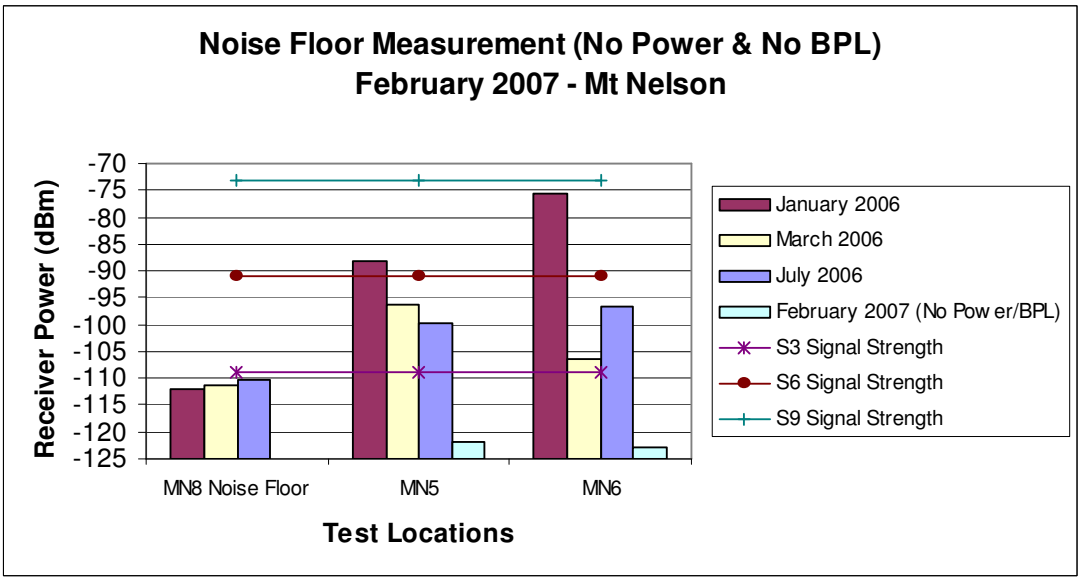
Tasmanian BPL Trial Noise Floor Measurement

Version: 20070220

Measured Noise Floor



Notes:

- On the morning of 17 February 2007 a lightning strike caused a loss of power in the Mt Nelson area. With power and BPL systems non-operational, background noise level measurements where taken around the QTH of VK7HCK (MN5) and VK7HK (MN6).
- Measurements were taken on 14.05MHz using FSM Software Version 1.12, Yaesu FT7 Tranceiver, MobileOne Hamtennae M20-1 Vertical Helical antenna mounted on the towbar;
- S meter scale is based on S9 = 50uV and scale is presented for comparison purposes only;
- BPL levels measured at MN5 & 6 previously have been included for comparison purposes;
- A comparison was then performed between noise floor measurements taken in January, March and July 2006 and the noise floor measurements taken with no power and BPL;
- The same equipment has been used for all these measurements.

Conclusion:

Noise floor measurements dates	Frequency (MHz)	Measured noise floor levels (dBm)
January 2006	14.05	MN8 -112.1
March 2006	14.05	MN8 -111.2
July 2006	14.05	MN8 -110.4
February 2007	14.05	MN5 –122 & MN6 -123

Comparisons between the previous noise floor measurements and measurements taken with no power and no BPL show a noise floor that is between 10.9dB (12 times lower) and 12.6dB (18 times) lower than the previous noise floor measurements taken outside the BPL Trail area.

The most likely explanation for the lower measured noise floor level is the lack of power in the previously BPL enabled area. This would mean that all mains power devices including BPL equipment would have ceased to operate and therefore ceased to emit any contributory radio frequency noise. Therefore, the initial impact of BPL emission levels is understated.