

TS2 preparatory meeting

A.Tauro



General information

- LHC-TS2: Monday 17th September at 6:00 (beam off) to Friday 21st September @17h00 (machine back to OP, ready for commissioning after TS).
 - **Cavern access: from Mon 9:00 to Fri 16:00**
- Magnets and RP search:
 - RP check: Mon 8:30 - 9:00 → Adam
 - Magnets already off
- TE-EPC interventions:
 - Visual inspections on ALICE Solenoid and ALICE Dipole converters
 - Take oil sample on ALICE Solenoid transformers
 - **Restart both magnets Friday at 12:00 PM**
- Access mode: **automatic restricted (with token)**
- No visits allowed in the cavern

Access restrictions

- Underground lift (AS-724) maintenance Wed 19th from 6:00 AM to 8:00 AM → no access underground.

Detector activities 1/3

- TPC:
 - ALTEAD+TC: install winches inside Miniframe – Monday AM
 - Swap ROCs inside Miniframe – Monday to Wednesday (need help ALTEAD)
 - Check TPC services in view of disconnection in winter (LS2 start) – Tuesday before lunch
 - Check 2 RCU2 partitions (A13 and C10). Replace RCU2 card if necessary – Wednesday (RP sample needed)
 - Wiener PS cooling check (Rack I25 module 5). Philippe Bouvier
 - TPC laser: general check of both lasers
- FoCal:
 - Install mini-FoCal in the mini frame → work inside the Miniframe will start on Monday 18:00
 - Install the Front End boards below the beam pipe
 - Routing the cables from mini-frame to the ground floor, connect to the Power supply
 - We use A13 patch panel for the data transfer and control, and DAQ PC will be located in R3
 - Install air cooling hoses (ALICE TC), hook them to the PMD cooling
 - Ask to **ramp up L3 on Wednesday 18h00 for the night**
- AD:
 - Measure and take some photos of the new material between the IP and ADA (TPC chambers and miniFOCAL)

Detector activities 2/3

- SSD:
 - LV crates and cooling plant (mainly pressure regulators) maintenance
 - Check SSD cables and hardware inside the L3 magnet to try to recover and old problem with hl_C_515
- TRD:
 - Check power supply (already done?)
 - EP-DT (gas): replace the copper catalyzer material of the purifier cartridges
 - Replace MUX
- TOF maintenance during TS2:
 - DRM09 to replace
 - DAQ link DRM31 to fix
 - Inspection of crate-cooling tubes in view of LS2
 - Replace broken turbine with Philippe
- V0:
 - Access V0 FEE in order to install the new V0 FEE firmware needed for the Pb-Pb run later this year

Detector activities 3/3

- EMC/DCA:
 - Change 10 FECs on EMCAL/DCAL which should require 2 or 3 half-day work. Would like to join the other groups who are going to work inside L3 with their watchers
- PHOS:
 - Cooling plant maintenance (add 22I C6F14)
- MCH:
 - Set a DAQ test bench for noise measurement with new electronics and new LVPS
 - Fix location of SOLAR crates for Stations 1 and 2
 - Change some slats of station 3, to improve tracking efficiency
 - Nacelle not needed
- MTR trigger electronics maintenance:
 - Installation of spares of MTR decision electronics cards; Check few FEE cards (need to open one half plan of MTR)
 - Nacelle not needed

EN activities

- EN-CV:
 - SPD cooling plant fittings replacement – Tuesday (RP check foreseen on Monday)
 - SDD/SSD cooling plant flowmeter replacement – will not stop the cooling – Tuesday (RP check foreseen on Monday)
 - Maintenance ‘pompe relevage eaux claires’ in the cavern
- EN-EL:
 - Power up O2 transformers (Monday), then lockout transformers and start cabling between transformers and power module
 - Test TWIDO PLC for UX25 lighting
 - Maintenance UX25 lights
- EN-HE:
 - Modify cavern crane (PR-774) fence to ease its removal (to be discussed with Klaus)
 - Cavern crane will not be put in operation
- EN-SMM:
 - Check RADMON D12 inside miniframe

EN-CV: cooling towers (SF) noise test

- In order to measure the impact of the P2 cooling towers on the acoustic noise, it is foreseen to vary the set-point of the cooling towers during TS2.
- Provisionary test schedule (under approval cryo):
 - Test 1 : 6 tours a 100% en ventilation : risque d'abaissement de la temperature de l'eau a $\sim 19^{\circ}\text{C}$ (si etendu la nuit risque de descendre a 16°C)
 - Test 2 : 5 tours a 100% en ventilation : risque d'abaissement de la temperature de l'eau a $\sim 19^{\circ}\text{C}$ (si etendu la nuit risque de descendre a 16°C)
 - Test 3 : 4 tours a 100% en ventilation : risque d'abaissement de la temperature de l'eau a $\sim 19^{\circ}\text{C}$ (si etendu la nuit risque de descendre a 16°C)
 - Test 4 : 6 tours a 66% en ventilation : risque d'abaissement de la temperature de l'eau a $\sim 19^{\circ}\text{C}$ (si etendu la nuit risque de descendre a 16°C)
 - Test 5 : 6 tours a 40% en ventilation : risque d'elevation de temperature de l'eau en gardant une limite a 26°C
- Risk to drift primary water temperature (16C to 26C, normal value is 24C).

Other activities

- **DCS will do its usual maintenance and backup on the Monday morning (from 09:00 till 12:00, probably less if all goes well), no DCS available for that period.**
- Confined space course Mon PM (5 people in total)
- Visits related to LS2 preparation:
 - ALICE TC: visit UP25 MAD to prepare dismantling: Monday at 14:00
 - ALICE TC: inspection inside L3 to check backframe cables: Tuesday at 9:00
 - ALICE TC: VIC removal compensator magnet services: Tuesday at 14:00 (both UX and LHC)
 - TE-MSD: inspection compensator magnet on Thursday morning
 - EN-EA: various inspections to verify cable routing
- BE-ICS: SNIFFER + SG2/CR5/UX25 gas detection inspection (Monday)
- BE-ICS: PAD/MAD maintenance

GCS supervision upgrade

- Please note that there is supervision upgrades planned for GCS LHC Experiment systems. The upgrade should take less than 2 hours per project and will only invoke some short User Interface disruptions:
- **Tuesday** morning, 18th of September: **ALICE** and **CMS**
- **Thursday** morning, 20th of September: **ATLAS** and **LHCb**

L3 access

Watcher in **bold**

	Mon	Tue	Wed	Thu	Fri
AM shift (8:00 – 12:30)	-	-	TPC	-	-
PM shift (13:30 – 18:00)	TOF	-	TPC	-	No access