

New high-power open narrowcasting radio service proposed for Canberra

ACMA is considering a proposal to make a new high-power open narrowcasting radio service available in Canberra, to operate on 1323 kHz on the MF-AM band.

This follows ACMA's November 2005 announcement that, before it made MF-AM spectrum available for new analog radio services, it would take into consideration the suitability of the spectrum for future introduction of digital radio services.

The potential use in Canberra of 1323 kHz for digital radio services using the Digital Radio Mondiale (DRM) technology is constrained by an existing co-channel service in Adelaide. Consequently, this frequency is considered suitable for an analog service in Canberra, with transmitter power limited to 400 W with a directional radiation pattern.

The proposal follows a submission from Tatley Pty Ltd (trading as Rete Italia), which requested a new high-power open narrowcasting service be made available in Canberra to provide an Italian-language radio service. Rete Italia currently has services in Sydney, Melbourne, Adelaide, Mildura, Swan Hill, Shepparton, Gosford, Wollongong, Ingham and Atherton.

Digital radio services are set to commence in the next 2–3 years, following the government's announcement of the framework for the introduction of digital radio in

October 2005. A pre-requisite for digital radio to be introduced is the availability of suitable spectrum.

Different digital radio technologies require different frequency bands and the candidate bands are already extensively used. In most cases, the candidate bands are also under continuing demand for other services, especially analog radio and digital television.

In contrast to the digital conversion of free-to-air television, shortage of suitable spectrum is likely to be a significant constraint on the development of digital radio in Australia. For this reason, ACMA has adopted a general policy that gives consideration to restricting the availability of remaining broadcasting services bands spectrum that may be needed for digital radio.

ACMA will consider each issue case by case, taking into account the potential and utility of the spectrum for future digital radio services. This may have the effect of restricting the availability of additional analog AM radio services as well as reducing the reliance on VHF spectrum for additional digital television services.

The initial digital radio services will use the Digital Audio Broadcasting (DAB) standard (also known as Eureka 147). This is a technology that has been developed for use in two frequency bands—VHF Band III (174–240 MHz) and L-Band (1452–1492 MHz). Both bands are extensively used

by existing services. VHF Band III is widely considered to be superior due to its better coverage and lower infrastructure costs. However, the use of the band for analog and digital television services means there are only limited opportunities to use this band.

After considering the availability of spectrum for digital radio, ACMA adopted a general policy that allows for use of VHF Band III for analog and digital television. Wherever possible, at least one VHF Band III television channel should be left available for digital radio use in each area.

L-Band spectrum is outside the broadcasting services band and the use of this spectrum is currently restricted to preserve digital radio options by a statutory frequency band plan.

It is unlikely that the DAB technology could ever provide the extensive regional coverage achieved by today's analog radio services. For this reason, alternative technologies need to be considered. DRM, for example, could provide the wide coverage needed to cover regional and rural areas, and dual standard DAB/DRM receivers are likely to become available. DRM services can be deployed in the medium frequency (MF) band currently used by analog AM broadcasting services.

To preserve options while the DRM standard matures and consumer receivers become widely available, ACMA will consider further analog use of

MF spectrum case by case, including the utility of that spectrum for use by DRM digital radio services. The potential to use the spectrum for digital radio is likely to be given considerable weight. However, there will be exceptional circumstances where ACMA will decide to use a particular frequency for an analog service.

The DRM technology is also being adapted to operate in broadcasting frequency bands below 120 MHz. While this includes the current FM radio band, the most promising spectrum likely to become available in Australia is the current VHF Band I television spectrum used for channels 0, 1 and 2 (45–50 MHz and 56–70 MHz). To encourage the development of the DRM standard for use in this spectrum and to preserve spectrum capacity, ACMA will also avoid new use of VHF Band I television spectrum, other than short term defence usage or trials of new systems or technologies.

The proposal for the new service was contained in an explanatory paper and draft variation to the radio licence area plan for Canberra, which were published on the ACMA website. Comments closed on 31 March 2006. For more information about the proposal, contact ACMA's Stirling Finlay on telephone 02 6256 2874.