Saturday 19June

After beta beating measurements checked that collapsing of separation bumps and crossing angle knobs work correctly with low intensity beam

9:00 – 10:00 :

- Collapsed the separation bumps one by one, no lifetime problems, some non-closure which could be corrected by few correctors – correctors to be used are the same ones of the separation knobs
- Introduce the crossing angle in IP1 (-100 urad) and IP5 (+100 urad) - small leakage and cross talk, can easily be corrected fine adjustment to be done with nominal bunch

10:00 – 12:00 :

Ramp down combo

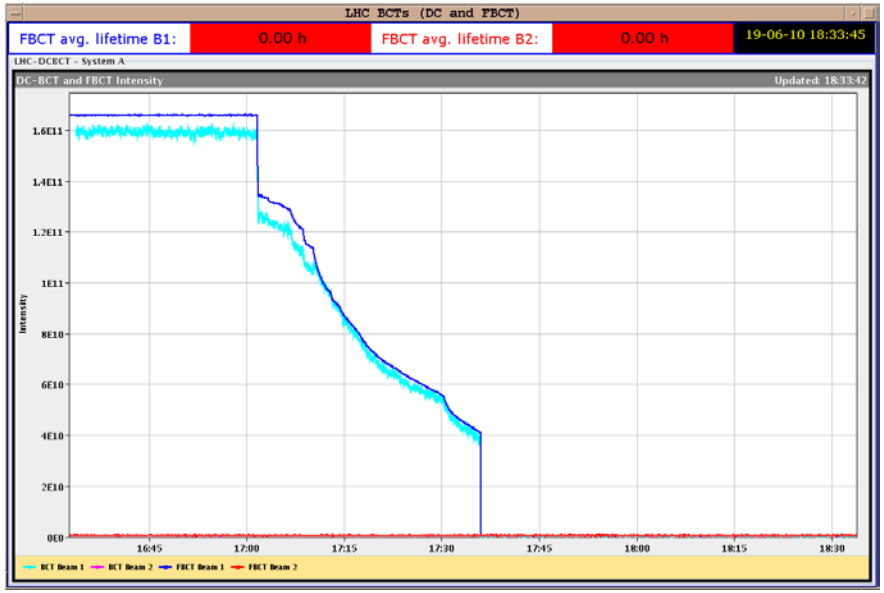
Saturday 19June

Afternoon: Beam preparation of TCTs setting up at 3.5 TeV, with collapsed bumps and crossing angles in IP 1 and 5

- Inject 2bx2b (single_2b_1_1_1), 1e11, ramp to 3.5 TeV without long. Emittance blow-up
- At the end the ramp chromaticity was reduced to 2 units. Decay of the chromaticity at the beginning of the flat-top leading to negative values and dipole instability controlled by switching on the transverse feedback
- Squeezed to 7 and 3.5 m smoothly
- Collapsed separation bump in IP1, corrected the non-closure without problems with the corresponding knob correctors
- 16:20 : Dump beam 2 due to LBDS internal fault (spurious vacuum interlock on MKB)

Saturday 19June

- Continue with Beam 1 and test scraping to be used for qualification tests
- Moved Qv towards 3rd order resonance slowly in small steps
- Started also to move Qh
- Lost beam 1 due to IP6 excursion interlock (sensitivity settings not changed when intensity was decreased). Could not mask yet as SBF was still false.



Saturday 19 June

- 18:00 – 19: 30 Ramp down combo
- 19:30 : Ready to inject
- Problem with the controls of the collimators and with sequencer fixed by STI and CO experts
- 21:00 ready to ramp and test controlled longitudinal emittance blow-up but memory problem with CPU ➔ Decided to ramp without longitudinal emittance blow-up
- This time no losses and chromaticity OK (feed-forward based on Friday night measurements)
- Emittances at 3.5 TeV

	H	V
B1	4.5	5.5
B2	6.0	5.9

Saturday 19 to Sunday 20 June

Squeeze to 7 m, then 3.5 m: All fine

At 3.5 m, start collapsing the separation bumps one by one, correcting the orbit in between against the collimator orbit set-up reference. No important blow-up observed when bringing the beam in collision in 1 and 5

- RCBH14.R1B2 tripped when collapsing at IP2 (10urad)– Lost 50% of beam 2
- No blow-up observed when bringing in collision in 2 and 8

Sunday 20 June

Vernier scans performed for all but 8 :
The separation bumps were collapsed, there were no collisions

- Partial optimisation was done in IP2

- All emittances, beam lifetime and tune spectra recorded are currently analysed.
- Blow-up observed when vernier scan in IP5 but with very unbalanced intensities

Plan for Sunday 20 June

Since 5:00 : Cryo maintain lost in arc of S34. FIP repeater problem – Access required in RA38

Then :

Inject 2bx2b (single_2b_1_1_1), ramp, squeeze and finish the vernier scan in IP 8, switch on crossing angle in IP1/5 and perform TCT setting up + TCDQ

Qualification tests for Beam dump protection

Issues

- At 3.5 TeV, lost the QPS-OK on RB.A67 because of a quench heater discharging - came back by itself
- Water pump in point 7 (sump)
- Sector 81: QPS noisy card (B21R8)➔ threshold increased. To be replaced in case of access.
- MKI8: timing instability of the injection kicker pulse
- QTL7.L7 current lead temperature measurement and control
- Power converter problems
  - RCBCH14.R1B2 to be replaced
  - RCBH27.R1B1 to be replaced