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1 January 2001— digital television broadcasting starts in Australia

Digital television started in Australia on 1 January 2001. Twenty-five new digital transmitters (five each in Sydney, Melbourne, Brisbane, Adelaide and Perth) switched on, signalling the beginning of the biggest revolution in television since the change from black and white to colour television in the 1970s.

'Digital television holds out the promise of better quality pictures and sound, multi-channelling, program enhancements and interactivity for television viewers,' said Professor David Flint, ABA Chairman. 'Over the past two years, the ABA has been laying the groundwork for this new technology by planning the channels the digital services will use. Broadcasters have been investing in the infrastructure for its delivery and manufacturers have been grappling with the standards and specifications for digital receivers and monitors.'

For most viewers, the switch on of Australia's digital television transmission network on

1 January 2001 had no immediate appreciable impact. This is because the existing analog television transmission network continues to operate, for at least the next eight years. However, when any new transmitter is switched on, it can cause interference to some existing services. Broadcasters have therefore tested their new digital transmitters to identify and deal with any interference problems.

Both the analog and digital transmission networks use channels in the VHF and UHF parts of the broadcasting services bands. Having two transmission networks operating simultaneously means the ABA has had to find more than twice as many channels for television broadcasting. This has required the ABA to use a number of channels in the broadcasting services bands which have not previously been needed for television broadcasting.

'Preservation of the current analog reception environment is of paramount concern for the

ABA,' said Professor Flint.

'The switch on of the new digital transmissions caused some interference to the reception of existing analog services by viewers. The television industry has proved to be very responsible in dealing with these kind of issues in the past.'

'As a safety net, the ABA developed an Interference Management Scheme which, as part of the Technical Planning Guidelines, is a condition of every broadcaster's licence. The Interference Management Scheme was determined on 22 December 2000. Under the scheme the ABA has the power to direct a broadcaster to either turn down, or turn off the digital service if that service is causing severe interference to existing analog services.'

Interference

In some areas of Australia, viewers who receive their television signals though their video cassette recorder have experienced some interference to their television reception.

This may occur if a viewer's VCR is connected to a television set by a RF (radio-frequency) connection rather than an AV (audio/video) connection and the VCR output channel is being used for a digital television or datacasting channel.

See the table on page 4 for an outline of the areas where the ABA has planned services on UHF channels 36, 37 and 38. These are the most common default output channels for VCRs.

For more information

Further information can be obtained at the ABA web site, www.aba.gov.au/what/digital/ and the Digital Broadcasting Australia web site www.dba.org.au.

The Interference Management Scheme is available on the ABA's web site or call Freecall 1800 810 241



The summer problem of distorted television pictures has returned to Australia.

TV reception in coastal areas distorted by natural phenomena

The summer problem of distorted television pictures has returned to Australia, judging by recent complaints to the ABA.

Typical examples of interference are one picture superimposed on another and horizontal bars appearing on the screen (a 'venetian blind' effect), or a snowy picture. Interference can last a few minutes, for hours or, in extreme cases, for several days.

The sporadic interference is caused by two natural phenomena and should begin to diminish from March onwards.

Air layering

One phenomenon is a seasonal change in the weather pattern that can result in layers of air forming. Radio signals can travel long distances when trapped within one of these layers. This phenomenon is known as 'ducting'. Normally signals continue to get weaker as they spread out in the atmosphere, however, these ducts have the effect of focusing the radio wave so that it continues with minimal loss of energy.

Television reception in coastal areas is most likely to be affected by this phenomenon. High pressure weather systems and still conditions enhance the interference. Most com-

plaints have been received from areas on the NSW south coast, where the interference has been to input signals of some broadcasters' transmitters. Broadcasters and the ABA are working together to find alternative methods of providing signals to the most affected transmitters, to minimise these effects.

Sunspots

The other cause of interference is sunspot activity that can make the ionosphere, about 120 km above the earth, denser than usual. This can cause television signals, particularly in the low VHF channels, to bounce back to earth between 1000 and 2000 km from where they originated.



Who to call?

Viewers experiencing problems should contact their broadcaster in the first instance. A number of viewers on the NSW south coast have been experiencing problems, and they should contact

- ABC reception hotline 1300 139 994
- SBS 1800 500 727—ask for Transmission Services
- WIN (9 network programs) (02) 4223 4199
- Prime (7 network programs) (02) 4271 0232
- Capital (10 network programs) (02) 6242 2400.

Digital television broadcasting

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Areas where the ABA has planned services on UHF channels 36, 37 and 38

These are the most common default output channels for VCRs

Area	UHF channel(s)	Type of service*	Service likely to commence
Central Coast NSW	37 38	ABC, SBS digital	Unknown
Newcastle	36 37 38	NBN, ABC, SBS digital	Mid 2001
Wollongong	36 37 38	WIN, CTC, CBN digital	Mid 2001
Ballarat	36	WIN analog	15 January 2001
Bendigo	38	BCV (Ten Victoria) analog	17 November 2000
Gippsland	37	GLV (Ten Victoria) analog	28 August 2000
Brisbane	36	SBS digital	30 January 2001
Brisbane	38	Datacasting*	Unknown
Adelaide	36	Datacasting*	Unknown
Perth	38	Datacasting*	Unknown
Darwin	36	Possible third commercial television service—digital	Unknown

* Licences for datacasting services have yet to be auctioned. The Australian Communications Authority plans to auction these in the first half of 2001.

Digital Broadcasting Australia

Digital Broadcasting Australia (DBA) has been formed to help make the transition from analog to digital television as seamless as possible for the consumer. It includes representatives from free-to-air broadcasters, manufacturers, suppliers and retailers. The ABA is an adviser to DBA's Consumer and Retailer Education Committee.

DBA aims to help consumers with information about digital television commencement dates and coverage, the functionality and availability of equipment, retailer locations and the range of television programs and enhancements to be broadcast. DBA will also encourage training programs for sales staff,

service technicians and antenna installers.

The DBA web site, www.dba.org.au, is a good source of information about these and other digital television issues.

Interference advice

For general interference complaints viewers should contact the national interference hotline on Freecall 1800 016 009 for advice and assistance on interference issues.

Pay TV subscribers who still have problems receiving their service after retuning their VCR, should contact their pay TV provider for assistance.

