

Status of Interconnect Works in the LHC Arcs and DS regions – week 16 (April 16 – 21, 2007)

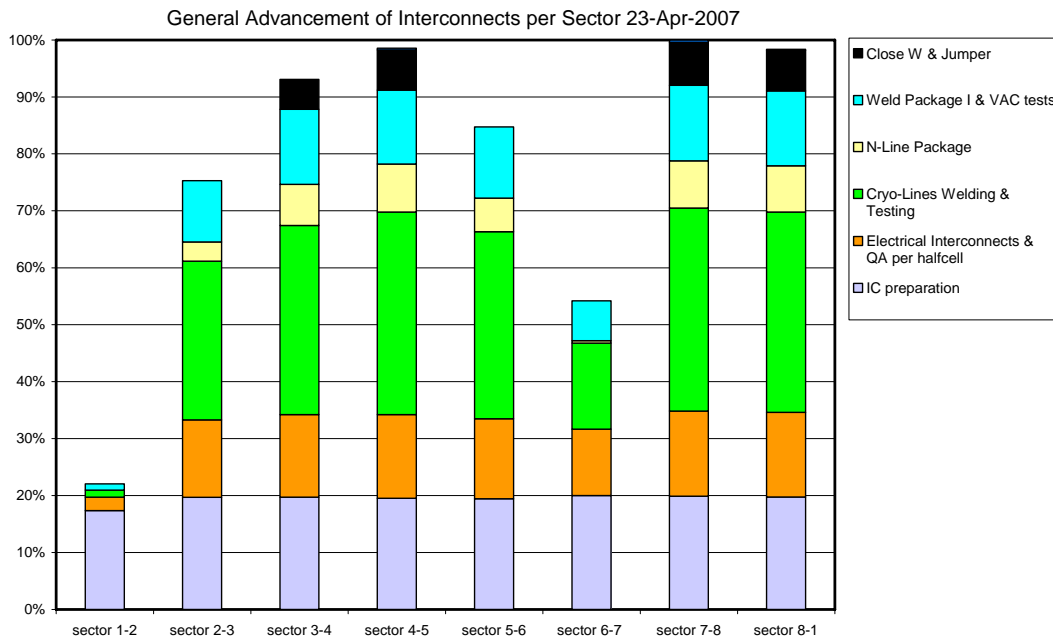
C. Vollinger, AT-MCS (on behalf of the arc coordination team)

EDMS no. 837942

This report gives the status of the interconnect works in the LHC arcs and dispersion suppressor regions carried out during week 16 (April 16 – 21, 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: 1229 MB, 471 SSS, 111 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>
7-8	finished
1-2 2-3 3-4 4-5 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.

Sector 1-2

- 194 magnets aligned out of 211.
- 3 teams planned for brazing of main busbars and US weld of spools from next week on.

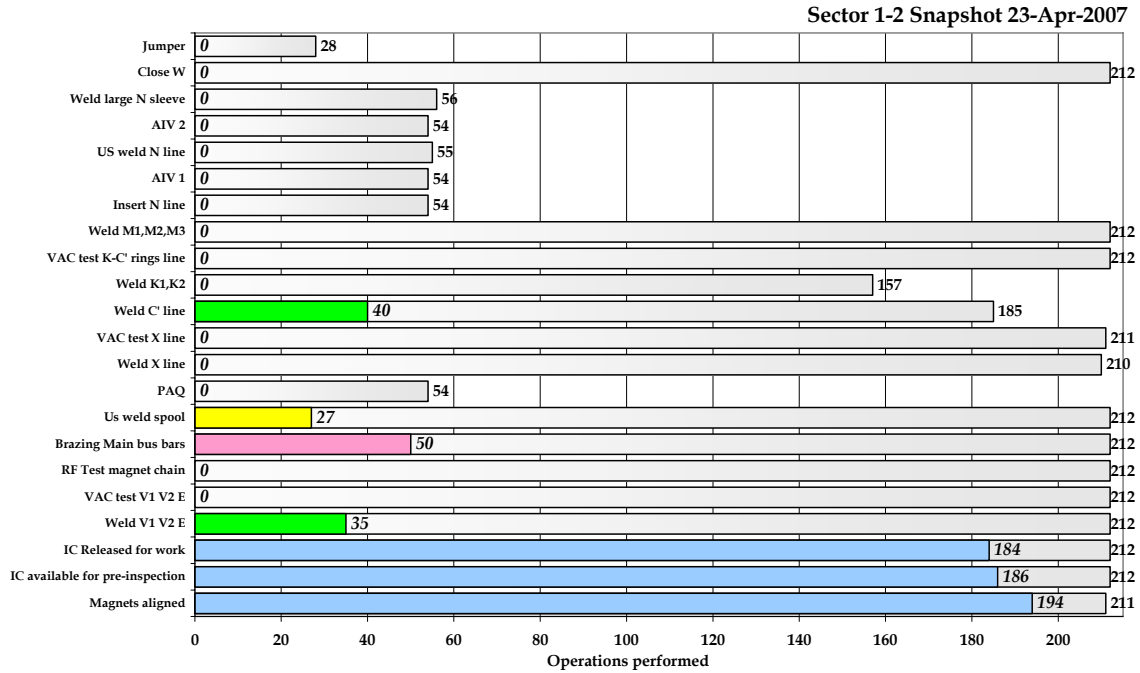


Fig. 1: Snapshot of work progress in sector 1-2 showing the number of operations achieved in total with respect to the total number of operations necessary.

Sector 2-3

- Electrical tests AIV2 started.

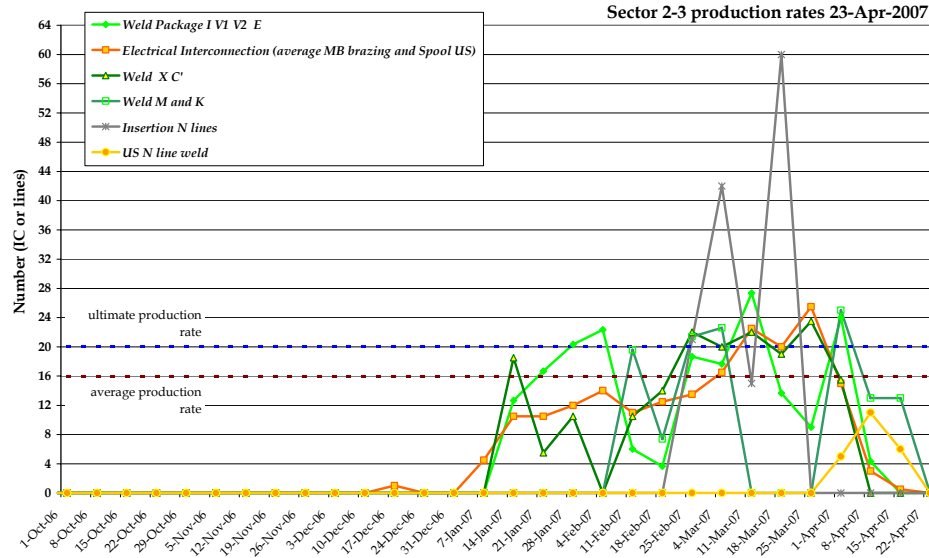


Fig. 2: Production rates in sector 2-3.

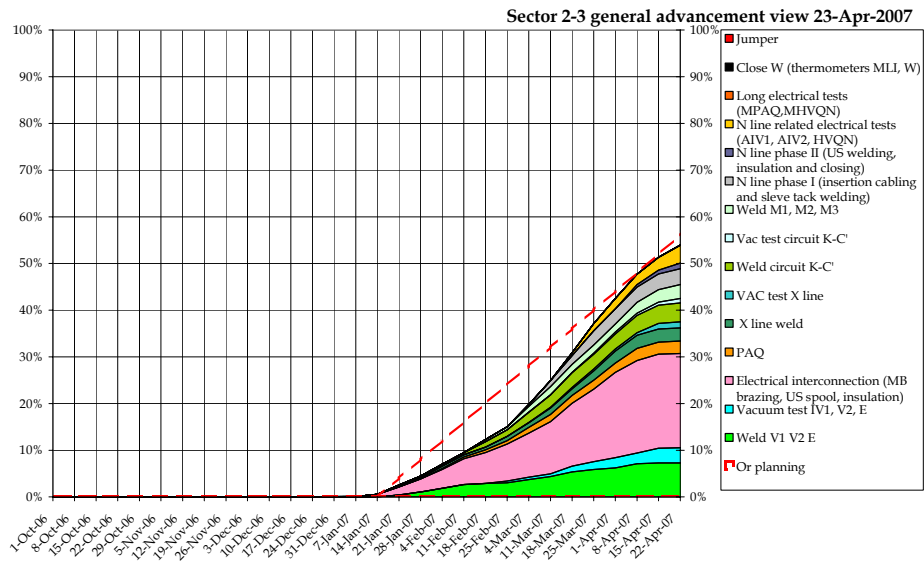


Fig. 3: General advancement view for sector 2-3.

Sector 2-3 Snapshot 23-Apr-2007

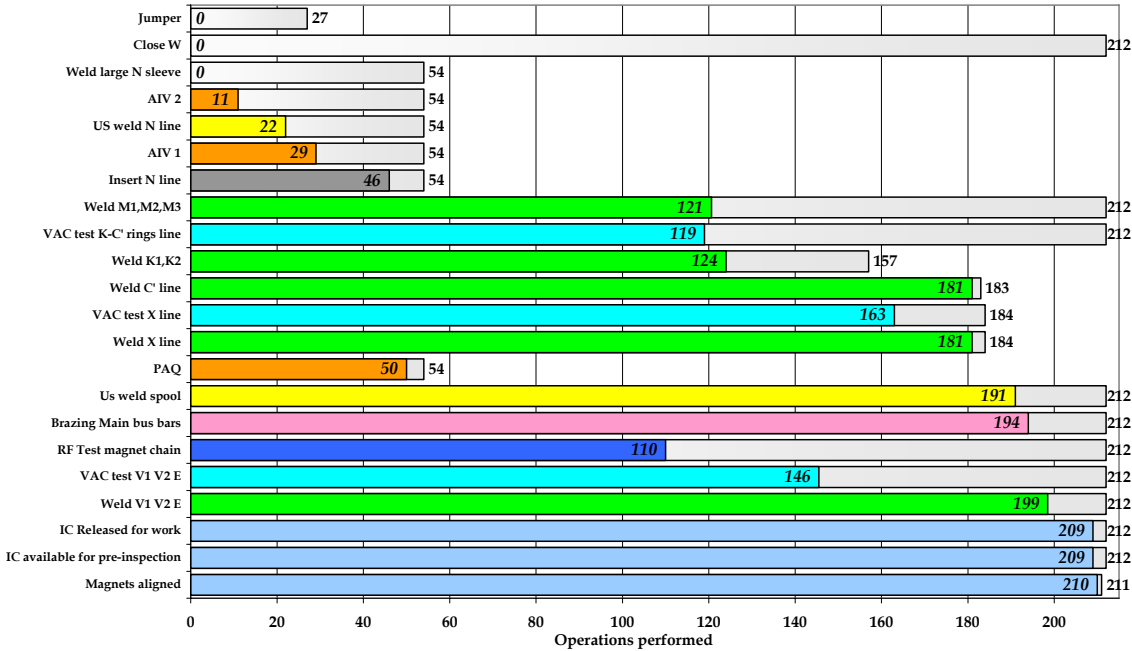


Fig. 4: Snapshot of work progress in sector 2-3 showing the number of operations achieved in total with respect to the total number of operations necessary.

Sector 3-4

- 4 additional VAC sectors closed (now 7 in total).

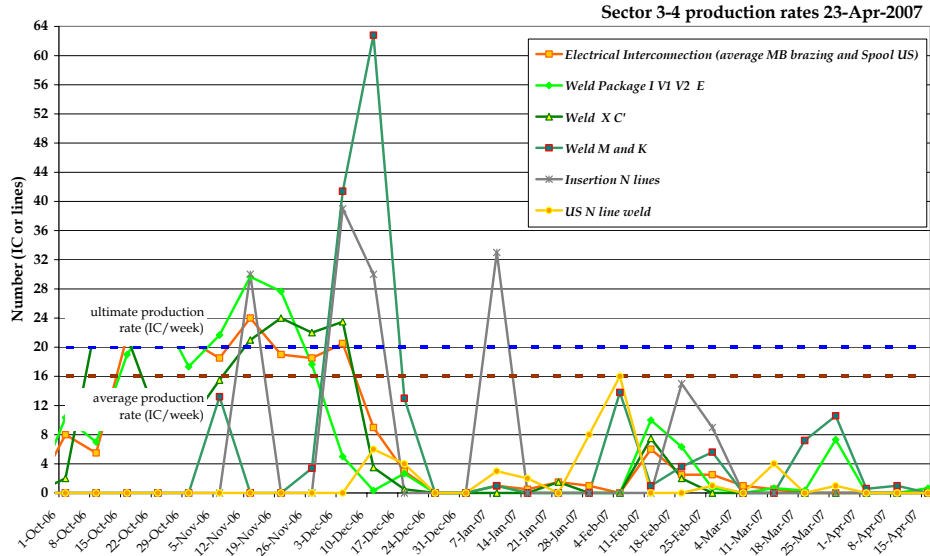


Fig. 5: Production rates in sector 3-4.

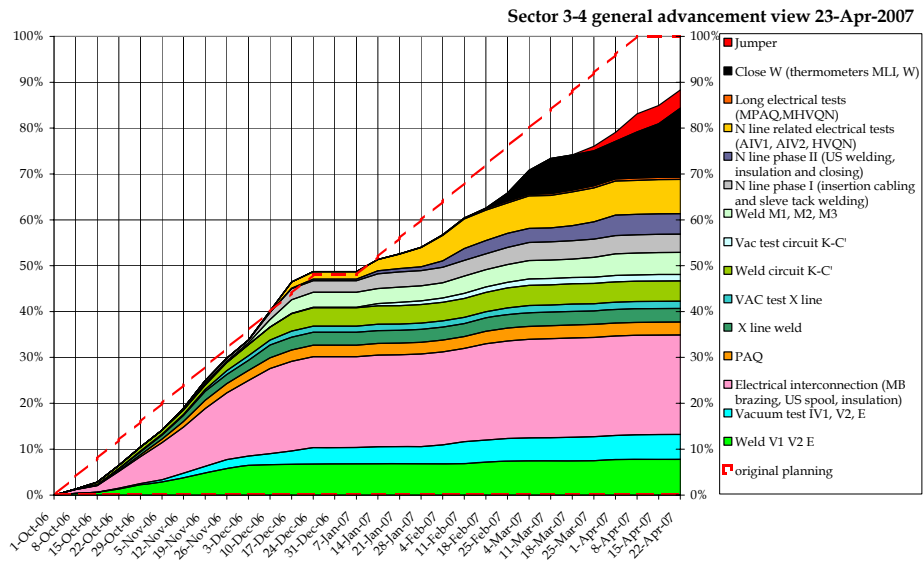


Fig. 6: General advancement view for sector 3-4.

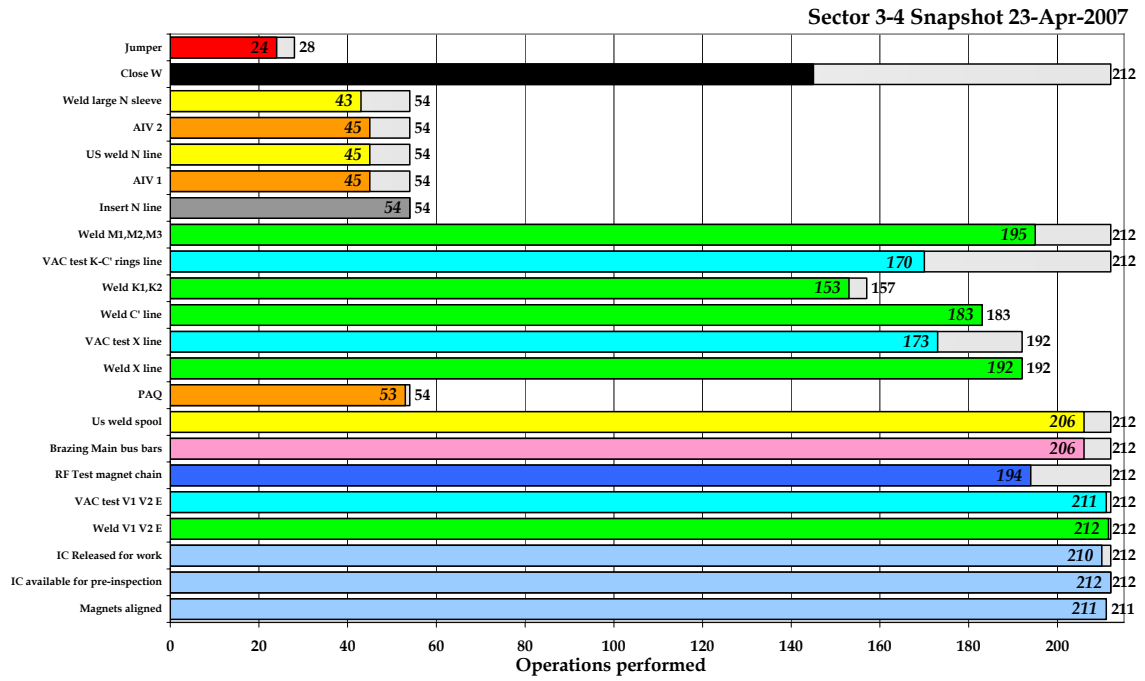


Fig. 7: Snapshot of work progress in sector 3-4 showing the number of operations achieved in total with respect to the total number of operations necessary.

Sector 4-5

- VAC accomplished 1 more sector (13 leak tight out of 14).
- SSS500 series repairs according to plan (Q11.L5 ongoing, Q11.R4 finished).
- Closure of DS-R4 planned for next week.

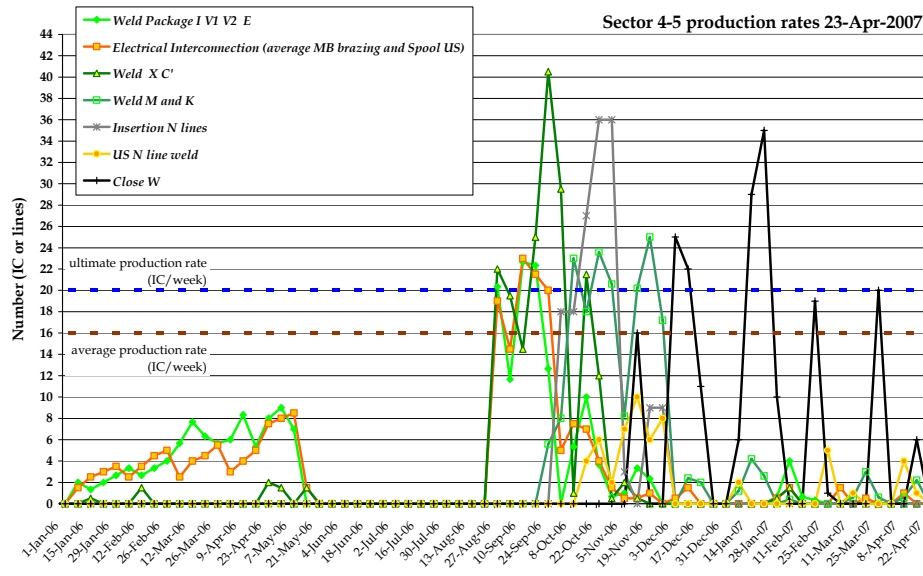


Fig. 8: Production rates in sector 4-5.

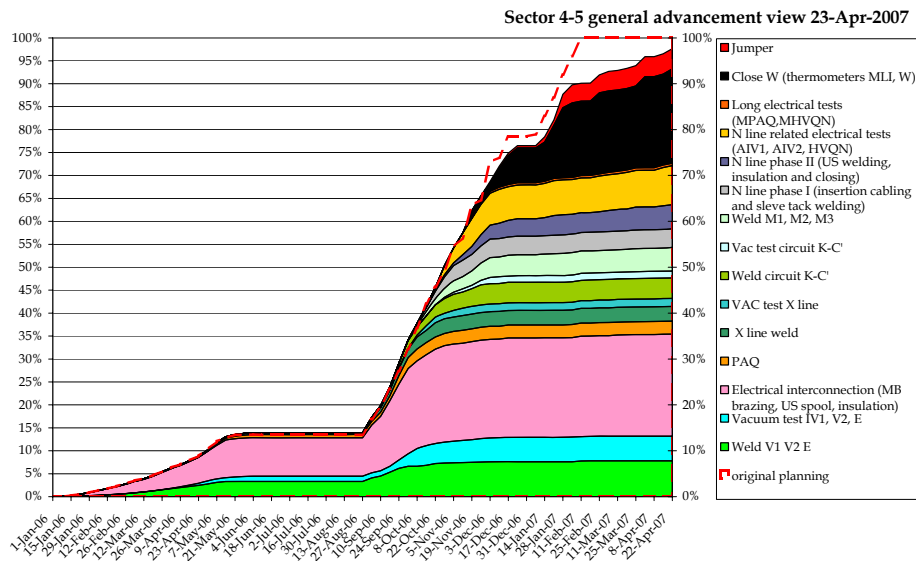


Fig. 9: General advancement view for sector 4-5.

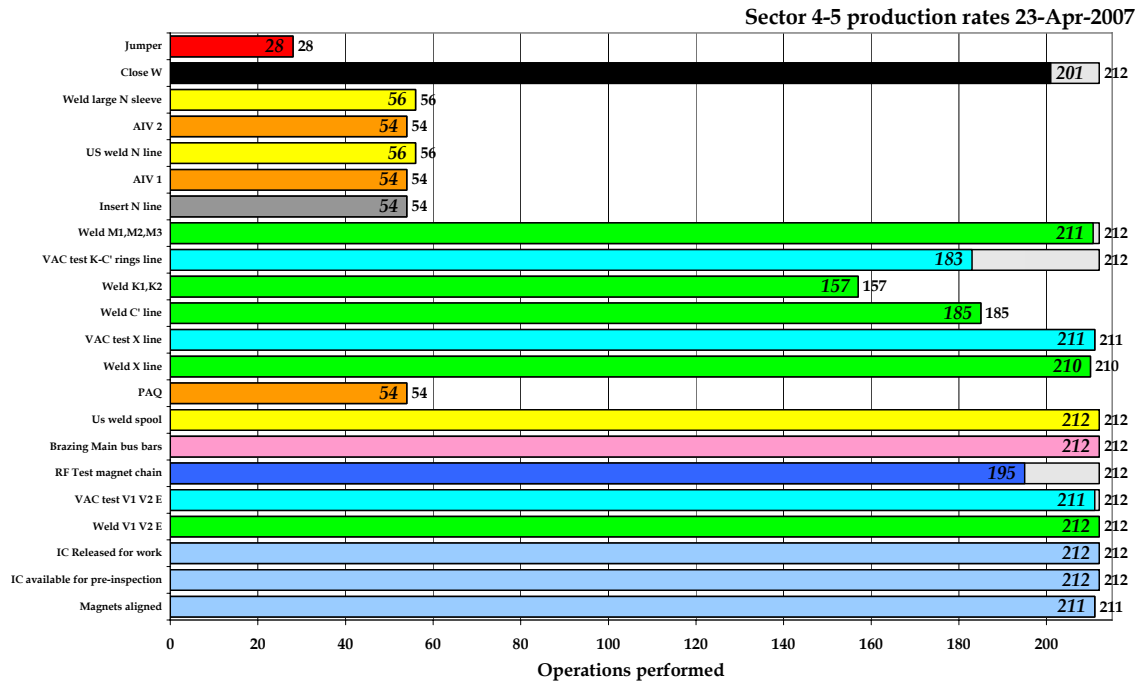


Fig. 10: Snapshot of work progress in sector 4-5 showing the number of operations achieved in total with respect to the total number of operations necessary.

Sector 5-6

- Cryogenic instrumentation placed.
- 139 mm N-sleeve welding started. Closure of jumpers started.
- Start of closure of VAC sectors planned for week 19.

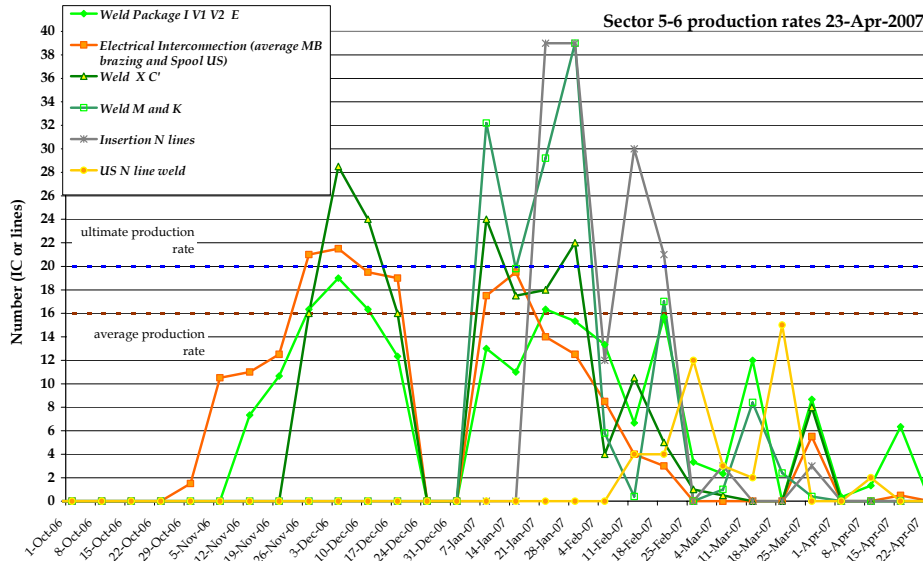


Fig. 11: Production rates in sector 5-6.

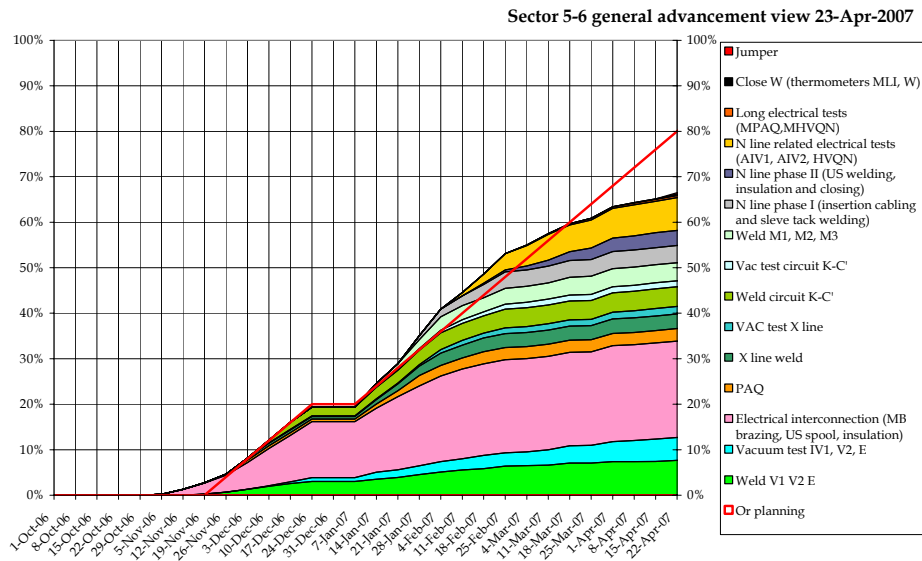


Fig. 12: General advancement view for sector 5-6.

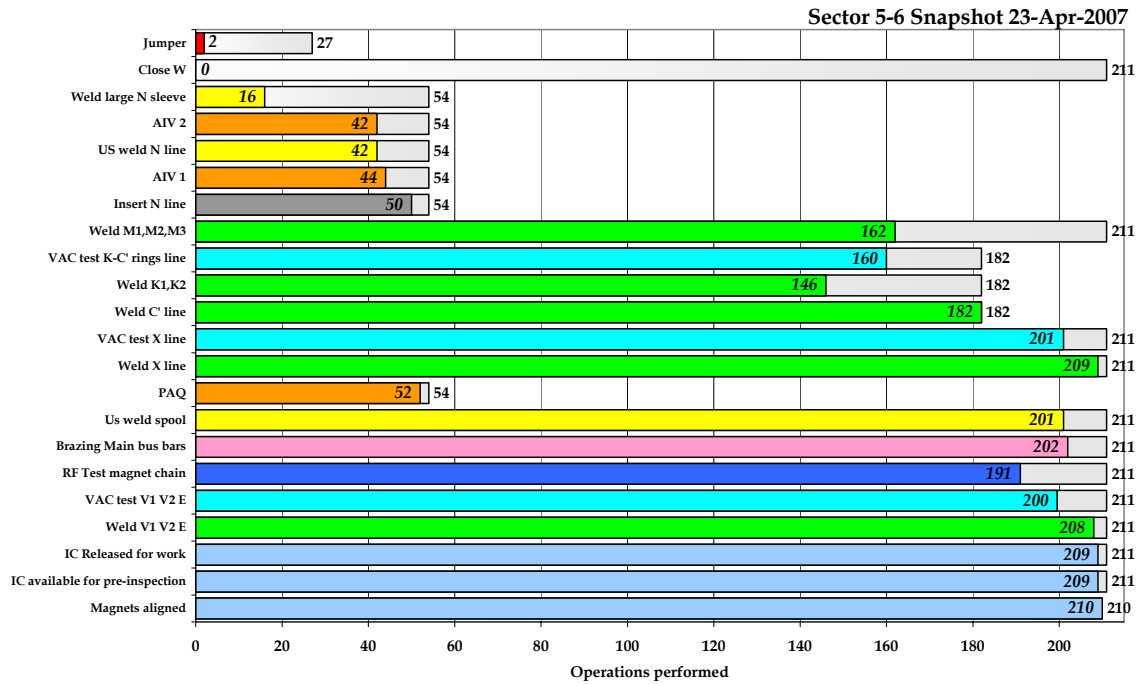


Fig. 13: Snapshot of work progress in sector 5-6 showing the number of operations achieved in total with respect to the total number of operations needed.

Sector 6-7

- Number of teams for brazing of spools reduced to 1 team.
- Welding of plug-in-modules ongoing. New plug-in delivery arrived this week.

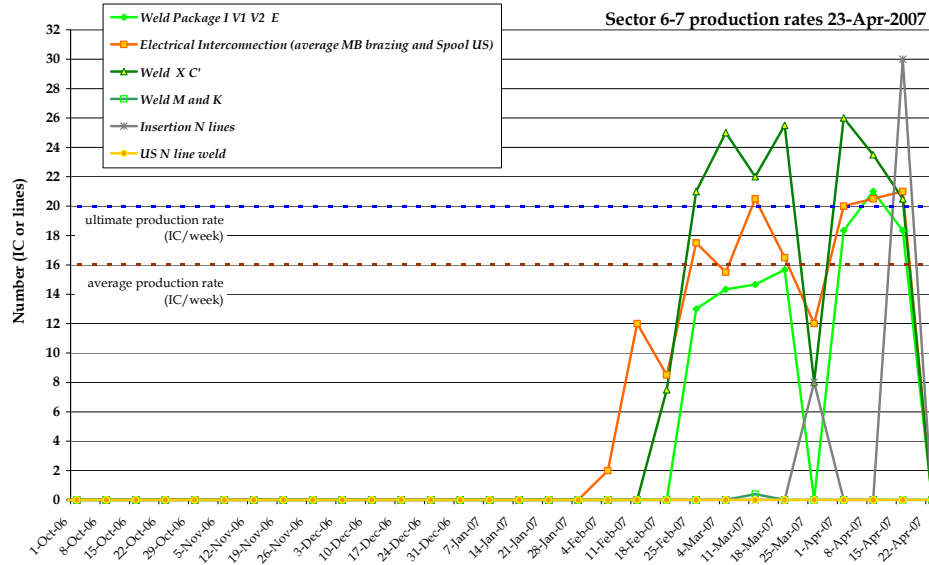


Fig. 14: Production rates in sector 6-7.

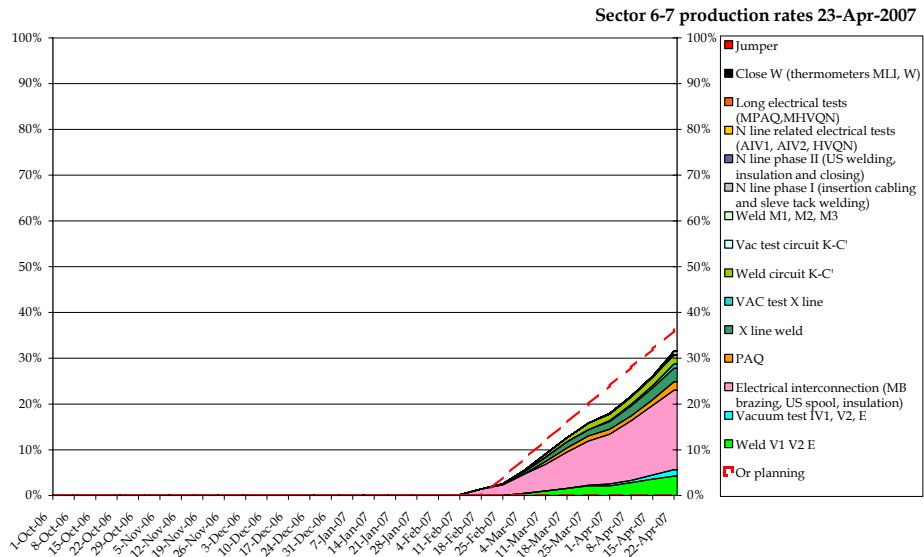


Fig. 15: General advancement view for sector 6-7.

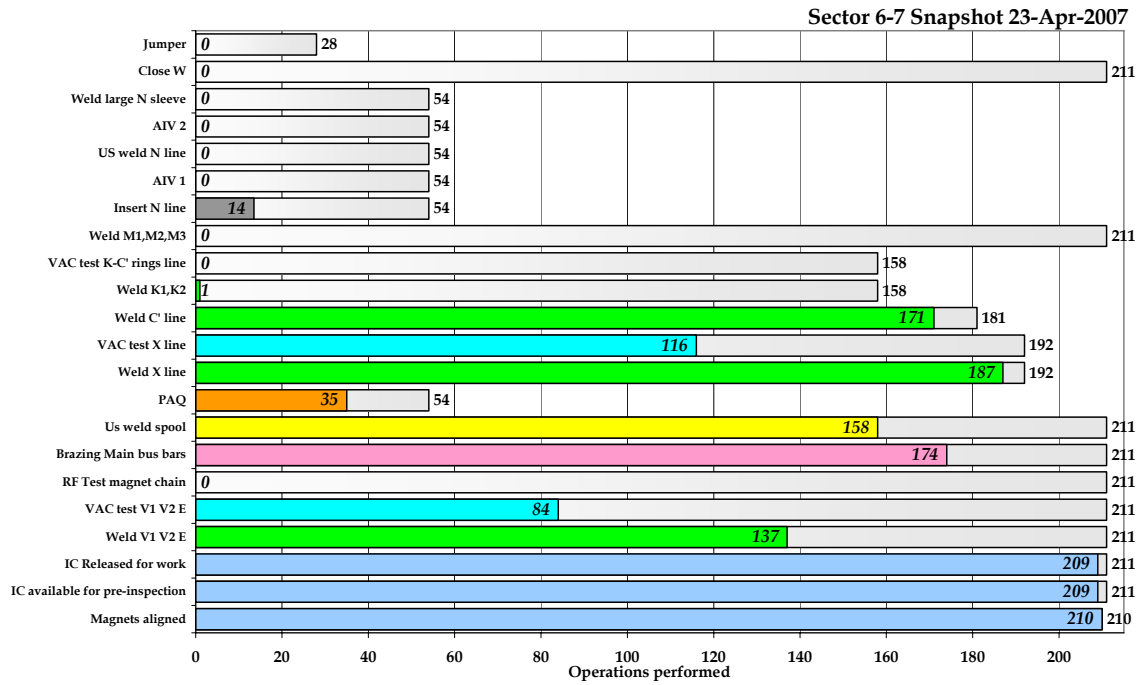


Fig. 16: Snapshot of work progress in sector 6-7 showing the number of operations achieved in total with respect to the total number of operations needed.

Sector 8-1

- Activities in this sector paused (resources went to other sectors).
- Restart of DS-L1 and DS-R8 planned for next week.

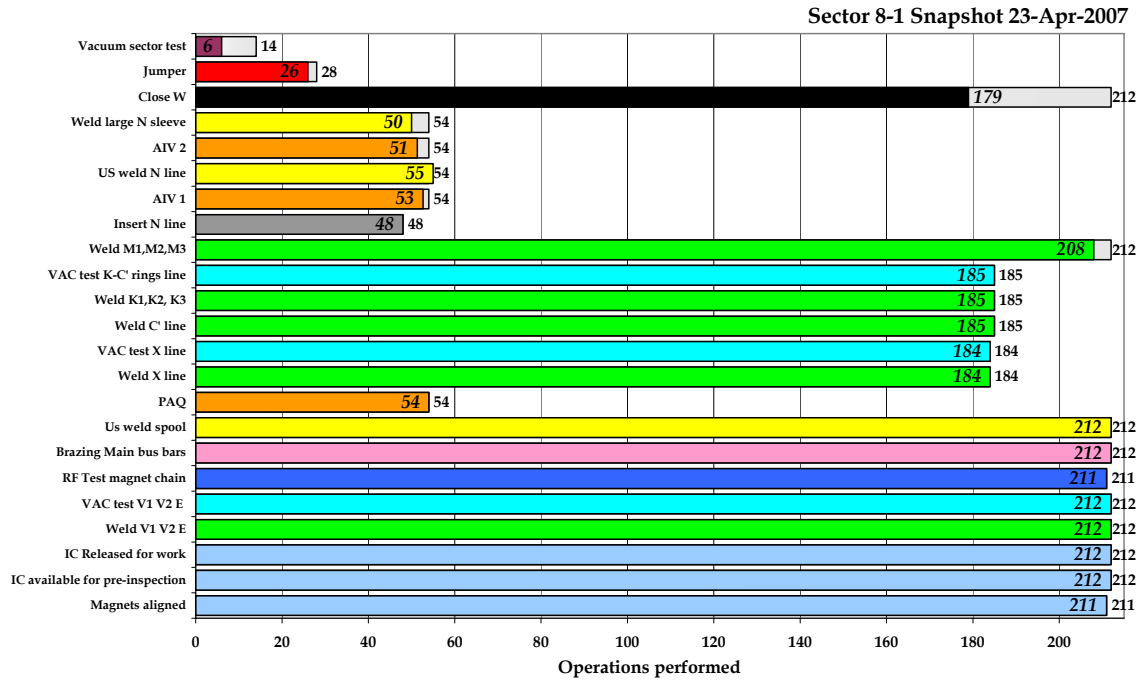


Fig. 17: Snapshot of work progress in sector 8-1 showing the number of operations achieved in total with respect to the total number of operations needed.

Vacuum Tests by Sector

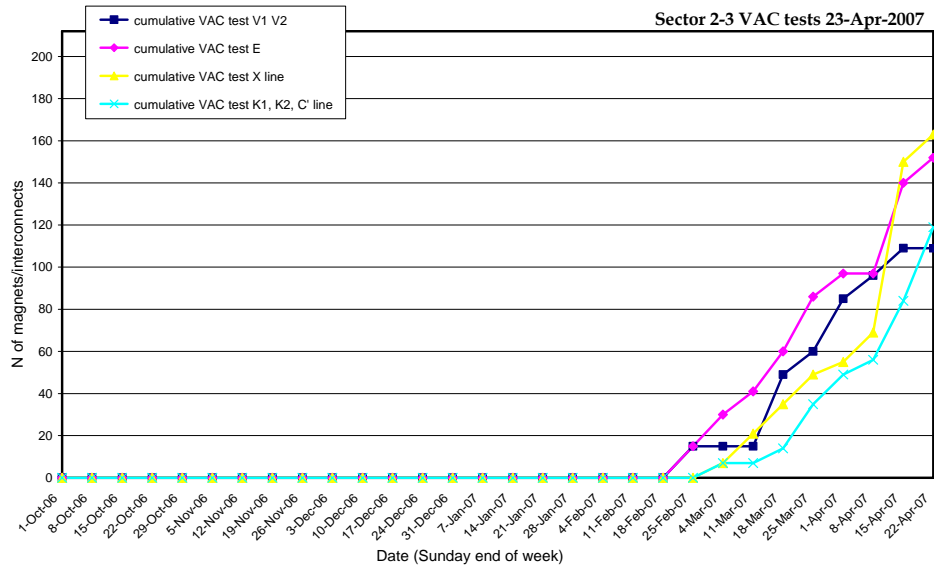


Fig. 18: Status of the VAC tests in sector 2-3.

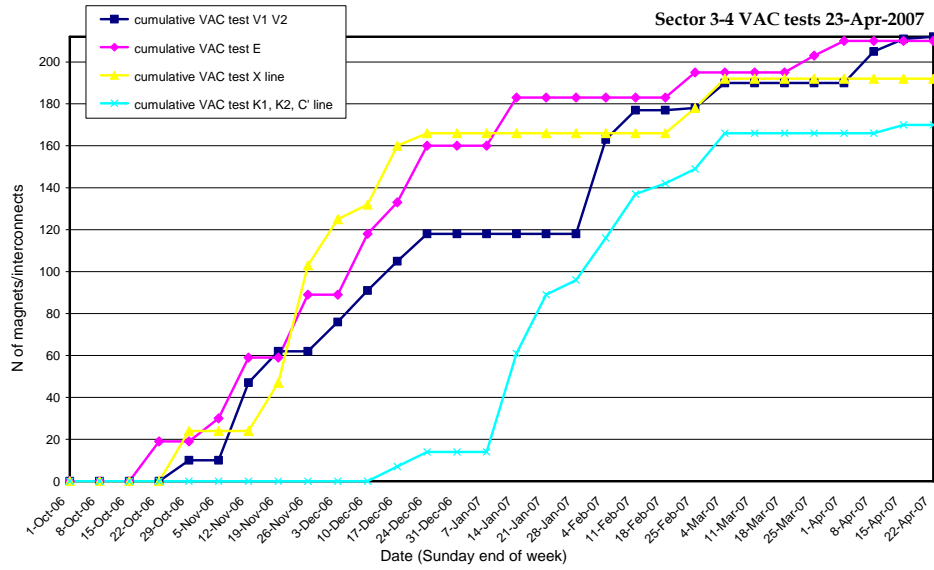


Fig. 19: Status of the VAC tests in sector 3-4.

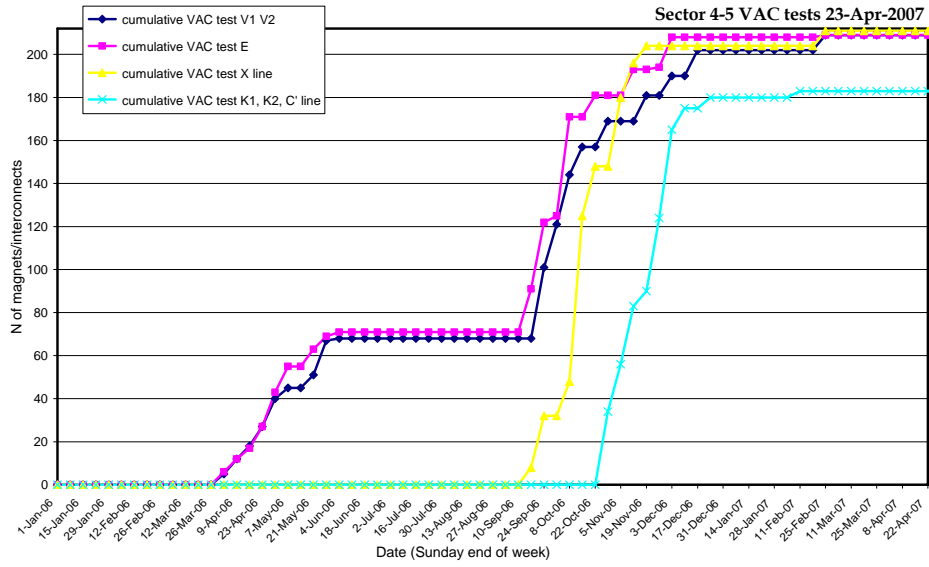


Fig. 20: Status of the VAC tests in sector 4-5.

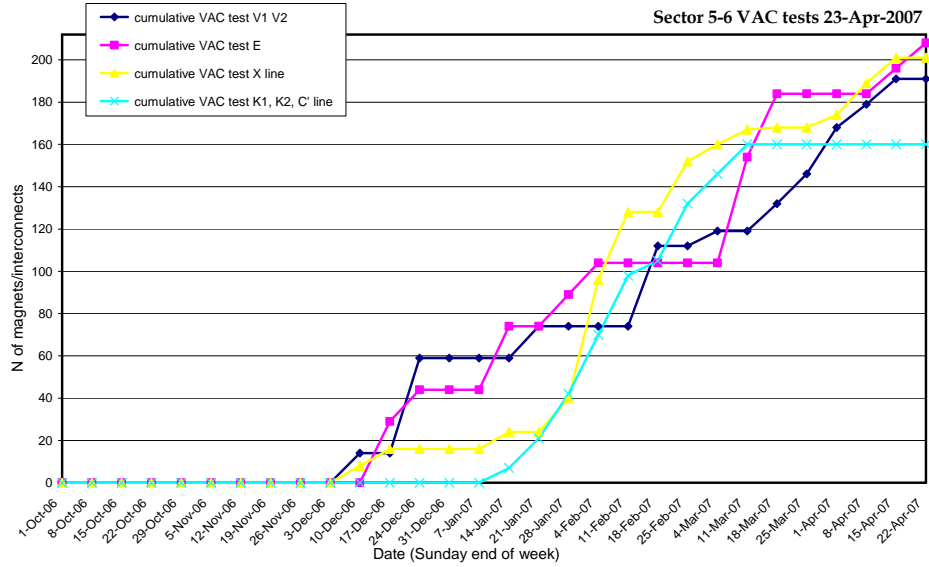


Fig. 21: Status of the VAC tests in sector 5-6.