

audio.txt

-----Original Message-----

From: Kishore Patel [mailto: kpatel@audioltd.com]  
Sent: 28 March 2002 14:48  
To: Jane.humphreys@dti.gsi.gov.uk; Catherine.smadjac@culture.gsi.gov.uk  
Subject: spectrum 2.doc  
Importance: High

I am writing in response to the consultation document Digital Television: The Principles of Spectrum Planning.

The Government acknowledges that it has a duty to ensure that the spectrum can be used after switchover to support the

services that are most valuable - economically and socially to the UK as a whole.

Audio Ltd design, manufacture and supply broadcast quality radio microphone systems for the use in the production of

television programmes including news, film productions, theatres, and live events.

Audio Ltd has been manufacturing broadcast quality radio microphone systems for the past thirty-nine years, one of the

longest established companies in professional audio in the UK. Over this period in time we have built a worldwide reputation

for quality and service.

For the past few years, the winners of the Oscar for sound have all used our equipment on film such as "Black Hawk Down",

"Gladiator", "Titanic" and "Saving Private Ryan". These are just a few of the high profile films, which have benefited from

our systems.

British made box office hits such as "Harry Potter the Philosopher's Stone", "The Full Monty", "Bridget Jones' Diary", "Four

Weddings and the Funeral" and "Notting Hill", were all made using Audio Ltd's radio microphone systems to record the

dialogue.

The UK Gross box office takings for the above are listed below.

Harry Potter	£61,916,490
Full Monty	£52,232,058
Bridget Jones' Diary	£42,007,008
Notting Hill	£31,006,109

All of these films used a minimum of four radio microphone systems for the dialogue. Robert Altmann's UK based film, "Gosford

Park" utilised 18 radio microphone systems for the dialogue.

A typical Radio microphone channel occupies 200 KHz of spectrum. However, to utilise several radio microphone channels

simultaneously requires that the channels are not equally spaced i.e. they

cannot be spaced 200 KHz apart. Careful frequency

planning is essential to avoid mutual interference and inter-modulation effect. Typically a television channel of 8 MHz can

accommodate somewhere between eight to ten radio microphone channels. As the number of radio microphone channels increases,

so does the spectrum requirement.

Radio microphone systems utilise the spectrum between 470 and 862 MHz, channels 21 to 69. The 470 to 862 MHz band (except

854.00 - 854.25 MHz) is used for Programme Making and Special Events (PMSE), in the UK, on a secondary basis.

The day-to-day management of the Spectrum for PMSE has been delegated to JFMG Ltd by the Radio Communications Agency who

retains responsibility management of the radio spectrum for civil applications.

The technical requirement and the spectrum allocations for current and future needs for Broadcast and Entertainment

production can be viewed in the contribution submitted by JFMG under the title:

Broadcast and Entertainment Production:

Spectrum Requirements for Studio, Stage, Venue and Location.

However, the purpose of our submission is to point out to the Department of Trade and Industry that should there be an

inadequate allocation of spectrum to accommodate the needs of PMSE then there will be drastic effects on the economic and

social wealth of the UK.

The honourable Secretary of State for Culture, Media and Sport - Patricia Hewitt states on the governments website for

digital television that the UK leads the world in digital television. "Our broadcasters, manufacturers and retailers put the

UK at the forefront of this revolution." Patricia Hewitt and Tessa Jowell continue to extol the virtues of the channels,

which digital television can offer. They go on to talk of the wide range of "high quality channels and services, some free

to view, some subscription."

Has there been any thought given to the programme material for those "high quality channels"?

Without adequate spectrum specifically allocated to Programme making there will be no radio microphone systems used on any

production and this will result in no dialogue being recorded and therefore no sound! Even the most basic programme material

for television these days requires the use of two radio microphone systems.

If adequate provisions are not made for the present and future use of professional radio microphone systems the governments

"Digital Television Action Plan - The Government's Vision" will result in

exactly that - Picture without the sound! We will

have the latest technology to show Charlie Chaplin films, or The Teletubbies.

Although the facts and figures published on the governments own creative, Media and Arts website might be out of date they

give an indication of the economic value of the film, television and theatre industry of the UK.

The site states that "13% of the exported television programmes shown anywhere in the world during peak time come from the

UK."

What is the economic value of this export to UK plc?

From the culture.gov.uk website - "The musical "Phantom of the Opera" has taken more money at the box office world wide than

any film ever, including "Titanic"

Theatre productions are the most intensive users of radio microphone systems, often employing somewhere between 30 to 40

radio microphone systems on a typical West End musical production. If adequate provisions for spectrum allocations are not

made for radio microphone systems, in-ear monitoring and talkback then the government will effectively kill the theatre

market in the UK.

Due to the downsizing of the large corporations like the BBC, and ITV companies over the last then to twelve years, the

majority of these companies do not have production sound recordists on their staff. Instead, freelance sound recordists are

contracted to record the sound for various programmes including dramas, documentaries and even news. Typically these sound

recordists own their recording equipment, which includes up to four professional radio microphone systems. Radio microphone

systems are essential to the acquisition of programmes today.

The majority of the freelance sound recordists in the UK acquire radio microphone systems, which are set to channel 69 in the

854.9 to 861.75 MHz band as this is the legal UK allocation for licensed use in the UK.

Can the Department of Trade and Industry guarantee the present and future allocation of channel 69 for the use of radio

microphone systems?

We estimate that if our customers are required to change the frequencies of their current radio microphone systems, the

minimum cost, if there is a frequency band within 470-860 MHz allocated for their use after the "switchover", will be in the

region of £2,500,000 to £3,000,000. The actual cost could be a great deal higher if they are required to purchase new

systems if the topology of their systems does not allow a frequency change to be

implemented.

We estimate that there is a minimum of one thousand, and up to two thousand freelance sound recordists in the UK. More

accurate numbers can be established by contacting the Institute of Broadcast Sound and BECTU.

The estimated of the value of radio microphone systems owned by our customers in U.K. is approximately £10 million. This is

only taking into account sales over the last ten years. Bearing in mind that we still service equipment, which is twenty

years old this is probably a gross underestimate. Also, there are two other UK manufacturers of radio microphone systems as

well as UK based distributors of other manufacturers so the value of the total amount of radio microphone systems in the UK

could well be ten fold to our estimate.

Over the past five years there has been an increase in the requirement of radio microphone systems for programme making and

many programmes require increasing numbers of radio microphone systems on single programmes particularly in the newer

"reality" shows. The spectrum allocation in the channel 69 band is already proving to be inadequate for programme making.

If the government does not provide adequate spectrum allocation for programme making then what programme material does the

government propose the broadcasters put on these new digital television channels?

The overwhelming majority of programmes on any given day of the week rely on the use of radio microphone systems in the

making of these programmes.

Perhaps the lack of radio microphone systems at the next Labour party conference will adequately demonstrate the folly of the

governments blinkered charge towards the selling off of the spectrum to the highest bidder, as has been suggested by the

recently published report on the "Review of Radio Spectrum Management" (an independent review on behalf of the Department of

Trade and Industry and HM Treasury) by Professor Martin Cave.

The Cave report made a very minor reference to the radio microphone use of the spectrum, and repeatedly recommended that the

spectrum should continue to be auctioned to the highest bidder.

It is clearly obvious that radio microphone users cannot possibly afford to purchase any part of the spectrum for radio

microphone use, particularly if the government is seeking to generate similar revenues to that of the 3G sell-off, but

perhaps the government might like to consider the consequences of permanently losing all film making, programme making,

theatre productions, live pop concerts and major sporting events such as formula

audio.txt

one racing, open golf tournaments to name

but a few, and the associated loss of income to UK plc in the longer term, as well as adding a few more casualties to the to

the already beleaguered manufacturing sector.

Kishore Patel

Managing Director

Audio Ltd

Audio House

Progress Road

High Wycombe

Buckinghamshire

HP12 4JD

---

The original of this email has been scanned for viruses by the Government Secure Intranet (GSI) virus scanning service

supplied exclusively by Cable & Wireless in partnership with MessageLabs.

GSI users - for further details, please contact the GSI Nerve Centre, or browse GNC 003/2002 at

<http://www.gsi.gov.uk/main/new2002notices.htm>

In case of problems, please call your organisations IT helpdesk.