

Status of Interconnect Works in the LHC Arcs and DS regions – week 22 (May 28 – June 02, 2007)

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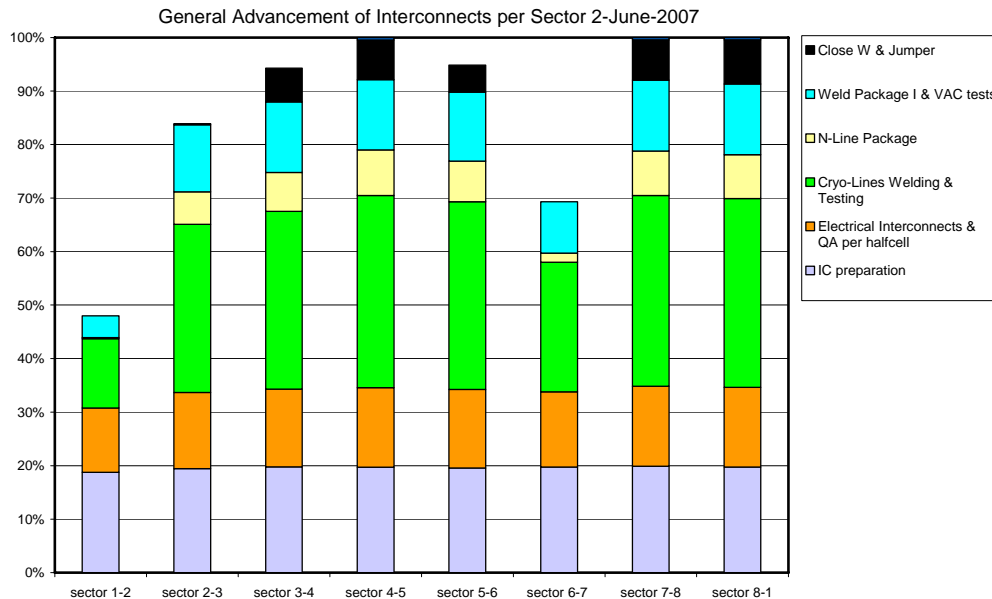
EDMS no. 847807

This report gives the status of the interconnect works in the LHC arcs and dispersion suppressor regions carried out during week 22 (May 28 – June 02, 2007) in responsibility of the interconnection arc coordination team, starting with a general overview about the advancement per sector.

For the status of the VAC test, production rates, work progress, and number of operations foreseen and performed, data are reported for each sector separately.

The Dashboard

- Number of magnets in the tunnel: 1230 MB, 473 SSS, 113 LSS.



Data for General Advancement Plot is counted by number of interventions and grouped by activities as follows:

- IC preparation: Magnet alignment, IC pre-inspection, IC released for work,
- Electrical Interconnects & QA per halfcell: PAQ, US weld of spool pieces, brazing of main busbars,
- Cryo-Lines Welding & Testing: Welding of main busbar lines M1, M2, M3, weld K1 line, K2 line, K3 line, C' line, X line. Vacuum tests of K lines, C' line, X line.
- N-Line package: Insert N line, AIV 1, AIV 2, US welding of N line, weld of large sleeve for N line.
- Beam Pipes Welding & VAC tests. VAC sector test: Welding of V1, V2, E line and VAC tests V1, V2, E line. RF test magnet chain.
- Close W bellow and Jumper.
- VAC test for sector.

Sector coordination team:

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<i>Sectors</i>	<i>Started</i>
4-5 7-8 8-1	finished
1-2 2-3 3-4 5-6 6-7 8-1	Yes

Remarks:

1. The color coding of the general advancement plot matches the color coding of the other plots (snapshot and production rates).
2. The plots of the production rates also show the average production rate (IC/week) foreseen for the sectors and the ultimate production rates for the ideal case.
3. From week 9 on, we added a plot showing the general advancement per sector. For easy comparison, the starting dates in all plots is set to 1-Oct-06, except for sector 4-5.
4. For sectors that are completed, we will suppress the plots and simple give the work status instead.

Sector 1-2

- Brazing of main busbars and US welding of spools ongoing on the released QBQI after PAQ.
- Insertion and cabling of N lines started

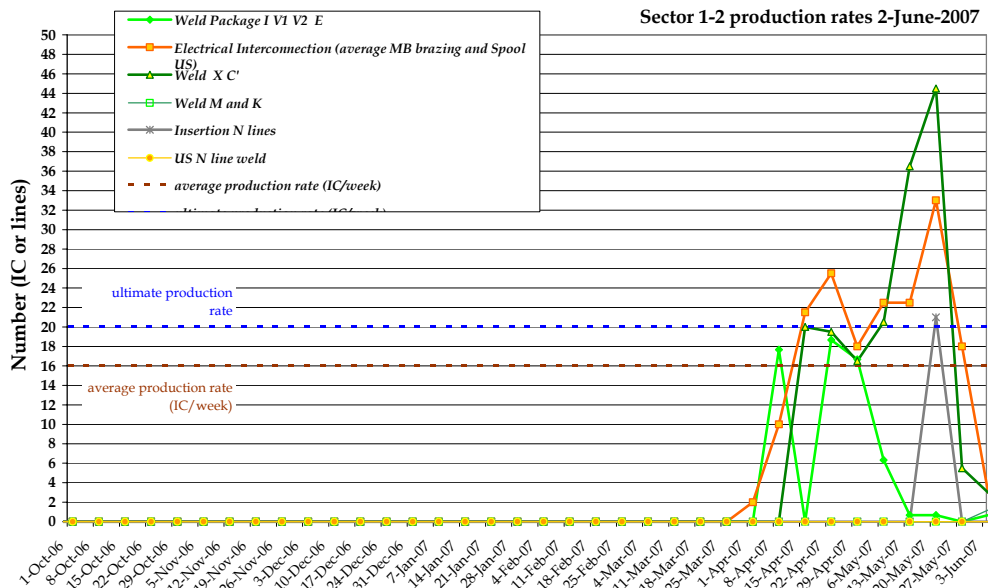


Fig. 1: Production rates in sector 1-2.

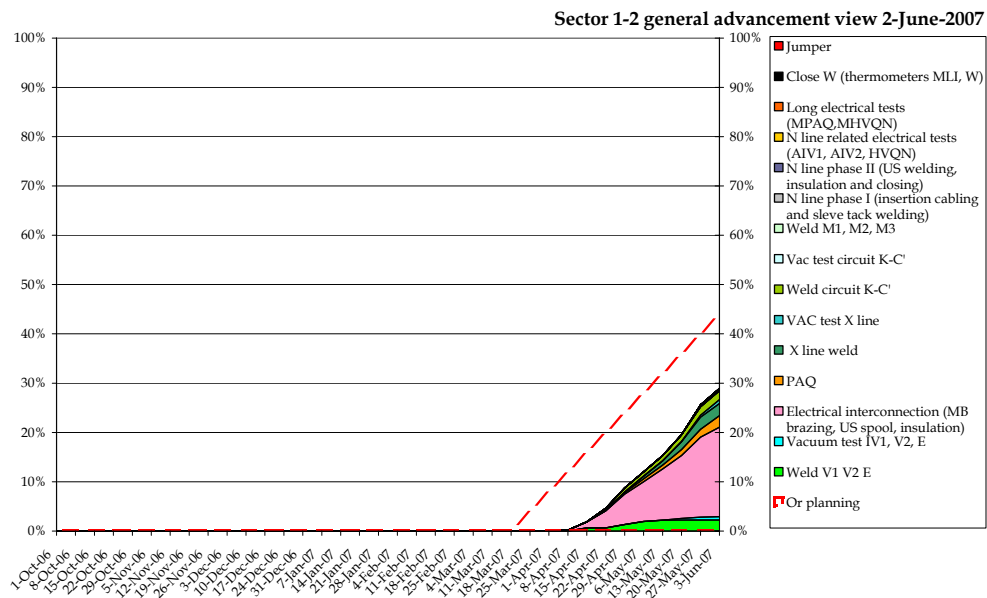


Fig. 2: General advancement view for sector 1-2.

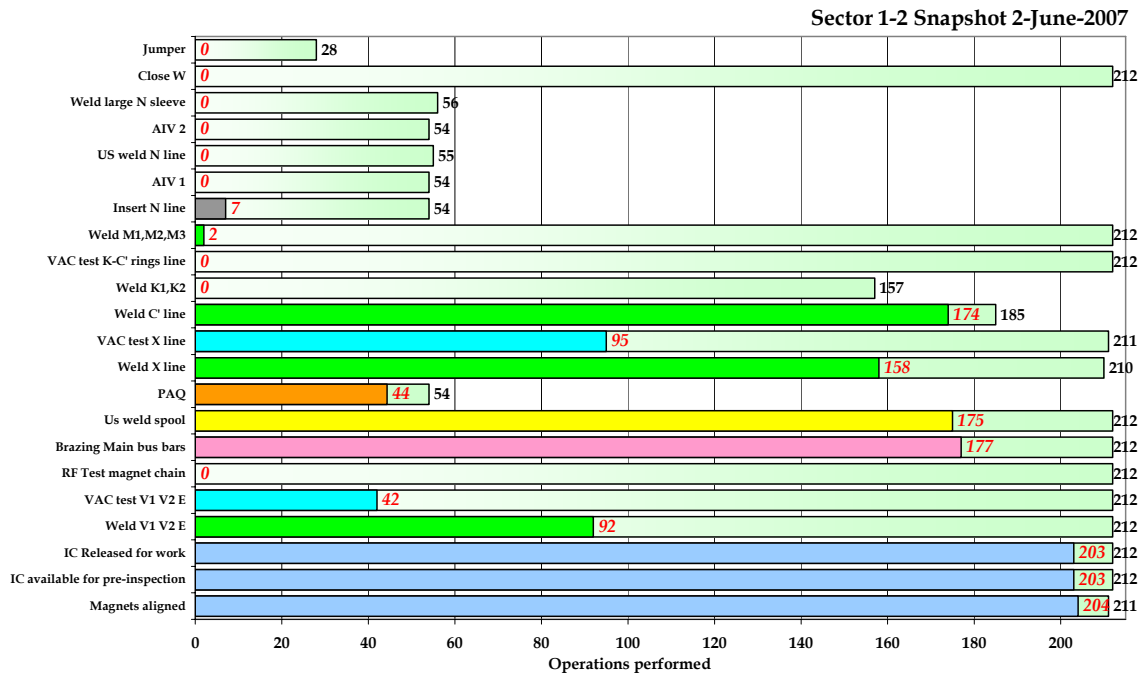


Fig. 3: Snapshot of work progress in sector 1-2 showing the number of operations achieved in total with respect to the total number of operations necessary.

Sector 2-3

- Weld of jumpers proceeding.
- Start 2nd phase of welding M lines.

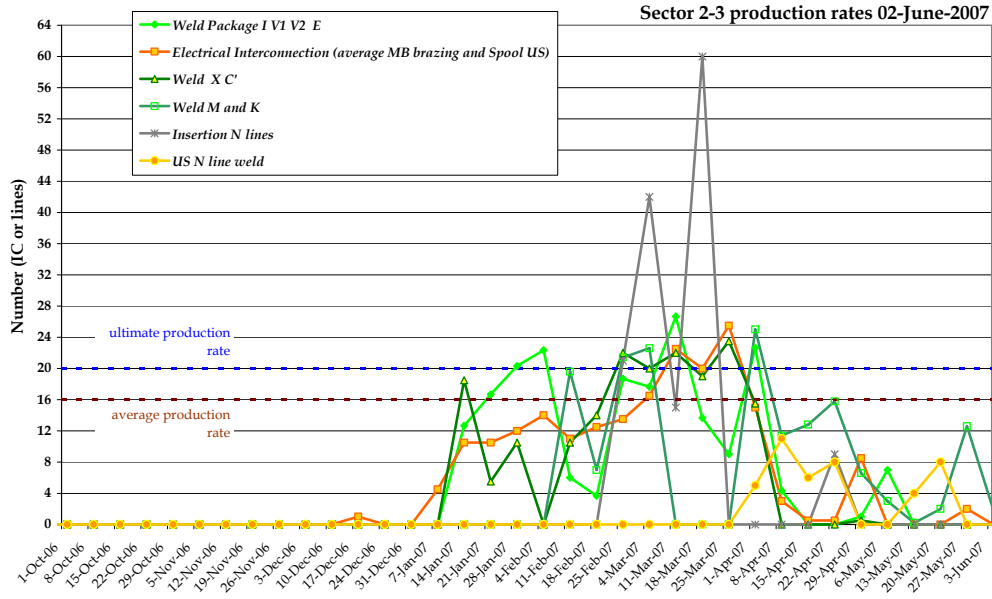


Fig. 4: Production rates in sector 2-3.

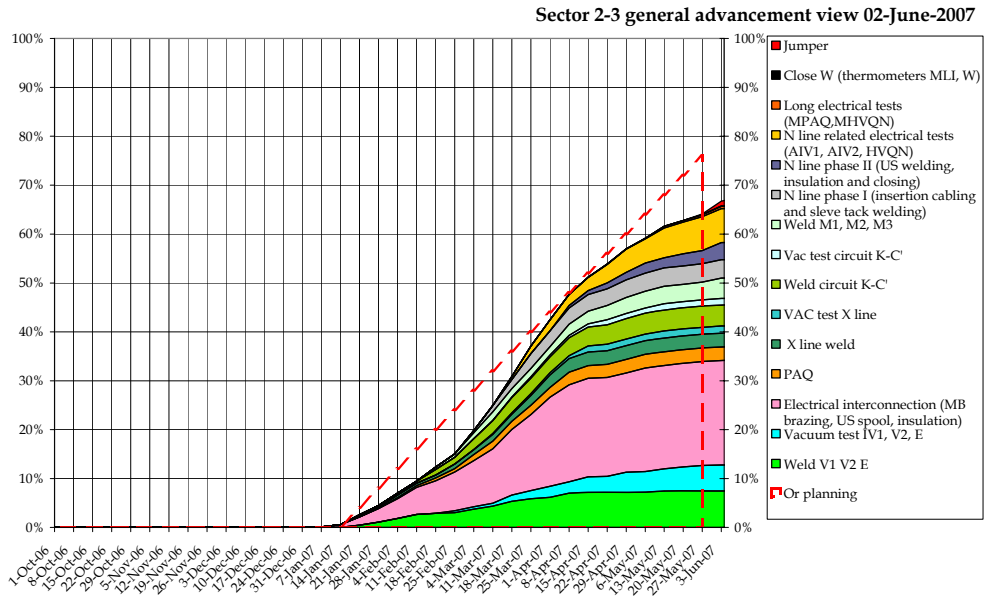


Fig. 5: General advancement view for sector 2-3.

Sector 2-3 Snapshot 02-June-2007

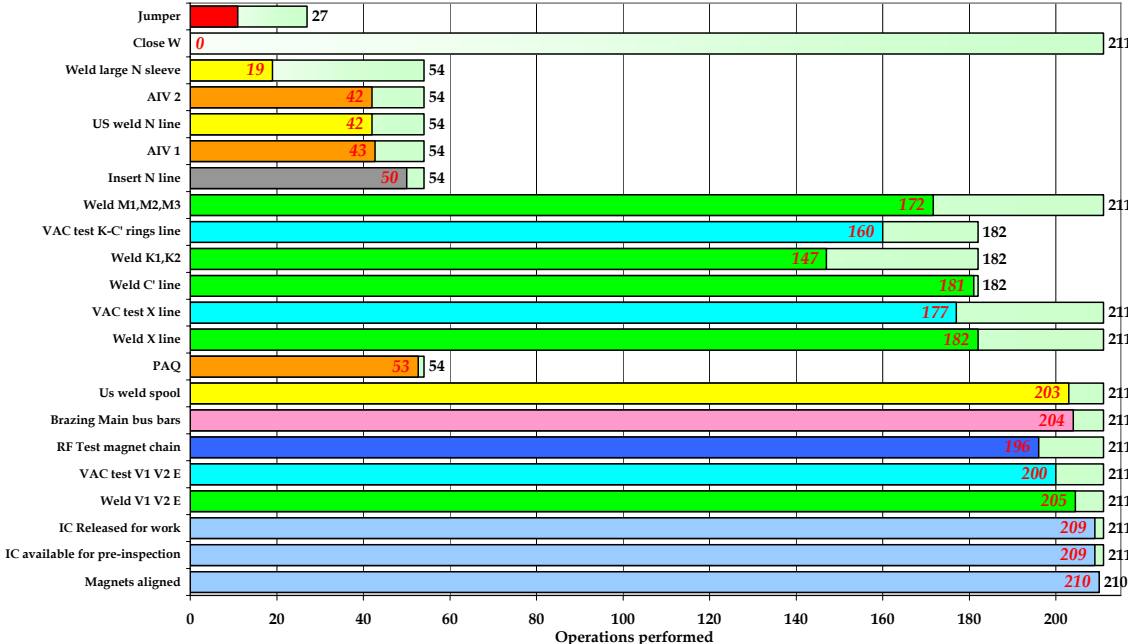


Fig. 6: Snapshot of work progress in sector 2-3 showing the number of operations achieved in total with respect to the total number of operations necessary.

Sector 3-4

- Leak detections ongoing and repairs of leaks.
- Repair of Q9R3 proceeding. The insulation has been repaired and it is possible to start closing the hole necessary for the repair. As soon as this will be closed, starting to open the other 2 cold masses.
- DS L4: electrical tests completed, welds ongoing.

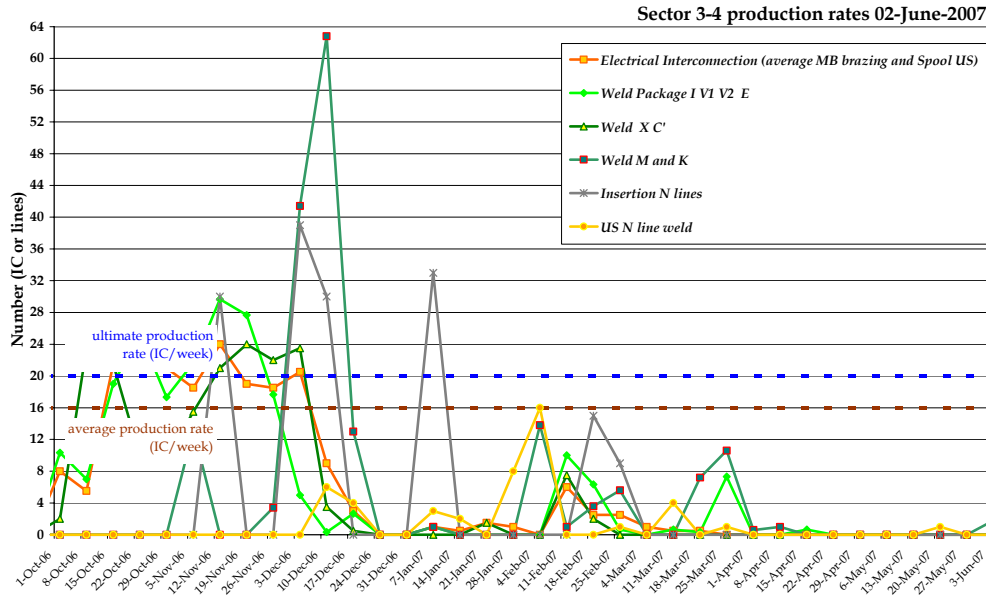


Fig. 7: Production rates in sector 3-4.

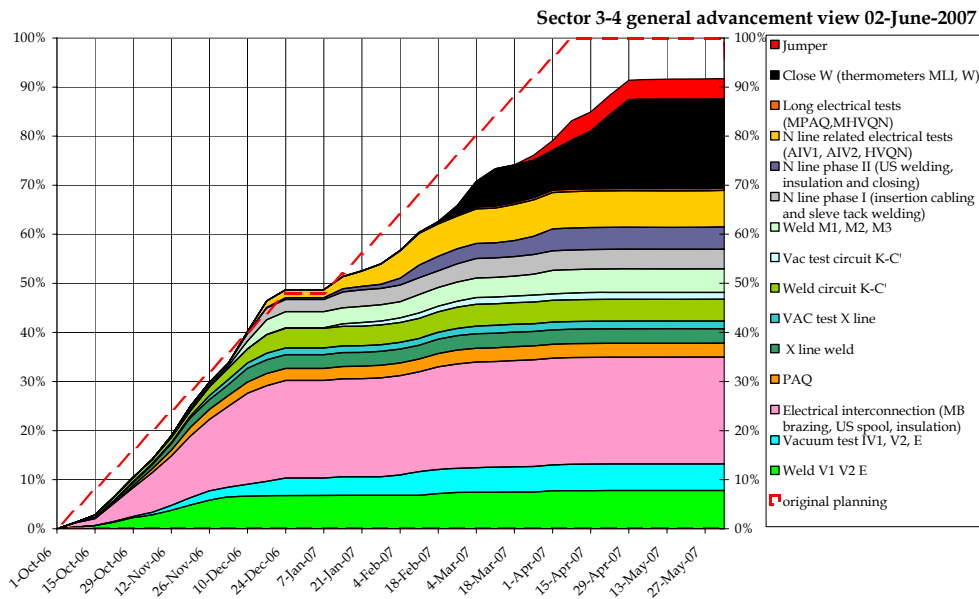


Fig. 8: General advancement view for sector 3-4.

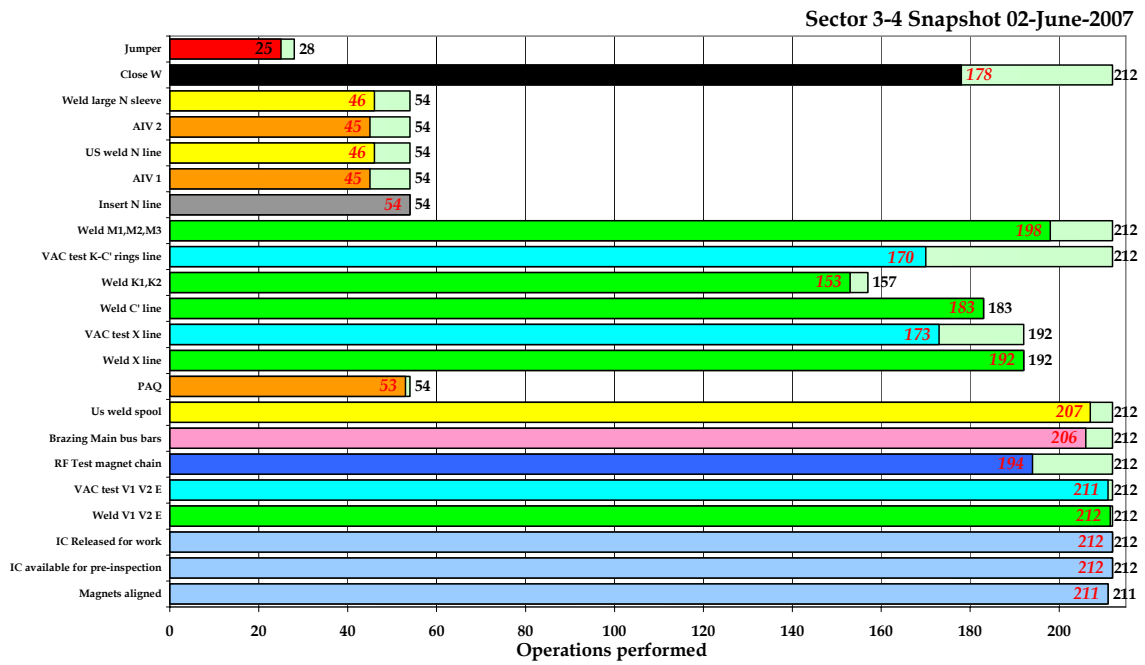


Fig. 9: Snapshot of work progress in sector 3-4 showing the number of operations achieved in total with respect to the total number of operations necessary.

Sector 4-5 (completed at 29-Apr-07)

- 2 leaks were identified in 7R4. One has been found and repaired. The second one on the cold mass circuit has not been found yet and the sector will be closed in week 23.

Sector 5-6

- Closing of W bellows proceeding.
- 3 vacuum sectors provided to VAC.

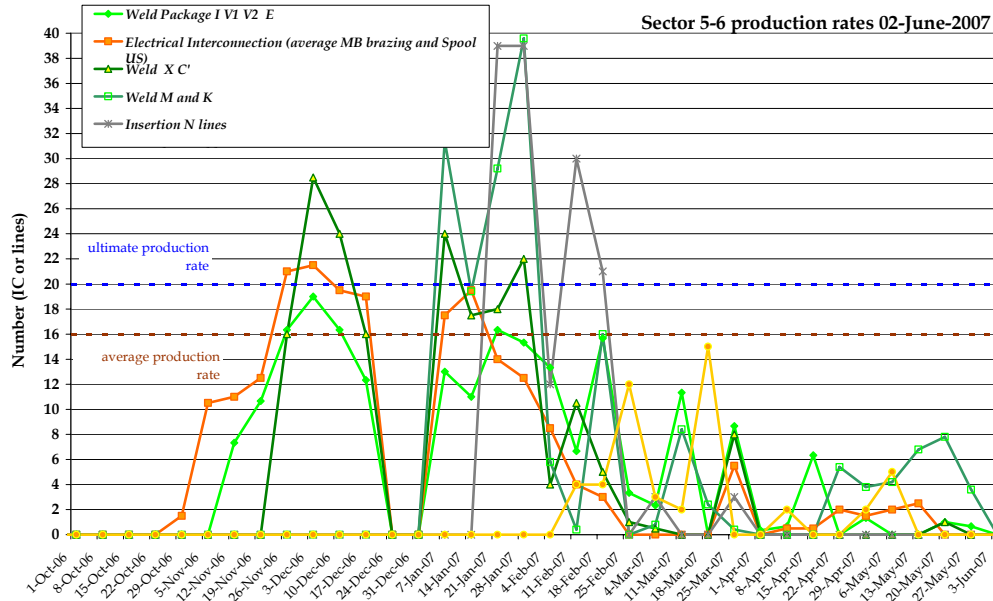


Fig. 10: Production rates in sector 5-6.

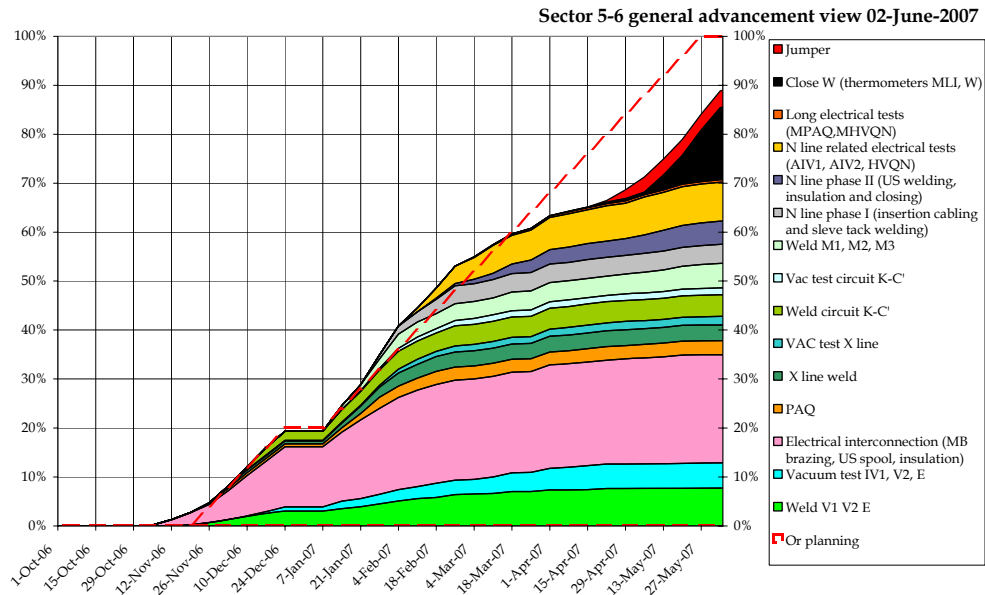


Fig. 11: General advancement view for sector 5-6.

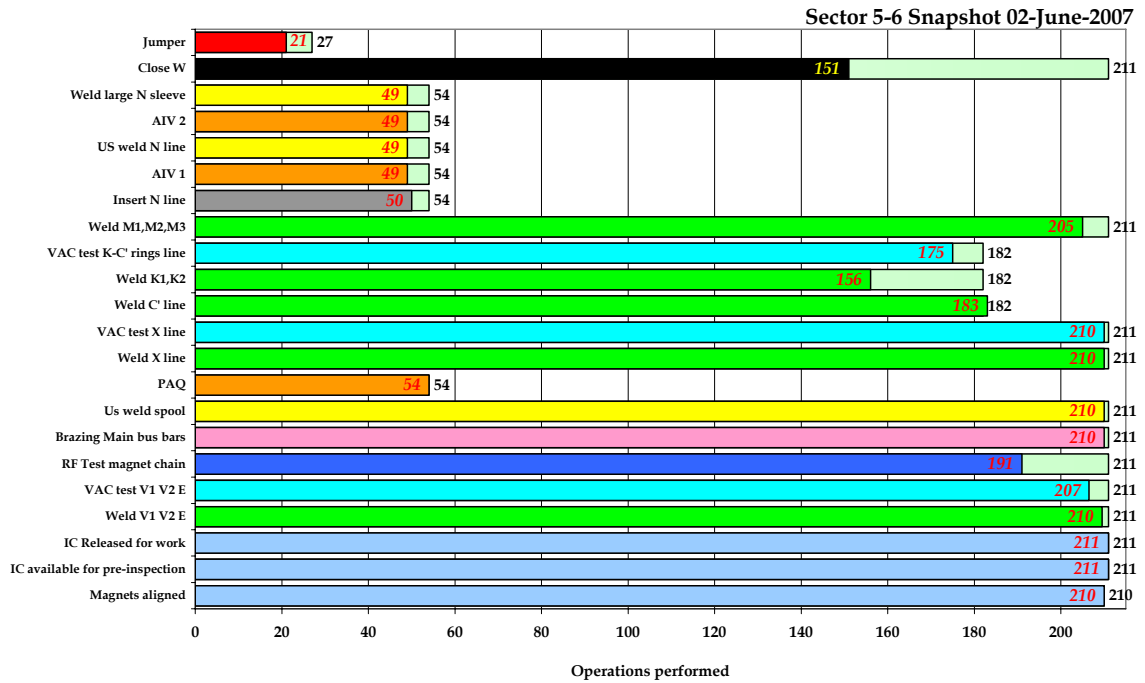


Fig. 12: Snapshot of work progress in sector 5-6 showing the number of operations achieved in total with respect to the total number of operations needed.

Sector 6-7

- Activities to release 1st MPAQ ongoing.
- Campaign US weld N line launched.

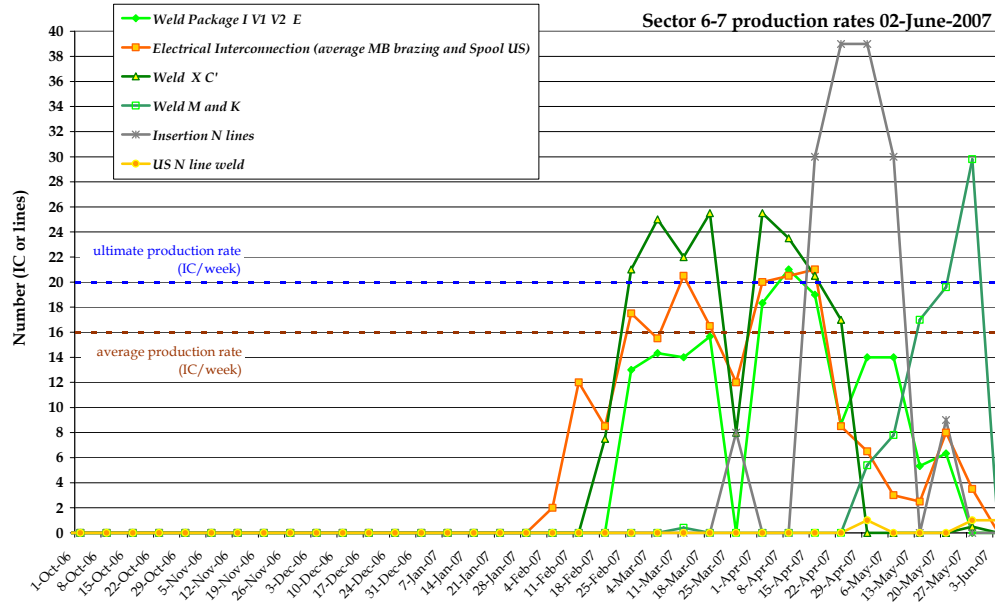


Fig. 13: Production rates in sector 6-7.

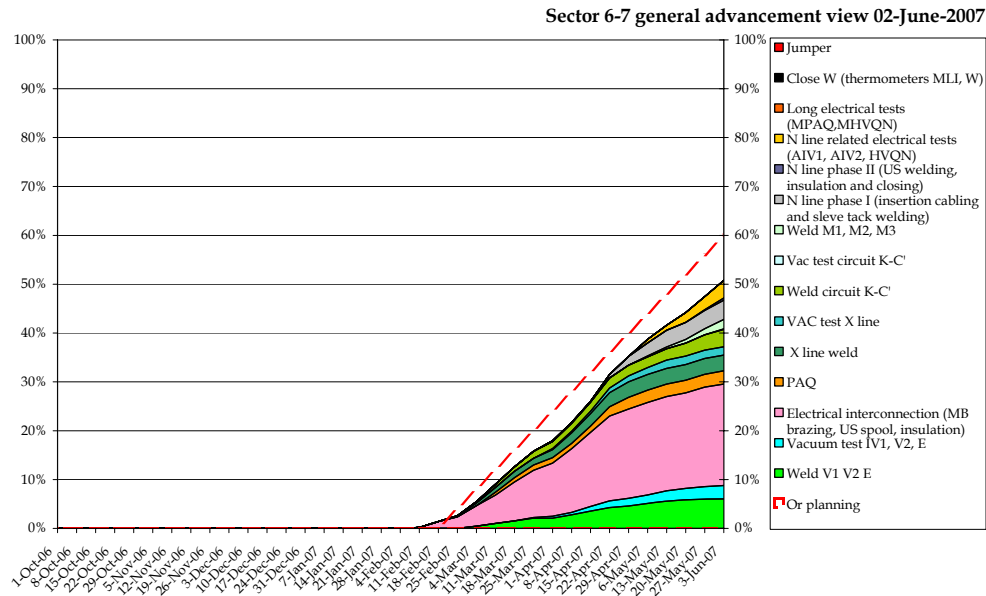


Fig. 14: General advancement view for sector 6-7.

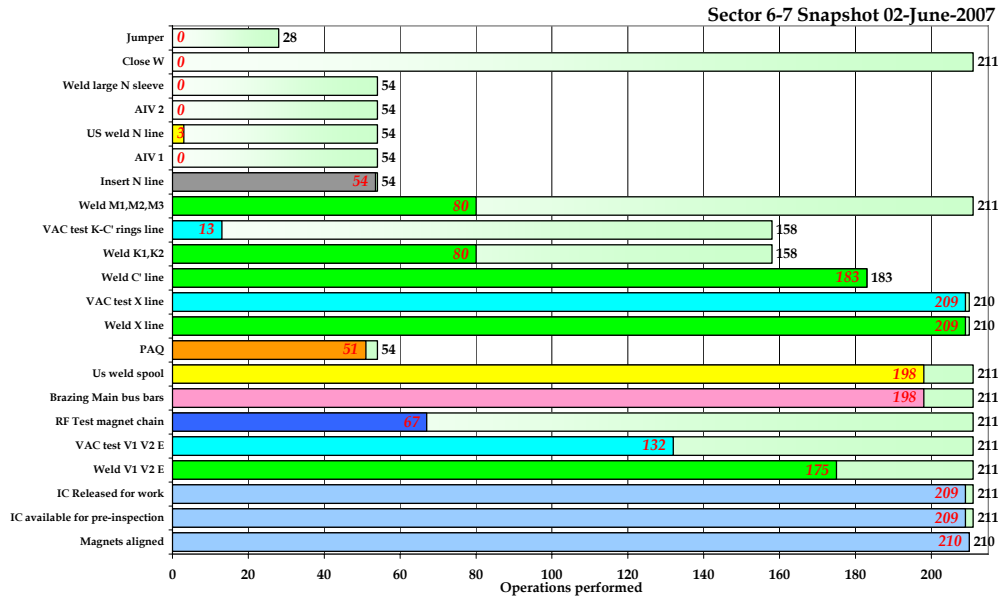


Fig. 15: Snapshot of work progress in sector 6-7 showing the number of operations achieved in total with respect to the total number of operations needed.

Sector 8-1 (completed at 9-May-2007)

- Large leak under detection, 7 consecutive ICs opened unsuccessfully, now being closed again (without MLI and screens) to restart detection procedure.

Vacuum Tests by Sector

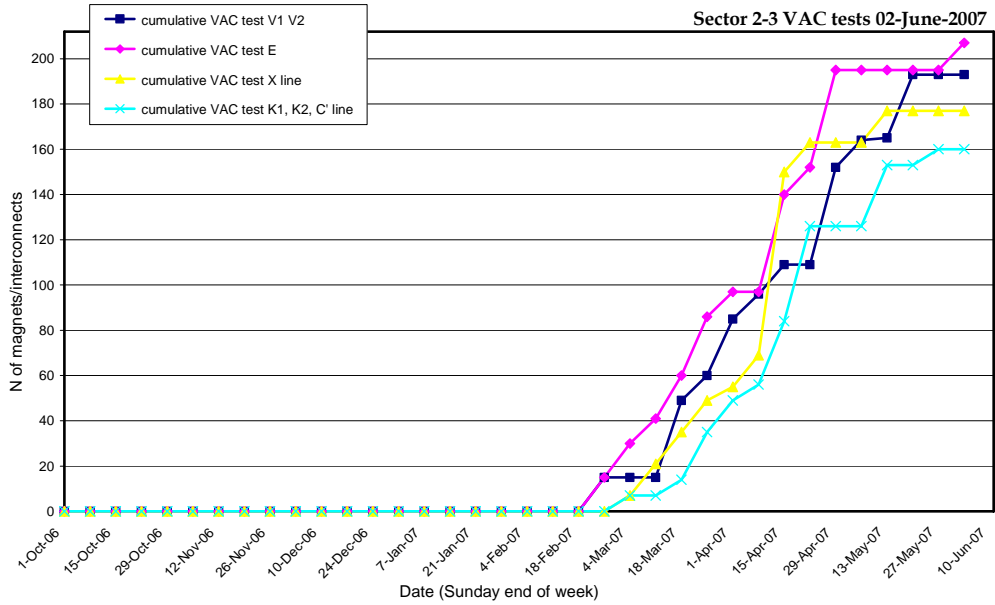


Fig. 16: Status of the VAC tests in sector 2-3.

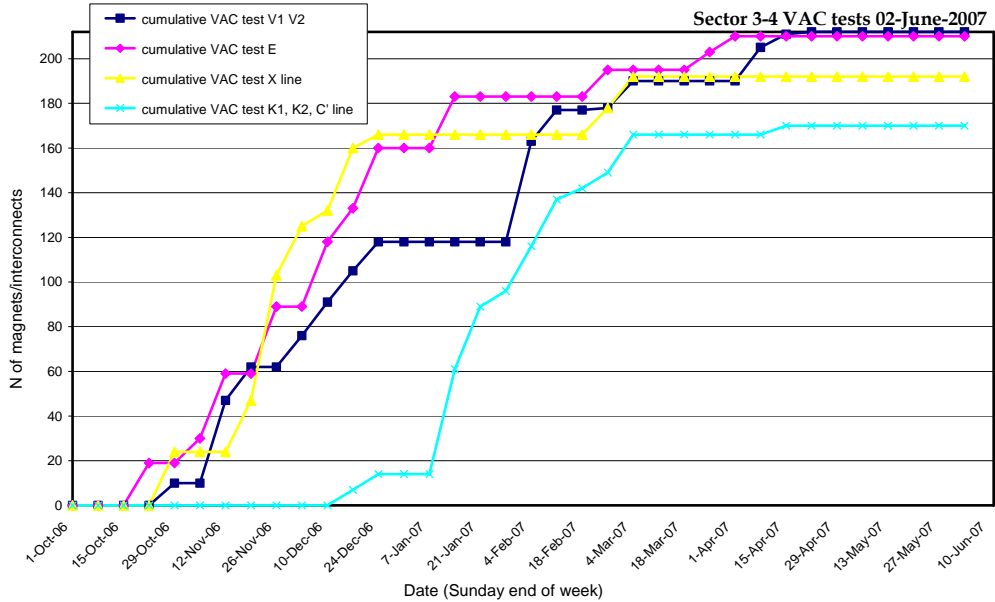


Fig. 17: Status of the VAC tests in sector 3-4.

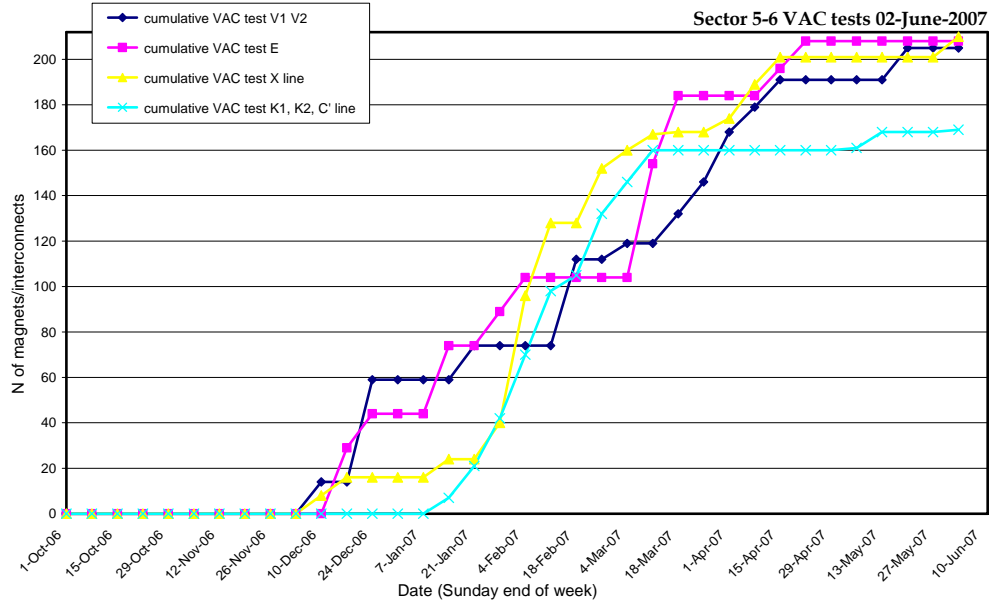


Fig. 18: Status of the VAC tests in sector 5-6.

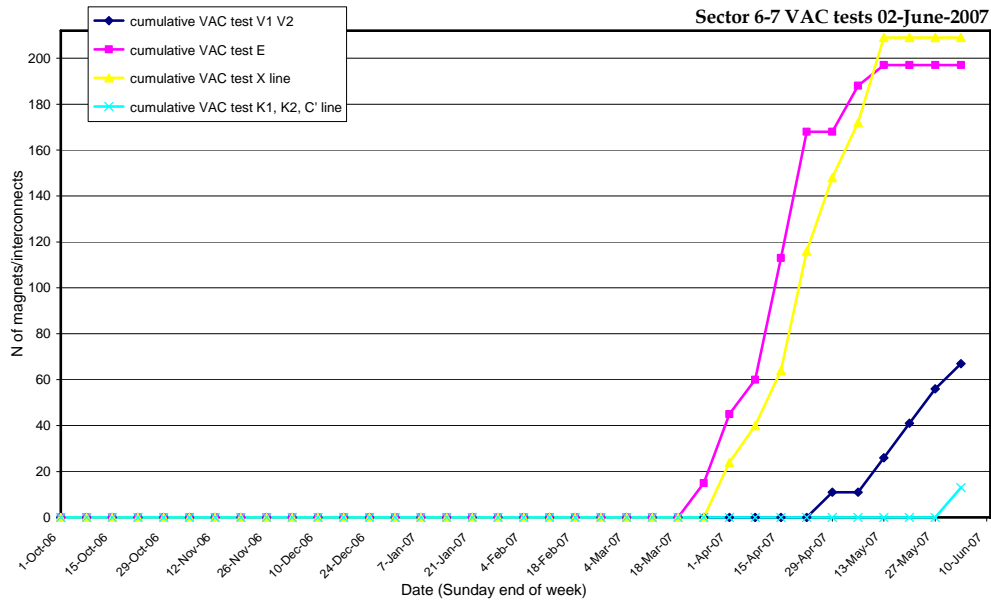


Fig. 19: Status of the VAC tests in sector 6-7.