

**RAT** Réunion Avancement Travaux **RR17/UA23-UA27/UJ33**  
HARDWARE COMMISSIONING COORDINATION



**NEXT RAT meeting**  
**Friday 17.08 at 8:30 in Point 1 – Bld. 3190-R-002**



August 15-08-2007 08:30 in CCC

Present: Maria Paz Casas Lino, Knud Dahlerup-Petersen, Carlos Robles,  
David Nisbet, Jacques Toullieux, Markus Zerlauth.

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**Heat runs general schedule:**

**UA23:** 6<sup>th</sup> August: 9:00-17:00 – **8hr heat run – Done**

**UA23:** 9<sup>th</sup> August 14:00 – 10<sup>th</sup> August 14:00 – **24hr heat run - Done**

**UA23: AUG** (postponed) To be done together with UA27 AUG (September)

**RR17-UJ16:** 14<sup>th</sup> August 16:00 **Pre-test 8h run - Done**

**RR17-UJ16:** 15<sup>th</sup> August: 9:00-17:00 – **8hr heat run - Done**

**RR17-UJ16:** 21<sup>th</sup> August 9:00 – 22<sup>th</sup> August 9:00 – **24hr heat run**

**RR17-UJ16:** 22<sup>st</sup> August 9:30 **AUG**

**Short Circuit Tests in RR17-UJ16**

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- **AC (TS-EL): -**
- **DC (TS-EL): -**
  - Interlock cables for DC\_CABLE\_WATER are inversed in the circuit RQ10, RQ8 and RQ6 in RR17. This does not prevent the heat run tests. Maria Paz reported that Baptiste informed that TS/EL has not the resources to fix this problem now. A date for the intervention is still to be fixed.
- **Cooling and Ventilation (TS-CV):**
  - The 13<sup>th</sup> August a new intervention from TS/CV was required to solve the following problems:
    - Fast connector in RQTX2
    - DC-CABLE-WATER faults for:  
RPHH.RR17.RQ4.R1B2  
RPHGB.RR17.RQ5.R1B2  
RPHGB.RR17.RQ5.R1B2  
RPHGB.RR17.RQ6.R1B1  
RPHGB.RR17.RQ5.R1B2  
RPHGA.RR17.RQ10.R1B1
  - In RR17, a connector of a water flexible is touching a bar in RQ5.R1B2 (Jean-Philippe will finally separate it)
  - The cleaning of the filters was completed (13.08).
- **PIC (AB-CO):**
  - All PIC interface tests were completed (14.08)

- **Energy extraction (AT-MEL):**
  - A test 6kA is foreseen for Wednesday 23<sup>rd</sup> August. (about 4 hours test)
- **WIFI (IT-CS):** - An intervention in RR17 first floor was required the 14<sup>th</sup> afternoon. Nevertheless during the 8h run the signal was lost.
- **WorldFip:** -
- **Convertisseurs (AB-PO):**
  - Christian Bernard sent by written, as requested by John Etheridge, his agreement to carry out the heat runs with a temporary solution to prevent direct contact with the bare copper bars in UJ16.
  - Circuits on the DFBAB will not be powered on Monday 13.08 and Friday 17.08 (Installation works can be carried out in the DFB)
- **8h heat run:**
  - Started at 9:00 approx.
  - Around 10:00 RQ9.R1B1 and RQ9.R1B2 went off. A temporary solution was implemented. (MTF?)
  - Around 11:00 all circuits were running at I ultimate again.
  - 11:05, all circuits were set to Inom. The reason was that several cables were increasing in temperature very fast. A ventilation problem was detected and TS/CV was contacted. (The RR17 UTA stopped) the control from the PLC was lost)
  - At 11:30 the ventilation was recovered and the converters were set to I ultimate. (It seems that the trip occurred while changing to high speed). The control was not possible from the PLC in US15. It was done locally. TS/CV will look carefully at the problem and solve it before next heat run.
  - At 17:40 the test was stopped.
  - At 18:04 the current was 0 in all PCs. Immediately after a fault appeared in RTQX1.V1 (VS\_state). A minute after faults and errors appeared in many circuits. (See elogbook) [http://elogbook.cern.ch/eLogbook/attach\\_viewer.jsp?attach\\_id=1010857](http://elogbook.cern.ch/eLogbook/attach_viewer.jsp?attach_id=1010857)
  - Measurements from TS/EL and AB/PO showed different hot spots. TS/EL will work on the solution the 17<sup>th</sup> morning.
  - WiFi problems were detected during the heat run.(AT/MEL)
- **24h heat run:** Beginning at 9:00, 21 August. The 24h heat run was moved from the 20<sup>th</sup> to the 21<sup>st</sup> because TS/EL has not resources to take the measurements the 20<sup>th</sup> August. It was pointed out by AB/PO the inconveniences created for the other groups due to this last notice from TS/EL.
- **Co-activities:**
  - Circuits on the DFBAB will not be powered on Monday 13.08 and Friday 17.08 (Installation works can be carried out in the DFB)
  - Q1L8 transport will take place during the 8h run 15.08. The material blocking the exits of the converters area in RR17 was moved in order to leave the required passage.

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## Open Issues SCT in RR17-UJ16

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30.07 Minor prob. with a temp. prob of 13kA EE sys – **AT-MEL**



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## Short Circuit Tests in UA23 – UA27

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- **Pre-test ok** – minor problem with the DQS
- **8h Heat run (6<sup>th</sup> August):**
  - The test began at 9:50 for all circuits except RB.A12 which was added to the test around 10:30.
  - RB.A12 had some internal water problems at the beginning that were quickly solved.
  - It was not possible at the beginning of the test to give the PC permit by using the PIC SU. Alexandro gave the PC permit directly.
  - When starting the test for RB.A12, the current at Stand by state was over 800A (Configuration to be verified)
- **24h Heat Run (9<sup>th</sup> August):**
  - The test started at 15:00 9<sup>th</sup> August and finished at 14:30 10<sup>th</sup> August. Temperatures in the cables decreasing after the change of current to Inom and practically stabilized again.
  - A small water leak in a connection to a water cooled cable of RB was detected before starting the tests. It did not prevent to carry out the tests but it has to be fixed by TS/CV.
  - Klaus informed at the end of the test that the inlet dematerialized water temperature was lower than usual. TS/CV is looking at it.
- **AC (TS-EL):**
  - Jack asked for a delay in the AUG test. TS/EL has not enough personnel to carry out the tests next Monday 13.08. He proposed to do the test together with the UA27 AUG. The proposal was accepted by all the presents. The test will be done without current since the short-circuits will not be anymore in place.
  - Transformer in UA27 is foreseen to arrive at CERN the 13<sup>th</sup> August. It is foreseen to be operational after undergoing several tests, on week 35 or beginning week 36.
- **Cooling and Ventilation (TS-CV):**
  - Air distribution modification DONE in both zones
- **PIC (AB-CO): -**
- **Energy extraction (AT-MEL):**
  - Communication problem with the DQS from the CCC during pre-test of the 8hr run
- **WIFI (IT-CS): -**
- **Convertisseurs (AB-PO): -**

- Systeme MKI (AB-BT):-
- Balisage:
  - A flashing light lengthen had been removed and used to plug a vacuum pump with the consequent delay in the start of the 8h run 6<sup>th</sup> August and extra-work for Gerard Pastor. Hubert will contact the responsible person of the vacuum pump.

### Open Issues SCT in UA23

- 06.08            Next week the DQS 6kA cables are to be prepared.
- 10.08            A small water leak in a connection to a water cooled cable of RB was detected before starting the tests. It did not prevent to carry out the tests but have to be fixed by TS/CV.

### Open Issues SCT in UA27

- 19.06            Due to the burnt out of the transfo EMT6/0627 and the high temperatures registered during the UA27 heat run, it has been decided to repeat the 24h heat run.
- 06.06            Electrical departures EBD in UA27 – 67 and 47 to be tested by TA-EL (Jacques agrees with Knud the best moment)
- 04.06            ROX.R2 has been powered with a PIC by-pass / PC side. – interlock test postponed to PIC1 test.



### Open Issues SCT in UJ33

- 04.08            13kA: bad DC cabling of the water cooled cables in R37! **(TS-EL)** Knud pointed out it would be preferable to carry out the correction in the DFB side to avoid repeating the tests. Waiting for an answer from Baptiste who is to study the issue the 16<sup>th</sup> August.
- 04.08            No fixed AC connection for the DQR racks – cables disconnected from the net to free the plug for other activities in the tunnel – not acceptable. **(TS-EL)** Jack will take care of the problem.
- 04.08            Eletta cabling in the tunnel side (both R34 and R37) to be checked **(TS-EL)**. Eletta calibration done **(TS/CV)**
- 04.08            In two racks of 600A electronic filter to be changed – they have been broken during the re-routing of the cables. **TS/EL** is to remove the cables so that the replacement of the filters can be done. Maria Paz reported that Baptiste announced week 38. Knud asked to reconsider the date.
- 20.07            The cables of the converter RPMBB.UJ33.RSS.A23B1 are close to the current leads of the circuit RSS.A23B2 and vice versa. During next week TS-EL will invert the two circuits at the PC

side. The cabloteque will be modified. **(TS-EL)**. Maria Paz reported that Baptiste announced week 38. Knud asked to reconsider the date.

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**Open Issues SCT in RR73 and UJ76**

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08.02 Temporary WIFI cable to be replaced by TS/EL – IT/DI

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**Open Issues SCT in UA67 and UJ67**

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02.02 RSF2.A67B1 and RSF2.A67B2 PIC cables to extend

02.02 NC opening on the bad connection of the “plages” on the 6kA racks

08.01 EE fan rotation problem – all ring – **ON GOING**