

LHC RF Meeting

4th August 2006

Participants: Luca Arnaudon, Thomas Bohl, Olivier Brunner, Andy Butterworth, Edmond Ciapala, Pierre Maesen, Elena Shaposhnikova, Joachim Tückmantel, Daniel Valuch, Frode Weierud.

Special Topic: "The ACS RF Distribution Systems," by Daniel is postponed till a future meeting (probably 11th August) when a larger number of interested persons will be able to attend.

1. ACS Couplers (From Eric – post meeting)

✚ **SA2 conditioning:** Couplers MC 125 and MC 122 (Ex MC130 re-assembled) are progressing well, running at maximum power. Tests will be done at different reflected phases and into a load.

2. ACS Modules and SM18 (Pierre)

✚ **Module 1:** Tuning tests successfully completed, remains in the bunker (safe storage)

✚ **Tuner bellows:** Six tuner assemblies have been modified and fitted back onto modules 2 (AMERICA) and 5 (OCEANA). New bellows have therefore been successfully fitted to all four modules in time for their installation.

✚ **Installation:** Module 3 (ASIA) will be taken to P4 in week 33 as planned. Transport has been arranged for 14th August.

3. UX45/RUX45 installation (Olivier)

There has been significant activity recently, including cabling testing and welding of the QRL eXtension in RB44. (RB46 side already complete)

✚ **Cabling and cable testing:** Around 90 % of the installed cables have been tested. FiP cables are fully tested on the RB46 side, still to be tested on the RB44 side.

We have managed to arrange with TS-EL that cabling and cable testing gets completed in our zones before the cabling teams move to other sites.

✚ **UX45/RUX45 Floor painting:** Painting has started in RUX45. UX45 will be done next week.

✚ **Floor marking and survey:** SU will mark the beam lines, all equipment positions and IP4 centre next week in RUX45. (planned Tuesday 8th August). We will also require SU alignment of the first installed module, before attempting to connect waveguides.

✚ **VIC (Visite d'Inspection Commune)** The VIC for the installation of the ACS cavities will be done as soon as the first module is in place - just before its full installation and connection.

✚ **Klystrons in UX45:** The first klystron and circulator will be installed in week 33. Again a VIC will be done for the klystron installation.

✚ **Controls electronics: (Luca)** Transport of all mounted ACS signal conditioners and HV bunker racks is planned for 4th August (i.e. today). Installation of the wall conditioners is planned for next week. Klystron controls racks (KCI) will also be taken down towards the end of next week.

✚ **ACS water:** The pressure safety valves have been fitted.

✚ **ADT water:** The connections have been made; supports will be fitted next week.

✚ **Vacuum planning:** Still to be discussed and agreed with M. Jimenez.

✚ **ACS HV equipment (Olivier):** Work is still ongoing on the HV junction box but it should be complete next week. Some strengthening of the HV bunker floors has been done before the equipment is put in place.

✚ **Ethernet connection:** This is nearing completion in all areas, including SR4. We are still trying to obtain info about IP telephones. **(Action: Luca)**

4. AoB and Round Table

✚ **Layout drawings:** Layout drawing LHCLJGA0007 RF layout (schematic with equipment names) will be corrected, archived and then sent for approval for persons concerned within the RF group. Note that the functional names can and should be put in the layout database. This will be done when the drawing is approved.

A number of other layout diagrams exist in the series LHCLJ4GA0..., in various states of approval, obsolescence etc. A number of these relate to the new platform and waveguide support system and should probably be archived. Complete views of RUX45 and UX45 installations have been replaced (or will be replaced) by integration layout derived versions (numbered LHCLJ_4U0.... in EDMS). The full set of LHCLJ4GA0...drawings will therefore be reviewed.

✚ **ACS Power Converters: (Luca)** PO group have finally successfully tested the hardware (interlock) and software (control) interfaces in SM18.

✚ **UX45 upper areas access:** Feedback has been received from G. Roy on our V2 proposal; we have returned a [V3 version](#) taking his comments into account.

✚ **Budgets:** Expenditure on some codes is already at or well above the 2006 estimates given to FI earlier this year. The installation budget is not yet heavily committed but some large outgoings are expected.

Next Meeting: Friday 11th August at 08:45 in the JBA room.

Special Topic: "The ACS RF Distribution Systems," Daniel.

E. Ciapala, 4th August 2006.