

Final outcomes released for the 400 MHz band review

On 30 April, the ACMA released a consultation paper titled *The way ahead—Decisions and implementation options for the 400 MHz band*. The paper sets out the final outcomes of the review of the 400 MHz band (403–520 MHz), and also calls for public comment on proposed implementation plans for the new arrangements.

The paper is the third public step in the review of the 400 MHz band, which began with the release of the *Spectrum Options: 403–520 MHz* discussion paper in April 2008, followed by the release of *Spectrum Proposals: 403–520 MHz—Proposals for future arrangements in the 400 MHz band* in April 2009.

The broad objectives of the review of the 400 MHz band are to implement measures to:

- > improve the harmonisation of spectrum use by certain government agencies to assist in radiocommunications interoperability objectives and the development of efficient government networks
- > improve the allocative, technical and dynamic efficiency with which spectrum in the band is allocated and used, by reviewing the relevant frequency assigning and licensing mechanisms (including band plans, licensing instructions, licensing options and pricing)
- > facilitate new technologies and possible complementary uses of the band
- > implement arrangements that take advantage of the different spectrum management requirements and challenges between different geographic areas
- > minimise the requirement for ongoing ACMA intervention in the band.

One of the key achievements of the review is the provision of harmonised spectrum for use by government agencies.

‘Harmonising government spectrum use in the 400 MHz band provides an unprecedented opportunity for significant gains in essential and emergency service interoperability between and among state and federal government agencies,’ said Chris Chapman, Chairman of the ACMA.

‘The ACMA hopes that the harmonisation of government spectrum in this band will mark the beginning of a new era in government radiocommunications use through the development of large, efficient, integrated networks for emergency services and other vital government objectives.’

Under the new arrangements, several segments in 403–470 MHz have been identified for the exclusive use of government, primarily to support national security, law enforcement and emergency services, but also available to support broader government use once these requirements are met. The ACMA has developed these arrangements in close consultation with individual stakeholders, relevant committees and peak industry groups. The final arrangements complement the objectives developed by these groups and the Council of Australian Governments’ (COAG) agreed national framework for improved radiocommunications interoperability.

Another key outcome of the review is the increase in technology options that can be supported in the band. Changing the frequency duplex arrangements in the 450–470 MHz band, as well as the channelling scheme, opens up options for technologies requiring such arrangements. These systems were not supported under previous arrangements.

The ACMA also undertook to improve the allocative, technical and dynamic efficiency with which spectrum in the 400 MHz band is allocated and used. This was achieved through a review of the relevant frequency assigning and licensing mechanisms, including band plans, licensing instructions, licensing options and pricing. The proposed changes update technical arrangements to accommodate current and expected future technologies and offer greater flexibility in the way spectrum can be used.

In order to implement these changes, some clear spectrum will be required to aid transition as services are required to relocate. The most readily available clear spectrum lies within the upper segment of the 400 MHz band (referred to as the 500 MHz spectrum licences).

Given the current under-utilisation of the 500 MHz spectrum licences and the need for clear spectrum, the ACMA believes that the overall public benefits derived from this piece of spectrum will be improved if the band is made available to support transition for services displaced by the other changes in the 400 MHz band. This transition will be facilitated if this 500 MHz band is reverted to apparatus licensing.

The ACMA remains committed to extending spectrum licensing in the future and believes that reversion to apparatus licensing will assist in optimising the overall public benefit derived from use of the entire 400 MHz band. It has accordingly made a recommendation to the Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy, to revoke the relevant spectrum licence designation notice.

The outcomes of the review also include improvements to the band's underlying technical arrangements. This includes a reduction in channel bandwidths and updates to the assignment and coordination rules. Draft Radiocommunications Assignment and Licensing Instructions (RALIs) are included as part of the paper for

The ACMA is also reforming arrangements for the UHF citizen band, which is part of the 400 MHz spectrum. This primarily involves increasing the number of channels available through a reduction in channel bandwidth, which will improve the utility of the band, while balancing future flexibility against the impact on existing users of this service.

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stakeholder comment. The use of 12.5 kHz channels for land mobile systems and improved assignment and coordination procedures are fundamental to the changes. It is envisaged that the changes will assist in reducing congestion, which will allow expanded use of the band.

It is proposed that fee arrangements in the 400 MHz band be amended to reflect opportunity cost principles. This would involve a threefold increase in the spectrum tax for high density areas (Sydney, Melbourne and Brisbane). Over the same timeframe, the ACMA would reduce spectrum taxes in rural and remote areas where the spectrum is under-utilised once sufficient analysis has been completed. Under this new model, users will potentially be able to reduce their outlays by reducing channel bandwidth to counter licence tax increases.

The consultation paper also details the proposed process for transition to the new arrangements. The ACMA is proposing to finalise transition by 31 December 2015 in high and medium density areas and by 31 December 2018 outside of these areas. The ACMA is also proposing to split the transition process into three phases, some with a number of stages, to simplify the process for affected users and to facilitate the completion of transition by the proposed deadlines. The phases include the relocation of commercial users out of—and government users into—harmonised government spectrum, as well as change in duplex frequency split arrangements in 450–470 MHz and the implementation of measures to address congestion.

Transitioning to the new arrangements will be a challenge for many users. To assist, the ACMA has proposed a number of transition plans in the paper, including a proposal for fee relief incentives for those users who undertake the necessary changes earlier than the mandated timeframes.

The ACMA believes the final decisions achieve the objectives of the review while, very importantly, minimising the impact on existing users of the band.

A series of tune-ups has been organised to detail decisions on the way ahead for the 400 MHz band and provide an open forum for stakeholders to further engage in the ACMA's transition proposals. The tune-ups will be held in all capital cities and Townsville from late July to early August 2010. More information on dates, locations and times can be found on the ACMA website at www.acma.gov.au/400MHzreview. ☎

Submissions

Submissions can be sent by email to 400MHzreview@acma.gov.au or by post to:

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To access a copy of the paper and to register for a tune-up seminar, visit the ACMA website at www.acma.gov.au/400MHzreview.



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