

End Week 8 (February 27th 2012– Status of Accelerators

TI (Peter Sollander)

Rather quiet week.

<http://wikis/display/TIOP/2012/02/24/TI+summary+week+8,+2012>

Booster (Alan Findlay)

This was a fairly typical week of setting up, but with good results in a very reasonable time span.

We got our first beam into the PSB on Tuesday around 17H00, so we could start to get debugging with beam. By early Thursday morning the PS was ready to take a little beam, and we were ready to give it. Friday afternoon we had 4 rings of LHCINIV type beam almost up to spec, although with some fine tuning still to be done to improve the shot to shot intensity stability. Saturdays team produced the SFTPRO beam within the nominal spec, and then got a first version of the LHC50ns beam set up and delivered to the PS so they could start their tests.

I'd say that this was an excellent start to the run, but we've had the usual stack of problems to get this far. There are only a couple that are worth mentioning since they are ongoing, the first a communication problem with equipment in FEC cfc-361-ring after a renovation in the shutdown (was FEC DSPBINRG), this is suspected to be due to the MIL1553 bus. The PiCO was badgered all week about this, as it makes a dogs breakfast of the injection into the PSB, and so work continues. We also noted that having cloned a cycle and then re-mapped this onto a user, the working sets and working set launcher "missed" the update in the mapping keeping the old mapping. This meant we didn't know what cycle we were in fact working on, so had to call in INCA support. They could reproduce the problem, but since the specialist was on holiday until Monday, proposed that we close and restart all WS's and the WS launcher after each re-mapping.

So, a good start, but still plenty to do.

PS (Rende Steerenberg)

During the cold check out quite some small issues had to be solved of which some were related to none-optimal coordination of renovation activities between BI, CO and OP. Not all the information related to renovation seems to go through the ACCOR project, as it should, and therefore not all parties are aware of the changes. When something is changed on the hardware side we need to have a correct follow up at the higher level software side too. This time a few timing changes made it impossible to modify any RF timing anymore. Today patches are put in place to make it work.

Also RBAC caused some inconvenience on the access control system, as it logs out regularly, even in the middle of an access session. This is being followed up, but is not yet fully solved.

On Thursday morning the first beam of 2012 was injected and quite quickly accelerated and extracted. The SFTPRO beam with low intensity and single turn CT extraction was made available to

the SPS. The LHCINDIV beam setting up progressed well and will be take by the SPS for further orbit measurements today.

The PS will continue setting up the LHC type beams.

SPS (Karel Cornelis)

Last Friday at noon the SPS started to take beam on the fixed target cycle. Profile measurements with the SEM grids showed evidence for an obstacle at the end of TT10. The vacuum valve in position 102839 was the main suspect. The vacuum was opened and the valve turned out to be broken and part of the mechanism was sticking in the beam. The valve was replaced and on Saturday around midday the setting up with beam was resumed.

The beam was accelerated to 400GeV and the orbit measurements for the alignment were done. On Sunday the setting up continued. The quadrupole alignment will take place today.

LHC

Powering tests progressing well

- RBs fully commissioned in 12, 23, 56, 67, 78, & 81
- 6066/8087 tests completed
- Cryogenic conditions should be established by Tuesday 28th with some consolidation to follow in the following days.
- Number of miscellaneous issues to be resolved around the ring – no show stoppers.
- Start pre-cycle tests in S56 tonight (Monday 27th Feb.)
- Bake-out of TDI R8 ongoing. TDI L2 under pumping, to be baked-out later this week. Interventions (BRAN, ZDC...) to follow – around 3 days required.