



WRN'S SUBMISSION ON THE TRIAL USE OF BAND 1 FREQUENCY ALLOCATIONS FOR DRM

WRN has much experience working to support niche, specialist and local radio services reach their audiences. Such services have mainly used satellite or internet as until recently the cost and scarcity of both analogue AM/FM spectrum and DAB platforms has been a barrier. WRN believes that DRM (for frequencies up to 30 MHz) and DRM+ (for frequencies above 30MHz) provide a solution where analogue FM/AM and DAB are not available.

Question 15: Do you foresee interest in accessing up to 8MHz of frequencies in the 55 to 68 MHz band that are presently almost unused, and if so what types of service and/or technology? Do you have any views on how Ofcom might release this spectrum to the market for use?

It is now being proposed in several countries that DRM and/or DRM+ on frequencies of 26MHz and above might replace local analogue medium wave transmission as they provide superior audio quality, better penetration into modern buildings and RF noise levels are lower. If this happens we argue that there will be a need for enough spectrum for both specialist local services and such replacement MW channels.

DRM on the 26MHz band has been trialled by WRN, with much success, as a potential solution to creating a platform for local, niche and low power single frequency services. However, further studies need to be carried out to determine whether it will be the best or only solution.

The case for possible use of available VHF Band 1 frequencies (55 to 68 MHz) for local radio transmission.

1. A standard tentatively referred to as DRM+ is nearing completion and will be recommended by the ITU for use on frequencies above 30MHz. This will provide for higher bitrates and hence audio quality than DRM through use of greater bandwidths.
2. In contrast to 26 MHz, frequencies of 55 to 68 MHz will not normally propagate over long distances (therefore making them more suitable for local use) and are thus potentially subject to interference via the F layers - though sporadic E may from time to time be a problem from powerful analogue TV transmitters at specific distances from intended reception areas. However, mitigation techniques may be possible in order to reduce its effects.
3. Following some initial work within the DRM Consortium on protection ratios for DRM+, there is some evidence that band-sharing of OFDM and FM services may not be quite as straightforward as anticipated. Whilst further work is required to fully quantify the mechanisms involved, it would currently appear that **starting** DRM+ services in a band free from broadcast FM transmissions would be a lower-risk strategy. This would not compromise future wholesale migration to DRM+ in Band II at some future date, if and when FM services are phased out.
4. Penetration of signals in some modern buildings will be greater at frequencies of 55 to 68 MHz than at 26 MHz.

WRN suggests there should be consideration of evaluating the 55 to 68 MHz band for local services using the DRM+ standard. WRN believes that the demand for radio services will continue as the UK's ethnic diversity requires further niche services. These can only be provided by a local station serving local communities at a local level and DRM would be a perfect solution in areas where DAB and FM/AM cannot currently support demand and in situations where there are not enough services to warrant the creation of an entire DAB multiplex.