

Coverage Commission Appointed

Mr. A. Gibbs and Dr. M. A. F. Barnett

REALISING that efficient reception is the first essential in a broadcasting service, the Broadcasting Board at its last meeting discussed the matter thoroughly, and decided to set up an expert technical commission to investigate and report on the best available means for providing the most satisfactory coverage for New Zealand. This decision of the Board met with the unanimous approbation of listeners.

The committee has now been appointed, the personnel, as announced by Mr. H. D. Vickery, chairman of the Board, being as follows:—

Mr. A. Gibbs, Chief Telegraph Engineer, Post and Telegraph Department.
Dr. M. A. F. Barnett, of the Scientific and Industrial Research Department.

More capable men could not have been selected by the Board, and a report of an essentially practical nature can be expected. Mr. Gibbs, as is well known, has been intimately associated with the broadcasting service since it began, and his experience and technical knowledge in all aspects of radio transmission and reception will be invaluable.

The committee has an order of reference which will permit of the widest investigation and the most comprehensive report, so that the Board should be equipped with the necessary data on which to base its technical policy for the future.

In its deliberations, the committee will take into consideration the experience of past years and recent developments overseas as well as in New Zealand, and due regard will be paid to such factors as: Distribution of population; topographical features; desirability of establishing relay stations and means of connecting same with distributing centres; practicability of having one or more national stations giving non-fading reception all over the Dominion; power of stations with a view to ensuring adequate signal-to-noise ratio, adequacy of existing stations in relation to power, modern features of design and quality of broadcast transmission.

It will be noted that outstanding points to be decided are:

- (1) Adequacy of the power of the existing station.
- (2) Practicability of one or more super-power national stations.
- (3) Desirability of relay stations in provincial centres.

It is the intention of the commission to visit the various parts of New Zealand and personally make investigations into conditions in those areas where reception is not satisfactory. Opportunity will then be given to radio societies and listeners generally to supply the commission with particulars concerning the difficulties under which they labour in regard to the reception of the present stations.

In announcing the setting up of the Commission, Mr. Vickery invites societies and persons desiring to make representations to notify the Board accordingly as early as possible so that suitable arrangements for taking their evidence may be made.

Mr. A. Gibbs

MR. A. GIBBS has had very considerable experience in radio and radio broadcasting matters. Associated with the science from its very infancy as District Engineer in Auckland and later in the Otago district, he saw the establishment of the Telefunken transmitters in 1911.

Coming to Head Office, Mr. Gibbs was, for a while, Deputy-Chief Telegraph Engineer, and in 1926 became Chief Telegraph Engineer. When broadcasting in New Zealand commenced in 1925 he took the keenest interest in it and in 1927 went abroad to the Washington Conference, where radio matters were looked into. Mr. Gibbs made a point of seeing the leading broadcasting stations and interviewing the most important radio engineers. The problems then being investigated were those of power and quality. It was realised that the power would have to be increased to overcome parasitic noises, and even at that early date stations had been licensed up to 50kw.

The modulation question was being gone into, but 100 per cent. modulation, which is the most economical method of radio transmitting, was not yet achieved. Weaknesses of the earlier types of stations were very fully revealed at this time.

One point of interest noted by Mr. Gibbs was that at one point just outside New York was a station similar to 2YA. Connected with it were 500 scientists and their staffs who were experimenting on quality, economy and range.

From America Mr. Gibbs went to England and investigated the systems there. With a wealth of information as to how improvements can be effected in New Zealand stations Mr. Gibbs has since taken the liveliest interest in broadcasting matters. The trans-Tasman was inaugurated and conducted under his jurisdiction. It is well known that this service employs some of the very latest ideas in radio transmission. The directional transmission such as employed in the trans-Tasman service may possibly be able to be used in the New Zealand service for, at the present time, a tremendous amount of energy is wasted by radiation to sea.

Mr. Gibbs has at his command a wealth of scientific literature appertaining to radio broadcasting, and it is kept up to date on all the most important broadcasting developments.

Dr. M. A. F. Barnett.

DR. M. A. F. BARNETT was born in Dunedin in 1901, son of Sir Louis Barnett, and graduate at Otago University, securing double first-class honours in mathematics and physics for the M.Sc. degree in 1923. He then proceeded to Cambridge and undertook a post-graduate research course at the Cavendish Laboratory, Cambridge, under Lord Rutherford.

From 1924 until 1927 Dr. Barnett was immediately associated with Professor Appleton on research connected with the height and properties of the Heaviside layer. From the results of the work carried out in this investigation, he was awarded the degree of Doctor of Philosophy, Cambridge University.

In 1927 Dr. Barnett was appointed as Physicist to the Department of Scientific and Industrial Research in New Zealand, and in 1930 was elected a Fellow of the Institute of Physics. Since coming to New Zealand he has established the Radio Research Committee of the Council for Scientific and Industrial Research, and has directed the researches which this committee has engaged in. Particular reference might be made in this connection to the tests carried out across the Pacific during the Solar Eclipse of October, 1930, when a carefully-planned scheme was elaborated to ascertain the effect of the eclipse on the transmission of wireless waves.

Dr. Barnett has also been associated with a number of very important physical investigations carried out by the Department of Scientific and Industrial Research in New Zealand. He has been associated with the whole of the cold storage investigations, and particularly with those relating to the transport of fruit and meat, and was attached to the British survey party, under the leadership of Drs. Griffiths and Vickery, during the whole of their investigations in New Zealand.

Dr. Barnett was also attached to the investigation which Professor Hornell conducted into the Arapuni power scheme problem. He has also participated in the seismological investigations which have followed on and resulted from both the Murchison and Hawke's Bay earthquakes, and, in this connection, has undertaken exploratory work which has thrown considerable light upon the physical nature of seismological conditions of the areas affected by these earthquakes.

As secretary of the Building Regulations Committee, set up as the outcome of the Hawke's Bay earthquake, Dr. Barnett has done valuable work in connection with the findings and recommendations made by this committee.

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