

*"Working for quality
and diversity in
British broadcasting"*

Founded in 1983 by Jocelyn Hay CBE



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Voice of the Listener & Viewer Response to

Draft Radio Spectrum Policy Group Opinion on Common Policy

Objectives for WRC-15

12 January 2015

Response from the Voice of the Listener & Viewer to

Draft Radio Spectrum Policy Group Opinion on Common Policy Objectives for WRC-15

Executive Summary

- VLV is deeply concerned at the growing demands of Mobile Telephone (MT) and Wireless Broadband (WBB) operators that the Ultra High Frequency (UHF) spectrum currently used by Digital Terrestrial Television (DTT) should be re-allocated for MT and WBB use. On behalf of all DTT users, many of whom have incurred significant costs as a consequence of the switchover from analogue to digital broadcasting, we are opposed to any spectrum re-allocations that threaten the current or future availability of free-to-air public service broadcasting.
- We welcome the RSPG opinion that the band 470-694 MHz should remain available for DTT until at least 2030. We assume that this means the whole of that band. We would strongly oppose any attempt by WRC-15 to allocate this spectrum to MT/WBB, even for a downlink only case, on a Co-Primary basis because we believe that this would undermine the RSPG recommendation.
- We also consider that DTT is likely to continue to need spectrum for the cost-effective delivery of free-to-air public service broadcasting (PSB) beyond 2030.
- In the event that the forthcoming World Radio Conference (WRC-15) re-allocates the UHF 700 MHz frequencies from DTT to MT and WBB it is imperative that the Conference **also ensures** sufficient alternative UHF spectrum allocation in order to protect the long term viability and public value of DTT services. WRC must recognise and protect the legitimate needs of DTT users as both citizens and consumers and, in particular, in light of the key civic society role played by public service broadcasters in Europe.
- We think it is imperative that all affected national governments and their regulatory authorities ensure that any costs to consumers and broadcasters, consequential upon the re-allocation of UHF frequencies to MT and WBB licensees are met solely by those beneficiaries.
- We are sceptical of traffic projection claims by the MT and WBB operators that are used to justify their case for re-allocation. The WRC and all national governments and their regulatory authorities should test these projections.
- We would encourage caution at WRC-15 in regard to the re-allocation of UHF bands and suggest that other bands that do not carry such valuable public services be identified for MT and WBB use. These operators should also be required to make efficient use of their existing spectrum before occupying new spectrum.

1 Information about the VLV

1.1 The Voice of the Listener & Viewer (VLV) is an independent, non-profit-making membership association, free from political, commercial and sectarian affiliations, working for quality and diversity in British broadcasting. VLV represents the interests of listeners and viewers as citizens and consumers across the full range of broadcasting issues. VLV is concerned with the structures, regulation, funding and institutions that underpin the British broadcasting system but also takes note of developments in Europe and the wider world. VLV is a charitable company limited by guarantee.

1.2 For over 30 years VLV has played a unique role within Britain in keeping a citizen's eye on major legislative proposals and action taken by British governments, regulators and broadcasters, enabling the voice of consumers to be heard, independent of the interests of political parties, industry players and other pressure groups. VLV also has an interest and participation in European groups concerned with Public Service Broadcasting.

2 Background Remarks

2.1 The VLV welcomes the opportunity to respond to the European Commission's (EC) RSPG consultation regarding its opinions published as preparation for the forthcoming World Radiocommunication Conference in 2015 (WRC-15). In June 2014 the British telecommunications regulator, Ofcom, opened a consultation inviting contributions from stakeholders and interested parties that would assist Ofcom in preparing for WRC-15. VLV responded to that consultation which closed on 19th September 2014. The comments that follow are based on that consultation response.

2.2 VLV interests are solely focussed on the degree to which spectrum policy affects the wellbeing of Public Service Broadcasting (PSB) distributed and made available to all citizens free at the point of use. We believe it is vital that PSB services are available in this manner and that they should also be free of the potential editorial interference that might come from non-PSB platform gatekeepers. Our comments are therefore limited to a consideration of the allocation of the Ultra High Frequency (UHF) bands to television broadcasting between 470 MHz and 694 MHz, as well as the related prospects for the 700 MHz band (694 to 790 MHz), and the potential for the re-allocation of all or part of that spectrum to other uses, in particular to MT and WBB services.

2.3 It should be noted that, in the event that the 700 MHz band (currently widely-used by DTT services in the UK) is taken away from broadcasters, VLV assumes that the whole of the band 470 to 694 MHz will be available to DTT. At present in the UK the Digital Switchover process reserved both the 800 and 600 MHz bands. The former is now allocated to MT/WBB but the latter carries temporary DTT services that have a limited, conditional licence so it is not certain at this time that the 600 MHz band is in fact dedicated securely to DTT.

2.4 Our main concern is to protect citizens and consumers of broadcasting (radio and television) from spectrum starvation incurred as a consequence of any over-hasty actions by regulatory bodies and governments. We recognise the legitimate interests of other service providers, most particularly in the area of MT and WBB transmission. However, broadcasting in the age of the internet continues to be a robust and, most importantly, cost effective means of delivery that is enjoyed by many millions of European citizens and has opportunities for future

innovation and growth. This is true both from the point of view of the broadcasters but also, most importantly for us, from the point of view of citizens and consumers who have no direct voice in the formulation of policy.

2.5 VLV recognises the duty of the communications industry as a whole to innovate so that limited amounts of spectrum may be more intensively used. Current Digital Terrestrial Television (DTT) technology is state of the art and efficient in the use of UHF spectrum. The evidence of this is that – should the re-allocation of the 700 MHz band go ahead – broadcasters will have lost 168 MHz or 43 per cent of the spectrum enjoyed prior to digital switchover; for details see 3.2 below. We consider this to be a major ‘dividend’ invested by broadcasters and their audiences in the future of new technologies. We think that the same obligation to be efficient should also be placed firmly on MT and WBB providers, ensuring that their ongoing research and innovation delivers more cost-effective use of the spectrum that they already have, and in bands that are less harmful to public services. Such cost-effective and technologically innovative use of bandwidth should be demonstrated before new demands are considered for additional use of those parts of the UHF spectrum that are also suitable for broadcasters.

2.6 A transparent and evidence-based approach is both necessary and desirable as a way of matching the ‘digital dividend’ already delivered by the broadcasters (and TV users) when they carried the considerable costs of switching over from analogue to digital services. It is noteworthy that band plans for the MT and WBB technology of choice (Long Term Evolution, LTE) require large duplex guard bands, some as high as 25 MHz. Such waste should not be tolerated and MT and WBB operators and regulators must make good use of this otherwise wasted capacity. One such use could be Programme Making and Special Events (PMSE) which also occupies part of the UHF and is also under threat.

2.7 As politicians and government agencies undertake a wider audit of change it may be prudent to note some observations from a European Internet Foundation report of 2014 (Ref 1). The EIF note that:

...the ‘old’ electronic media, notably television and radio, reach mass audiences with the same information and content, arguably creating an ‘informational commons’ and thus arguably fostering informed, participative citizenship.

By contrast, in the case of internet provision:

...Individually customised access to and use of information and communications could undermine the societal function and effect.

2.8 VLV strongly believes that none of the costs associated with any spectrum change should be borne by DTT users.

2.9 Whilst the British government and its regulatory agencies will decide national policy VLV is fully aware that that policy is informed by and to some degree is dependent upon the wider policy domain of Europe as whole. VLV believes that although the nation states of Europe vary in their use of Digital Terrestrial Television (DTT) in the UHF bands the principle of PSB is established widely among those nation states and is still a powerful and valuable public asset. It is a major element of European culture. Therefore the same concerns that we have expressed

in response to the local British spectrum allocation situation will also transfer readily to the wider European sphere.

2.10 VLV is well aware of the debate within Europe around the issue of reallocating the UHF spectrum and have seen ITU Report M.2290 (Ref 2) and the robust EBU response (Refs 3, 4) to it. We are also aware of the report of the chair, Pascal Lamy, of the High Level Group established by the Commission to examine the issue. We note with concern that the group failed to reach consensus and that the report is the summary and view of the Chair. Whilst we recognise the basis for Lamy's suggestions for possible time scales for spectrum changes we are deeply concerned about their implications for the future of universally available free to air broadcasting and would oppose any hasty procedural steps that would compromise DTT.

3 VLV Comments on RSPG Opinions

3.1 The Radio Spectrum Policy Group (RSPG) document and the WRC-15 agenda to which it refers cover the whole range of spectrum currently allocated and regulated by means of the Radio Regulations (RR) of the International Telecommunications Union (ITU) who are the hosts of the WRC. Of primary interest to the VLV is the potential for further re-allocation of UHF spectrum bands to MT and WBB services and the impact that may have on DTT/PSB currently occupying those bands.

3.2 Our concerns are based on the fact that broadcast services have already vacated the upper regions of the UHF band as a result of Digital Switchover (DSO) and are being requested to surrender further spectrum bands. In the pre Switchover period of analogue transmission the broadcast service occupied the band from 470 to 862 MHz, a band width of 392 MHz. Since then, as already indicated, the so-called 800 MHz band between 790 and 862 MHz has been surrendered for MT and WBB use. This loss comprises 72 MHz, or over 18% of the original 392 MHz. In the UK this '800 MHz band' is already being used by MT and WBB services using 4G technology based on International Multimedia Telecommunications (IMT) standards, that is, on Long Term Evolution (LTE). The full consequences for interference with UK television reception are not yet clear.

3.3 As a result of a perceived demand for even more spectrum, based on projections of future MT and WBB traffic growth, the 700 MHz band (694 - 790 MHz) currently occupied by DTT is one of the several spectrum bands being targeted for re-allocation and listed in Section 4.1 of RSPG document RSPG14-578(rev1). If the 694 - 790 MHz band were to be re-allocated to MT and WBB operators, then this would represent a further surrender of 96 MHz of bandwidth, or a 30% erosion of current DTT capacity.

3.4 In the UK the Digital Switch Over (DSO) project also cleared the band from 550 to 614 MHz (the "600 MHz" band). One 8 MHz channel in this band is retained for Programme Making and Special Events (PMSE) leaving 550 to 606 MHz uncommitted; this has since been licensed to two temporary DTT multiplexes. One of these is active carrying HDTV services and the other may become active in 2015. With the exception of the allocation to PMSE services, VLV assumes that, as part of the release of the 700 MHz band to MT and WBB, the **whole** of the 470 - 694 MHz band will be made fully available to DTT. If not then a further 64 MHz will be lost (including the PMSE channel). Such a loss could be fatal to the longer-term viability and competitiveness of the DTT project.

3.5 The British regulator, as a result of the consultation earlier in 2014 and the trends within Europe and elsewhere, has announced its decision to support the re-allocation of the 700 MHz band to MT and WBB services, requiring DTT services to be moved at some considerable cost to broadcasters and viewers. Whilst VLV fully recognises the rising demand for MT and WBB services and the corresponding implied need for appropriate spectrum to support that demand, VLV regrets the re-allocation of the 700 MHz band decision and the likely follow on decision to be made at WRC-15 to ratify the Radio Regulation changes to permit the re-allocation of spectrum. We believe that the loss of the 700 MHz band in the UK will result in disruption, anxiety and (possibly) extra cost for the nearly 75 per cent of all households that rely upon free-to-air reception (FTA).

3.6 VLV considers that the traffic projections given in ITU Report M.2290 (Ref 2) that attempt to justify the demand for the 700 MHz band for MT and WBB use, and particularly the lower bands, are subject to doubt (Refs 3, 4). Nevertheless, as it now stands, in about 5-7 years' time DTT will have lost 43% of the UHF spectrum available because of the loss of the 800 and 700 MHz bands. This degree of reduction in spectrum capacity could seriously damage the DTT platform and the PSB principle and thwart plans for the development of valuable future public and commercial services (Ref 5). It is therefore essential to avoid the risk of irreversible decisions being made based on uncertain data.

3.7 VLV recognises that DTT technologies are more efficient at supporting extended PSB and commercial services and this has facilitated the surrender of the 800 MHz band. However, the consequences of this change for all DTT users in the UK are as yet unclear. There is evidence of some DTT viewers having interference from 4G mobile networks located in the adjacent 800 MHz band, despite the fitting of a DTT mitigation filter. The additional surrender of the 700 MHz band, which appears to be a virtual *fait accompli*, will not be so easy to accommodate without significant disruption and expense. Meanwhile it is claimed that the evolution of future MT and WBB technology (5G/LTE) claims to offer even better performance. This encourages MT and WBB operators to demand even more of the UHF spectrum viz the remaining 500 and 600 MHz bands, ie 470 – 694 MHz. We oppose this demand.

3.8 Digital Europe in its report of 2013 (Ref 6) recognises the value of DTT within Europe but yet decides in its recommendations that the 700 MHz band be re-allocated to MT and WBB broadband. It states:

DIGITALEUROPE recommends making available the 700 MHz band in addition to the 800 MHz band for Mobile Broadband.....while applying accurate frequency planning and good spectrum engineering practices for DTT.

DIGITALEUROPE considers essential the following aspects:

- ***There should be no disruption of the existing DTT services to consumers***
- ***Consumers should be appropriately informed***
- *Interference problems should be minimized and solved in the least disturbing way for the consumer in applying the guidelines recently published*
- *Time plans for the transition are developed with the Consumer Electronics Industry*

VLV cannot understand how Digital Europe can suggest that there will be no disruption when it is inevitable that for many consumers there will be considerable disruption and potential cost during the transition (Ref 7).

3.9 Any more ambitious decision to implement the re-allocation of the whole of the 470 - 694 MHz frequencies and to make MT and WBB co-primary with DTT, is likely to lead to the demise of DTT and the PSB and commercial services that are carried by it. VLV believes that such a loss would be seriously detrimental to national and European cultural strength and diversity and seriously doubts that alternative technologies designed to continue the support of PSB services are sufficiently viable, let alone proven, to give any degree of confidence in making early decisions and commitments at WRC-15. In respect of the on-line delivery option in particular we note firstly that this is likely to be much more costly than the current consumer experience of accessing Internet Protocol Television; that the internet is currently far from being able to provide the bandwidth for mass simultaneous broadcast services and it is unclear when it will be able to do so; and that the allocation of variable and higher costs for IPTV reception to individual users or households departs from the principle of universal, social provision made possible by the technology of free-to-air broadcasting.

3.10 Section 4.1 addresses WRC-15 Agenda item 1.1. Part of that section states:

Complementary to the identification and possible implementation of wireless broadband in the 700 MHz band, the impact on the environment of media distribution, in particular terrestrial television, needs to be taken into account, when considering the further development of the band 470-694 MHz. It was noted that in Europe there has been careful consideration on all relevant levels of strategic elements regarding the use of broadcasting in the band 470-694 MHz during the last years.

*In its (draft) opinion on the UHF band⁵, RSPG recommends that the frequency band 470-694 MHz shall remain available for DTT in the foreseeable future, i.e. 2030. **RSPG is of the view that Member States should also have the flexibility to use the 470-694 MHz band for WBB downlink, provided that such use is compatible with the broadcasting needs.***

Our position on this issue has been outlined above and so we welcome the overall statement of principle from RSPG and endorse it and commend it to the Commission as it relates to the band 470 - 694 MHz.

However, we oppose the opinion expressed in the second sentence of the second paragraph, highlighted in the above quotation. It has the appearance of a Trojan Horse. This step implies an early implementation of Co-Primary status for WBB within the 470-694 MHz band so that nation states that wish to deploy MT/WBB instead of DTT may do so. An inconsistent approach across Europe would not bring the benefits of mobile communications across the region in this band and so the MT/WBB operators (and the Commission) are unlikely to be satisfied with this in the long term, even though the 800 and 700 bands may enable sufficient region wide roaming in the shorter term. This part of the opinion must not be implemented at WRC-15. That decision should wait at the very least until the actual impact on DTT users of the transfer of the 700 and 800 MHz bands for MT and WBB use has been established and the need for additional spectrum has been proven beyond doubt.

3.11 The RSPG opinion document also addresses WRC-15 Agenda Item 1.2 which follows from the decision taken at WRC-12 to ratify the allocation of the 700 MHz band to MT and WBB services using IMT technology (694 – 790 MHz, with the exception of aeronautical service in ITU Region 1, i.e. Europe) immediately after WRC-15. The purpose of this is to facilitate the implementation of harmonised MT and WBB systems across Europe using this frequency band. The purpose of the Agenda Item is to determine the technical and regulatory conditions applicable to this allocation, including a possible refinement of the lower band edge which is close to the upper band edge of DTT.

3.12 VLV, in its response (Ref 8) to British Regulator, Ofcom, on this subject, regretted this decision because of its considerable impact on consumers and broadcasters. However, a significant part of Europe is already in favour of this and Ofcom has very recently also decided to support this decision. This decision was based on a Cost Benefit Analysis (CBA) and the results of responses to the consultation (Ref 9). That means that the loss of the 700 MHz band is a virtual *fait accompli* and VLV can only repeat its regret at the loss of 72 MHz of DTT spectrum. It is clear that MT and WBB have insatiable demands for more spectrum and we are concerned that some policymakers are not sufficiently focused on the public good arguments for ensuring sufficient capacity for DTT to grow and develop.

3.13 The imposition on DTT of the exodus from the 700 MHz band will require costly and disruptive changes to the technical transmission infrastructure as well as consumer reception equipment. In Britain, Ofcom's CBA (Ref 9, Table 1, p7) identified a very considerable cost between £470M and £580M for changing DTT infrastructure but also claimed benefits that exceeded this cost. A monetarised approach to a system that has value beyond mere cash fails to recognise the considerable cultural and social benefits that PSB services bring to consumers and citizens. **It is grossly unfair to place the burden of cost on those that have to suffer the consequences of change in which they have no direct interest or benefit. VLV believes that none of the costs should be borne by consumers, nor by broadcasters or multiplex operators.**

3.14 Another common policy objective identified by the RSPG is the spectrum need of the fifth generation of MT and WBB networks, commonly known as 5G. This technology will not be implemented for some time but it is useful to assess its potential and its implications as it evolves. The opinion of the RSPG is that these needs should be met through the allocation of spectrum above 6 GHz. VLV would support this opinion; it is clear from the WRC-15 agenda and this RSPG document that there are large amounts of spectrum potentially available in bands other than the UHF.

Sources and References

- 1 European Internet Foundation (2014) The Digital World in 2030. See URL: www.eifonline.org/digitalworld2030
- 2 International Telecommunications Union (ITU) Report M.2290. See URL: http://www.itu.int/dms_pub/itu-r/opb/rep/R-REP-M.2290-2014-PDF-E.pdf
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- 5 http://www.dtg.org.uk/projects/fitt_report4/FITT_final_report.pdf

- 6 Digital Europe Report:
http://www.digitaleurope.org/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=522&PortalId=0&TabId=353
- 7 Knowledge Transfer Network Document:
<https://connect.innovateuk.org/documents/2849135/3712563/700MHz%20Band%20Plans%20and%20co-existence%20challenges%2030Jun14%20FINAL%20%28SR%29>
- 8 VLV Response to Ofcom consultation and Cost Benefit Analysis on 700 MHz:
[http://stakeholders.ofcom.org.uk/binaries/consultations/700MHz/responses/Voice of the Listener Viewer.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/700MHz/responses/Voice_of_the Listener Viewer.pdf)
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12 January 2015

BASIC DETAILS

Consultation title Response from the Voice of the Listener & Viewer to Ofcom's
Consultation on The UK preparations for the World Radiocommunication
Conference 2015 (WRC-15)

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Name Dinah Garrett, Trustee

Signed (if hard copy)

Trustee, Voice of the Listener & Viewer 12 January 2015