**Summer SAD 2018 – 200 kV Gun**

1. Install 350 kV HVPS
   1. PSS/HVPS interface chassis
   2. QE scan control w/ supply OFF
   3. SF6 pressure vessel certification
   4. Assembly and operational test at UITF
   5. Crane SF6 supply/resistor tanks, gas/Dilow, cables to tunnel
   6. Install Glassman controls, Software, PSS interface chassis in ISB
   7. Transition 150kV to 350kV Glassman controls/software
   8. PSS certification of 350kV HVPS to resistor tank
2. 200 kV chamber upgrade
   1. Secure vacuum, HV, magnets, photocathodes,
   2. Vent gun, replace electrode, align anode, add NEG/BPM tube
   3. Attach gas conditioning hardware
   4. Bake, activate NEG’s, cooldown, leak check
   5. Final 2B and retro-reflection alignment
   6. Instrument BPM’s, magnets, RadMon, HV, vacuum, anode
   7. Gas condition to 200 kV w/o vacuum, anode, x-ray
   8. Pump out gas leak/valve
3. Gun2 ready for Fall Program (130kV)
   1. Heat/activate photocathode
   2. QE scan, various methods
   3. Restore beam to fc#1
   4. Check energy stability w/ Wien, spectrometer, chopper
   5. Benchmark beam v. charge (bunchlength, transmission, emittance)
4. Gun2 beam test 200 keV
   1. Test magnets for limiting resistors, PS, temps
   2. Condition chopper RF for 200 kV power level
   3. Safety procedure to mitigate no PSS kicker
   4. Adjust HV window comparators (dipole, HVPS)
   5. Restore beam to fc#1, like UITF
   6. Repeat energy stability w/ reduced Wien, spectrometer
   7. Turn on chopper, measure deflection v. power, perform chopper setup
   8. Repeat benchmark beam v. charge (bunchlength, transmission, emittance)