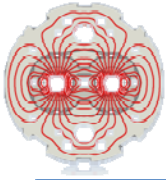


MMM and TEMB - 18 May, 2009

# Status Report of Magnet Work Week 20 / 2009

Francesco Bertinelli - TE/MSC

On behalf of - and with several contributions from - surface and IC teams



# Tunnel News 3-4 Week 20/2009

Courtesy A. Musso

IC	BR	SP	V	E	C'	Y	X	Pq	M	K	N-I	A1	A2	N	MN
QBQI.19R3															
QQBI.19R3															
QBBI.A20R3															
QBBI.B20R3															
QBQI.20R3															
QQBI.20R3															
QBBI.A21R3															
QBBI.B21R3															
QBQI.21R3															
QQBI.21R3															
QBBI.A22R3															
QBBI.B22R3															
QBQI.22R3															
QQBI.22R3															
QBBI.A23R3															
QBBI.B23R3															
QBQI.23R3															
QQBI.23R3															
QBBI.A24R3															
QBBI.B24R3															
QBQI.24R3															
QQBI.24R3															
QBBI.A25R3															
QBBI.B25R3															
QBQI.25R3															
QQBI.25R3															
QBBI.A26R3															
QBBI.B26R3															
QBQI.26R3															
QQBI.26R3															
QBBI.A27R3															
QBBI.B27R3															

Cut bridges

Cut all bridges

Cut bridges

Leak-X-line

No M1 (BB-Flange)

No M

IC	BR	SP	V	E	C'	Y	X	Pq	M	K	N-I	A1	A2	N	MN
QBQI.27R3															
QQBI.27R3															
QBBI.A28R3															
QBBI.B28R3															
QBQI.28R3															
QQBI.28R3															
QBBI.A29R3															
QBBI.B29R3															
QBQI.29R3															
QQBI.29R3															
QBBI.A30R3															
QBBI.B30R3															
QBQI.30R3															
QQBI.30R3															
QBBI.A31R3															
QBBI.B31R3															
QBQI.31R3															
QQBI.31R3															
QBBI.A32R3															
QBBI.B32R3															
QBQI.32R3															
QQBI.32R3															

M3 flange damaged

Broken cable - Only M2 av.

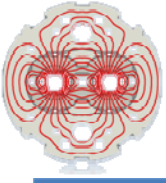
Cut 1

Cut 1

Cut 1-3

X-to cut

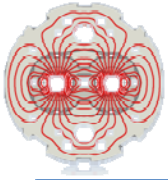
	Brazing	Spool	V	E	M	X	K
Week 13	8	6	7	8	0	0	
Week 14	9	7	10	11	3	0	
Week 15	5	4	2	1	0	0	
Week 16	5	1	7	7	0	0	
Week 17	5	14	6	8	3	15	
Week 18	4	6	2	0	11	7	
Week 19	4	4	7	0	7	19	16
Week 20	5	7	0	9	0	2	0



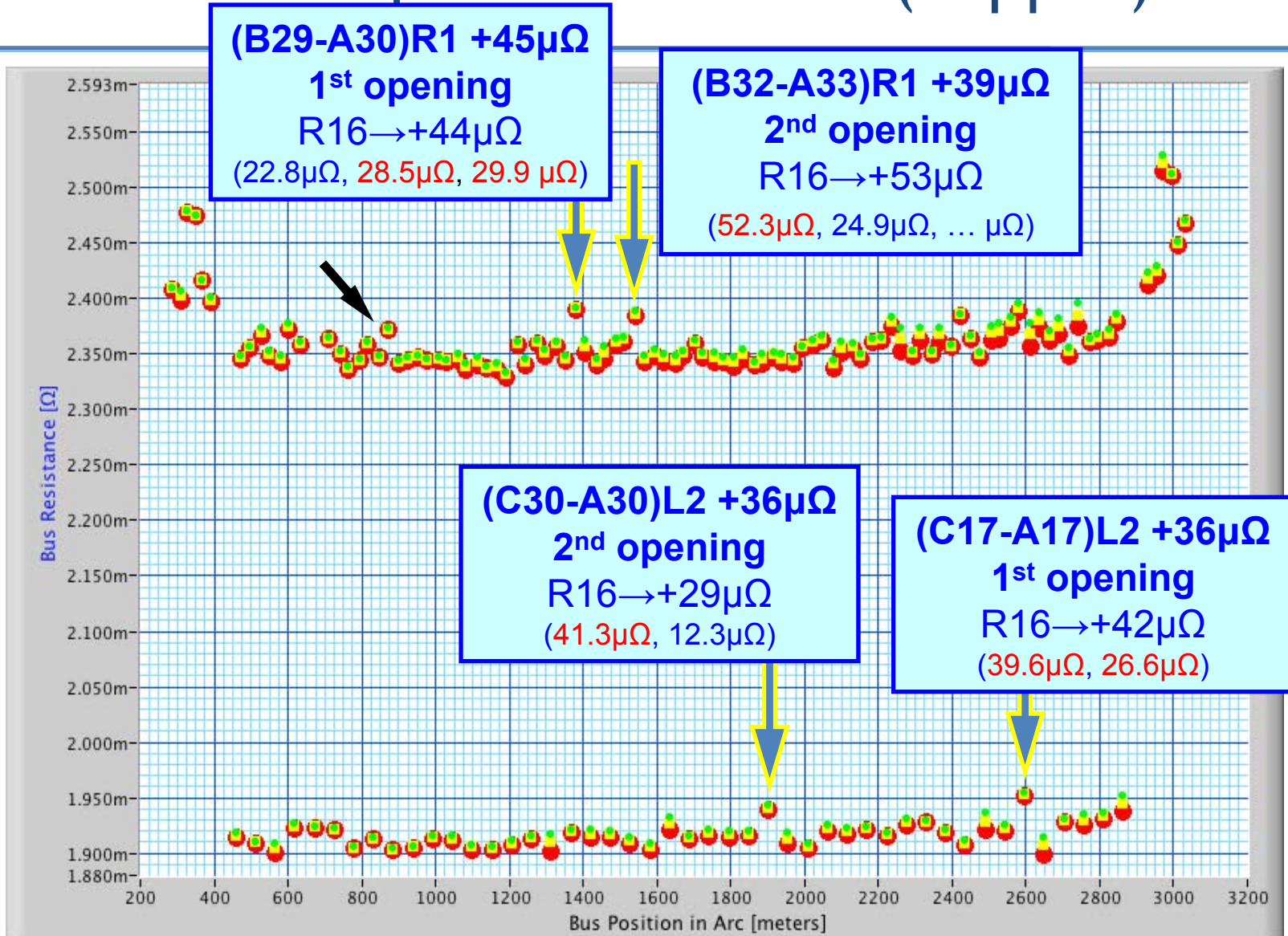
# Tunnel News 3-4 D-area

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- Some milestones:
  - Successful repair of overheated M3 cable (see Paolo)
  - Start of first jumper lines welding
  - End of electrical connections W20: 2 days later
  - Agreed procedure for NCR spools (MB2444 in C30R3):  
keep RCD corrector, condemn RCO corrector
  - Objective: MPAQ next Friday
- Cabling starting W21, warning on coactivity

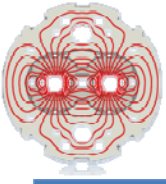


# 1-2 M3 splice resistance (copper)

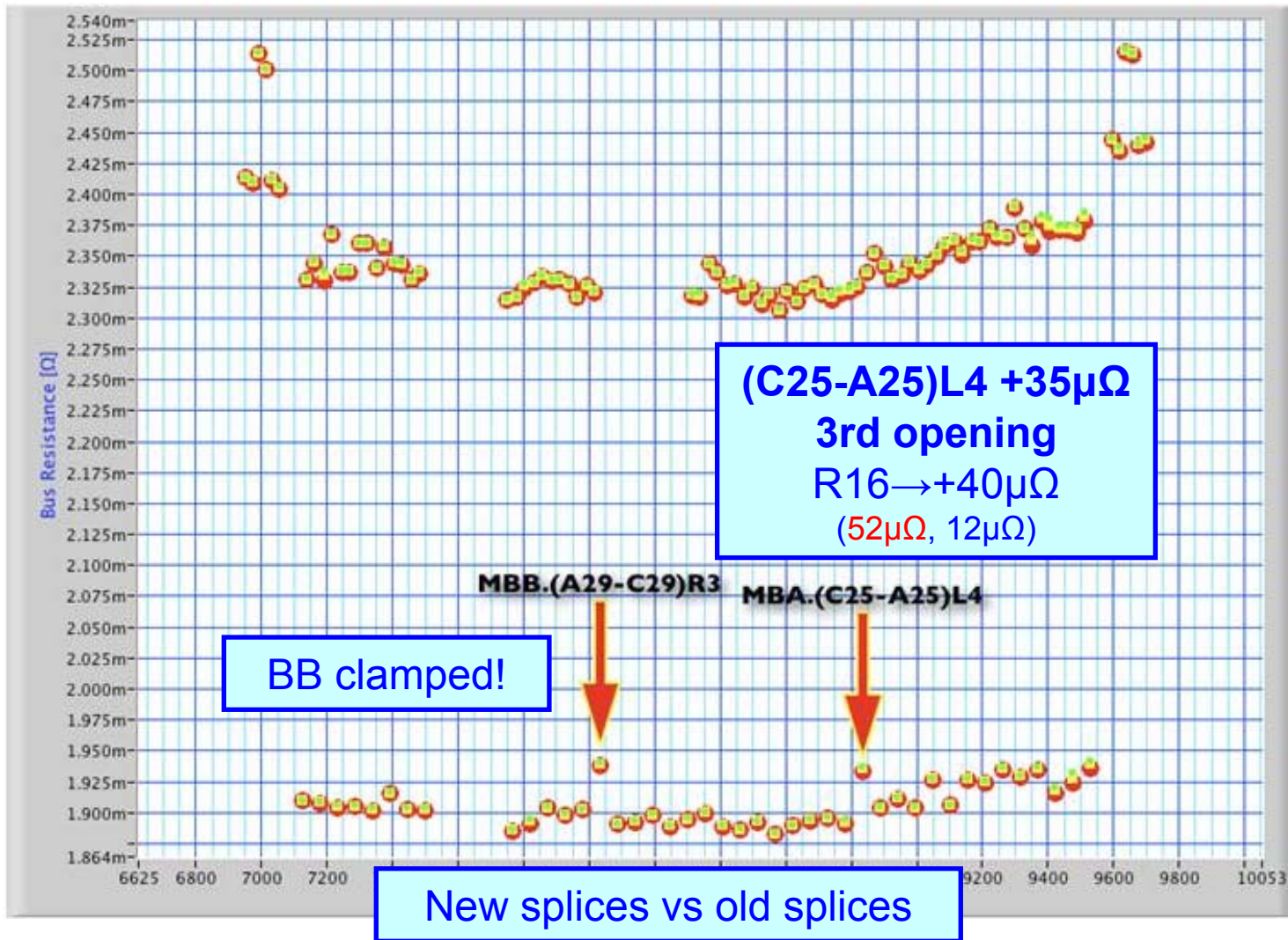


Courtesy R. Flora, C. Scheuerlein

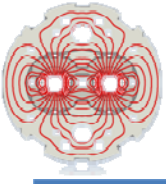




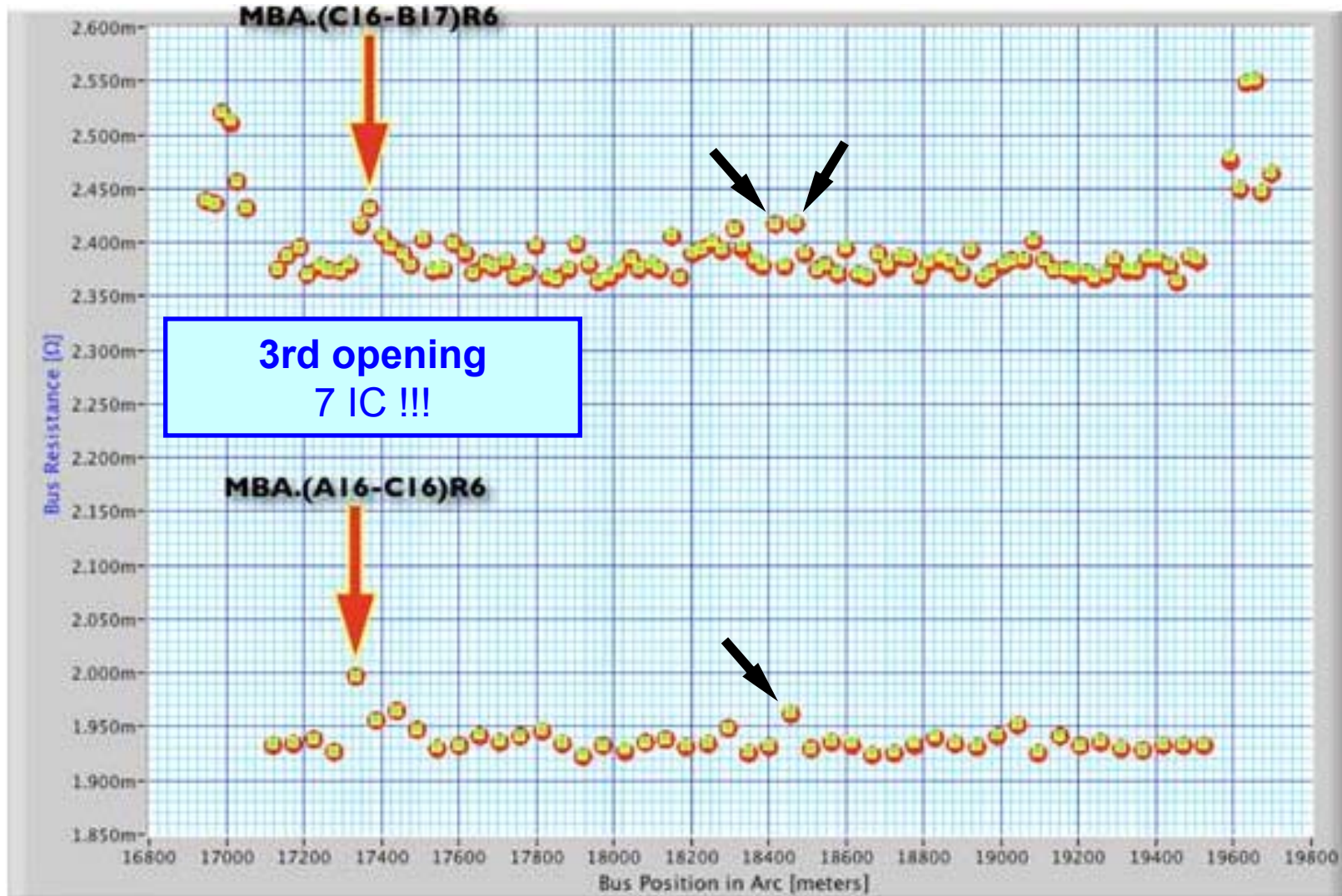
# 3-4 M3 splice resistance (copper)



Courtesy R. Flora

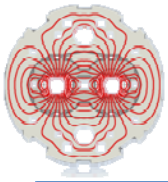


# 6-7 M3 splice resistance (copper)

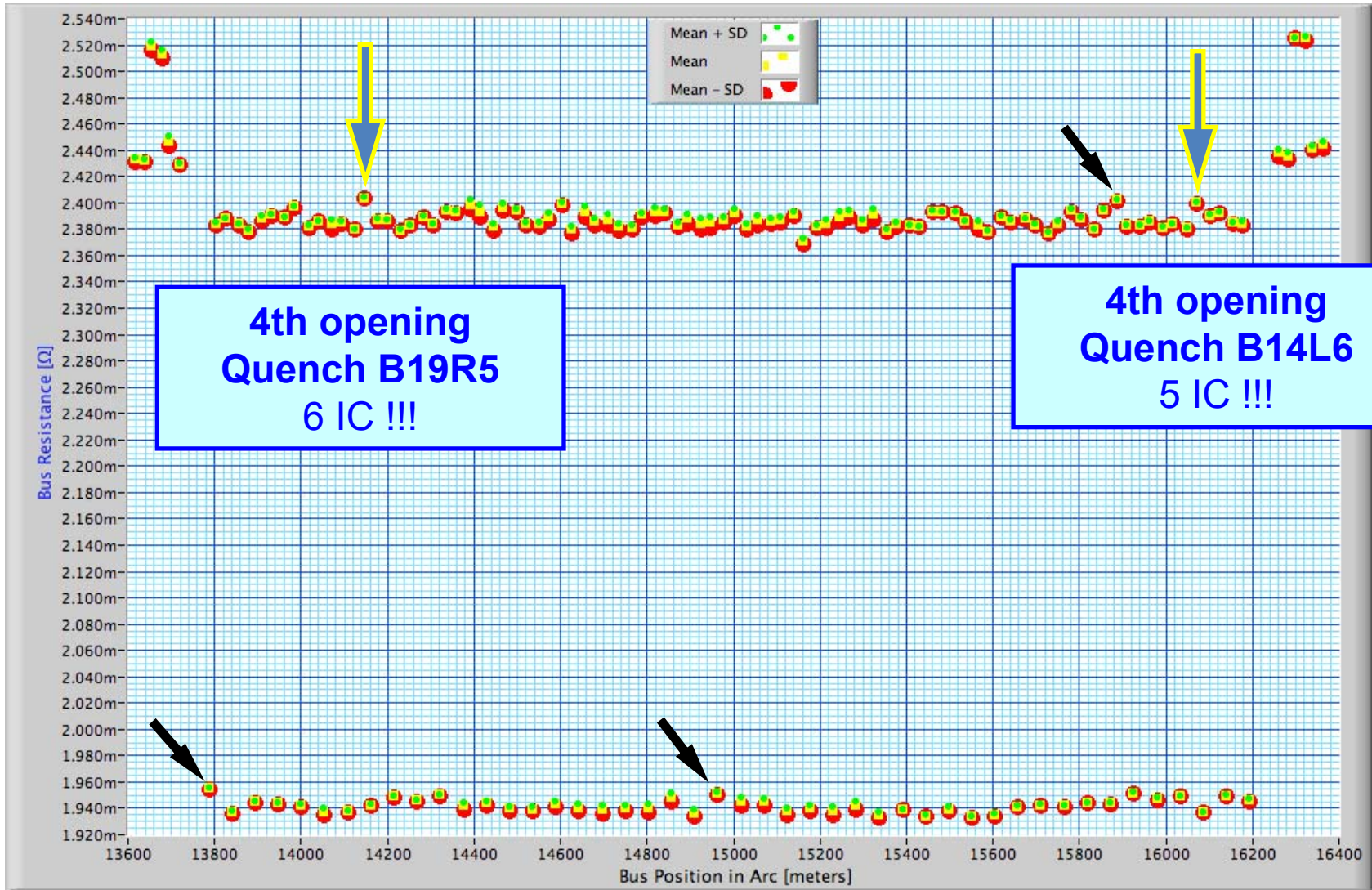


Courtesy R. Flora

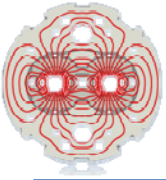




# 5-6 M3 splice resistance (copper)



Courtesy R. Flora



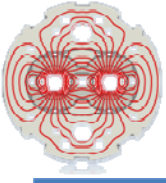
# Where do we stop cutting?

Courtesy R. Flora

Hit List			
$\partial R$ [ $\Omega$ ]	x [m]	Bus Segment Span	
59.9u	17331	RBAR.[A16R6<->C16R6]	OK
49.7u	17369	RBAR.[C16R6<->B17R6]	OK
45.4u	1380	RBAR.[B29R1<->A30R1]	OK
44.9u	8029	RBBL.[A29R3<->C29R3]	False alarm
42.3u	18469	RBAR.[B32L7<->C31L7]	Open W
42.1u	18416	RBBR.[B33L7<->C32L7]	Open W
39.3u	1541	RBBR.[B32R1<->A33R1]	OK
38.8u	18309	RBBR.[B34R6<->C34L7]	Open W
35.7u	1899	RBBR.[C30L2<->A30L2]	OK
35.6u	2594	RBAR.[C17L2<->A17L2]	OK
35.3u	8831	RBAL.[C25L4<->A25L4]	OK
34.8u	2578	RBBR.[A18L2<->B17L2]	Open W (recheck)
33.8u	17347	RBBR.[B16R6<->A17R6]	OK
33.7u	18149	RBAR.[B31R6<->A32R6]	
31.5u	18454	RBBR.[C32L7<->A32L7]	
30.9u	2418	RBAR.[A21L2<->B20L2]	

- Remember we are only dealing with warm M3 so far ...
- need to start repairs tomorrow
- for a proper job need portable milling machine, so work sequentially (1-2, 5-6, 6-7)
- Repair when  $R16 > 20\mu\Omega$  ( $25\mu\Omega$ ?)

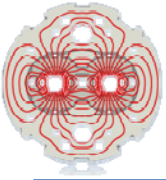




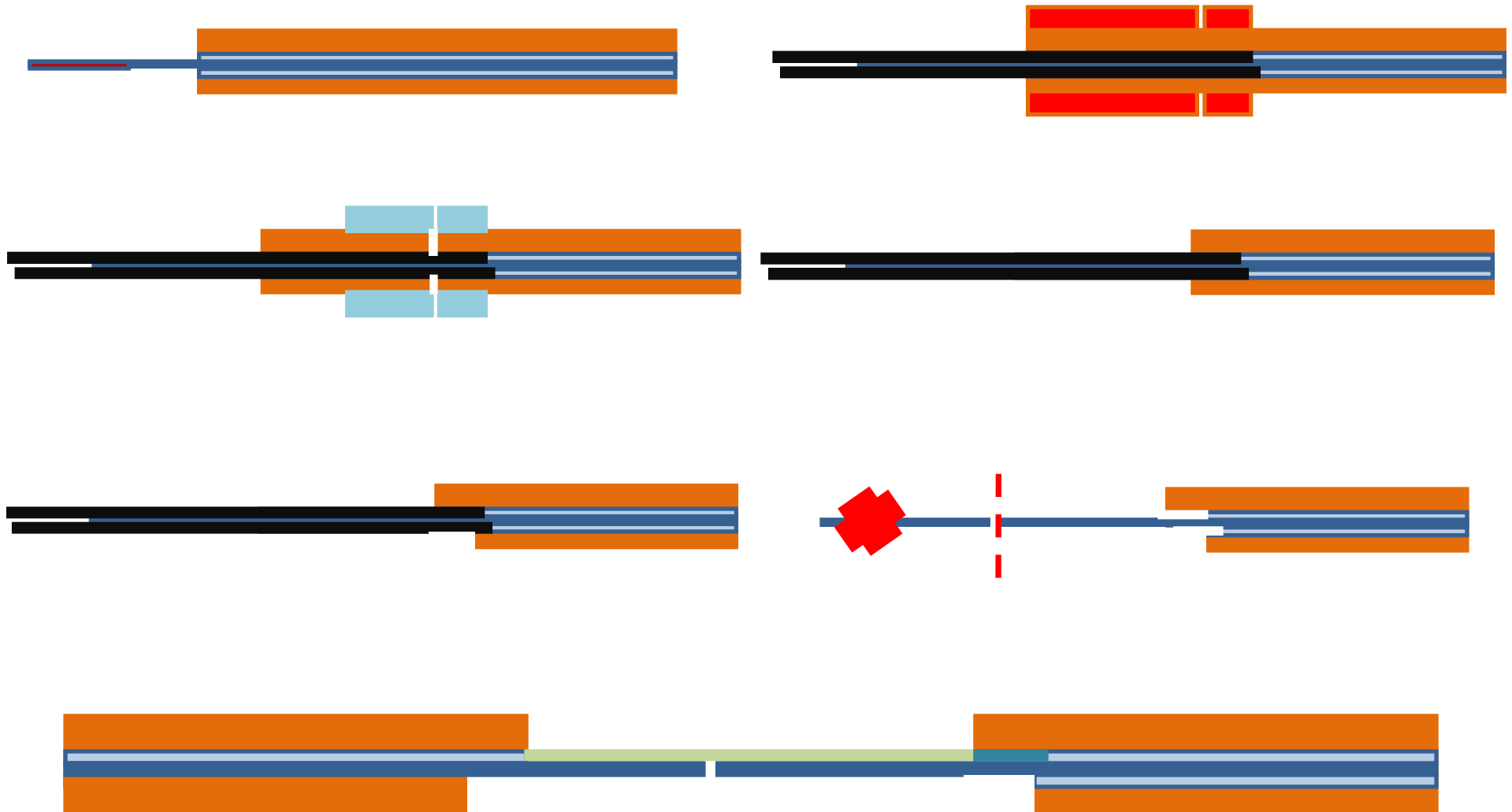
# Repair procedure QBBI.B29R3

J. Michel Hubert, S. Triquet, C.  
Urpin

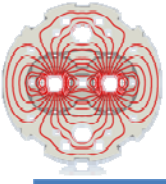
Courtesy P. Fessia



# Repair procedure QBBI.B29R3



Courtesy P. Fessia

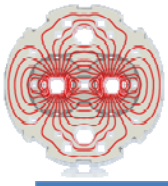


# Repair procedure QBBI.B29R3 i/iii

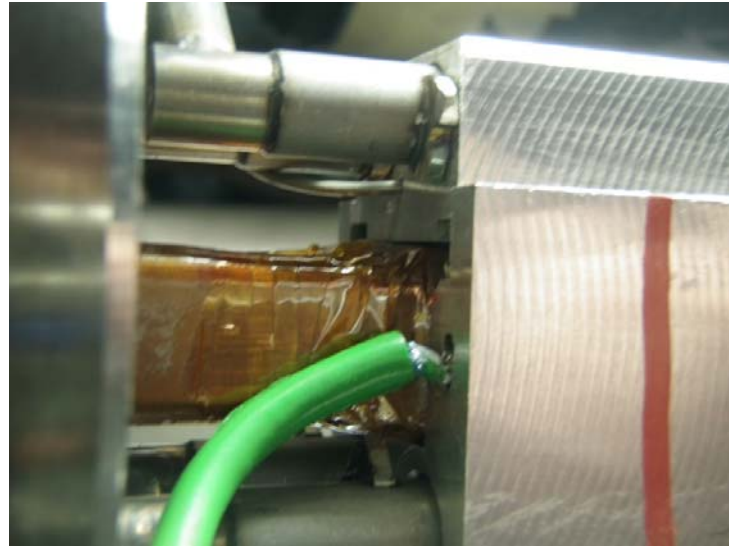
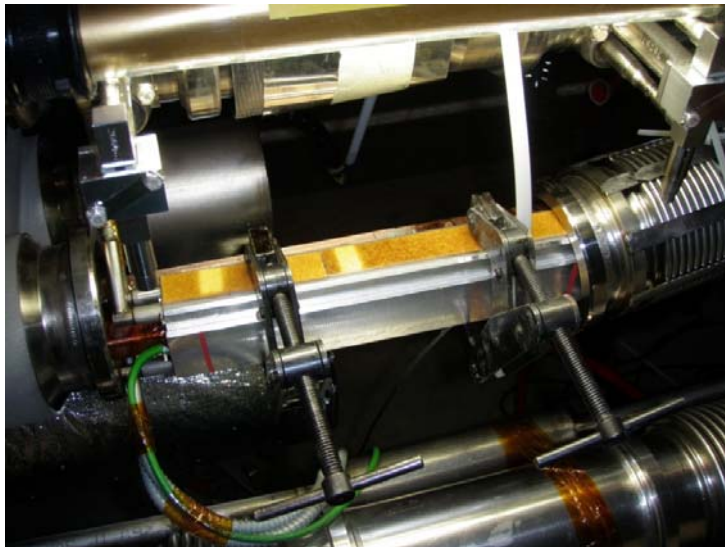
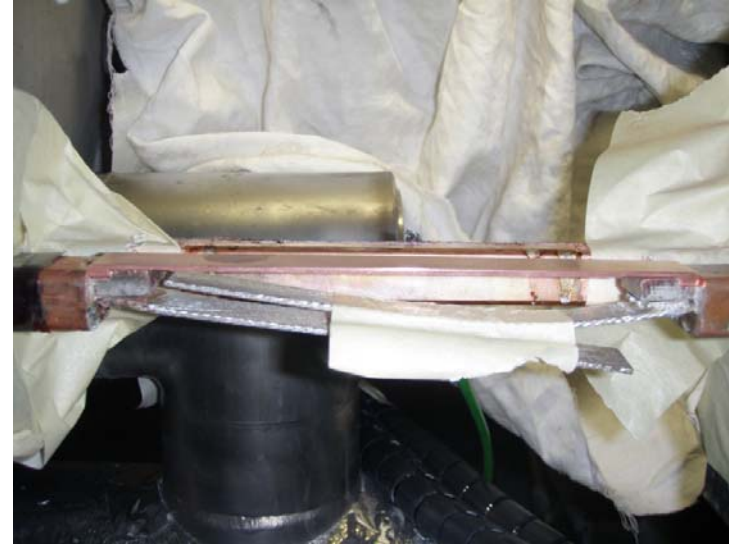
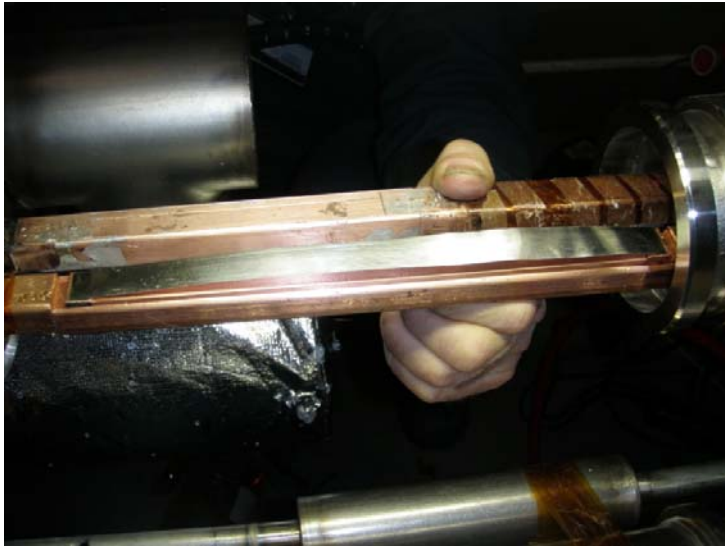


Courtesy P. Fessia

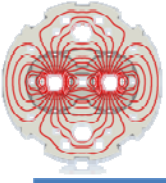




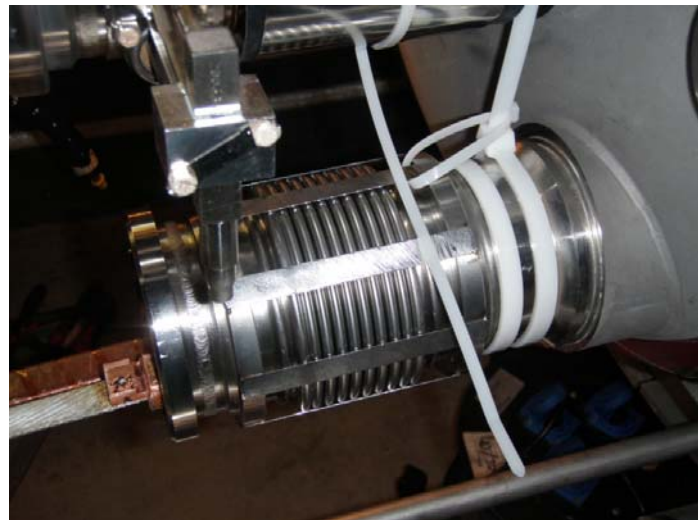
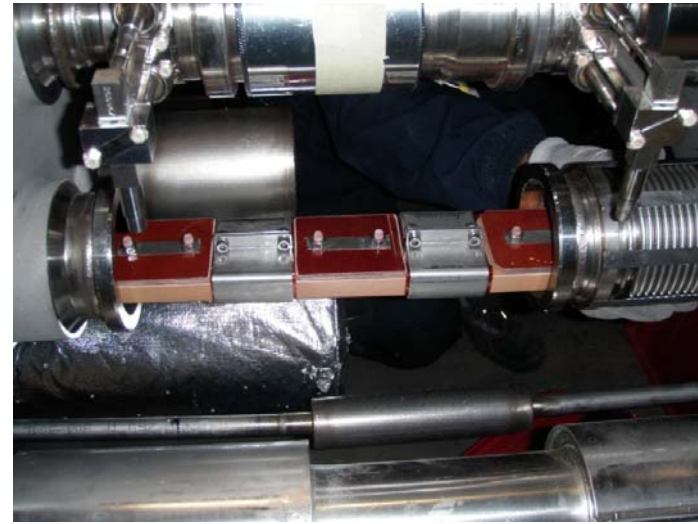
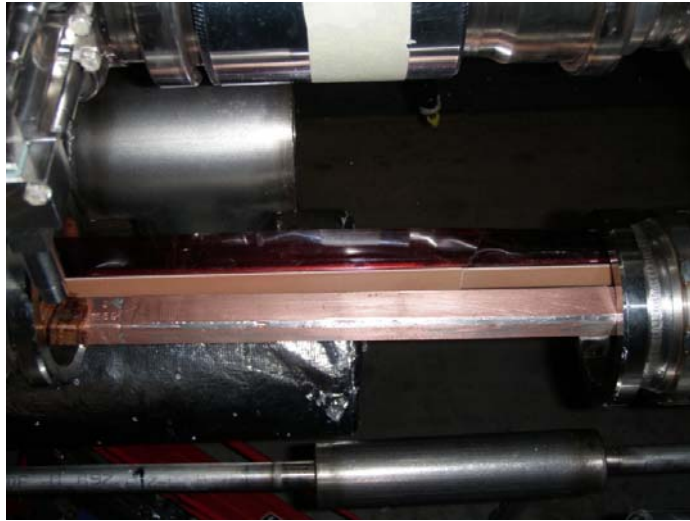
# Repair procedure QBBI.B29R3 ii/iii



Courtesy P. Fessia



# Repair procedure QBBI.B29R3 iii/iii



Courtesy P. Fessia