

Our Sound and Vision Equipment is

TRANSMITTING

Britain's first Commercial TV Programme

THE OPENING of the Independent Television Authority's London transmitting station at Croydon makes television history. Our transmitters are radiating Britain's first full-scale commercial programmes.

The station at Croydon has been designed by us in collaboration with I.T.A. engineers and built entirely by us. A site for it in the London area was not easy to acquire, and the one at Beulah Hill, Croydon, was chosen only when it had been proved the best.

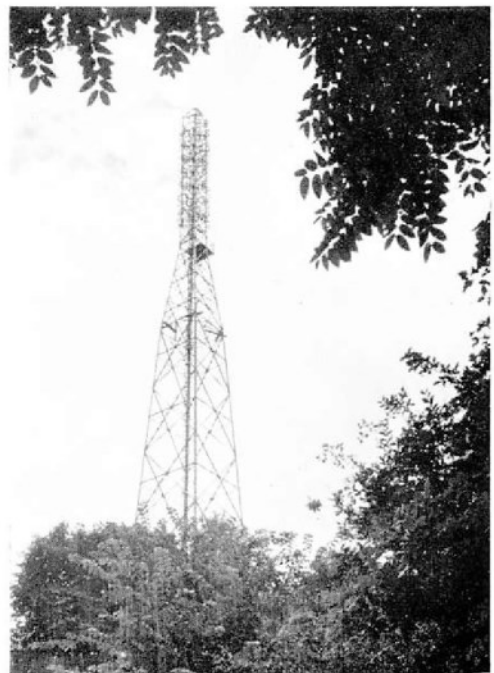
It was not in fact until late February of this year that it was cleared and ready for work to start on the transmitter buildings and the tower. That it is finished according to schedule represents a major achievement in the face of great difficulties for Development Division, Central Division and Power Equipment and Installations Division. The station has been built and the equipment built, installed and tested, in the record time of seven months.

It was a hard fight for D. F. Bowers, who, in W. J. Morcom's Transmitter Development Group, was in charge of the design and building of the vision and sound transmitters, to get all that he needed in time. His teams overcame their troubles, however, and adapted for temporary use the experimental labora-

tory models of transmitters for the permanent stations.

Meanwhile the tower and aerials, the combining units and feeders were designed and, except for the tower, supplied by S. U. Nolan's Aerial Development Group. A picture of the aerial developed at Baddow under C. S. Gledhill appeared on the back cover of our July issue. The tower was supplied and erected by Central Division who were also responsible for putting up the aerials and feeders.

The layout of the station was planned



The aerial of the I.T.A.'s station at Croydon on the tower designed by H. K. Boulter's Mast Design Section of Aerial Development Group



Around a mobile monitor in the transmitter building at the Croydon station are C. C. Caspard, an engineer of long standing with the Company, Roy Martyr, Syd Edwards and Paul Dann

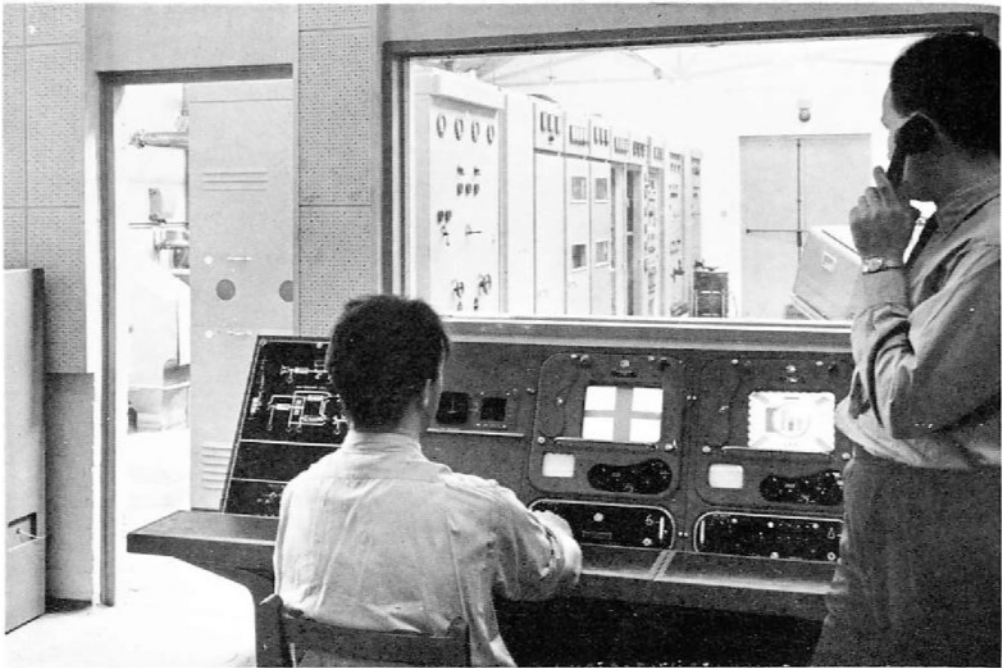
by Installations Section under W. E. Pannett and his deputy J. Smith. In liaison with the other Groups they were able to detail exactly the equipment being put in, get out the drawings for the building, and specify all radio and power supply auxiliaries, heating, lighting, ventilation and indeed the complete furnishing of the station.

All these various activities had to be arranged so that installation work could start immediately the building was ready. As soon as the cement floor was set hard enough, gear was sent off from Chelmsford. The first to go, in mid-June, was the sound transmitter. Next followed the vision transmitter, the combining units, and the multiplicity of feeder gear. Heavy copper feeders with brass joints run from both vision and sound transmitters and on as one from the combining unit to the aerial at the top of the tower. This eight-stack aerial is divided into two banks of four. Both banks are radiating now and each has

its own feeder. In the near future additional sound and vision transmitters will be installed.

Installation and testing pushed ahead to such a degree that a picture was radiated at full power on 2 September. This was a fine effort and only made possible by the hard work of the engineering and installation people, many of whom volunteered to give up their summer holidays to get the job done.

The Croydon station has been the first stage in the I.T.A. scheme. Now follows the work of building the complete permanent station at Bilton to serve the Manchester area, and of building other stations in the north. The work on the transmitting stations is being co-ordinated for this Company by P. J. Donnelly. The designing and equipping of studios for the Programme Contractors is being done by Broadcasting Division under H. A. Lewis, and the work carried out by this Company for the whole commercial television



The test signal going out from the Croydon station which, with its equipment, was built in the record time of seven months. The control desk and vision and sound transmitters

project is the responsibility of B. N. MacLarty, our Engineer-in-Chief.

While the Croydon transmitter was being built, studios for programme production were also being fitted out, and crews were being trained to man them. But programme production is not directly the concern of the I.T.A.

The Independent Television Authority, when brought into being by the Television Act, was set up, unlike the B.B.C., not to derive any income from licences, but to derive its income from the Programme Contractors. The I.T.A., while wholly responsible for every aspect of the new commercial television service, provides the transmitting stations but does not supply the programmes, though it has power to accept, censor or reject them. The programmes are provided by four specially formed private companies appointed by the I.T.A. The Programme Contractors, as they are

known, in turn obtain their income from the sale of television time to advertisers. Advertisers pay for time on the basis that advertisements shown at "peak viewing times" should be the most effective and therefore the most expensive, but they have no choice of the programme next to which their advertisements will appear. Thus British advertisers are not allowed to "sponsor" programmes.

It is the Programme Contractors who are building studios and fitting them out for production. Here again this Company is supplying vital equipment, and the Marconi Television Centre in Kensington has played a great part in demonstrating it and in training personnel.

Our own Television Centre was a film studio. It was taken over by this Company when the present need was envisaged, and fitted out by Broad-



In Transmitter Development at New Street, John Duffield of the D.O., D. F. Bowers, designer of the Croydon station vision and sound transmitters, John Ennos and Ron Bradbrook

casting Division's Chief of Operational Services, A. Carrington. It has three of the latest camera channels, an apparatus room with a teleciné unit and above it the producer's gallery. Terry Pace, the engineer-in-charge, and his team are our old friends the Television Demonstration Unit in another guise.

Associated-Rediffusion Ltd., the London weekday Programme Contractors, used our centre for rehearsing while their Wembley studios were being fitted out. Now they have booked our studio for five days a week, and three programmes a day are transmitted from there. Among the first were "Hands about the House", "Bookcase" and "Friday's Man". Associated Broadcasting Co. Ltd., the weekend contractors, are also using the M.T.V.C., on Saturdays and Sundays.

So now that the M.T.V.C. has done, and is doing, its job, let us turn on and have a look at Wembley.



Ron Moody working on part of the output circuit cavity of the vision transmitter under the guidance of Syd Edwards