

DSG-Hall A ECAL Weekly Meeting

Date: February 29, 2024

Time: 09:30 – 10:30

Attendees: Jimmy Caylor, Donald Jones, Mark Jones, Simona Malice, Marc McMullen, and Albert Shahinya

1. DSG – ECAL controls development

1. PR427288 (Crystal and lightguide temperature monitoring cRIO modules) is in procurement (has buyer)
2. Marc will continue ordering infrastructure for full system controls
 - Expansion chassis half rack
 - Mounting panels for expansion chassis and Omegas
 - Cabling for between expansion chassis and power supply interface chassis

2. Six-supermodule test stand

1. Test stand is running and up to temperature
 - During initial heat-up of the system, the temperatures were reading back much lower than expected
 - After troubleshooting, found that all thermocouple channels had reverted to the default thermocouple type J during migration from the old LabVIEW project to the new one; updating all to type K fixed the issue
2. Marc will update the controls software with EPICS process variables and test this week
3. Don tested the prototype cooling system
 - Four cooling volume thermocouples cooled from $\sim 70^{\circ}\text{C}$ to $\sim 45^{\circ}\text{C}$ on three of the four locations, while the fourth (middle) only cooled to $\sim 57^{\circ}\text{C}$

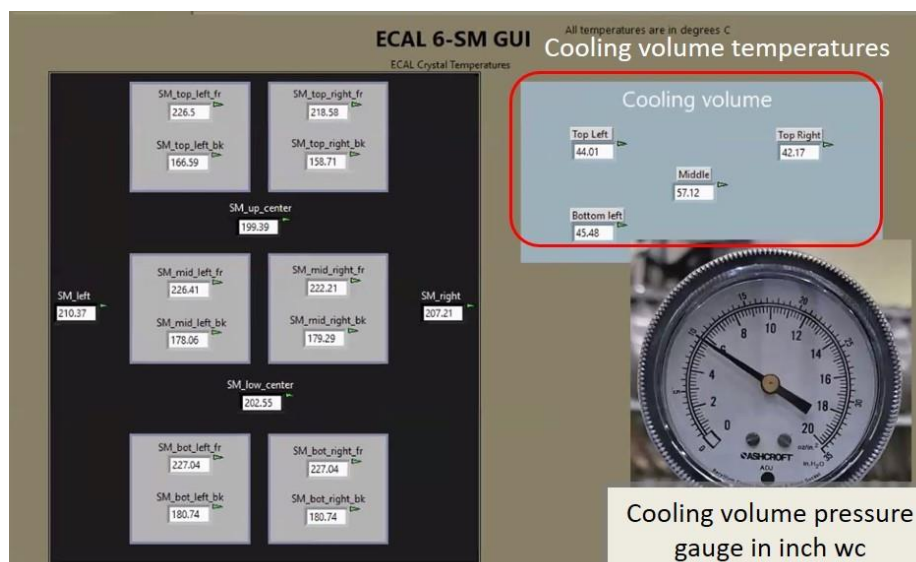


Figure 1. ECAL prototype test stand during a cooling test at 10 inch wc at the blower supply piping

- The middle location thermocouple will be checked to see if it is in the direct path of a cooling jet
- Cooling volume pressure is used as an indicator how much flow is in the volume

- At the higher ends of pressure (~17 inch wc), the crystal temperatures drop

3. Full system installation update

1. Electrical training in progress
2. Mu-metal and PMT testing procedures in progress and posted
 - Mu-metal for making 1300 shields
3. Two technicians to fabricate cables and install PMTs to arrive this week
4. Thirty mu-metal shields produced and 20 PMTs tested
 - 27 PMT assemblies (enough for three modules) will be made for the April test; eight of 27 installed
 - Planning for PMT cable installation in progress
 - Planning for constructing and installing light-tight panels using Tedlar in progress