrade macropulse chassis & TMG
    - RTP cell aligned, operational (Caryn’s help?)
  + Vacuum
    - Vacuum good
    - UHV PS system stable/reliable
    - IP voltages set, hi-potted if needed
    - Valve shut/overrides working
    - Pcup/Viewer crash inhibit working
    - Harp/Viewer crash inhibit working
    - A1 aperture moves remotely
    - A2 aperture stops in place
    - LCW PCup/A1/A2
    - Air lines
    - DP/NEG activations

**May 3 – June 4 Commission INJ setup @ 130 and 200 kV (5 weeks)**

* PSS INJ mode available
* Restore 130 kV
* HCO with beam, fix things
* Test 200 kV

**Jun 7 – Jul 2 Commission INJ/NL @ 130 + Wiens (4 weeks)**

* PSS Machine Cert (1 week)
* Setup to FC#2
* Wien filter spin calibrations

**Jul 2 – End of SAD**

My comments to Reza’s slides…

1.1.1

* Recall, you'll now have 2 bpm's after gun before first lens, so in principle can measure gun kick angle directly
* Musson performed the measured vs. actual beam position of new bpm's on test stand, so the non-linearity for large off-set beam positions can be corrected, this doesn't happen automatically now, must be done by hand, but if you want this capability I guess you could ask software to incorporate it....I believe you have a non-linear equation with fit parameters Musson determined, could be a nice project for software
* Gould also measured the geomtric offsets of those BPM cans as well, if you want to put that data into CED or just have.   I don't have a transmittal on this yet, but it was measured (or can be measured again)
* I assume you'll want the same phase detector RF circuit on an early BPM.   It used to be on IPM1I02, right after the bend, I'd assume to put it there unless you want someplace else.

1.1.2

* The 15 deg DR dipole was measured "square" with equal gaps on left/right sides, b/c Jay didn't think it was worth putting in the shim yet.   But the shims exists, so the DR can be installed "square" or with shims.
* Also, by the Fall Joe Meyers explains the the spinning coil stand will be operational again, for the purpose of measuring multipole fields on a straight line for comparison with model.
* In the meantime, the field map was measured at points along the orbit Jay expects through the magnet, Riad analyzed that data, he'll post to the wiki under

1.1.4

* I mentioned this at the meeting, but Riad and Carlos will make sure the controls are in place and usable for the Wien filters.   But there will still need to be beam testing to check the E vs. B calibration, i.e. does beam make it through.

1.1.5

As Marcy mentioned we'll want to compare PCUP current vs. PS current to demonstrate good transmission, and also to find the center of the PCUP

We have many channels of radiation monitors.    Carlos uses some for the gun to detect field emission.   Would be great to have your input on where you'd like the remainder to be installed along the beamline, so we can plan for them.   I think Alicia already had a list?

1.2.2

* My note that Dennis suggested Raytrace could be used in addition to FOpt

2.2

* There will be three new RF "things", a new prebuncher cavity, a new prebuncher amplifier, and new chopper amplifiers.
* Besides finding new working points, calibration, will probably be important to check regulation, i.e. turning things on/off....might be good to imagine sometimes just parking the beam overnight to monitor stability?

3.

* Probably not highest priority, but do you think it's worth comparing VWien vs. Solenoids for flipping again w/ new beamline arrangement?

4.

* Recall the injector steering script no longer sets the Wien quads, but as that capability in case you want to use it that way...or alternatively eliminate Wien quads from injector steering to handle outside, e..g with elegant, etc...