

1936.  
NEW ZEALAND.

FOURTH ANNUAL REPORT  
OF THE  
NEW ZEALAND BROADCASTING BOARD  
(FOR THE YEAR ENDED 31st DECEMBER, 1935).

*Presented to both Houses of the General Assembly in pursuance of Section 21 of the Broadcasting Act, 1931.*

REPORT.

To the HONOURABLE F. JONES, MINISTER OF TELEGRAPHS, Wellington.

SIR,—

The members of the New Zealand Broadcasting Board present their report for the year ended 31st December, 1935.

A record increase during the year of 35,546 in the number of radio-receiving licenses indicates the continued and increasing public interest in broadcasting, and is evidence of general appreciation of the service.

The establishment of a modern transmitter of 10 kilowatts aerial energy at Highcliff, Dunedin, and the increase from 2½ to 10 kilowatts in the power of the transmitter at Gebbie's Pass, Christchurch, were the most important events of 1935.

GENERAL.

HOURS OF TRANSMISSION.

Further increases were made in the hours of transmission during the year. The subjoined table shows the progressive increases since the Board assumed control of the service at the beginning of 1932 :—

|                      |    |    |    | Hours of Transmission.<br>(Rate per Annum.) |
|----------------------|----|----|----|---------------------------------------------|
| At 1st January, 1932 | .. | .. | .. | 10,612 hours.                               |
| At 1st January, 1933 | .. | .. | .. | 16,484 hours.                               |
| At 1st January, 1934 | .. | .. | .. | 23,036 hours.                               |
| At 1st January, 1935 | .. | .. | .. | 25,700 hours.                               |
| At 1st January, 1936 | .. | .. | .. | 27,456 hours.                               |

Out of 27,181 hours of transmitting-time, thirty-six hours were lost owing to technical faults and power failures.

PROGRAMMES.

The Board continued to supply throughout the year programmes from the eight national stations indicated hereunder :—

| Station.                | Aerial<br>Energy. | Frequency.  | Wave-length. |
|-------------------------|-------------------|-------------|--------------|
|                         |                   | Kilocycles. | Metres.      |
| 1YA, Auckland .. ..     | 10·00 kw.         | 650         | 462          |
| 1YX, Auckland .. ..     | 0·15 kw.          | 880         | 341          |
| 2YA, Wellington .. ..   | 5·00 kw.          | 570         | 526          |
| 2YC, Wellington .. ..   | 0·20 kw.          | 840         | 357          |
| 3YA, Christchurch .. .. | 10·00 kw.         | 720         | 416          |
| 3YL, Christchurch .. .. | 0·50 kw.          | 1,200       | 250          |
| 4YA, Dunedin .. ..      | 10·00 kw.         | 790         | 380          |
| 4YO, Dunedin .. ..      | 0·15 kw.          | 1,140       | 263          |

Throughout the year the Board made use of the best musical talent available in the Dominion, and supplemented this by engaging many eminent artists from overseas. In addition, the Board's library of recordings was added to extensively, and listeners, through this medium, were able to hear the most famous of international artists and musical combinations.

Seventy-six concerts by different musical societies and choirs and performances by 1,277 different local artists were broadcast during the year.

The Board arranged tours of the national stations by many notable artists, including Mr. Lionello Cecil, Mr. Clement Williams, Mr. Percy Grainger, Mr. Walter Kingsley, Miss Gladys Moncrieff, Miss Stella Power, Miss Dorothy Clarke, and the Spivakovsky-Kurtz Trio.

The services of many other artists and combinations touring the Dominion were also secured, Miss Muriel Brunskill, the Viennese Boys' Choir, and Mr. Lloyd Powell being noteworthy examples.

#### *Talks (Educative).*

The interest in the educational talks for schools was fully maintained, and 64,000 booklets were printed and distributed free by the Board to school-children, as against 21,000 in the previous year. There are now 576 schools participating in the service, which has been made possible by the willing co-operation of the Education Department, the Education Boards, the Advisory Committees, and the speakers.

#### *Talks (General).*

With a view to marshalling the best available talent, a Talks Department was created during the year. As a result, many new and capable speakers have been broadcast on a variety of topics. In the coming year it is proposed to take further advantage of the right which the Board now possesses to arrange talks and debates on controversial topics.

Included in the list of speakers heard either direct from the national stations or by rebroadcasts from overseas stations were His Majesty King George V, H.R.H. the Prince of Wales, the Right Hon. Stanley Baldwin, the late Earl Jellicoe, the Right Hon. J. A. Lyons, Lord Baden-Powell and Lady Baden-Powell, the Rev. Dr. Gordon (Ralph Connor), General Evangeline Booth, Dr. Kagawa, the late Sir Charles Kingsford-Smith, Dr. Bertram Thomas, Mr. Paul Harris, Mr. Harold Gatty, Miss Jean Batten, and Miss Helen Twelvetrees.

#### *Plays.*

Two hundred and thirty-nine plays were broadcast during the year. Worthy of special mention were the following: "Trojan Women," "Twelfth Night," "The Skin Game," "How he lied to her Husband," "The Flying Horse Clipper," "The Mary Celeste," and "David Copperfield."

#### *Overseas Rebroadcasts.*

Some of the notable events and speeches broadcast by the Empire Short-wave Station and rebroadcast by the national stations worthy of mention were descriptions of proceedings in connection with the Jubilee of His Majesty King George V; the Aldershot Military Tattoo; speeches at the inaugural luncheon of the Empire Parliamentary Association Conference, London; the Armistice Day Ceremony at the Cenotaph, Whitehall, London; speeches at the International Labour Conference at Geneva; commentary on the shooting in the final stages of the King's Prize at Bisley; running description of the Grand National Steeplechase at Aintree; description of the ceremony of Chaining the Bard at the Welsh Eisteddfod; commentaries on several of the matches played by the New Zealand Representative Rugby Team in Great Britain.

#### *Outside Broadcasts and Sporting Broadcasts.*

Among the many outside broadcasts arranged during the year were relays of the proceedings at a number of official functions in connection with the visit to the Dominion of H.R.H. The Duke of Gloucester; relay of the civic farewell at Wellington to Lord and Lady Bledisloe, and a description of the scene at the Wellington wharf on the occasion of their departure from New Zealand; description of the ceremony at Parliament Buildings, Wellington, of swearing-in Lord Galway as Governor-General of New Zealand, and the proceedings at civic receptions to Their Excellencies; commentary from the Heretaunga Golf Links on the Golf Test Match, New Zealand *v.* Great Britain.

Sporting broadcasts were many and varied: One hundred and fifteen race meetings were dealt with; commentaries were given on 133 Rugby matches, on 76 wrestling matches, and on 30 boxing bouts. Yacht races were described on thirteen and swimming races on twelve occasions.

#### *Special Services.*

During the year 314 appeals were broadcast for information regarding missing persons or persons required on account of the serious illness of relatives.

Numerous appeals were broadcast for funds for charities and twelve successful public concerts were arranged by the Board's staff in aid of Mayors' Relief Funds.

Reports of wool sales were broadcast frequently for the information of wool-growers, and special weather reports for farmers were given during the lambing and shearing seasons.

Talks on gardening, book reviews, and advice to motorists were given at regular periods throughout the year.

Special attention was devoted to the broadcasting of results on the night of the General Election and the service given was the subject of general commendation.

News.

By arrangement with the United Press Association, a limited amount of cable news was broadcast each evening in addition to the local news service made possible by courtesy of the daily newspapers.

PROGRAMME ANALYSIS.

A dissection of the matter broadcast during the 27,181 transmitting-hours shows that music took up 70 per cent. of the broadcasting-time. The following analysis sets out the position in detail :—

| Item.                                                  | Percentage of<br>Programme Time. |
|--------------------------------------------------------|----------------------------------|
| Music—                                                 |                                  |
| Serious .. .. .                                        | 21·793                           |
| Light .. .. .                                          | 43·467                           |
| Modern dance .. .. .                                   | 5·165                            |
| Old-time dance .. .. .                                 | 0·232                            |
| Plays and sketches .. .. .                             | 4·312                            |
| Sporting commentaries and sporting talks .. .. .       | 2·862                            |
| Talks—General ; educative, including school broadcasts | 6·515                            |
| News, weather and market reports, announcements, &c.   | 7·218                            |
| Church and devotional services .. .. .                 | 3·598                            |
| Children's sessions .. .. .                            | 4·838                            |
|                                                        | 100·000                          |

RECEIVING LICENSES.

The number of radio receiving licenses at 31st December, 1935, was 183,830, an increase of 112,377 over the number in existence when the Board took over the service on 1st January, 1932. As the estimated number of dwellings in New Zealand is 370,000, it will be seen that approximately every other house is equipped with a radio receiving set.

Hereunder are shown the increases in licenses during the past six years :—

|                             | Number of<br>Licenses. | Increase<br>for Year. |
|-----------------------------|------------------------|-----------------------|
| 31st December, 1929 .. .. . | 50,273                 | ..                    |
| 31st December, 1930 .. .. . | 60,162                 | 9,889                 |
| 31st December, 1931 .. .. . | 71,453                 | 11,291                |
| 31st December, 1932 .. .. . | 88,993                 | 17,540                |
| 31st December, 1933 .. .. . | 113,053                | 24,060                |
| 31st December, 1934 .. .. . | 148,284                | 35,231                |
| 31st December, 1935 .. .. . | 183,830                | 35,546                |

Percentage of Licenses to Population.

In the Dominion there are now 11·78 licenses per hundred of population.

The table below shows the position, based on the latest figures obtainable, in the seven countries having the greatest density of licenses :—

| Country.              | Date to which<br>Percentage refers. | Percentage of Licenses<br>to Population. |
|-----------------------|-------------------------------------|------------------------------------------|
| Denmark .. .. .       | 31st December, 1934 .. .. .         | 16·000                                   |
| Great Britain .. .. . | 31st December, 1934 .. .. .         | 14·725                                   |
| Sweden .. .. .        | 31st December, 1934 .. .. .         | 11·803                                   |
| New Zealand .. .. .   | 31st December, 1935 .. .. .         | 11·783                                   |
| Australia .. .. .     | 31st December, 1935 .. .. .         | 11·430                                   |
| Netherlands .. .. .   | 31st December, 1934 .. .. .         | 10·886                                   |
| Germany .. .. .       | 31st December, 1934 .. .. .         | 9·422                                    |

New Zealand towns (as at 30th November, 1935) :—

| Town.               | Percentage of Licenses<br>to Population. | Percentage Increase<br>since 30th November, 1934. |
|---------------------|------------------------------------------|---------------------------------------------------|
| Masterton .. ..     | 19·10                                    | 3·36                                              |
| Whangarei .. ..     | 17·51                                    | 4·77                                              |
| Wellington .. ..    | 16·86                                    | 2·31                                              |
| Hamilton .. ..      | 16·72                                    | 3·51                                              |
| Blenheim .. ..      | 16·70                                    | Nil.                                              |
| Ashburton .. ..     | 16·30                                    | 3·09                                              |
| Palmerston North .. | 16·05                                    | 4·76                                              |
| Oamaru .. ..        | 15·06                                    | 2·27                                              |
| Christchurch .. ..  | 14·96                                    | 2·84                                              |
| Hastings .. ..      | 14·94                                    | 3·91                                              |
| New Plymouth .. ..  | 14·38                                    | 2·41                                              |
| Rotorua .. ..       | 13·71                                    | 3·71                                              |
| Bluff .. ..         | 13·71                                    | 3·36                                              |
| Wanganui .. ..      | 13·29                                    | 2·12                                              |
| Napier .. ..        | 12·92                                    | 2·24                                              |
| Auckland .. ..      | 12·91                                    | 2·60                                              |
| Dunedin .. ..       | 12·87                                    | 2·36                                              |
| Nelson .. ..        | 12·29                                    | 2·21                                              |
| Timaru .. ..        | 12·17                                    | 2·69                                              |
| Greymouth .. ..     | 11·92                                    | 1·78                                              |
| Gisborne .. ..      | 11·32                                    | 1·81                                              |
| Invercargill .. ..  | 11·27                                    | 2·09                                              |
| Westport .. ..      | 10·34                                    | No previous figures.                              |

#### TECHNICAL.

The Board's coverage plan, which aims at providing a first-class service from the national stations all over the Dominion, was considerably advanced during the year.

In the autumn the power of Station 3YA was increased from  $2\frac{1}{2}$  to 10 kilowatts, and resulted in a marked improvement in the service. In many areas where signal strength was previously barely sufficient to over-ride the noise-level, the increase in power has had the effect of providing listeners with a trouble-free service.

In November the new 10 kilowatt transmitter at Highcliff, on the Otago Peninsula, commenced test transmissions which took the form of actual programmes normally radiated by the old 4YA transmitter. This procedure was adopted so that the station equipment and aerial system could be thoroughly tested and adjusted under working-conditions. After complete tests and necessary adjustments, the new station was officially opened on 2nd December last. The transmitter and associated equipment were supplied and erected by Amalgamated Wireless (Australasia), Ltd. The aerial system is similar to that of 1YA, Auckland, there being a single 500 ft. insulated mast suspending a modified half-wave umbrella type aerial. The comprehensive tests which have been conducted indicate that the whole equipment is of a high standard, and conforms to the specification which embraced all modern requirements. The radiation efficiency of the aerial system is particularly good. Both field-strength measurements and reports from listeners have been very satisfactory, and have clearly demonstrated that the time spent on site-testing is well worth while.

With three modern and efficient 10 kilowatt transmitters in operation, there are few localities in the Dominion where two of them are not received at reasonable strength.

The next important work is the erection at Titahi Bay, near Wellington, of a transmitter having a power of 60 kilowatts unmodulated aerial energy. The order for the equipment was placed some months ago, Amalgamated Wireless (Australasia), Ltd., being the successful tenderers. It is anticipated that the new transmitter will be brought into service towards the end of the present year. The aerial system will be similar to the new 4YA, but the mast will be 700 ft. high. A mast of this height is being erected because the wave-length of the new transmitter will be longer than that of 4YA, and a higher mast is necessary in order to obtain the same efficient radiation. It is confidently predicted that the new 2YA transmitter will give a coverage of a national character. It will be possible to hear the new station night and day with modern receivers in all reasonably quiet localities.

The incidental technical equipment required in a modern broadcasting service, such as outside relay equipment, microphones, studio and microphone amplifiers, testing apparatus (including cathode ray oscillographs), has been brought up to date during the year.

As opportunity offers, further field-strength measurements are being made in order to complete the survey of reception conditions throughout the Dominion.

Recording equipment is now in use in the studio at 2YA, Wellington, and is proving a most useful adjunct. Many important events occurring at times unsuitable for broadcasting are being recorded and transmitted at an hour suitable to the majority of listeners. A library of special recordings of noteworthy events and talks by prominent people is also being built up, not only with a view to future programmes, but also with the object of preserving a permanent record for the Dominion.

## BROADCASTING LEGISLATION, ETC.

The Broadcasting Amendment Act, 1934–35, which came into force on 1st April, 1935, increased the numerical strength of the Board from three to seven, and charged it with the additional responsibility of supervising the programmes broadcast by private broadcasting stations. In carrying out this duty the Board interfered as little as possible with the programme arrangements of the stations, and no restrictions were imposed which did not apply to the national stations.

The Board desires to place on record the valuable service rendered to broadcasting by Mr. L. R. C. Macfarlane, ex-member of the Board, whose term of office expired on 31st March, 1935; also by Messrs. J. H. Owen, A. B. Chappell, J. S. Anchor, F. T. Davis, W. A. Waters, C. R. Russell, H. Booth, and A. W. Jones, members of the Advisory Council to the Board. The Council went out of existence as a result of the Broadcasting Amendment Act, 1934–35.

## SUBSIDIZED PRIVATE BROADCASTING STATIONS.

Regular monthly subsidies, which were originally granted to private stations operating in areas where reception from the Board's stations was indifferent, were paid throughout the year to eight such stations, and assistance in the form of gramophone recordings was also given. Relays of national programmes were also arranged regularly in some cases. Station 1ZH, Hamilton, ceased operations in August, 1935, and was replaced on the subsidized list by Station 4ZC, Cromwell.

Following are particulars of the stations at present being subsidized: 2YB, New Plymouth; 2ZF, Palmerston North; 2ZD, Masterton; 2ZJ, Gisborne; 2ZH, Napier; 3ZR, Greymouth; 4ZP, Invercargill; and 4ZC, Cromwell.

## FINANCIAL REPORT.

The Board's fourth balance-sheet and the Revenue Account for the year 1935, certified by the Controller and Auditor-General, are presented with this report. During the year the new 4YA transmitter was erected, the total cost of land, buildings, and equipment at Highcliff and Dunedin being approximately £37,000. An amount of £9,728 14s. was expended in additional equipment to increase the power of the 3YA transmitter from  $2\frac{1}{2}$  to 10 kilowatts.

## BALANCE-SHEET.

It has been deemed advisable to appropriate from revenue to Accumulated Fund the sum of £75,000 towards meeting capital expenditure. The principal work involving capital expenditure to which the Board is committed is the erection of a 60-kilowatt transmitting-station at Titahi Bay, Wellington. An area of land comprising 100 acres has already been secured, the construction of access roads is in hand, and tenders for the transmitting plant have been accepted. Tenders are also being invited for the erection of necessary buildings on the transmitting-site. It is estimated that the total capital expenditure involved in these works will be in the vicinity of £86,000.

The building of suitable studio and office accommodation at Christchurch and Dunedin will have to be undertaken within the next few years, while at Wellington similar provision is a matter of urgency, and demands the attention of the Board in the coming year.

## REVENUE ACCOUNT.

After providing the sum of £19,345 5s. 10d. for depreciation of assets and transferring £75,000 to Accumulated Fund, there is an excess of income over expenditure for the year ended 31st December, 1935, of £2,502 14s. 5d. The expenditure on programmes in 1935 was £15,429 4s. 9d. greater than in 1934. This is an item of expenditure which will increase year by year.

In addition to an expenditure of £1,628 17s. 9d. in providing gramophone recordings, relay lines, and equipment to the eight subsidized private stations, £2,622 was paid in cash subsidies.

The installation of high-powered transmitting plants considerably increases expenditure under the heading "Maintenance of Plant, Power, Salaries of Engineering and Operating Staffs." This is reflected in the accounts now submitted, which show an increase under this heading of £2,227 2s.

The comparative figures for general expenses, &c., are—1935, £14,579 15s. 3d.; 1934, £12,749 8s. 2d.; and for administration, salaries, and expenses are—1935, £7,463 5s. 6d.; 1934, £6,017 0s. 1d. The Board's revenue from licenses was £195,038 2s. 9d. in 1935, as against £164,928 10s. 8d. in 1934. As from 1st April, 1935, the Board agreed to accept 23s. per receiving-license fee instead of 25s. provided for in the agreement with the Minister. From the date mentioned, the cost of a license was reduced from 30s. to 25s.

H. D. VICKERY, Chairman.

W. H. COCKER,

GEO. R. HUTCHINSON,

H. G. LIVINGSTONE,

ERNEST PALLISER,

J. L. PASSMORE,

S. KENNETH PHILLIPS,

} Members of the Board.

THE NEW ZEALAND BROADCASTING BOARD.

REVENUE ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1935.

| <i>Expenditure.</i>                                                                                                                                                                                                                            |          |    |    | <i>Income.</i>                                                |    |    |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----|----|---------------------------------------------------------------|----|----|----------|
| To                                                                                                                                                                                                                                             | £        | s. | d. | By                                                            | £  | s. | d.       |
| Expenditure on programmes, including payments to artists, performing rights, relay lines, music, salaries and expenses of programme staff, records, stationery, and sundry miscellaneous items . . . . .                                       | 61,596   | 18 | 7  | Licence fees . . . . .                                        | .. | .. | 195,038  |
| Maintenance of plant, power, salaries of engineering and operating staffs . . . . .                                                                                                                                                            | 14,025   | 0  | 1  | Net interest . . . . .                                        | .. | .. | 2,006    |
| General expenses, including rent, rates, insurance, lighting, heating, legal, audit, printing, stationery, salaries and wages, telephones, travelling-expenses, repairs and maintenance of buildings, and sundry miscellaneous items . . . . . | 14,579   | 15 | 3  | Proceeds from sale of assets previously written off . . . . . | .. | .. | 90       |
| Administration salaries and expenses, including expenses of Advisory Council . . . . .                                                                                                                                                         | 7,463    | 5  | 6  |                                                               |    |    | 6        |
| Subsidies to "B" stations . . . . .                                                                                                                                                                                                            | 2,622    | 0  | 0  |                                                               |    |    | 10       |
| Depreciation of assets . . . . .                                                                                                                                                                                                               | 19,345   | 5  | 10 |                                                               |    |    | 6        |
| Appropriation towards meeting capital expenditure . . . . .                                                                                                                                                                                    | 75,000   | 0  | 0  |                                                               |    |    | 5        |
| Balance . . . . .                                                                                                                                                                                                                              | 2,502    | 14 | 5  |                                                               |    |    |          |
|                                                                                                                                                                                                                                                | £197,134 | 19 | 8  |                                                               |    |    | £197,134 |

BALANCE-SHEET AS AT 31ST DECEMBER, 1935.

|                                                          |          | Assets. |    |
|----------------------------------------------------------|----------|---------|----|
| I. Land and buildings—                                   | £        | s.      | d. |
| Balance at 1st January, 1935, less depreciation .. .. .  | 69,408   | 13      | 5  |
| Additions during 1935 at cost, less depreciation .. .. . | 19,682   | 7       | 8  |
|                                                          | 89,091   | 1       | 1  |
| II. Machinery and plant—                                 |          |         |    |
| Balance at 1st January, 1935, less depreciation .. .. .  | 26,783   | 3       | 8  |
| Additions during 1935 at cost, less depreciation .. .. . | 32,850   | 2       | 2  |
|                                                          | 59,633   | 5       | 10 |
| III. Office and studio equipment—                        |          |         |    |
| Balance at 1st January, 1935, less depreciation .. .. .  | 5,499    | 4       | 6  |
| Additions during 1935 at cost, less depreciation .. .. . | 2,876    | 19      | 2  |
|                                                          | 8,376    | 3       | 8  |
| IV. Sundry debtors and prepayments .. .. .               | ..       | ..      | .. |
| V. Post and Telegraph Department—                        |          |         |    |
| Investment Account .. .. .                               | 45,000   | 0       | 0  |
| License Fees Account .. .. .                             | 34,038   | 2       | 9  |
|                                                          | 79,038   | 2       | 9  |
| VI. Cash at bank and in hand—                            |          |         |    |
| At bank .. .. .                                          | 1,037    | 18      | 11 |
| In hand .. .. .                                          | 130      | 0       | 0  |
|                                                          | 1,167    | 18      | 11 |
|                                                          | £239,361 | 1       | 11 |

H. D. VICKERY, Chairman.  
W. H. COCKER,  
GEO. R. HUTCHINSON,  
H. G. LIVINGSTONE,  
ERNEST PALLISER,  
J. L. PASSMORE,  
S. KENNETH PHILLIPS,  
E. C. HANDS, General Manager.

Members of the Board.

I hereby certify that the Revenue Account and Balance-sheet have been duly examined and compared with the relative books and documents submitted for audit, and correctly state the position as disclosed thereby.—G. F. C. CAMPBELL, Controller and Auditor-General.

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