

Television Demonstration Unit

Trooping the Colour—boxing at Newcastle—horse racing at Ascot—international athletics at White City—visit of H.M. the Queen to Plymouth—the Third Asian Broadcasting Exposition at Kuala Lumpur—British Exhibition at Accra—horse racing at Longchamps, Paris—international Soccer, England v. France. These are a few of the many events in which the Marconi Television Demonstration Unit has participated in the last few months.

The Unit was originally formed in 1949 in order to demonstrate technical features of the Company's television and other broadcasting equipment. At the beginning

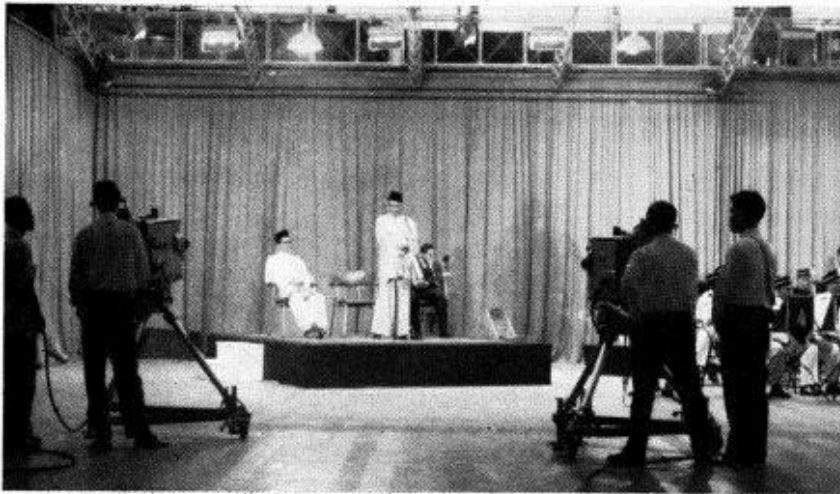
of 1955 the unit's activities were expanded to include not only demonstrations but also installation, operational and maintenance services.

Television organizations cannot easily maintain equipment and staff to meet every eventuality, and one of the functions of the unit is to provide equipment and trained personnel to supplement existing services during periods of peak activity. Some thirty experienced engineers are available and a complete range of television broadcasting equipment is maintained for hire. This equipment includes a fully operational four $\frac{1}{4}$ -in. Image Orthicon Camera Outside Broadcast Unit. A

television studio is also available, capable of providing all the technical requirements for producing programmes for broadcasting and training purposes.

Colour television has occupied a large part of the unit's activities for the past five years. In 1958, the Company designed and manufactured an Image Orthicon Colour Television Unit for Smith, Kline and French Laboratories Ltd. Since that time, the technical staff for the operation and maintenance of the colour equipment have been supplied from the Television Demonstration Unit. The Colour Unit has attended some forty medical conferences in the U.K. and has also toured Australia and South Africa. A notable recent achievement was the transmission of the first live colour television from the United Kingdom to U.S.A. via Telstar.

The services offered by the Television Demonstration Unit are not intended to compete with existing technical services operating within or under sub-contract to broadcasting organizations, but its objects are to offer a technical service for all types of television and broadcasting for the purpose of supplementing existing services as and when required.



Marconi Mark IV Cameras at the opening of the Third Asian Broadcasting Exposition at Kuala Lumpur. Marconi's Television Demonstration Unit provided equipment and technical services at this important gathering.

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Large Translator Orders

Both the BBC and the Royal Swedish Board of Telecommunications have entered large orders from Marconi's for translator equipment. In pursuance of their policy of providing the maximum possible coverage, both these authorities are installing translators to provide satisfactory coverage in pockets of poor reception, both for their television and their FM sound programmes.

Because the British 405-line television system uses amplitude-modulated sound, a specially designed version of standard equipment is being supplied to the BBC who have now purchased 118 units.

The latest Swedish order is for twenty 50-W Television Translators, five 3-W Television Translators (BD368A) and for the FM Broadcasting Service twenty 10-W two-programme translators (BD 328) and four 100-W single-programme translators, each comprising a BD328 translator and a BD331 amplifier. Also included are twenty-two combining units.



Sweden—Lychnas. In order to provide the maximum coverage for her television and FM sound programmes, Sweden has installed a considerable number of translators.

Television for George Cross Island



Malta, which in its turbulent history has withstood the onslaught of Arabs, Turks and more recently the full weight of Axis forces, has succumbed to the peaceful invasion of television. Though there has been infiltration for some time from Italian

The megalithic Temple of Hagar Qim, evidence of the extreme antiquity of the Island of Malta. Not far away the Marconi-installed transmitter station at Gharghur is testimony to the modern outlook of her people.

sources, Malta Television officially started operation on 1st October.

The service has been inaugurated under the auspices of Overseas Rediffusion Ltd and operates on C.C.I.R 625-line standards. Marconi's supplied the transmitters, the programme input equipment and other auxiliaries.

The transmitters which are sited at Gharghur are, for vision, a 2-kW type BD357A and, for sound, a 1-kW type BD317A.

Television for Gibraltar

The Rock of Gibraltar, the symbol of impregnability and the guardian of the gateway to the Mediterranean, has a new landmark near its summit. It is the aerial of the newly formed Gibraltar Television, a joint enterprise between Scottish Television Ltd and local interests.

Scottish Television provided the technical advice and Marconi's the bulk of the equipment.

The studios, situated in the town, are modern and compact, and contain a two camera studio using Marconi Mark IV Image Orthicon chains, two telecine machines (BD884), a vidicon camera (BD871) for announcers' use, picture and waveform monitors and control equipment, some of which was custom built for Gibraltar TV by Scottish Television Ltd.

The studios are connected by radio link to the low-power transmitter (BD368A) which is situated in a building nearby.



High on the Rock of Gibraltar seen here from Europa Point, the aerial of the new Gibraltar Television is to be found.

40 YEARS OF THE BBC

In the face of its ubiquity it is hard to realize that broadcasting is such a comparatively recent innovation. Since the day that Guglielmo Marconi heralded a new era in communications only sixty-odd years ago, men sought a means of using radio for the transmission of speech. What put them on the right path was the invention of the thermionic valve by Ambrose Fleming in 1904. From this developed the triode, which, in 1913, Meissner showed could be made to provide a continuous high frequency oscillation capable of carrying audio frequencies.

The First World War interrupted the development of this knowledge for the purpose of entertainment and commerce, but great strides were made in its military application particularly in connection with airborne radio telephony for the control of fighters. After the war, radio telephony progressed rapidly and in 1919 the voice of W. T. Ditcham, a Marconi engineer, was the first from Europe to be heard on the other side of the Atlantic. A great deal of amateur activity was also taking place.

In the same year an experimental transmitter was set up at Chelmsford for a series of range tests, and during these some musical items were transmitted to vary the reading of dull material merely for the sake of words, Marconi employees and their friends being the performers. On 15th June 1920, under the sponsorship of the *Daily Mail*, Dame Nellie Melba visited the Marconi works and broadcast a recital of songs. This had been announced in the press and was Great Britain's first advertised broadcast programme.

For fear of interfering with public radio services, the British Postmaster-General had imposed severe restrictions on broad-

casting, but insistent clamour from amateur enthusiasts and manufacturers led him to relax his ban to the extent of allowing the Marconi Company in January 1922 to establish low-power transmissions from Writtle, for a half-hour a week. This station, "2MT", was run as a side-line by now such well-known names as P. P. Eckersley, R. T. B. Wynne, Noel Ashbridge and B. N. MacLarty, who were employed in the Aircraft Department of the Marconi Company. The lighthearted programmes sent out from Writtle did much to increase the popularity of broadcasting in its infant years.

The Postmaster-General further relaxed his restrictions to allow the establishment of a transmitter at Marconi House in London. This was the original station "2LO" which commenced operations on 11th May 1922. Demonstrations were not advertised but were timed and arranged for the benefit of special audiences such as hospitals, wireless societies, etc, and were subject to special Post Office authorization. The programmes were mostly musical, though a running commentary of the Lewis-Carpentier fight was broadcast on 6th May, and the

Prince of Wales spoke on the occasion of the Great Scout Rally at Alexandra Palace.

These broadcasts aroused immense public interest, and this and the insistent claims of broadcast receiver manufacturers led the Postmaster-General to call a conference of manufacturers, where it was decided that they should consolidate their interests in the formation of a single broadcasting Company to take over the complete control of broadcasting in Great Britain.

This new company, the British Broadcasting Company, started operations from the "2LO" transmitter with an announcement of its formation on 14th November 1922. From this has sprung the great organization of the British Broadcasting Corporation with some 93 broadcasting stations, more than 300 transmitters and nearly 250 studios, all providing a completely comprehensive sound service for both home and overseas listeners, and a television service that was the first and remains among the foremost in the world, and on its fortieth birthday it may look back proudly through the years to its humble beginnings on the top floor of Marconi House.

The original "2LO" Transmitter at Marconi House which broadcast the BBC's (then designated the British Broadcasting Company) first announcement on 14th November 1922. It has been used for special broadcasting from Marconi House since its installation in May 1922.

