

NATIONAL COMMERCIAL RADIO MOVEMENT

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Sound Broadcasting Study

FOREWORD

The public in general having become accustomed to the offshore radio stations are in favour of additional entertainment stations as well as the B. B. C. This can only be achieved by a number of stations for each region, each one with say sixty miles radius coverage, in fact as many stations as there are frequencies and are financially viable. We believe that regional stations should have a functional programme outlook catering for defined sections of public taste, i. e. "pop" music, "sweet" music, news, current affairs, etc. Local radio can never provide this type of service, its main output being geared to a local area providing much news and views, but little alternative choice to the B. B. C. Many listeners living in small towns and rural areas may never come within reach of a local station, it follows that local independent radio has a somewhat smaller part to play in our future broadcasting, centering on the large or medium size conurbation.

The technical aspects of our study detail the possible ways in which additional radio stations can be "fitted" in to the radio frequency spectrum. Most favourable is the V. H. F. Band II long overdue for additional stations, twelve years of complete B. B. C. monopoly and programme duplication have done little to popularise this band. Secondly, the international common medium wave frequencies 202 and 188 metres suitable for local stations and thirdly a feasible system to make more efficient use of our present medium wave allocations used for B. B. C. Radio 4 by converting some transmitters to carry the national Radio 4 programme using 330 metres in parallel, releasing the frequencies shown in the study for independent stations. This is detailed on the attached maps. This possibility is to some extent overshadowed by the increasing chaos after dark in the medium waveband which must soon lead to another international frequency conference, with the ensuing disputes of too many countries chasing too few frequencies. In this context we are urging an international feasibility study of single sideband broadcasting, which could almost double the number of channels available in the medium waveband without co-channel interference.

David A. Prewett
Vice-Chairman

February 1969.

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The Study has been divided into: -

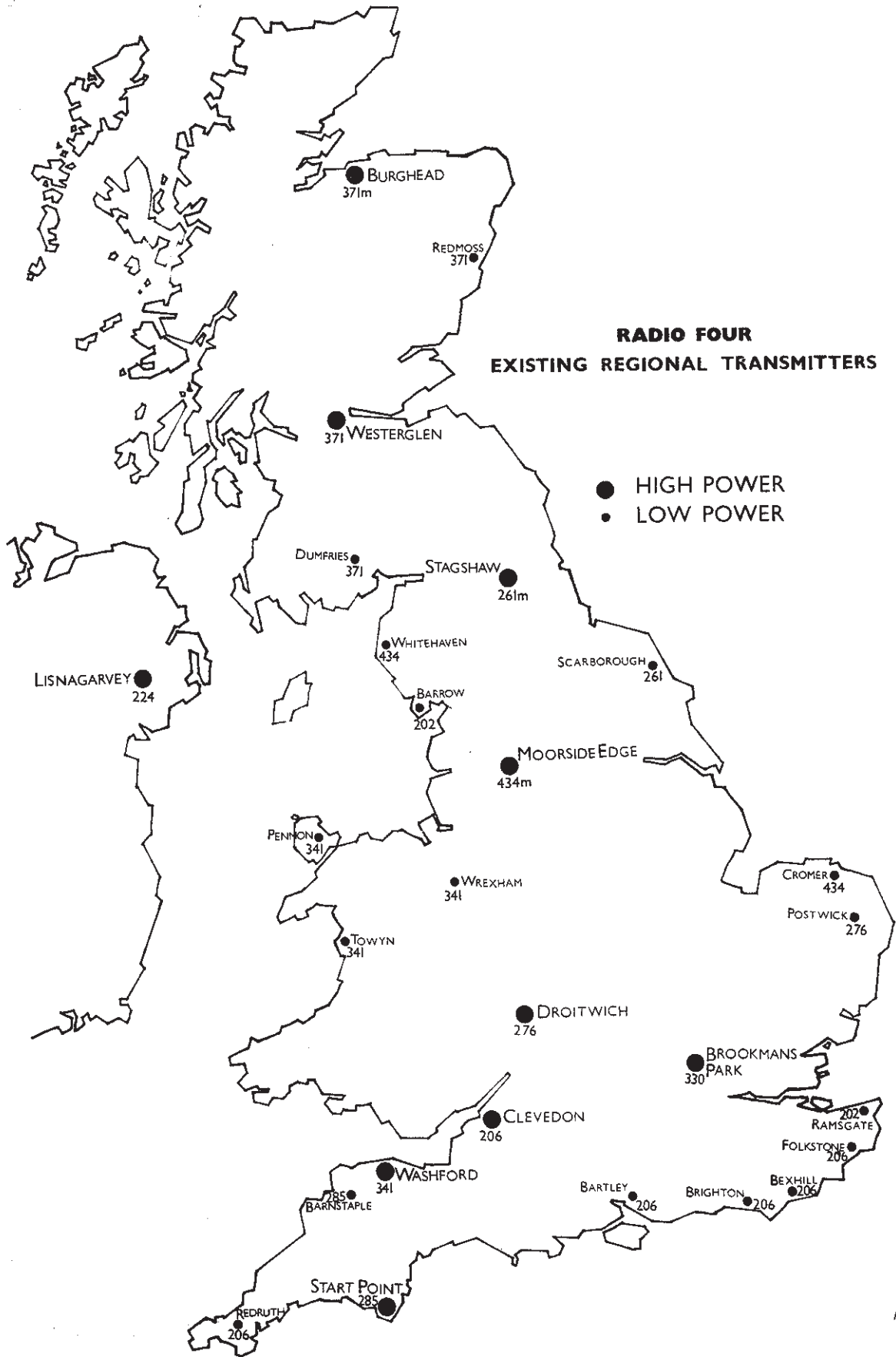
- (a) The structure of public broadcasting.
- (b) Technical measures to enable the operation of additional radio stations.

(a) The National Commercial Radio Movement believes that independent commercial radio stations should be introduced as well as the B. B. C. We have no wish to curtail the structure or activities of the B. B. C. which should remain as a licence supported public corporation.

The suggestion that some sections of the B. B. C. notably Radios 1 and 2 should be financed by advertising is a negative move without the introduction of competitive companies, this would leave the B. B. C. as a semi-commercial monopoly. We believe that independent broadcasting should advance on a two tier system, with both local and regional radio stations. The local radio stations would centre on towns and large urban conurbations devoting a large amount of their programme time to matters of interest to that specific area. Regional radio stations would be in the position to provide entertainment programmes as an alternative to the B. B. C. available to both urban and rural listeners.

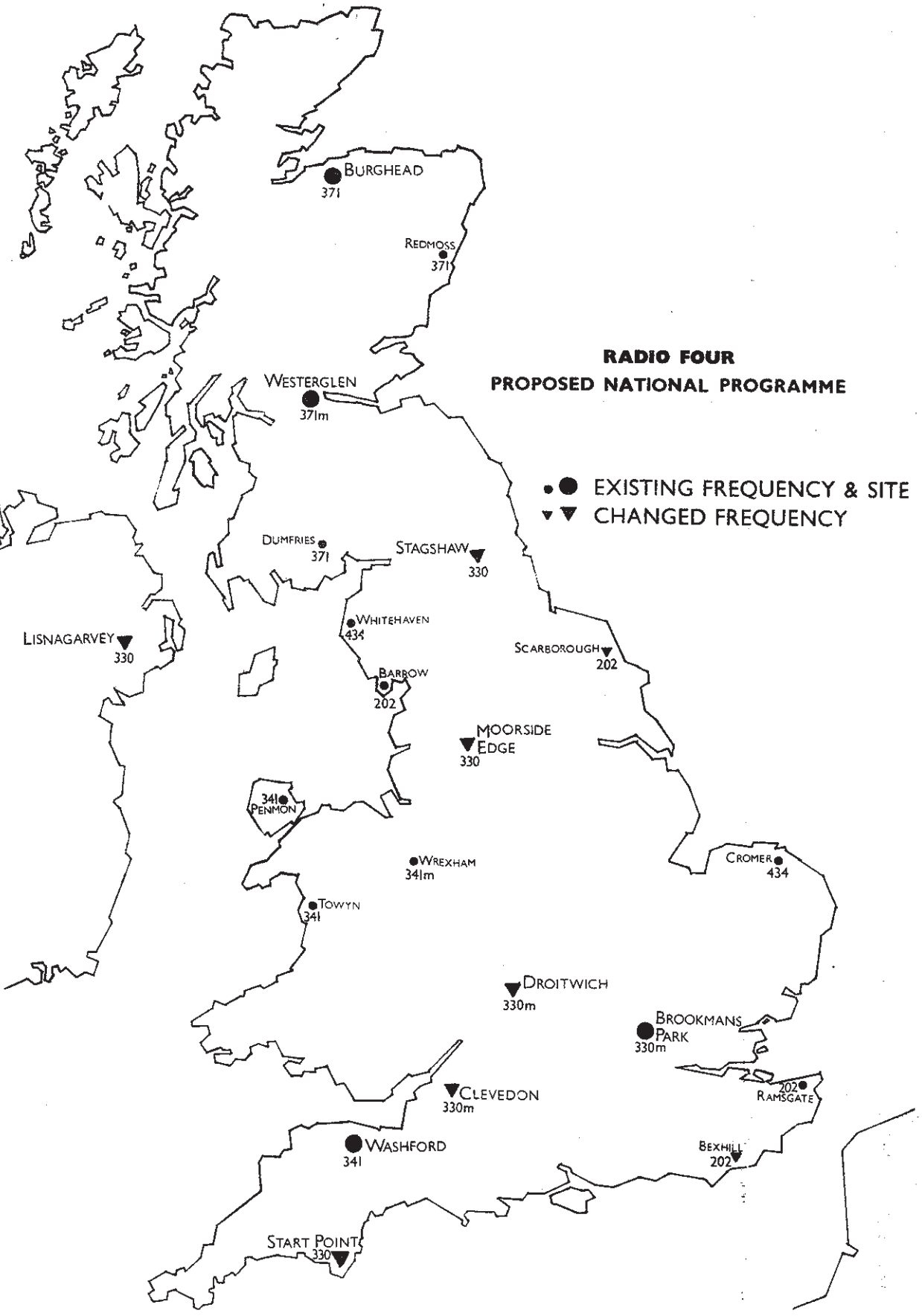
The only limiting factor necessary in determining the number of stations is the technical feasibility of broadcasting and the natural self limits imposed by commercial viability.

We feel that a broadcasting council should be established to issue licences and to adjudicate in case of dispute over programme content, having available the services of advisory committees relating to medical matters, and the elimination of misleading advertisements. The council to include independent technical experts and members of the listening public. Safeguards must be introduced to exclude the possibility of chain ownership, and thereby network monopoly. It is suggested that a maximum of two licences be available to any one individual person, company, or companies associated both directly and indirectly, or any other organisation. The licence should be renewable over a suggested period of five years, lapsing if the licensee ceased to broadcast for other than technical reasons. The council should have power to suspend a broadcasting licence subject to independent appeal machinery.



RADIO FOUR PROPOSED NATIONAL PROGRAMME

- EXISTING FREQUENCY & SITE
- ▼ CHANGED FREQUENCY



(b) Sound broadcasting in the United Kingdom has developed in a manner which makes poor use of existing frequency allocations. Commencing with one or two national stations the B. B. C. introduced the concept of regional broadcasting and some seven regions were established using their own transmitters and separate medium frequency allocations. This system was to become known as the Home Service carrying a national programme with regional variations.

Some twelve years ago the B. B. C. commenced frequency modulated Very High Frequency broadcasting (V. H. F.) in Band II. This was introduced primarily as a measure to combat the increasing congestion in the medium wave band by European broadcasting stations. The network of V. H. F. transmitters is now extensive and is within reach of 99.9% of the population. The Radio 4 programmes broadcast on V. H. F. are, however, almost identical to those simultaneously broadcast by the regional Medium Frequency transmitter. This is a complete waste of frequency and has created a damping effect on public interest in V. H. F. radio receivers.

The National Commercial Radio Movement believes that the national Radio 4 programme can be carried using basically one frequency 330 metres, (see attached map) regional and sub-regional variations being carried by the eminently suitable characteristics of the Radio 4 V.H.F. transmitters. The exception to this would be Wales and Scotland which, due to the mountainous terrain making V.H.F. reception difficult, would retain their separate Medium Frequency transmitters. This would leave vacant five medium frequencies which would be available for independent radio stations. It is worthy of note that the B.B.C. has achieved national coverage of Radio 1 using one frequency, 247 metres medium wave. Some reception problems have been encountered in secondary reception areas using this system due to multiple signal paths from transmitters in parallel, causing phase distortion of the signal at the receiver. This effect can, however, be almost completely removed by providing a larger number of lower powered transmitters, thus placing any given geographical location within a primary rather than secondary reception area.

Radio 1 does however suffer periods of severe co-channel interference during the hours of darkness due to the reflected or "skip-wave" signal from Radio Tirana, Albania. This illustrates the increasing problems of medium frequency broadcasting during hours of darkness. These problems must give rise to future international discussions and frequency allocation conferences in which case this country would find it hard to justify the present duplication of B. B. C. services with respect to our allocations.

Our belief is that an international feasibility study should be made concerning the use of single side band medium frequency broadcasting as a method of alleviating co-channel interference.

The V. H. F. Band II between channel 35 and channel 56 is allocated for European sound broadcasting and is as yet unused in the United Kingdom except for the section which is used by civil services, many of which are now moving to U. H. F.

SUMMARY

Frequencies available for additional independent commercial radio stations:

434 metres)	
)	Achieved by rationalised
276 metres)	re-tuning of B. B. C. Radio 4
)	transmitters.
285 metres)	
261 metres	Suitable for regional use
202 metres	International common frequencies
188 metres	Suitable for local stations

97.5 to 103.8 Mc/s inclusive (Channels 35 to 56)
suitable for regional and local stations.