

Greg Cupitt, ABA Manager Planning and Alastair Gellatly, ABA Assistant Director Engineering (Television) represented the ABA at the Broadcast Asia 2002 Annual Conference and Exhibition held in Singapore 17 to 21 June 2002. They also presented a paper titled *Implementation of Digital Television in Australia*. This is a report on the conference.

Broadcast Asia 2002

The 8th annual Broadcast Asia International Conference and Exhibition, which included three specialist streams – CableSat, ComGraphics & Animation and Professional Audio Technology 2002 – was held in conjunction with CommunicAsia 2002. This combination of events provided, as it has done in previous years, a unique opportunity to assess technology developments and trends across the range of broadcasting, radiocommunication and multimedia fields.

This year's conference focused on interactive television, digital audio broadcasting, digital terrestrial television, interactivity, and intellectual property rights and emerging technologies.

The digital television stream included presentations on a wide variety of topics. A number of presentations focused on the status of digital television in many countries throughout Asia and Europe. Korea is the only Asian country to have launched digital terrestrial services (using the US ATSC standard), Singapore has a DVB-T service to buses, but services to consumers have not yet been licensed, although test transmissions are on air. In Europe, the only countries that have launched DVB-T services are the UK, Sweden, Spain and Finland. A well-attended session was on the topic of tests conducted in the UK on how to improve DVB-T coverage though changes to the

modulation. As a result of the tests, UK broadcasters are now proposing to use 16 QAM modulation with 3/4 forward error correction (FEC) instead of the current 64 QAM 2/3 FEC. This reduces the bit rate per channel or multiplex from 24 Mbit/s to 18 Mbit/s, meaning a total of 24 standard definition program streams can be carried instead of the previous 36 program streams.

There was a presentation on a proposed trial in Singapore and China of the DVB-RCT (return channel terrestrial) system, which undoubtedly will be followed closely by many observers around the world. The DVB-RCT system can provide a return path for interactive digital television applications by making use of television frequency bands.

A timely development is the availability of low-cost digital television repeaters, which may have applicability in providing service to coverage blackspots where there is no spectrum available for analog retransmission.

There were also presentations on digital satellite broadcasting (DSB) topics, including a presentation on Japan's HDTV DSB system, which has achieved 3 million viewers in the 18 months since the services launched. More technical presentations covered the use of 8PSK instead of QPSK for DSB to increase the data rate that can be carried over existing satellites.

A further stream was devoted to digital

audio broadcasting (DAB). Sessions in this stream confirmed that DAB had come a long way, even since last year's conference. The United Kingdom continues to appear to be taking the lead in this area. By the end of 2002, it is anticipated that the number of digital radio services available in the UK will be over three hundred. Commercial national services currently have 80 per cent coverage whilst the BBC expects to increase coverage to 85 per cent by 2003. Developments in Germany and the Nordic countries were also discussed. In Germany, 150 stations are on air with coverage expected to rise from the existing 69 per cent to 85 per cent by the end of 2003. Digital radio receivers and component pieces were central issues in a number of sessions and it was obvious that the cost of receivers was reducing as demand increased – at the same time, the size of receivers was reducing to very small portable options. The size and functionality of the receivers were seen as integral components of DAB take-up and in particular the competition it faced with the popularity of CDs, digital TV, 3G, MP3 and the Internet.

These sessions provided some enlightening opportunities for emerging DAB countries such as Australia, where developments in low-cost 'chip sets' set the scene for improved functionality (ie MP3 recorder) and relatively low-cost portable digital radios.

#

Features

Whilst a considerable amount of the presentations talked of the potential and benefits of DAB, a balanced perspective was provided in relation to the development of business cases and marketing to promote benefits to the consumer, producer and broadcaster of DAB.

The final day was devoted to home technologies and issues associated with the use of broadband. The home technologies sessions tended to focus or dealt with emerging issues associated with set-top boxes (STB). These included utilising the STB as a central feature of the home and driving many so-called 'room service' features. Other sessions dealt with STB disk storage – how it can be used and utilised and why consumers would demand the option when it becomes available. Finally, there were a number of sessions associated with interactivity and the role the STB plays in that situation. Aspects included business strategies associated with platforms such as MHP and what the future STB might contain and how it might function.

In addition to attendance at the conference, the ABA representatives participated in an ITU-ABU Collaborative Project that involved a country-specific techno-economic assessment for the implementation of digital terrestrial television broadcasting services. The aim being to assist countries in the

preparation of implementation plans, taking into account all relevant issues, technical as well as non technical.

