



• CALIFES STATUS:

- progress in RF conditioning
- progress in Control/Command



RF conditioning 1/2

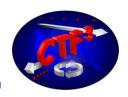


CERN RF team has work a lot during these last 4 last weeks, following the gun baking and the achievement of wave guide network.

- Modulators problems of EMC and voltage ripple has been solved with the assistance of PPT experts.
- The 3 LIL sections and the gun are now conditioned with a RF power of 62 MW 1.5 μ s after the compression cavity (the process was slow due to a lot of breakdowns).
- To go further (92 MW requested) the pulse phase coding is being reviewed.
- The RF gun was found tuned shifted by 450 kHz vs. the last measurements (solved by reducing the water temperature from 35 °C to 27 °C). Why ? (baking ?).
- However the phase coding of the pulse impacts on the tuning of the gun that has to be retuned accordingly (iterative process).



RF conditioning 2/2



Some problems remain that do not prevent the first attend to launch a beam in CALIFES (now foreseen for the 1st of December 08), but the accurate commissioning can not be performed yet.

- Modulator pulses amplitude are slowly fluctuating (power supply to be serviced by PPT).
- Gun power attenuator is not yet controlled (manufacturer expert is to come)
- The 3rd LIL section shows a strong reflected power (possibly the load is not completely water filled?).
- BOC and gun phase shifter stepping motors are to be serviced (on going).
- Power phase shifter (for the compression section) is still waited for the end of January 09 for installation during shutdown.



Control / Command



2/2

C/C from the control room are progressing thanks to a strong cooperation between CERN and CEA experts. However measurements can already be performed directly in the CLEX gallery.

- MTV are working but the digitized pictures are not yet available in the Control room (but raw video screen can be observed).
- BPM program are installed and reading via Oasis possible. Correct trigger signal is to be prepared.
- Charge monitor is operational and waiting for data acquisition by the ADC board for reading via Sampler application.
- A control terminal is to be installed in the laser room to help in laser tuning.



Next weeks work



- Monday 24/11 and Tuesday 25/11 CLEX open for Cs₂Te cathode preparation (provided RF conditioning achieved with magnetic field in the gun and in the two first LIL sections)
- Wednesday 25/11 access reserved for laser tuning.
- Then ready for first CALIFES beam up to the 15th of December.

PHIN successful start make us reasonably optimistic