

# DSG Meeting Minutes – Wednesday, October 22, 2014

## Antonioli, Mary Ann

### Hall B

- Analyzed reflectivity test results of small **LTCC** Winston cones, tested to date.
  - Generated ~104 reflectivity tests plots.
  - Computed averages for each of the two reflection test runs performed on a cone; the larger average was databased in Excel and color-coded according to the rating.

		$0 \leq R < 0.3$ Terrible	$0.3 \leq R < 0.5$ Bad	$0.5 \leq R < 0.7$ So-So	$0.7 \leq R < 0.8$ Good	$0.8 \leq R < 1$ Excellent						
Sector 1		Sector 2		Sector 3		Sector 4		Sector 5		Sector 6		
Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	
0.67	0.30	0.67	0.70				0.81	0.40	0.44	0.72	0.80	
0.26	0.36	0.62	0.59		0.63	0.86	TBDA	0.37	0.37	0.77	0.38	
	0.45	0.64	0.65	0.38	GOOD	0.42	0.51	0.33	0.39	0.50	0.47	
0.33	0.27	0.79	0.76	0.57	0.76	0.75	0.64		0.81	0.46	0.41	
0.32	0.27	0.70	0.72	0.71		0.73	0.69	0.45		0.89	0.24	
0.57	0.45	0.69	0.65	0.59	0.61	0.55	0.78	0.33	0.42	0.44	TBDA	
0.31	0.49	0.68	0.65	0.71	only 1 test	0.75	0.83	0.40	0.41	0.37	0.54	
0.33		0.53	0.56	0.76	0.76		0.74	0.43	0.50	0.52	0.32	
0.69	0.54		0.78		0.75	0.74		0.45	0.47	0.55	0.47	
0.33	0.30	0.68	0.71	0.71	0.75	0.68	0.83	TBDA	0.39	0.42	0.44	

Ratings of tested cones.

- Estimated, for **SVT Production Modules** P40, P43, P44, P48, and P49, average HV current from slow controls HV current plots logged during burn-in of each production module.

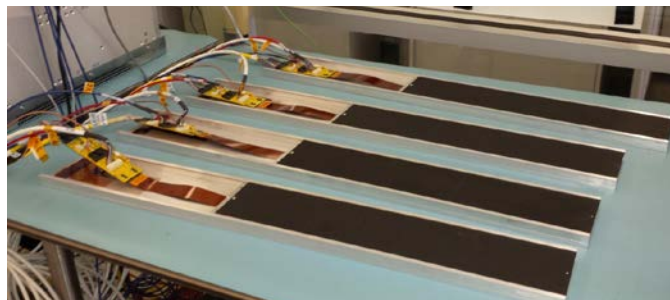
### DSG

- Added internet ports to AutoCAD **Port Network Drawing** of EEL 231.

## Arslan, Sahin

### Hall B

- QC-ing, at Fermi, **SVT Production Modules**.
  - QC-ed and burnt in six modules and five Hybrid Flex Circuit Boards.



Production Module Test Stand.

## Bonneau, Peter

### Hall B

- Compared calibration data with **SVT Slow Control System's** chiller instrumentation data provided by the manufacturer (Lauda).
  - Auxiliary coolant pressure sensor is being calibrated for a pressure of 3 psi in the system.
- Ascertained from **SVT Sensor Database** number of available sensors for module production.
  - Based on FNAL and JLab inventories, 18 more modules (up to P87) can be fabricated.
- Discussed with Dave problems of the **SVT Slow Control System's** interlock system.
  - Shutdown response time and the lack of control on lockouts initiated by faults.

### Hall D

- Discussed with Dave design of the fast DAQ system for real time monitoring of the **Solenoid Magnet**.
  - Proposing development of LabVIEW TCP/IP extension for PLC communication.

### DSG

- Tested computer switch and video extender of **Monitoring System**.
  - System being developed will remotely monitor Hall B, Hall D, and Accelerator Slow Control Systems from the DSG Control Room (EEL 121).

## Butler, Dave

### Hall B

- Discussed with Pete **SVT Slow Controls System's** programming of MPOD crates.
  - Ramp down programming has been done serially; this slows response time of interlocks.
  - Programming errors enable crates to be resettable, despite an interlock still being present.

### Hall D

- Updating **FDC/CDC Gas System** controls code:
  - Adding HI/HIHI/LO/LOLO levels to overall pressure of each detector and for differential pressure of FDC cells.
  - Programmed flow meter interlock to stop flow to either CDC or individual FDC packages in case of over pressure.
- Discussed plots needed for operator level troubleshooting at the weekly **FDC** meeting.

### DSG

- Attended the DSG Slow Controls meeting and discussed Hall D FCAL controls.
  - Discussed where slow controls software should reside.
  - Discussed documentation package and the number of required spares.

## Eng, Brian

### Hall B

- Set up HV/LV crates and UPS in EEL/121B for assembly of **SVT Region 3**.
- Sent 155 FSSR2 chips to FNAL for **SVT Module Production**.  
***Quality of remaining ~30 chips at JLab unknown.***
- Researched other **SVTs** that did not directly cool their modules.
  - BaBar is almost identical to Hall B SVT (cooling rings, room temperature). BaBar used brass pipes brazed to brass cooling rings.

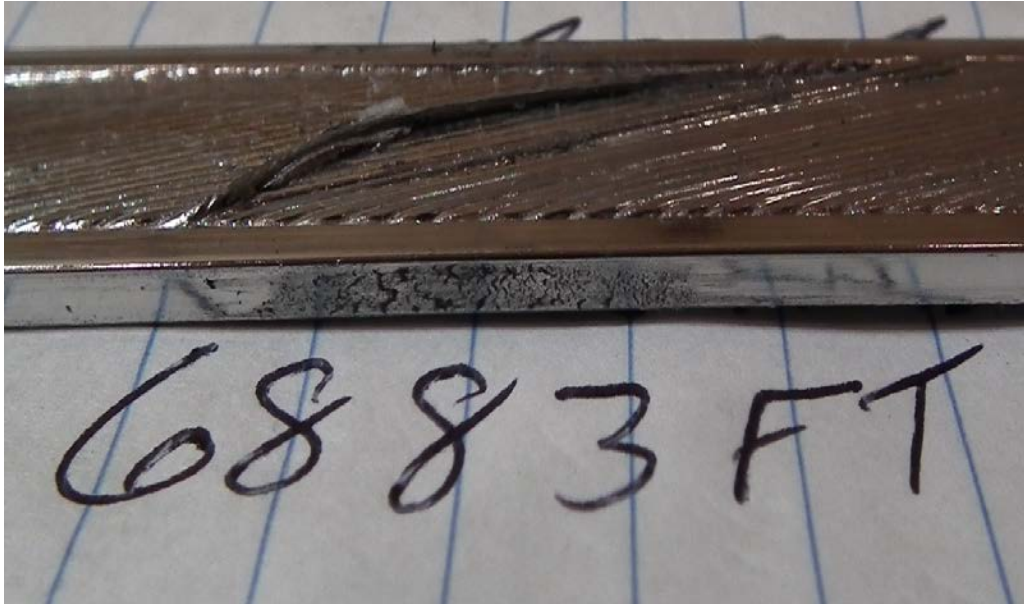
### DSG

- Updated Mac minis (3) to OS X 10.10
- Re-organized cleanroom EEL121/A for disassembly of SVT Regions 2 and 3.

## Jacobs, George

### Hall B

- QC-ed **Solenoid** conductor at AES, 13—17 October 2014.
- Performed pre-job walk through with cryogenic technicians, Dano Oprisko and Joshua Ingoldsby, to leak check new **DC Gas Piping** and to check modification of existing gas lines.
- Evaluated proposed locations for instrumentation ports on the TORUS cryostat for interferences with **Drift Chambers**.
- Updated **Magnet** wiki with pictures of high coil strands before repairs.



Before repair

## Leffel, Mindy

### Hall B

- Terminated and checked continuity of four **SVT Slow Control System** humidity-temperature-sensor-board jumper-cables; 6 of 12 complete.
- Worked with Tina to align laser for calibration, to test the **LTCC** plastic Winston cones.
- Photographed and documented **CTOF** board to be used to securely transport ~5 m long, polished fibers.

### Hall D

- Conducted systems check of **CDC**.

## Mann, Tina

### Hall B

- Worked with Mindy to align laser for calibration, to test the **LTCC** plastic Winston cones.

### Hall D

- Conducted systems check of **CDC**.

## McMullen, Marc

### Hall B

- Ordered DIN rails, terminal blocks, power supplies, cables, and sheet-metal box for the second **SVT Slow Controls System** patch panel.
- Updated, up to module 65, **SVT Module Status List** with traveler information.
- Continued preparing cable sets for assembly of **SVT Region 3** modules.
  - 12/18 completed.
- Discussed with Eugene Pasyuk (Hall B), the location of **SVT Electronics Racks**.
  - Rack numbers are L20 – L22; these racks are the closest to the SVT Insertion Cart.
- Discussed with Saptarshi Mandal (Hall B), the supply location for **SVT Services**.
  - Chiller and its pump will be located in rack L22; nitrogen will be supplied by a regulator in rack L21.

## Sitnikov, Anatoly

### Hall B

- Cut and arranged on a table for painting, 36 (diameter 0.3 mm, 4.8 m long) boron silicone fibers for the **CTOF** Laser Calibration System.
  - For calibration system, need ~120 fibers.

## Teachey, Robert Werth

### Hall D

- Debugged CAEN HV reset problem for the **FDC/CDC, Tagger, FCAL, and TOF** PLCs.
  - Determined that bad grounding of the Lemo cable shield caused the TTL signal to be noisy, thereby not meeting the 300ms/1300ms timing requirements needed to reset the CAEN crates.
  - Solved problem by reconnecting cable shields to the 5 V power supply ground.
- Wrote PLC code for the **Solenoid's** ambient temperature and humidity sensors and successfully implemented it on the PLC.

### DSG

- Configuring a Windows PC with LabVIEW.
  - PC will be dedicated to the Hall B subnet (86) to remotely monitor Hall B systems.