

DT Production
and
Installation Schedule

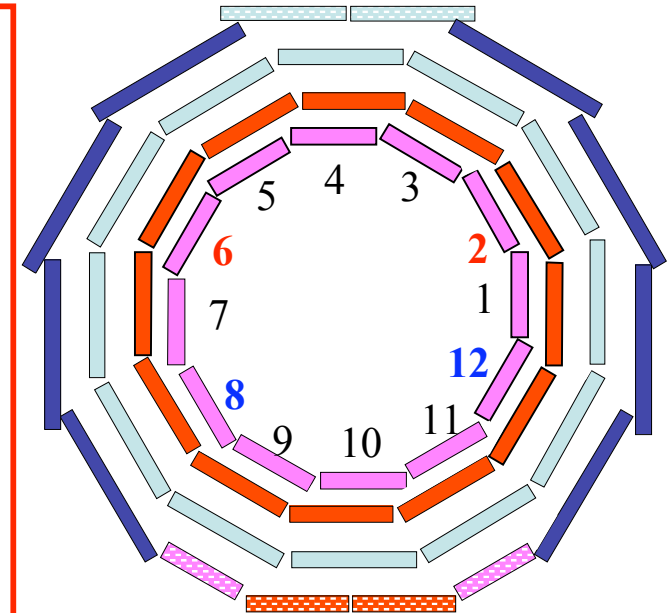
CMS week,
CERN December 7th 2004

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INFN Bologna

BMU Installation (YB+1)

Issues:

- Chimney chambers: 1 MB3, 2MB4/4 still in production. **Priority to MB3 should be ready not later than mid February.** MB4/4 can be installed with MB4To.
- MB4To: schedule for 6 chambers (YB+2) at ISR needed to setup alignment period (to be defined with Gyorgy).
- Minicrate production: check effective rate by end of January. If needed divert YB2+ MC for YB+1 installation. **Only chambers with MC will be installed.**
- **Install MB1 rails**, refurbish screw holes for cradle support posts, drill new hole(s), attach railings, support plates....



Optimal installation sequence:

5 MB1, 5 MB3, 5 MB2

Top then Bottom

This minimizes the movement of the cradle supports



YB+1 Installation Logistics:

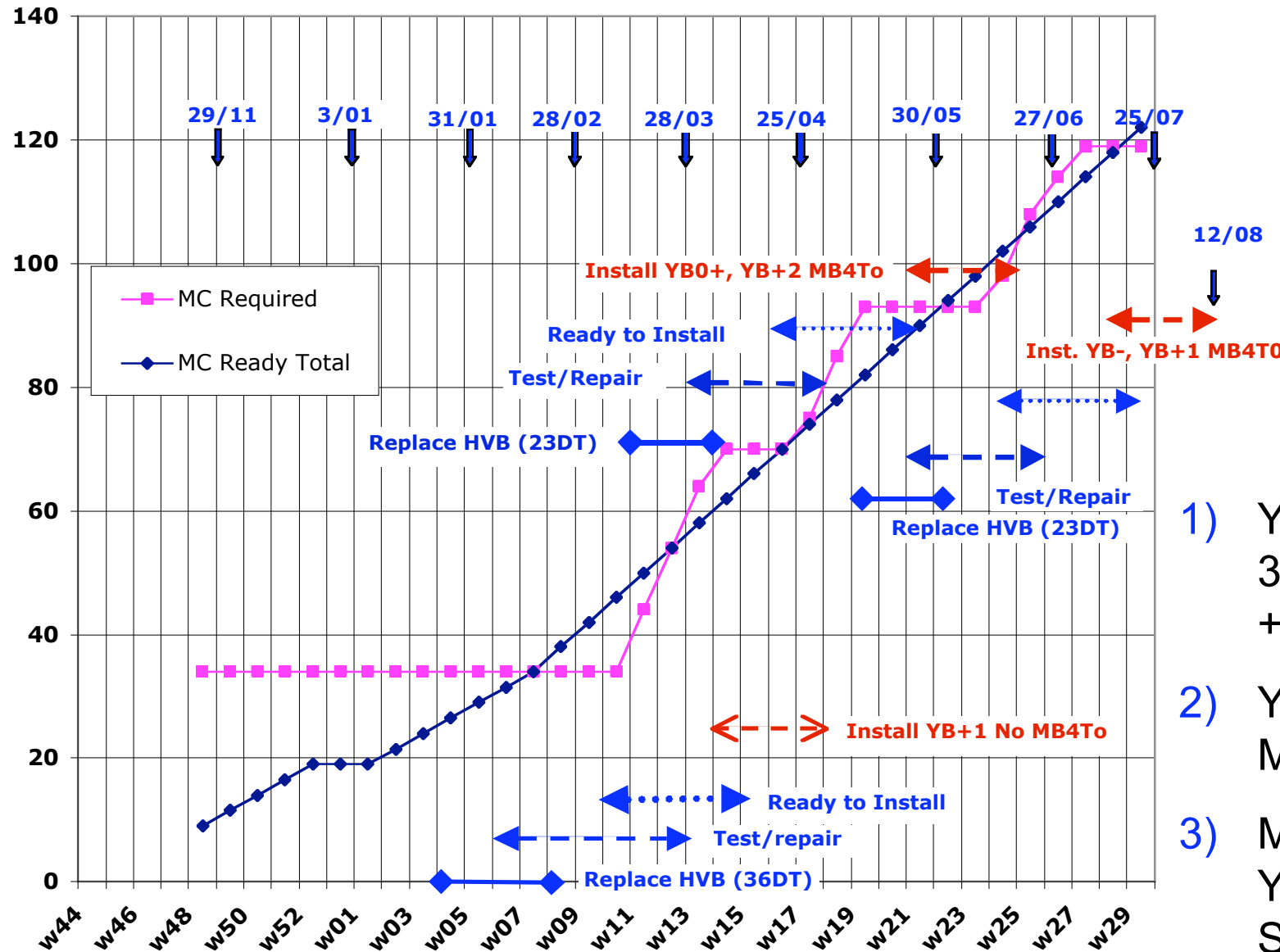
- Access through the main entrance is needed to unload the transport frame and chamber staging
- This requires shifting/closing the EndCap(s) and moving YB+2 near/over HE. Hence interference with ME, HE and YB+2 work (MC installation, commissioning, cabling...)
- Scaffolding required on YB+1 HV side
- YB+1 and YB+2 must be moved ~1m to install MB1 supports

YB+2 Completion and YB+1 Installation

Optimized Scenario:

- Complete ancillary work in YB+2 (z-stops holes, supports...)
 - Install MC in YB+2,
 - Connectorise MC LV and PADC to LV support plate, HV Jbxs..
 - Displace YB+2 ~1m, begin commissioning
 - Mount MB1 supports on YB+1 and refurbish screw holes
 - Displace YB+2 and EndCaps
 - Install YB+1 including MB4To (back to Installation Review scenario)
 - Commission YB+1(=> end of June), Cable Test YB+2 S10
 - Install YB+0,
 - move back YB+2, install MB4To + commissioning
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- 28/02/05
- 28/03/05

MC production vs Installation Schedule



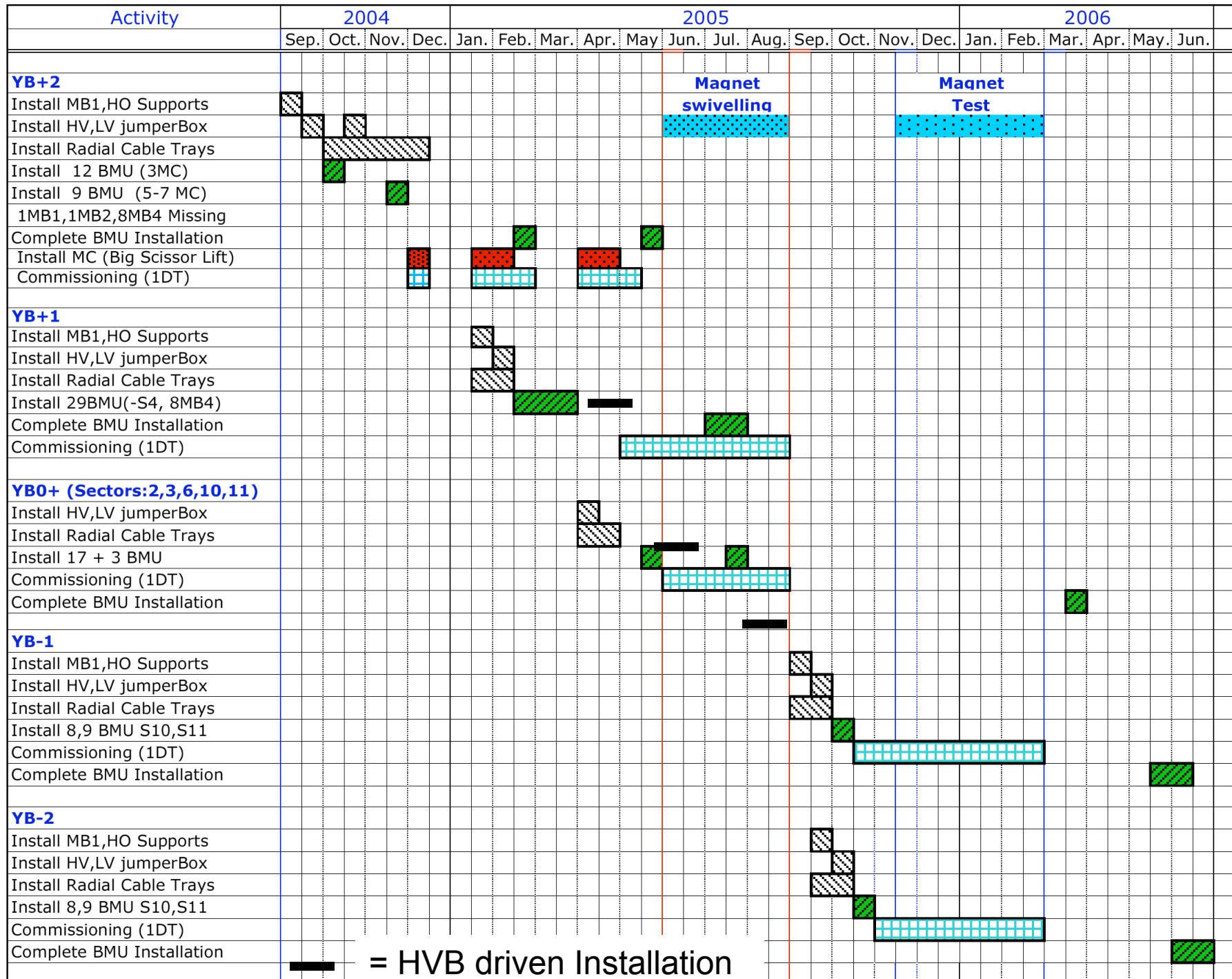
- 1) YB+1
34+6MB4To
+2MB4/9-11
- 2) YB+0 No
MB4To
- 3) MB4To in
YB+2, YB+0
S10S11 IN
YB-1, YB-2

MC late or just in time => **No margin**

Installation Hardware

- Assemble MB4 cradle, can be used also for MB3
- Test chamber rotator on L3 scissor lift for installation under the cryostat
- Order additional cradle supports: 3 pieces x 2 + 2 pieces x 2 => 11 700Eu
- Additional chamber supports for storage of 12 ready to install DT+ RPC: 12 pieces x 2 => 21 450Eu





Summary

- Installation in YB+1 requires moving YB+2 and EndCaps to clear access for tooling, transport frame storage and staging area. Conflicts are possible with YB+2 commissioning and EMU, EH work.
- Changing installation wheel is going to be time consuming. We must produce a coherent scenario for commissioning, installation and cabling of several wheels
- This requires a realistic schedule for MB4To deliveries
- Completion of ancillary work on the wheels is becoming critical also for YB-1 and YB-2 (MB1 supports..)
- 87 chambers should be installed in SX5 after the magnet test. These chambers should be **ready to install** (apart for coupling to RPC) by then.