Hall A – ECal
Brian Eng, Mindy Leffel, Marc McMullen
- Ansys simulation of one supermodule enclosed in a 24" x 24" x 30" box with the box wall material set to air and with 250°C temperature applied to end plate
  - ✶ Air is material with lowest thermal conductivity coefficient in Ansys' base materials package; using air for box wall material further ensures box is insulated
- Result is that temperature of supermodule does heat slightly, but not to the 180°C desired at the end with light guides
- Continued working on Visio drawing of supermodules

Hall A – GEM
Brian Eng, Marc McMullen
- Updated DSG I^{2}C extender circuit to include traffic indicators and power LED
- Recovered SBS supply pressure signal

Hall A – Moller
Aaron Brown, Brian Eng
- Set up Cryo-con with custom temperature curve to read out thermistors
  - ✶ Tested with short lead sensor (~6")
  - ✶ When connected to sensors on test coil, readout is displaying "clip"; investigating problem with readout323566
- Added MPS current via analog signal, using signal conditioner for coil voltage tap that isn't being used; added scaling
- Tested prototype magnet coil #3
  - ✶ The coil was ramped to 700 A and the temperature, pressure, and flow were monitored via sensor connected to a PLC chassis – no issues noticed

Hall A – SoLID
Mary Ann Antonioli, Pablo Campero
- Started communication test for power supply that will be used during low current magnet test
  - ✶ Discovered malfunctioning power button on power supply
- Revising drawings of diode and temperature sensor wiring to match connector at cryo control reservoir
- Cut, fabricated, and tested seven cables—one 30' RJ-11-to-ferrule PSU cable and six 25' Omega thermocouple cables

Hall C – NPS
Mary Ann Antonioli, Peter Bonneaur, Aaron Brown, Brian Eng, Tyler Lemon, Marc McMullen
- Cut, fabricated, and tested ten 50' humidity sensor cables
- Need to fabricate small box with barrier blocks to distribute power to and signals from humidity sensors
- Started sketch of how to get power into the detector frame

- Developing LabVIEW code for configuration file management
  - ✶ Completed code to read in default configuration file; debugged
  - ✶ Arrays not initialized
  - ✶ Bound variables set as read or write were interacting with multiple executions; changed to read or write only
  - ✶ Developing code to generate an updated configuration file if input parameters have been changed
  - ✶ Working on making the configuration file management VI into a subVI and adding it to the RT Main LabVIEW program
- Discussed the LabVIEW interlock control logic
  - ✶ Fault chart implementation in LabVIEW sub-VI; interlock software and hardware interfaces to low voltage, high voltage, and chillers; the interlock override switch control for the hardware interlock system
- Began Ansys Fluent thermal analysis of crystal array
  - ✶ Imported model and added enclosure
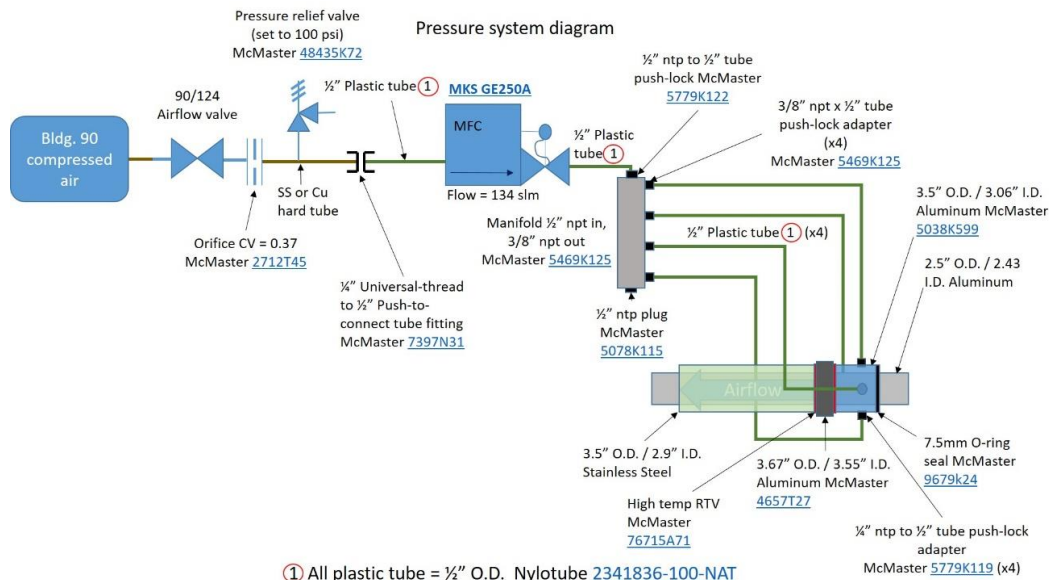
Hall D – JEF
Mindy Leffel
- Wrapped two crystals

EIC
Pablo Campero, Brian Eng, George Jacobs, Marc McMullen
- Pressure system setup finalized
- Modified pressure systems diagram to include an orifice, pressure relief valve, and push-lock connection

Pressure system diagram

EIC - DIRC

Tyler Lemon, Marc McMullen

- Compiling parts list for laser interlock chassis
- Used Multisim to design a circuit for laser interlock that uses a 555 timer IC to have a 10-second delay between beacon turning on and laser being enabled
- Investigating transimpedance amplifiers to use with photodiodes to convert the photodiode response current to voltage and amplify that voltage to a more easily measurable range
  - From photodiode specifications, maximum current that can be expected is ~12 mA for wavelengths used in tests
  - Most transimpedance amplifiers have input current limitations of ~10 mA
- Requested day-to-day operations list to review for the laser lab training and Laser Operating Safety Procedure
- Started draft of THA

DSG R&D - CS-Studio Phoebus

- Rebuilding Phoebus development system
  - Completed EPICS base built from source code
  - Build of CS-Studio Phoebus from source code is in progress
    - Installed and tested Apache Maven 3.8.6

DSG

- For DSG website, developed and implemented a random selection script for the spotlight photo upon main webpage load or refresh
  - For each main webpage load or refresh, the random selection will not repeat any of the last six pictures that were shown
  - When more photos with captions are added to the webpage source code, it will automatically include them in the random selection process