

## End Week 6 (February 10<sup>th</sup> 2013) – 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)

One major event for the SPS where a PLC caused a 3 hour stop of the demineralized cooling in BA5.

<http://wikis/display/TIOP/2013/02/05/TI+summary%2C+week+6+2013>

### LEIR (Christian Carli)

LEIR has provided the required beams with good performance over the whole week; slight reduction of available intensity over the last week-end. Only minor technical problems have been encountered (one of the main quadrupole power converters, B-train crate ..) causing brief downtimes.

### PS (Simone Gilardoni)

The PS had a very nice week without any serious issue.

We delivered the beams for ions and proton physics whenever requested. There are only few minor things to mention.

On Wednesday the RF experts could identify one of the reasons of the missing ion pulses, particularly deleterious during the LHC filling. The relay that switches ON and OFF the sensitive pickup for the protection of the low-intensity beam control was not acting correctly. This was the cause of the intermittent beam losses at the beginning of acceleration. The event, though, was pretty rare, causing few pulses missing during few hours.

Since Thursday we resumed the Hybrid-MTE tests, thank also to the fact that ABT accepted to leave the CT elements available until the end of the run. We are using a pencil like-beam at low intensity to avoid losses.

On Friday we switched to a new extraction bump for the fix target ion beam.

This change, as for protons before the Xmas break, was done to test a new extraction bump closure by removing one of the high-energy correctors. The detailed analysis of the beam performance will be done later, but on the operational point of view the beams looks very similar to the one with the old extraction.

Always on Friday we finalised the recovering of the proton beams requested for the LHC physics run.

We also delivered high intensity single bunch LHC-type beam to the SPS for MDs.

### SPS (Django Manglunki)

A pretty good week for the SPS, delivering p and Pb beams to the LHC, and Be (from fragmented Pb) beams at 13A GeV/c to the North Area. During the whole week, machine developments took place with protons for impedance localizations, and with Pb ions on debunching to prepare for the primary Ar run in 2015.

On Wednesday at 12:45 the main power supply tripped due to a water fault, caused by a PLC communication problem. (3h11' downtime). The switch to SMD1 was thus delayed and still needs to take place next week.

On Friday, the 50ns proton beam was prepared in order to be ready for the 1.38TeV p-p LHC run.

On Sunday morning the LHC Pb-p run finished. The SPS prepared the INDIV proton beam and started delivering it to the LHC in the afternoon.

## LHC

Rocky start with losses in squeeze following direction change. Things settled down well and eventually over 30 nb-1 delivered to ALICE, CMS and ATLAS by Sunday 06:00.

NB: Run extension granted Wednesday evening – this week (7) proton-proton at 1.38 TeV until Thursday morning followed by quench tests until ~06:00

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