

Spectrum review delivers a win for emergency services

The ACMA has created an excellent opportunity for state, territory and federal emergency services to improve interoperability, with the release of new arrangements for spectrum in the 403–520 MHz band.

The new spectrum arrangements, released on 23 December 2010 after a comprehensive three-year review of the 400 MHz band, provide harmonised spectrum for government use, and promote the use of new and emerging technologies in the band. The new arrangements, combined with more flexible usage guidelines, will also reduce congestion in the band.

The provision of harmonised spectrum for government agencies is a key achievement. Until now, the various state, territory and federal government agencies have used disparate spectrum for their operations. When cross-border operations or national emergencies have required the presence of interstate resources, the lack of interoperable radio systems has hampered the effectiveness of the response.

The ACMA believes strongly that dedicated harmonised spectrum of appropriate size and structure is critical to enabling interoperable radiocommunications between national security, law enforcement and emergency services. These arrangements mark the beginning of a new era in government radio networks, with the emergence of large, efficient networks that provide a greater level of support for emergency services and other vital government objectives.

The new arrangements create a significant and rarely delivered opportunity for government organisations to develop a nationally harmonised and interoperable system of government radio networks able to deliver effective radiocommunications on a national scale.

Several segments in 403–470 MHz have now been identified for the exclusive use of government, primarily to support national security, law enforcement and emergency services. The ACMA has developed these arrangements in close consultation with individual stakeholders, relevant committees and peak industry groups. It has also participated in a number of national committees and working groups to ensure that its spectrum arrangements are complemented by an appropriate national interoperability strategy.

This strategy, which initially emerged as an agreed national framework for improved radiocommunications interoperability, was endorsed by the Council of Australian Governments in December 2009. The ACMA will continue to work with other government bodies to implement the goals of the framework.

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

‘The review’s release also gives industry the certainty they need to plan for the future and take advantage of the longer term benefits offered by the new arrangements.’

Non-government users of the 400 MHz band will also see significant benefits from the outcomes of the review, such as an ability to expand their businesses through the availability of more channels and the opportunity to use feature-rich, leading-edge radio technology in the band.

As well as substantial changes to the band’s overall structure through the creation of harmonised government spectrum and revised frequency splits, there will be improvements to underlying technical arrangements in the band. This includes a reduction in channel bandwidths and updates to the assignment and coordination rules.



Additionally, changing both the frequency duplex arrangements in the 450–470 MHz band and the channelling scheme will increase the technology options that the band can support. These systems were not supported under previous arrangements.

The ACMA recognises that there will be disruption in the short to medium term as these outcomes are implemented by licensees and industry. However, it believes that the transition strategy and timeframes laid out in *The way ahead: Timeframes and implementation plans for the 400 MHz band* will minimise any impact.

The broad objectives of the review were to:

- > improve the harmonisation of spectrum used by state, territory and federal 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)

For more information on the ACMA's review of the 400 MHz band or to view *The way ahead: Timeframes and implementation plans for the 400 MHz band*, visit the ACMA website at www.acma.gov.au (go to For licensees & industry: Service & technical requirements > Radiofrequency spectrum: Radiofrequency planning > The way ahead – 400 MHz band review).

These arrangements mark the beginning of a new era in government radio networks, with the emergence of large, efficient networks that provide a greater level of support for emergency services and other vital government objectives.

The ACMA is confident that the new arrangements will improve the value of the 400 MHz band. Most importantly, the public benefit of the band will be maximised by expanding its use and flexibility, and improving the effectiveness of licensees' radiocommunications services.

- > 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. 📶