

CIEMAT STATUS REPORT

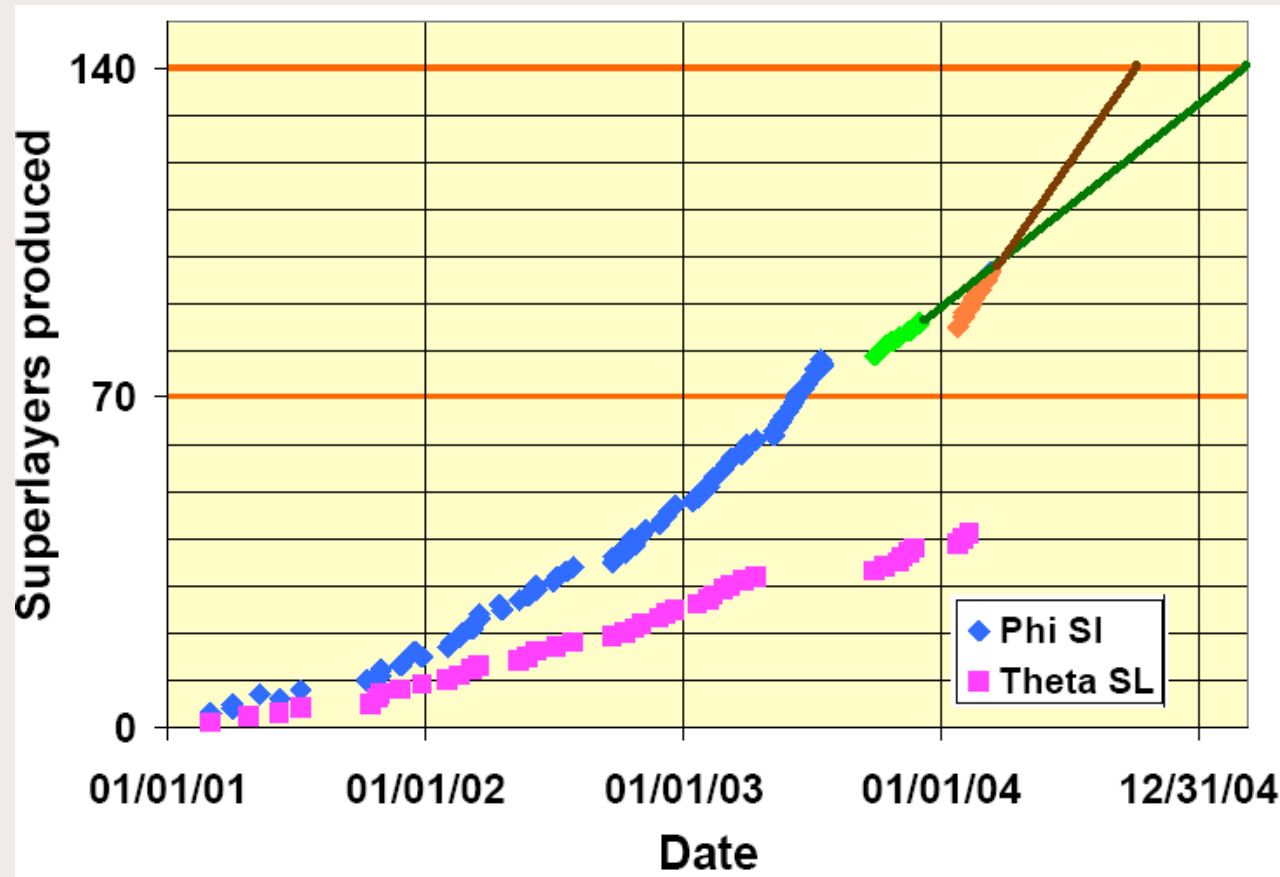
M.C. Fouz

CMS Week March '04

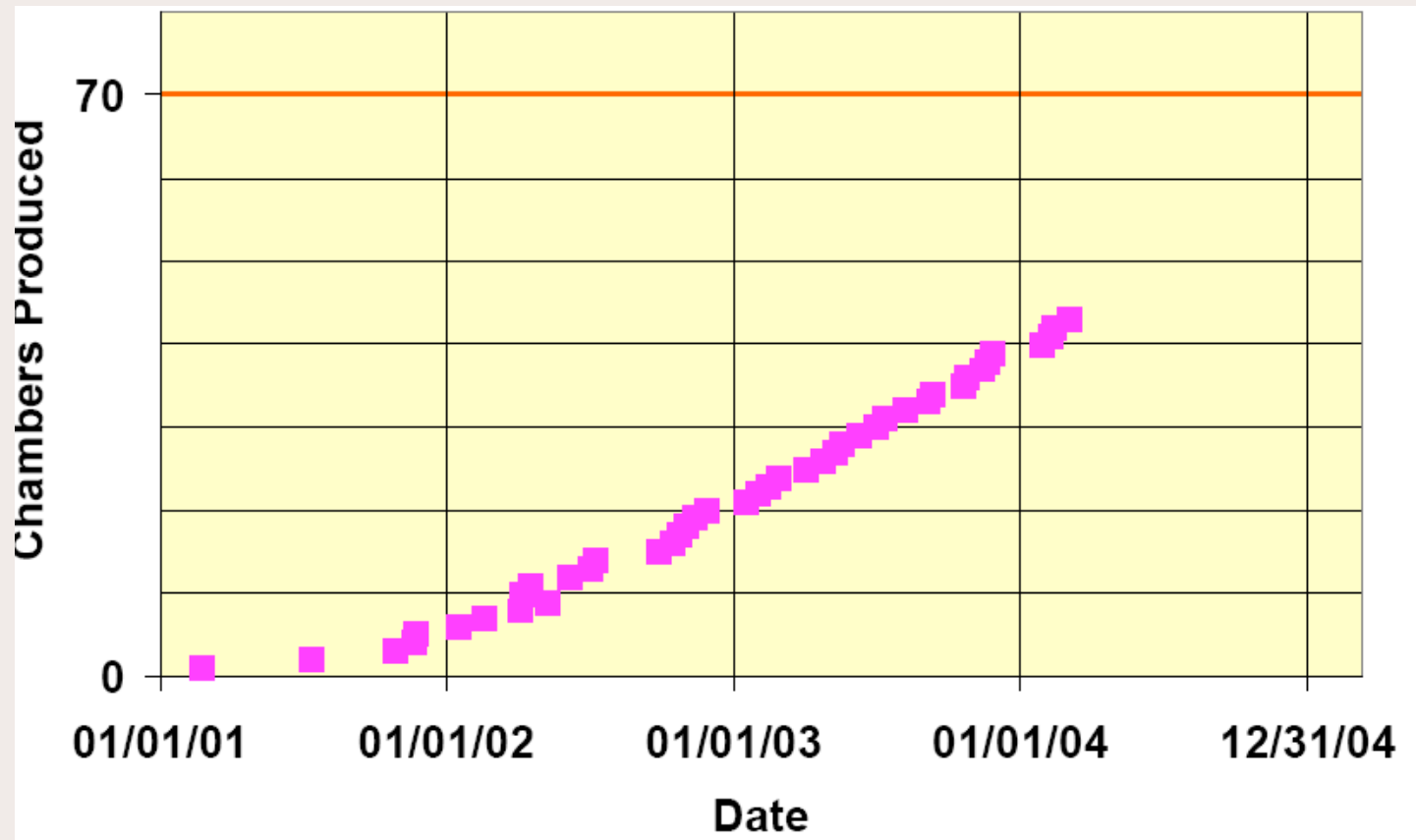
Production Status at CIEMAT

	MB2 (#chambers)	MB4 (#chambers)
Complete SL's Mechanically	41	6
Tested	38	6
Complete Chambers	38	6
Chambers at CERN	33	6
Next Shipment → 5 MB2. End of March		

Rate of SL Production



Rate of Chamber Production



Some incidences

- One \square SL rejected

Error when gluing the last aluminum plate
Plate rotated by 180° and Strips glued over Ibeams

- RPC pads glued out of nominal position

The implications of that must be checked

HV Boards available at CIEMAT

HVB (yellow cooked) → up to Chamber 46

No more boards in few days from now

HVB (different types) recycled from CERN chambers
to be sent to CIEMAT

We will survive up to Chamber 52

More boards needed by middle of June

Replacement of HVB at ISR (I)

Strategy followed:

- Take out cables and old boards
- Put Mylar tape on the Aluminum plates (top and bottom)
- Connect the new HVB and cables
- Test the capacity of Ibeams before connecting to the HVB
- Fast HV test on air to verify the boards
- Close the HV profile and new fast HV test to check no cable was trapped

- Put Gas
- HV test on Gas
- Cosmic Test

Replacement of HVB at ISR (II)

Man power: 1 physicist + 1 technician

Days: From 27 February to 10th March

WEEK ENDS INCLUDED!!

Work performed on 2MB4/10 and 5MB2 chambers

⇒ Only 16ch HVB available.

8 ch → Yellow cooked (□ SLs)

20 ch → To be replaced (□ SLs)

Boards Replaced: 19 SLs

Tested on Air: 19 SLs

Tested on Gas: 19 SLs

Tested with Cosmics

ISR System 13 SLs (3 MB2 + 2 MB4)

Madrid System 4 SLs (□ SLs of 2 MB2)

Replacement of HVB at ISR

(III)

Problems :

➤ 2 Wires broken

➤ 1 error on cabling

➤ Several pins out

Cables on Board or Connector

5 SLs Re-open

The problems on pins were detected when taken cosmics

After the HVB replacement it is mandatory to test the chambers with cosmics as soon as possible

More flexibility on testing and moving chambers is needed.

It must be possible to test 1 chamber per day (in few hours is possible to verify the correct performance of the chamber)

Some of the work was completed by profiting of our own HV and DAQ systems BUT we can only take data on half SL, it takes too much time and effort.

Implications of the replacement of HVB at ISR on the work at CIEMAT

The manpower (for electronic and tests) at CIEMAT is very short.

It will be not possible to follow the "nominal" testing rate at CIEMAT when working at ISR.

The tests at Madrid will be stopped during these days.

It will be very important the organization of the work at ISR to optimize the time needed to do the job.