

- Recording on CURT V003A

Next paragraphs cut and pasted from JER's response to a Parkes Fault Report.

At 04:00 AEST (18:00 UT, 30/11/2008, within a minute or two) three of the four receiver compressors mysteriously stopped. Compressor 1 did not restart. Compressors 2 and 4 appeared to restart OK and carried on until 04:25 AEST when both stopped permanently. Ken investigated shortly after 8am local time and found that the 3-phase breaker each of the three compressors (1,2 and 4) was tripped. All three were immediately restarted without trouble, at about 7:07 AEST. Compressor 3 ran normally throughout the night with no unusual signs of any kind..

The cause of the compressor trip-outs is currently a mystery. The only obvious common link is mains power, however no evidence of an anomaly in the site power can be found in any other Observatory system. The main site UPS did not not log any events at this time. Also compressor 3, which presumably shares the 3-phase supply with the others, kept running apparently without problem.

Investigations are continuing.

The loss of the three compressors caused the 20cm Multibeam and the 13MM receiver (which was being used at the time for VLBI) to warm up.

The Tsys of the 13MM receiver (running on system 4) began to degrade noticeably within a few minutes of the compressor stopping (at 4:25 AEST). After about 45 minutes the Tsys had gone up by ~50% and thereafter degraded rapidly. Curiously the Tsys and levels on the two polarizations of the receiver behaved rather differently as it warmed up- this is still being looked at.

The 13MM receiver recovered without external pumping and was back to normal Tsys by about 8:20 AEST (a little over an hour after its compressor was restarted).

The lost time is 3 hours for the VLBI project most affected (V276) plus about an hour to get the vacuum pumps set up for 20cm Multibeam, which lost time to the following P602. Fortunately the next observers (P456) were able to use the 1050CM and defer their 20cm observations until the MB receiver was cold.

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