

WLAN interference disrupts mobile calls

Following an increase in interference to GSM mobile phone services, ACMA is encouraging operators of wireless local area networks (WLANs) using the band 915–928 MHz to familiarise themselves with their licence obligations.

The 890–915 MHz band has been used successfully by major telecommunications carriers to deliver GSM mobile phone services across Australia for more than a decade. However, a recent increase in instances of interference to GSM services from some WLANs is causing concern. Interference has mostly occurred when equipment designed in the United States for use in the 902–928 MHz ISM band is commissioned in Australia without the necessary frequency range reduction to comply with the relevant class licence.

In the past year, 12 cases of this type of interference, where a significant number of mobile phone calls in the 902–915 MHz band have been disrupted, have been reported to ACMA. These cases have resulted in fines totalling more than \$10,000 being imposed.

While WLANs (also known as radio local area networks or RLNs) first appeared in Australia in the mid-1990s, there has been a recent increase in the use of spread spectrum radiocommunications equipment for wireless access systems for commercial and public communications. The equipment is low cost and suitable for short-range applications.

WLANs are generally authorised by the *Radiocommunications (Low Interference Potential Devices) Class Licence 2000* (LIPD class licence) for spread spectrum or 'frequency hopping' devices. This means that users share the same segment of the radiofrequency spectrum and are subject to the same conditions. A class licence specifies which frequencies may be used, imposes radiated power limits, commonly prescribes equipment standards, and may specify other technical and operational parameters. Class licences do not need to be applied for and no fees are payable.

Australian spectrum arrangements attempt to maximise international interoperability by accommodating the European GSM band (890–915



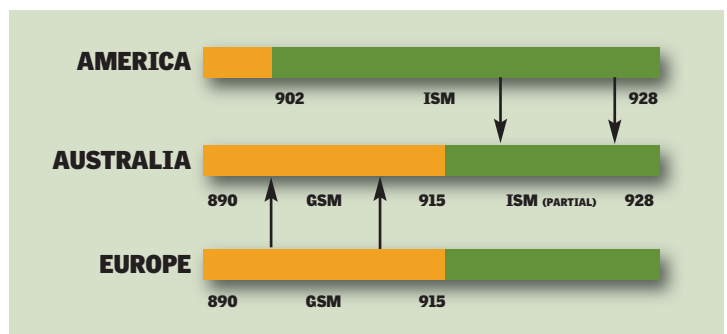
MHz) and a reduced version of the American ISM band (915–928 MHz) (see diagram).

ACMA is closely monitoring the performance of several devices operating in the 915–928 MHz band in Australia. Industry cooperation has been sought to try to improve the performance of wireless access

systems entering the market and to educate new market entrants.

More information about WLANs and the LIPD class licence is on the ACMA website at www.acma.gov.au or contact ACMA on telephone 1300 850 115 for a copy of the fact sheet, *WLANs – licensing requirements*.

Comparison of American ISM and European GSM bands with Australian arrangements



Comments on spectrum allocation arrangements for new digital TV services received

ACMA recently called for comments on the arrangements for allocation of spectrum for new digital datacasting television transmitter licences. More than 25 submissions were received from a wide range of interested parties including service providers, broadcasters, community groups, content providers, equipment manufacturers, industry associations, research organisations, telecommunications companies, academics and private individuals.

Provision for allocation of

spectrum for the new services was in legislation passed in October 2006 and the arrangements were outlined in a discussion paper, *Allocation of spectrum for new digital television services*, released in December 2006. These arrangements included allocation processes, licence characteristics and technical arrangements.

The legislation provides for allocation of two types of datacasting transmitter licences—channels A and B. Channel A is to be

used for free-to-air datacasting, narrowcasting and community television that can be received on a standard digital television receiver. Channel B can be used for a wider range of services, including mobile television. Neither can be used to provide a commercial broadcasting or pay TV service that can be received by a domestic digital television receiver.

ACMA plans to conduct price-based allocations for the channels later in 2007. The licences will be

allocated as separate, national licences for 10 years, with the possibility of renewal for five years. Licensees for both channels will be required to operate in digital mode.

All comments received will be considered in finalising arrangements for the spectrum allocation. ACMA expects to release these in May 2007.

For more information, contact ACMA by email to spectrumallocations@acma.gov.au.