Article for International Broadcast Engineer

PREFACE for articles on thirty years of television

by F.C. McLean, Director of Engineering, BBC

When the world's first television service started in London in 1936 it was naturally acclaimed as a most remarkable achievement but, except perhaps by a very few people, its significance and the impact it would make on the life of the community were far from recognised. By many people it was regarded as a kind of home cinema which would be available to relatively few people. Thirty years later the impact of television on the lives and thinking of people everywhere is now beyond question and no community can afford to be without television.

The 405-line television signal as standardised in those days still continues to give an excellent service, although for the future it will gradually be displaced by the world standard of 625 lines. On the technical side the quality of the picture has improved enormously. In 1936 we had pictures which suffered from the effects of tilt and bend, where lines were far from straight and the picture on the bottom of the screen tended to disappear into a snowbank. But the television system has basically not changed and the main difference in the 625-line system is really the line-scanning rate, the general characteristics remaining virtually the same as they were standardised by the pioneers of thirty years ago.

While initially the service was limited to programmes and transmissions in the London area only, now we think of nothing of programmes coming via satellites from the other ends of the earth. At one time colour seemed to be a very remote idea but this is now about to start and will add much to the pleasure and interest of television in the years to come. Colour cannot of course have the irresistible impact of television itself, but it will be a very great force and will undoubtedly spread very rapidly over the whole world as it is at present doing in the U.S.A.

The advances that have made this possible have occurred in all fields of communication, and broadcasting has not only originated many of the advances itself but has also been quick to take advantage of advances in associated telecommunication fields. Broadcasting has encouraged mass manufacture of precision communication type equipment with the result that, in a world of advancing prices, the televisionreceiver with a 25" screen for multi-channel operation now costs less in money than did a 12" screen for single-channel operation of thirty years ago, and of course far less in real values. With the reduction in cost great advances have also been made in the design of all the equipment involved, from the camera through the transmitter to the receiver, with the result that, in spite of the overall increased complexity, increased stability and reliability have been achieved. This too has brought television within the compass of more and more people. Camera sensitivity has enormously improved both in black-and-white and in colour, while the problem of programme production has been completely changed by the advent of the video magnetic taperecorder which is now available for black-and-white and colour.

As a result of these developments which have been made in many parts of the world a large part of the population of the world is able to see programmes and events as they occur in any part of the world. This has been an enormous contribution by television not only to the cultural standards of the world, but also to the knowledge and understanding of world problems.

FCMSL/CVG