

DT Commissioning at SX5

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Commissioning crew

- Aachen: Sowa, Hepfner, Biallas
- Bologna: Cavallo, Rovelli, Siroli, Giunta, Marcellini, Perrotta
- Madrid: Fernandez, Puerta
- Padova: Conti, Gonella, Parenti, Zanetti, Zotto, Torassa
- Torino: Cerminara

M. Nervo (Torino) for cabling test

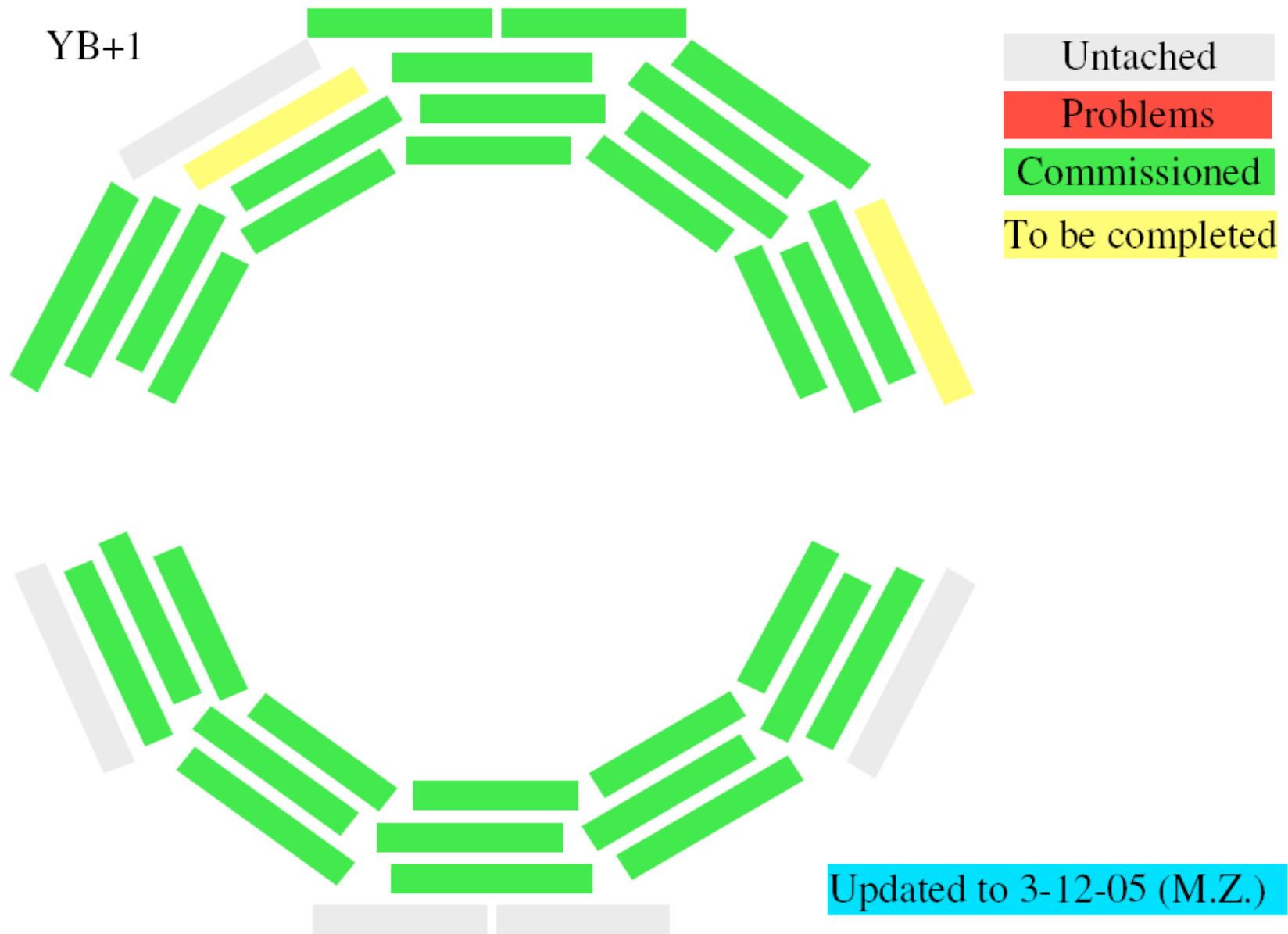
Commissioning procedure

- MC Test: ROB and TRB tests
- Data taking: Test Pulses, Default, HanyTheta, HH+HL
- Data analysis: Calibration ($t_0s + t_{Trig}$) and Hanytheta analysis / diagnostic
- If a problem is found, leave the chamber for Franco and move to next chambers

The whole procedure is rather complicated:

- New web page + electronic logbook (thanks to Jesus)
- New software (see later)

Status YB+1



Status YB+1 (cont'd)

Franco's interventions:

- 6 TRB substituted = **~3%**
- Other 6 minor interventions on the MCs (cabling inside the MC, splitter board etc..).

Status YB+1 (cont'd)

- Increased rate of commissioned chambers (~6 per week for trained shifters).
- 2 weeks stops during November.
- YB+1 should anyway be over before X-mas vacations. **Mandatory** for cabling preparation.
- Right now problems with DAQ pc. Hope to be solved soon

Status YB+2

“Standard” Commissioning:

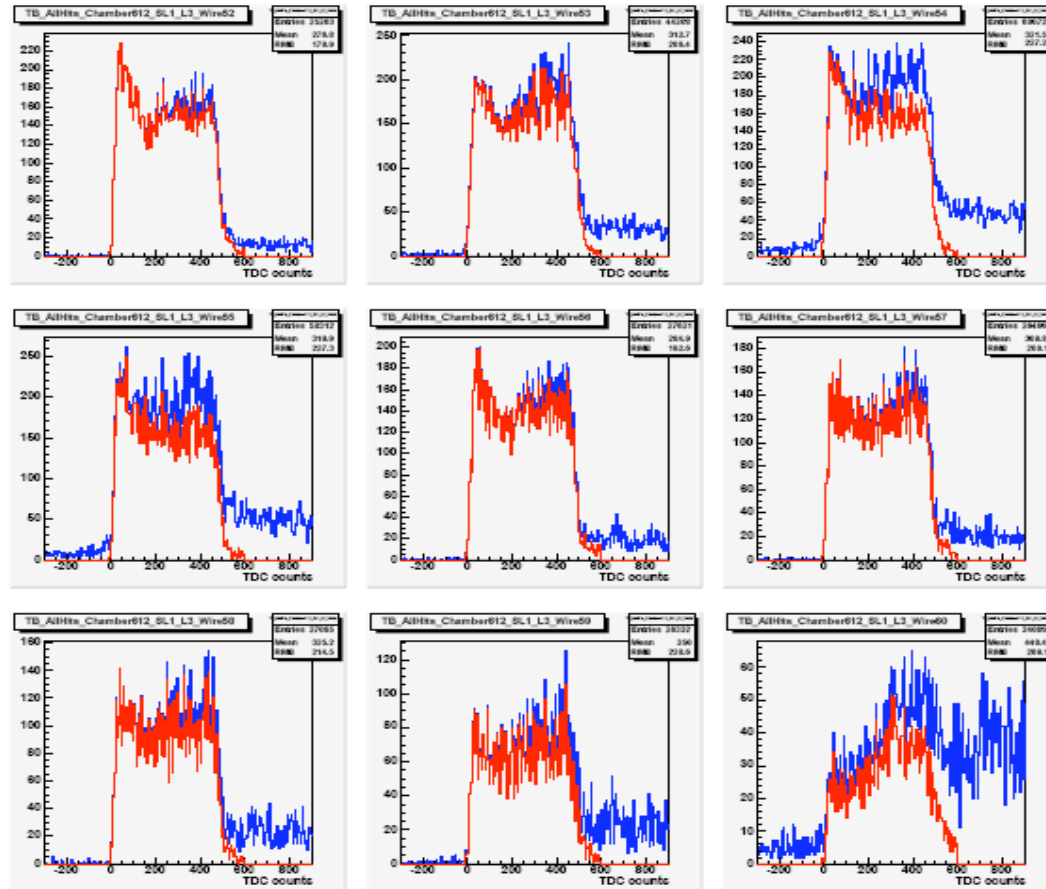
- Commissioning finished for all the installed chambers but for the MB4 “feets” (just installed).
- To be commissioned after completing YB+1 with the final connections (to the chambers).

Cabling test, list of further problems.. :

- Communication (1 Link board to be substituted)
- 2 BTI (**mb3 sect 10 TRB1 BTI31** and **mb4 sect 10L TRB7 BTI 27**) with missing bonding.
- 1 TRACO jumper not correctly set (should have been seen during commissioning)

YB+1 data problems

- Time dependent effect on the after pulses distribution



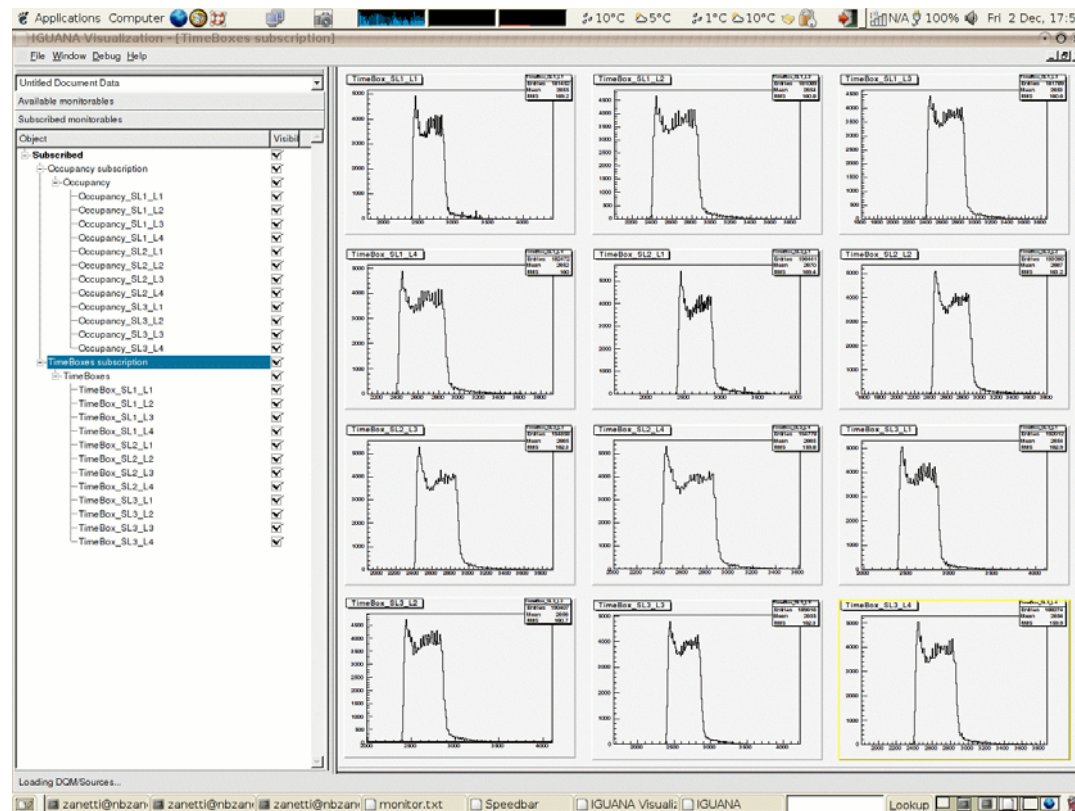
- The gas mixture/pressure the most probable cause.
- Neither warnings, nor problems detected by the gas monitoring

Plans

- From Alberto schedule, commissioning can restart on August 21st .
- This means 8 months stop
- “Commissioners” can help with the cabling test (and maybe cabling-to-the-racks) and with sector(s) commissioning / test and CC on YB+1 / 2

Software updates

- DQM is being developed in CMSSW. Interface will be the final one (LHC operation) and much easier for the user.



- Hopefully also new DCS functionalities