

Proposed tests for collimator set-up with pulsed beam, single pass

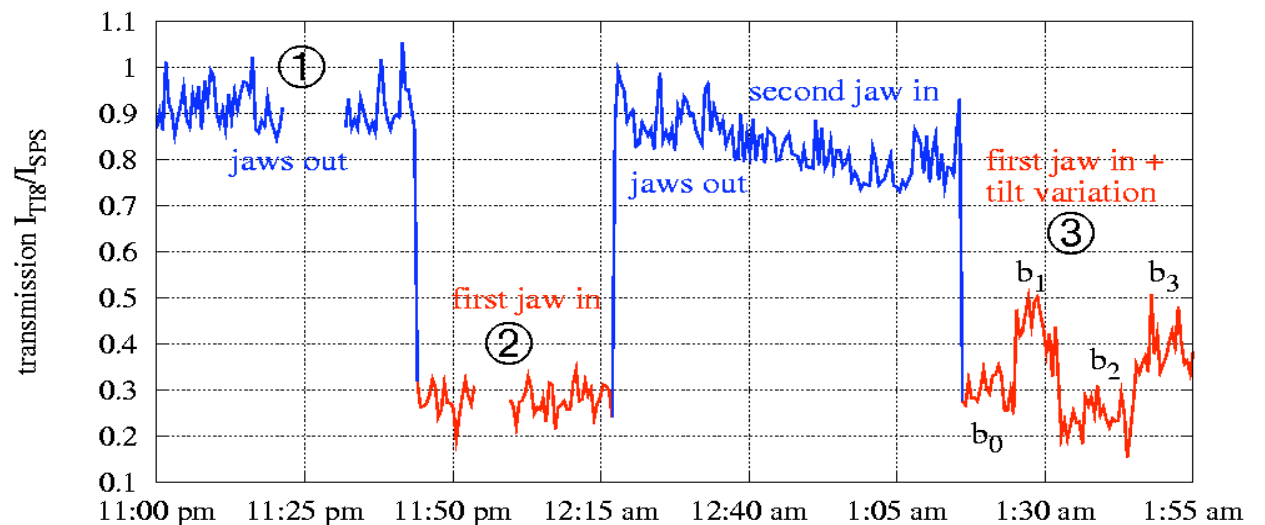
- TI 8:
 - finalise procedures for
 - alignment
 - centering
 - (beam size measurement)
 - require 1 collimator
- Sector Test:
 - demonstrate protection of LHC aperture with TCDI collimators
 - require (at least) 3 TCDI (protection level for one plane)
 - set up TDI

Setting-up: single pass

- **Alignment**
 - non-local BCTs and non-local BLMs: transmission measurement
 - could be tested with 1 jaw only
- **Centering**
 - non-local BCTs and non-local BLMs: transmission measurement
 - requires 2 jaws per collimator
- (beam size)
 - Depend on optics measurements?
 - TI 8 optics measurements were very promising

Promising results of method test for alignment during TI 8 commissioning.

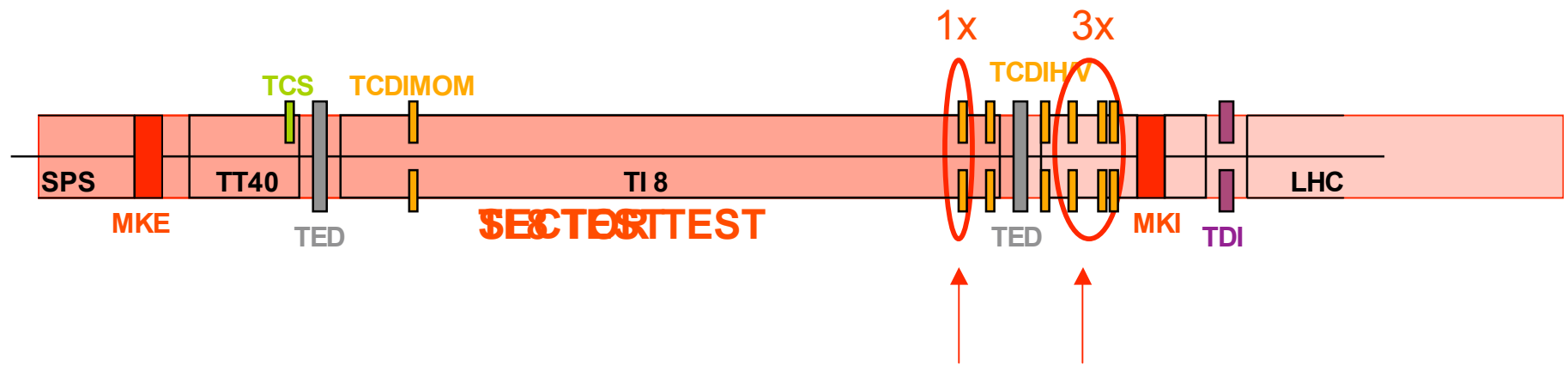
Tilt variations of 300 nm had clear effect on transmitted intensity (b_0 to b_3).



Proposed Tests

TI 8 & Sector Test

- Layout...which collimator?



These are the first ones to be installed ...

- Will install TCDIH300 and test during TI 8, however...
- Optimum test possibility:
 - TT40 TCS during TI 8...single jaw only!!!
 - TCDIxxxx during Sector Test

Minimum Requirements

- TI 8:
 - 1 X TCDI + electronics OR TCS in TT40 + electronics
 - read-out of entrance and exit jaw position
 - software: motor movement (enter position in mm from reference beam axis)
 - Logging: shot-by-shot time-stamped entrance and exit jaw positions plus BCTs and BLMs signals
- Sector Test:
 - 3 x TCDI + electronics
 - TDI in IR 8 + electronics
 - rest as for TI 8

Open questions...

- Test of....????
 - interlocking
 - CSS and MCS and interlocking