End Week 38 (September 23rd 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

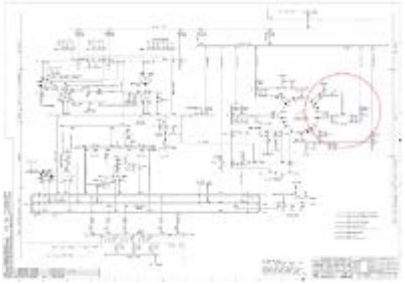
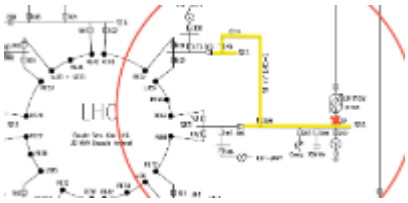
LHC: http://lhc-statistics.web.cern.ch/LHC-Statistics/index.php

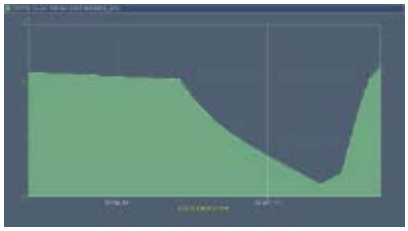
TI (Peter Sollander)

http://wikis/display/TIOP/2012/09/19/TI+summary,+week+38+2012

Technical stop = busy week for TI !

More than 1600 phone calls over the week! That's more than double that of the previous weeks.

day	events
Wednesday, September 19	• 04:50 -- Power cut LHC points 5 and 6 18kV machine networks. The 18kV breaker downstream the 66/18kV transformer at point 6 tripped. The reason was found to be a faulty electronic board for the protection. Point 5 is supplied from point 6 so it went out as well. Cryo stopped, CMS stopped, cooling and ventilation etc etc. Luckily Cryo has plenty of time to recover until the machine starts again Friday afternoon and the CMS magnet was already ramped down for the technical stop and did not suffer from the power cut. An intervention to change the board will take place tomorrow Thursday 20/9 and will require to unload the transformer by temporarily switching the load over to the LHC general services 18kV loop.   • 09:00 -- Intervention on BEQ2 trips EHT2, one of the main SPS 400/18kV transformers. Human error where the people working on the compensator forgot to disable an interlock signal sent up to the supply breaker. EHT2 tripped and took out BA3 and part of the North Zone (pulsed network)
Thursday,	• 09:00 -- Intervention to repair faulty breaker EMD201/6E. Load switched to general

September 20	services loop during the intervention without any problem. During the inspection, EN-EL found that a bad contact was the origin of the fault. Problem solved and load switched back to machine network.  • 10:23 -- Meyrin air compressors trip off. During a maintenance job at the heating plant in Meyrin, the workers created a short circuit that blew a fuse and stopped the compressors. The fault was seen as a safety interlock and EN-EL could not switch power back on. Finally, the cause was found and we could switch the power back on just in time before the air pressure fell below the 6 bar limit that would have stopped all Meyrin water stations and accelerators. -- Good job EN-EL! 
Friday, September 21	• 11.00 -- While we are waiting for TE-EPC to switch back on the compensator at LHC point 2, there is a power cut in point2 that stops the cryo. First investigations point to an intervention by EN-EL-CO on a data acquisition module. It is not understood how this intervention could have cut the power, but the timing coincides... Further investigation necessary. • 11.15 -- TE-EPC restart the compensator. No impact on the Cryo because it is already down, but at least the compensator seems to hold up. • 15.43 -- Cryo cold compressor in point 8 loses power. No alarms on the the TI screens. We identify the breaker to be EQD109/85. EL piquet sent in. It turns out it was a 24V supply on the cryo side in the end. • SIG was supposed to put back in service a big (800MVA) transformer. This will very likely generate some perturbations that could trip the LHC compensators (filters). They finally called around 16.00 to say that they have to postpone until next week.

ISOLDE (Miguel Luis Lozano Benito)

It has been good week at Isolde. All experiments got beam according to the schedule.

No major issues to report.

Only one call from users because the target and line heating went down due to a vacuum spark. Beam was back after restarting the target.

AD (Bruno Dupuy)

It was a very good week for AD with no major problems.

48H Technical stop from Tuesday to Thursday morning

On Thursday morning a power-supply (FTA.BHZ9080) caused 4h of downtime due to an issue on capacitors connexions.

The extraction intensity was upper than 3.2E7 anti-proton by shot, and the bunch lenght is around 160 ns.

BOOSTER (Jose-Luis Sanchez Alvarez)

Good week for the Booster with only few issues.

The start-up after the technical stop was extremely fast. PSB delivered operational beam already on Wednesday night.

Thursday, the external patrol of Isolde was not valid: Fenced Area barrier missing.

Steve Hutchins was informed and followed-up the problem.

During the week-end, the downtime was 2h30. The piquet EPC had to fix 2 problems: QFO (Saturday,1h50) and the BTP.DVT40 (Sunday ,43min).

PS (Ana Guerrero Ollacarizqueta)

HI beams were switched off at 8:00am on Monday and on Tuesday all beams were off 15 mins in advance due to a trip of POPs (cooling problem). Beams were back round 11p.m. on Wednesday except for the EAST beams. A water leak in magnets ZT10/ZT11.BHZ01 was discovered at the end of the TS. After an intervention on the magnets on Thursday beams could be sent to T7 and T8 but the leak could not be repaired.We will have more news on Monday afternoon from the experts. During the TS IMPACT was used and the performance was correct with only minor issues. The restart was smooth and all beams except EASTA have been delivered.

SPS (Karel Cornelis)

No physics in the SPS from Monday to Friday. On Monday we had a 24hr MD, Tuesday and Wednesday was technical stop, and, on Thursday we had a 24hr UA9 run. During the MD, a fast extraction in lss2, using the proton inflector as extraction kicker, could be successfully tested. During the technical stop WS519 was repaired. After the MD on Monday, the ion chain was stopped and will stay off for several weeks.

On Friday physics was resumed. Since COMPASS is not running now, we have a very modest intensity of 7e12 protons on the FT-cycle. The weekend was pretty smooth. During the first fill of the LHC, a 7amp error was noticed on the MSI in 8. Experts will have a look at the function generator today.

LHC

Technical stop from 06:00 Monday 17th to 18:00 Friday 21st September. No beam all weekend – cryogenics point 8. Beam back in ~05:00 Monday morning.

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