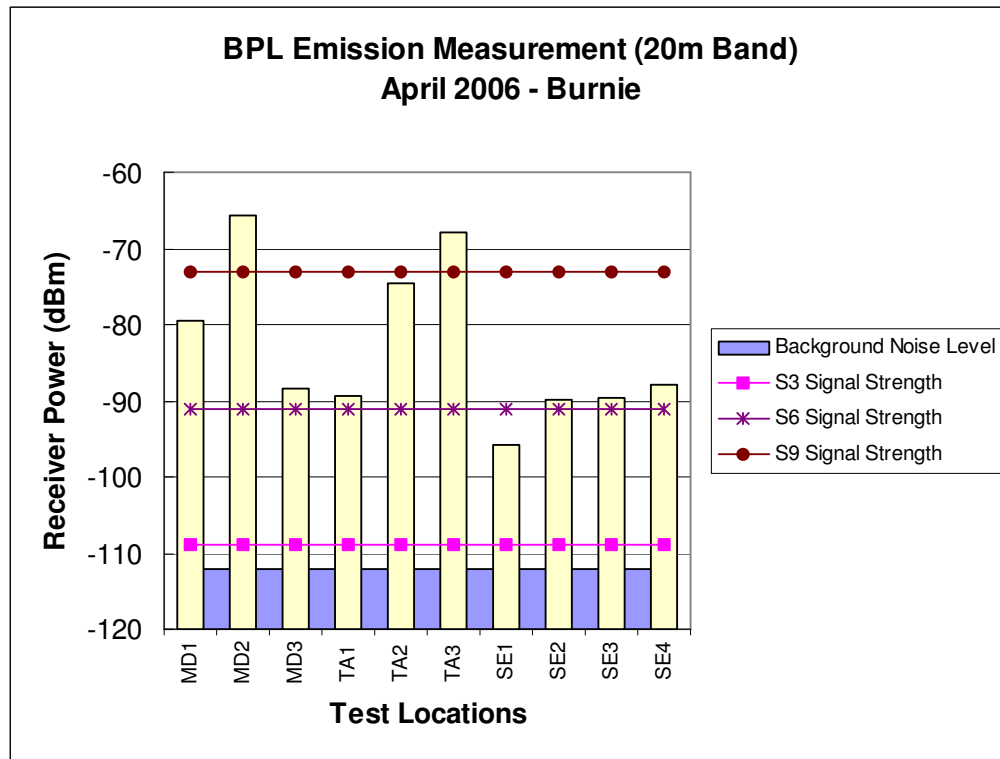


Tasmanian BPL Trial Emissions Measurement

Version: 20060410

Measured Emissions



Notes:

- Key approach was to measure ambient noise level outside of trial area which proved to be close (-112dBm) to that forecast by ITU-R P.372-8 median galactic noise level (-111.2dBm), then compare this to measurements taken within the trial areas to demonstrate the degradation of the noise floor;
- Measurements were taken between 10-20 metres from powerlines using [FSM Software](#) Version 1.10, Yaesu FT7 Transceiver, MobileOne Hamtennae M20-1 Vertical Helical antenna mounted on magbase on the roof of the vehicle;
- Measurements were made April 2006;
- S meter scale is based on S9 = 50uV and the scale is presented for comparison purposes only;
- The signal strengths shown in the chart are for a mobile station with a shortened antenna. Fixed stations with a larger antenna at similar distance from the power lines would expect to receive signals 6 to 20dB higher than shown in the chart.
- Test locations key:
 - MN = Malonga Drive
 - TA = Taroona Avenue
 - SE = Singline Estate (underground)

Conclusion:

Measurements show that there is a degradation of the noise floor in the trial area. This is caused by emission levels ranging from **16dB** (40 times higher) to **46dB** (39,800 times higher) above the measured ambient noise floor (level).

As such, these emissions would be likely to cause interference to almost all radiocommunications services that were limited by ambient noise.