

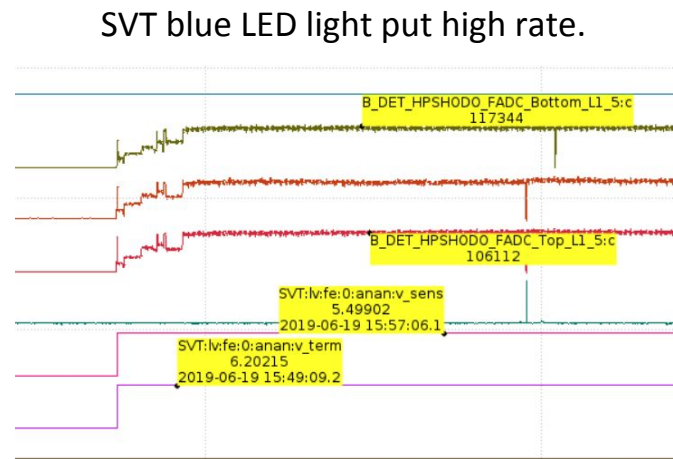
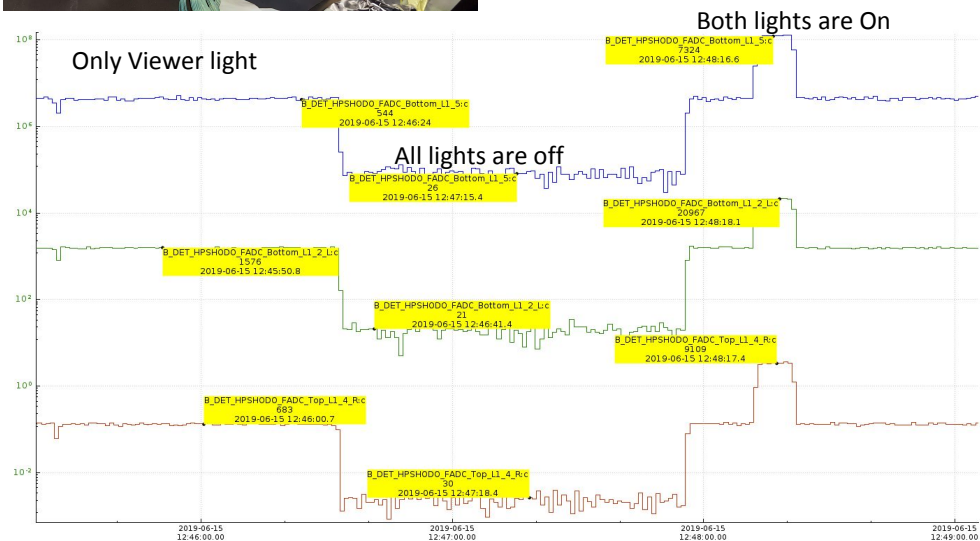
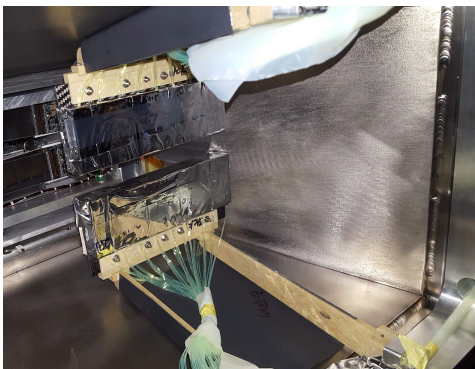
# Preparations for the 2021 HPS run

Update on ECal and Hodoscope

Rafayel  
Paremuzyan

HPS collaboration meeting: November 18-20, 2020

Even the backscatter light from the downstream viewer window, and SVT LED bluelight put a high rate on Hodoscope.



# Checking the hodoscope

The hodo is in the EEL inside a black box.

Need to check the integrity of the hodoscope.  
With cosmic runs make sure all channels are operational.

Inspect fibers scintillators to make sure there is no damage.

Currently the EEL 125 room is occupied with BONUS, but should be cleaned these days.

Should add electronics into the test crate.

Before the run



Now



## Setup a test bench in EEL Room 225.

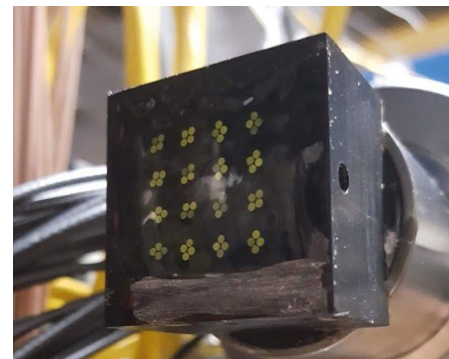
- ROC, 3 FADCs.
- We need three x16 cable bundles. One is ready, another one is available, just cables need to be soldered to the PCB board, and we need to obtain one x16 bundle. Armen can help with this.
- Assess the overall state of the hodoscope with cosmic runs
  - If all channels are operational
  - Is there any damage on scintillators, fibers
- In case, if any fiber bundle/scintillator needs to be replaced, we will have a few months to replace it.
  - 3 spare units of PMT housing components
  - We have few spare scintillators polished and several unpolished.
  - No shortage of fibers.
  - Need more careful examination of glueing fibers into the PMT adapter, as we had a vacuum issue initially through that part.
- Should complete all tests, and have Hodoscope ready by Apr. 5 2021.

Dec 1-4, 2020

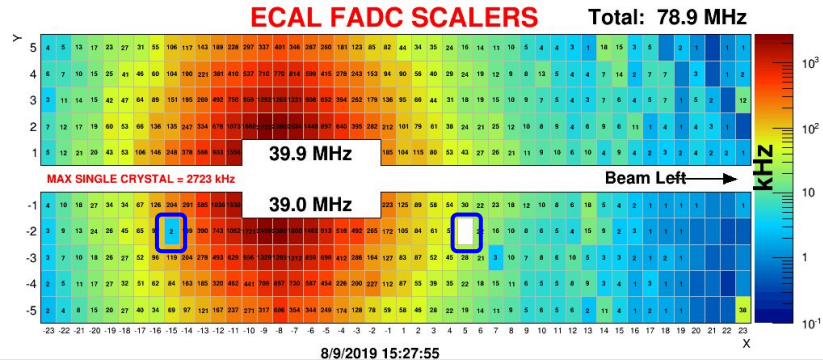
by Nov 30, 2020

by Dec 18, 2020

I still need to complete studies on whether we need new PMTs.  
Currently getting inconsistencies with my previous analysis...



# ECal

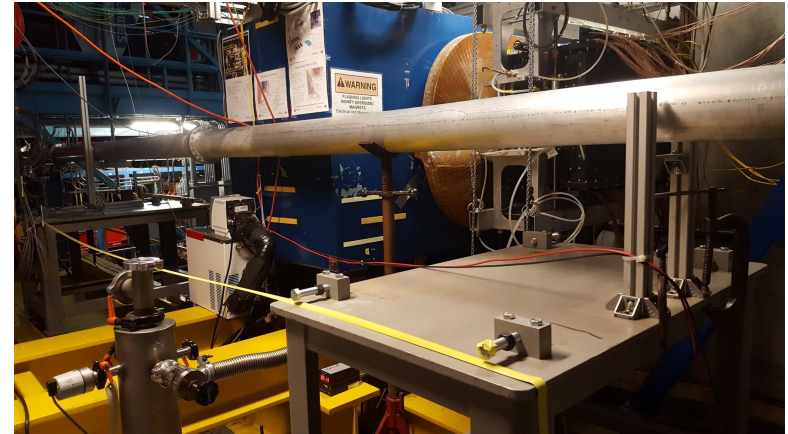


- Few channels failed, and need to be looked at, replace preamps. There are more than 10 available
- One HV group (HV\_10) was misbehaving, needs to be looked at.
- Fixing loose signal connections.
- Cosmic runs before the run to get new gains.

Tests will be performed with the current location of the ECal (left side of the beam-pipe).

HV cables either need to be moved out of the cable tray to run diagonally or make a cable extension.

Works on ECal will start after new year, and ECal should be ready in April of 2021.



# Summary

- Hodoscope fibers needs to be covered (light tightened)
- Testing of the integrity of the hodoscope in December
- Replace few preamps of ECal
- ECal tests will be done in the Hall
- Both hodoscope and ECal tests are expected to be finished by April 2021