

## End Week 42 (October 21st 2012) – Status of Accelerators

### Statistics

nTOF: <https://espace.cern.ch/be-dep/OP/PS/default.aspx>

CNGS: [https://accstat.web.cern.ch/accstat/statistics/charts/2012/SPS/CNGS\\_Target\\_Cumul2012.jpeg](https://accstat.web.cern.ch/accstat/statistics/charts/2012/SPS/CNGS_Target_Cumul2012.jpeg)

LHC: <http://lhc-statistics.web.cern.ch/LHC-Statistics/index.php>

### TI (Peter Sollander)

TI summary for the week: <http://wikis/display/TIOP/2012/10/22/TI+summary%2C+week+42+2012>

Good week without many faults.

Friday, October 19	<ul style="list-style-type: none"><li>• 05:28 -- Cryo lost communication with a WorldFip element. BE/CO and EN/ICE called. Access to RE82 to replace a worldfip repeater.</li><li>• 17:45 -- CMS cooling problem. Intervention by CV.</li></ul>
-----------------------	---

### AD (Joao Carlos Oliveira)

Nothing special to say for the AD. The week was calm.

We had only a problem with a power supply in ASACUSA line. It was looping OFF/ON.

### ISOLDE (Erwin Siesling)

#### GPS:

In standby. Target valve on #484 UC cannot be closed and hence target change could not be performed. As you know we suspect the electrode to be stuck in outer position.

ALARA has been approved last Friday. Intervention today (monday 22nd). First uncoupling the target, then visual inspection and removal by robot if possible. Also surveyors scan of the front-end with uncoupled target to define the exact position of the electrode if possible.

We will keep you posted on the outcome.

#### HRS:

Long run on the #490 UC target due to obvious re-scheduling with the GPS out of order.

Last Tuesday setting-up of REX plus RILIS ionization of  $^{72}\text{Zn}$  was done in a record time (with great help of my colleagues here at ISOLDE) and the Miniball users have been taking the Zn beam smoothly until Saturday morning when the cooldown started to prepare for a HRS target change (before GPS intervention this morning). Saturday afternoon Miniball took stable Ne from EBIS for calibration and we changed HRS separator to 50kV for  $^{238}\text{U}$  stable beam tuning for ISOLTRAP.

Issues: Monday-night 15 Oct one of the two blowers in the 7GAP3 amplifier unit broke causing an air interlock and stopping REX from running. The RF team work hard on Tuesday and by the afternoon the machine was back up again. Many thanks! The blowers are quite special and luckily Vince could recuperate the one from the ex-RFQ unit.

## **BOOSTER (Jose-Luis Sanchez Alvarez)**

The PSB had a good week, with 4 major issues:

Wednesday: No beam for Isolde during 1h. BTY.QFO153 tripped. The piquet firstLine called.

Thursday during the Night, cavities 16 were down due to a breaker (intervention of the specialist needed, Downtime: 45min).

Friday afternoon, PSB was completely blind, impossible to read the rings BCT. Eventually, Specialists and piquet CO found the timing BEX.WPOW missed in the front-end (DPSBBDR).

Saturday, after the failure of the LINAC2, the BOOSTER MPS has fallen and it was hard to get up. The Piquet EPC intervened (Downtime: 3h).

## **PS (Jakub Wozniak)**

It was a good week for the PS with only minor disturbances.

Currently the biggest issue is PFW GFAs - sending a function perturbs next user in the cycle. This problem persists and it is being investigated.

On Monday night we had 2h47min of downtime due to problems with booster injection, Septum SMH42 was not pulsing due to wrong timing cable manipulation. On Tuesday LHC/AD/EAST beams perturbed for 30min due to switch off of the two dipoles PR.DHZ15-OC & PR.DHZ60 after the MD. On Wednesday night there were problems with Linac2 for 40min.

On Thursday the PFW problem happened again giving perturbations on TOF and we had POPS down due to a IGBT fault for 1h20min.

In the afternoon we did the Dirac cross calibration F61.MSC01 with F61.BCT01 with a bunched fast-extraction beam and this calibration was adjusted during the week.

On Friday evening and during the weekend we had no beam from booster due to comparators problem, booster MPS on fault and Linac2 issues giving around 12h of downtime in total for EAST beams.

## **SPS (Django Manglunki)**

Pretty good week for the SPS which served lots of users: LHC, North Area, CNGS, HiRadMat, UA9, and a collimation MD.

On Monday 15/10, there was an hour beam stop to repair TRX1 & TRX2 which had failed during the week-end.

On Tuesday all afternoon from 13:00 to 18:15, the LHC beam was unstable because of a problem with the transverse damper. It was due to a fiber link transmission which "restored itself at 18:14 without knowing why the link had been down"

From Wednesday 07:00 until Thursday 07:00 the SPS was mostly doing coasts at 270GeV/c for UA9, interrupted only once for LHC filling, but the mains tripped at each supercycle change.

On Thursday from 7:00 to 17:00, there were 10h of collimation MD programmed, but it stopped a bit earlier because of the LHC filling.

On Friday the PS/RF went back to original longitudinal settings for

LHC50 beam: less population of the satellites, as the global LHC luminosity was suffering.

The week-end went OK apart from problems in the pre-injectors (POPS, PSB & Linac2) Today, Monday 22/10, is taking place the MD previously foreseen for Tuesday 23rd.

## LHC

Good week overall – 1.2 fb<sup>-1</sup> delivered

<http://lhc-commissioning.web.cern.ch/lhc-commissioning/>