

Summary of World Radio Systems from the N.Z. Angle

THE report, in dealing with broadcasting from a statistical angle, says:—

Attached hereto is a schedule giving certain data and some unique comparisons with respect to broadcasting developments in a number of English-speaking countries, where broadcasting has undergone most rapid development. The figures should prove of value in demonstrating from various angles the position of New Zealand broadcasting in relation to other countries. To those able to analyse the same they should furnish data for much useful speculation. Such subjects, for example, as the effect of population-density and distribution, license fees, and signal intensity upon development may, within certain limits, be deduced.

British and American Systems.

THE standard of broadcasting existing in the United Kingdom has now reached a high plane, the aim being to so serve the country with broadcasting-stations of suitable power that reception will be possible to almost the entire population by means of a crystal type of receiver. The organisation of broadcasting in the United Kingdom is broadly similar to what obtains in New Zealand,

The official report presented to Parliament by the Chief Telegraph Engineer, Mr. A. Gibbs, embodying the observations made on a number of important questions while on a visit to overseas countries, carries a full analysis of the broadcasting position, which is of interest and value to listeners. This report endorses the soundness of the system of operation and control which has been established in this country.

country. Such a scheme goes a long way to minimising interference from radiating receivers; and, with the large revenue and the variety and high class of talent available, a very satisfactory standard of broadcasting service has been attained and is assured.

The conditions in New Zealand are relatively much more difficult. The smaller population means a smaller revenue, and has involved the necessity of a higher licence fee. The larger and more-sparsely-settled area would make it a much more costly problem to furnish equivalent signal

of broadcasting stations, and it recently became necessary to appoint a Commission to exercise a regulatory control over broadcasting stations with a view to minimising mutual interference. This Commission has already done good work in reducing the number of stations—until recently about seven hundred—and the interference already referred to. No fee is paid by the listener. Programmes are provided largely by commercial firms seeking the goodwill of the public by the provision of programmes of entertainment which

ments in the United Kingdom will be along the lines of forming a chain of high-power broadcasting stations throughout the country, each link consisting of two stations, located remote from centres of population, and transmitting simultaneously different classes of programmes on different wavelengths. Such a system would have many ideal features, enabling the great majority of the population to select, with equal facility, one of two different programmes from its local centre, and without the drawback of one being overpowered by the other.

General Observations.

BROADCASTING stations in the United Kingdom, the United States, and Canada were visited, and the policy and practice of broadcasting in all its aspects discussed with authorities responsible for technical design and operation and for the provision of programmes. In New York two broadcasting stations, each of 50 kilowatts output, and embodying radically different principles of design, were seen in operation, and relevant data obtained.

At the Hague, Holland, a limited use was being made of subscribers' lines and telephones for the reception

(1) Country.	(2) Radio Sets in Use.	(3) Total Population.	(4) Radio Sets per 100 of Population.	(5) Radio Sets per 100 of Population, based on N.Z. Development (2.7 per cent.) and Relative Population Densities (Col. 6).	(6) Area of Populated Territory in Sq. Miles.	(7) Population Density per Square Mile.	(8) Radio Sets per Square Mile of Populated Territory.	(9) Radio Sets per Square Mile based on N.Z. Development (0.4 per cent.) and Relative Population Densities (Col. 6).	(10) Telephones per 100 of Population.	(11) Percentage Ratio of Radio-set Development to Telephone.	(12) License Fee.
New Zealand	40,000	1,500,000	2.7	2.7	100,000	15	0.4	0.4	9.2	29.3	£ s. d. 1 10 0
Australia	150,000	6,000,000	2.5	1.1	1,000,000	6	0.15	0.16	6.1	41.0	1 8 0*
Canada	140,000	9,000,000	1.5	1.2	1,250,000	7	0.112	0.18	12.2	12.3	0 4 2
British Isles	3,000,000	48,000,000	6.2	7.2	120,000	400	25.0	11.0	3.0	206.6	0 10 0
United States of America ..	5,500,000	114,000,000	4.8	6.8	3,026,000	38	1.8	1.1	14.8	32.4	..

Country..	Number of Broadcasting Stations.	Total Antenna Power in Watts.	Average Power in Watts per 1,000 Square Miles.	License Fee.
New Zealand	11	6,900	69.0	£ s. d. 1 10 0
Australia	21	8,690	8.6	1 8 0*
Canada	48	21,500	17.2	0 4 2
British Isles	21	36,000	300.0	0 10 0
United States of America ..	700	510,000	168.0	..

*Average.

with the exception that the original broadcasting company, composed of various manufacturing firms, has now given place to a representative Broadcasting Commission appointed by the Government, and having full powers to carry out the policy of broadcasting in the interests of the public. All tastes are being catered for, and a high quality of service is being maintained. By use of land relay lines a considerable amount of simultaneous broadcasting is done from the different stations throughout the

strength in all parts of the country, the configuration of which is such that only a small portion of the radiated energy is available over the land-masses of New Zealand. If anything like the same uniform standard is to be obtained it is clear that the problem must be attacked from a somewhat different angle.

IN the United States the policy in relation to broadcasting is an entirely different one. Little restriction has been placed upon the growth

constitute what is known as indirect advertising.

On the commercial side the British and American systems are therefore entirely opposed in principle; but, as each is providing a radio broadcasting service giving a very great measure of satisfaction to the public at large, it would appear that New Zealand could benefit by absorbing into its future policy the best and most appropriate elements of each.

As far as could be judged at this stage, it would appear that develop-

of broadcast programmes. The arrangements were such that, upon the receipt of a call from another subscriber, the telephone reverted automatically to its normal use. A special subscription was charged for this service. In the United States, electric light and power wires were also being used to some extent for a similar purpose. These developments have not yet made a great impression upon the practice of broadcast reception.

The Interference Problem.

THERE seemed to be unanimous opinion among administrative officers responsible for the oversight of wireless broadcasting that the primary responsibility of the governing administration is to keep the course clear for the listener to the local broadcasting station rather than to cater for the inevitable but transitory stage of "long-distance hunting." The listener who habitually

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