Hong Kong, 4th November 1997 – the Digital Video Broadcasting Project (DVB) today announced it will be demonstrating High Definition Television (HDTV) in Sydney this December using the DVB-T digital terrestrial broadcasting standard.

Taking place on the 2nd and 3rd December, the DVB-T broadcasts, part of a demonstration co-hosted by the Federation of Australian Commercial Television Stations (FACTS), will be transmitted from the TCN Channel 9 tower in Willoughby and received in the Darling Harbour Convention Centre in Sydney.

This will be the first time HDTV has been broadcast using DVB-T COFDM technology in Australia. Also of interest is the fact that the DVB-T COFDM modulation equipment used in the trial will be switched to 7 MHz channel mode, an option very rarely seen in DVB trial transmissions. Australia is somewhat unique in world TV broadcasting - being one of the few countries to use 7 MHz channels (PAL-B, VHF and UHF) for images with a 50 Hz frame refresh rate.

Last year in November, DVB carried out the first demonstration broadcasts of digital television in Australia, carrying standard definition signals in channel 8, in between two strong analogue signals from Channel 7 and Channel 9, to great success. For a single standard definition programme, the multiple carrier COFDM broadcast used only a fraction of the transmitter output power required by an analogue channel.

Not surprisingly, with the DVB’s long standing emphasis on cross manufacturer interoperability, the DVB system will bring together equipment from multiple sources, including DVB members the Independent Television Commission (ITC), Harris, NDS Ltd., Sony and Barco.

Since the July 1997 release, in Sydney, of the DVB "HDTV Implementation Guidelines" (ETSI ETR 154), which deal with implementing HDTV in DVB compliant receivers, DVB has been paying close attention to the interests and focus of Australian broadcasters (and their counterparts throughout the world) on the issues of implementing digital terrestrial broadcasting.

Bruce Robertson, executive vice president – engineering of Nine Network Australia, and chairman of FACTS’ advanced transmission specialist group, currently investigating available solutions for digital terrestrial television, said “Ongoing field tests of the DVB system, together with laboratory test data already gathered on the European DVB system and a competing system developed in North America, should provide us the performance data we need to make the best decision for Australia on digital television.”
Background

The Digital Video Broadcasting Project (DVB) is a consortium of over 200 broadcasters, manufacturers, network operators and regulatory bodies in more than 30 countries worldwide, committed to designing a global standard for the delivery of digital television. Numerous broadcast services using DVB standards are now operational, in Europe, North and South America, Africa, Asia, and Australasia.

DVB-T is the Terrestrial member of the DVB family of standards, and makes use of state of the art multi-carrier modulation (Coded Orthogonal Frequency Division Multiplexing - COFDM) to ensure extreme flexibility in adapting capacity and ruggedness of signals to suit the "hostility" of the broadcast environment.

Digital TV broadcasts involve converting images and sound into digital code. This digitalisation of images and sound (and data) starts with compression, in order to minimise the capacity required of the transmission channel. In all digital TV systems compression is done to the industry standard MPEG-2. Then follows the modulation whereby the code is formatted for propagation along terrestrial, satellite or cable media.

HDTV brings sharp, clear pictures and state-of-the-art cinematic sound to the home. It is also the greatest challenge for digital TV transmission systems, as the higher quality pictures produce much higher quantities of data for broadcast. In services planned for launch in Europe next year, the digital bandwidth is used for multiple channel high-quality standard definition and widescreen (16:9 picture format) television services, and for including added value multimedia and/or interactive services alongside regular programming.

Regulators around the world considering the transition from analogue to digital terrestrial TV broadcasting are insisting that digital television systems will be ready and able to deliver HDTV, as soon as HDTV becomes a true market force.