



Summary of the 17th FOM Meeting

Held on Tuesday 18th July 2017

Agenda (<https://indico.cern.ch/event/653667/>)

1. *Follow-up of the last FOM*
2. *Status of the machines*
3. *Schedule update*
4. *AOB*

1. Follow-up of the last FOM

B. Mikulec chaired the meeting.

The list of presence can be found in [Annex 0](#).

The [minutes of the 16th FOM](#) were approved.

2. Status of the machines.

Linac2 & Linac3

G. Bellodi reported the status of the linacs.

Both linacs had a very good week. Linac2 had 100% beam availability. For Linac3, only a couple of source resets were needed and there was an intervention to exchange a MEBT quadrupole power supply module.

LEIR

S. Jensen reported on the LEIR status ([Annex 1](#)).

It was an eventful week for the LEIR. On Wednesday, there were few issues with quadrupoles and they had to switch again from the CRF43 to the CRF41 cavity (expert investigating). On Friday, powering cables of ITE.BHN30 and ITE.BHN20 were found cracked and LEIR was then switched to standby mode over the weekend. Cables were replaced on Monday.

L. Germain-Bonne said that they would require a 10 minute visual inspection of the cable during the week.

PSB

V. Forte presented the status of the PS Booster ([Annex 2](#)).



It was a very good week with 99.8% availability. The tune measurement issues on R1 and R2 were solved. The residual noise on the BPMs in the BTP line will be investigated by BI during the next technical stop. The increase of activation at BHZ52 is not explained yet and moving a BLM closer to the area would certainly be necessary to get a better understanding. The new BPM system is under commissioning. There were recurrent issues with the R3V and R2V wire scanners. **A 1 hour intervention is needed for the R2V** (to be scheduled). The BCMS 1.5 eVs beam is being prepared. The list of the different MDs performed over the week was given.

ISOLDE

E. Siesling reported the status of ISOLDE ([Annex 3](#)).

It was another very busy week at ISOLDE. With the production rate of the radioactive molecular beam $^{72}\text{SeCO}$ being too low to continue the run last week it was decided to do an (unplanned) target change. On Wednesday morning the new target was clamped onto the GPS front-end.

The complicated radioactive molecular beam ($^{70}\text{SeCO}$) is generated in the GPS target, transported to the REX-TRAP and the REX-EBIS where the molecule is broken up and the charge state of the Selenium boosted to $^{70}\text{Se}^{17+}$ before accelerating it to 4.5 MeV/u in the REX and HIE linac. By Thursday evening the radioactive ^{70}Se beam was sent to the Miniball users.

Overnight they then saw a large amount of Germanium contaminant in the beam ($^{70}\text{SeCO}$ and ^{66}GeS are at the same mass) and Miniball decided to change to ^{66}Ge instead with the ^{66}GeS beam being as exotic as the original $^{70}\text{SeCO}$. The radioactive $^{66}\text{Ge}^{16+}$ is being sent to the Miniball experiment since Friday afternoon.

The machine (specially the REX-TRAP, REX-EBIS and the REX/HIE-ISOLDE linac) has been very stable during these days. Small hick-up of the IHS RF amplifier in the REX linac part and an issue with the isolating transformer for the GPS HT platform (target heating went down) apart from very few RF amplifier trips and the line heating going down once.

The target production rate of the molecular beam expectedly decreased since Friday (to a factor 2 this Sunday evening), but with some re-optimizing over the weekend the number of particles per second seen at the experiment was brought back up. The Miniball users are very happy.

ISOLDE Users

K. Johnston said that the second HIE ISOLDE run was more successful than the first. The beam of interest was ^{70}Se , but for the second week in a row, the production of this isotope was low. There are some technical issues yet to be understood about why Se beams are apparently so difficult to produce now, when they were relatively strong a few years ago. Although ^{70}Se was weak, a comparatively strong ^{66}Ge beam was seen, which had neither been studied nor post-accelerated previously. This isotope displays many of the same properties as ^{70}Se – such as shape coexistence – and the physics program was adapted accordingly. Coulomb excitation of this isotope ran from Friday till Tuesday morning. The users are pleased with the data collected and appreciate the excellent efforts of all the ISOLDE technical teams from operations to the target team ensuring that the second (unplanned) target was produced and put online to allow the experiment to happen.



PS

I. Efthymiopoulos reported the status of the PS ([Annex 4](#)).

It was a very good week with 99% availability. The list of produced beams and MDs performed over the week was given. The only three blocking faults were related to the quadrupole F16.QFO215 and to the C76 cavity. The nToF delivered integrated intensity is well on schedule.

East Area

J. Bernhard said there was nothing special to report.

East Area Users

H. Wilkens said it was a very good week with a record integrated intensity thanks to the very good availability of the PS. Users in T9 have completed their 6 week run and will move out of the beam line today.

nToF Users

F. Macina said that everything went fine. Thanks to a relaxed cool-down time, they will profit from 2 additional physics weeks at the end of the year (draft program to be approved).

AD - ELENA

L. Jorgensen reported the status of the AD. It was a very good week. The intensity was degraded due to an issue with the stochastic cooling, which was not optimum. On Thursday the cryogenic current comparator went down. **A 1 hour stop will be required for investigations.**

The ELENA extraction line to GBAR was being baked out and it induced a pressure increase in the AD such that the valves around sector 3 had to be closed. They will see if it entails a lifetime decrease of the H-.

AD Users

H. Wilkens said that the ATRAP experiment is still warm (cool-down expected towards the end of the week). Beam time this week was rescheduled to ASACUSA and ALPHA.

SPS

F. Velotti reported the status of the SPS ([Annex 5](#)).

The availability was 83% over the week and mainly influenced by the fault on the 18 kV (22 hour stops) and many short faults on the RF. The 18 kV fault induced damages on the SMD12 bucket network that was repaired by EPC experts on Wednesday night. The issue with the XTAX.021-023 that



was stuck caused a reduced intensity for the whole Tuesday night for T2 and NA beams. The list of performed MDs was given.

North Area

J. Bernhard reported that portable ODH/CO2 detectors and two persons are now mandatory for patrols in PPE132, PPE142, PPE152, PPE124, and PPE148 (all in EHN1), see [EDMS 1827690](#). He then thanked the SPS-OP team for the better steering on the splitters and T4 where losses led to a background outside of the useful spot on T4. This led to a lower transmission towards the T10 target, which is now back at the expected value.

North Area Users

H. Wilkens said that even if less good than previous ones, it was still a good week.

HiRadMat

There was no report.

AWAKE

There was no report.

LHC

Karel said it was a difficult week for the LHC. The issue with the RF coupler is now more or less understood. They were starting intensity ramp up. The LHC was off all day yesterday due to a short circuit on temperature sensor electronics.

TI

R. Ledru said that the main problem of the week was the 18 kV fault with the electrical breaker "EMD212/BE", which prevented the restart of the SPS and LHC. After 24H of investigation, a wire was found pinched inside the breaker.

3. Schedule update.

B. Mikulec presented the injector schedule version 1.2 ([Annex 6](#)).

The LHC MD2 block is scheduled on next Monday-Tuesday. There is this week a dedicated MD in the SPS (no beam to the NA). **D. Macina** said that they will perform calibration in nToF tomorrow from 9.00 to 16.00 and will therefore not request beam during that period.



As the 1 hour stop for the AD and the PSB is not urgent, it will be scheduled on short notice whenever another machines have unexpected downtimes.

4. AOB

The [beam request for the LHC MD](#) was provided by **M. Solfaroli** (only standard beams).

The maintenance of the access point YEA01.SWY=151 from Wednesday 19/07 - 08.30 to Thursday 20/07 - 17.00 was approved.

Next Meeting: Tuesday 25th July 2016.

Minutes reported by [JB. Lallement](#) on 20th July.