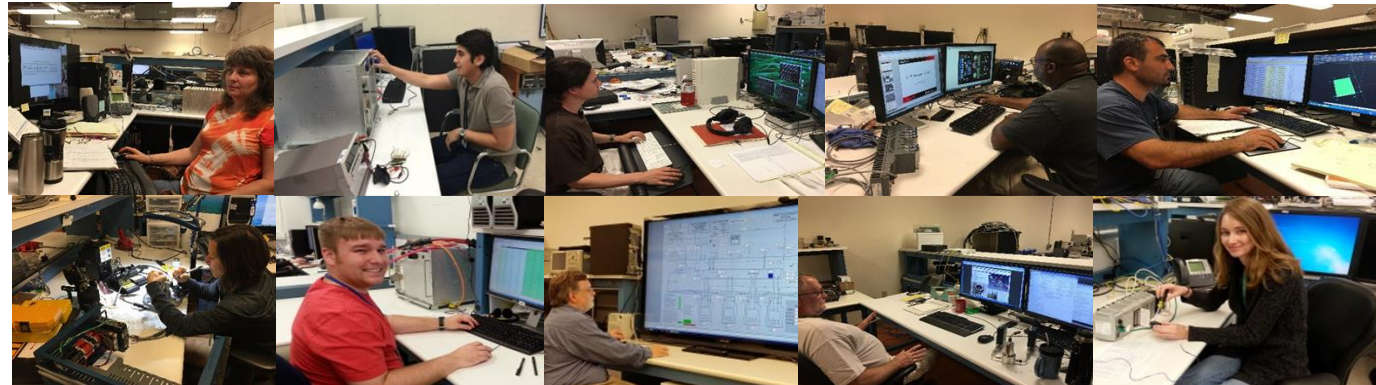# SVT Noise Test in Hall B

Brian Eng

Detector Support Group

SVT Noise Test in Hall B

- Line item on DOE schedule that must be completed before end of FY 2016
    - Required moving SVT and services from EEL clean room (EEL/124) to Hall B, then back again after test
    - Multiple groups involved: DSG, Hall B Physics, Hall B Engineering, Fast Electronics, ACE
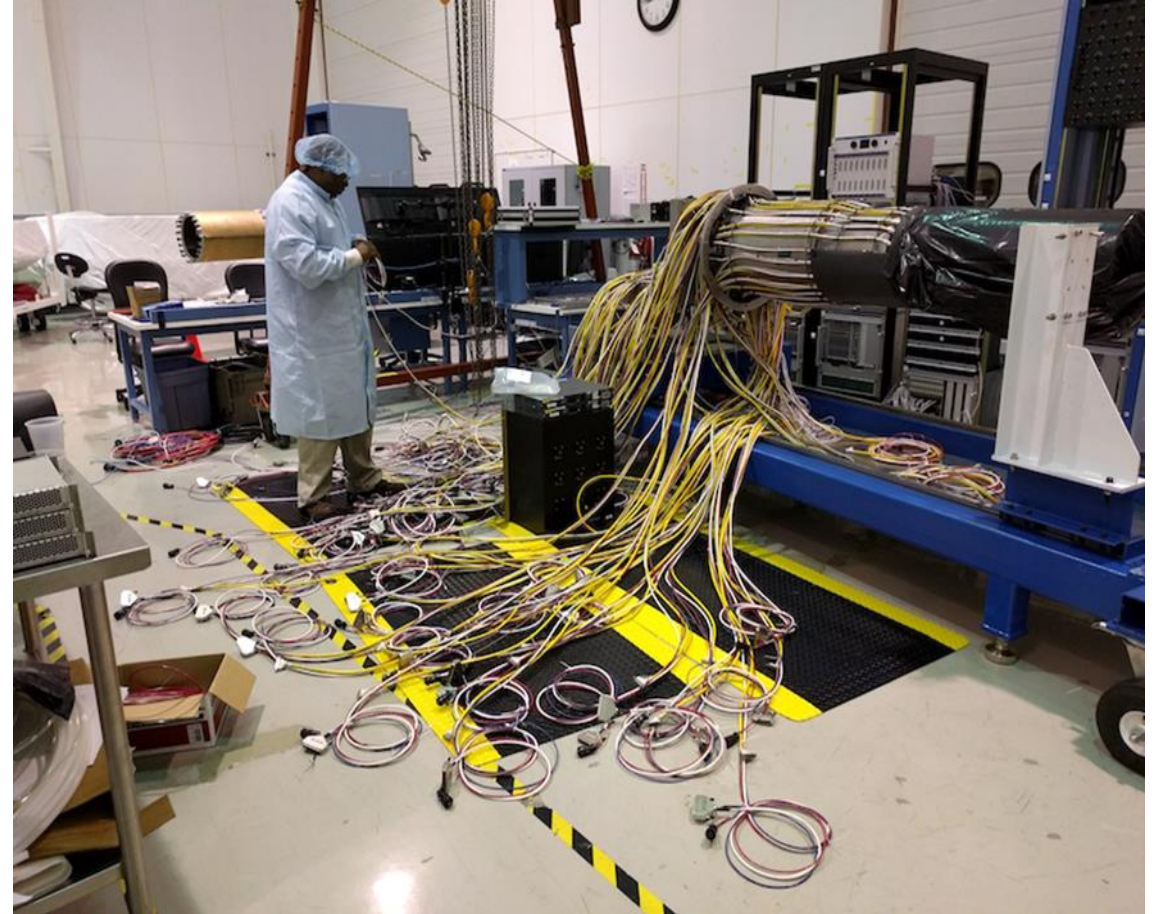
DSG Activities

- De-cable SVT in EEL/124

- Moving equipment from EEL/124 to service cart

- Installation of N_2 purge in Hall B

- Cabling of SVT in Hall B

- Noise Test

- De-cable SVT in Hall B

- Move equipment from service cart to EEL/124

De-cable SVT in EEL/124

Brian Eng

Marc McMullen

Service Cart

- Designed by Hall B Engineering
- Required some modification by DSG
  - Cutting equipment trays
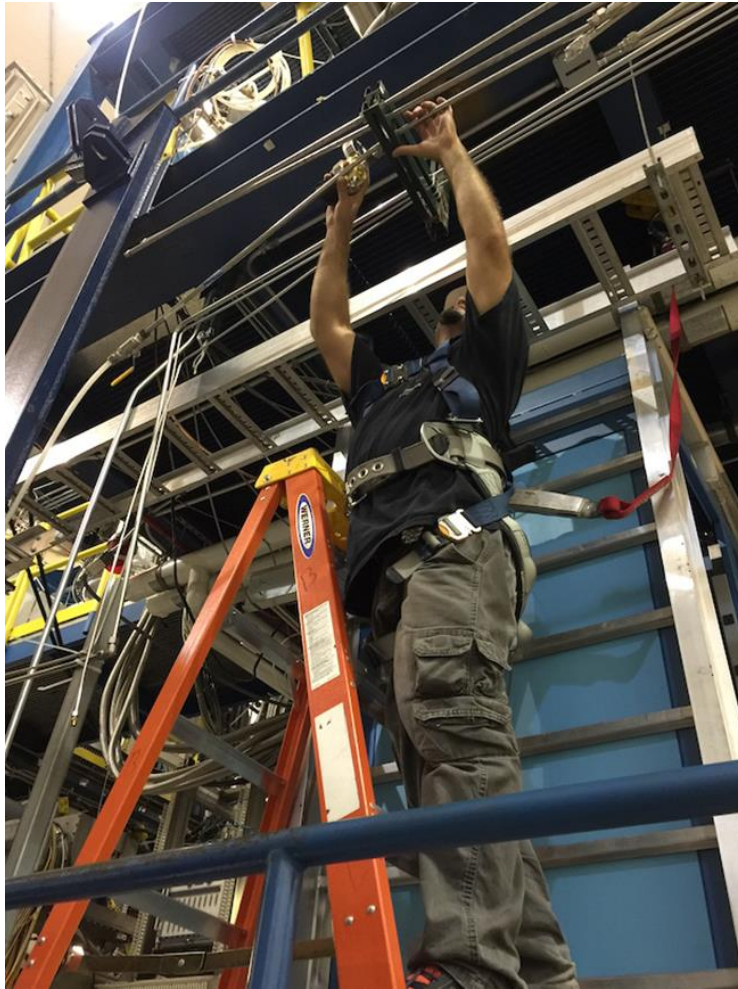 - Drilling holes for cables
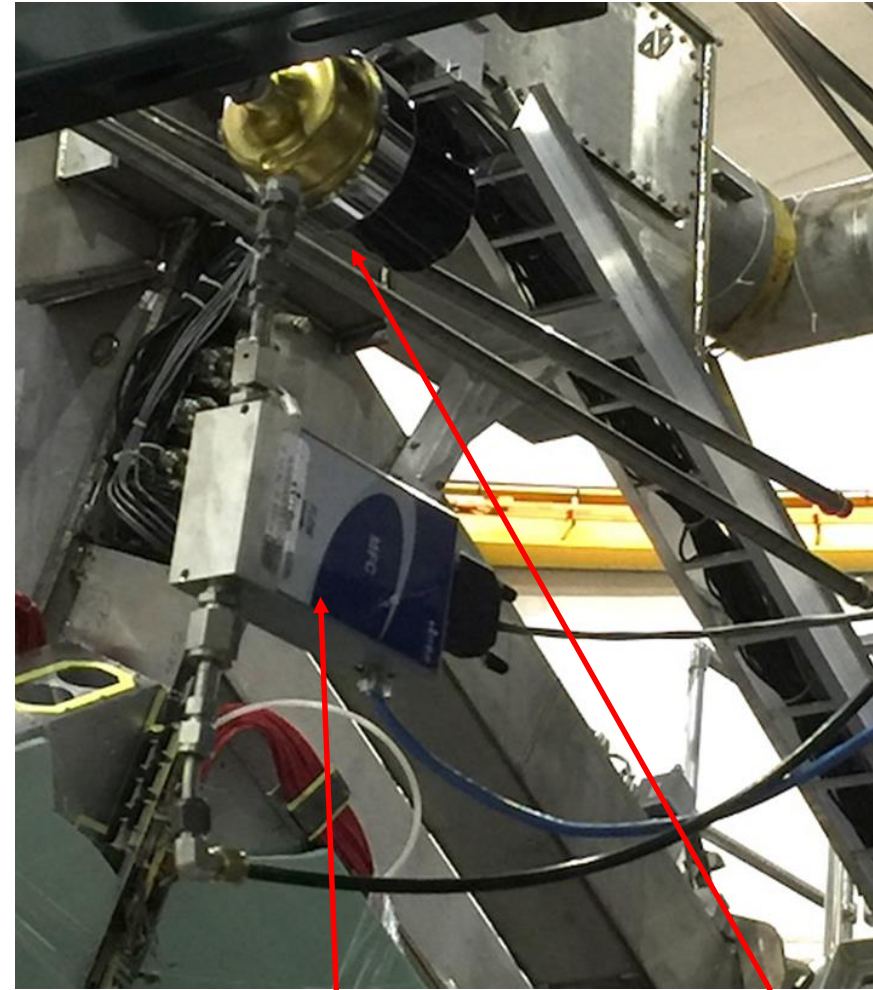- Installed equipment

Marc McMullen   Brian Eng

Sahin Arslan

N$_2$ Purge Installation

Sahin Arslan installing piping

Mass Flow Controller and Regulator

Computer Setup in Hall B Counting House

Interlock Screen

EPICS
Slow Controls screens

Cabling SVT in Hall B

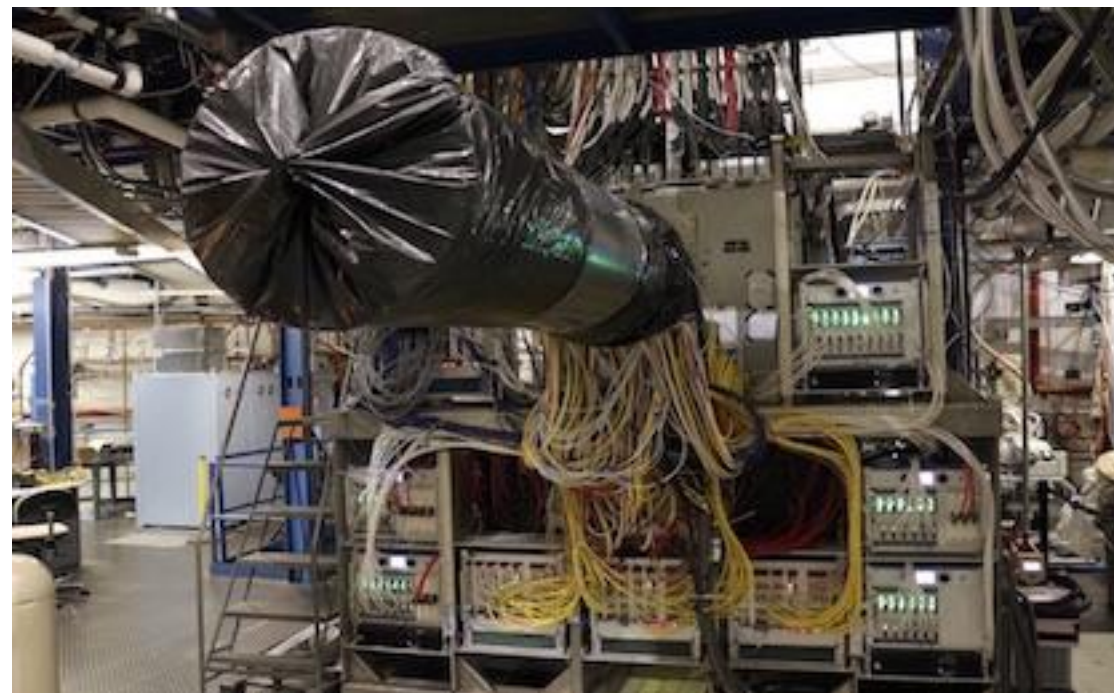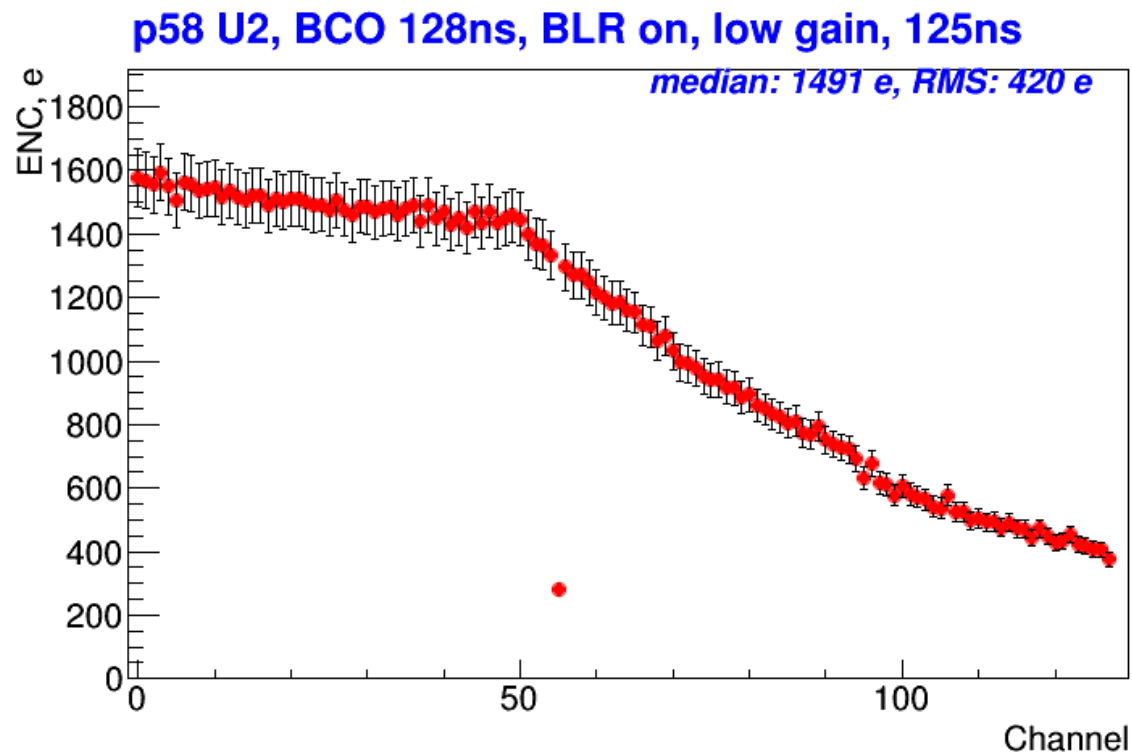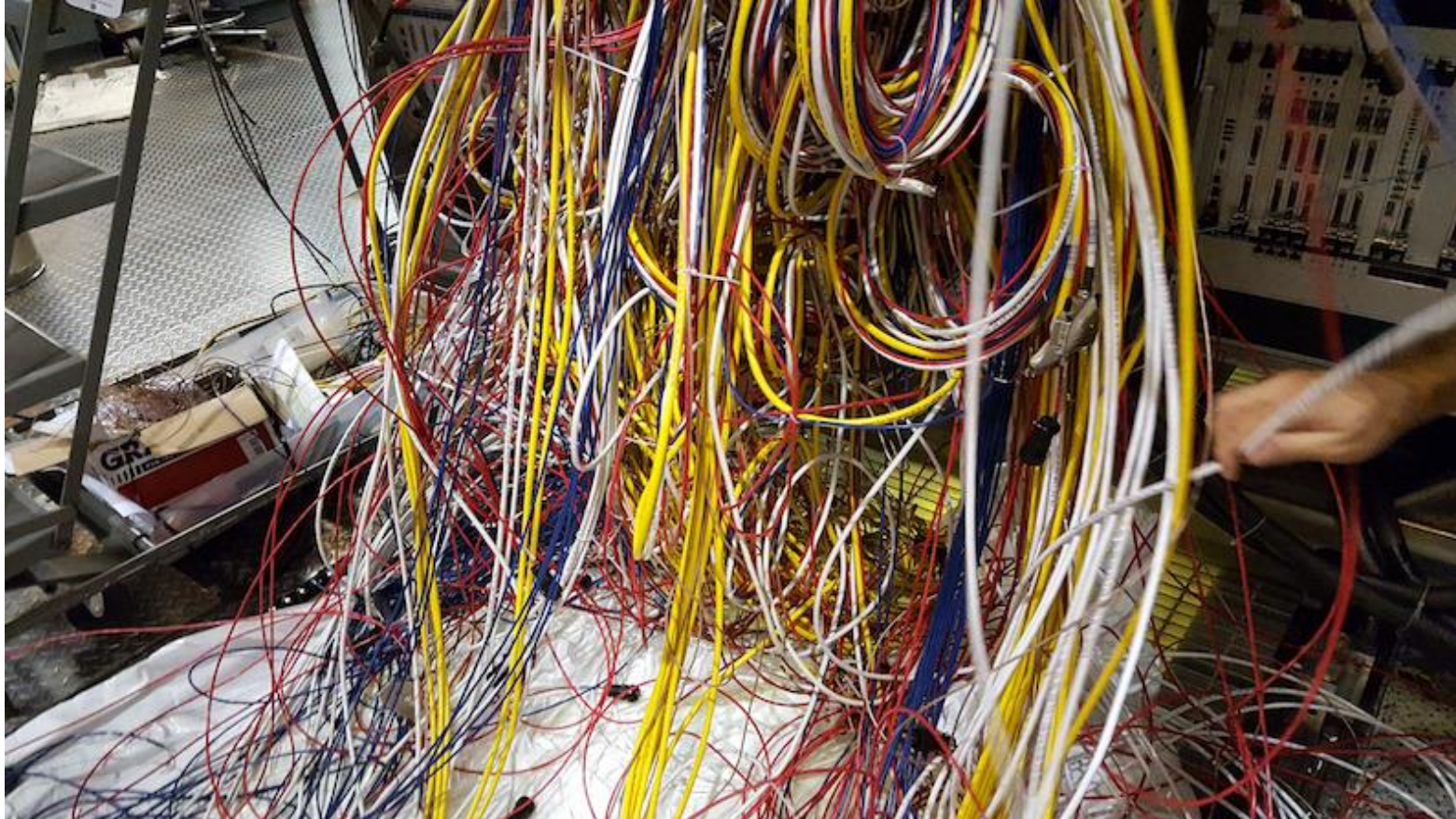Mindy Leffel   Sahin Arslan

Noise Test

- Gain scans with individual logbook posting and parallel program
- Cosmic run taken
  - ◆ 3M events @ 11.5 Hz trigger

p58 U2, BCO 128ns, BLR on, low gain, 125ns

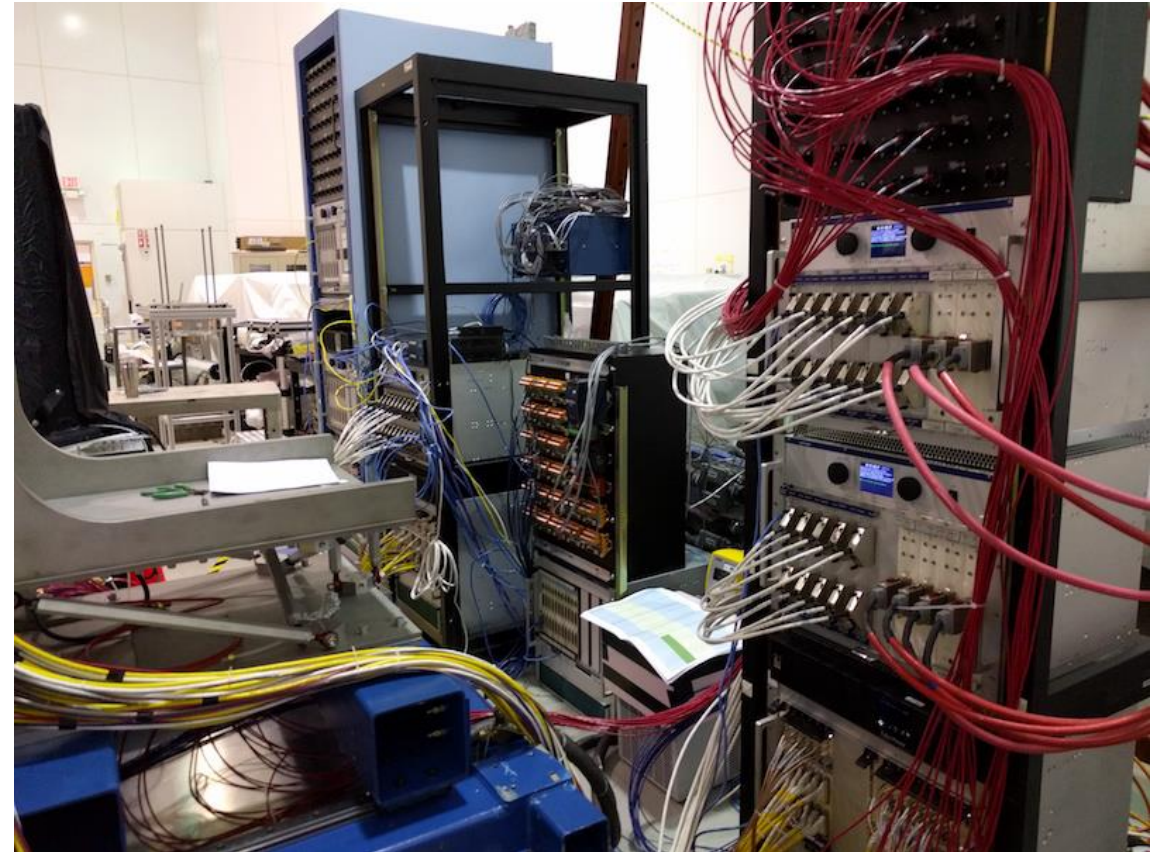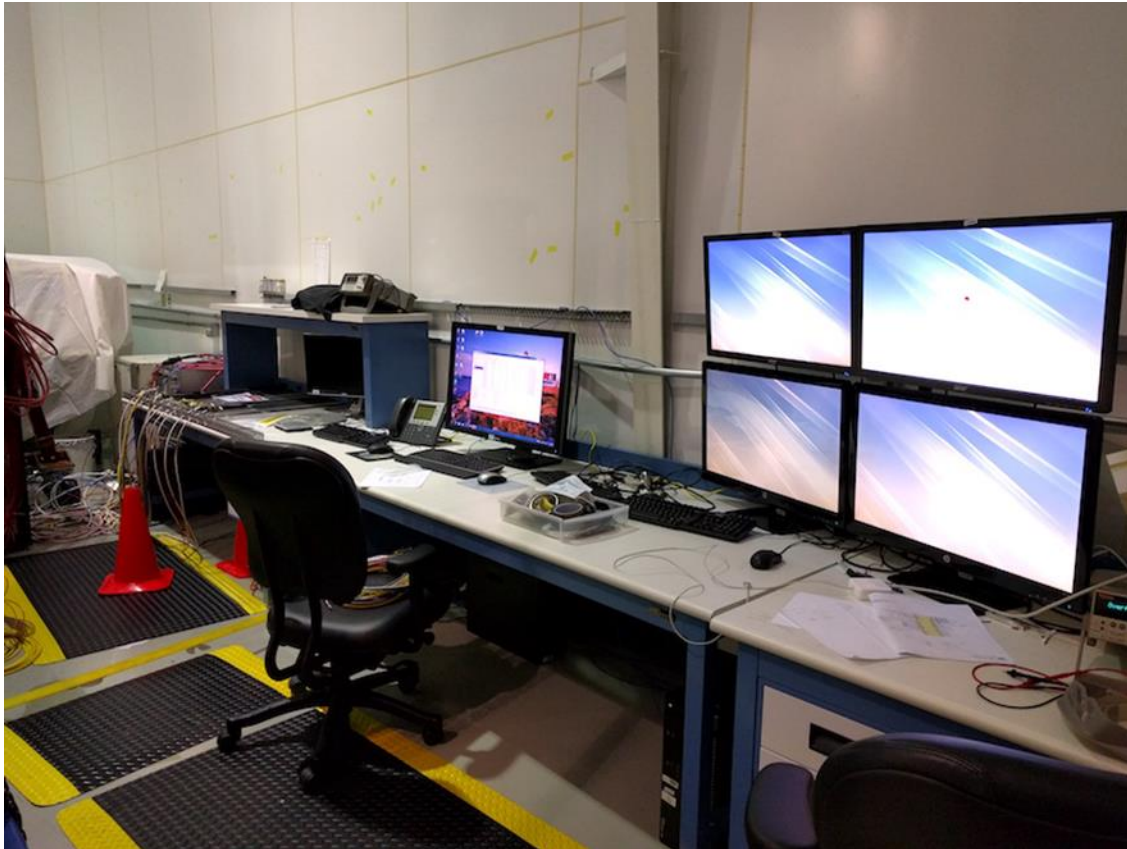median: 1491 e, RMS: 420 e

SVT Installed in Hall B

De-cable SVT in Hall B

- Disconnect cables from crates
- Re-bundle by module

Reconfigure EEL/124 for testing

Lessons Learned

- No change in noise level in Hall B compared to EEL.

- Cable management on service cart not useful
  - Replace Panduit with cable tie downs

- Some cable labels not accessible
  - Cables have already had labels added at end connection

- Patch panel time consuming to reconnect
  - Replacing jumpers with solder connection where possible
  - Screw terminals good for debugging/testing, not so much for final use
    - Already put in request for Hall B to provide funding to replace with connector PCB

- Successfully moved SVT to Hall B with no damage
  - Hopefully won't have to do it again until final move

Thank You