

Accelerator complex status

End week 23 (Sunday 7th June 2015)

TI (Peter Sollander)

Here's the TI summary,

<https://wikis/display/TIOP/2015/06/03/TI+summary+week+23,+2015>

Not many major events this week until Friday with the thunderstorm and the LHC RF Faraday ventilation stop.

Quite a busy week judging by the number of calls of the week.

Booster (Alan Findlay)

The PSB started to get that summer feeling this week, as with many small niggles and hiccups she began to look like she could do with a summer holiday! Since we refused to sign her leave slip, we had to work our way through the various problems.

The Q Strip power supplies (above all R4 & R2) and a couple of supplies in the extraction lines have failed many times during the week, usually just requiring resets, but we had to call the piquets a few times too and the problems were hard to identify. A thermal overload on the R4 Q Strip supplies was finally identified but this supply failed again later and an interface card was changed. It doesn't seem like the solution has yet been found.

As we are now pushing up the intensity for ISOLDE, we started to notice that we had an occasional loss on R4 at a random time during the acceleration, but checking all the usual stuff drew a blank. The shape of the loss suggested a transverse problem, so we started to use our recently commissioned and still being de-bugged C3PO (Co-ordinated 3 Plane Observation) to try to observe in H, V & longitudinal to see if the loss indeed started in the transverse. By Saturday Celine had managed to catch a screen shot that looked like we could see the instability building in the H & V planes, so we'll contact the TFB specialist to check this on Monday. We now have 3550E10 extracted and are slowly building this up.

The LHCF_INDIV beam for, you guessed it, LHCF was sent to the PS over the weekend and seems to be OK, although the single ring 2E10 intensity we send was difficult for them to measure transversely.

There were quite a number of glitches and equipment failures that cut the beam during the week, but the team got the beam back in good time.

PS (Jakub Wozniak)

It was a quite good week for the PS with a small number of relatively short interruptions.

On Tuesday night we had problem for the TOF beam of 30 minutes coming from the booster Ring 2 (BR2.QCF, power).

On Thursday night 50 minutes of downtime come from the Ramses monitors faults.

During Friday PS suffered from the intermittent 10 MHz cavities problems finally leading to the intervention to unjust the tuning interlock threshold. This caused a total downtime of around 2h30min.

The EAST was affected also by the SMH57 temperature interlock.

At night the same day there was an electrical glitch that required a reset of multiple equipment causing problems for 1h.

That was followed by a PSB Q-strips problem with 40min of downtime.

On Saturday night we suffered from the PSB ejection kicker ring 2 on fault and kicker FEC problems with a total of 3h of downtime.

Today night again the Q-strip for ring 4 problem from PSB provoked a downtime of 1h45m for LHC & SFTPRO beams.

Otherwise PS has produced all the demanded beams in particular the EAST, TOF, SFTPRO_CT, LHC PROBE/INDIV and LHC50ns6b beam this weekend.

SPS (Karel Cornelis)

The week started with a three day's scrubbing run. Mainly the high intensity (1.8 E11/bunch) 25nsec beam was used. The scrubbing had to be suspended a few times in order to let cool down the MKP4. On Tuesday evening there was a problem with the MPS. A faulty voltage reference was sent out causing a 100A error at the end of the ramp. The cards were changes and everything came back to normal.

Fixed target beam was re-started on Thursday morning. The tunes of the FT cycle had to be corrected at the start of the ramp. The reason for this change is not clear, but the cards that were changed on the MPS could be a possible reason. A faulty quadrupole power supply at the beginning of TT20 had to be replaced and the north area only received beam at noon on Thursday.

On Saturday morning there was a problem with a front end controlling the RF. For the LHC filling, RF parameters had to be introduced locally by RF experts. After the LHC filling the computer was repaired.

A problem with a NimBin power supply in the faraday cage caused a 30 min stop on Saturday afternoon