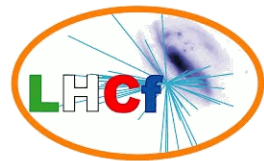


LHCf updates @ TREX

Dec. 2024 – Feb. 2025

L. Bonechi on behalf of the LHCf collaboration

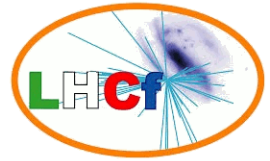
31 Jan 2025



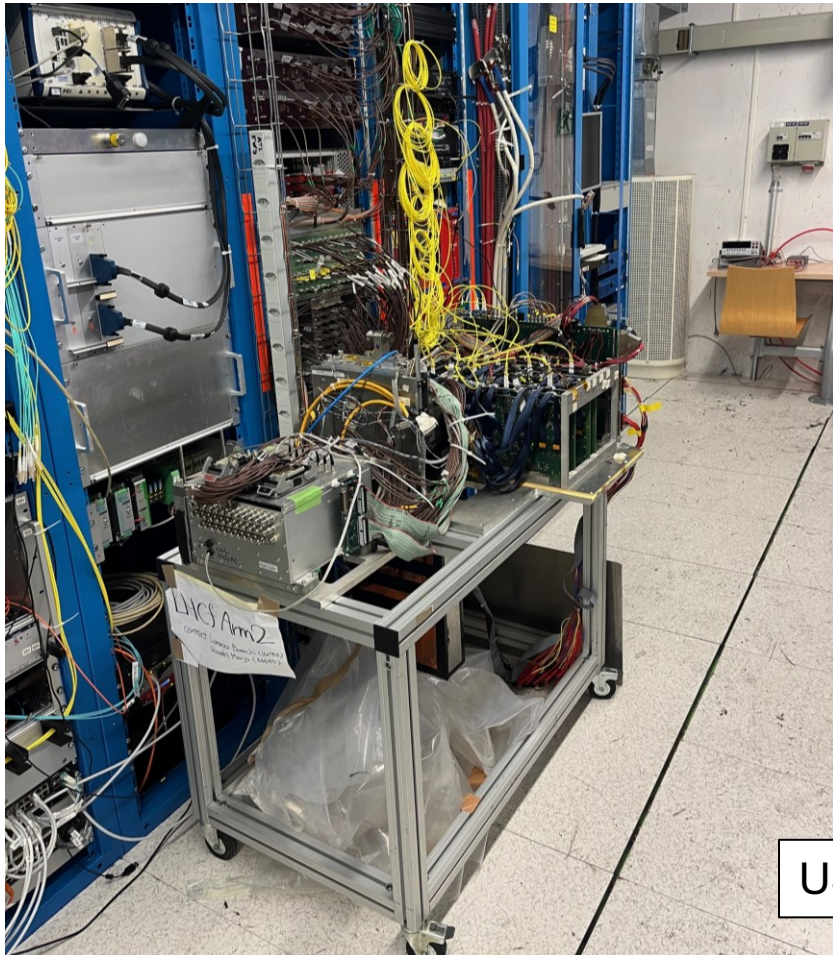
Activities completed in Dec. 2024

- Preparation of the 2025 oxygen run:
 - Update of firmware on silicon electronics (done)
 - Test of the internal calibration mechanism
 - New test of the Arm2 silicon DAQ with the detector in USA15 (completed 09/12)
 - Preliminary test of the Arm2 silicon DAQ with the detector near TAN (completed 11/12)
 - Removal of Arm2 from the TAN (completed 12/12)
- Survey to the LHCf cabling
 - Identification of LHCf Arm1/2 cables that must be removed in LS3 (done, 12/12, 9:30)

Preliminary test of Arm2 in USA15

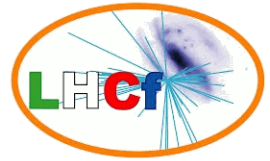


- Arm2 detector placed in front of the LHCf racks
- Test of silicon DAQ + calibration of microstrip detectors
- **IMPACT: 240247**

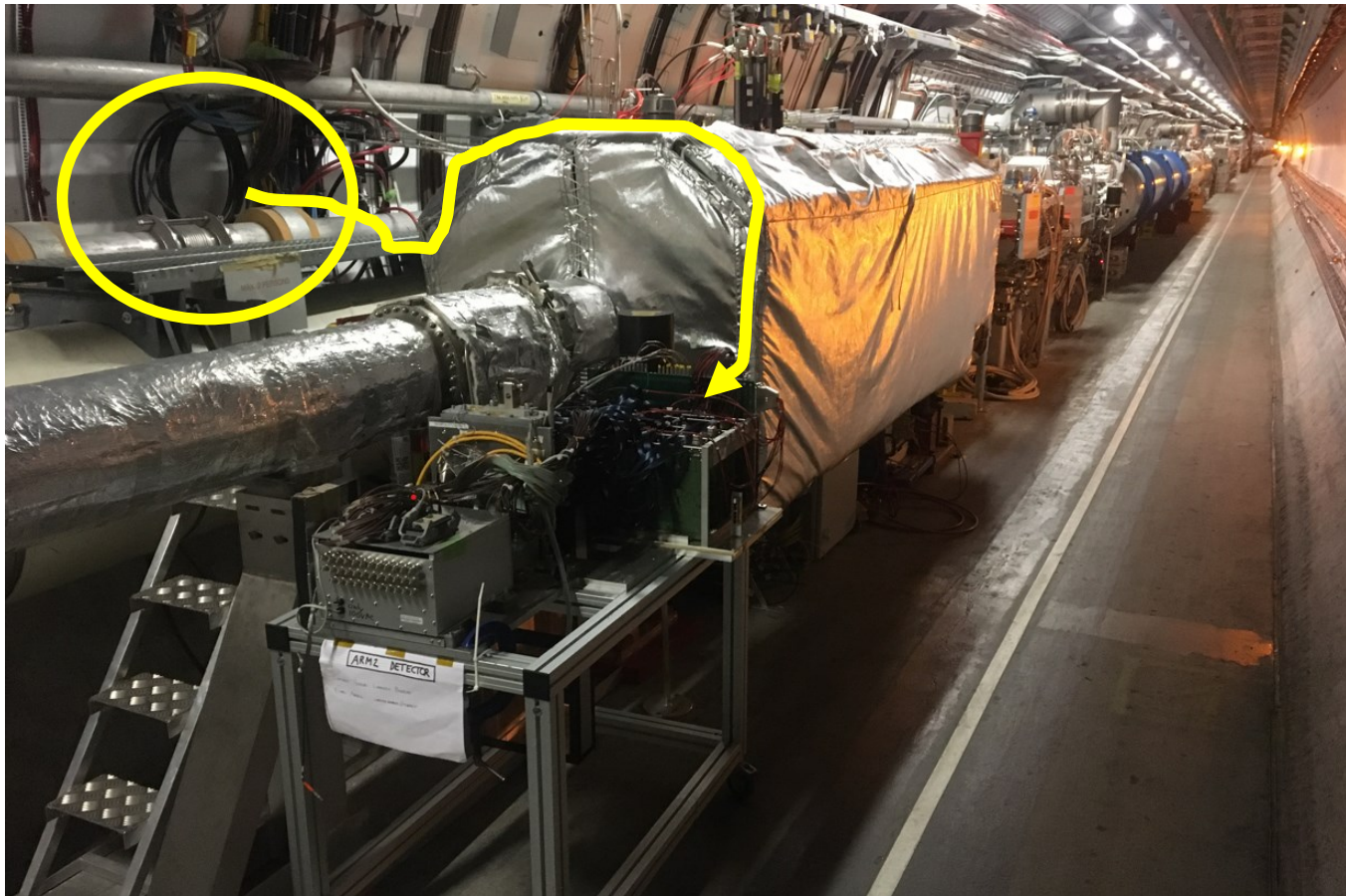


USA-15, December 6, 2024

Preliminary test of Arm2 in the LHC tunnel

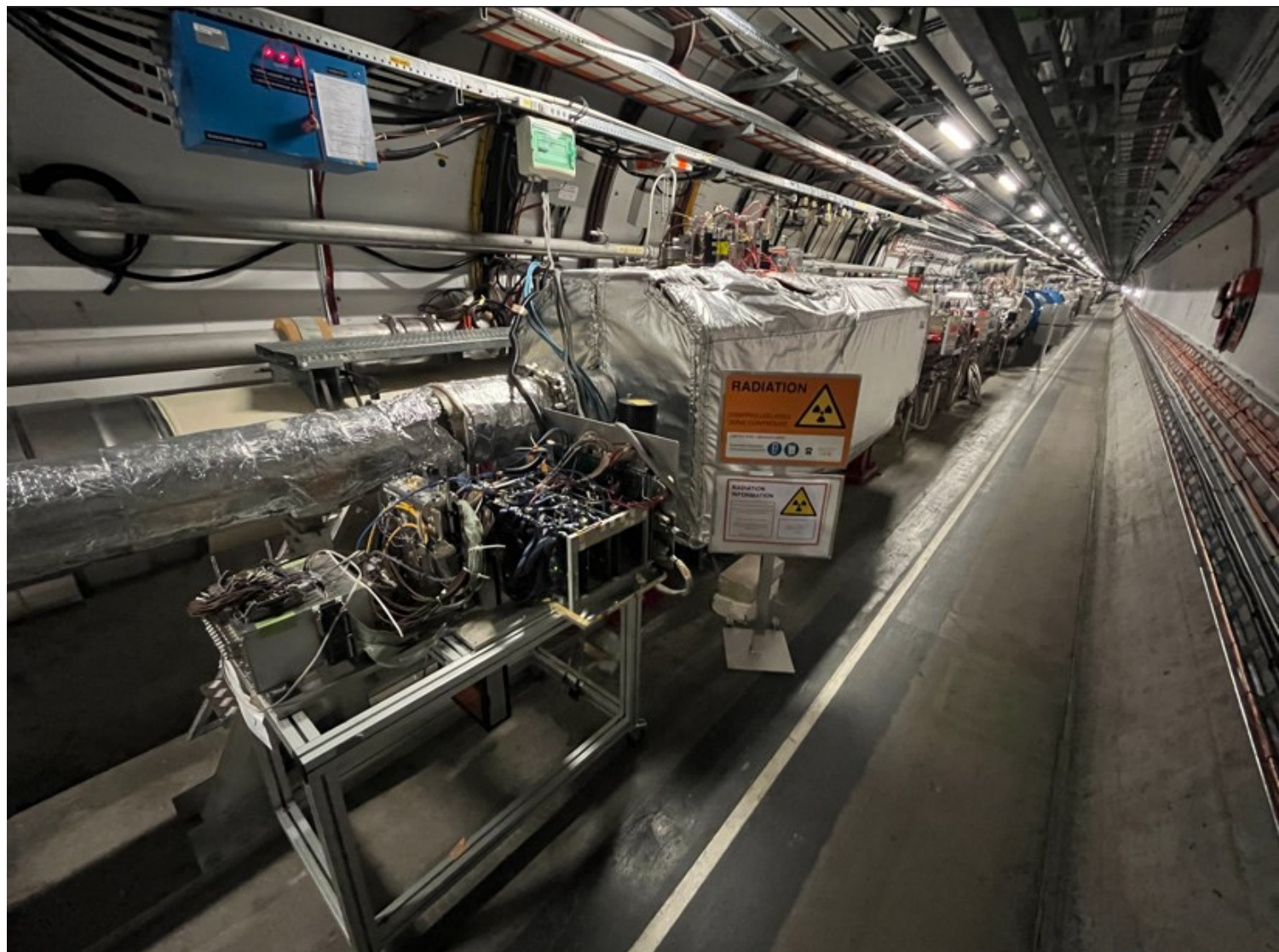
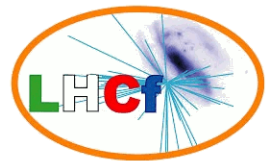


- Started on 10 Dec 2024 in the afternoon
- 1 day with the Arm2 detector placed in front of the TAN in LSS1R
- **IMPACT: 239785**
- Main purpose: test of DAQ with 200m long fibers

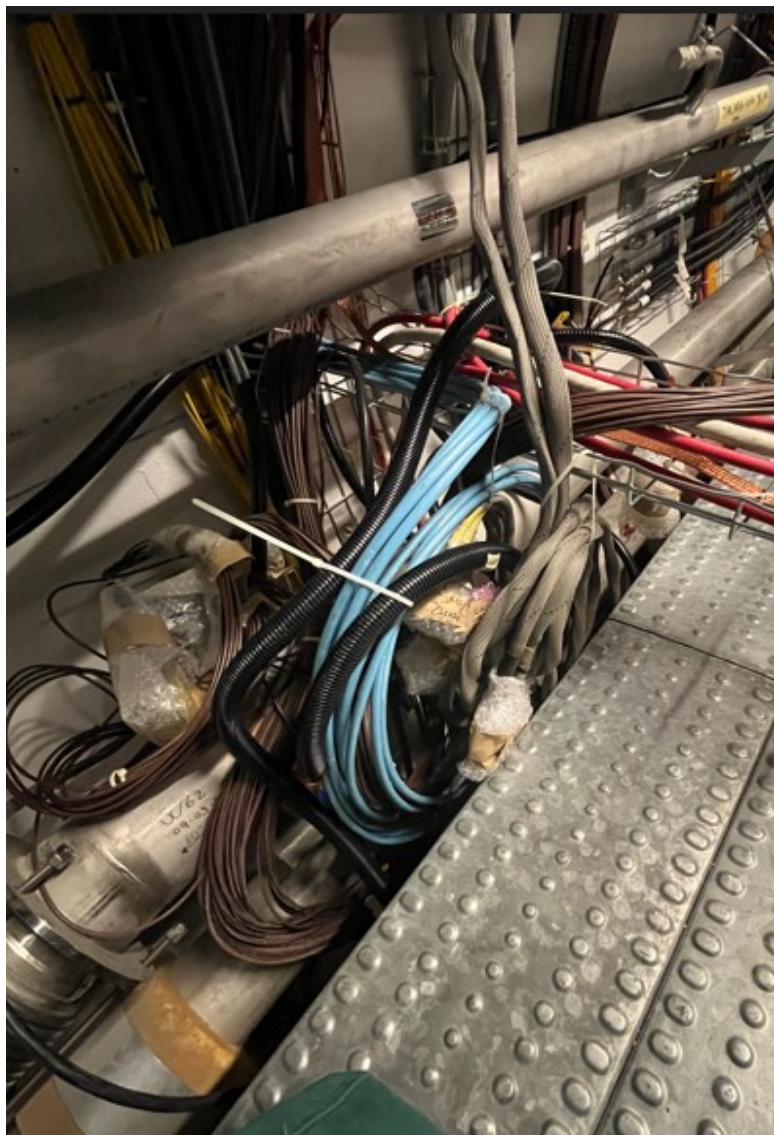
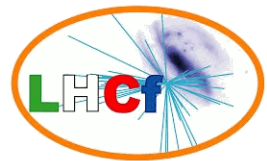


- Installation point: detector placed near the beam pipe, sufficiently far from the corridor
- Operations: Cables have been detached from the wall (QRL side), unrolled and passed onto the other side of TAN where they have been connected to the Arm2 detector
 - Special authorization was requested:
<https://edms.cern.ch/document/3191679/1.0>
- Installation team and duration: two persons around TAN for approximately 30-60 min for transportation of the detector and cabling
- Uncabling, cleaning and removal: faster than installation
- RP: total dose: (40 + 48) μSv

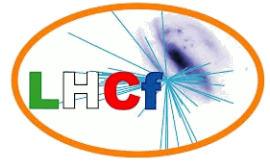
Preliminary test of Arm2 in the LHC tunnel



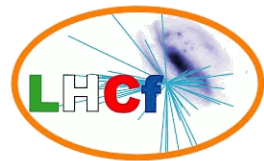
Preliminary test of Arm2 in the LHC tunnel



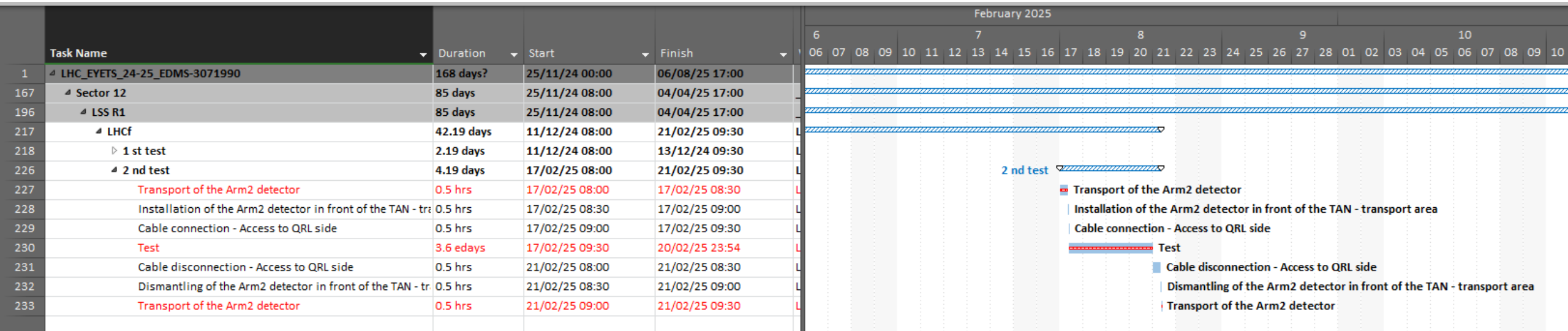
New temporary storage location

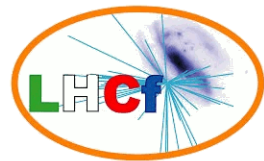


- To remove from this buffer zone we will be in contact with Brian Cole and Riccardo Longo

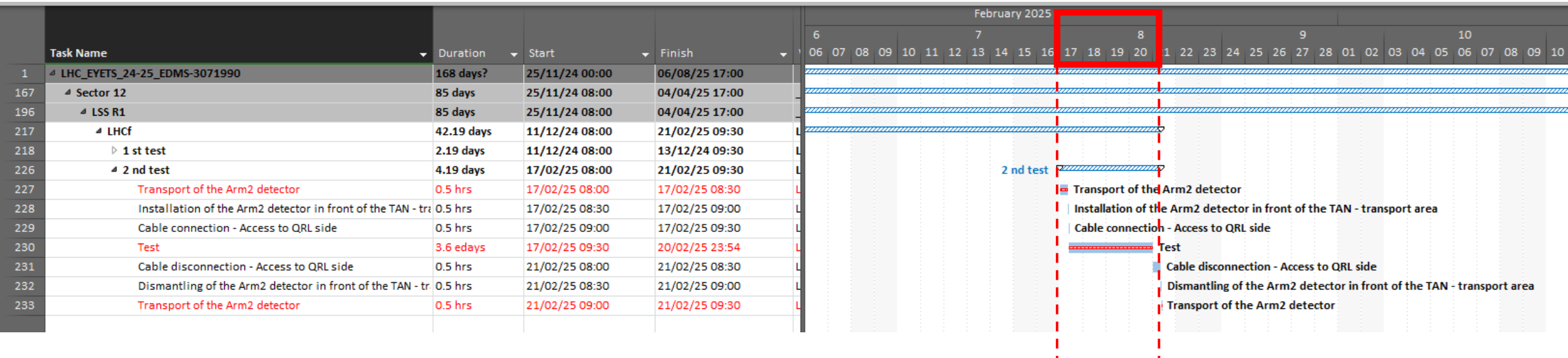


LHC Eyets 2024-2025 schedule

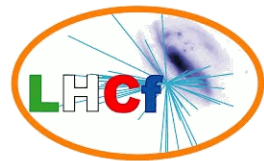




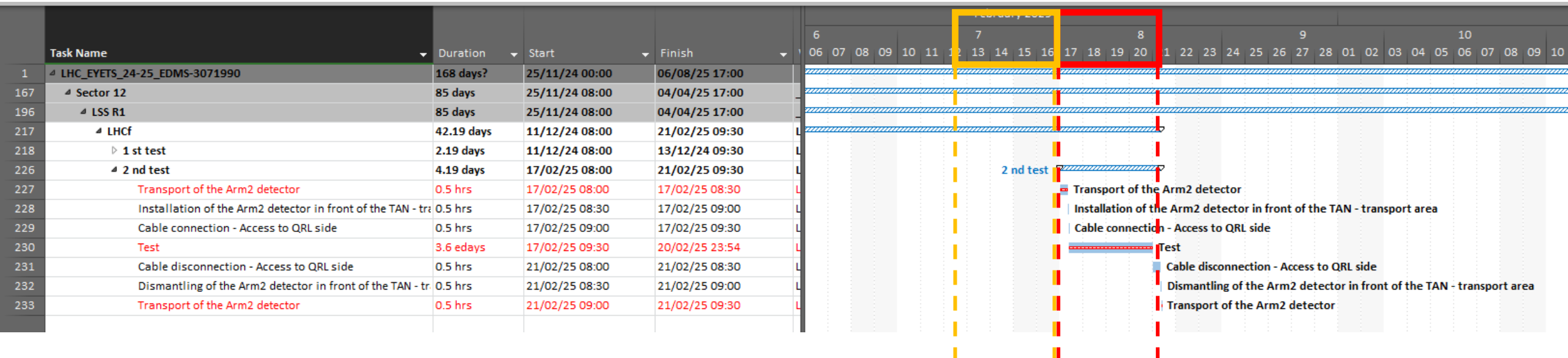
LHC Eyets 2024-2025 schedule



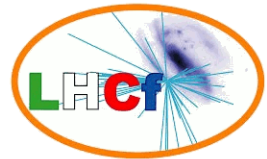
- LHCf activity in the LHC tunnel is already scheduled in week 8 (Feb. 17-21)
 - Both installation in the LHC tunnel and cabling/test works in USA15



LHC Eyets 2024-2025 schedule



- LHCf activity in the LHC tunnel is already scheduled in week 8 (Feb. 17-21)
 - Both installation in the LHC tunnel and cabling/test works in USA15
- The LHCf team will arrive at CERN at the beginning of week 7 (Feb. 10-14)
- I would like to request the access for both weeks (from Feb. 12 or 13)



ToBeDone

- **IMPACTS** (for USA15 and LHC TNL)
 - Contacts with logistics and ATLAS/ZDC
 - Others?
- **Permissions**
 - Work on QRL side at TAN: to be requested
- **ODH detector**
 - To be requested (in Dec. we had two, provided by the James Devine team)
- **Arm2 detector**
 - A place to store it from February until June has to be identified
 - The detector is classified as radioactive, even if the activation has an extremely low level
 - It must be easily accessible for the LHCf team
- **Problems with air conditioning in storage barrack 6112**
 - Suddenly it stops working (we have to switch off and on again to restart)
 - Contacted the ATLAS tech coord
 - The two barracks will be included in the annual service plan, but currently I suppose no repair was done