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## **Digital Television**

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mercial Television Stations

Tony Branigan, the General Manager of the Federation of Commercial Television Stations (FACTS), presents the free to air TV broadcasters' view of how digital television should be introduced in Australia

The move to digital television is inevitable. We have a 50-year old analogue system, which is starting to show its age. The attraction for broadcasters is that digital television can transmit a far better picture than analogue systems. The commercial reality is that quality matters, and higher quality is being forced on television by its competitors:

- first of all by home video, with the emergence of digital video, which will raise the quality bar very significantly.
- within five years or so, cable and satellite will also be offering digital video, which will make the analogue PAL picture look second rate.

Broadcasters have no choice but to upgrade to digital television if they want to retain a competitive edge. Internationally, the same trend is apparent, and for much the same reasons.

It is a transition that not only broadcasters consider inevitable. For governments, the attraction obviously lies mainly in digital television's spectrum efficiency. It promises to free large amounts of broadcast spectrum for new uses, once analogue transmitters are turned off.

The main drawback to digital technology is that it is incompatible with any analogue transmission system. It cannot be grafted onto the present transmission system, as happened with colour almost 25 years ago. The only practicable way of introducing digital television involves dual transmission over a number of years. The Australian Broadcasting Authority

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('ABA') suggested in its report to the Minister for Communications and the Arts last July that this could last from 7-15 years.

We believe it will take far less than 15 years, but that it is unlikely to be substantially complete in much less than 8 - 10 years from the start date.

Assuming that start date is in 2001, we are looking at about 2011 before every home is likely to have digital reception capability.

Importantly, we are also looking at a system which may still be in place by 2035 or 2040. It is a replacement system for the long-term, and it must provide the technological head-room broadcasters need to develop and extend their service over the next three decades and more.

#### **KEY ISSUES**

This throws into relief some of the key issues.

The digital transition will cost the commercial television industry half a

billion dollars in capital costs in the first 4-5 years, and hundreds of millions of dollars more in additional operating costs during the dual transmission period. It will be a difficult and risky transition. We will have to give viewers a compelling reason to invest billions in new television sets

If we fail to carry this off, then I suspect that the best that free-to-air broadcasters can look forward to is simply becoming program providers for cable and satellite.

There are strong public interest grounds for ensuring that the digital transition takes place with as little damage as possible to free-to-air television and the service it provides. For Australians, television is:

- the main source of news and information;
- the main source of entertainment;
- the main funder of the local program production industry: over 75 cents in every dollar is contributed by television, and most of that by commercial services.

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Television is a great national institution: it is one of the key elements that unites Australians. We should not put it at risk as we move to digital television.

The issue for broadcasters is what approach will offer viewers the most compelling reason to buy digital sets, and will also give broadcasters the greatest technological flexibility down the track.

Any approach which excluded HDTV would be ill-conceived and doomed to failure. Fortunately, there seems no likelihood of the Government's taking such a myopic policy approach.

By 2010, HDTV will be the quality standard. The main sets in most households (whether they receive free-to-air, or are served by cable or satellite) will be large, HDTV capable sets. There are several reasons for asserting this.

Firstly, Australians have a growing appetite for large television sets, like Americans, and probably unlike Europeans. Around one quarter of all sets purchased are 62cm or larger.

Secondly, receiver technology is in rapid transformation. Within 10 years, very

large slim-screen sets will be priced well within the reach of a majority of Australian homes, that is at less than two thousand dollars in today's values.

Thirdly, HDTV is compelling for all sorts of programs, but especially for sport, movies and documentaries. That, incidentally, is a key reason why pay services will also have to introduce HDTV over the next decade, despite their predictable reluctance to sacrifice channel quantity for program quality.

Dramatically better quality may not make much difference to people's enjoyment of programs like Australia's Favourite Home Videos, but that does not deter people from buying the best set they can afford today. Nor will it deter most people from buying a one hundred centimetre HDTV set ten years from now.

Obviously the inflated price tags on digital sets quoted in the United States at the moment will fall sharply over the next few years. The margin over current sets is expected to be 15% or less six or seven years from now.

It is worth remembering that Australians paid the equivalent of at least three

thousand dollars for 18" black and white television sets in 1957, and three or four times what they now pay for colour sets in 1975.

## PLANNING THE TRANSITION

Some criticism of the digital television policy development process in Australia has been disingenuous, to say the least. Companies and groups which ignored the ABA's efforts to encourage public input are now claiming that they were denied an opportunity to have a say.

Some of the calls for more study and debate on the issue are honestly intended, but others are a transparent attempt to delay decisions, in the hope that delay will allow greater opportunities to hobble free-to-air television in the decades ahead.

If digital television is to be introduced by 2001, government needs to make some framework decisions without delay. This is essential in order to allow planning both technical and commercial planning for the digital transition to proceed. We believe that there are overwhelming public interest grounds for government

to accept the key elements of the ABA's recommendation to the Government, namely:

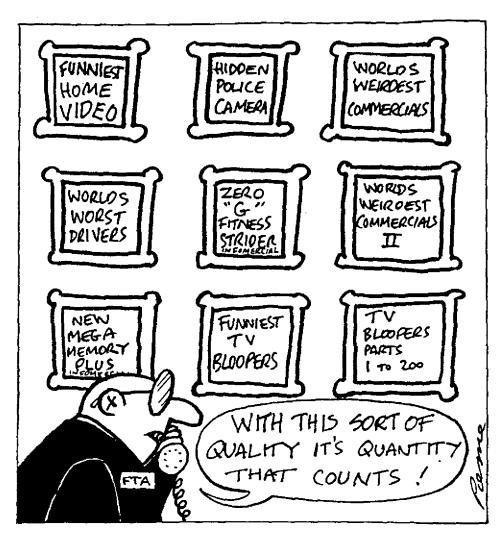
- Each broadcaster should be loaned a seven megahertz channel in the existing broadcast bands to provide a digital service. This channel, or the existing analogue channel, would be returned at the end of the transition period, leaving broadcasters with what they now have: seven megahertz of frequency.
- Broadcasters should be allowed flexibility in the mix of digital services they provide. The main aim must be to encourage viewers to make the translation to digital as swiftly as possible. HDTV will be a key element in this, but "multi-view" and multi-program streams may have an important subsidiary role. Free data services will probably have some role to play. Even subscription services should not be ruled out; if some use of subscription services can help underwrite the provision of highquality and diverse free-to-air services, it should be supported.
- Finally, no new commercial services should be issued during the transition period. This is necessary to provide the minimum degree of certainty required for such large investment by broadcasters.

It would obviously be open to Government to refer a range of subsidiary but highly significant issues to the ABA for further inquiry. These might include:

- Australian content;
- service rules, possibly including a detailed timetable for the start and conclusion of the transition; and
- arrangements to review digital transition at various points.

#### OTHER INTERESTS

Broadcasters are not alone in believing that they should have access to what is being grandly called "the digital spectrum". In reality, there is no "digital spectrum" for television. All that exists is the analogue guard-bands - the gaps between active channels which cannot be used for analogue broadcasting because of the interference that would result. This is where digital transmission will be located.



There has been a barrage of demands to provide broadcast spectrum for "datacasting". It is worth posing the question where the prospective "datacasters" were last year when the Spectrum Management Agency (SMA) auctioned 8 megahertz of non-broadcast spectrum in the area where Channels 25 and 26 would notionally be. The SMA auction raised only a little more than one million dollars nationwide, which suggests that there was not much demand at the time. Significantly, News Limited, Fairfax and OzEmail and other "datacasters" were not among the bidders.

What is more, that spectrum was pretty much technically unencumbered. By contrast, the "Swiss cheese" spectrum that the television industry wants to use for digital television could only be used for digital services that do not interfere with existing analogue television services. This rules out anything other than wide area, point-to-multi-point services transmitted from existing television transmission sites.

It is worth noting that this spectrum is used for television internationally, so little or no equipment is available for non-broadcast uses. It might well have to be

made specifically for Australian use if television frequencies were used here for large-scale data distribution.

The disappointing SMA auction results underline an important point; there is no shortage of frequency in Australia. Outside the broadcast bands, frequency is already available, or set to become available over the next few years. Within the broadcast bands themselves, a great deal of frequency will become available once analogue services cease. Assuming that the new digital television services can then be packed together to remove all the alternating gaps we have at present, a sizeable proportion of the present broadcast bands might be made available in a continuous band for other uses. In the United States, for example, the "core digital spectrum" is likely to comprise Channels 2-50, thereby freeing the 19 Channels above Channel 50 for alternative uses.

Within the broadcast bands, very little spectrum is currently available for non-broadcast uses. Almost all of the 53 channels in the broadcast bands are in use (or unusable on interference grounds) in Greater Sydney and Greater Melbourne-the two clusters of frequency

congestion that constrain television frequency planning in Australia. If more than 2 or 3 of these channels are diverted to other purposes, some analogue transmitters cannot be digitally replicated during the transition. Which politicians' constituents should be left without digital television signals during those years?

# PAY SERVICES: A SUITABLE CASE FOR STATUTORY PROTECTION?

Pay TV interests have mounted an argument that they have the right to be protected from new competition in the future. This is a remarkable demand to come from the least-regulated pay television industry in the developed world: one which accepts no community responsibilities and obligations, and whose main players effectively pay zero licensing fees. In the absence of any social compact, pay television is in essence no different from the video industry: why should it be protected?

The pay television argument seems to be that the policy context in the United States is irrelevant for our purposes: the emphasis there is on constraining monopoly cable television operators, whereas here it should be on helping

fledgling cable companies to establish a beachhead against the all-powerful commercial free-to-air networks.

One doubts that this proposition would be given much credence but for the clout of the press empire behind it. The problems that Congress and the Federal Communications Commission (FCC) were concerned to address were identical to those which face Government here over the next decade: how to ensure a long-term future for free-to-air services in an age of growing audience fragmentation and competition from monopoly or quasi-monopoly multiple service providers.

Current pay television penetration in Australia falls far short of the US - 15% as against close to 70% - but it has been achieved in a very short time, and with flawed program packages. Pay television penetration will certainly have doubled by the early years of digital television, and may have trebled or more by the time most Australian homes have digital television receivers. That is the competitive environment around which any medium-term broadcasting policy must be constructed.

With that prospect in mind, it would clearly be foolish in the extreme for a

Government to impose permanent (or even long-term) restrictions on the uses to which television broadcasters can put the frequency available to them. Congress and the FCC have taken the view that broadcasters should be given a free hand with free-to-air services, on the grounds that they may need every bit of this flexibility to encourage viewers to buy digital receivers, and thus hasten the digital transition - the process that will return valuable spectrum to Government.

US planners foresaw the risk of "unfair enrichment" - a free kick for broadcasters in potentially new businesses arising from digital transmission - and will require them to pay fees on any revenue from subscriptions services. Our system already provides for spectrum use charges which dwarf anything in prospect in the United States, in the form of television licence fees. Modified licence fees - at something less than the punitive 9 percent of revenue currently applying to large stations - would seem to be sounder policy than bans on anything falling outside the 1956 television model.

Tony Branigan is the General Manager of the Federation of Australian Commercial Television Stations.

# A Fair Go for Digital Broadcasting

Debra Richards, Executive Director of the Australian Subscription Television and Radio Association (ASTRA), presents the contending view of the pay TV and other subscription services industries

igital terrestrial television broadcasting ('DTTB'), is one of the most significant communications developments of the last 50 years. It will affect all Australians, whether in the bush or in the city and will have far-reaching consequences for many industry sectors, including free-toair television, TV and film production, subscription television, narrowcasting services, the on-line industry, advertising and electrical manufacturing, banking, and retail among others.

Although this article focuses principally on digital terrestrial television, it is ASTRA's view that the policy context for these issues is the much wider universe of digital communications, both wired and wireless, terrestrial and non-terrestrial. Thus, any significant policy

decision in the digital sphere will have important implications for other areas of digital communications, and interested parties from each of these areas should be consulted in the making of any policy decisions by either government or regulators.

ASTRA's view is detailed in our submission on DTTB to the Minister which has been widely circulated and debated in the press and at a number of forums.

The submission consists of a policy paper, a technical issues paper and a legal issues paper. In essence we argue that the spectrum proposed for DTTB use is too valuable to be granted to the commercial networks at no charge and subject to no restrictions on what they can do with the spectrum and associated technology.

Spectrum (for whatever purpose) is a valuable, finite commodity and once allocated is almost impossible to reclaim (somewhat like a temporary community broadcast licence).

### WHO ASTRA REPRESENTS

But first some background on ASTRA to provide some context and understanding on where we might be coming from.

ASTRA and those it represents are fairly new organisations.

It was formed last year when industry associations representing pay (multichannel )TV and radio platforms, narrowcasters and program providers came together with a common purpose.