

# **A Report for the Digital Radio Working Group and their quest for an answer to the question: *The future of radio - is it digital?***

*This memorandum is written on behalf of  
The Heart of the Nation Broadcasting Trust*

*&*

*Endorsed by the Christian Broadcasting Council of the UK.*



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The author of this report, Peter Wilson, has worked in the worlds of UK commercial radio and overseas religious broadcasting prior to working as the General Secretary of the Christian Broadcasting Council of the United Kingdom (CBC). Since retiring as CBC's General Secretary he has continued to write the CBC responses to various Ofcom consultations as well as being involved in some trial broadcasts using the community access channel of a local DAB multiplex.

Culture Secretary James Purnell when announcing the setting up of the Digital Radio Working Group (DRWG), on 22 November 2007, posed some questions and in their Interim Report the DRWG came up with some recommendations to these questions.

This response gives our view of these answers and suggests some further ideas which have been sent to the DCMS requested email address of: DRWG@culture.gsi.gov.uk

## **Background Information on digital radio**

In a response written to Ofcom, on behalf of the Christian Broadcasting Council (CBC) in June 2007, the author said that radio broadcasting in the United Kingdom will be mainly delivered in the next twenty years by a variety of digital radio broadcast spectrum, both terrestrial and satellite based, that allows national, regional, local and very local/community radio stations to broadcast.

With the fast decline in the listening via AM and the wish to see a faster take-up of digital radio it was suggested that once a timetable for the re-allocation of broadcast spectrum is decided upon by the DRWG that thought needs to be given to the need to support a wide range of different radio formats from a variety commercial, community, licence fee funded (BBC) and listener supported broadcasters.

The CBC response suggested the following:

1. Ofcom should be given the power to increase the licensed areas of existing DAB local multiplex licences where such increases would not be significant, and to approve significant increases in exceptional circumstances.
2. The proposed AM (Medium Wave) switch-off review in 2009 should determine the common-end date for all AM transmissions in the UK.
3. The UK's high powered medium wave allocations should be used for DRM to complement the coverage of DAB services in parts of the country, such as the Scottish Highlands and parts of Wales, where the topography of the countryside may make DAB reception difficult.

4. Ofcom should follow the Dutch example and offer existing AM commercial broadcasters (who have not found space on a local DAB multiplex) and community broadcasters the option of converting to DRM
5. The proposed FM Band (VHF Band II) review should clear the FM band of all national broadcasters – BBC R1, BBC R2, BBC R3, BBC R4 & Classic FM – and all BBC local stations as well as local commercial stations that have space on DAB multiplexes.
6. The FM Band should then be re-organised in order to allow for Small FM Commercial Stations to continue broadcasting on FM and for licensed low-powered FM broadcasting by other small stations – Geographical Community Stations, Community-of-Interest Community Stations, Educational/School/Hospital Radio and RSL broadcasts. Such a use of the FM Band would allow for existing un-licensed ethnic stations (especially in London and other metropolitan centres) to operate legally as Community-of-Interest Community Stations.
7. The general principle should be that there is no simulcasting of a radio service on two wavebands, including BBC services, apart from the rural parts of the country where a combination of different transmission services allow for the service to be received effectively by all potential listeners. An example would be the service of Fresh Radio in the Yorkshire Dales that uses FM in population centres and an AM frequency (which could become a DRM allocation for North Yorkshire) to cover the rural parts of the area.

The CBC response said that the changes would allow for broadcasting by:

1. National commercial radio services on DAB and on DRM where this is a more appropriate technology for rural and hilly parts of the country.
2. National and local BBC services (including Radios Cymru, Scotland, Wales & Ulster) on DAB and on DRM where this is a more appropriate technology for rural and hilly parts of the country.
3. Regional, County and City-sized commercial stations on DAB.
4. Specialist format stations, including Christian stations, on DAB.
5. Small-scale commercial stations on FM and/or DRM.
6. Community radio stations on FM or DRM.

Therefore the spectrum currently used by analogue AM and FM radio should be reused for DRM in the case of AM and that the FM Band should be re-allocated for low-powered licensed broadcasting. The development of DRM+ (covering the existing FM Band) will allow for the existing FM Band to become digital at some future date. There are strong public policy reasons that these parts of the spectrum should be kept for licensed radio broadcasting and not be allocated by market mechanisms for other uses.

In addition to terrestrial digital radio it should be noted that WorldSpace are planning a number of European satellite delivered radio services similar to the XM subscription-based services in the USA. These services will add yet another method of delivering digital radio to listeners.

The German spectrum regulator, the BNetzA, has authorised WorldSpace to use L-band spectrum for terrestrial relays of its satellite-based service that will be using a system of digital radio known as SDR (Satellite Digital Radio). This follows a similar concession in Switzerland. A commercial debut for the service is expected to take place in Italy sometime towards the end of 2008 or in 2009.

It would be prudent for the DRWG to take into account the possibility of such SDR services being made available in future and where such services, using allocated L-band frequencies, will fit into the British model for the delivery of digital radio services.

## DRWG Interim Recommendations

The DRWG Interim recommendations published in June 2008 were:

1. DAB is the most appropriate replacement for analogue radio in the UK
2. The future radio landscape should at least in the medium term be a mixed ecology with:
  - DAB as the primary platform for national, regional and large local stations;
  - FM capacity for small local and community radio stations;
  - IP delivery to complement the above and provide opportunities for greater interactivity.
3. Future receivers should be capable of receiving FM, DAB and the other main variants of the Eureka 147 family.
4. A long-term plan should be developed to move all services to digital.
5. MW should be re-allocated for other uses, while more work is needed to consider the future role of LW.

### What now needs to happen to enable digital platforms to become the predominant means of delivering radio?

The main conditions that need to be achieved before terrestrial digital radio becomes the predominant method of delivering radio are:

1. Highly robust transmission capable of being received in static locations and in 'on the move' conditions.

**ACTION:** There is need for an increase in the number of DAB transmitters and an increase in power levels of many existing DAB transmitters in order for digital radio platforms to become the major way of delivering radio. This especially applies to areas like Shropshire and the Black Country where the different signal strengths between national, regional and local multiplexes is noticeable. Local multiplexes, that are supposed to cover a local area, are much more difficult to receive in 'on the move' conditions than a national station.

2. The wide availability of digital radio receivers capable of being used across the various Eureka-147 standards.

**ACTION:** With the publication on 12 September 2008 of the WorldDMB Digital Radio Receiver Profiles this means that these conditions are well on their way to being fulfilled as there will now be the opportunity for manufacturers to produce radio sets made in the UK and Europe that will include the facility to receive DAB, DAB+ or T-DMB Audio services in different countries.

3. A timetable for near nation-wide availability of digital radio is required.

**ACTION:** A plan for full digital radio rollout following the model of Digital TV switchover to be implemented. Allowance must to be made for the parts of the UK, such as the Highlands and Islands of Scotland, to keep FM for the use of national services, supplemented by DRM broadcasts, where the economic case for building DAB multiplex transmitters is not currently viable.

4. The need for FM to be kept for smaller stations.

**ACTION:** FM band to be re-organised, once larger stations have moved to DAB, in order to allow for Small FM Commercial Stations to continue broadcasting on FM and for licensed low-powered FM broadcasting by other small stations – Geographical Community Stations, Community-of-Interest Community Stations. In the longer term there needs to be a plan to move 87.6-108 MHz to the DRM+ standard.

5. LW (198 kHz) to be kept as a UK allocation using DRM.

**ACTION:** The BBC's transmitter provider should be authorised to convert these 198 kHz transmitters to DRM for long-range broadcasts covering parts of Europe with a version of the BBC World Service & Best of UK Commercial Radio. It should continue to have the ability to be used as the UK's main emergency frequency.

6. MW should be shut down in its analogue form between 2012 and 2015.

**ACTION:** The UK's 11 high powered medium wave allocations should be used to provide DRM transmissions to parts of the UK where the building of DAB multiplexes will not be cost effective to provide national services from both the BBC and commercial operators. Use of these frequencies for this purpose should supplement any FM transmissions of these national services in these areas.

7. The future impact of the availability of SDR. It is possible that a WorldSpace/XM style service will provide services in future on a subscription basis.

**ACTION:** The DRWG should advise the Government that Ofcom needs to look into the possible impact of satellite delivered digital radio services on the future of UK terrestrial delivered radio and how such SDR services would be licensed by Ofcom to enable listener choice to be enhanced.

8. How IP can be used for delivery of digital services.

**ACTION:** Encourage broadcasters to use IP to supplement their 'over the airwaves' services and thus give listeners a greater opportunity to interact with the radio station.

We hope that these comments are of help to the DRWG.

Yours truly,

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