

# **Detector Support Group** Weekly Report, 2015-12-2

For FY 16, work allocation of DSG staff and work schedule related to Halls B and D are shown in Tables I and II

Work Allocation FY 16 (as of 12/01/15)										
#	Project	Primary	Alternate	Particip	aff					
1	Databasing	Amanda	Tyler							
2	DC pre-installation testing	Mary Ann	George	Anatoly	Mindy	Sahin				
3	DC installation (not cables)	George	Marc	Anatoly	Mindy	Sahin				
4	Documentation of DSG work (Hall B: Gas System, HDICE, DC, SVT Magnets)	Mary Ann	Peter							
5	Fabrication for DSG and Halls	Mindy	Sahin	Anatoly	Mary Ann					
6	Installation for DSG (not Halls)	Sahin	Mindy	Anatoly	Marc					
7	Hall B Gas System Hardware: DC, SVT, LTCC, HTCC, RICH, and Forward Tagger	George	Dave	Marc	Mindy	Sahin				
8	Hall B Gas System PAC (LabVIEW): DC, SVT, LTCC, HTCC, RICH, and Forward Tagger	Dave	Brian	Marc	Mindy	Sahin				
9	Hall D PLC systems:Magnet, FDC, CDC, BCAL, FCAL, Pair Spectrometer, and Gas System	Dave	Brian	Marc	Mindy	Sahin				
10	HDICE	Peter	Brian	Mary Ann	Mindy	Sahin				
11	SVT	Brian	Amanda	Peter	Tyler					
12	Hall B Torus and Solenoid	Brian	Peter	Amanda	Tyler					
13	Test Stations: cRIO, MPOD, and VME, PLC	Peter	Amanda	Mary Ann	Tyler	Marc				

# Table I



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	Halls B/D Related Work Schedule for FY 16 (as of 12/01/15)								
	П	Ш	IV	V	VIII	VI	VII	X	
	DC Pre_installation cleaning fabricating testing	DC Installation and Support	Gas System Hardware	Gas System PAC (LabVIEW) development calibration debugging commissioning	Hall D PLC Systems	HDICE development, testing, and support	SVT support	Hall B Magnet Controls	
Primary	Mary Ann	George	George	Dave	Dave	Peter	Brian	Brian	
Contributants	Anatoly, George, Marc, Mindy, Sahin	Anatoly, Marc, Mindy, Sahin	Anatoly, Dave, Marc, Mindy, and Sahin	Brian, Marc, Mindy, Sahin	DSG	Brian, Mary Ann, Mindy, Sahin	Amanda, Peter, Tyler	Amanda, Peter, Tyler	
1/16									
2/16									
3/16									
4/16									
5/16									
6/16									
7/16									
8/16						Time Contingency			
9/16						Contingency			
10/16				Time					
11/16				contingency					
12/16									
1/17									
2/17		Time						Time	
3/17		contingency						Contingency	

# Table II

# Antonioli, Mary Ann

On vacation



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#### Arslan, Sahin

#### Hall B

#### **DC**

- Cutting LV Cables
  - \* R2-S1-SL3/SL4; R2-S2-SL3/SL4 total 28 cables.
  - **★** Cleaned 10 HV modules for testing.
  - \* Fixed HV cable, channel 11 cables was cut and too short,
    - Fabricated a new cable and

## Bonneau, Peter

#### Hall B

#### **HDICE**

- Added programming comments to block diagrams.
- Developed verification procedures to test all aspects of the program in manual mode.
- Updated computer *HDicePC1* to LabVIEW version 2015.
- Developed assessment documentation package including additional work that was required to accomplish requested tasks and remaining work required.
- Requested IP address for the second computer *HDicePC2*.

#### **SVT**

- Update remote monitoring computer (SVTSystem2) to LabVIEW 2015.
- Monitored SVT Hardware Monitoring System Interlocks on a daily basis.
  - **★** SVT cRio chassis processor usage averaged ~ 8% for the week.

#### Hall D

• During routine daily system monitoring, noticed that the BCAL downstream modules 1, 13, 25, and 38 temperature and humidity readings were all zero.

#### DSG

- Trained Hoeble and Lemon on National Instruments programs.
  - \* How to create LabVIEW project files for cRio chassis.
  - \* How to use NI Max for system configuration.
  - \* How to use NI Distributed System Manager and NI network Browser.
- Updated and tested firmware on VME Test Station controller.

## **Butler**, David

Absent – no report.

## Eng, Brian

#### Hall B

#### **SVT**

- Jerry Gilfoyle presented initial progress of SVT alignment (setting up Millipede II)
- Investigated two modules that tripped over the weekend (R2 M10 B & R4 M9 B).



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\* R2 module doesn't even have any spikes and the R4 has the trips, but no abnormal HV current.

#### **DC**

- Communicating with Mestayer about troubleshooting issues found with R1 test chamber.
- Swapped gas for R1 test stand with George.
- Tested repair Sahin made to CAEN test stand breakout cable.

#### **HDICE**

• Finished first prototype cable assembly using air-core RF cable and Type N connectors. Gave cable Wei to test before ordering more adapters.

## Hoebel, Amanda

#### Hall B

#### **SVT**

- Attended SVT Meeting
  - **★** Plans are to set up and take data with MicroMegas next week.
  - **★** Discussed graphs of Clas12 track-based data using millipede.

#### Hall D

#### **Detector**

- Monitored Hall D slow controls.
  - **★** Downstream BCAL temperature and humidity were all zeros.

#### DSG

- Training on cRIO
- Gathered information on Hall B and Hall D detectors.
  - **★** Will be used for creating a notebook on detector information.
- Worked on SOLite
  - \* Implemented a search for data stored in 2 tables.

# Jacobs, George

#### Hall B

- Participated in Hall B TDG meeting, 12/1.
  - \* TORUS legs to be seup in Jan. 2016, R1 cable trays ordered, discussion on Moltec flexible nylon conduit and fittings for DCGAS manifolds, on status of gas system installations and upgrades, and on Magnets

#### <u>DC</u>

- Discussions with Mestayer. about troubleshooting R1 DC test stand DCLV, DCHV, and signal cables.
- Swapped out gas cylinders for DC test stand in EEL rm 125

## **Gas Systems**

• Produced critical path-LTCC-gas-11-18-2015 document detailing steps for an operational C<sub>4</sub>F<sub>10</sub> gas system.



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- Researched and found VCR to Swagelock adapters and fittings for installing new LTCC mass flow controllers in valve panel.
  - \* Ordered 12 each of SS-4-WVCR-6-600 and 12 each of b-600-1-8.
- Ordered tubing clamps for DCGAS piping runs
- Requested quote on Moltec nylon corrogated hose and fittings for DCGAS manifolds from Powell Electronics

#### **TORUS**

• Ordered argon for TORUS welding.

#### **Detectors**

- Ordered argon for MVT in EEL rm 125
- Staged the copper tubing required for MM gas testing in rm 125
- Ordered metric to US compression fittings for MVT gas connections

# Leffel, Mindy

#### Hall B

#### DC

• Terminated and labeled 14LV cables.

# Lemon, Tyler

#### Hall B

#### **SVT**

- Added to SQLite database of module currents
  - \* Combined burn-in current values with calculated current values.

#### Hall D

#### **CDC**

- Monitored logbook.
  - **★** Noted that LV Channel 6 was tripped off due to a high temperature reading.
  - \* Saw that the next day that it had been addressed and the alarm had been cleared.

#### **DSG**

- Researched detectors.
  - \* Micromegas, SVT, Drift Chamber, LTCC, HTCC, RICH.

## McMullen, Marc

#### Hall B

#### Gas System

- Continued work on the third Gas Controls chassis, which will be installed in the gas shed.
  - \* Added internal supplies, distribution blocks, and rear panel connectors.

#### **HTCC**

• Updated monitoring program to start daily file change on datalogger.



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# **DSG**

## **Safety**

- Met with Franck from the MVT group and Marco from the Forward Tagger group.
  - \* Went over division safety protocols and work control documents.
- Contacted Hall B engineering group about completing the MVT work control documents.

# Sitnikov, Anatoly

# Hall B

## **DC**

- Measured and cut 28 LV cables.
- Tested 42 LV cables.