

Agenda

Alignment Requirements : Berend Winter 15'

Cryostat modification Mimmo

Beampipe /RF studies Cockroft

Positioning system:

Hamburg pipe Krzysztof

Longpot Jaak

Detector station discussion/plan

Beam position monitors discussion/plan

Tunnel infrastructure, motors, power supply etc discussion/plan

Geant4 simulations Marta/Sasha

Draft of agreed requirements on the positioning system and on
planned tests All

Agreement of deadline data for final positioning system design All

Timeline for RF, thermal and electrical tests All

Tunnel infrastructure, cables etc All

Key points

- Mechanical stability
- Number of stations and number of planes (consequences on physics)
- Redundancy (risk analysis)
- Alignment strategy
- Interface between primary and secondary vacuum (security and RF)
- Accessibility of detectors (strategy for backeout)
- Cooling, heat loads and temperature distributions
- Tunnel infrastructure: electronics, fiberoptics, radiation levels
- cost

Towards the test beam:
What do we need to test/?

- Movement
- Vacuum, window distortion
- Cooling system -10C
- RF pickup
- Feed-through for cables (Scott)
- Power supplies position and tunnel infrastructures
- Laser system for alignment
- bakeout

What do we need to simulate?

Long indent	Pockets (I-II)
Resistive material	Traps modes
Long 200 500(?) um window	Short 100-200 um window
Redundancy motors (security)	1 motor, alignment
BPM (many) cost	BPM(1) cost
Mechanical stability (?)	Mechanical stab. (+)
Window's inclination???	Window's inclination???
Shielding RF pickup	shielding RF pickup
Number of stations	Number of stations

Required parameters
<ul style="list-style-type: none"> • Dimension of detector housing: 60x150x40mm³ only tracker detectors+hybrid card? • 'Garage' position: 25-30 mm • Min. distance from beam: 3 mm • Timing detectors yes? • BPM: resolution, calibration-talk • Angle (ideal 90°) • Secondary vacuum : window distortion, cooling? • Accessibility: none, moderate • Bakeout with detectors out • Number of stations = 4 ? • Thermal interface definition • Vertical movement? • Laser for alignment - yes? • Alignment strategy-task force • Redundancy • 50μm beam momentum spread

Next meeting 18-19 May Hambourg: very first thoughts

- Simulation quartic (Andrew)
- BPMs (from Cern)
- Simulation window (Elias)
- Latest thoughts on insertions design can we access the detectors ? (Mimmo)
- Temperature and interface (?)
- Towards the final detector and near electronics design
- (report from the Stanford meeting) (Scott)
- Report from alignment task force : strategy (?)
- Is BG understood? And Sasha latest (Marta)
- Infrastructure task force latest (?)
- Timing strategies and ideas (Mike)
- Test beams news (All)

Talks will be inserted on the cern system and
Pass given to today's participants

Please send me talks and notes: I will take care
Of the minutes and circulate them

Latest numbers to Sasha