

End Week 21 (May 27th 2012) – Status of Accelerators

ISOLDE (Miguel Luis Lozano Benito)

It has been a great week at Isolde.

GPS – Collections at LA1, GLM and beam for ISOLTRAP. Central beam line shared with HRS and REX setup. No problems.

HRS-REX - 72Kr for miniball (difficult run). This experiment had failed three times in the past and this year they got beam 24 hours before it was planned. The experiment is running fine and will take beam for another week.

Thanks to everybody for a wonderful and successful week.

Booster (Klaus Hanke)

Tuesday we were in MD mode with many participants from CERN and outside. There was also an issue with the condition of the beam stopper BI.STP, the specialist needed two short stops to cure the problem. There was an on-going problem with losses in the ISOLDE transfer line. Lengthy investigation and optimization of many components could re-establish a workable situation for the remainder of the GPS run, without changing the steering of the line which would have obliged them to re-do the proton scan.

Wednesday the ISOLDE GPS run finished and the HRS run started, we spent some time to set up HRS correctly.

Thursday 04:55 trip of BTP.QNO60; the Power piquet diagnosed a problem with the cooling circuit; he changed to a spare power supply which did not change anything; 06:15 called the CV piquet; 06:58 all back in operation. Later in the morning a 15 min stop for the Linac crew to sort out some source flash-overs.

Friday Linac source problems; reset the HT interlock system and switched ON the HT power.

Weekend absolutely quiet.

AD (Bruno Dupuy)

The beam was only used by the Aegis experience.

Tuesday:

Many interventions (5 to total, more than 5 hours of failure) on the power-supply of the injection line DI.QFO6080.

The power-supply fell to OFF uncontrolled manner (even in local mode). All electronics cards have been changed by FirstLine.

Noted that during the restart of the controller (gateway DADEPOW1) the 1553 Driver and FESA PowPLC class have had some problems. It required the interventions of the CO and specialist PowPLC (D.Calcoen).

Wednesday:

The test of a new robot was planned from 12:00 to 14:00 in the target area. (In charge of Marco Calviani).

Procedure OP9 Exceptional with a beam stop should start at 12:00. access was programmed to 1:00 p.m..

Unfortunately installing the ROBOT to 11:00 has forced us, to begin the procedure OP7 earlier.

The training of the robot (+1h) and the preparation of the zone (+1h) was not scheduled in intervention time.

Several people do not have permission to access into AD target area (+1h).

The decontamination of the robot also lasted over 45 minutes.

In total the beam was not available from 11:00 to 17:00.

The restart required a local intervention on the HORN (PLC interlock).

And JM.Cravero for the restart for some pulsed power-supplies (DI.BHZ60 34/35/44/45).

Thursday:

Intervention FL and CO on power-supply DR.DVT2904 from 7:30 until 10:20. (New Digital numeric converter)

Installing a new optics for AEGIS in collaboration with physicists (Numbers of counts passed from 4000 to 7300).

Sunday:

Intervention on FTA.BVT9045 (CCC and FirstLine, from 3:30 p.m. to 4:21 p.m.).

PS (Rende Steerenberg)

The PS had an excellent week, with only minor issues, causing little down time.

Beam was produced for the LHC, SPS fixed target and bunched beam for CNGS until Thursday when a switch back was made to the normal CNGS beam. The PS users that took beam, besides the many MD's were nTOF, AD, the East area north branch users and the East area irradiations facility..

The comparative tests with the high-energy orbit correctors and different extraction bump closure, that caused larger transverse emittances out of the PS, were started last week.

In addition a more restrictive mechanism on the extraction kicker was put in place in order to gain a better insight in the number bad firing of kicker modules, causing losses and different beam trajectories at extraction.

There were again a few issues with the RAMSES/ARCON system related to monitor faults or communication problems within the system.

SPS (Karel Cornelis)

Last week we increased the intensity of the LHC bunches to 1.5 E11. In the beginning of the week this gave some difficulties with the bunch length in the PS, but later in the week everything got tuned correctly, leading to record initial luminosities in the LHC.

The CNGS was put back to normal mode on Thursday. CNGS had to stop on Saturday night because of a ventilation problem. An intervention took place on Sunday, but we will have to wait until today for the final repair, since it needs mechanical pieces.

On Monday there were problems with the TT20 magnet interlock on the power converters. An expert had to come in to change a card in the interlock system.

LHC

Acceptable week apart from 32 hours lost to a cold compressor problem in point 8 over the last week.

More details:

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