

Minutes of the COMPASS TB meeting

5th May 2020

S. Levorato

May 11, 2020

Attendance, remote vidyo only

Alain Magnon, Antonin Kveton, Benjamin Moritz Veit, Christian Driesblech, Daniele Panzieri, Franco Bradamante, Fulvio Tessarotto, Gerhard Mallot, Igor Konorov, Jan Michel Fredrich, Jens Barth, Maxim Alexeev, Marcin Ziembicki, Michela Ciosso (partial attendance), Norihiro Doshita, Oleg Denisov, Shuddha Shankar Dasgupta, Stephane Plachkov, Vladimir Anosov.

Report on COMPASS status and planning *S. Levorato*

- The meeting starts illustrating the status and the planning for the COMPASS experiment within the COVID-19 CERN SAFE MODE scenario.
- The CAEN module delivery from the EDH 7868998 is nearly complete. The last 7 A1538D modules are being delivered. Due to the EPOOL closure the modules will be brought to the EPOOL as soon as it reopens for the inventory registration in the CERN module inventory DB and the full EPOOL approval test chain.
- Only the W45 replacament of the HV modules have been agreed with Christophe and the TC. Christophe has labelled all the W45 cables in agreement with the DCS channel mapping. MW1 labelling is ongoing. The TC remarks if any detector responsible/expert agrees other(s) mainframe(s)/HV Module(s) may be replaced and cables labelled.
- The Alcatel 2100A (Evacuation pump) pump broke at the second restart after the repair (September 2019) performed last year under the supervision of Frank Monnet. F. Monnet reported in a phone call to the TC that already during last inspection before the repairing some weaknesses were noticed. After this last accident he suggests to go for a new pump. A new pump has been bought, after the agreement with the RC: The Pfeiffer Vacuum (DUO 125) has been chosen after the PT expert consultancy. The delivery foreseen for end of June. The TC will try to have the Alcatel 2100 pump repaired at no cost from the 40-30.com company, the pump will be kept as spare.

- The TC reports about the services needed for the progressive restart of the activities, in particular for those related to the PT commissioning:
 - Helium Beam line recommissioning: Olivier Pirotte has communicated to the TC that the line has been reconnected in ECX5 (BA5) before it can be used again a pressure test i.e. a recommissioning of the line is needed. The operation may be to organized within one the month after the restart.
 - EP-DT group support for the PT Magnet commissioning: Giovanna Miotto has discussed the COMPASS requests internally of her group. No showstoppers or unavailability to start the MCSS commissioning at room temperature and complete it in cold mode have been identified.
 - Chilled water availability: Jani Lehtinen has communicated to the TC that in order to finish the consolidation projects of the NA cooling towers and chilled water station, including water restarts, 6 weeks are needed from the moment when the operation on site will be possible, including the presence of contractors involved. If this will be possible from the beginning of June chilled water should be available from mid-July to Christmas break without stops.
- In agreement with the TB feedback on the request of flammable gases availability during the mid November to mid December dry run, no flammable gases will be available during the dry run.
This choice will allow the flammable gas system renovation to proceed during the whole dry run. New sensor type will be installed, a new beacon/siren will be placed in the gas mixing area and the renovation of 908 gas storage with centralized control/monitoring of gas distribution will be performed.
- The HV power supply status for Micromegas has been clarified thanks to the help of Damien and Stephane. The detectors to be operational are missing for the 2020 dry run and for the 2021 run a low voltage PS unit OPO40155 by Wiener and 4 modules CAEN A1821N. All the modules are available et the EPOOL now. The total renting cost is (41 + 4×39)=197 CHF/month.
- The first delivery of 250 Kg of C_4F_{10} have been delivered to CERN.
- The RW MDT storage will not need to be moved due to the crane rail renovation. A protection will be built to guarantee no damage may occur during the rail exchange operations. The support for the MDT testing already build and locate at the very end of HN2 has to be displaced.
- COMPASS will soon be integrated into the the Intervention Management Planning and Coordination Tool (IMPACT) of CERN. The integration was already planned but the TC received a strong request by the EP-Safety group after the COVID-19 outbreak. M. Veit remarks that all

operations will require an IMPACT, the TC replies he is trying to have COMPASS integrated in IMPACT to minimize the repercussions onto the experimental activities.

DAQ hardware development *I. Konorov*

DAQ software development: status update *A. Kveton*

- The inconsistency of calibration information between run logbook and CORAL-retrieved database observed by Vincent Andrieux and Yann Bedfer has been identified and fixed by synchronizing the database manually. The origin of the problem has been identified in a power cut in the Freiburg barrack. The de-sync persisted for nearly two months. An e-mailer warning has been implemented to notify COMPASS DAQ admin e-group in case the de-sync will happen again.
- CERN IT department notified the potential security breach due to an open MySQL port on COMPASSVM03 used for replicating MySQL Database to external to CERN network computing centres of the COMPASS collaboration. The automatic MySQL data replica has not been used in the last weeks. As agreed with CERN IT the port will be closed in one week after May the 5. Manual syncing will stay possible and has to be used from the moment the MySQL port will be closed.
- The non working COMPASS Note has been fixed, problem traced back to a change in the AFS credentials.
- Start of run scripts rework is ongoing, details at https://indico.cern.ch/event/863068/contributions/3766017/attachments/1997171/3332405/kveton_daqs.pdf
- DAQ WS will be detector experts responsibility as suggested by Prof. Igor Konorov.
- DAQ API Libraries has been created.
- Martin Bodlak has develop and implemented Data Generator and Data Browser.
- Martin Bodlak communicated that HLT prototype has been prepared.