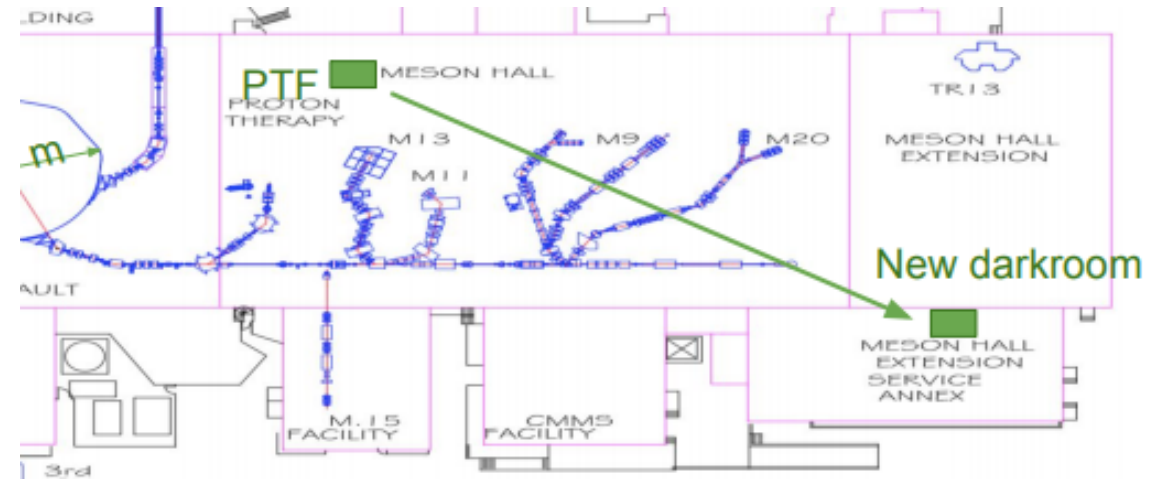


Neutrino

- Hyper-K Canada Virtual Meeting held on January 7,8,11
 - Status reports on HK related work, planning for 2020 CFI-IF implementation, planning for 2022 CFI-IF application
- Shubham Garode, engineering masters student from Vishwakarma Institute of Information Technology finished internship at TRIUMF in December 2020 and completed masters degree
 - Success as pilot run for future internships – significant contributions to design of multi-PMT and CERN test experiment, major involvement in GAPS
 - New student has started remote internship
- Move of PTF from Meson Hall to MESA progressing. Expect to be out of Meson Hall by beginning of February



ALPHA

- Expecting to ship the ALPHA-g TPC back to CERN within a couple of weeks



SuperCDMS and CUTE

Update for SMM, January 2021



SuperCDMS

- Passed “Director’s Review” at SLAC in preparation for DOE re-baselining review coming up in February
- SuperCDMS infrastructure at SNOLAB mostly in place (seismic platform, cleanroom, crane, ...)
- Shielding: last part (outer water tanks) to be delivered in February
- Cryostat: order process has started
- Crucial tests for readout wiring completed
- DAQ test at TRIUMF delayed due to readout electronics production issues; test rescheduled for February/March
- Overall project delayed by about a year due to a combination of technical issues and the pandemic

CUTE

- Three long runs (4-6 weeks each) with varying payloads completed since August, despite Corona restrictions
- Continuously improving facility for remote operations
- Making progress in improving noise conditions; collecting data on facility background
- Progress on detector testing and acquiring science quality data is impacted by access restrictions to SNOLAB
- Awaiting delivery of hardware (detectors, readout wiring) from our US colleagues to perform first test of new SuperCDMS detectors



SuperCDMS and CUTE

Update for SMM, January 2021



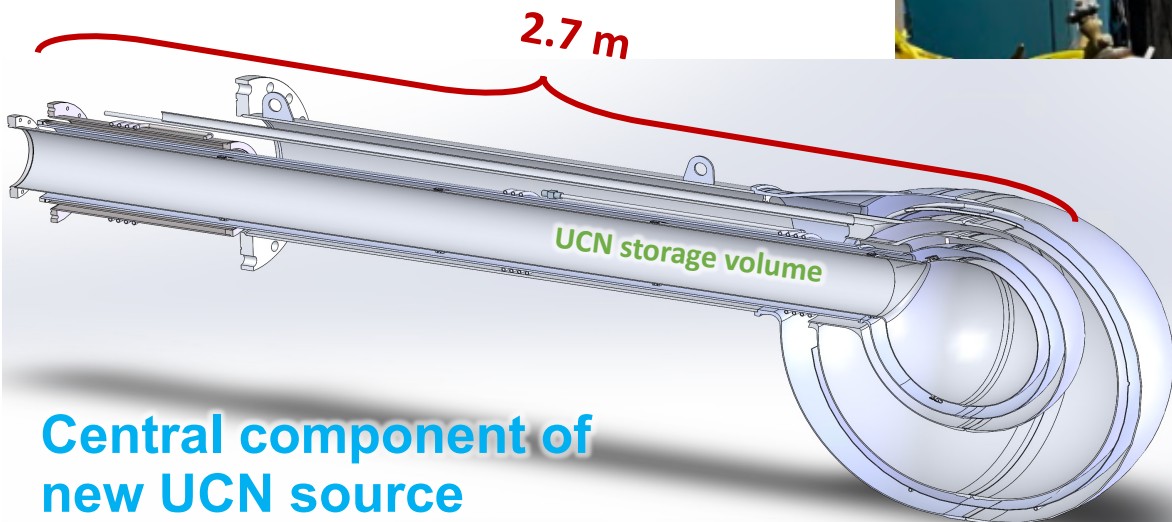
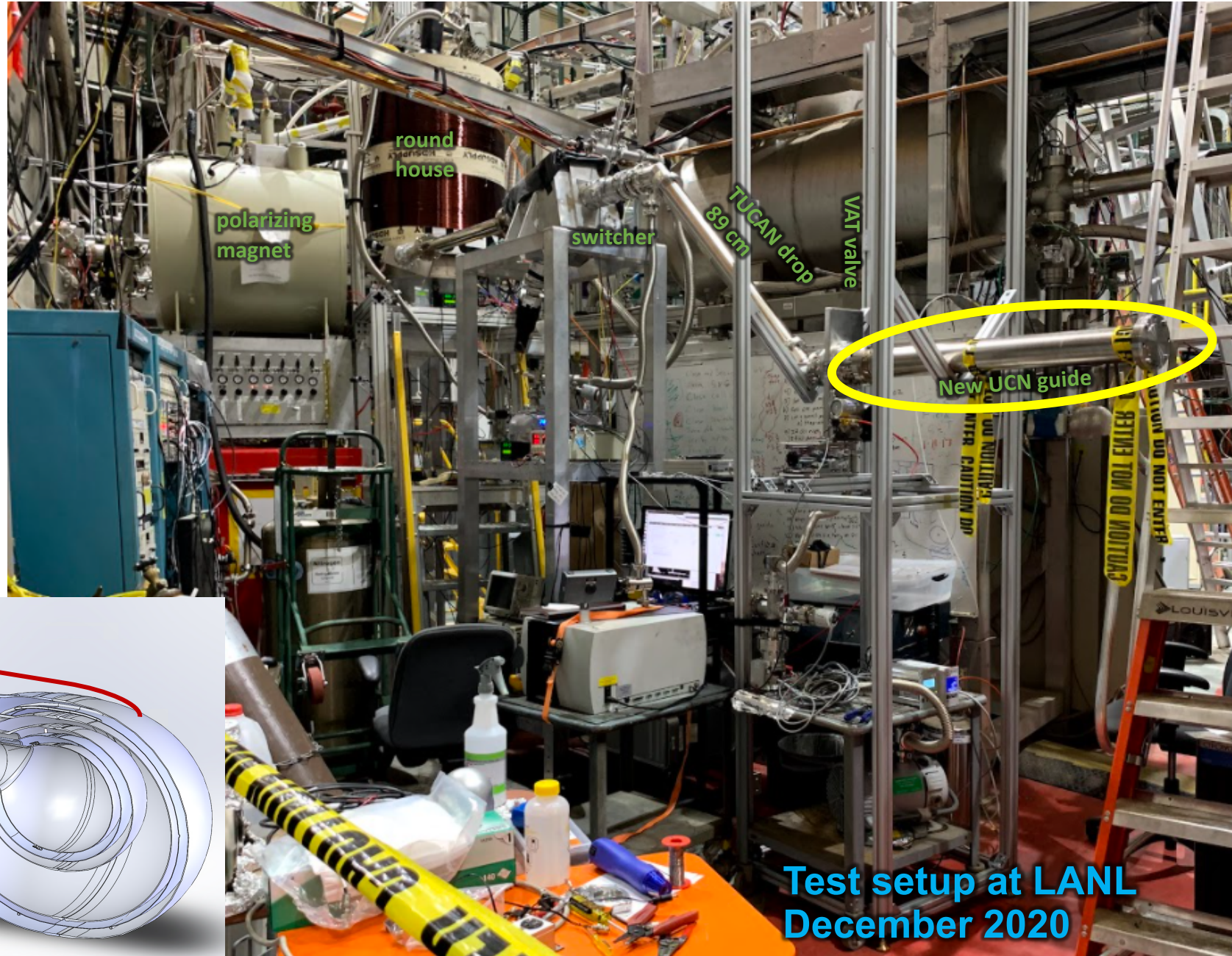
TRIUMF – Detector work

- Detector test facility at TRIUMF operating continuously since June 2020
- Improvements on remote operations mean that personnel access is only needed once or twice a week
- Collecting data with low-threshold (eV scale) cryogenic detectors
- Developing calibration methods based on optical/IR photons, using LEDs mounted inside the cryostat
- Studying performance dependence on detector history (voltage bias history, exposure to optical/IR photons)

TRIUMF – DAQ work

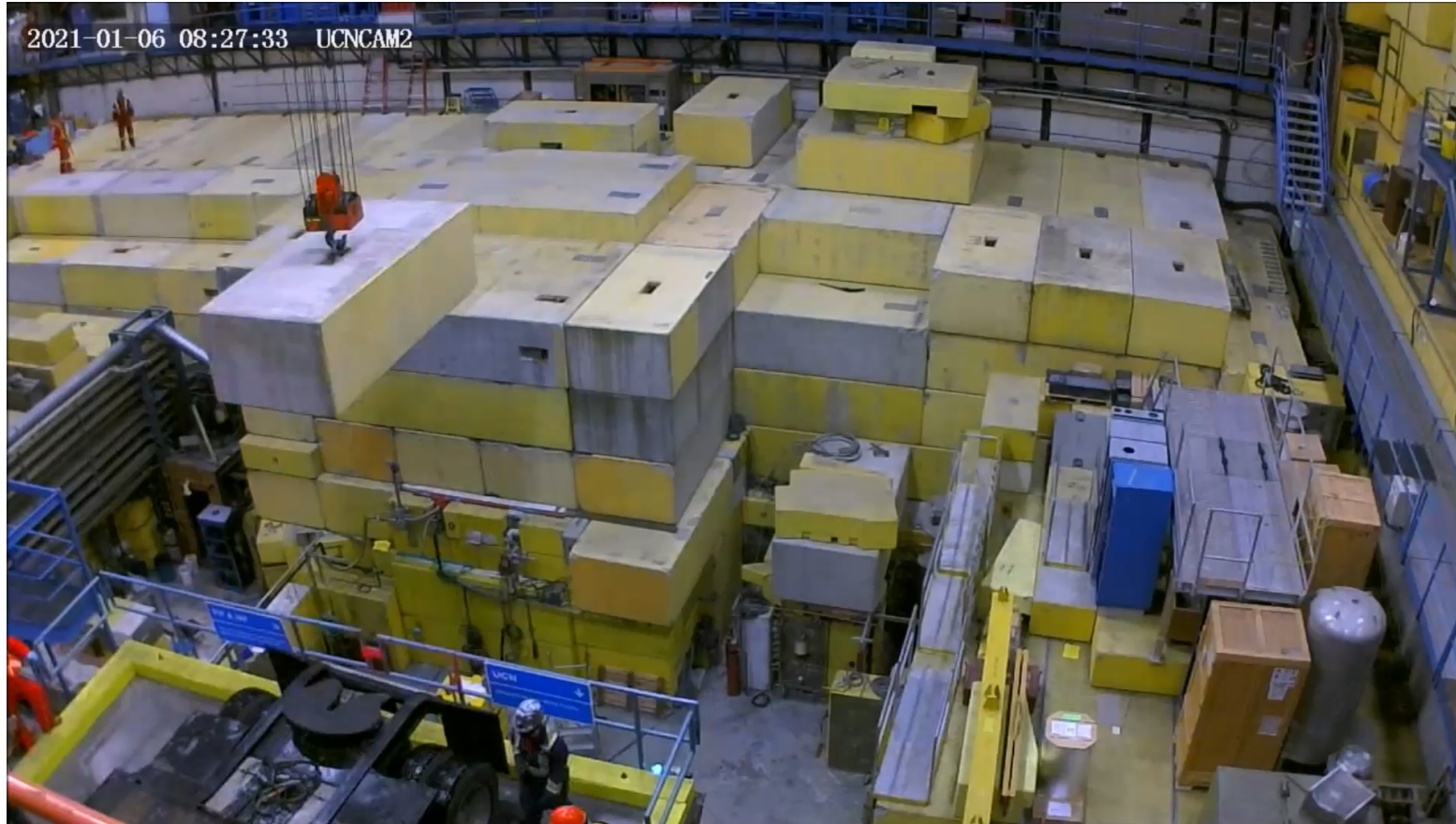
- Preparations complete for full DAQ test, awaiting delivery of readout boards from the US
- Test of Signal Distribution Unit completed

- Central new UCN source component too long for standard guide coating process
 - New company's coating has to be qualified
 - UCN beam time and storage tests in guide coated with new process at LANL Dec 2020
- ⇒ **Result: UCN storage lifetime at least as good as for the standard process**
- ⇒ **Moving on with build of central component**



Central component of new UCN source

Test setup at LANL December 2020



- UCN is on schedule with the vertical source removal.
- UCN physicists are putting a lot of manual labor hours in to make it happen.