

Status of operational beams (1)

PS Beams	Status	Comments
LHC PROBE	OK	
LHC INDIV (nominal, 4b VdM 525 ns, RP)	OK	Multi-bunch VdM sent to SPS (525 ns OK) reduced ϵ in PSB last night due to blow-up in SPS: to be followed up before Week 47 Roman Pot LHC tests, played and extracted at 0.7 mm mrad
LHC25 (12b, 72b)	OK	
LHC25 BCMS (12b, 48b)	OK	
LHC25 8b4e (56b)	OK	
LHC25 8b4e BCS (32b)	OP	Last fill: 1.3×10^{11} ppb, $\epsilon_h \approx 1.3$, $\epsilon_v \approx 1.0$ mm mrad
LHC ION: EARLY (Xe ³⁹⁺)	OK	Sent to SPS for NA
LHC ION: NOMINAL (2b, 100ns) (Xe ³⁹⁺)	OK	First beam available for set-up in SPS

Status of operational beams (2)

PS Beams	Status	Comments
EAST1 (Irrad)	OK	
EAST2 (North)	OK	
TOF	OK	
AD	OK	
MTE	MD	HI at $\sim 2500 \times 10^{10}$ ppp, attained with $\varepsilon_v \approx 6.4$ mm mrad in PS

MD News

- High Intensity MTE machine development (A. Huschauer et al.):
 - Transmission in PS at 2500E10 ppp comparable to OP levels: lower transmission in SPS probably emittance-related ($\epsilon_v \approx 6.4$ mm mrad in PS / $\epsilon_v \approx 5.5$ mm mrad in SPS)
 - Extraction losses have changed since last week, not fully understood
 - Further studies on-going in preparation for next week's MDs
- White Rabbit (WR) transmission of B-field updated (A. Beaumont):
 - Quick intervention during RP stop, POPS regulating since Tuesday on WR transmission and no missing cycles since (I think!)
 - New B-train measurements tested on WR (A. Beaumont):
 - TOF, EAST, MTE, INDIV all tested and compared with success: -0.5 Gs (FB) -2 Gs (FT)
- LLRF issue with TFB causing problems for MD users (and OP!):
 - Additional -2 ns trim made on TFixLoop (H + V) when sending trims!
 - Causes unintentional trims, beam sensitive : **BE-RF informed**
- BGI team (J. Storey et al.) making tests today with V. Forte/A. Huschauer and comparing to WS

Brief MD summary

MD	Details
MD1780	AH & GS: LHC25 BCMS with TFB (no coupling, low chromaticity)
MD1927	FA et al.: LHC25 space-charge studies, MTE octupoles degaussing
MD2262	MT, HB, FS: Investigating the integer tune
MD2290	AB: POPS regulation with WR transmission and new B-train measurement
MD2498	AH et al.: HI MTE studies
MD2586	ES: Injection mis-steering studies
MD2752	SA & AO: Multi-harmonic RF at PS flat-bottom: bunch shape manipulations
MD2828	JS et al.: BGI beam measurements
MD2908	SA & VF: PSB-to-PS transfer of BCMS 1.5 eVs