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## HOW MANY PROGRAMMES?

*There are at present in the United Kingdom two television networks, one operated by the British Broadcasting Corporation deriving its revenue from licences, and the other under the auspices of the Independent Television Authority supported by advertising. The possibility of providing a third programme has now arisen and the technical and economic aspects of this would appear to be of general interest. We have therefore asked Paul Adorian, Managing Director of Associated Rediffusion, to give his views on this subject.*

**H**OW MANY TELEVISION PROGRAMMES should we have? The question is often asked but very rarely answered in a logical and considered way.

It is, indeed, a difficult question to answer. The artists and technicians employed in television obviously want as many programmes as possible because the greater the number of programmes, the greater the demand for artists and technicians, and it is thought that as a consequence their remuneration might be greater.

Those responsible for the operation of television systems do not necessarily agree. They realise how difficult it is to operate even the limited number of services which now exist because of limitations of available skill both in the artistic and technical worlds.

Again, it can be argued by those who would like to see lots of programmes that if many programmes were available the demand for personnel would increase and this would result in more people going in for television careers and the general level of skill would be likely to be raised.

Whether this is true or not, it happens to be a basic fact that all television programmes have to be paid for whether by licences, advertising or subscription systems as now proposed.

The total funds available for these purposes are limited and relate to the economy of the country as a whole. If more than one station depending on advertising revenue operates in the same area, the available advertising funds in that area have to be shared between them. This may result in reduction of standards if ends are to be met unless, of course, numbers of programmes are kept sufficiently small so that sufficient funds are available for each programme. The same would apply if the B.B.C were to operate a second programme: their licence revenue would have to be shared between the two operations. In the opinion of the writer the total profits of the independent programme companies throughout the United Kingdom would not be sufficient to run a good extra programme. It is assumed that all companies are run reasonably efficiently and, therefore, the very most that would be available for any additional programme supported by advertising would be the profits of the existing companies.

People who talk light-heartedly about additional programmes should first consider the economic facts and the technical problems involved.

Plans have been prepared to fit a third television programme into Band III and, indeed, it has even been suggested that in the thickly populated areas like London, Manchester, Birmingham, etc., a total of four programmes might be provided, but this would have to be done at the expense of other areas which might be left with no programme or only one programme from Band I and one from Band III.

It seems basically right that before third, fourth or subsequent programmes are dealt with the existing two programmes, i.e., B.B.C and I.T.A., should be made available to 100%, or nearly 100%, of the population. It is not good enough to say that 98% coverage should be satisfactory, as the remaining 2% represents

a million people. These people mostly live in outlying areas with difficult access to the benefits of civilisation as regards information, entertainment and education. They are the people who deserve television more than anybody else and for whom television can do the most.

Because of technical limitations of channels on which television can be transmitted, only thirteen channels are available in Bands I and III, which are the two Bands at present used in the United Kingdom. Although there are international arguments going on between broadcasting and other communication interests for two more channels to be added to the thirteen, it is unlikely that this will happen for some years to come.

We, therefore, have to plan on the basis of what is at present available and while wishful thinking has indicated that an additional programme might be squeezed into Band III, this would have to be done at the expense of no programme or only one programme being available to a million people to whom television should be of the greatest benefit.

This does not mean that additional programmes are not possible. Indeed, several additional programmes could be introduced by making use of Band IV or even Band V. Incidentally, transmission in these Bands in this country has shown, and practical operation of some one hundred such stations in America has clearly indicated, that these Bands are quite suitable for television broadcasting. Admittedly, additional receiving cost is involved as Bands IV and V, being in the ultra high frequency bands, require additional receiving equipment and, of course, a further aerial.

However, if people want three, four or more programmes in the thickly populated areas then it is right that they should pay for the receiving facilities to get such programmes rather than that people in outlying areas should have to be put to extra cost. There are further benefits in using Bands IV and V for additional programmes. Relatively inexpensive low-powered transmitters could be used and, for example, in the London area there might be three or four additional low-powered transmitters covering different parts of London with a common programme

but with separate advertising for each area, and in this manner it would be possible to attract additional revenue for low-priced advertising from sources for which the present large coverage commercial television stations are too expensive.

It has been suggested that one of the best solutions of the problem of providing 'higher level' programmes (including ballet, opera, symphony concerts and other not too popular programmes) would be to allocate in each area a channel in Band IV or V to the B.B.C and facilities for a similar channel to the local ITA Programme Company, so that the 'higher level' programmes would be created by two competitive organisations already established and able to subsidise these services.

This type of operation on Bands IV and V also opens up further possibilities. For example, many more localised urban or rural programmes relating to local social and sporting happenings and special local educational programmes could be provided.

There is a long-term development which may make it possible for additional channels on Bands I and III to become available. It is well known that the mosaic of a television picture is completely reconstructed from scratch every twenty-fifth of a second. This is in spite of the fact that probably 90% of the information in each picture was already there in the previous picture. If, therefore, basic information from one picture to another could be 'stored' and 'repeated', and only the new information transmitted, considerable saving in band width might be possible. If such saving should be only half of each channel, obviously the present number of channels could be doubled. There would, however, be technical difficulties on quick fades in and fades out, but the work in hand gives considerable promise of success.

Whatever long-term improvements may come along it is most important that on a short-term basis everybody in the United Kingdom wherever he may live should be able to see the two main television programmes as soon as possible, and that at all costs we should avoid creating a badly-planned chaos similar to that which exists in medium-wave sound broadcasting.