

THE 625-LINE SIDE OF THE TELEVISION PICTURE

It would be idle to claim that any of the television channels give entirely trouble-free reception in all areas. All are subject to considerable variations in the quality of picture received in the home over the country and nobody could say with conviction that the UHF channels used for EBC-2 are so very different from the others. For one thing we have to remember that our first UHF network is in a fairly early stage of development, while the Band I channels used for EBC-1 have been in use for very many years. There are about seventy transmitters serving practically the whole of the country, and the reception problems are well understood by the industry, the service men and the public. Band III, used by the ITA, has been in use now for twelve years, with about thirty stations covering most of the country; here again, the reception problems are well understood. The UHF bands however have been in use for just over two years and, although construction of the new stations is going ahead very much more rapidly than was the case with either of the other two services, we have so far only eight stations in operation, and by the end of the year we expect this to increase to fifteen, and by next year many more.

The 625-line EBC-2 service in the UHF band was launched after a more than usually thorough series of field trials. It was launched in the UHF band because this was the only band available. It was known that reception of the main stations could be difficult in some areas, and for this reason the plans cover the building of a large number of relay and fill-in stations. Construction of these must necessarily lag behind the building of the main stations.

Why was the new service started on 625 lines? Because this is the standard used in the greater part of the television world, and it was considered that a changeover of broadcasting in this country to this standard was necessary. We could not continue to operate on 405 lines indefinitely, and a new service ought to be on the final system.

~~The difficulties of reception is due~~ ~~to a number of~~
~~causes.~~ The much shorter wavelength/^{of BBC-2} gives more marked shadow effects. Naturally the new service is often judged against the two established services, but it must not be forgotten that many of the initial reception difficulties affecting the placing of the receiving serials, the characteristics of the receiver, and the public getting used to tuning a receiver for these existing services have all been dealt with. In time, UHF reception will be as widely appreciated.

UHF, while still at a disadvantage in some respects, does have a number of important advantages in others. It will not be affected by the continental interference which has caused a good deal of trouble in some areas on BBC-1. It is also much more immune to interference caused by the ignition systems of motor-cars, sparking from refrigerators, hair-drivers and the like. So far BBC-2 is living well up to the high technical standards we set ourselves; ~~many~~ surveys of coverage, ^{using} normal survey methods, with replies to questionnaires issued in the Radio Times and from interviews with dealers, all indicate very high proportions of satisfied viewers - and the fact that the BBC-2 audience is increasing at the rate of 250,000 a month is surely evidence of this satisfaction. This is at the time when virtually only the main stations are in operation, and the relay and fill-in stations, which are an essential part of the UHF plan, have not yet been built.

The 625-line picture is ^{basically} ~~substantially~~ better than the 405-line picture. It is sharper, and the viewer is hardly conscious of the line structure, while the flickering effect on horizontal edges which is sometimes seen on 405-line reception disappears completely.

For colour, the 625-line standard makes possible much better picture quality, and puts us in line with broadcasters in Europe and in many countries overseas.

It is hard to say now whether ~~such a transfer~~ ^{would ever be transferred} television in the United Kingdom ~~is~~ to the 525-line 60-field system as used in the United States, but it certainly could not happen for many decades. We have enough problems already, without having to

worry about viewers who are not even born yet. If however at some ~~some~~ time in the distant future it seemed desirable, it would be much easier to make the transfer from the 625-line system to the 525-line system than it would from the 405-line system.

No decision has been taken to transfer the existing services from 405 to 625 lines. The actual changeover from 405 to 625 would be very complex and difficult, and the problems involved have not yet been solved, but they will be solved. It could hardly be accomplished in less than about ten years. We are looking into a number of ways of making the changeover, ~~the main question that is being~~ ~~discussed~~ and ~~that~~ at some future date we shall come into line with a large part of the rest of the world on 625 lines for all our networks. After that, who knows. The whole question of television standards is overshadowed by the possibility of direct broadcasting from satellites. Whatever happens, it is most unlikely that that would be on a 405-line system.

In the meantime however, for good reception of BBC-2, make sure you have a good UHF aerial installation.

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