# Your response

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| **Do you have any comments on our proposals?** | Confidential? – N<br>Please see detailed response entitled,<br>“On the future of Medium Wave Broadcasting in the UK – a call for a new “Community Broadcasting Service”<br><br>We call upon Ofcom not to overlook radio broadcasting in the Medium Wave spectrum. We propose the creation of a Community Broadcasting Service to encourage new opportunities and to reduce regulatory burden.<br><br>Attached file name:<br>Ofcom_Plan_of_Work_2022_response from Whitt.docx |

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# On the future of Medium Wave Broadcasting in the UK – a call for a new "Community Broadcasting Service"


## Summary:

We are responding to Ofcom's proposed plan of work 2022/23 and call upon Ofcom not to overlook radio broadcasting in the Medium Wave spectrum.

We propose the creation of a Community Broadcasting Service as a new development from existing LPAM & RSL services.

The goals being:

- Increased inclusivity of minority & community groups in the media landscape
- Improved quality of service for radio listeners
- Opportunities for independent and innovative broadcasters
- Contribution to the "levelling-up" agenda
- Making better use of the Medium Wave spectrum
- Simplification and reduction of regulatory workload/cost.


## Backgound

The Medium Wave (MW) broadcast band has been in use for a century now but has been in decline for at least 20 years, as measured by the number of broadcasters ceasing operations across Europe and the decline in listener numbers.

Some have argued for an analogue switch off akin to 625line TV in the UK but there is no credible plan to reuse MW spectrum for some other purpose. International agreement would be required to reassign MW frequencies for services other than broadcasting but other countries are still actively investing in MW technology (e.g. Pakistan & India) and issuing long term licences to new stations (e.g. 20 year licences in Mexico). Several European countries are licencing a new generation of low power broadcasters (e.g. Holland). In the USA there has been growth in low power "Travellers Information Stations" for community benefit.

In many UK cities alternatives to MW such as VHF-FM and DAB are at or close to maximum capacity so disadvantaging broadcasters who cannot access these broadcast channels.

Radio and in particular MW radio has proven to be an effective vehicle for social inclusion as exemplified by the range of broadcasters serving ethnic urban minorities and communities of interest such as universities, hospitals and the military. Low cost radios are a particularly good way of reaching audiences with less disposable income.

MW broadcasting retains certain advantages over VHF-FM and DAB particularly in relation to coverage of rural and hilly areas but it is increasingly hindered by rising levels of domestic electrical interference which can reduce the effective reception area of a MW station.

Most cars and homes still have MW radios. New AM/FM receivers are available for under £10 (amazon.co.uk) and a battery powered model will last at least 20 times longer than a DAB equivalent.

# Initiative

In the absence of a credible plan to switch off all broadcasting on the MW band, the UK needs a plan to make the best use of the band that is in the interests of both broadcasters and listeners. It is a finite resource that should be used wisely rather than left to wither.

It is unlikely that MW listenership in the UK will ever return to the level of the 1970s (when BBC Radio 1 was on 247 metres) but that isn't an excuse for marginalising users today. For that reason the MW band deserves a simple yet effective revitalisation plan for the next 10 years.

# Revitalisation

We recommend a new Community Broadcasting Service which can be broadly described as an improved version of LPAM radio with a light touch regulatory regime. Para 2.31

We make a number of proposals that we believe will help existing broadcasters and audiences. They should also encourage new opportunities by reducing the barrier to entry for innovative and entrepreneurial broadcasters and listeners groups or community affiliations.

**Spectrum availability;**
The landscape of the MW band has changed dramatically since the last century but most current regulation is still based on a bygone area. Many low power channels have already been assigned and in used for over 20 years with more scope now. Many MW channels in the UK have been permanently abandoned by the BBC in the last decade. International coordination is now barely required since much of Europe has stopped using the MW band except for low power broadcasters. Para 2.22 (see Annex 1)

**Community cohesion;**
Low cost local radio could be simply used by organisations such a churches/mosques/synagogues to broadcast services and events to their followers in a small local area. Church services are often distributed in this manner in Ireland. But this needs simplicity and low cost. In many urban areas there is demand for community stations serving particular ethnic groups – they may be small but loyal audiences for the right broadcaster.

**Technology:**
Modern MW transmission does not need to rely on large power hungry transmission equipment located in specialised buildings. Low power, small equipment can be installed almost anywhere and can be connected to studios via the Internet.

**Costs:**
With the right regime in place a station could activate for a capital budget of under £5000, easily within the range of modern crowd-funding methods. This could significantly reduce the barrier to entry. MW transmitters owned by the station will have low lifetime costs

**Programming;**
This should be left to the marketplace with only rules related to the usual limitation of libel, obscenity, and other complaint-triggered content rules. There should be no need for a regulatory authority to decide on aspects such as format, speech/music ratios, advertising minutes per hour, news content and whether there is an audience need for a particular service.

Networking of programming has pros and cons but we believe that common ownership of multiple stations should be discouraged/restricted unless in the public interest (e.g. BFBS). Common profit-driven ownership and centralised programme generation led to the extinction of Independent Local Radio in the UK.

## Quality:

MW radio is often assumed to be poorer quality than VHF-FM or DAB. It is true that VHF-FM is clearer, less prone to impulse static and gives a hi-fi stereo experience. DAB on the other hand once promised high quality but commercial forces have reduced transmitted bit rates and forced some stations to be mono-only in an attempt to squeeze as many paying channels onto one multiplex. That means in many cases VHF-FM gives significantly better reception quality than DAB. Para 2.31 broadcast plaftforms

Improving the quality of MW is relatively simple and low cost and just needs regulatory will to achieve:

1. Increase the permitted transmitted audio bandwidth for a better audio experience. Today the UK restricts the audio bandwidth that can be transmitted because once upon a time the MW band was occupied by many more high power stations all fighting for a piece of finite radio spectrum. This is an outdated restriction since there are many available channels on the MW band on which stations could easily use a full 9kHz of audio bandwidth for a better audience experience. This is a well proven approach as can be seen in countries like Australia, Japan, Spain and Korea where "HD-AM" is routine. (Annex 2)

2. Increase permitted transmitter power to increase local field strengths to overcome the rising noise floor caused by the ubiquitous use of electronic digital equipment in homes. It will also help if night-time interference from distant stations is problematic. Perhaps standardise on 5W emrp rather than 1W. As an island nation, this increased power remains low enough to not cause issues for neighbouring countries.

Maintaining quality is also important. Even with a light touch regulatory regime, transmitters should meet certain technical standards to avoid interference and a poor listener experience. Naturally safety requirements are part of the picture. For this reason broadcasters should either engage professionals to install & maintain their equipment or demonstrate their own ability to do so.

## Innovation:

Broadcasters should be allowed freedom to experiment with techniques compatible with MW broadcasting such as AM stereo or DRM. There is no reason to block such technology from a regulatory point of view. C-QUAM Stereo is available in Italy from Radio Studio X. DRM is in use in India, Pakistan and is now mandated in South Africa.

## Contributing to the Levelling-Up agenda:

Experience with the existing LPAM regime shows that it provides a platform of training and engagement in communities. This is of particular benefit to young people as it can enhance CVs and lifeskills.

The radio spectrum is a finite resource and because of the population density in the Greater London area there are fewer opportunities for deployment of the proposed Community Broadcasting Service. However in most other areas of the UK & Northern Ireland there is plenty of available radio spectrum on the MW band to allow and encourage a new Community Broadcasting service.

One could envisage every college and university outside London operating a radio station as part of their media and related courses/degrees with service not artificially restricted to areas with no resident population (a current restriction to LPAM licensing). The development of skills outside London

would contribute to the media landscape outside the capital region and contribute at minimal cost to the levelling-up agenda.

**Regulatory Simplicity.**
This should reduce barriers to entry and reduce administrative costs at broadcasters and at Ofcom. Para 2.22 A simplified online licensing system could issue a license in a process that might take less than 30 minutes. It could easily validate the applicant, the location, frequency allocation and take an online license fee by card payment. And then it could automatically publish details of the licenses granted in an online register. The whole process should be paperless and simple especially for disadvantage communities who may not have English as a first language. A simple set of rules should underpin a licence – these should cover technical, safety and operational issues. Should revitalisation result in excessive demand for licences an arbitration or rationing process could be added at a later date, but we believe this highly unlikely. The regulator should retain an ultimate ability to revoke a licence and to silence stations in breach of their licence.

Channel squatting would be prohibited to prevent licences being acquired but not activated. A time limit should exist in which time a new licensee should activate their broadcasts.

A light touch automated licence system instead of the current processes will save money and deliver efficiency. Para 4.24

**Simulcasting.**
This means broadcasting the same programme on MW/VHF and DAB which is a very inefficient use of a finite resource Para 2.22. However since there is now a wide range of channels and opportunities for broadcasters on a revitalised MW band a restriction on simulcasting may not be necessary. On the other hand if unique content is broadcast on the MW band it is more likely to attract an interested and loyal audience. In our opinion cross-band simulcasting should not be permitted.

# Conclusion

Though the Medium Wave band has changed dramatically over the last 2 decades it retains potential for broadcasters and listeners. In particular it can support a simple low cost Community Broadcasting Service that could service communities of interest as well as improving accessibility for disadvantaged communities. This would be especially the case in regions outside Greater London.

This can be achieved by creating a light-touch regulatory regime based on the well proven LPAM service, but enhanced to offer the best reception quality possible from AM broadcasting. In particular allowing wider bandwidth transmission (up to 9kHz audio) and higher power (up to 5W) to overcome local electrical interference whilst reducing the licencing bureaucracy will help make a Community Broadcast Service attractive to broadcasters and listeners.

We call upon Ofcom to initiate the necessary regulatory changes to enable a Community Broadcast Service in the UK.

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*The author has many year's experience of radio and is an Officer of the Medium Wave Circle (founded 1954). He has been Editor of Medium Wave News for over 30 years. This proposal is written in his personal capacity. Contact: mwneditor@mwcircle.org*

# Annex 1: The Medium Wave Spectrum in Europe

Historically MW frequency planning & licensing depended on international or bilateral agreements but today the landscape has changed dramatically as most high power stations (100kW up to 1800kW) in Europe have been silenced and their masts dismantled for scrap metal. Cross border MW broadcasting that was prevalent during the Cold War no longer exists today in Western Europe.

| **Country** | **MW Landscape** |
|---|---|
| Romania | High power/national broadcasts on 22 MW channels |
| Hungary | High power/national broadcasts on 6 MW channels |
| Spain | High power/national/regional broadcasts on over 40 channels |
| Netherlands | Active low power local broadcasts (LPAMs) using ~25 channels |
| Italy | Medium power national networks + active low power local broadcasts |
| Germany | Few low powered stations |
| Sweden | Few RSL style broadcasters |
| France | 1 local MW station in Brittany 1593kHz , one high power station 1467kHz in Southern France (retains LW) |
| Ireland | Two medium power local stations 846 & 981kHz (retains LW) |
| Czech Republic | Two medium power station 792 1062kHz; national network closed down at end of 2021. |
| Portugal | About a dozen transmitters under 10kW in operation |
| Iceland, Denmark, Luxembourg, Poland | Nil on MW (retains LW) |
| Norway, Finland, Switzerland, Belgium, Austria, Vatican, Andorra, Albania | Nil on MW (all used to have high power stations in late 20th century) |

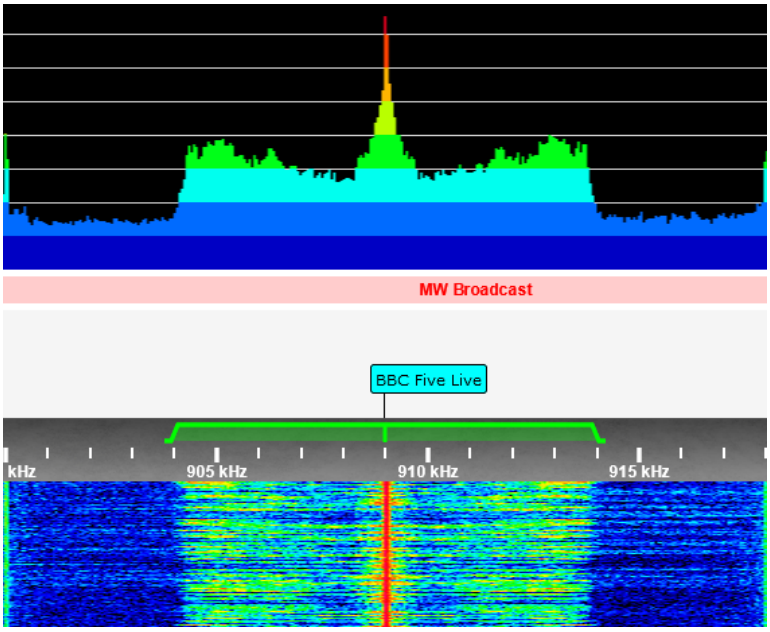
Frequencies that could be used extensively across the UK for Community Broadcasting Services since they have all been licenced for LPAMs and RSLs:

1134 only used by LPAMs
1251 Smooth Radio uses in Suffolk
1278 only used by LPAMs
1287 only used by LPAMs
1350 only used by LPAMs
1386 only used by LPAMs
1404 not currently used in UK
1413 used in London
1431 Smooth Radio uses in Southend
1449 BBC still uses in Aberdeen & Peterborough
1503 BBC Stoke has closed leaving this clear across the UK
1575 used by LPAMs
1602 used in London; BBC Kent no longer here

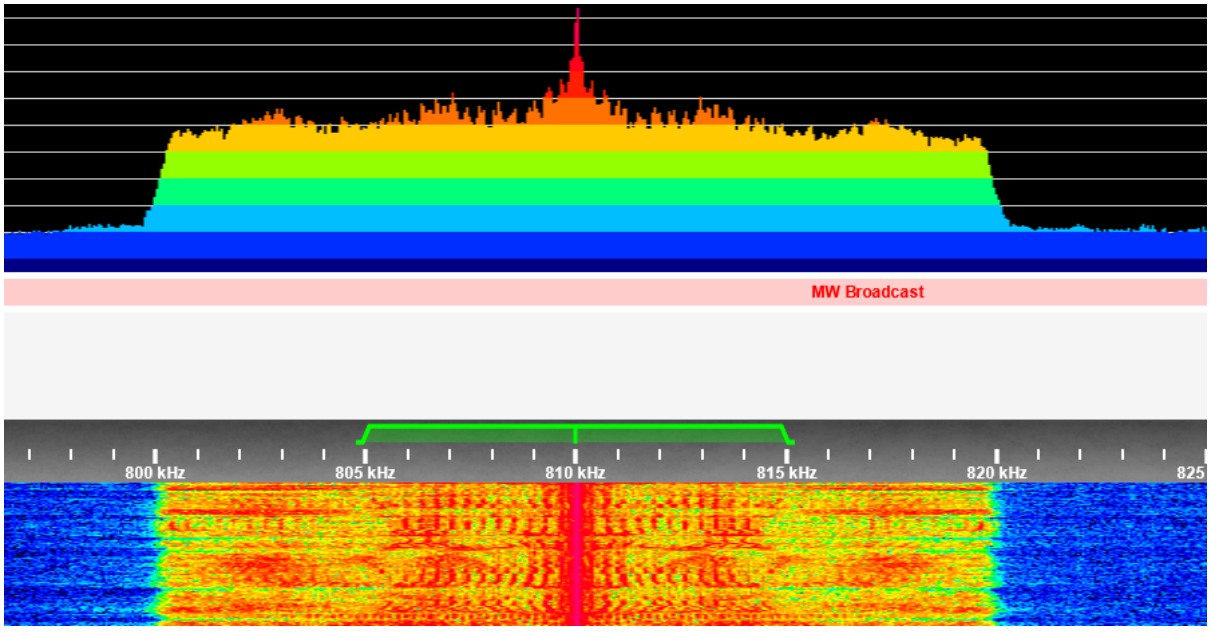
With investigations other channels could easily be used. Higher frequencies above 1000kHz would be preferred due to smaller scale antenna installations.

# Annex 2: Quality of “Hi-Fi AM” versus MW in the UK

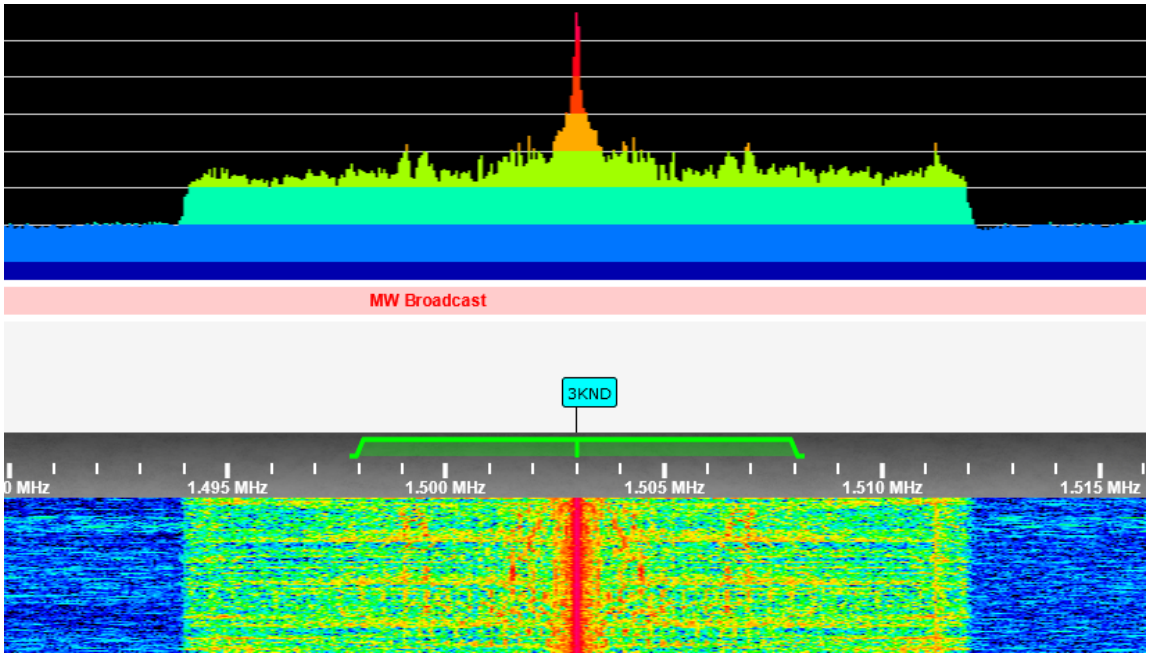
**Comparison of radiated broadcast spectrum.**
Comparison between UK, Japan, Australia, Korea and Spain and finally a DRM broadcast in New Delhi, showing other countries operating higher bandwidth MW broadcasts to improve the reception quality of the recovered audio.



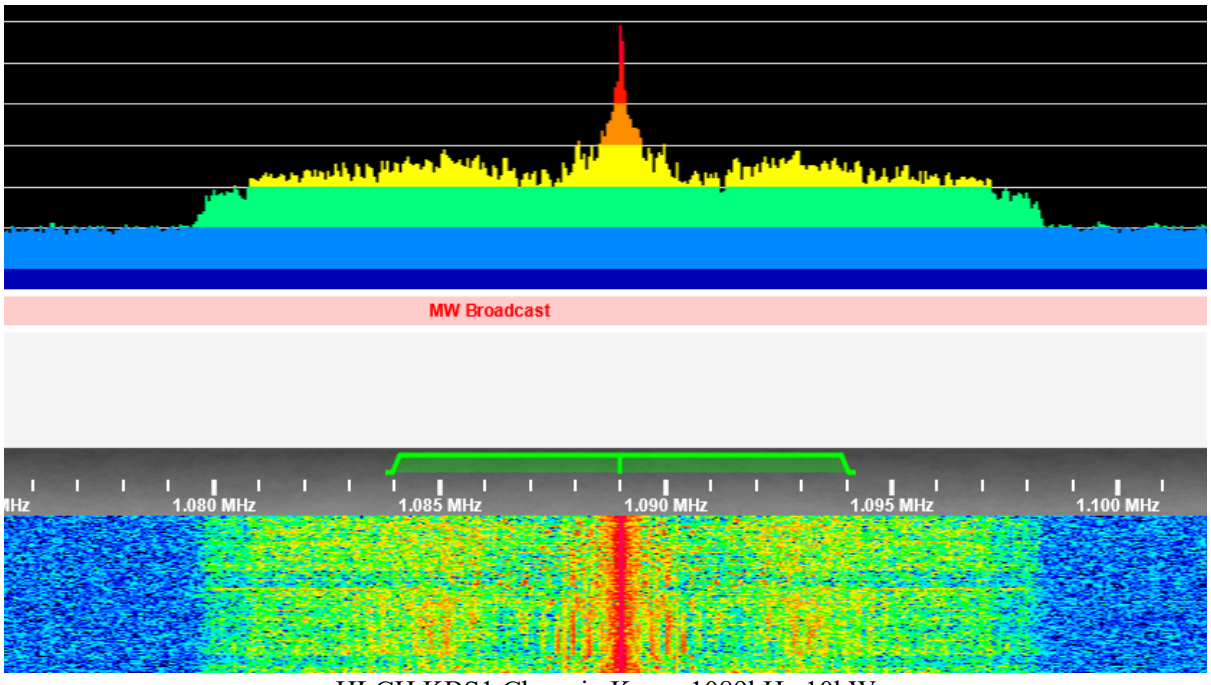
909kHz BBC Radio 5 Live Brookmans Park 200kW
Audio bandwidth: <5kHz



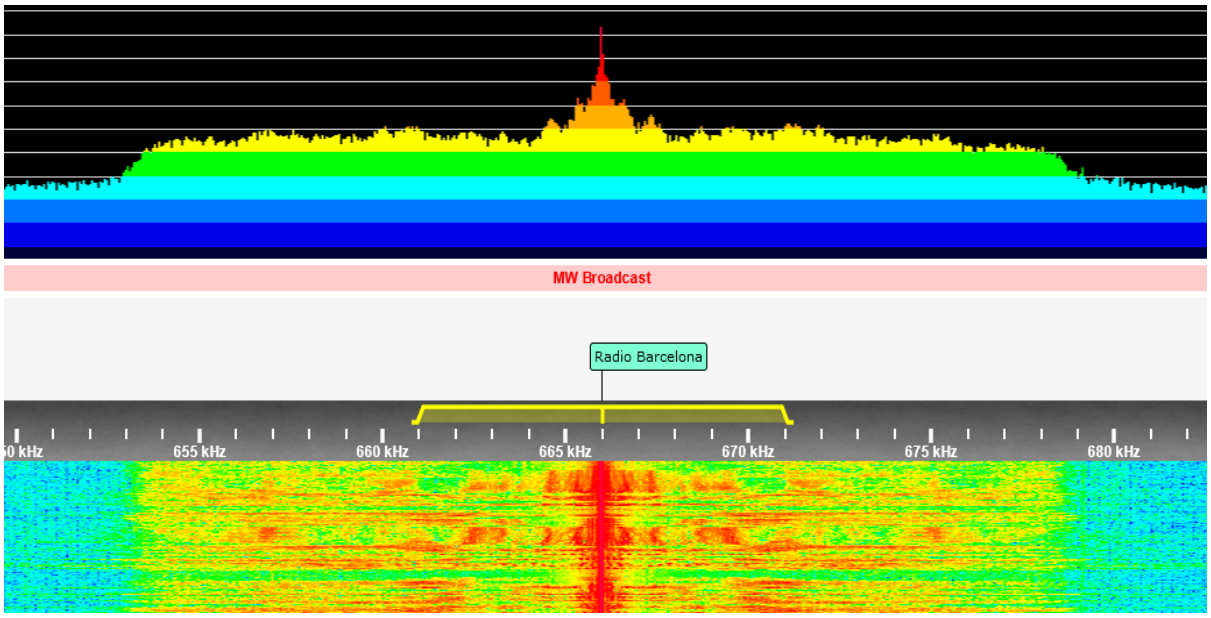
810kHz AFN The Eagle Tokyo 50kW
Audio bandwidth: 9.5kHz




1503kHz 3KND Melbourne Australia
Audio bandwidth: 9.0kHz

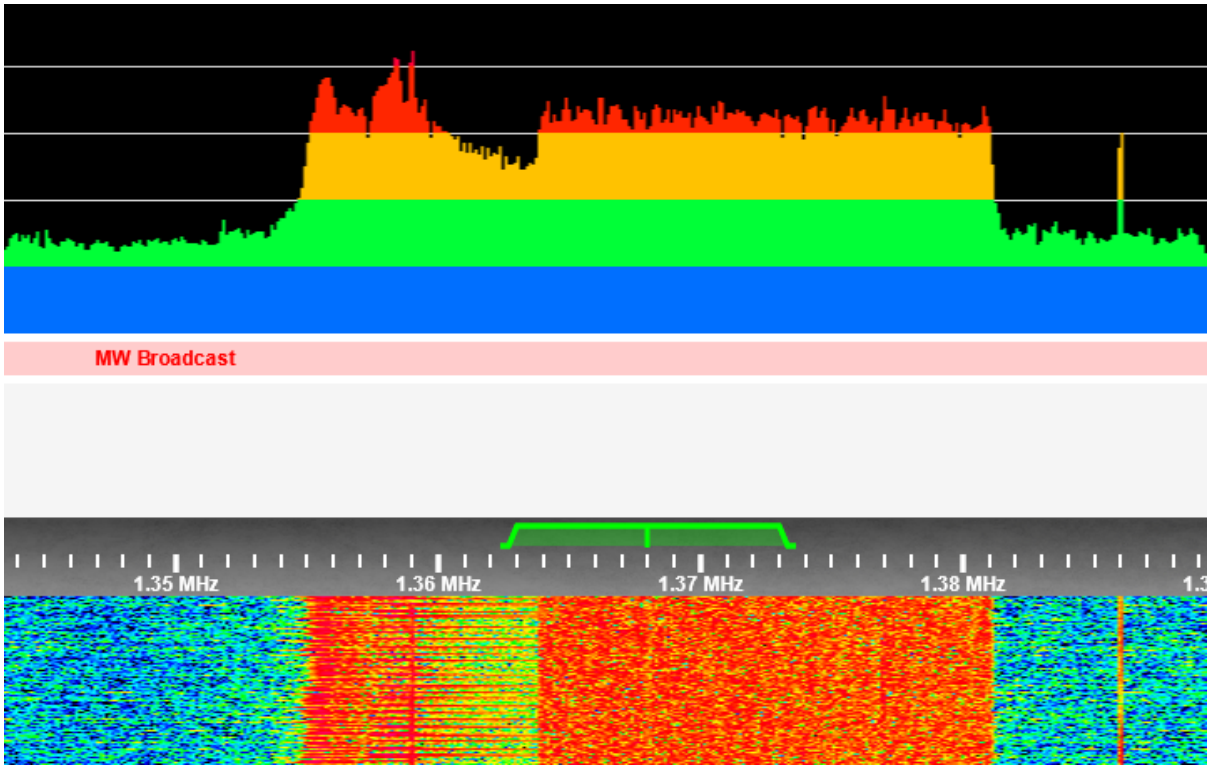



HLCH KBS1 Chungju Korea 1089kHz 10kW
Audio bandwidth: 9.0kHz




Radio Barcelona SER Network Spain 666kHz 1kW
Audio bandwidth: 12kHz

NOTE: We do not feel that increased audio bandwidth is suitable for high power MW synchronised networks because it will likely degrade reception due to lack of phase stability where multiple signals are being received simultaneously. (i.e. BBC 693 and 909kHz, TalkSport 1053 and 1089kHz and Absolute 1215kHz). Performance of 1053 & 1089 is already badly degraded by lack of audio synchronisation causing a disturbing echo which reduces the effective service area. Increased audio bandwidth may also not be practical for stations using directional phased array antennas (e.g. Gold, London on 1548) because the antenna systems may not have the necessary bandwidth to maintain directionality and avoid phase distortion.




1368kHz All India Radio, New Delhi (DRM rather than AM)