For Electronics Weekly

The Engineering Division of the BBC

Like a number of other employers the BBC provides a public service and has few tangible end products. For this reason most of the technical staff of the Engineering Division are concerned with the engineering and operation of the vast amount of complex technical equipment necessary to provide two television broadcasting services for viewers in the United Kingdom and many sound services for listeners both at home and overseas. Engineers have to be experts in their particular fields of activity and must be capable of setting up equipment to ensure the best performance for the viewers and listeners to receive pictures and sound of the highest fidelity. Not only does this work call for a good basic knowledge of television and sound broadcasting techniques, but in addition, it calls for an ability to deal with constantly developing techniques consequent on the introduction of new services such as colour.

Some two thousand engineers, engineer technicians and technicians are employed in the Division. Of them about 1,500 are involved in the setting up and operation of equipment in daily use at studios and transmitters. The remaining 500 are concerned with pure and applied research work, the design of new equipment, the planning and installation of new and modifications to existing studio centres and transmitting stations recruited either from among young men whohave a suitable academic background and experience, or by the promotion of staff who have received technical training as Technical Assistants. Applications for employment as engineers are considered from graduates of Universities in the United Kingdom who have read either Physics, Mathematics, Electrical Engineering or Electronics; from applicants who have passed the Craduate Examinations of the I.E.E. or the I.E.R.E.; and holders of the Higher National Diploma or Certificate in Electrical Engineering or the City and Guilds of London Institute Full Technological Certificate in the appropriate branch of telecommunication engineering. Staff so appointed are required to undertake a training course relating to the specialised field in which they are to be employed, at the Engineering Training Centre, a fully residential establishment near Evesham, Worcestershire.

University Graduates with good honours degrees can be considered for appointment as Graduate Trainess. They will be appointed to the Research, Designs or Planning and Installation Departments, where they will serve for a period of up to two years, during which time they will be introduced to all aspects of the work of that Department. Towards the end of their traineeship, they are encourage to apply for vacancies which are advertised internally.

Two Research Scholarships are offered annually providing the opportunity for selected graduates to work for a higher degree in physics or engineering. The only limitation onnthe subject chosen for study is that it must be in those fields of physics or engineering which have an application to sound and television broadcasting or to telecommunications. Scholars are given every encouragement to visit departments of the Engineering Division, and to other universities and establishments who may be working on related projects. Whilst Research Scholars are not bound to the Corporation, it is hoped that they will eventually make a career in the Corporation.

Technical Assistants are employed only in the Operations and Maintenance Departments where they carry out similar duties to those of the engineers, but at a lower level of responsibility and under supervision. They are recruited mainly from school leavers who have completed their G.C.E. 'A' Level studies in mathematics and physics. Those who progress to engineer grade embark on a training programme which includes a total of 30 weeks of full-time instruction at the Engineering Training Centre. Technical Assistants undergoing training in accordance with this programme may, if they wish, take certain external examinations at appropriate points in their training programme, thus giving them the opportunity of gaining an external qualification. Those who successfully complete the course are promoted to engineer grade as vacancies occur.

The hours of broadcasting depend upon the requirements of the various services. The Television Services closes down at 11.30 p.m. The Light Programme opens at 5.30 a.m., and closes at 2 a.m. the following day, whilst the External

Services provide an almost continuous service for overseas listeners. As a consequence the working hours of engineering staff on the operational side, whilst based on a 42-hour week, have to meet service requirements, and it is necessary, therefore, for some staff to work on a shift rota system which may involve night duties.

The engineering staff have a most interesting and responsible job to do, the results of their efforts being seen or heard by millions of viewers and listeners. It is a challenging job and the prospects of promotion are good for the progressive young man. Vacancies for more senior posts in the Engineering Division are the subject of internal advertisement and selection by appointments boards. This means that promotion is by merit, and there are ample opportunities for staff to move from one department to another to gain promotion or to broaden their experience.

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