Monday 14 June

- Morning: Access for
  - Cryogenics: Access at Pt 6 for current lead temperature control card for RQTL7.L7 (RR73)
  - ODH at Pt 6 done in parallel
  - QPS at pt4 (RCS.A45B2), in Pt 8 (for scope triggering)
  - EPC in UJ14
  - ATLAS,CMS, LHCb

- In parallel BLM intervention in SR2 to identify the reason of the SR2 crates failing to enter into test mode:
  - exchanged all the crate interconnection cables
  - exchanged one of the connection modules
  - Tested after the modification ➔ OK, to be watched out

Monday 14 June

- BLM threshold changes to allow increase of BLM thresholds during collimation setup of max. factor of 10 by changing the monitor factor
- ➔ To be limited to collimation set-up with intervention from BLM expert

- Possible for:
  - TCTs-BLMs
  - TCLA-BLMs in IP7 (for BLMs being responsible for TCLA-protection, NOT the ones that see the shower from primaries

Monday 14 June

- 12:00: Patrol lost in Pt 6
- 15:30 : End of patrol
- Pre-cycle (some problems with sector 81)
- 18:30 set-up injection

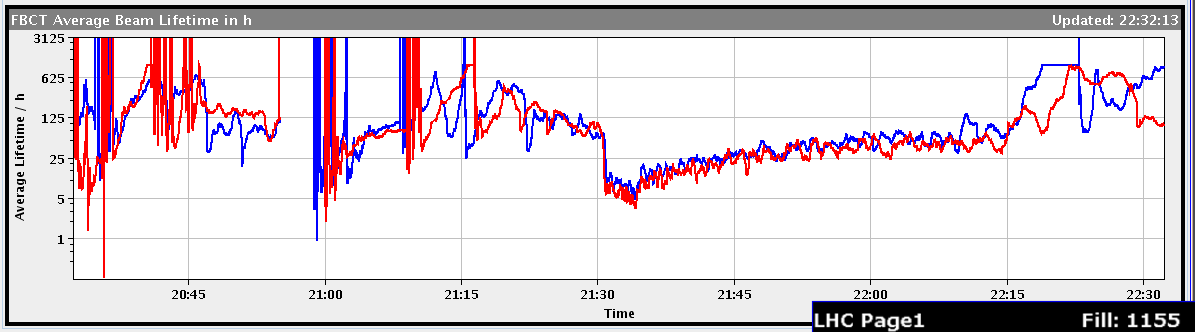
- 21:30 Started ramp with ~0.9-1x10^{11} p/bunch with transverse feedback ON, tune feedback ON and orbit feedback ON
- Emittances after injection damping lower than 3 micrometer.
  Used lower chromaticity at injection (3 units) increased to 5 units before start of ramp
- Used all dampers in ramp with one nominal bunch per beam. Emittances at top energy around 5 micrometer; one wirescanner not working (B2H)
- Wolfgang Hofle took some reference measurements with damper, damping times at 3.5 TeV, residual beam oscillations.
- To note: Tune feedback and orbit feedback were on during the ramp. Increased damper gain manually during the ramp, see RF logbook.

Monday 14 June

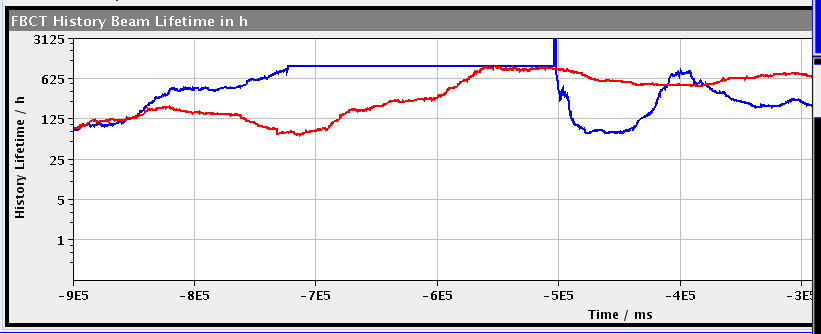
LHC FBCT Beam Lifetime

I(total) B1:	9.50e+10	I(total) B2:	8.88e+10	14-06-2010
Average lifetime B1:	941.21 h	Average lifetime B2:	90.60 h	22:32:16

LHC-FBCT Average Lifetime



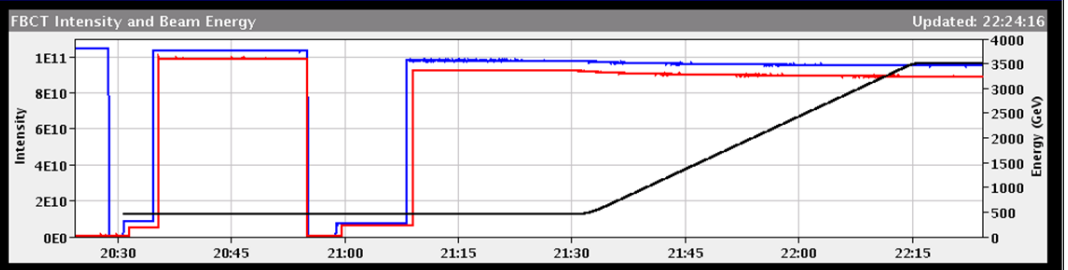
LHC-FBCT History Lifetime



LHC Page1 | Fill: 1155 | E: 3500 GeV | 14-06-2010 22:24:16

BEAM SETUP: RAMP

Energy:	3500 GeV	I(B1):	9.90e+10	I(B2):	9.32e+10



Comments 14-06-2010 21:46:22 :

Ramping with ADT ON
Once on the flat-top we will dump
Next fill is for the squeeze
commissioning with separated beams

BIS status and SMP flags	B1	B2
Link Status of Beam Permits	false	false
Global Beam Permit	true	true
Setup Beam	false	false
Beam Presence	true	true
Moveable Devices Allowed In	false	false
Stable Beams	false	false

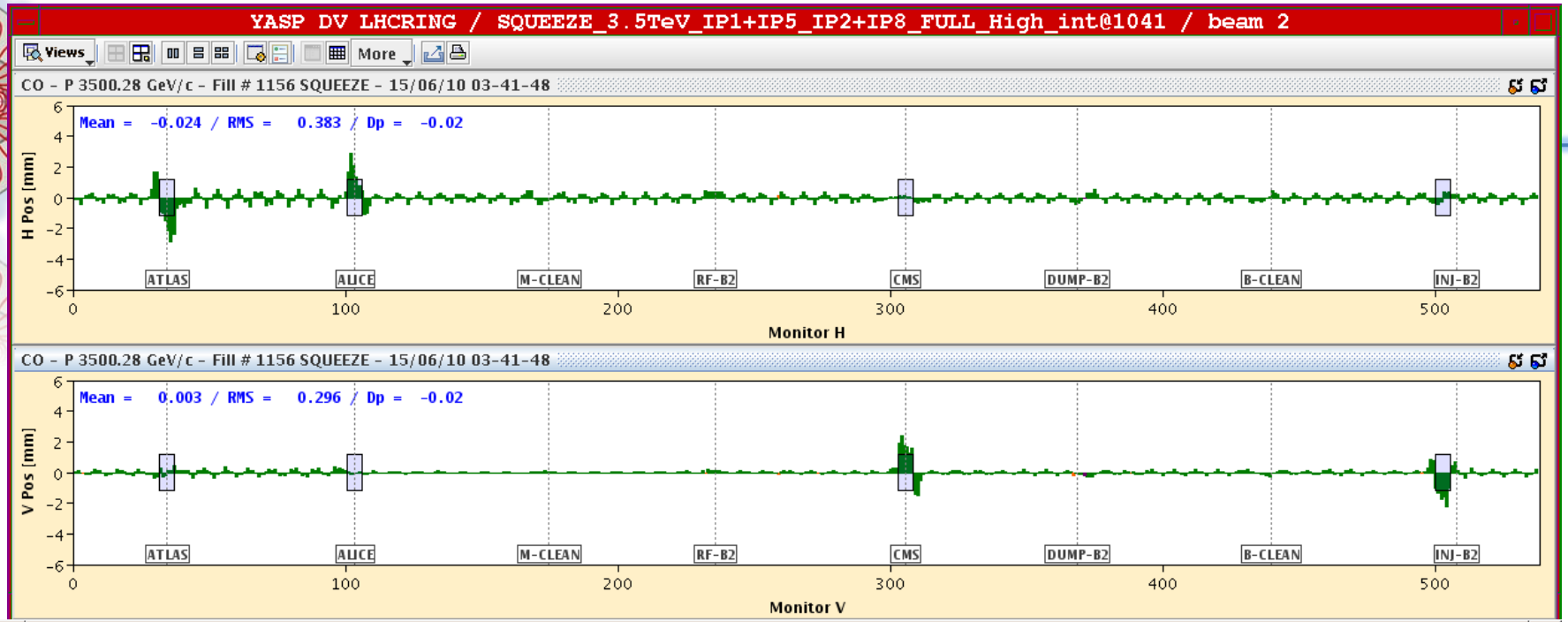
LHC Operation in CCC : 77600, 70480

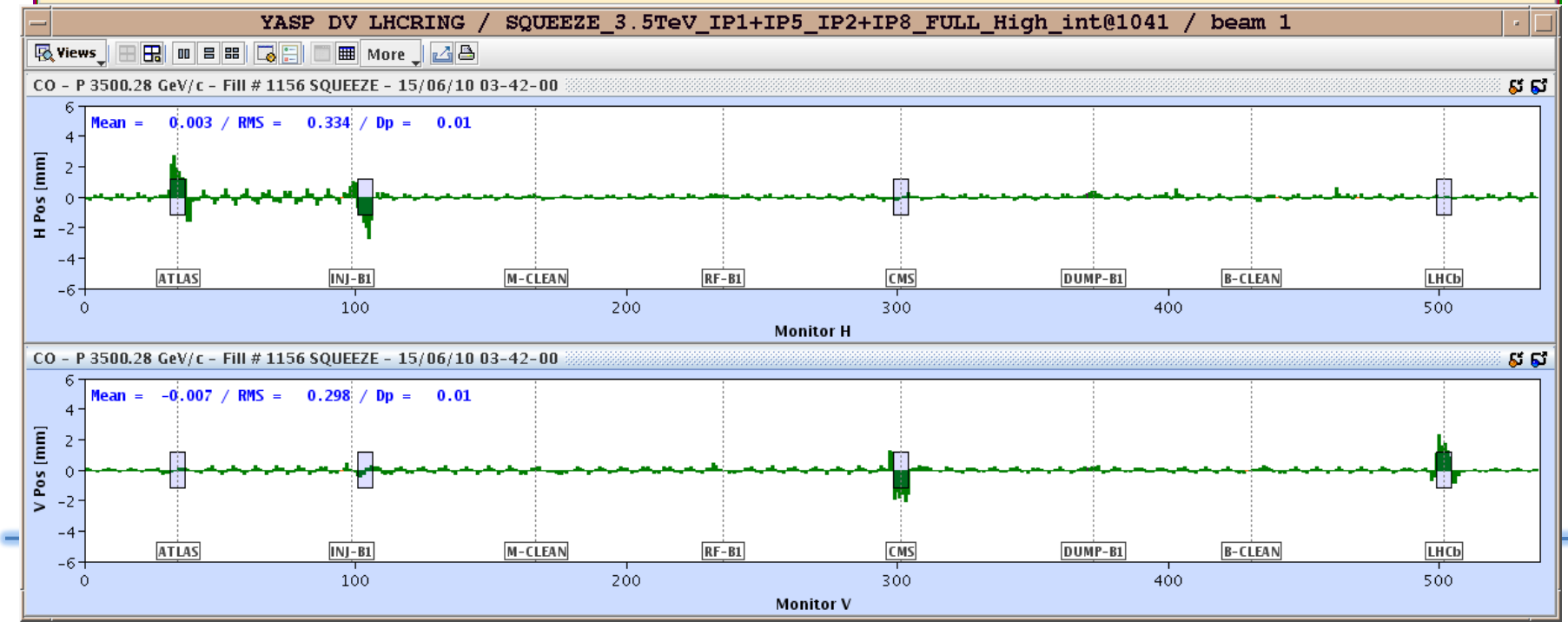
PM Status B1: ENABLED | PM Status B2: ENABLED

Monday 14 to Tuesday 15 June

Squeeze commissioning with separation ON with 10^{10} p/beam

- Performed chromaticity measurement during the ramp ➔ being analyzed
- Stepped through the squeeze with separation ON and orbit FB, stopped at 9, 7, 5 and 3.5 m. Constant orbit reference (same as inj.)
- As reference for the OFB we used the measured orbit at injection (for entire ramp and squeeze!)
- The corrections were incorporated into the settings, including part of the RT COD corrections. In any case the RT kicks remained small (1-2 urad rms).
- Q and Q' were stable. We only had to trim at 3.5 m (both). No losses along the squeeze.


YASP DV LHCRING / SQUEEZE_3.5TeV_IP1+IP5_IP2+IP8_FULL_High_int@1041 / beam 2
Views
More
CO - P 3500.28 GeV/c - Fill # 1156 SQUEEZE - 15/06/10 03-41-48
Mean = -0.024 / RMS = 0.383 / Dp = -0.02
H Pos [mm]
ATLAS
ALICE
M-CLEAN
RF-B2
CMS
DUMP-B2
B-CLEAN
INJ-B2
Monitor H
CO - P 3500.28 GeV/c - Fill # 1156 SQUEEZE - 15/06/10 03-41-48
Mean = 0.003 / RMS = 0.296 / Dp = -0.02
V Pos [mm]
Monitor V


YASP DV LHCRING / SQUEEZE_3.5TeV_IP1+IP5_IP2+IP8_FULL_High_int@1041 / beam 1
Views
More
CO - P 3500.28 GeV/c - Fill # 1156 SQUEEZE - 15/06/10 03-42-00
Mean = 0.003 / RMS = 0.334 / Dp = 0.01
H Pos [mm]
ATLAS
INJ-B1
M-CLEAN
RF-B1
CMS
DUMP-B1
B-CLEAN
LHCb
Monitor H
CO - P 3500.28 GeV/c - Fill # 1156 SQUEEZE - 15/06/10 03-42-00
Mean = -0.007 / RMS = 0.298 / Dp = 0.01
V Pos [mm]
Monitor V

Tuesday 15 June

Issues:

- No beta beat measurement performed because the AC dipole was not operational.
- At 3.5 TeV, lost the QPS-OK on RB.A67 because of a quench heater discharging- came back by itself.
- Access in UX45 during the ramp down to fix the problem on the BQM for beam 1 necessary for long. Emittance blow-up

Tuesday 15 June

- 8:00 In progress : Controlled longitudinal beam blow up in the ramp

15	Tues	4:30	1.5	Ramp-down combo - Call ANDY - Possible RF access in UX45 at the same time - No need to pre-cycle RD pt 7 and
15	Tues	6:00	4	Inject + ramp 1e11 for controlled longitudinal blow up, ADT on --> O.K.
15	Tues	10:00	2	Ramp down combo - to confirmed depending of the preceeding studies -may be kept
15	Tues	12:00	2	Inject + ramp 1e11 for collimator setting up at 3.5 TeV, 10m
15	Tues	14:00	8	Collimator setting up at 3.5 TeV, 10m, with separation ON, 1e11/beam, --> O.K.
15	Tues	22:00	2	Ramp-down combo
15	Tues	0:00	6	Squeeze commissioning, with separated beams, 1e10 --> tbc