

# MINICRATE Status

- New chamber installation plan: first **YB+2**, then **YB+1**, and then **YB0**.
- The MC's needed to accomplish with that planning are:
  - **5 MB1 for YB+2 top in July.**
  - **12 MC's of different types for YB+2 top in September.**
  - **19 MC's for bottom YB+2 by the end of 2004.**
- In total, **126 MC's before May 2005** to equip wheels YB+2, YB+1 and YB0.
- It has been proposed to set up two assembly sites in Italy to complete trigger part and install FE cables on the MC's : **Legnaro, starting in May, and Bologna, that would be ready by September 04.**
- The aim is to assemble **8 MC/month per site**, that is, **16 MC/month**. It is under study, but very **unlikely**, that Madrid could reach that production rate.
- Full MC's will be tested at those sites and additional infrastructure will be required. In particular **4 ROS-8 are now being fabricated.**

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## MC Mechanics

### SMALL PIECES

- Most small parts are already produced, (except SB cover).
- All CCB spacers have already been modified.
- A possible modification on Phi covers is still pending. (M. Pegoraro).

### MC BOXES

- Part of the MC boxes have been modified for new SB cover.
- 16 MB3 have been received from Italy and are waiting for SB cover modification. Remaining will be received already modified.
- All MB1 are in Madrid and are being modified.

- 1 MB1L, 1 MB1R and 1 MB4(9/11) empty boxes, and MB4 drill jigs, have been sent to ISR for mechanical installation testing.

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- At this moment at CIEMAT, we have the following MC's at different stages of assembly:

- 4 MB1R
- 7 MB1L
- 10 MB2L
- 4 MB3L
- 3 MB4 (9/11)L

## ISSUES

### ROB CLOCK CABLE

- At some point already assembled MC's had to be **disassembled** due to a problem related with the clock cable length that had to be modified:

- **L1A, Event reset and Bunch reset** signals do not come out of CCB with the same **phase** with respect to clock.
- Each **ROB** would require a **particular clock cable length** to synchronize all these signals, in a narrow time window.
- Still pending to measure **autotrigger L1A**, to insure that it has the proper phase.

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## TRB cables

- We have contracted the TRB cables production (around 3000 cables) with an industry in Madrid. It includes a **120 cables pre-series**.
- The production of the **TRB cables pre-series** has been stopped last **week** for a bug detected in the cable layout.
- This error has been corrected and the **first batch is going to be produced now**.
- **MC's shipment will be delayed** to include this cables.

## First MC batch

- **10 MC's with Read-Out tested** are pending to be sent to Padova:
  - **5 MB1L**
  - **3 MB2L**
  - **2 MB3L**
- These MC's will have Read Out Boards and RO link boards. CCB/SB, CCB link boards and TRB's will be assembled in Padova.
- Production will continue to have another 10 ready in May and improving to reach **12 MC per month**.

# READ OUT STATUS

## DDU PROTOTYPE

- A **2-channel DDU prototype** has been tested last week at CIEMAT (Giulio Dellacasa).
- This prototype has:
  - **two copper inputs.**
  - **two input FIFO's** of 8Kwords of 16 bits.
  - **One output FIFO with 2Kwords** of 32 bits.
  - **VME access** for the output FIFO, and also S-link, that has not yet been tested.
- Both channels have been **tested simultaneously with satisfactory results** using the copper link with **two ROS-8.**
- Everything worked properly and this DDU prototype with the ROS-8 **could operate in the test beam** if a proper **synchronous trigger and clocks (LVDS)** are provided.
- One DDU board is staying in Madrid for **further tests.**