

## **AWAKE Week 22 (31 May - 4 June 2021)**

**WEEK 22 SUMMARY:** First of 3 weeks of access. PXI upgrade, pulling network cables, laser motor replacements. BONUS: protons from SPS on Monday afternoon.

- **Protons:** at the morning meeting, SPS mentioned possible further tests on AWAKE (since the RF jitter problem was fixed). We agreed on proton beam for Monday afternoon, and got several hours of beam, with 1 extraction per supercycle.

- On the SPS side, the 2018 golden trajectory was achieved, although there was no time for a dedicated BLM scan to ensure that beam was centered in the plasma cell.

- On the AWAKE side, we kept electrons and lasers off, and once again focused on commissioning diagnostics and DAQ. In addition to all the diagnostics commissioned on May 22, we were able to observe protons on the streak camera (although not in streak mode yet), we had live plots of protons crossing all our screens made from EventBuilder files, and we had time to properly set filters and exposure for our cameras.

- We look forward to future beam time, if possible, for the BLM scan, and for us to find the proton beam in time on the streak camera, and for testing the RF controls that allow us to move it in time.

- **Post-proton Lights issue:** we had a different lights issue than after the May22 proton beam. After May22, TAG41 and TSG4 had lights off. This time, TT41 and TCC4 have lights off. The cause is not clear, and might be a set of coincidences.

- **Post-proton Access System issue:** RadVeto of TAG41 should lift automatically 30 minutes after the end of Beam, but it does not. Bug has been found and fixed by Access System team, but deployment will require reboot of Global Interlock controller, so it will have to be coordinated with SPS.

- **Laser access:** repaired FMOUNT01 (needed to switch between high- and low-power), and recalibrated all three dumps and checked their switches (including LBDP1 which sends veto to SPS and which had dropped the beam on May 22).

- **Other accesses:** software upgrade for both PXIs, VIC for network cables, new spectrometer camera installation

- **Laser training:** dedicated Friday to training new laser operators

**PLAN FOR WEEK 23:** open vacuum on Monday, probably stay open for 2 weeks. Week 23: new screen on BTV412442 and new mirror on LBDP3. Week 24: Rb recycling with external contractor (travel from UK approved!)