Ongoing Projects

Hall B

Drift Chambers

- Gas manifolds expected to be installed mid-July.

HTCC

- Set up HV system.

RICH

- Except for one transducer and "some small stuff" procurements for all other P&I components placed.
- Two new mirrors received.
- Analysis of mirror dimensions ongoing.

Forward Tagger

- Recommendations for slow controls components, including for N_2 gas, made.
- Tracker gas will be monitored and controlled by Saclay.

HDIce

- Work requested completed, that part which was under DSG's control.

Magnets

- No news from magnet group about checking out the power supply's PLC code.

Hall D

System Monitoring

- Magnet and detector systems monitored on a daily basis.

Antonioli, Mary Ann

- Imported CMM point into AutoCAD for **RICH** mirrors C2, C3, and C4, measured sides, diagonals, and thicknesses, and made plots.
- Debugging of HDice test of attenuator B in RF Attenuation / Switching Unit.
- Updated **DSG** website.

Arslan, Şahin

- Replaced N_2 gas bottle and provided extra bottle for **SVT**.
- Worked on **gas system** drawing of Hall piping and components.
- Moved HV crate to TEDF, with Brian, for **HTCC** testing.
- Reconfigured work bench in **DSG** control room.

Bonneau, Peter
HDice

- Completed current shunt initialization, status, and measurement sub-vi integration into NMR program. System level debugging and testing is underway.
- Working with Pablo on development of Mercury power supply test code using previously developed device drivers.

DSG

- Working with Pablo on jAlbum software package used to develop photo log for website.
  - ✶ Generation and testing of a photo log image and directory structure.
  - ✶ Upload and testing of photo log image to website.
  - ✶ Automatic log link labeling to other DSG web pages.
  - ✶ Corrected license issue regarding account administration.
- Setting up DGSlist.
  - ✶ Contacted Theo Larrieu regarding setup.
- Upgraded software on **DSG** cRio development chassis and added system to Hall B subnet.

Campero, Pablo
HDice

- Updated program and debugged Mercury iPS power supply's software.
- Generated data for set and readback values.
  - ✶ Took 1,000 measurements for each set point, step size of 5 [A], range of 0─120 [A].

DSG

- Wrote DSG note on power supply test procedure.
- Downloaded Python on PC-DSGPLC1.

Eng, Brian

- Submitted RMA for failing **SVT** UPS in EEL/124, getting a replacement unit prior to sending back faulty one.
- Upgraded CF card in **gas** shed cRIO from 512MB to 32GB.
- Received demo iseg HV supply for **HTCC** to test. OSPs have been completed so provided MPOD crate.
- Upgraded firmware on GPIB-ethernet adapters for Nathan, finding that can only upgrade devices on same subnet as the computer.

Hoebel, Amanda

- Took cosmic runs with **Forward Tagger** hodoscope and calorimeter to check for signal instability.
  - ✶ Eight channels in hodoscope produce noisy signals.
  - ✶ Noise suspected to be from improper grounding.

DSG

- Downloaded Anaconda Python.

Jacobs, George

- Investigated **DCGAS** pressure control pump operation anomalies.
  - ✶ Determined anomalies were due to low capacity pumps.
- Received price quote and availability of Atlas Copco SF11+ 100 FF LC 200V 60 API compressor (**RICH**) —$16K.
- Discussions with Procurement and Hall B on bulk liquid nitrogen contract funding.
  - ✶ Submitted PRs.
- Estimated yearly gas usage and cost for **MTV** gas mixing system.
  - ✶ Requested and received price quote on CF_4 gas.

Leffel, Mindy

- Emailed Xiangdong about completion and delivery of **HDice** RF cables.

DSG

- Worked on National Instruments cRIO test station.
  - ✶ Modified and terminated second 37-contact, D-sub to D-sub cable; tested both.
  - ✶ Terminated and tested two 25-contact, D-sub to D-sub cables.
- Fabricated humidity-temperature-sensor-boards for test stations.
  - ✶ Glued all eight temperature sensors.
  - ✶ Soldered all eight humidity sensors.
  - ✶ Started prepping humidity sensor leads for soldering.

Lemon, Tyler

- Calculated, using Python, fit curve from CMM data for sides of **RICH** mirror C5.

MPOD Test Station

- Wrote VISA drivers in LabVIEW for Keithley Multimeter to read DC voltage and current via GPIB.
- Debugging Wiener USB-to-IP drivers for SNMP communication to MPOD via USB.

McMullen, Marc

- Continued writing code for **MVT** gas mixing. Modified DC gas mixing parameter VI to work with MVT pressure-controlled flow limits.
  - Variable flow range is currently set at 550 [sccm] to 750 [sccm] for MVT barrel and FT for a pressure range of 12.1 [psi] – 15.9 [psi].
    - When pressure drops to 12 [psi], flow will increase to max.
    - When pressure increases to 16 [psi], flow will decrease to range minimum.
    - When pressure reaches 17.2 [psi], flow reduces to 0 [sccm].
- Safety documents for detectors being worked on currently, or in the near future, by DSG.
  - Drift Chamber R1S4 (EEL 125):   B-List 784
  - Forward Tagger (EEL 125):   OSP ENP-16-61049-OSP, ENP-16-61008-OSP
  - HTCC (TEDF High Bay):   OSP ENP-16-61390-OSP, ENP-16-61352-OSP
  - SVT (EEL 124):   OSP in progress
  - RICH (EEL 121c):   OSP in progress
  - HDice (EEL 121a):   B-List 1071
  - MVT (EEL 124):   B-List 1232