

## Accelerator complex status

### End week 12 (Sunday 27<sup>th</sup> March 2016)

#### TI (Jesper Nielsen)

<https://wikis.cern.ch/display/TIOP/2016/03/21/TI+summary+week+12%2C+2016>

#### Booster (Klaus Hanke)

No major faults during the week. Some problems with the transverse feedback required intervention of the specialist, and will require more work during this week. The Linac intensity has reached reasonable levels and allowed us to continue setting up of our beams.

Further to the beams already prepared and sent to the downstream machines, work focused on setting up the MTE beam at nominal intensity, the EAST beams as well as the AD beam.

LHC PROBE was delivered to the LHC on Friday morning.

#### PS (Guido Sterbini)

It was an overall good week for the PS mainly focused in increasing the MTE intensity and re-establishing the septum 16 shadowing after its replacement during the YETS15/16. The MTE intensity is above 1500 ppp. After the repositioning of the septum 16, the extraction of the LHC beams and of TOF were optimised. TOF is running above 700 ppp.

On the downside there were issues with the cavities, in particular C40, C80 and C200. To repair the C80-89 and access in the ring was needed (3h 30 min downtime). In addition to that, the septum 16 power converter had to be reset several times (~3 times/day) all along the week. Part of the problem was due to communication issue with the control card (EPC piquet was called whenever the fault was not resettable) and due to the poor vacuum level when particle intercept the septum blade (the converter trips when the 1e-6 mbar level is reached). The experts are informed and the issue is going to be monitored in the following days.

During the week-end AD and EAST commissioning started (EAST+TOF was injected and AD was accelerated at top energy with reduced intensity, ~400 ppp).

#### SPS (Karel Cornelis)

SPS continued setting up the beams for LHC and FT. The slow extraction of the fixed target beam was commissioned with a low intensity 2 micro second beam. The extraction channel could be aligned after some initial problems with the motor control.

The LHC pilot transfer to the last TED's started in the beginning of week. There was a big struggle to get the beam past the first set of dipoles in TT60 after the TED. The problem turned out to be wrong calibration on RBI6104. The DAC calibration, as well as the DCCT and FEI DCCT seemed to be equally wrong so that the current error could only be detected in the tunnel with a current measurement clam. Once this calibration error was solved, beam could be send down to the last TED's and the pilot beam was successfully used during the Easter weekend for LHC commissioning.

The 25 nsec beam was ready by Thursday and was used during the weekend for scrubbing. Initially there was an intense vacuum activity in the regions where magnets were changed and also on MKE4, even with 12 bunches. By the end of the weekend, we were able to inject 4 nominal batches without any interlocks.