

## DSG Weekly Report – Feb. 4, 2015

### Antonioli, Mary Ann:

#### Hall B

- Calculated expected module currents, top and bottom, for **SVT** modules P83-P89.
- Began Visio drawing of the **Gas System** in the gas shed.
- Continued computing reflectivity data averages of **LTCC** Winston cones (12).  
Generated spreadsheet, with Tina's input, comparing reflectivity of cones, before and after recoating. See below.

	Sector 1								Sector 2								Sector 3							
	Left				Right				Left				Right				Left				Right			
	refl.	to eci	Recd.	new refl.	%	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.
1	0.67				0.30	✓	✓		0.67				0.70				0.56	✓	✓		0.56			
2	0.26	✓	✓		0.36	✓	✓		0.62	✓	✓		0.59	✓	✓		0.64				0.63	✓	✓	
3	0.70				0.45	✓	✓		0.64				0.65				0.38	✓	✓	0.83	GOOD			
4	0.33	✓	✓		0.27	✓	✓		0.79				0.76				0.57	✓	✓		0.76			
5	0.32	✓	✓		0.27	✓	✓	0.80	0.70				0.72				0.71				0.51	✓	✓	
6	0.57	✓	✓		0.45	✓	✓		0.69				0.65				0.59	✓	✓		0.61	✓	✓	
7	0.31	✓	✓		0.49	✓	✓	0.86	0.68				0.65				0.71				0.81			
8	0.33	✓	✓	0.87	0.46				0.53	✓	✓		0.56	✓	✓		0.76				0.76			
9	0.69				0.54	✓	✓		0.47	✓	✓		0.78				0.67				0.75			
10	0.33	✓	✓	0.83	0.30	✓	✓		0.68				0.71				0.71				0.75			
11	0.78				0.59	✓	✓		0.79				0.80				0.77				0.76			
12	0.77				0.72				0.56	✓	✓		0.77				0.76				0.71			
13	BAD	✓	✓		0.73				0.72				0.69				0.46	✓	✓		0.48	✓	✓	0.50
14	0.51	✓	✓		0.59	✓	✓	0.66	0.59	✓	✓		0.44	✓	✓		0.43	✓	✓		0.53	✓	✓	
15	0.47	✓	✓		0.70				0.49	✓	✓	0.48	0.71				0.63				0.48	✓	✓	
16	0.72				0.66				0.72				0.77				0.75				0.66			
17	0.66				0.74				0.78				0.43	✓	✓		0.59				0.64	✓	✓	
18	0.77				0.54	✓	✓	0.58	0.78				0.74				0.76				0.63	✓		0.68

  

	Sector 4								Sector 5								Sector 6							
	Left				Right				Left				Right				Left				Right			
	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.	refl.	to eci	Recd.	new refl.
1					0.81				0.40	✓	✓	0.86	0.44	✓	✓		0.72				0.80			
2	0.86				TBDA				0.37	✓	✓	0.85	0.37	✓	✓		0.77				0.38	✓	✓	0.82
3	0.42	✓			0.51	✓	✓		0.33	✓	✓	0.73	0.39	✓	✓		0.50	✓	✓	0.82	0.47	✓	✓	0.79
4	0.75				0.64	✓	✓		0.32	✓	✓		0.81				0.46	✓	✓		0.41	✓	✓	0.84
5	0.73				0.69				0.45	✓	✓	0.86	0.65	✓	✓		0.89				0.24			
6	0.55	✓	✓		0.78				0.33	✓	✓	0.82	0.42	✓	✓	0.84	0.44	✓	✓		TBDA			
7	0.75				0.83				0.40	✓	✓	0.81	0.41	✓	✓		0.37	✓	✓	0.83	0.54	✓	✓	
8	0.78				0.74				0.43	✓	✓	0.84	0.50	✓	✓		0.52	✓	✓		0.32	✓	✓	0.82
9	0.74				0.72				0.45	✓	✓		0.47	✓	✓	0.84	0.55	✓	✓		0.47	✓	✓	0.86
10	0.68				0.83				0.08				0.39	✓	✓		0.42	✓	✓		0.44	✓	✓	
11	0.64	✓			0.74				0.77				0.68				0.77				0.75			
12	0.73				0.74				0.60	✓	✓		0.90				0.75				0.80			
13	0.72				0.68				0.69				0.75				0.50	✓			0.64	✓	✓	
14	0.63	✓	✓		0.46	✓			0.62	✓	✓		0.68				0.44	✓			0.66			
15	0.82				0.64	✓	✓		0.65	✓	✓		0.70								0.42	✓		
16	0.71				0.52	✓	✓		0.70				0.70				0.57	✓	✓	0.45	0.62	✓	✓	
17	0.52	✓	✓		0.71				0.54	✓	✓		0.69				0.19				0.66			
18	0.63	✓			0.55	0.66			0.69	✓	✓	0.73	0.55				0.69				0.59			

#### DSG

- Completed edits and posted to DSG website two **Notes**:
  - 2015-002 Reflectivity Test Station for the Low Threshold Cerenkov Counter
  - 2015-003 Hall D Drift Chamber Gas Control System.
- Continued editing Werth's **note**.
  - Created table and edited text.
- Imported Brian's **note** on differential test program from Word to Adobe InDesign.
  - Laid out document in correct format and with correct text and paragraph styles. Began editing.

## Arslan, Sahin:

### Hall B

- Tested **SVT** production modules and HFBCBs at Fermilab.

## Bonneau, Peter:

### Hall B

- Investigated the currently-installed instrumentation of the **Gas System** in the gas shed with Dave.
  - All equipment is dated from the original construction of CLAS and the condition of the controllers is currently unknown.
- Started work on **HDice**.
  - There are two control rack test setups requiring modifications. Met with Xiangdong in the HDice lab regarding the upgrades.
- Reviewed current status of the **SVT** EPICS slow controls and updated the progress status sheet accessible from this webpage: [https://userweb.jlab.org/~bonneau/SVT%20Slow%20Controls/SVT\\_slow\\_controls\\_Progress.xlsx](https://userweb.jlab.org/~bonneau/SVT%20Slow%20Controls/SVT_slow_controls_Progress.xlsx).
- R1 interlock checks have been completed and system testing with a single module is underway.

### Hall D

- Reviewed the **PLC** server computer configurations with Dave.
- Discussed with Dave the **BCAL** control screens and location of the individual hardware components for the system.

### DSG

- Installed LabVIEW and hardware device drivers for the Weiner VME controller on the test station PC to be located the EEL/231.
- Showed Werth the hardware and configuration setup for the video splitter/PC extension system in the DSG control room.

## Butler, Dave:

### Hall B

- Worked on cost and equipment estimates for **gas system**.
- Wrote LabVIEW code and communicated with the MKS 647C flow controller for the **gas system**.
- Acquired two racks for the **SVT** testing in the EEL cleanroom.
  - The racks are borrowed from Hall D.
- Toured the **HDice** test lab with Werth, who gave a detailed explanation of how the process worked for making and testing the targets.

### Hall D

- Assisted in troubleshooting two of the eight **BCAL** humidity sensors. The lower sensor on each end of the Solenoids is reading high humidity. It is difficult to make sure all of the room temperature vulcanizing silicone was applied properly with the cables installed. We plan to add another nitrogen inlet to each end after the spring run.

## Eng, Brian:

### Hall B

- Attended **SVT** Meeting; action item completed: placed a PR for remaining SVT UPS that will be used for production.
- Moved MPOD that ACC was developing **SVT** EPICS on to EEL/121B. Set up a new MPOD in EEL/121C to continue R2-R4 development. Initially tested EPICS control/monitoring on a single module, since expanded to 8 in total.
- Contacted original author of **HDIce** Mathematica code ([thorn@bnl.gov](mailto:thorn@bnl.gov)) in attempt to locate missing packages/input files; will try to find something by end of this. In the meantime, working on converting RF Birdcage Coils notebook to Python to see if there is any speed boost to be had.
- Looking for racks for **SVT** module assembly in EEL/124 with Marc. Have at least two earmarked from Hall D; trying to locate a third.

### DSG

- Updated Differential Line Test **Note**.

## Jacobs, George:

### FMLA

## Leffel, Mindy:

### Hall B

- Worked with Tina on **LTCC** Winston Cone inventory: pulled cones to be sent to ECI and verified number of cones received from ECI.
- Worked on **SVT** D-sub cables.
  - Assembled back shells on four of the last eleven.
  - Tested last 11 of the 22 D-sub cables and applied heat shrink.
- Repaired drain wires on **SVT** cables LVR4M24, LVR1M8, SCR4M24, and SCR1M8.
- Reattached labels to **SVT** HTSB jumper cables.

## Mann, Tina:

### Hall B

- Inventoried **LTCC** Winston Cones from ECI.
- Worked on **LTCC** procedure.

## McMullen, Marc:

### Hall B

- Updated the **SVT** module status log to P79. To date, 19 modules have/had significant issues, repairs, or damage, two have/had less significant issues, and 58 have/had minor issues which have been repaired or two or less dead/disconnected channels.
- Attended **SVT** status meeting.

- Located available racks to assemble **SVT** in EEL 124 (cleanroom); the racks will be on loan from Hall D to Hall B.
- Started an AutoCAD area layout of EEL 124 for the **SVT**.

### **Sitnikov, Anatoly:**

#### **Hall B**

- Bundled 18 cable sets (1 bundle has 5 cables) for **SVT** Region 4.
- Assisted with second **SVT** slow controls patch panel assembly.
  - Assembled 18 D-sub connector back shells.
  - Drilled 32 holes, tapped the holes, and attached DIN rails.
  - Mounted 24 terminal blocks.

### **Teachey, Robert Werth:**

#### **Hall B**

- Reviewed tasks given to DSG by **HDIce**.
- Reviewing my old **HDIce** code.
- Gave Dave and Peter a tour of the **HDice** lab and equipment.

#### **Hall D**

- Reviewed **PLC** manual for the TTL module used in FDC/CDC, BCAL, PSC, Tagger CAEN HV Reset. Testing the default channel status when a download or PLC fault occurs so that the CAEN HV is not turned off.

#### **DSG**

- Edited and updated pictures for Hall D Target DSG **note**.
- Writing code for the high voltage granularity test and the high voltage variation tests for the **MPOD test stand**.