Week-End 6-7 March 2010 (Sat)

- Saturday mostly dominated by cryo stop in Sector 12:
  - Cold compressor stop in Sector 12 (pressure sensor) on Sat. 6/3 at 04:30.
  - Recovered in the afternoon but problem with cryo-valve (compressed air) on DFBAB-HCM (main circuits) in pt. 1 appeared in the afternoon requiring intervention from cryo-piquet after blocking the main circuits & IPQs. Fixed on Sun. 7/3 ~01:00
  - De-icing of filters in Sector 45 started on Sat 6/3 at 05:00 in the shadow of problem in S12. Recovered at around midnight. No need for intervention on Wed 10/3 as initially planned.

Week-End 6-7 March 2010 (Sun)

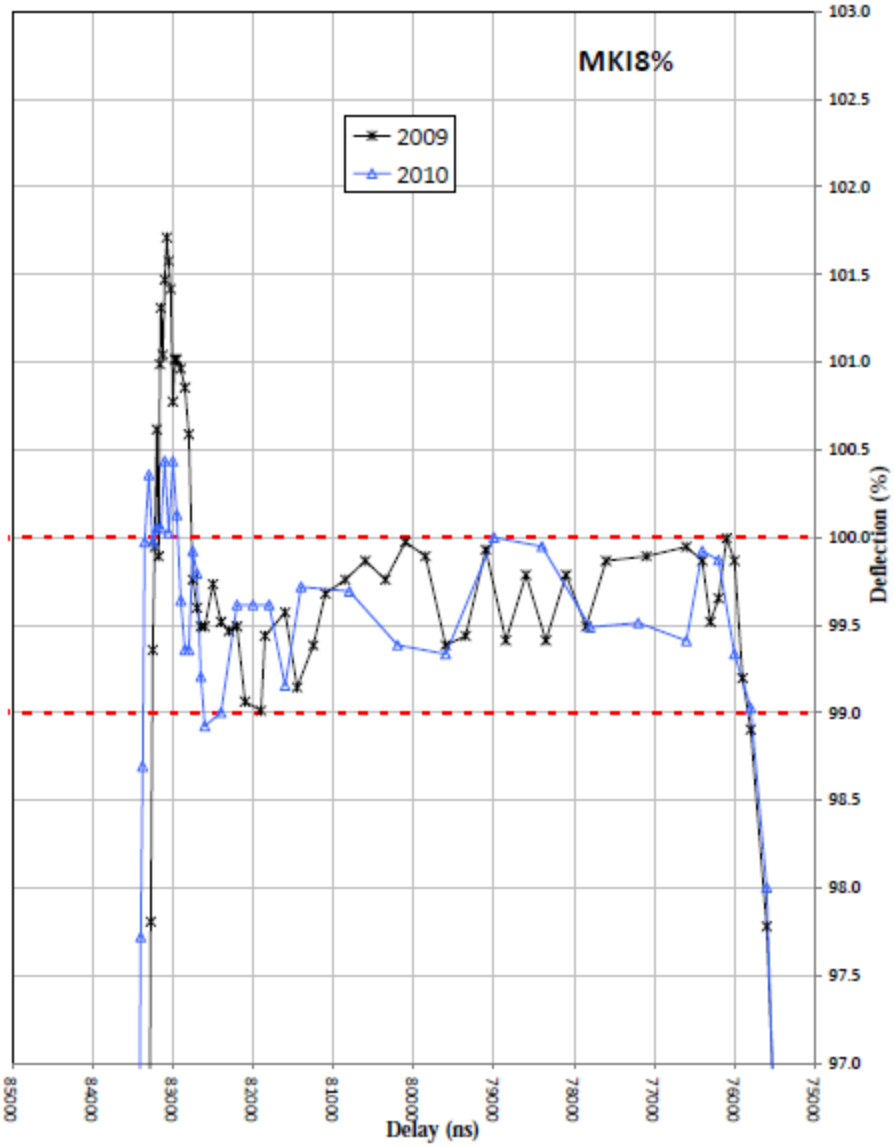
- Sun 7/3 05:45 - Beams back in LHC after pre-cycling
  - Delay in the start with beam due to problem with Beam Imminent Warning (circuit breaker off) in Pt. 2. Fixed by 04:30 by piquet.

- Sun 7/3 08:00 – Checked and corrected basic beam parameters in preparation for injection/dump/collimation set-up

Week-End 6-7 March 2010 (Sun)

Injection and Dump studies (Brennan, Chiara, Malika)

- Inj.&Dump on turn 0 - still beam coming out at falling edge of MKD kick with 1 turn error
- Checked B2 TCDQ movement with adjacent TCSG: TCDQ alignment problem from 2009 is understood anc solved
- Checked all BTVSE and BTVD screens in TD dump lines
- Set TDI in P8 to about +/- 10 sigma V around beam for the MKI scans.
- MKI.B2 waveform: maximum overshoot now improved from 2009. +/-0.75 (from +/-1.5% in 2009)



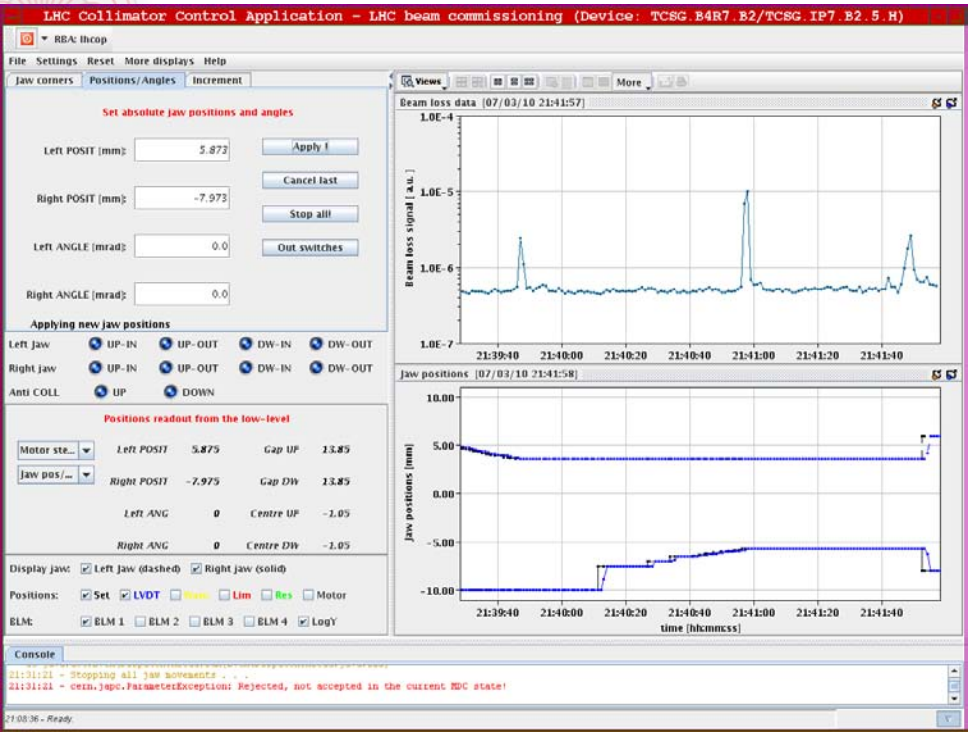
Week-End 6-7 March 2010 (Sun)

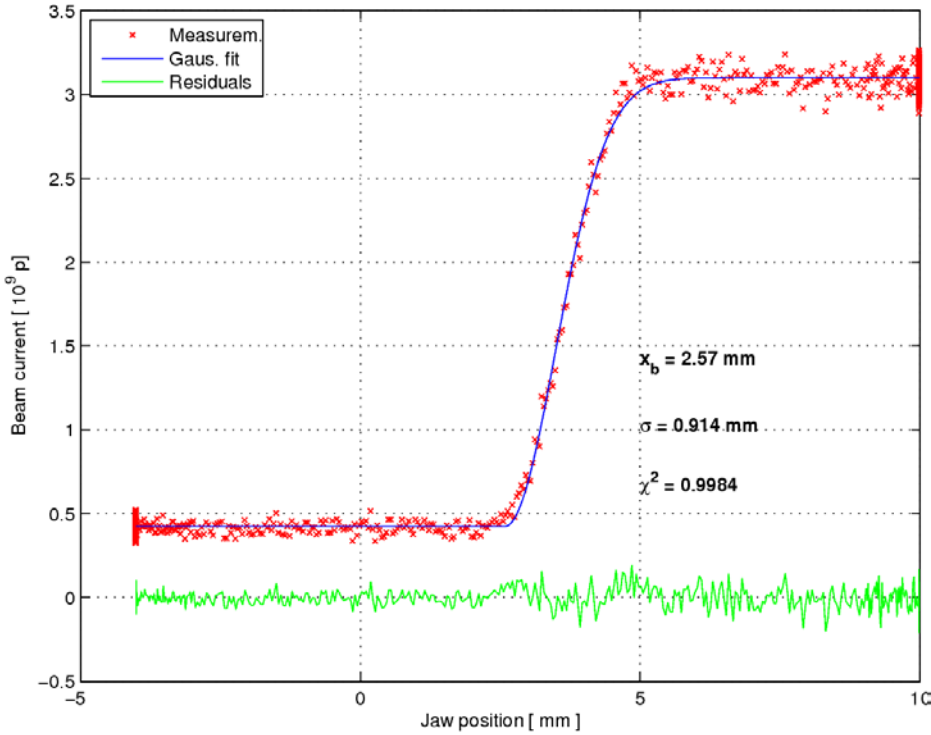
Injection and Dump studies (continued)

- Calibration of LHCb BCM during MKI kick scan.
- Checked the spike on Q3 BLM for beam injected onto TDI.P8 ➔ analysis required
- Investigation of 'safe' dump thresholds for beam position in P6: dumped from +/-4 mm in H and V at TCDQM.

Week-End 6-7 March 2010 (Sun)

- Collimator beam based alignment (Daniel, Ralph, Roderick, Stefano)
- 2 teams working in parallel on beam 1 and beam 2





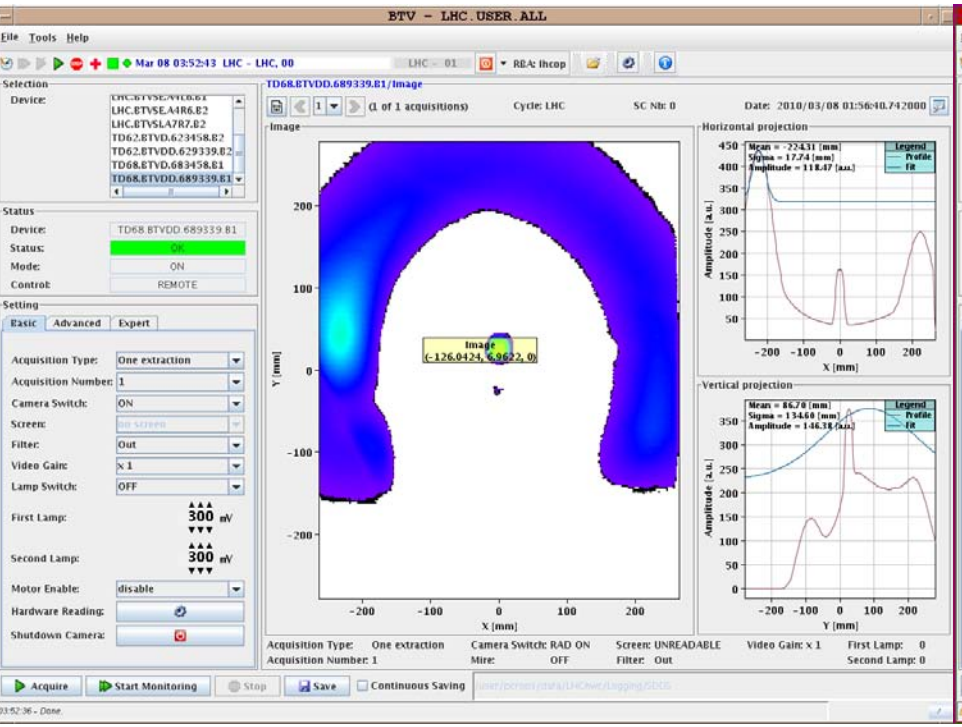
- Beam based alignment completed for B1 & B2. Loss maps for assessing efficiency and passive protection to be taken

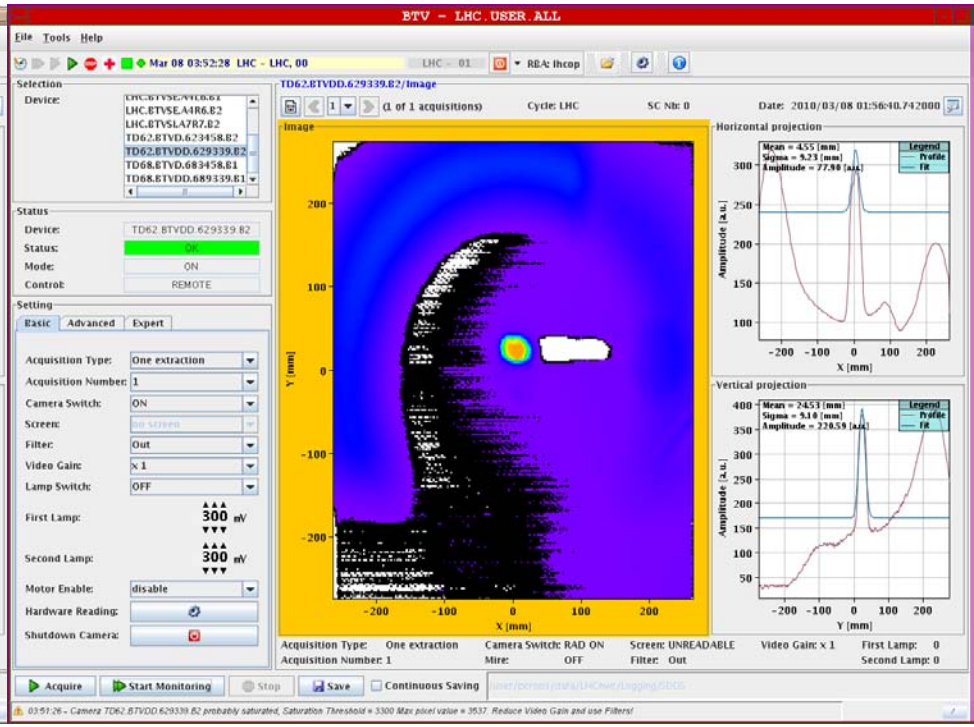
Week-End 6-7 March 2010 (Sun)

- The emittance of the beam in the LHC is larger than that delivered by the SPS in particular in the vertical plane and increases with time (hump). Working point readjustment will be required to avoid overlapping with the hump.

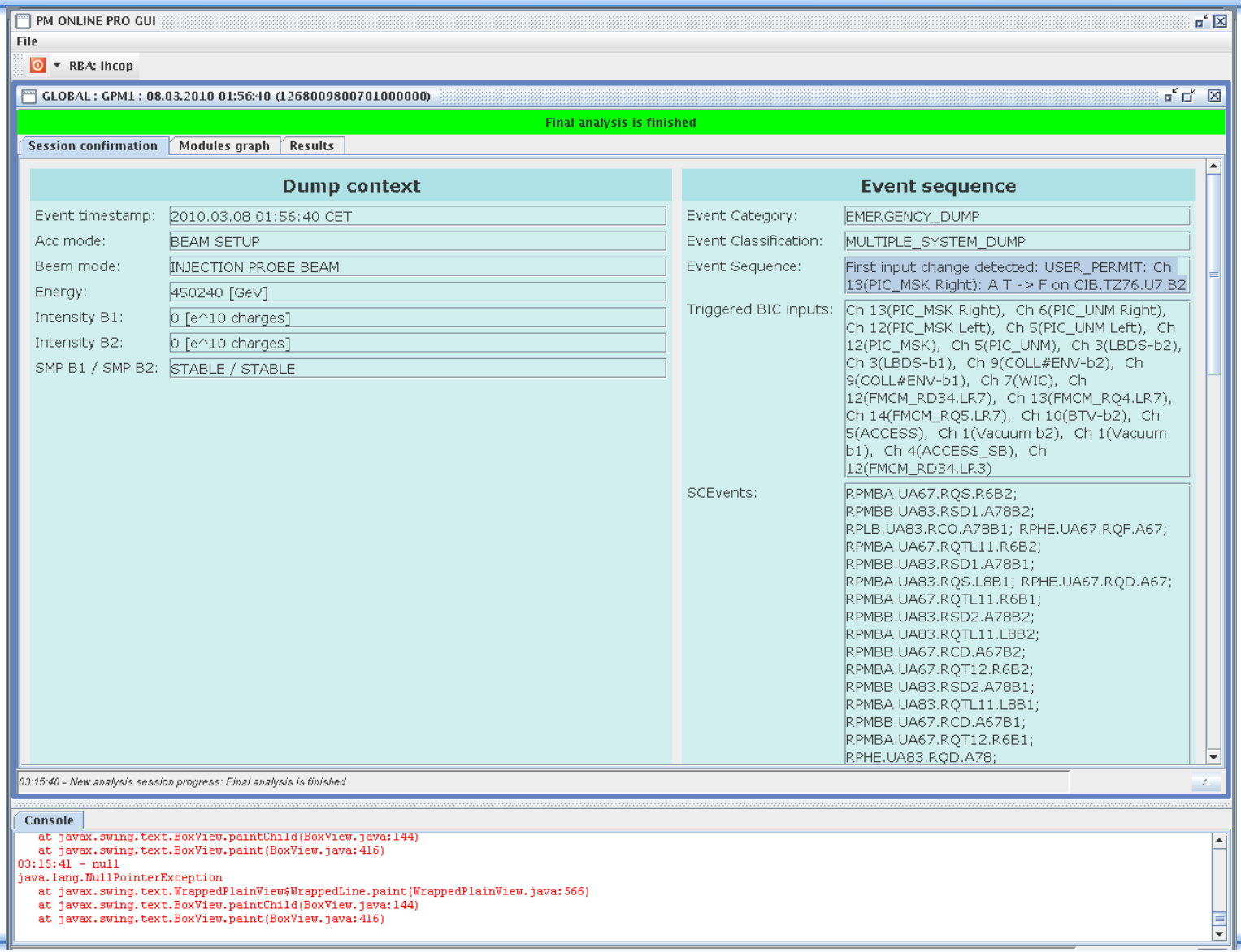
Mon 8 March 2010

- Transverse damper setting-up started at ~00:30
- Power cut in Point 7 at 01:56 due to emergency stop in RR73 (failure of the emergency stop button)
- Beams were dumped correctly



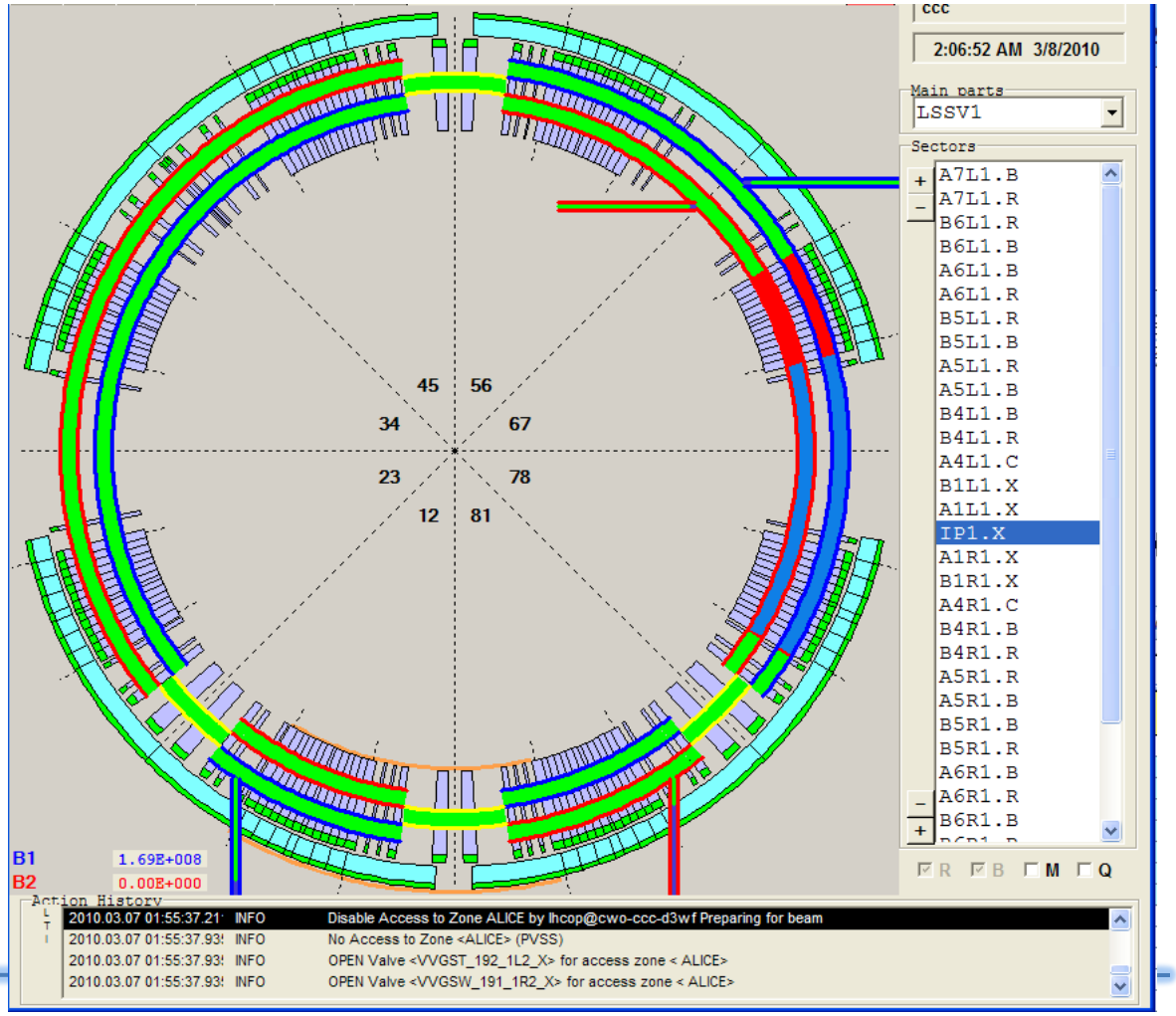


Mon 8 March 2010



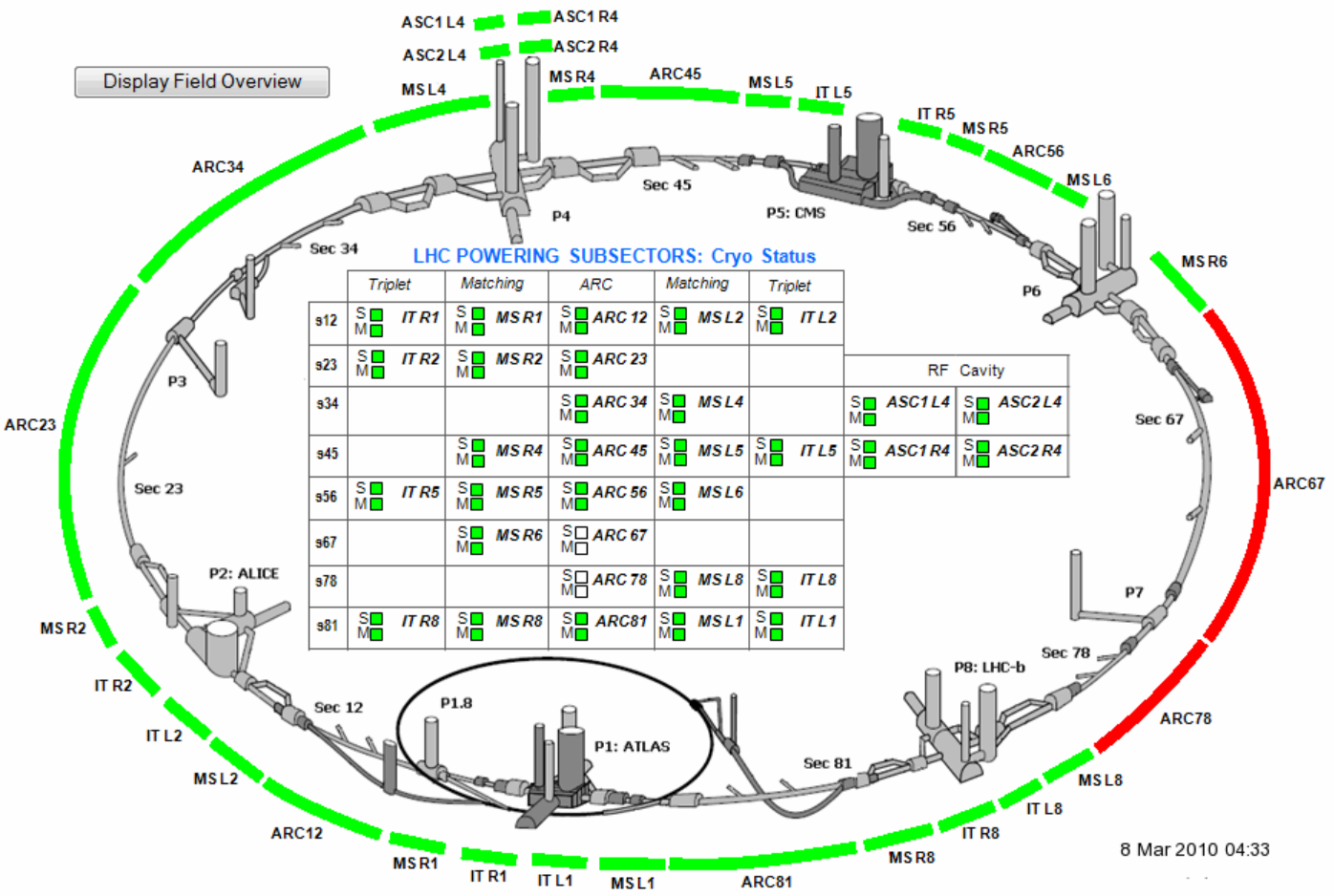
Mon 8 March 2010

- Vacuum valves closed due to trip of the ion pumps and most of gauges.



Mon 8 March 2010

- Cryo start and maintain lost in A67 and 78 because Current lead heaters stopped in Pt. 7



Mon 8 March 2010

- Cryo conditions OK by ~04:50
- Electricity re-established by 05:15
- Remaining problems at present:
  - Some Ion pumps in LSS7 to be restarted
  - QPS 600 A crate (RQT13.R7, RQ6.R7) requiring access (ongoing)
  - Problem with BLM crate L6
- Expect no beam before ~midday

Plans

Monday 08/03/2010

- Re-start
- Re-start
- Re-start
- …….
- Collimation set-up completion
- Aperture measurements
- Protection device checks and setting-up
- LHCb spectrometer (and compensators) polarity swap
- Ramp trial without beam – collimator & BETS checks
- Ramp trial with beam with tune and orbit feedback

- Machine availability: i.e. systems ready to operate for beam ~45%