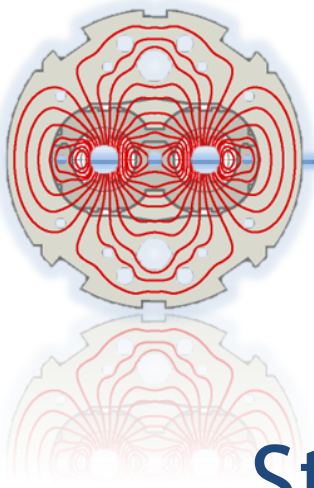


Status Report of Magnet Work Week 04 / 2009

Francesco Bertinelli – TE/MSC

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

Tunnel News Week 04/2009

- 3-4:
  - 3 MB and 1 SSS (SSS277 Q24R3, the first!) reinstalled in D area in W04: current status 8/39 MB and 1/14 SSS
  - night shift transport arranged by EN starting ~W10 (thanks!)
  - Y-line repair ongoing: new large leak identified in 24L4
  - V flanges to be inspected, replacement cutting to start
  - Undulator in L4 to be replaced? (study under way, ECR …)
- 1-2 shutdown:
  - PIM reinstallation started (VSC) Friday 23 January: 16 PIMs to be rewelded (6 preventive at ends, 6 RF ball, 4 MB2334) by MSC
  - PIM QBQI.18L2 V2 inspected, RF finger geometry very deformed
- 5-6 shutdown:
  - RF ball: obstacles QQBI.25R5 then QQBI.24R5 (last Friday) V1, QQBI.29R5 V2 (then V2 free)
  - arc SSS He guards: 26 (out of 27) damaged, all being replaced
- 4-5: cryo OK to start work (SAM and triplet 5L) Wednesday 28 January

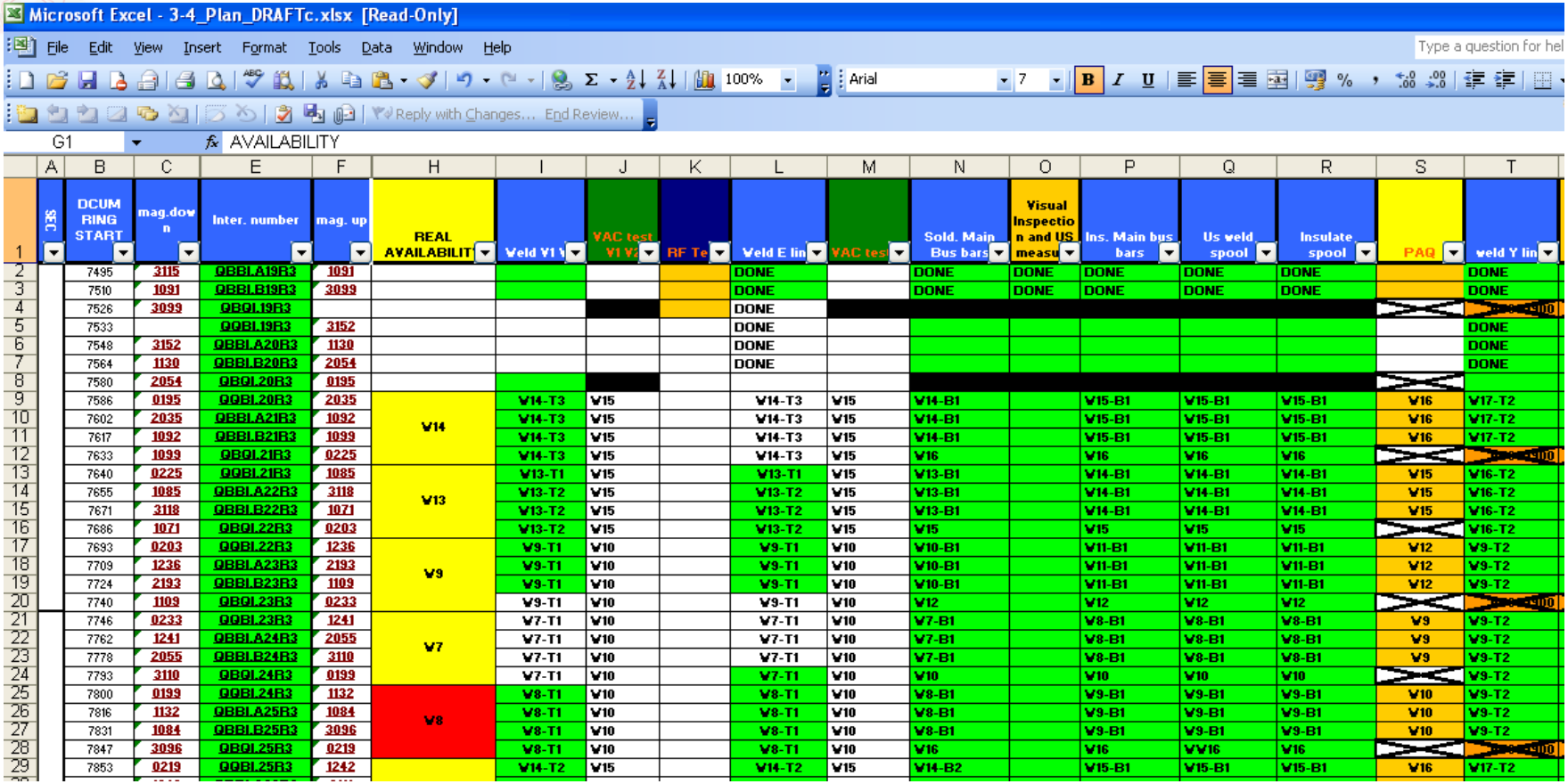
Surface News Week 04/2009

- 3-4 activities completed:

	MB	SSS
Cryostating	3	2
Cold testing	1	1
Stripping	1	1

  - Quality issues (and delays):
    - US welding of spool wires (alignment)
    - Cold testing: MB1085 (1 beam screen!), MB2427 (OSQAR 19nΩ)
    - 2 (3) weld inspectors from IS to join (cost!)
    - need for 1 additional MTF followup person (close steps)
  - ➢ Visit Insurance Company on 29 January (claim for soot costs)
- 1-2:
  - MB2334 B16R1 in Bdg. 181 : endcover connection-side cutting Friday 23 January afternoon

IC 3-4 Detailed Planning i/ii



Microsoft Excel - 3-4_Plan_DRAFTc.xlsx [Read-Only]

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G1 AVAILABILITY

	A	B	C	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	SEC	DCUM RING START	mag.down	Inter. number	mag. up	REAL AVAILABILIT	Weld V1	VAC test V1 V2	RF Te	Weld E lin	VAC tes	Sold. Main Bus bars	Visual Inspection and US measu	Ins. Main bus bars	Us weld spool	Insulate spool	PAQ	weld Y lin
2		7495	3115	QBBLA19R3	1091					DONE		DONE	DONE	DONE	DONE	DONE		DONE
3		7510	1091	QBBLB19R3	3099					DONE		DONE	DONE	DONE	DONE	DONE		DONE
4		7526	3099	QBQL19R3						DONE								
5		7533		QQBL19R3	3152					DONE								DONE
6		7548	3152	QBBLA20R3	1130					DONE								DONE
7		7564	1130	QBBLB20R3	2054					DONE								DONE
8		7580	2054	QBQL20R3	0195													
9		7586	0195	QQBL20R3	2035	V14	V14-T3	V15		V14-T3	V15	V14-B1		V15-B1	V15-B1	V15-B1	V16	V17-T2
10		7602	2035	QBBLA21R3	1092		V14-T3	V15		V14-T3	V15	V14-B1		V15-B1	V15-B1	V15-B1	V16	V17-T2
11		7617	1092	QBBLB21R3	1099		V14-T3	V15		V14-T3	V15	V14-B1		V15-B1	V15-B1	V15-B1	V16	V17-T2
12		7633	1099	QBQL21R3	0225		V14-T3	V15		V14-T3	V15	V16		V16	V16	V16		
13		7640	0225	QQBL21R3	1085	V13	V13-T1	V15		V13-T1	V15	V13-B1		V14-B1	V14-B1	V14-B1	V15	V16-T2
14		7655	1085	QBBLA22R3	3118		V13-T2	V15		V13-T2	V15	V13-B1		V14-B1	V14-B1	V14-B1	V15	V16-T2
15		7671	3118	QBBLB22R3	1071		V13-T2	V15		V13-T2	V15	V13-B1		V14-B1	V14-B1	V14-B1	V15	V16-T2
16		7686	1071	QBQL22R3	0203		V13-T2	V15		V13-T2	V15	V15		V15	V15	V15		V16-T2
17		7693	0203	QQBL22R3	1236	V9	V9-T1	V10		V9-T1	V10	V10-B1		V11-B1	V11-B1	V11-B1	V12	V9-T2
18		7709	1236	QBBLA23R3	2193		V9-T1	V10		V9-T1	V10	V10-B1		V11-B1	V11-B1	V11-B1	V12	V9-T2
19		7724	2193	QBBLB23R3	1109		V9-T1	V10		V9-T1	V10	V10-B1		V11-B1	V11-B1	V11-B1	V12	V9-T2
20		7740	1109	QBQL23R3	0233		V9-T1	V10		V9-T1	V10	V12		V12	V12	V12		
21		7746	0233	QQBL23R3	1241	V7	V7-T1	V10		V7-T1	V10	V7-B1		V8-B1	V8-B1	V8-B1	V9	V9-T2
22		7762	1241	QBBLA24R3	2055		V7-T1	V10		V7-T1	V10	V7-B1		V8-B1	V8-B1	V8-B1	V9	V9-T2
23		7778	2055	QBBLB24R3	3110		V7-T1	V10		V7-T1	V10	V7-B1		V8-B1	V8-B1	V8-B1	V9	V9-T2
24		7793	3110	QBQL24R3	0199		V7-T1	V10		V7-T1	V10	V10		V10	V10	V10		V9-T2
25		7800	0199	QQBL24R3	1132	V8	V8-T1	V10		V8-T1	V10	V8-B1		V9-B1	V9-B1	V9-B1	V10	V9-T2
26		7816	1132	QBBLA25R3	1084		V8-T1	V10		V8-T1	V10	V8-B1		V9-B1	V9-B1	V9-B1	V10	V9-T2
27		7831	1084	QBBLB25R3	3096		V8-T1	V10		V8-T1	V10	V8-B1		V9-B1	V9-B1	V9-B1	V10	V9-T2
28		7847	3096	QBQL25R3	0219		V8-T1	V10		V8-T1	V10	V16		V16	VV16	V16		
29		7853	0219	QQBL25R3	1242		V14-T2	V15		V14-T2	V15	V14-B2		V15-B1	V15-B1	V15-B1	V16	V17-T2

- Updating IC November 2008 planning based on updated surface planning

Courtesy A. Musso

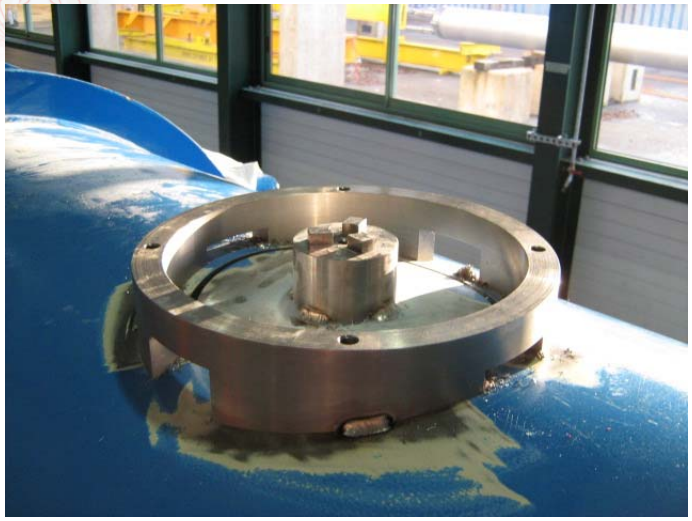
IC 3-4 Detailed Planning ii/ii

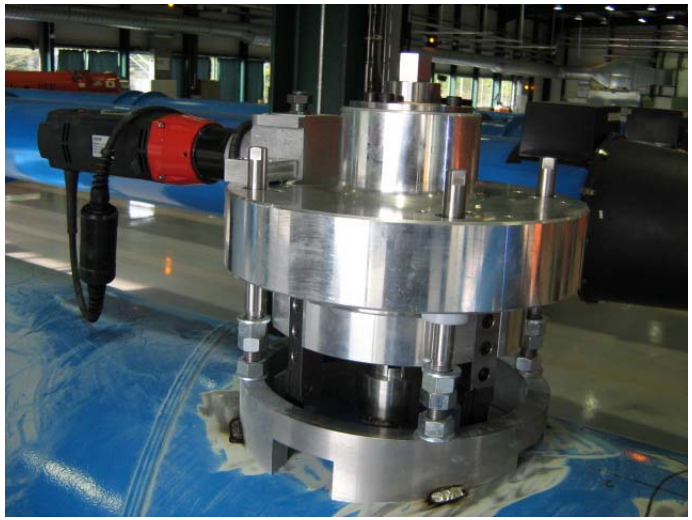
	LMF				ELQA						VSC			
	Teams			IC	Tests						Tests (IC)			
	Welds	BR+US	N-Line	W Closures	PAQ	AIV1	AIV2	HVQN	MPAQ	MHVQN	V+E	X	K-C'	Vacuum Sectors
W7	1	1												
W8	1	1												
W9	2	1			3									
W10	2	1			3						12	7		
W11	2	1			3							7		
W12	2	1			3								14	
W13	2	2			3			9					14	
W14	3	2			3						12			
W15	3	2			6						16			
W16	3	2			6	6		9			13			
W17	3	2			9		6					14		
W18	3		1	4		24		12				10	7	
W19	3						21					7		
W20			1	13		8		9					10	
W21			1	16			12		1	1				
W22			1	17										2
W23														2

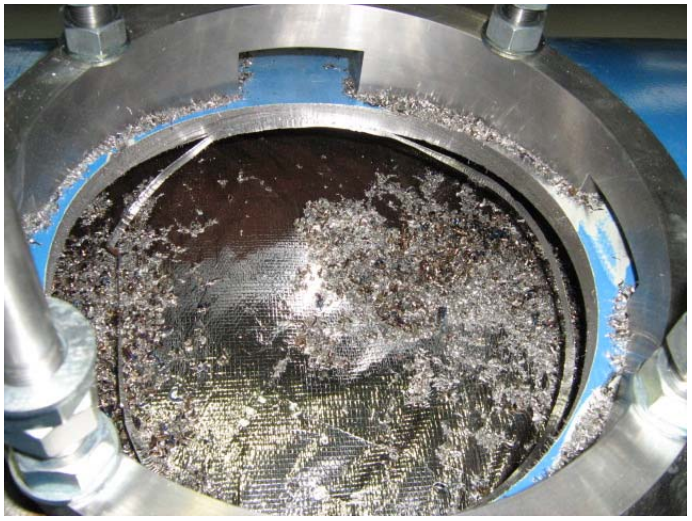
- Discussion with Survey and ELQA (W05)
- levelling of activities (ELQA potentially risky)

Courtesy A. Musso

Pressure relief DN200 News i/iv



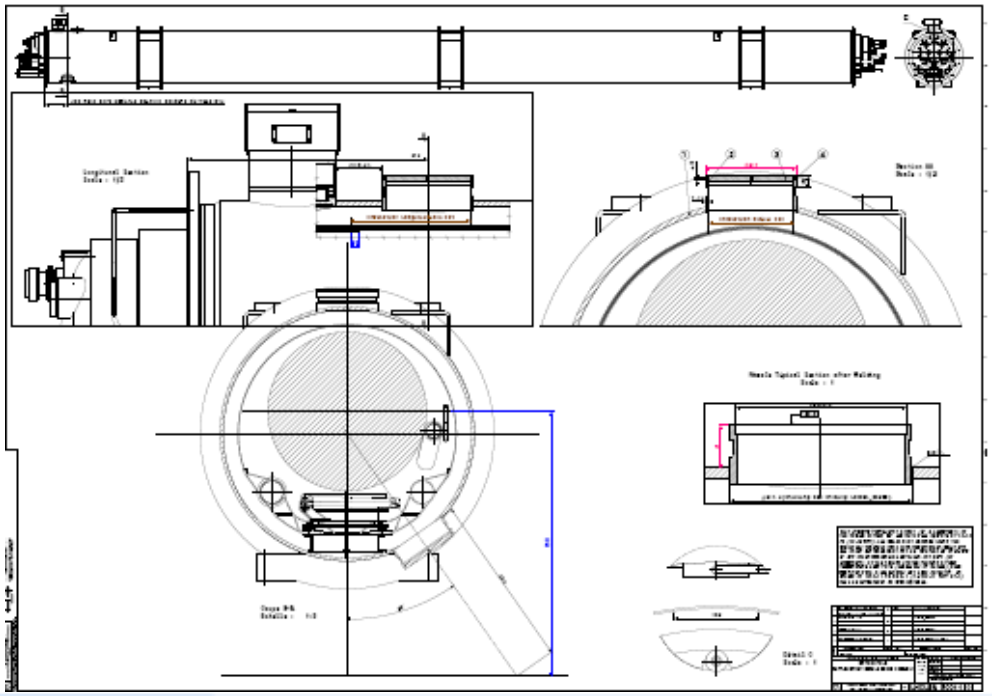




Courtesy M. Karppinen, M. Duret

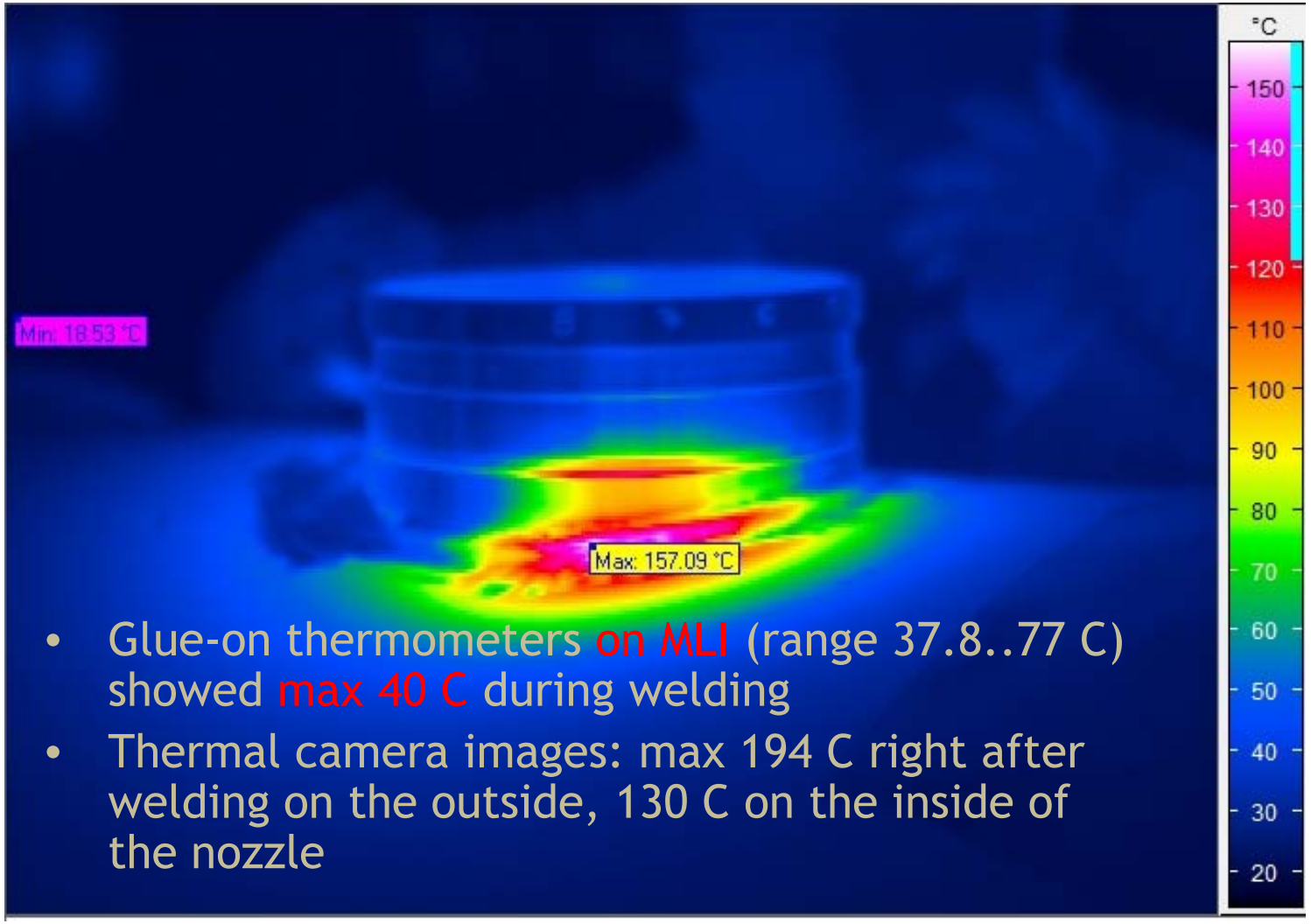
Pressure relief DN200 News ii/iv

- Risk of ignition of MLI from hot machining chips:
  - demonstrate “no risk”, conclusive test (wear of tool): NO!
  - ➢ open all W bellows: test Tuesday with IC screens in place. Would need S108 teams (cost, coordination effort, VAC effort, risk to O-rings and sealing surfaces ...)
  - ➢ move to -55^0 position: test Monday morning



Courtesy M. Karppinen

Pressure relief DN200 News iii/iv



- Glue-on thermometers on MLI (range 37.8..77 C) showed max 40 C during welding
- Thermal camera images: max 194 C right after welding on the outside, 130 C on the inside of the nozzle

Courtesy M. Karppinen

Pressure relief DN200 News iv/iv

- Cut and weld on next MB for cold test,

  measurement of geometry (Survey) before and after to check cryostat deformations

- W05: qualify welders on surface

  recommendation: compulsory for each person in tunnel to test fire with MLI and CO2 extinguisher

- Dubna team (6 persons) arriving Tuesday 27 January (collaboration PH-ATLAS): will be in 1-2

- S107 and S108 teams involved in current development tests: will be respectively in 5-6 and 3-4

- Central cryo sector in arc (100m): need 2 DN200 per MB (L. Tavian);

  also 2 DN200 in 4 MBs in DS areas; triplets under study