Summary

Hall A – SoLID
Mary Ann Antonioli, Pablo Campero, Brian Eng, Mindy Leffel, and Marc McMullen
- Developing, using NX12, a model of SoLID instrumentation rack #1
- Creating pdf files of AutoCAD drawings and posting to the DSG technical documentation website
- Converting CSS-BOY screens to CSS Phoebus screens
- Fabricated 14 ferrule-to-ferrule cables

Hall B – HTCC
Marc McMullen
- Support work
  - ✶ MFC had been reset to 0 Lpm and pressure was dropping to < 0.05 IWC
  - ✶ Set flow to 7 Lpm and monitored pressure until it reached 0.08 IWC

Hall B – RICH-II
Mary Ann Antonioli, Peter Bonneau, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, and Marc McMullen
- Tested hardware interlock system RMC
  - ✶ With prototype adapter, SHT35 sensors can be read from each of the 48 channels
- Populated and tested Backplane PCB
  - ✶ Found that given pin-out of RJ45-Molex cable for connecting backplane to SHT35 sensor PCB was incorrect
  - ✶ Created pin-swapping adapter to correct cable pin-out during testing; 37 of 48 channels are able to readout sensors with no issues – debugging remaining 11 channels with sensor readout issues

Front and back side of fully populated Backplane PCB

1

- Fabricated four Molex cables; 21 of 24 completed

Hall C – NPS
Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, and Marc McMullen

- Converted CAEN Module Temperatures CSS-BOY screen to CSS Phoebus screen
  - ✦ Adding embedded Javascripts to the action buttons to turn ON or OFF all channels for each module

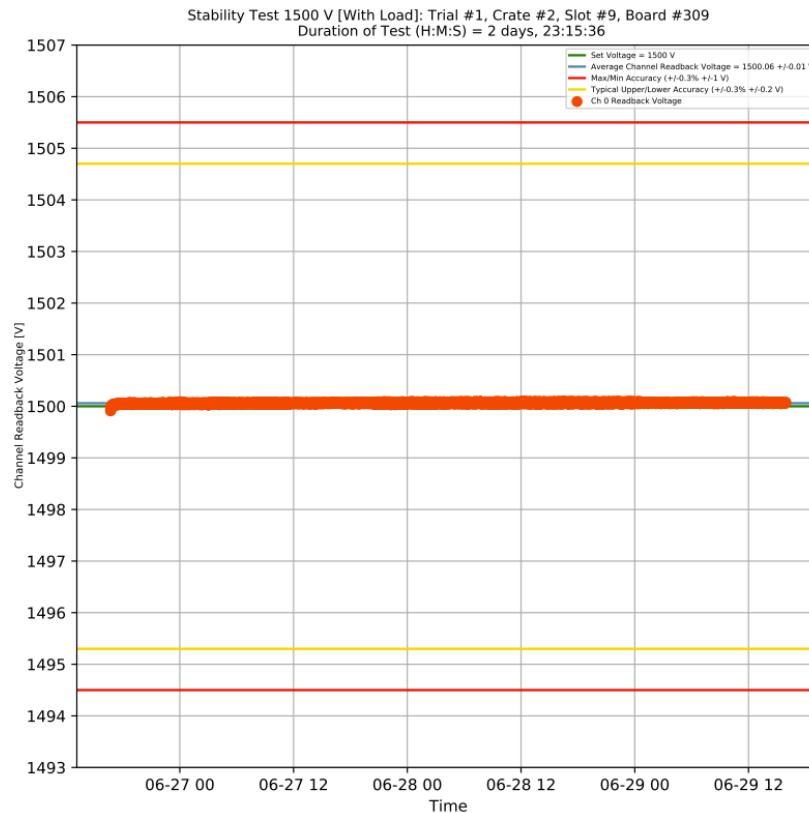Screenshot of CAEN Module Temperatures CSS Phoebus screen

- Revised Python script to generate voltage stability plots for all channels of a module to be included in the DSG testing & analysis MariaDB database

Voltage stability plot of CAEN module 309 channel 0

- Completed voltage drop testing for short high voltage supply cable; no issues noticed
- Worked on ESR film pre-shaping: 420 of 600 completed (70%)

EIC
Pablo Campero, Brian Eng
- Calculated convective heat transfer rate for the Be pipe when its inner face is at 100°C and the outer face is exposed to ambient temperature of 20°C
  - ✶ Convective heat transfer rate was -25.58 W
  - ✶ Compared calculated values with Ansys simulation values; both were the same

DSG R&D – EPICS Alarm System
Peter Bonneau
- Investigating the development of an EPICS CSS Phoebus-based alarm system
  - ✶ CSS Phoebus requires that the alarm system server be operational before any configuration or user interface development
  - ✶ The alarm system will require a custom build of CSS Phoebus from the source files