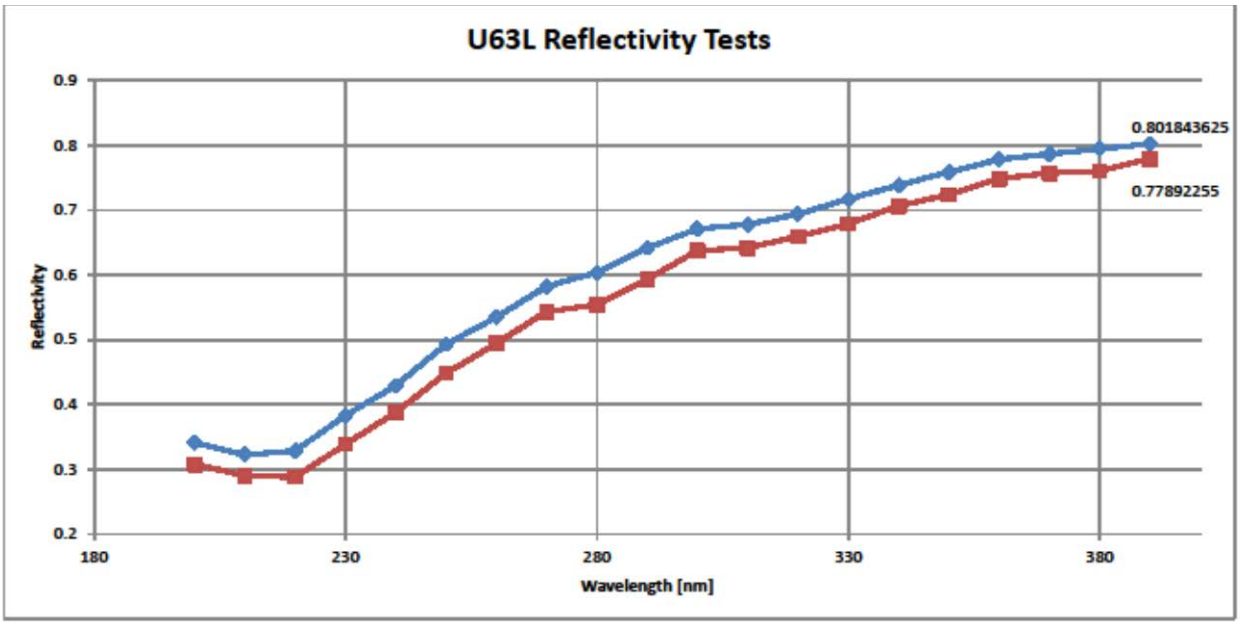
DSG Meeting Minutes – Wednesday, October 15, 2014

Antonioli, Mary Ann:

Hall B

- Continued data analysis of reflectivity tests done on the **LTCC Winston Cones**.



Plot of reflectivity *vs.* wavelength ∈ [200 nm, 390 nm]. Red and blue lines are results of two measurements, which differ by ~3%. Reflectivity is at a maximum at a wavelength of 390 nm.

Hall D

- Drew, in Visio, circuit of ambient environmental (temperature and humidity) sensors used on the **Magnet**.
- Trained with Dave in the design of the **FDC**.

Arslan, Sahin:

Hall B

- Continued soldering HV cables to **DC** R1S3.
- Changed Ar/CO_2 gas bottles on **DC** R1S3 and R3S4.
- Continued testing signals of **DC** R3S4.
- Traveled to FNAL on October 13 for **SVT Module Production**.

Bonneau, Peter:

Hall B

- Tested latest software version of the **SVT Slow Controls System.**
  - Determined that:

- Response time between a humidity or ambient temperature fault and the start of HV ramp down for region1 sector10 (R1S10) is too long (a minute and 23 seconds). Program appears to start HV ramp down from the lower sectors and continues sequentially to the higher numbered sectors, making sector 10 the slowest to respond.
- After an alarm handler event, which initiates a ramp down, controls for LV and HV are still enabled, allowing operator to turn LV and HV back on while the system's alarm handler is still in a major alarm (fault) state. In addition to this, the continuous fault condition never re-triggers ramp down.
- Action taken during a dew alarm does not regulate coolant flow in the chiller. Dew alarm is a critical interlock that protects the detector from condensation.
- R1S1's top side HFCB temperature minor alarm (warning) initiates a major high-high (HH) interlock trip.
- Full set of signals is not available in the data logger; hence, it is not possible to check all interlocks.
- Expert screen GUI controls are available for R1 (LV and HV) and R2 HV. To run R1–3, R2 LV and R3 (LV and HV), GUIs must be added to the software by Accelerator Controls Group.
- For the SVT Slow Controls System that another MVME5100 IOC from Accelerator Controls Group and a VME crate is needed for a duplicate slow controls test setup. Accelerator Controls Group is currently working on getting the accelerator up and running and therefore will not be able to work on this issue until after 10/20.

- Requested Accelerator Controls Group to add remaining signals in the current **SVT Slow Controls System** software version to Mya database.
- Tested second version of water detector sensor and electronics for the **SVT Slow Controls System**.
- Met with Valeri Sytnik multiple times regarding **SVT Slow Controls System**.
  - Helped him reestablish communication a few times as he had difficulties with network and comm port communication with the hardware test station.
  - Suggested that he move the hardware to his area to continue his effort.
  - Instructed him on how to implement the test station in his area.

Hall D

- Met with Dave regarding the PLC and the Fast DAQ System for **Magnet Slow Controls System**.

Butler, Dave:

Hall B

- Discussed, with Pete, the multiple LINUX environments being utilized by **Hall B Slow Controls System.**

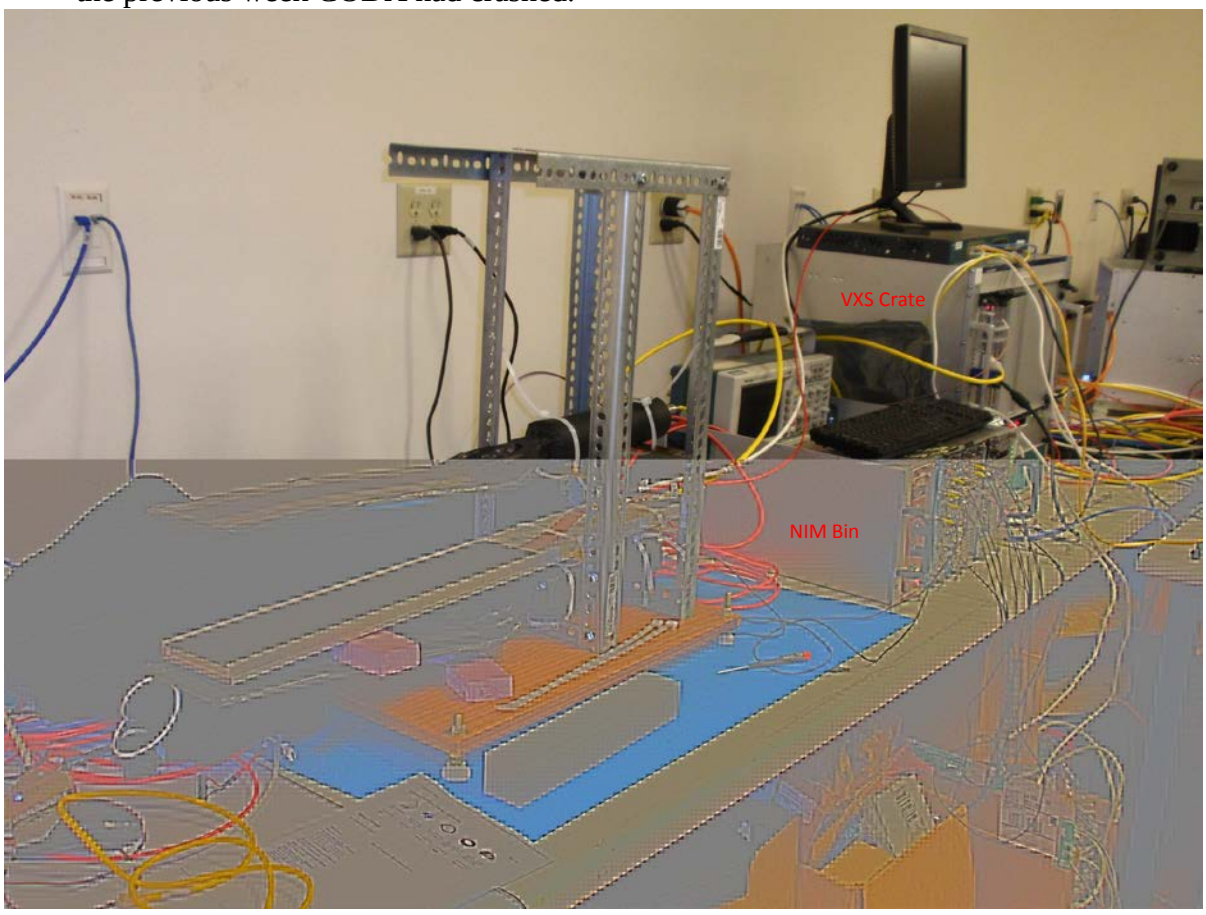
Hall D

- Installed two temperature humidity sensors for ambient environmental readings on each end of the **Magnet** bore.
- Compiling PLC tag lists for EPICS error handling system, to be used to page on-call technicians and system experts of the **Slow Controls System**.
- Discussed, with Pete, the **Magnet** PXI Fast DAq overview.
- Attended daily **Beam Readiness** meetings.
- Updating **Magnet Power Supply** control state reporting to EPICS.

Eng, Brian:

Hall B

- Restarted run for **SVT Cosmic Test Stand** in EEL/231, for which at some point during the previous week CODA had crashed.



Photograph of the SVT Cosmic Test Stand in EEL/231.

To the right of the stand is the NIM bin with the PMT electronics and next to that is the VXS crate with the SVT electronics. Trigger rate (coincidence between both paddles) τ 1 Hz; so far the last run has acquired ~ 350 K triggers without issues. The previous run failed due to a power outage.
The SVT Cosmic Test Stand is being used to evaluate modules that have had pulser line issues; if data from the modules look O.K., it may be possible to use the modules in the detector.

- Generated CMM plots for FNAL data for **SVT Modules** P43 - P61.
- Rearranged computers in EEL/121B (computer on ACC subnet and DAQ computer on Hall B subnet) for **SVT Slow Controls System**.

Jacobs, George:

Hall B

- Discussed with Bob Miller and Maurizio Ungaro the details of **LTCC internal piping** for gas flow through the detector.
- Ordered remaining hardware for **LTCC internal piping.**
- Completed testing of HV and signals of **DC R3S4.**
- Started drawing wiring diagram for **DC GAS** and **Controls**, and **LTCC Gas System,** and **Safety Systems.**

- Travel, 10/12 to 10/18, to AES for QA of **Torus**/S**olenoid** conductor.

Hall D

- Completed **SAF113** Hall D safety walk through.

Leffel, Mindy:

Hall B

- Repaired drain wires on all 18 slow control cables for **SVT R3 Slow Controls System**.
- Fabricated the second of the 12 humidity-temperature-sensor-board jumper cables for **SVT Slow Controls System**.
- Collected parts and ordered remaining needed parts for two **SVT HV Test Loads**.
- Worked with Tina on the laser calibration of the **LTCC Winston Cone Reflectivity Test Stand.**
- Fabricated a 60' network cable for use in the **clean room**.
- Set up microscope and took pictures of the light fibers that Anatoly polished for **CTOF Calibration System**.

Hall D

- Trained with Tina on the system check of the **FDC-CDC Gas Panel System.**

Mann, Tina:

Hall B

- Tested 14 small Winston Cones for the **LTCC;** three remain.
  - Of the three left to test, one is dirty; needs to be tested, cleaned with alcohol, and then retested to see if there is a difference in the readings. The flanges are broken on the other two, which can be repaired.
- Working on realigning and recalibrating the laser to test plastic cones.

Hall D

- Checked the **FDC-CDC Gas Panel System.**

McMullen, Marc:

Hall B

- Prepared nine sets of readout cables for **SVT R3**.
  - A set consists of Data, Pulser, HV, LV, and Slow Controls cables.
- Reconfigured detector assembly test stand for **SVT R3** assembly.
- Completed Hall B **safety training/walk through**.

Hall D

- Went over the details of the **FDC** with Dave Butler.
  - HV levels (-500 V and +2250 V), the layout of the four sets of field and sense packages (the detector), each of which is isolated by copper on flex circuits called cathodes.

Sitnikov, Anatoly:

Hall B

- Configured setup for cutting (diameter 0.3 mm, 4.8 m long) boron silicone fibers for **CTOF Calibration System.**
- Repeating polishing (diameter 1.4 mm, 29 mm long) boron silicone fibers for **CTOF Calibration System**, using Glass Polishing Compound.
  - Polished 33 fibers, which are ready for testing.
- Fabricated three strain relief aluminum structures for connecting the HYCAL's *heavy* signal cables to ADC modules for **PRAD**.
- Connected heavy signal cables to ADC (total 120 connectors) (**PrimEx**).

Teachey, Robert Werth:

Hall D

- Cabled two temperature humidity sensors systems to the **HV Reset PLC**.
- Coding temperature humidity sensor's software in the **HV Reset PLC**.

DSG

- Developing EDM GUI to talk/receive data from a prototype cRIO System planned for the **DC GAS Slow Controls System.**
  - Troubleshooting cRIO network communication issue with PC.
  - Communication is needed for the PC to update firmware for communication with EPICS / EDM used for the **Slow Controls System.**