

# MERIT Installation Status

K. McDonald

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Access to TT2/TT2A tunnels after 1 May only when no possibility of dumping PS beam on the nearby D3 dump,  $\Rightarrow$  our installation interrupts PS/SPS operations.

8-hr access on Mon 4 June to install the mercury injection system: 20-m/s Hg jet produced via remote operation from MERIT control room in Bldg. 272.

5-hr access on Mon 11 June for cabling: AC power, ethernet, beam instrumentation.

11-hr access on Thu 14 June, 9-hr access on Mon 18 June for heavy rigging: solenoid, DVB, heater, transfer lines, racks, beam magnets.

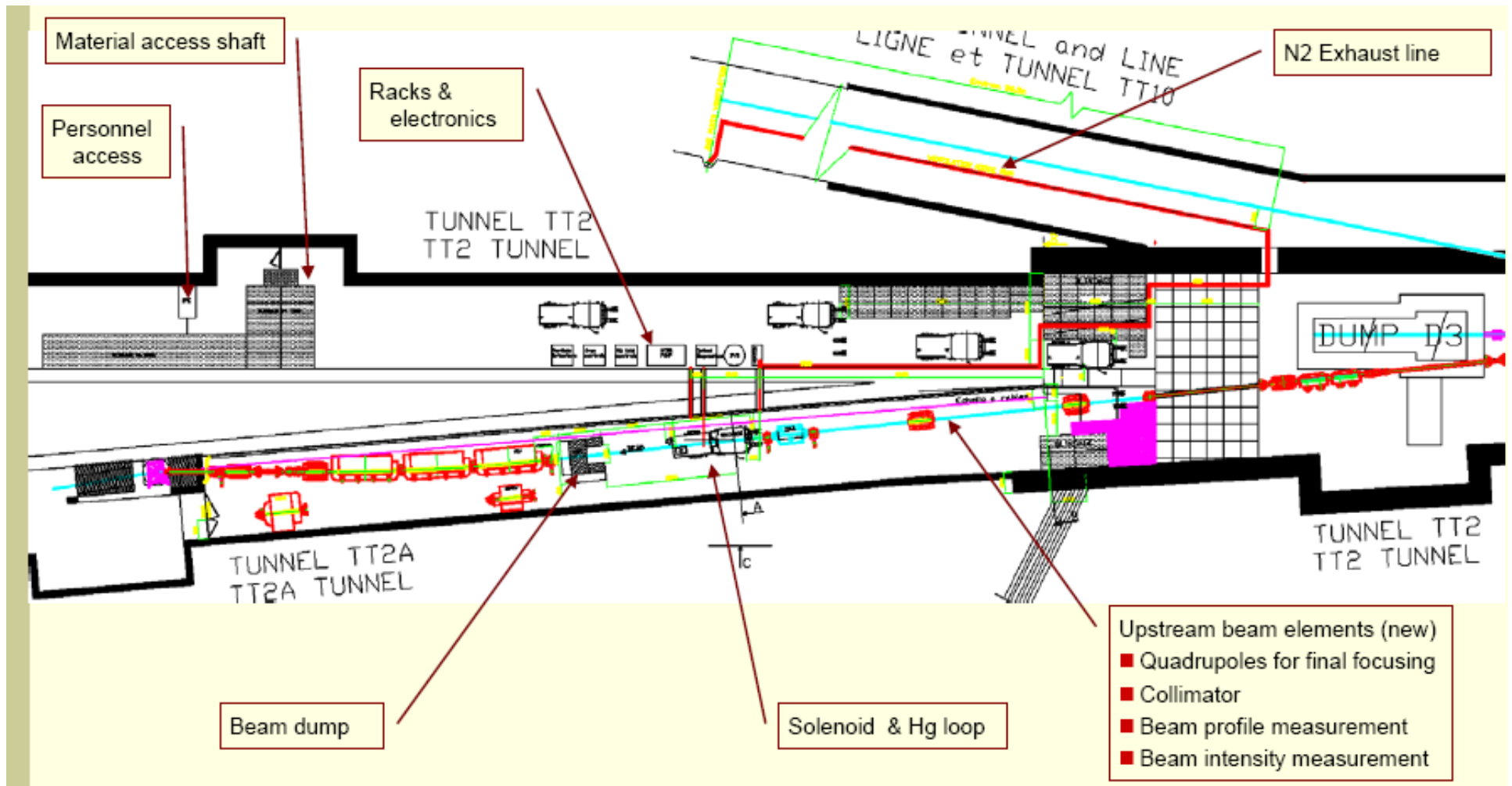
Solenoid mated with Hg system, both tilted by 67 mrad & nominally on beam.

Beam magnet reinstallation partially completed.

Fiberoptics connected between cameras and snout: realignment needed.

Secondary particle detectors partially installed. Additional progress during short access on Mon 2 July.

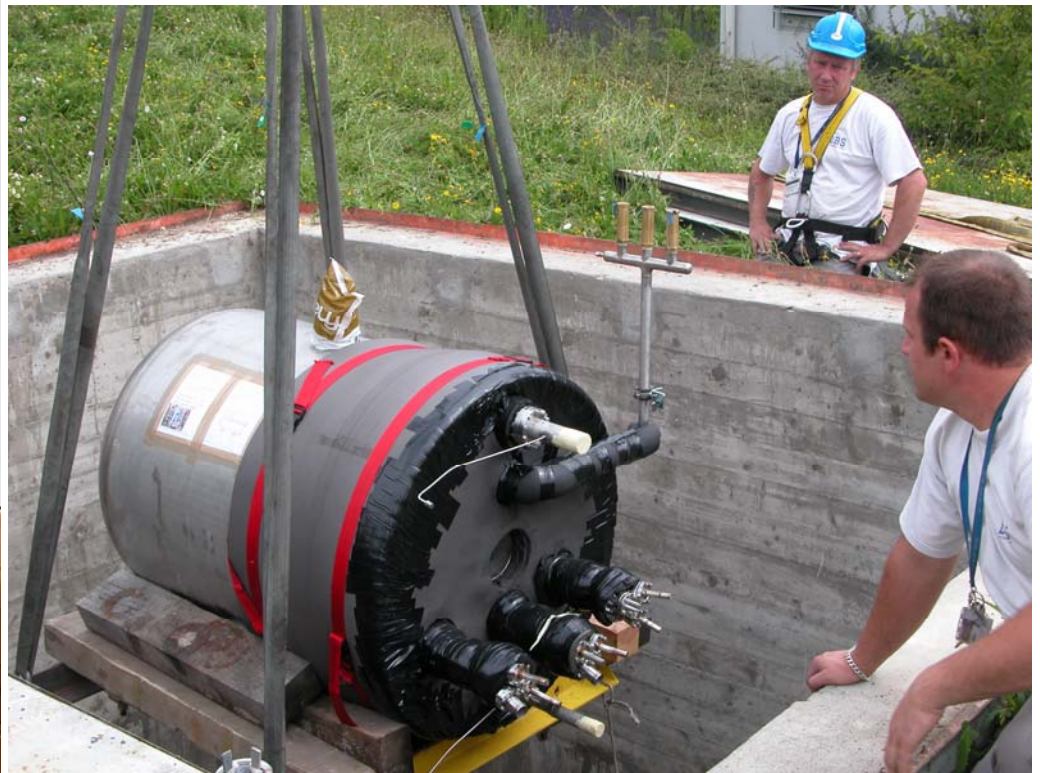
# Layout of the MERIT Experiment in the TT2/TT2A Tunnels



## 4 May: Installation of Mercury Injection System



# Lowering of Solenoid into TT2 tunnel, 14 June



## Mating of Solenoid and Hg System, 14 June



Al bus bars mounted,  
18 June



## DVB and Heater Installation, 14 June



Vertical bend reinstalled, beam collimator installed, beam monitors installed,  
18 June



2 quads not yet  
back in place.



# Partial Installation of Secondary Particle Detectors, 18 June





# Fiberoptics Connected, 18 June

The fragile fibers remain somewhat exposed!

Groundwater leak at lower end of cable penetration!



## To Do:

### 1<sup>st</sup> 8-hr access:

Complete reinstallation of beamline components.

Connect solenoid power and instrumentation.

Realign fiberoptics.

Complete installation of secondary particle detectors.

[Begin installation of cryo lines, if ATLAS schedule permits.]

### 2<sup>nd</sup> (3<sup>rd</sup>,4<sup>th</sup>) 8-hr access(es):

Complete installation of cryo system.

None of these accesses are presently scheduled, but CERN reaffirms its commitment to run MERIT in 2007.

1<sup>st</sup> 8-hour access may happen on Thu 12 July.

Remaining major access may happen the week of 27 Aug, but coordination with the ongoing ATLAS cryo installation must be achieved.

MERIT might then take physics data the last weeks of the 07 run: 22 Oct - 13 Nov.

# What Can We Do When?

After 1<sup>st</sup> 8-hr access:

Commission beamline for MERIT conditions.

Some beam pulses onto mercury jet target (activation!).

Calibrate secondary particle detectors vs. beam intensity.

Can make occasional pulses of solenoid to 5 T at room temp.

⇒ Partial completion of MERIT physics program.

After 2<sup>nd</sup> (3<sup>rd</sup>, 4<sup>th</sup>) 8-hr access(es):

Can now pulse magnet to 15 T, ⇒ full MERIT physics program.