

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**

Digital 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-to-air television, TV and film production, subscription television, radio, 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.

That purpose is to underpin and propel the new era in competition and consumer choice that multi pay TV services have brought to broadcasting, communications and entertainment in this country.

Our membership includes the major subscription television operators: Austar, East Coast Television, Galaxy, FOXTEL and Optus Vision, as well as more than seventeen stand-alone channels that provide programming to these platforms.

Other members of ASTRA include narrowcast radio operators, 2KY, Racing Radio, Bathurst Broadcasters, Western Visitor Radio, Cooloola Coast Radio and Really Really Big Productions. The racing TV broadcaster Sky Channel, the TAB of NSW, and telecommunications companies including AAPT, Optus, PanAmSat and Telstra are also members of ASTRA.

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### THE IMPACT OF PAY TV IN AUSTRALIA

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Pay TV, the most prominent of the subscription services, finally started in this country in 1995 following about a 30 year moratorium strongly lobbied for and maintained by the commercial free-to-air networks. However, in less than three years it has made a substantial and, at times, fairly dramatic impact on the way we experience entertainment and information in the home in Australia.

It has been said, and will be said again and again (by me) that pay TV has created an enormous amount of jobs, investment, infrastructure and content. There are over 50 individual channels on offer across subscription TV platforms, compared with the choice of five free-to-air ('FTA') stations prior to 1995. The genres covered include movies, sport, news, documentaries, children's, music, the arts, non-English language channels and comedy.

By world standards the take-up of pay TV in Australia has been rapid - Galaxy launched via satellite/MDS in January 1995, followed by Austar and East Coast Television. FOXTEL & Optus Vision launched via cable in September & October. By end 1995 - 85,000 homes with 300,000 potential viewers. By end 1996 - 400,000 homes with approximately one and half million people. By the start of this year about 750,000 homes were subscribing to pay TV - about two and half million potential viewers - a penetration rate of about 13 percent of Australian homes.

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### RESTRICTIONS IMPOSED ON PAY TV

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Clearly we remain a long way short of the penetration rate in the world's most mature pay TV market in the US where up to 70 per cent of homes are connected to cable or satellite pay TV.

But this penetration rate is impressive all the same in light of the restrictions put in the way of pay TV:

- a 30 year moratorium before pay TV was allowed to compete with the commercial FTA services;
- once allowed in - original pay TV operators were mandated to use digital satellite and restricted to only eight channels;
- a ban on advertising until 1 July last year and still capped by virtue of the licence condition restricting advertising revenue below subscription revenue; and
- one of the major subscriber drivers, sport, nobbled by the anti-siphoning list (originally designed to ensure major sports would not shift from FTA to pay TV exclusively but now with an exclusive and 'live' life of its own on FTA especially when it comes to cricket).

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### A PROTECTED MARKET FOR FTAs

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Now, it seems as well as a protected market (with the decision having been made ruling out a fourth commercial network) the networks want the right to control digital terrestrial broadcasting through a free and unconditional gift of public spectrum. The public relations rationale is the prospect of offering high definition television ('HDTV'). While not committing to HDTV the FTAs insist they be allowed the freedom to exploit and experiment with that spectrum for any purpose - whether it be multi-channel TV or on-line services.

The significance of digital terrestrial broadcasting cannot be overstated.

Indeed the infatuation with the possibilities of the technology may have overshadowed any debate on policy and legal implications and the assumptions about consumer needs and demand.

In 1996 the then FCC Chairman Reed Hundt outlined what he saw as the basic

rules for digital television. This gives some flavour about what digital will and should deliver:

*"The country needs digital TV to create a public good of free digital programs - consisting of sports, entertainment, news, free time for political debate between... educational shows for kids, public service announcements, and anything else within reason that the public interest demands from the licensees of the airwaves, the public's property. If digital TV doesn't do that, then we might as well just auction the spectrum for any use, subject to interference taboos, and let that be our easy answer to the tricky spectrum posed by digital TV.*

*And if digital television isn't commercially successful, then none of our hopes and dreams about digital TV's capacity to help answer many social and business problems has any chance of coming true. It's all very well to talk about what digital TV can do for the country, but if it can't do for itself, then we're just wasting our breath on what will sadly turn out to be the digital version of, say, the pressure cooker, the Edsel [or for Australian audiences the P76] and teflon - products with high hypes that ended up with wide acceptance not as consumer goods but as metaphors.*

*To talk about the commercial future of digital terrestrial broadcast we ought to start by talking about all digital media."*

Sentiments which most of us would have no trouble embracing.

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### THE DIGITAL DEBATE

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The early debate has tended to be a 'planning (or technical) led' debate. The basic premise of the ABA Specialist Group's reports and discussion paper is what is the easiest and most effective planning solution, i.e:

- the need to accommodate any proposed DTTB systems within the existing Australian channel plan - the 7MHz chunks;
- the two competing systems between the US ATSC standard (and a US planning system of 6MHz chunks) and the European DVB standard (of 8MHz chunks).

So the ABA Specialist Group has advocated what they consider to be the most effective planning solution but in doing so has to a large extent ignored the policy issues.

The argument, as I have paraphrased it, is

*"we need to facilitate the introduction of digital technology and the obvious 'change agent', given its dominance and unbeatable reach, is FTA television. But the cost to convert will be 'considerable' and so we need to assist the FTAs with the transition - that is lend or give them the spectrum and allow a transition period of maybe 10, no 15, well possibly more years to simulcast and phase out analog - but what will be the incentive for the consumer to take up the new age and new receiver - they certainly don't want more of the same"*

(or do they - who knows? - I'm not aware of any studies or surveys about what the Australian consumer wants or needs or is willing to pay for the experience of digital TV) -

*"no, they will want High Definition Television (HDTV) - cinema like pictures that will leap from the screen and grab you by the balls (so to speak)".*

- especially those major sporting events of national importance and cultural significance over which commercial television already has a legislative stranglehold.

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### QUESTIONABLE ASSUMPTIONS

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While the argument sounds simple, ASTRA's concern is that such a simple view of spectrum allocation may leave Australia in a situation where the last available spectrum is given up in the pursuit of the interests of network television, with no consideration given to the exploding digital communications world - Internet, Internet telephony, on-line applications, narrowcasting, datacasting and interactive services.

ASTRA does not disagree with the first part of the argument - ie the need to facilitate the introduction of digital and that FTA is the obvious change agent.

However, it does not agree with the proposal of an unconditional gift or loan

of the spectrum for a number of years. We question the assumptions made about what will be the incentive for the consumer and we certainly question the commitment of the commercial networks to at least go down the path of HDTV given what has happened in the United States.

A year later as quoted in *Time* Reed Hundt again said:

*"the great myth here is that this was all about HDTV... HDTV has been a fraud by the broadcasters all these years"*<sup>2</sup>.

And the *Wall Street Journal* comments:

*"HDTV had little or nothing to do with consumer demand; it was born out of a power grab by the broadcasting community in the 1980's as a way to keep valuable spectrum from being parcelled out to paging companies and other data communications concerns"*<sup>3</sup>.

Or there is local commentary from the *Australian Financial Review* editorial of 10 February 1998:

*"The issue is being dressed up (by the Packer camp) as a way to allow cinema-quality moving pictures to "leap off the screen" in the family lounge room through the introduction of high definition television. But the wonder of HDTV obscures a bigger prize for the free-to-air broadcasters of maintaining their traditional grip on the family TV set as it is linked up to a new digital information pipeline..."*

*"At the least, the Government ought to open this issue to much more debate before it considers giving a valuable public asset - the spectrum - to the incumbent broadcasters as if they were some sort of public utility. The engineering dazzle of HDTV should not blind everyone to the obvious alternative of selling, auctioning or leasing the extra spectrum at its market value..."*

(economics - considerable expense to FTAs to invest in new digital technology - most businesses have to upgrade to a new technology without being given an exclusive use of public property) -

*"These underlying economics are beginning to emerge in the US, where the FTA networks were handed out free digital channels carrying an*

*estimated market value of about \$100 billion. Once given the prize the US networks don't feel so enthusiastic about flooding American television sets with HDTV."*<sup>4</sup>

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### ASTRA'S OBJECTIONS

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The fact is ASTRA supports the current terrestrial broadcasters' move into digital - and to have a guaranteed path to provide their current service.

But we strongly object to the commercial networks being allocated the very valuable spectrum for free so they can expand into multi-channel and subscription services, while their core business is protected from competition by the continued restriction of the three (commercial TV services) to a market rule. It remains an oddity that our rivals in network television should need so much protection. The fact is that the commercial networks want to control all available spectrum and have the freedom to configure it, at will, across a range of standards of digital TV, including the provision of multi-channel services.

While, as you would expect, ASTRA is very concerned about the commercial impact multi-channelling by the networks would have on the viability of the pay TV industry, we and others are equally concerned about the wider implications for the development of innovative services which will be possible only if the current available spectrum is planned efficiently.

Interests as diverse as Internet providers, datacasters, consumer groups, electrical manufacturers and newspaper groups have joined with the pay TV industry to raise a raft of significant policy issues that must be considered.

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### EQUAL ACCESS TO SPECTRUM

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ASTRA's view is there should be equal opportunity for others to access spectrum for digital terrestrial broadcasting, including on-line service providers and other communications companies with genuine claims to the medium - and that it be offered or allocated like all other commercial spectrum in this country - at a price.

The spectrum is in fact wireless broadband capacity. Naturally, we think to grant it freely and unconditionally to one group only unfairly disadvantages others - their competitors who have paid a substantial (and some would say

exorbitant) amount to get into the market in license fees and capital expenditure to establish pay TV, on-line and even telephony businesses. On the other hand, to restrict the use of the spectrum (for example to HDTV) seems an inefficient use and contains all the risks of lost opportunity which the desirable principle of technology neutrality seeks to avoid.

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## ALTERNATIVES

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For these reasons, ASTRA proposed a model which would enable the current terrestrial broadcasters to be migrated to DTTB at no cost but limited to parallel

broadcast of their analog signal via "multiplexing".

This would leave a further three channels - that could carry eight or nine television programming streams or a mix of communications services - available for auction. The result - in addition to FTA migration to digital - would be extra revenue to the Government and the potential for innovation and new entrants in a range of communications services.

In addition, multiplexing would promote the move to digital by vastly reducing the FTA broadcasters' costs of shifting to

DTTB, especially in regional areas of Australia.

ASTRA is in for the long haul and looks forward to the continuing debate.

*Debra Richards is the Executive Director of the Australian Subscription Television and Radio Association.*

1. quoted from Colin Knowles' paper given at the AIC Cable & Satellite Conference, Feb '98.
2. *Time* 1 September 1997.
3. *Wall Street Journal* 12 September 1997.
4. *Australian Financial Review*, 10 February, 1998.

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# DTTV: Services and Funding

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**Malcolm Long, formerly Managing Director of the SBS, provides his views on the digital television debate, the overseas experience and the government broadcaster perspective**

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## INTRODUCTION

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The introduction of digital terrestrial television ('DTTV') in Australia thus far has been somewhat akin to a bear pit, characterised chiefly by the day-to-day tactical manoeuvring of the various parties who believe they will gain or lose in the marketplace.

But while this squabbling continues, we run the risk of failing to consider the full impact of the revolution DTTV will inevitably usher in. In the light of trends that are emerging for DTTV internationally, it's important to consider the actual on-screen services which are likely to emerge and how they might affect the businesses of the various industry players.

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## FREE-TO-AIR TELEVISION

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I start from the perspective of the free-to-air ('FTA') television operators. They are in a business which, after a period of overwhelming dominance, has entered an era of uncertainty and challenge.

The mass consumer audience which FTA television has so effectively sold to advertisers is fragmenting, a process which challenges the traditional structure and logic of these broadcasters' approach.

Globalisation of television threatens FTA operators' ownership of their local markets and introduces new and powerful competitors who build new audience segments which have international reach.

Deregulation in media and communications is breaking up the comfortable television oligarchies which dominated for so long and is introducing new skills and capabilities into a business which has operated in a remarkably narrow and unadventurous industry culture.

Convergence of all information and communications technologies into the digital domain is indeed breaking down FTA television's protective barriers but also, as I hope to show, offering some exciting possibilities.

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## HIGH DEFINITION VERSUS MULTI-CHANNEL

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In the United Kingdom, the system seems to be denying itself the opportunity of true HDTV and building a DTTV regime based mostly on its multi-channel capability with enhanced visual quality, cinema-shape picture and stereo sound as secondary features. Existing FTA's will have more channels and there will be new terrestrially delivered services. There are various reasons for this approach - spectrum availability, plus the Government's policy of providing more choice from existing broadcasters, and introducing new TV players. So confident is the BBC about DTTV that it predicts half of all British viewers will have digital reception capacity by 2005.

However, many industry figures in the US think the UK approach on HDTV is a mistake - specifically at CBS, which is

committed to a very aggressive pro-HDTV.

The network points out that one in five US households has a large-screen TV, so picture quality is definitely an attraction. CBS is working closely with TV set manufacturers who are talking up HDTV's potential. HDTVs were on show at last month's US Consumer Electronics Show and American manufacturers have predicted there will be one million large screen HDTV in the US by 2000 and that annual sales will reach seven million by 2006.

Other networks are less sure of where to put their programming emphasis, with NBC and ABC talking more about multi-channel opportunities. At the recent NATPE program market, 100 station operators were asked: Which holds more promise for digital TV - HDTV or multi-channel? The result was 37 per cent for HDTV, 52 per cent for multi-channel.

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## A MIXTURE?

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In reality, I believe that FTA stations will embrace a mix of HDTV, multi-channel and data techniques in their DTTV strategies using the ability to manage the bit rat of the digital seminar in Las Vegas in January that:

It is a misconception that ancillary data services and high definition video are mutually exclusive. Both can be accommodated simultaneously. The number of bits needed to transmit a