

1951-52.

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA.

---

## THIRD ANNUAL REPORT

OF THE

# AUSTRALIAN BROADCASTING CONTROL BOARD.

YEAR ENDED 30TH JUNE, 1951.



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# AUSTRALIAN BROADCASTING CONTROL BOARD.

## THIRD ANNUAL REPORT.

*The Honorable the Postmaster-General:*

In conformity with the provisions of section 6P of the *Broadcasting Act 1942-1951*, the Australian Broadcasting Control Board has the honour to furnish its Report, being the Third Annual Report of the Board, on its operations during the year ended 30th June, 1951, together with financial accounts in the form approved by the Treasurer, and the report of the Auditor-General on those accounts.

2. This report is arranged as follows:—

- Part I.—Introductory.
- Part II.—Administration.
- Part III.—Technical Services.
- Part IV.—Programme Services.
- Part V.—General.

### PART I.—INTRODUCTORY.

#### MEMBERSHIP OF THE BOARD.

3. Section 6B. of the Act provides that the Board shall consist of three members appointed by the Governor-General, one of whom shall be chairman. The Board was constituted on 15th March, 1949, when Mr. Lawrence Bede Fanning, I.S.O., was appointed chairman for a period of three years, and Messrs. Clive Ogilvy and Robert Gumley Osborne, B.A., LL.B., were appointed members, each for a period of seven years. Mr. Clive Ogilvy informed the Minister, on 28th June, 1951, of his intention to resign from the Board and his resignation was subsequently accepted by His Excellency the Governor-General, taking effect as from 31st July, 1951.

4. This report had not been completed when the Minister granted leave of absence (commencing on 3rd December, 1951) to the Chairman on account of ill-health; this period of leave was subsequently extended to 29th February, 1952. On 14th December, 1951, the Governor-General in Council (*see Gazette 1952*, page 1332) appointed Mr. Osborne to be Acting Chairman of the Board during the period commencing on 3rd December, 1951, and continuing during the absence on leave of the Chairman, and also appointed Mr. Robert Bruce Mair, B.E.E., A.M.I.E. (Aust.), the Director, Technical Services, on the staff of the Board, to be a member of the Board during the period commencing on 3rd December, 1951, and ending on 14th March, 1952. In the absence of the Chairman, this report is signed by the Acting Chairman and Mr. Mair.

#### FUNCTIONS OF THE BOARD.

5. The principal functions of the Board are set out in section 6K. of the Act, as follows:—

- (a) to ensure the provision of services by broadcasting stations, television stations and facsimile stations, and services of a like kind, in accordance with plans from time to time prepared by the Board and approved by the Minister;
- (b) to ensure that the technical equipment and operation of such stations are in accordance with such standards and practices as the Board considers to be appropriate;
- (c) to ensure that adequate and comprehensive programmes are provided by such stations to serve the best interests of the general public.

6. The Board has other functions relating to broadcasting, television, and other services, and details of these are set out in paragraphs 42-45 of its First

Annual Report. (They are also referred to, where appropriate, in this report.) In particular, the Board is required to determine the location, operating power and frequency of all broadcasting and television stations and to advise the Minister on all matters relating to the licensing of commercial broadcasting stations.

#### AUSTRALIAN BROADCASTING SERVICES.

7. The First Report of the Board reviewed briefly the development of broadcasting services in Australia up to the time of appointment of the Board. The Second Report contained a general review by the Board of the Australian broadcasting structure and expressed the view that the system should be expanded to provide a more adequate broadcasting service, especially in rural areas. Some preliminary details were given of the measures which the Board considered necessary to effect desirable improvements in both the National and Commercial Broadcasting Services.

8. The Board is now glad to be able to report that considerable progress has been made with its plans for the development of both services and that in conformity with those plans, some new stations have been established during the year under review, others are in course of construction, and arrangements have been made for increasing the power of many existing stations, some of which are already operating at the higher power determined by the Board.

### PART II.—ADMINISTRATION.

#### MEETINGS OF THE BOARD.

9. The Board met regularly throughout the year at its office in Melbourne to consider matters of policy requiring the attention of the full Board, and in accordance with its desire to foster close relations with broadcasters, listeners and representatives of the broadcasting industry throughout the Commonwealth, also held meetings in Sydney and Adelaide. Special meetings were also held at Newcastle and Dubbo.

10. The Board had completed arrangements to visit Western Australia in June, 1951, but because of Mr. Ogilvy's impending resignation and official reasons which prevented the Chairman from leaving Melbourne at the time, this mission was undertaken by Mr. Osborne, accompanied by senior officers of the Board. In the course of their tour of Western Australia, the goldfields area, the south-west of the State and the northern and eastern wheat belts were visited and in each country centre an opportunity was afforded to local governing bodies, Chambers of Commerce, Farmers' Unions, Parents and Citizens' Associations and other similar organizations to express their views concerning the broadcasting services available in the district. Other visits were made during the year by members or officers of the Board to various districts in all States. The extensive investigations which were made in the course of these visits provided confirmation of the view expressed in the Second Report as to the desirability of the Board obtaining first-hand information concerning the broadcasting services, especially in country districts.

#### CONSULTATION WITH THE AUSTRALIAN BROADCASTING COMMISSION, REPRESENTATIVES OF COMMERCIAL BROADCASTING STATIONS AND OF THE BROADCASTING AND ELECTRICAL INDUSTRIES.

11. During the year, the Board consulted the Australian Broadcasting Commission and representatives of commercial broadcasting stations in the exercise of

its functions in relation to the programmes of the National and Commercial Broadcasting Services respectively. The Board also kept the Commission fully informed concerning its plans for expanding the effective coverage of the National Broadcasting Service and before reaching any conclusions in this regard, carefully considered views which had been expressed by the Commission. Representatives of commercial broadcasting stations were similarly consulted concerning the Board's proposals for increasing the power of such stations. Several meetings were held during the year with the Liaison Committee appointed by the Australian Federation of Commercial Broadcasting Stations to confer with the Board. On 30th October, 1950, the Annual Convention of the Federation at Victor Harbour was opened on behalf of the Minister by the Chairman, who was accompanied by the other members of the Board.

12. The Board also had discussions with representatives of advertisers (the Australian Association of Advertising Agencies) and manufacturers (The Federal Council of the Electrical, Radio and Telephone Manufacturers of Australia) on matters affecting the particular branches of the broadcasting industry in which they are interested.

#### STAFF OF THE BOARD—HEAD OFFICE.

13. There has been no substantial change in the Head Office organization of the Board, which still consists of three divisions, the Administrative Division, the Technical Services Division and the Programme Services Division. The total Head Office staff employed by the Board on 30th June, 1951, in conformity with the organization approved by the Public Service Board, numbered 40.

#### STATE ORGANIZATIONS.

14. As was mentioned in our Second Report, it is, in the opinion of the Board, imperative that facilities should exist whereby the Board can be kept fully, reliably and expeditiously informed by a properly qualified staff on all aspects of broadcasting in the Commonwealth. The most effective arrangement, the Board feels, would be the establishment of a small staff in each State which would be under its direct control. The Board has, however, in accordance with the Minister's wishes, conferred with the Director-General, Posts and Telegraphs, for the purpose of formulating an alternative scheme, under which the functions to be performed in the States could be discharged, on the Board's behalf, by officers of the Post Office.

15. Discussions towards this end were proceeding at the close of the period covered by the Board's Second Report, and subsequently resulted in a decision being reached that officers of the Engineering Branch of the Postmaster-General's Department would undertake on behalf of the Board, the inspection of broadcasting stations, the conduct of field strength surveys and certain other technical functions. The Board's Head Office engineers will continue to make such special investigations as the Board deems necessary from time to time. It had been intended as part of this alternative scheme that the Board would appoint a direct representative in each State to attend to other matters, but in view of the Government's direction that reductions in staff were to be effected, it was decided, after further consultation with the Director-General, that the Superintendent, Wireless Branch, in each State should act as the official representative of the Board. The Board appreciates the helpful attitude of the Director-General, Posts and Telegraphs, in this matter and the generous co-operation of his officers.

#### LICENSING OF COMMERCIAL BROADCASTING STATIONS.

16. The statutory provisions relating to the licensing of commercial broadcasting stations are contained in Part III, of the *Broadcasting Act 1942-1951*. The

power to grant, renew, suspend or revoke licences is conferred upon the Minister and without his consent, a licence may not be transferred nor otherwise disposed of. Section 52A. of the Act provides that before exercising any of his powers in relation to the licensing of stations, the Minister shall take into consideration any recommendations which have been made by the Board as to the exercise of those powers.

17. Subject to any direction of the Minister, the Board determines the location, operating power and frequency of each commercial broadcasting station. With the authority of the Minister, the Board undertakes the detailed administration of the provisions of the Act relating to the licensing of commercial broadcasting stations and of the *Commercial Broadcasting Stations Licence Fees Act 1942*. The succeeding paragraphs contain further particulars relating to the licensing procedure and information concerning the stations which were operating during the year in pursuance of licences granted or renewed by the Minister.

#### GRANT OF NEW LICENCES.

18. Only one licence for a commercial broadcasting station was granted during the year. It was granted to The People's Printing and Publishing Company of Western Australia Ltd. (the licensee of station 6KY, Perth), for station 6NA Narrogin. Approval had been given for this licence in September, 1948, but because of many difficulties experienced by the licensee in establishing the station, notably problems arising from shortages of man-power and building materials, it did not commence operations until 20th June, 1951.

19. As is mentioned in paragraphs 63-66, the Board's plans for the development of the Commercial Broadcasting Service envisage the establishment of several additional stations in localities which are not yet assured of consistently reliable reception of programmes from any existing commercial stations. The licensing of three additional stations in Western Australia has already been recommended to the Minister.

20. Twenty-seven applications were received during the year for licences for new commercial stations and the total number recorded on 30th June, 1951, was 982, distributed among the States as follows:—

State.	Country.	Metropolitan.	Total.
New South Wales .. ..	322	79	401
Victoria .. ..	120	70	190
Queensland .. ..	147	34	181
South Australia .. ..	57	41	98
Western Australia .. ..	30	21	51
Tasmania .. ..	27	23	50
Northern Territory .. ..	..	..	11
Total .. ..	703	268	982

Many of these applications date from the early years of broadcasting and the Board is satisfied, from investigations it has made in respect of applications for certain localities, that it would be misleading to accept the view that there are at the present time 982 applicants who are anxious to establish new commercial broadcasting stations. In the cases examined by the Board, some of the applicants could not be traced and others indicated that they were no longer interested in the matter. There is obviously still a very persistent demand for additional licences, but for the reasons mentioned the Board feels that the number of really effective applications is considerably less than the 982 recorded on 30th June, 1951.

## RENEWAL OF LICENCES.

21. Section 46 (2.) of the *Broadcasting Act 1942-1951* provides that—

The Minister, if he deems it desirable, may from time to time renew a licence for any period not exceeding one year from the date of expiration of the current licence or renewal. A licence for a commercial broadcasting station confers great privileges upon the licensee and it also imposes great responsibilities to conduct a service in the public interest in conformity with the conditions specified in the Act. It is the duty of the Board to ensure that the requirements of the Act are fully observed by licensees and in this respect the Board considers that it should thoroughly investigate the performance of each station every year as a preliminary to its submission of a recommendation to the Minister concerning the renewal of the licence.

22. In the United States of America and the Dominion of Canada, where there are commercial broadcasting systems operating under much the same kind of licensing system as in Australia, it is the practice of the authorities concerned to make a critical examination of each station's service during the preceding licence period before its licence is renewed. The Board is following the same procedure and, to facilitate its investigations, it has, with the approval of the Minister, introduced a new form of application for renewal on which each licensee will supply details which, in conjunction with information provided by the Board's officers relating to the technical operation, the programme service and commercial aspects of a station, will enable the Board to make a well informed recommendation to the Minister in each case.

23. The Board is glad to report that, during the past year, there were no deficiencies in the services being supplied by commercial stations which were sufficiently serious to justify the withholding of the renewal of any current licence. Accordingly, the Board recommended, and the Minister approved, the renewal of each existing licence for a period of one year.

## CURRENT LICENCES FOR COMMERCIAL BROADCASTING STATIONS.

24. On the 30th June, 1951, there were 103 licences for commercial broadcasting stations in force or one more than at 30th June, 1950. A list of licensees is contained in Appendix "A". A map of Australia showing the location of all broadcasting stations is included after Appendix "B". The disposition of the licences according to States is shown hereunder:—

State.	Metropolitan area.	Country districts.	Total.
New South Wales (including Australian Capital Territory)	7	29	36
Victoria .. .. .	6	13	19
Queensland .. .. .	4	16	20
South Australia .. .. .	3	5	8
Western Australia .. .. .	4	8	12
Tasmania .. .. .	2	6	8
Commonwealth .. .. .	26	77	103

Station.	Licensee.	Date of Original Consent.	Date of Expiry of Existing Consent.	Operating Company.
2CH Sydney ..	New South Wales Council of Churches Service	14.4.36	31.12.56	Amalgamated Wireless (A/asia.) Ltd.
3CV Maryborough ..	Central Victoria Broadcasters Pty. Ltd. ..	17.12.41	30.6.52	J. R. Birt Pty. Ltd.
3SH Swan Hill ..	Swan Hill Broadcasting Co. Pty. Ltd. ..	5.4.37	31.12.56	Central Murray Broadcasters Pty. Ltd.
3KZ Melbourne ..	Industrial Printing and Publicity Co. Ltd. ..	10.2.32	1.7.53	3KZ Broadcasting Co. Pty. Ltd.
3XY Melbourne ..	Station 3XY Pty. Ltd. ..	17.5.35	1.5.56	Efftee Broadcasters Pty. Ltd.
5RM Renmark ..	River Murray Broadcasters Ltd. ..	13.9.37	31.3.52	Hume Broadcasters Ltd.

## FEES FOR LICENCES FOR COMMERCIAL BROADCASTING STATIONS.

25. Under Section 48 of the Act, the licensee of each commercial broadcasting station is required to pay an annual licence-fee, which is assessed in accordance with the terms of the *Commercial Broadcasting Stations Licence Fees Act 1942*, which provides for an annual fee of £25 per annum, plus one-half of one per centum of the gross earnings of any station which in the preceding year has made a profit. The total amount of licence-fees payable during 1950-51 was £17,356, made up as under:—

State.	Metropolitan.	Country.	Total.
	£	£	£
New South Wales .. .. .	3,765	3,467	7,232
Victoria .. .. .	2,824	1,635	4,459
Queensland .. .. .	1,250	1,486	2,736
South Australia .. .. .	958	206	1,164
Western Australia .. .. .	423	501	924
Tasmania .. .. .	373	468	841
Commonwealth .. .. .	9,593	7,763	17,356

## COMMERCIAL BROADCASTING STATIONS—FINANCIAL RESULTS OF OPERATIONS.

26. The following particulars, which have been extracted from statements submitted by the licensees of commercial broadcasting stations since 1942, in pursuance of the provisions of section 67 (1.) (c) of the Act, show the financial results from the operations of such stations during the past eight years:—

Year.	Number of stations in operation.	Stations making a profit.	Stations showing a loss.	Total revenue.	Total expenditure.	Total profit.
				£	£	£
1941-42	97	53	44	1,330,000	1,248,188	81,812
1942-43	96	66	30	1,298,297	1,157,294	141,003
1943-44	98	87	11	1,871,851	1,491,967	379,884
1944-45	100	89	11	2,184,686	1,758,905	425,781
1945-46	100	86	14	2,279,719	1,851,042	428,677
1946-47	101	85	16	2,388,587	2,013,363	375,224
1947-48	102	86	16	2,774,371	2,278,319	496,052
1948-49	102	90	12	3,212,253	2,619,474	592,779
1949-50	102	84	18	3,178,360	2,748,594	429,766

## TRANSFER OF LICENCES AND LEASING OF STATIONS.

27. Section 50 (1.) of the Act provides that—

Except with the consent in writing of the Minister, a licensee of a commercial broadcasting station shall not transfer the licence or assign, sublet or otherwise dispose of the licence or admit any other person to participate in any of the benefits of the licence, or to exercise any of the powers or authorities granted by the licence.

No licences for commercial broadcasting stations were transferred during the year ended 30th June, 1951.

28. At the 30th June, 1951, the following six stations were, with the consent of the Minister, being operated by persons other than the licensees:—

The agreements under which these six stations are being operated were originally made many years prior to the establishment of the Board, which accepts the long standing arrangements between the licensees and the operating companies. The Board would, however, be extremely reluctant to recommend that the Minister should consent to any new agreements of this character, because it considers that the licensee of each station should be required to accept full responsibility for the conduct of the service provided by the station for which the licence was granted.

29. It is appropriate, in connexion with the provisions of section 50 of the Act, to refer to the question of transactions in shares in companies holding licences for commercial broadcasting stations. The Act does not contain any provisions regulating the transfer of shares in such companies but some control over these transactions has been effected by the administrative process of requiring—

- (a) each prospective licensee company to submit a complete list of shareholders to the Minister as a pre-requisite to the grant of a licence;
- (b) each licensee company to submit an up-to-date list of shareholders with its annual application for renewal of its licence; and
- (c) each licensee company to consult the Minister before any substantial transaction affecting the shareholding or control of the company is completed.

The Board reports to the Minister all transactions coming within sub-paragraph (c) which come to the notice of the Board. In its opinion the procedure outlined has, on the whole, proved effective, notwithstanding the obvious difficulties arising in the case of public companies. It is only fair to the great majority of licensees to say that they have quite frankly consulted the Minister or the Board concerning proposed substantial transactions in shares in their companies which would have the result, when completed, of transferring the control of their stations to other parties, directly or indirectly.

#### LIMITATION OF OWNERSHIP OF COMMERCIAL BROADCASTING STATIONS.

30. It is necessary that the Minister and the Board should be in possession of complete information relating to shareholdings in commercial broadcasting companies, not only for the reasons mentioned in the preceding paragraphs, but also for the purposes of section 53 of the Act, which provides that—

(1.) A person shall not own, or be in a position to exercise control, either directly or indirectly, of, more than—

- (a) one metropolitan commercial broadcasting station in any State;
- (b) four metropolitan commercial broadcasting stations in Australia;
- (c) four commercial broadcasting stations in any one State; or
- (d) eight commercial broadcasting stations in Australia.

31. It is the practice of the Board to make a careful examination of the ownership of all commercial broadcasting stations each year and to submit a report to the Minister, based on the information made available to it by licensees, setting out in detail particulars of every case where any person or company is in a position to exercise control of more than one station. The report for the year ended 30th June, 1951, indicated that of the 103 stations which were licensed at that date, 31 were being operated by persons or organizations which were in a position to control only one station and twelve were being operated by persons or organizations which were in a position to control, or were substantially interested in, two stations. The remaining stations,

60 in number, are controlled by persons or organizations which are in a position to control, directly or indirectly, three or more stations, but in no case did it appear to the Board, from the information in its possession, that there had been any infringement of section 53 during the year under review. Newspaper companies or persons substantially interested in newspapers owned 19 of the 103 stations and held shares in 25 other stations.

#### NETWORKS OF COMMERCIAL BROADCASTING STATIONS.

32. Some general observations on the operations of networks of commercial broadcasting stations were contained in paragraphs 45-51 and 56-57 of the Board's Second Report. The two principal networks in existence at present are the Macquarie Broadcasting Network and the Major Broadcasting Network.

33. The Macquarie Broadcasting Network is a proprietary company (Macquarie Broadcasting Service Pty. Ltd.), in which the following member stations were shareholders on 30th June, 1951:—

##### MACQUARIE BROADCASTING NETWORK.

<i>New South Wales—</i>	<i>Victoria—</i>
2CA Canberra.	3AW Melbourne.
2GB Sydney.	
2HR Lochinvar.	<i>South Australia—</i>
2LF Young.	5DN Adelaide.
2LT Lithgow.	
2MW Murwillumbah.	<i>Western Australia—</i>
2PK Parkes.	6IX Perth.
	6MD Merredin.
	6WB Katanning.
<i>Queensland—</i>	<i>Tasmania—</i>
4BH Brisbane.	7HO Hobart.
4BU Bundaberg.	7LA Launceston.
4GY Gympie.	

Stations 2MG Mudgee, 3CV Maryborough, and 5RM Renmark were member stations but not shareholders.

34. Macquarie Broadcasting Service Pty. Ltd. has an arrangement with a number of stations in accordance with which they may co-operate with the network on agreed terms in the sale of station time for the broadcasting of Macquarie programmes. On the 30th June, 1951, the following stations were co-operating stations:—

<i>New South Wales—</i>	3UL Warragul.
2AD Armidale.	3YB Warrnambool.
2AY Albury.	<i>Queensland—</i>
2BE Bega.	4AY Ayr.
2BH Broken Hill.	4CA Cairns.
2BS Bathurst.	4GR Toowoomba.
2DU Dubbo.	4LG Longreach.
2GF Grafton.	4MB Maryborough.
2GN Goulburn.	4MK Mackay.
2HD Newcastle.	4RO Rockhampton.
2KA Katoomba.	4TO Townsville.
2KM Kempsey.	4VL Charleville.
2QN Deniliquin.	4WK Warwick.
2MO Gunnedah.	4ZR Roma.
2RG Griffith.	<i>Western Australia—</i>
2TM Tamworth.	6AM Northam.
2WG Wagga.	6GE Geraldton.
2WL Wollongong.	6KG Kalgoorlie.
<i>Victoria—</i>	<i>Tasmania—</i>
3BA Ballarat.	7AD Devonport.
3BO Bendigo.	7BU Burnie.
3GL Geelong.	7DY Derby.
3MA Mildura.	7QT Queenstown.
3SR Shepparton.	

During the year W.A. Broadcasters Pty. Ltd., licensee of stations 6IX Perth, 6MD Merredin and 6WB Katanning, became a shareholder in the Macquarie Broadcasting Service Pty. Ltd. Stations 6CI Collie,

6PR Perth and 6TZ Bunbury, the licences for which are held by Nicholsons Ltd., ceased to be co-operating stations of the network during the year.

35. The Major Broadcasting Network is not a company, but is an association of stations of which the following were members on 30th June, 1951:—

<i>New South Wales</i> —	5MU Murray Bridge.
2KO Newcastle.	5PI Port Pirie.
2UE Sydney.	5SE Mount Gambier.
<i>Victoria</i> —	<i>Western Australia</i> —
3DB Melbourne.	6CI Collie.
3LK Lubeck.	6PR Perth.
<i>Queensland</i> —	6TZ Bunbury.
4AK Oakey.	<i>Tasmania</i> —
4BK Brisbane.	7EX Launceston.
<i>South Australia</i> —	7HT Hobart.
5AD Adelaide.	

During the year, stations 2UE Sydney, 6CI Collie, 6PR Perth and 6TZ Bunbury became members of the Major Network, and stations 2UW Sydney, 6IX Perth, 6WB Katanning and 6MD Merredin ceased to be members of this network.

36. There are also the following associations of stations or groups of stations in the same ownership which are described as networks, but their operation is confined to one State—

- Victorian Broadcasting Network—Stations 3HA Hamilton, 3SH Swan Hill and 3TR Sale.
- The Queensland Broadcasting Network—Stations 4BC Brisbane, 4GR Toowoomba, 4MB Maryborough 4RO Rockhampton and 4SB Kingaroy.
- The "Advertiser" Broadcasting Network—Stations 5AD Adelaide, 5MU Murray Bridge, 5PI Crystal Brook and 5SE Mount Gambier.
- Whitford's Broadcasting Network—Stations 6PM Perth, 6AM Northam, 6GE Geraldton and 6KG Kalgoorlie.
- The Tasmanian Coastal Broadcasting Network—Stations 7AD Devonport, 7BU Burnie, 7DY Derby and 7QT Queenstown.

#### UNESCO NATIONAL CO-OPERATING BODY FOR RADIO.

37. The Board has, during the year, been represented by one of its members on the National Co-operating Body for Radio established to advise on Australian policy in relation to the general programme of the United Nations Educational, Scientific and Cultural Organization, and to advise and assist in the carrying out of UNESCO projects in Australia and other UNESCO activities. Some account of the scope and functions of the UNESCO National Co-operating Body for Radio in Australia was given in the Second Annual Report of the Board. The members of the Co-operating Body include representatives of the Australian Broadcasting Commission, the Australian Federation of Commercial Broadcasting Stations, the Musicians' Union, Actors' and Announcers' Equity, and the Professional Radio Employees' Institute, as well as of the Board. The National Co-operating Body for Radio held its most recent meeting on 13th March, 1951, at which the UNESCO programme in the field of radio was discussed with a view to advising the Australian Delegation to the Sixth Session of UNESCO General Conference held in Paris on 18th June to 11th July, 1951.

38. The current programme of UNESCO includes the following broadcasting activities:—

- (a) to supply radio broadcasting organizations with documentation and material, written or recorded, designed to promote the purposes of the Organization;
- (b) to supply, whenever possible, on request from Member States, radio material to meet their special requirements;

(c) to arrange the production of radio documentary and feature programmes on education for adults in rural districts, in co-operation with radio producers from Member States and making use of the Organization's mobile recording equipment.

39. A number of recordings have been made by UNESCO and these have been used to an increasing extent by Australian broadcasting stations during the last year. The following are typical subjects:—

- Photographing Atomic Radiation.
- Meeting the Film Experts.
- Science and Racial Barriers.
- Operation Snowball (a special feature of high technical quality outlining the work of the Fundamental Education Centre in Mexico).
- Ceremonial Presentation of the Nobel Prize.
- Chopin Memorial Concert.
- Atomic Energy Research in Australia.

Besides the production of recordings and scripts for use in Member States, UNESCO has had a two-fold interest in the field of broadcasting. It has conducted surveys of various aspects of radio work and published the results in volumes such as *World Communications*, *Education by Radio—School Broadcasting*, and *Training for Radio*. It has also commenced investigation into the possible uses of radio in fundamental education in under-developed countries and, as part of its Technical Assistance activities (which are within the framework of the United Nations Technical Assistance programme) has provided an expert team in radio education to Pakistan.

40. As was suggested in the Board's last report, the significance of broadcasting in furthering the objectives of UNESCO is very great. It is now becoming clear that the various activities of UNESCO in this field are having useful results, most importantly in the development of broadcasting services in countries where these services have made relatively little progress. Useful work has been done in Australia by both national and commercial stations in connexion with the general activities of UNESCO.

#### STATE BROADCASTING ADVISORY COMMITTEES.

41. The State Broadcasting Advisory Committees, whose previous term of appointment expired on 30th September, 1950, have not since been reconstituted in conformity with the provisions of section 6Q of the Act.

#### DEFAMATION BY MEANS OF BROADCASTING.

42. In paragraphs 68-70 of its Second Report, the Board referred to the well known legal difficulties which arise in the application to broadcasting of the law of defamation. The matter is, of course, one for consideration by the State Governments and, at the suggestion of the Board, the Prime Minister invited the attention of the Premiers of the States to the observations which the Board had made on the subject.

#### PART III.—TECHNICAL SERVICES.

43. The Board's Second Report contained a review of existing broadcasting facilities in which it was stated that there were still many listeners in the Commonwealth who are without any reliable service, and that many others were receiving only an indifferent service because the strength of signal available to them was insufficient to override interference experienced as the result of the operation of neighbouring electrical apparatus and of atmospheric disturbances. Some general indication was given of the plans for the improvement and expansion of the existing services which the Board had prepared for the consideration of the Minister in conformity with the obligation imposed on it by the Act to "ensure the provision of services

by broadcasting stations, television stations and facsimile stations, and services of a like kind, in accordance with plans from time to time prepared by the Board and approved by the Minister". In the succeeding paragraphs, more specific information is given of the Board's proposals, and of steps which have already been taken, to extend the effective coverage of both the National and Commercial Broadcasting Services.

#### PLANS FOR THE DEVELOPMENT OF THE NATIONAL BROADCASTING SERVICE.

44. On 30th June, 1950, the National Broadcasting Service was being provided by 39 medium frequency stations and nine shortwave stations. During the succeeding year, which is covered by this report, two new medium frequency national stations, namely, station 4QA Mackay (Queensland) and 5LN Port Lincoln (South Australia), were established, as a first step in the implementation of the Board's plans for improving the technical efficiency of the National Broadcasting Service. A list of national broadcasting stations in operation on 30th June, 1951, is contained in Appendix B, which is followed by a map showing the location of all Australian stations.

45. The complete plans for the improvement of the National Broadcasting Service envisage the erection of new stations and the increase in the operating power and the improvement of the radiating systems of many existing stations. In developing these plans, the Board had the following objectives in mind:—

- (a) to extend the coverage of the medium frequency national stations so as to provide satisfactory day and night reception of at least one such station for listeners throughout the Commonwealth except those in the distant isolated areas for whom transmissions are provided in the shortwave (high frequency) bands;
- (b) to enable the great majority of listeners, who are outside the primary coverage of the two national stations in each of the capital cities and Newcastle, to obtain from medium frequency stations satisfactory night time reception of alternative programmes of the Australian Broadcasting Commission;
- (c) to provide a higher signal to noise ratio in order to ensure a better service for listeners, particularly in industrial areas where interference from electrical equipment is prevalent and also in the large areas of the Commonwealth which are frequently subject to atmospheric disturbances;
- (d) to protect service to Australian listeners against interference from very high powered stations which are being erected in neighbouring countries.

The ideal solution of the problem of achieving all these objectives would probably be the establishment of a large number of new stations and the installation of a second transmitter at each of the existing national regional stations, but this course can be only partially followed because of technical and economic considerations. On the one hand, the number of frequency channels which are available for broadcasting purposes is restricted by the International Radio Regulations and by regional agreements (to which matter reference is made in paragraphs 67-70) and on the other, the cost of providing duplicate transmitters to serve very sparsely populated areas cannot be justified.

46. Having exhaustively considered all aspects of this most important matter, the Board adopted a plan, involving the establishment of twenty new national

stations and the increase in the operating power of 27 existing national transmitters. Details of the proposals are given hereunder:—

#### PROPOSED NEW REGIONAL STATIONS.

Proposed location.	Power (watts).
<i>New South Wales</i> —	
Bega .. .. .	10,000
Glen Innes .. .. .	10,000
Smithtown .. .. .	10,000
<i>Queensland</i> —	
Mackay (already in operation) .. .. .	2,000
<i>South Australia</i> —	
Penola .. .. .	2,000
<i>Tasmania</i> —	
Queensdown .. .. .	2,000

#### PROPOSED NEW LOW POWER STATIONS.

Proposed location.	Power (watts).
<i>New South Wales</i> —	
Armidale .. .. .	200
Canberra .. .. .	200
Murwillumbah .. .. .	200
Wollongong .. .. .	200
<i>Victoria</i> —	
Bendigo .. .. .	200
Warrnambool .. .. .	200
<i>Queensland</i> —	
Gympie .. .. .	200
Southport .. .. .	200
<i>South Australia</i> —	
Mt. Gambier .. .. .	200
Pt. Lincoln (already in operation) .. .. .	200
Renmark .. .. .	200
Woomera .. .. .	50
<i>Western Australia</i> —	
Albany .. .. .	200
Northam .. .. .	200

#### PROPOSED INCREASES IN POWER TO 50,000 WATTS.

	Power (watts).
<i>New South Wales</i> —	
2CR Cumnock .. .. .	from 10,000
2NR Grafton .. .. .	from 7,000
2BL Sydney .. .. .	from 10,000
2FC Sydney .. .. .	from 10,000
<i>Victoria</i> —	
3WV Doon .. .. .	from 10,000
3AR Melbourne .. .. .	from 10,000
3LO Melbourne .. .. .	from 10,000
<i>Queensland</i> —	
4QR Brisbane .. .. .	from 10,000
4QN Townsville .. .. .	from 7,000
<i>South Australia</i> —	
5CL Adelaide .. .. .	from 4,000
<i>Western Australia</i> —	
6WF Perth .. .. .	from 3,400
6WA Wagin .. .. .	from 10,000

#### PROPOSED INCREASES IN POWER TO 10,000 WATTS.

	Power (watts).
<i>New South Wales</i> —	
2CO Corowa .. .. .	from 7,500
2NA Newcastle .. .. .	from 2,000
2NC Newcastle .. .. .	from 2,000
<i>Victoria</i> —	
3GI Sale .. .. .	from 7,000
<i>Queensland</i> —	
4QL Longreach .. .. .	from 200
4QB Pinalba .. .. .	from 2,000
4RK Rockhampton .. .. .	from 2,000
<i>South Australia</i> —	
5AN Adelaide .. .. .	from 2,000
5CK Crystal Brook .. .. .	from 7,500
<i>Western Australia</i> —	
6WN Perth .. .. .	from 1,000
<i>Tasmania</i> —	
7ZL Hobart .. .. .	from 2,000
7ZR Hobart .. .. .	from 500
7NT Kelso .. .. .	from 7,000

#### PROPOSED INCREASES IN POWER TO 2,000 WATTS.

	Power (watts).
5DR Darwin .. .. .	from 200
9PA Port Moresby .. .. .	from 500

47. The complete implementation of the foregoing proposals would, it is estimated, result in 94.5 per cent. of the population of the Commonwealth being able to receive continuously, without any serious interference, at least one national programme, whilst 68 per cent would have available to them continuously satisfactory reception of two national programmes. During the hours of darkness, approximately 99 per cent. of the total population would have the choice of two of the Commission's programmes from medium frequency stations. In addition, the improved signal to noise ratio would ensure that better listening conditions are enjoyed by many thousands of listeners.

48. As was mentioned in the Board's Second Report, the proposal to employ higher power for national broadcasting stations is in conformity with the trend in overseas countries. For instance, Canada, with a somewhat similar area and population to Australia, is providing for the installation of fourteen 50,000-watt transmitters. New Zealand, with a limited area and population to serve, already has two 60,000-watt stations, and 24 stations of 100,000 watts or more are planned by countries in the Pacific region. These stations will be operating within the same band of frequencies as Australian stations—and the Board has information that some will be using the same frequencies as Australian stations—and unless corresponding action is taken to increase the level of power of broadcasting stations in the Commonwealth, there is a distinct danger that the high power transmitters of some of these countries will adversely affect the grade of reception of Australian listeners.

49. In view of these observations concerning the desirability of increasing the power of Australian stations, some explanation is necessary of the proposal to establish several new national stations which will operate on a power of 200 watts. The use of such low power for national stations is a departure from previous practice, but it is necessary because of the fact that the stations concerned will be required to operate on shared channels, under conditions which will necessitate the use of the very low power proposed. However, these stations are intended to serve small areas with a high density of population which do not at present receive a satisfactory service. The 50-watt station at Woomera is a special case, being required to serve only a small population in a restricted area.

50. After discussions with the Board, the Minister, in accordance with section 6K (1.) of the Act, approved in principle of the Board's plans for the development of the National Service, on the understanding that the Board would consult the Postmaster-General's Department, which will, under the Act, be responsible for the establishment and operation of the new stations and for increasing the power of existing transmitters, and also with the Australian Broadcasting Commission for the purpose of enabling the Commission to consider the plans in relation to its policy in respect of programmes. In conformity with the Minister's direction, the Board consulted the Department and the Commission. The Director-General, Posts and Telegraphs, subsequently indicated his general agreement with the Board's proposals for developing the National Service. The Commission also signified its concurrence with the measures which are contemplated after the Board had assured the Commission that consideration would be given to the possibility of allocating frequency channels for additional stations which would enable the Commission to provide a third programme (in addition to the present "national" and "interstate" programmes), at least in the most densely populated regions of the Commonwealth. The Board fully appreciates the keen desire of the Commission to provide a third programme, but many complex problems would have to be solved before technical facilities could be provided for an

additional network of national stations. From investigations which have already been made, it is fairly evident that it would be extremely difficult, if indeed it were practicable, to allocate channels for a third high-powered national station in each capital city. The Board is continuing its study of the question, the solution of which may be found in new developments in the Australian broadcasting structure such as the synchronization of stations or the use of very high frequencies for broadcasting purposes.

51. It was the Board's original intention, subject to the provision of the necessary funds by the Government, that the plan outlined above should be completed within a period of six years, but in view of the need for economy in the use of man-power and materials under existing circumstances, some revision of the works programme will be necessary. This matter was under consideration by the Minister in consultation with the Board and the Post Office at the close of the year, but the Board is confident that it will be found practicable to complete the work most urgently required in the public interest within a reasonable time, even though the remainder of the plan has to be deferred until conditions may be more propitious than at present. In the meantime, both the Board and the Post Office are proceeding with the detailed preliminary planning of the various proposals and considerable progress has already been made in the selection and acquisition of suitable sites for new stations and for the re-location of certain of the existing national transmitters.

52. The existing sites of stations 5CL and 5AN Adelaide, and 7ZL and 7ZR Hobart, are unsuitable for the use of the higher power which is contemplated for these four stations, and it will be necessary to move them to new sites further from the centres of Adelaide and Hobart than at present so as to prevent difficulties which would otherwise arise from excessive field strengths in densely populated areas. New sites have been selected in both cities. It is proposed also to acquire a new site for station 4QN Townsville, the station building and main transmitter of which were unfortunately destroyed by fire on 26th May, 1951. A temporary service on a low-power emergency transmitter is being provided by 4QN at the present time, but it is proposed to instal the new 50,000-watt transmitter at another site which, besides ensuring the more efficient use of the high power, will be easier of access for the staff employed at the station.

#### PLANS FOR THE DEVELOPMENT OF THE COMMERCIAL BROADCASTING SERVICE.

##### *Increased Power.*

53. After some general observations as to the desirability of increasing the power of broadcasting stations in the Commonwealth, the Board, in its Second Annual Report, explained that it intended, as a first stage in its plans for developing the Commercial Broadcasting Service, to improve conditions in areas which were being served by low-powered stations operating on shared frequency channels. With only two exceptions (7HO and 7HT Hobart), all these stations are located outside metropolitan areas and the studies which had been made by the Board had shown clearly that there was ample justification for allocating improved operating conditions to them as a matter of urgency.

54. The question of the power of stations operating in capital cities and those using exclusive channels in country districts raises complex issues of a technical and administrative nature (some of which are discussed in paragraphs 80-91 of the Board's Second Report) and it was considered desirable not to reach any conclusions concerning their operating power until the matter had been further examined and some experience had been gained of the use of higher power by the shared channel stations.

55. The Board approached the problem of power for the shared channel stations with a desire to authorize the maximum possible power, consistent with technical requirements and other relevant considerations, and decided to proceed on the basis that—

- (a) the existing ceiling of 2,000 watts for commercial stations would, for the time being, be retained;
- (b) increases would be granted with as little disturbance as possible to existing frequency allocations;
- (c) equitable operating relationships between competing stations would be preserved; and
- (d) protection against co-channel interference would be afforded to the 2.5 millivolt/metre contour.

For the purpose of allocating higher power to stations operating on shared channels in country districts in accordance with this plan, it was necessary for the Board to adopt certain provisional standards for the allocation of power and frequencies, particulars of which were supplied to the Australian Federation of Commercial Broadcasting Stations. In a subsequent report, the Board will publish revised standards for the allocation of power and frequencies to all medium wave stations.

56. In determining the power of individual stations, due regard had to be paid also to the provisions of an agreement between the Commonwealth and New Zealand, in accordance with which restrictions are imposed on the power which may be used by Australian stations on certain frequency channels. (Particulars of the agreement with New Zealand are contained in paragraph 70.)

57. The Board communicated with the licensees of commercial stations outlining its intentions in regard to the question of power and invited them to submit their views concerning the operating power of their stations. Having considered their observations and undertaken further investigations, the Board tentatively determined the power which it considered appropriate for each station operating on a shared channel and notified the licensees concerned of the increase proposed for their stations. The licensees were invited to comment on the proposals. Following a final review of the whole question, during which special attention was paid to the representations which had been made by licensees, the Board made formal determinations, in pursuance of section 56 of the Act, of the operating power to be used by all shared channel stations, with the exception of four in respect of which a decision has not yet been reached pending further inquiries.

58. Details of the Board's determinations are given in Appendix "C". Summarized, the position is that increased power has been authorized in the case of 56 stations to the extent indicated hereunder—

From	100 watts	to	500 watts	..	..	2
"	200	"	500	"	"	6
"	300	"	500	"	"	1
"	100	"	1,000	"	"	2
"	200	"	1,000	"	"	12
"	300	"	1,000	"	"	3
"	500	"	1,000	"	"	12
"	100	"	2,000	"	"	1
"	200	"	2,000	"	"	4
"	300	"	2,000	"	"	1
"	500	"	2,000	"	"	10
"	1,000	"	2,000	"	"	2

In addition, the Board has authorized six stations (five on a normal operating power of 1,000 watts and one on a normal operating power of 500 watts) to use 2,000 watts during daylight hours, the need to reduce power at sunset in these cases being due either to technical considerations or to the provisions of the New Zealand agreement.

59. Although the licensees of six stations at first showed some reluctance to give effect to the Board's decisions increasing the power of their stations, the action which has been taken by the Board has met with the general approval of broadcasters. At the time this report was being prepared, fifteen stations were already operating on the higher power which has been approved, and two had effected increases to an intermediate level pending the replacement of existing equipment. In addition, one station, for which higher day-time power only was approved, had effected the increase.

60. The result of the Board's plan for increased power for shared channel stations (including the two Hobart stations) is very substantial. The whole structure of country broadcasting has been changed. Instead of 37 stations operating on power below 500 watts, there will, when effect has been given to all approved increases, be only one station with power less than 500 watts, and in that case the restriction is directly due to the terms of the agreement with New Zealand. Previously, there were only four stations operating with power of 1,000 watts, but when the plan is completed, there will be 31 stations on that power. Most important, however, is that whereas previously there were only four shared channel stations, all of which were located in Western Australia, operating with 2,000 watts, there will now be 22 such stations, and six others will be using that power during daylight hours.

61. All these stations have, in consequence of the higher power allocation, been placed in a more satisfactory competitive position compared with the clear channel stations, both in metropolitan and country districts, a condition which should enable them to provide a better service to listeners. From a technical point of view, the higher power will permit a stronger signal to be laid down within the service area of each station and it will to some extent enlarge their coverage during daytime. These advantages, coupled with the fact that licensees are being required to instal up-to-date transmitting equipment and to erect efficient radiating structures, will have the general effect of substantially improving the present standard of reception.

#### FURTHER ACTION NECESSARY.

62. The Board is continuing the review of the operating conditions of shared channel country stations as experience has already indicated that in some cases further changes may still be necessary. The practicability of effecting greater improvements is now, however, more complicated and may involve additional frequency changes. Concurrently, the Board is examining the position of the stations operating on clear channels, both country and metropolitan. Apart from technical considerations, there are a number of difficult economic problems associated with this question and it is evident that the stability of the whole commercial service could quite easily be affected by any decisions which are reached. Whilst the Board is, therefore, approaching the matter with caution, it hopes to be in a position at a reasonably early date, to determine its policy in regard to the operating power of the clear channel stations. The Board has kept the Australian Federation of Commercial Broadcasting Stations informed, through the Liaison Committee appointed by the Federation to confer with the Board, of the procedure which it was following in connexion with its review of the operating power of commercial stations.

#### ADDITIONAL COMMERCIAL BROADCASTING STATIONS.

63. As in the case of the National Broadcasting Service, the Board has reached the conclusion that, in addition to increasing the operating power of commercial broadcasting stations, it will be necessary to

establish some additional stations in order to extend the Commercial Broadcasting Service to certain areas of the Commonwealth which cannot be adequately served by any of the existing stations even after their power has been increased.

64. As was mentioned in the Board's Second Report, the possibility of licensing additional commercial stations is mainly dependent upon the availability of frequency channels and during the year the Board has carefully examined the position in this regard for the purpose of ascertaining what additional channels can be reserved for use by new commercial stations. The Board is now satisfied that it will be practicable to allocate some channels for use by new commercial stations although in most cases they will have to share a channel with another station, or stations, under conditions which will give them a more restricted night-time coverage than that of most existing stations.

65. The allocation of frequencies does not present the same difficulties in the case of Western Australia as in the other States because of the geographical separation between Western Australia and the eastern States and also the time difference of two hours. The Board has therefore been able to make very definite progress in respect of the expansion of the Commercial Service in Western Australia and, following the investigations which were made in that State (*see* paragraph 10), it recommended to the Minister that licences should be granted for new commercial stations:—

- (a) in the Bridgetown-Manjimup area to W.A. Broadcasters Proprietary Limited, the licensee of stations 6IX Perth, 6MD Merredin and 6WB Katanning;
- (b) at a site to be selected in the northern wheat belt to Nicholsons Limited, licensee of stations 6PR Perth, 6CI Collie and 6TZ Bunbury;
- (c) at Albany, to a licensee yet to be selected.

The Minister accented the recommendation of the Board, which is confident that the establishment of these three additional stations will result in the provision of a satisfactory commercial service to most of those listeners in Western Australia who are not at present assured of consistently reliable reception from any commercial station.

66. The Board has also reached tentative conclusions concerning the most suitable locations for additional commercial stations in eastern States and at the end of the period to which this report relates was pursuing its investigations into the matter, which has to be very carefully studied from many angles in order that the few available channels may be put to the best use in the public interest.

#### ALLOCATION OF FREQUENCIES.

67. Many references have been made in this report to the fact that only a limited number of frequency channels are available for broadcasting purposes and in this connexion attention is invited to paragraphs 101 to 109 of the Second Annual Report of the Board, in which some information was given concerning the manner in which frequencies for all types of radio services are regulated on an international basis under the International Telecommunications Convention. It was pointed out that under the Convention, bands of frequencies had been set aside for broadcasting purposes not only in the medium frequency band, most commonly used for broadcasting, but also in special bands used for tropical broadcasting and for high frequency (short-wave) stations. At the time the Second Report was written, the allocation of high frequency channels was being considered by an International Conference at Rapallo and a further conference at the Hague had

been proposed for September, 1950, at which all frequency lists were to be ratified. This latter conference (known as an Extraordinary Administrative Radio Conference) was postponed until August, 1951, and in view of its great importance to Australian broadcasting, the Board arranged that its Assistant Director Technical Services Division (Mr. D. McDonald) should be one of the Australian representatives. The conclusions of the Conference which was held at Geneva were not available at the time this report was being written but the indications are that a satisfactory solution of most outstanding matters is likely to result.

68. Apart from the international agreements, it has been found desirable by some countries to enter into special agreements concerning the use, in the area in which they are situated, of the medium frequencies which are reserved for broadcasting stations, in order to avoid undue interference between their respective stations. Thus, most European countries have a special agreement covering the use of channels in the medium frequency broadcasting band and a similar agreement regulates the use of these frequencies in North American countries.

69. The Australian and New Zealand Administrations also found it necessary to confer on this matter, and the outcome was an agreement, made between the Commonwealth and New Zealand in 1948, which limited the permissible operating power of many Australian stations to levels which the Board subsequently found to be insufficient to meet the needs of the expanded broadcasting service which it contemplated. Accordingly, the New Zealand Government was requested to consider a revision of the 1948 Agreement, and as a result a conference was held in Wellington in October, 1950, between the Australian and New Zealand Administrations, the Australian delegation being Mr. H. W. Hyett, representing the Post Office, and Messrs. D. McDonald, Assistant Director, Technical Services Division, and J. M. Donovan, Assistant Secretary, representing the Board.

70. After considerable negotiation, a new agreement was signed, the principal features of which in relation to the Australian broadcasting services were—

- (a) So far as New Zealand is concerned, Australia has complete freedom with respect to channels not occupied by Dominion stations, i.e., 62 of the 107 channels in the medium frequency broadcasting band.
- (b) The maximum power which may be allocated to stations in either country on the 45 channels used jointly was determined.
- (c) New Zealand agreed to increases in the power of 33 Australian commercial stations, in regard to which limitations had been imposed by the previous agreement; and
- (d) Provision was made for the use of higher power by commercial capital city and clear channel country stations, in the event of the Board's investigations of the power of these stations indicating that increases should be approved.

The new agreement still imposes restrictions on the power of stations operating on certain channels. As mentioned in paragraph 56, these restrictions have prevented the Board from increasing the power of some commercial stations to the extent which it would otherwise have been prepared to permit.

#### STANDARDS FOR THE TECHNICAL EQUIPMENT AND OPERATION OF BROADCASTING STATIONS.

71. The Postmaster-General's Department undertakes the provision and operation of all technical services associated with the transmission of programmes from national stations and the licensees of

commercial stations are responsible for the provision of satisfactory technical facilities for the radiation of their programmes. It is, however, the function of the Board, under section 6k. (1.) of the Act, to ensure that the technical equipment and operation of all broadcasting stations are in accordance with such standards and practices as the Board considers to be appropriate. In pursuance of this obligation, the Board has prepared standards for the technical equipment and operation of medium frequency broadcasting stations.

72. The draft standards were discussed with Post Office Engineers and the Technical Committee of the Australian Federation of Commercial Broadcasting Stations and, having been reviewed in the light of observations which were made, the Standards were finally adopted by the Board. Some idea of the wide scope of the Standards can be obtained from the Table of Contents which appears in Appendix "D", and copies of the Standards may be obtained on application to the office of the Board. The purpose of the Standards is to ensure that Australian broadcasting stations are operated in accordance with modern engineering practices and the Board is confident that the efficiency of the system will benefit considerably from the improved operating conditions which will result. The new transmitters which have been, or are being, installed following the Board's authorization of the use of higher power by commercial broadcasting stations comply with the Standards.

#### UNATTENDED OPERATION OF BROADCASTING STATIONS.

73. In paragraph 112 of the Board's Second Report, it was stated that the Board had approved in principle of the introduction of "remote control", or the unattended operation of transmitters, on conditions which were to be prescribed in the Standards mentioned in the foregoing paragraph. The Board has now authorized five licensees of commercial stations to introduce this system of operation and several other stations have submitted applications for permission to do so.

74. The operation of modern standard broadcast transmitters is so reliable that with appropriate safeguards remote control may be authorized without any serious risk of interruption to the service of a station. The principal safeguards required by the Board in this regard are—

- (a) the equipment to be used must be satisfactory with respect to supervision and control devices and protection against faults;
- (b) stand-by transmitters with satisfactory arrangements for change-over in the event of a fault must be provided, except in special cases approved by the Board;
- (c) a qualified technician must be available at short notice to attend to any fault which occurs.

75. Representations against the introduction of unattended operation of broadcast transmitters were made to the Board by the Professional Radio Employees' Institute, which expressed the fear that it would result in unemployment for certificated technicians. The Board carefully considered the views of the Institute but it came to the conclusion that the issue which it had raised was of an industrial character, quite distinct from the purely technical question which alone concerned the Board, of the method of operation of broadcasting stations. The Board could see no valid reason for postponing the introduction of the "remote control" of transmitters, which was already operating satisfactorily in the National Service, especially as licensees who had applied for permission to use unattended transmitters had informed the Board that they did not contemplate any reduction in the number of certificated technicians employed by

them. It is the policy of the Board to require an adequate staff of properly qualified technicians to be employed at each station and approval for the introduction of unattended operation at particular stations has been granted subject to this requirement being observed.

#### SYNCHRONIZED OPERATION OF BROADCASTING STATIONS.

76. The tests which had been arranged by the Board, in collaboration with the Post Office, for the purpose of investigating the possible application to Australian conditions of synchronized operation of two or more stations on the same frequency channel have unfortunately been delayed by the regrettable fire which occurred on 26th May, 1951, at national station 4QN Townsville. Some of the equipment which had been designed, and manufactured, by the Department for the tests was destroyed by the fire and will have to be replaced before they can be continued. Some laboratory work was carried out during the year with the aid of the Post Office, with the object of determining whether it would be practicable to operate stations transmitting the same programmes on the same channel but without the close frequency tolerances required in normal synchronized operation which involve the use of expensive equipment for control of the frequency. It was concluded that there was not much to be gained by exploiting this possibility, as any reduction in the close frequency tolerances would cause a reduction in night service area of synchronized stations, approaching that existing with normal co-channel operation with separate programmes.

#### FREQUENCY MODULATION—VERY HIGH FREQUENCY BROADCASTING.

77. The existing services on the medium frequencies and high frequencies (short wave) are, at the present time, providing programmes which may be received on more than 2,000,000 radio sets, designed for reception of stations operating on those frequencies. The Board has, therefore, considered it desirable to concentrate on the improvement of the existing services, which are providing reasonably satisfactory reception for most of the people of the Commonwealth, before contemplating the introduction of new services on the very high frequencies.

78. The Board is aware that great practical benefits have been derived from the use of the very high frequencies in the United States of America and in Europe and that the British Broadcasting Corporation has conducted extensive tests, as a preliminary to their use in Great Britain on a basis yet to be determined. The British Broadcasting Committee 1949 (the Beveridge Committee) expressed the view that the exploitation of these frequencies could improve broadcasting in Britain in two important directions, "that of securing more nearly complete coverage for the present programmes of the British Broadcasting Corporation and that of increasing the diversity of programmes".

79. The Board realizes that somewhat similar advantages could result from the use of very high frequencies in Australia and, in the development of its plans for the improvement of the broadcasting services of the Commonwealth, it is keeping in mind the possible benefits to be derived from this form of broadcasting as an adjunct to the existing system. The matter is however one which must be very exhaustively considered from both the technical and economic angles. The introduction of high frequency broadcasting would necessitate many major readjustments in the existing broadcasting system and in the manufacturing industry, and listeners, if they desired to obtain the best results, would have to acquire new receivers or spend a substantial sum to have their existing receivers adapted for reception on very high frequencies.

80. In the meantime, the frequency modulation stations in Sydney, Melbourne and Adelaide, particulars of which are contained in Appendix "B", are still being operated on an experimental basis.

#### TELEVISION.

81. Before the close of the year covered by the Board's Second Report, the Government had, on 27th June, 1950, reached the following decision in respect of television:—

- (a) That television be developed on a gradual scale only in Australia;
- (b) that initially a National Television Service be established in Sydney;
- (c) that one commercial television licence be issued in Sydney and Melbourne and in any other capital city where it is felt that the applicant's capacity to provide a service justified the issue of a licence;
- (d) as experience in the technical and programme aspects of television is obtained, consideration be given to the extension of the National Television Service to other capital cities and to the larger provincial centres.

In announcing the decision of the Government, the Minister stated that the whole question of television had to be approached for the time being on an experimental basis in view of the novel problems which would be encountered and the great expense which had to be incurred.

82. On 28th August, 1950, the Minister established a Television Advisory Committee consisting of the Director-General, Posts and Telegraphs, the Chairman of the Australian Broadcasting Commission, and the Chairman of the Board. Tenders were invited on 7th September, 1950, for the station which is to be established in Sydney. The tender schedule covered transmitting and studio equipment, including cameras as well as mobile equipment for outside programmes, film recording and processing equipment, and outdoor aerial supports. It was specified that the transmitter should have a power output of 5 kilowatts and that the transmitter would operate in the frequency band 174 to 216 Mc/s. The specifications for the station were prepared in conformity with the standards determined by the Board in pursuance of section 6k.(1.) (b) of the Act, particulars of which were contained in Appendix "D" of the Board's Second Report.

83. In December, 1950, the Minister, adopted a recommendation of the Television Advisory Committee, that a small committee of officers should investigate television developments overseas, particularly in Canada, the United States and Great Britain, the primary purpose of the mission being to obtain information on matters relating to the establishment of the proposed national television station in Sydney and its operations during the experimental period. The committee comprised Mr. C. J. A. Moses, General Manager of the Australian Broadcasting Commission, Mr. J. M. Donovan, Assistant Secretary (Television), Australian Broadcasting Control Board, and Mr. J. H. T. Fisher, Divisional Engineer of the Postmaster-General's Department. The committee was absent from Australia from the 17th February, 1951, until the 2nd May, 1951, and at the time this report was being prepared, the results of their investigations were receiving consideration by the Television Advisory Committee.

#### AVAILABILITY OF FREQUENCY CHANNELS.

84. For the purpose of securing sufficient channels for the ultimate development of television in accordance with the policy outlined in paragraph 81, the Board has continued its studies into the availability of suitable frequencies, consulting, where necessary,

other Government bodies operating services in the very high frequency band. In its Second Annual Report, the Board indicated that within two years three frequency channels would be available between 178 and 204 Mc/s., that after five years (that is, from 1st January, 1955) there would be five channels available between 174 and 216 Mc/s., and that, if necessary, two channels could be allocated for television stations between 90 and 108 Mc/s. in the band reserved for frequency modulation broadcasting, sharing, if necessary, with frequency modulation broadcasting stations operating at appropriate distances from the television stations.

85. During the year, there were further negotiations between the Board and the other Government bodies concerned, with the result that two additional channels have been reserved for television, namely, 44-51.5 Mc/s. and 62.5-70 Mc/s., the former for use in State capital cities and the latter for use in those cities and also in country areas. These channels will be available from 1st January, 1956, and they will be shared with other radio services operating in localities where they will not be capable of causing interference with television stations. The Board realizes that the use of a television channel at a frequency as low as 44 Mc/s. may have some disadvantages from the point of view of the manufacturer who wishes to design a receiver for reception on only a few channels located as close together as is practicable in the frequency spectrum. Moreover, the use of such a low frequency presents some difficulties in connexion with the selection of a suitable intermediate frequency. The Board must, however, ensure the availability of sufficient channels to permit of the efficient development of television throughout the Commonwealth.

86. The very high frequencies allocated to the Australian region for broadcasting (including television) are, under international agreement, located in separate parts of the spectrum, and while some re-arrangement of the allocation of these bands in Australia is practicable, the difficulties which would be encountered in re-arranging other services to permit of the allocation of all television channels in one part of the spectrum would be very great indeed. It is undesirable to have two stations on adjacent channels located in the same city because of the difficulty in designing a receiver sufficiently selective to separate the transmissions from two such stations. This was one of the considerations which led to the separation of the two channels between 44 and 70 Mc/s. by a band of 11 Mc/s. as this arrangement would allow the use of both the channels in one capital city. In the choice of these two channels consideration was given also to the possibility of interference from other services, in particular the harmonics of amateur transmitters which may be operating near television receivers. The channels chosen avoid the second harmonic of the 28-29.7 Mc/s. amateur band, which fall at 56-59.4 Mc/s.

87. The receiver designer's reluctance to allow for the use of a number of channels located in widely separated parts of the spectrum has been overcome in the United States of America, where a similar arrangement of channels is employed, by a number of different methods. One of these, a turret tuner, is finding particular favour in both the United States of America and among Australian radio engineers. For the different channels, this system employs a number of coils mounted on a turret, which is rotated to switch the coils, appropriate to a particular channel, into circuit.

88. During the year, the plans which were made in the United States of America to use the ultra high frequency bands above 500 Mc/s. have been watched with interest and it is felt that these developments

have confirmed the Board's opinion that the channels below 300 Mc/s. should be fully utilized before considering the ultra high frequency channels reserved above 500 Mc/s. The power outputs of transmitting tubes at present available are still limited to lower values for ultra high frequencies than for very high frequencies, and the range of an ultra high frequency station is considerably lower than that of a very high frequency station, for the same effective radiated power. Recent data published by the Federal Communications Commission in the form of proposed standards for allocation of frequencies and powers of very high frequency and ultra high frequency television stations enable a comparison to be made for rural and city service. Assuming in all cases a power of 5kw with transmitting aerial power gain of 10 and height 500 feet as typical operating conditions, average rural ranges for ultra high frequencies, 200 Mc/s., and 60 Mc/s. would respectively be 33, 43 and 53 miles. The corresponding average urban ranges would be 20, 24 and 23 miles. The use of high frequencies, however, permits a higher gain aerial for a given vertical length of transmitting aerial, thus modifying the conclusions which may be drawn from these figures. Another comparison made by the Radio Corporation of America as a result of tests at their experimental station at Bridgeport, United States of America, indicates that, for equal picture rating at 10 miles from the station, the ultra high frequency effective radiated power would need to be from 64 to 460 times that at 67 Mc/s. Although actual ranges of television stations are dependent on many factors, such as power, transmitting aerial gain and height and nature of the terrain, and, as a consequence, any comparison must depend to a considerable extent on arbitrary selection of these factors, it would appear that, for rural service at any rate, the very high frequencies are superior to the ultra high frequencies and that the maximum provision should be made for exploiting the former frequencies, before any consideration is given to the future use of the latter. Provision has been made for television stations in the ultra high frequency bands for a band of 355 Mc/s. which, it is considered, should be sufficient for developments in Australia for many years to come.

#### TELEVISION RECEIVERS.

89. During the year the Board has given consideration to the problems which manufacturers have to face in the design of television receivers to operate in accordance with the standards determined by the Board for television in this country. One point at issue in this respect is the selection of suitable intermediate frequencies for use in television receivers, and consideration of this matter was deferred when the television standards were being determined because the most suitable intermediate frequencies are dependent on the frequency of the channels chosen for television, concerning which no such conclusion had been reached at the time. The choice of intermediate frequencies is primarily a matter for individual manufacturers, but the Board has felt that it would be in the public interest if, having carefully investigated this problem, it were to make appropriate recommendations to the industry.

90. The views of the receiver manufacturers on the subject of the most suitable intermediate frequencies have been ascertained by the Board and a considerable amount of study has been undertaken in the course of which overseas practices have been considered and the advantages and disadvantages of several possible choices of intermediate frequencies have been carefully analysed. The Board reached the conclusion that the most suitable choice would locate the picture and sound carriers in the band 30-40 Mc/s. Values in the 20-30 Mc/s. band (as at present used in the United States

of America) have certain attractions largely due to the advantages of absence of feedback difficulties, and the large guard band existing between the intermediate frequencies and the lowest carrier channel. This guard band should be as large as possible, to avoid feedback through the radio and intermediate frequency stages, and some consequent deterioration in video frequency response, when operating on the lowest channel. There are, however, a number of high-power stations operating in this band in Australia, not far from capital cities. It is desirable also to avoid the 28-29.7 Mc/s. amateur band, because there are many amateur transmitters of moderate power in capital cities, and they are potential sources of interference. The use of intermediate frequencies in the 20-30 Mc/s. band would also involve intermediate frequency harmonic interference with the second channel, and image interference between the 62.5-70 Mc/s. channel and the channels in the 90-108 Mc/s. band. The use of intermediate frequencies in the 40-50 Mc/s. band (as is now being adopted in the United States of America) is impracticable if a channel as low as 44 Mc/s. is employed. The remaining choice is in the 30-40 Mc/s. band, and intermediate frequencies can be chosen there, to avoid image interference and the majority of the spurious responses and intermediate frequency harmonics which are likely to be serious. At the same time oscillator interference occurs in bands likely to cause little interference to other services. Where oscillator interference from receivers tuned to one channel falls in other television channels, it is considered possible to avoid interference by allocating such channels to stations in different districts.

91. These considerations of intermediate frequency selection are based on the assumption that a conventional receiver design is employed. The Board, however, is not unmindful of the probability that a large percentage of receivers designed will be of the inter-carrier type which presents substantial advantages to the receiver designer. The problem, however, is not materially affected by this factor as the intermediate frequencies chosen will be suitable for use with such receivers. The chief difference lies in the fact, that for the higher channels, oscillator frequencies can be below the channel frequencies, so that in these cases the oscillator can be in a different place in the frequency spectrum.

92. For the reasons mentioned above and a number of other more detailed considerations, the Board is of the opinion that intermediate frequencies in the 30-40 Mc/s. band are most suitable for recommendation to the industry; but at the time this report was being prepared, the specific values for sound and picture carriers were still under consideration.

#### SYDNEY TELEVISION STATION.

93. In paragraph 138 of the Board's Second Report, it was stated that a site had been selected for the national television station in Sydney at Gore Hill. Consideration has been given to the height of transmitting aerial to be employed at this station. In order to cover the difficult terrain in the Sydney area, in which poor reception would be expected in deep gullies some distance from the station, the transmitting aerial height should be the maximum economically practicable. Accordingly, approval was sought from the Department of Civil Aviation for the erection of a 500-ft. mast on the selected site. While masts of greater height are structurally practicable, the erection of a higher mast, the Board felt, would involve too great a waste of valuable space in the already limited area of land available. The Civil Aviation Department has given its approval for the erection of a mast not exceeding the proposed height of 500 feet above ground, which is equivalent to 820 feet above sea level.

## PART IV.—PROGRAMME SERVICES.

## GENERAL CONSIDERATIONS.

94. The Board is required by section 6K of the Act to ensure that adequate and comprehensive programmes are provided by broadcasting stations "to serve the best interests of the general public". This function is to be discharged having regard to the specific obligations also imposed by the Act on the Australian Broadcasting Commission and the licensees of commercial broadcasting stations, who have the primary responsibility for arranging and producing the programmes of the National and Commercial Broadcasting Services respectively. Parliament has conferred on the Commission wide powers to take such measures as "in the opinion of the Commission, are conducive to the full development of suitable broadcasting programmes" for transmission by National stations, and in the case of the commercial stations, it has prescribed that each licensee shall provide programmes "in such manner as to ensure, as far as practicable" that they are "to the satisfaction of the Board".

95. Parliament has directed that the Board, in the exercise of its functions in relation to programmes, shall consult the Commission and the representatives of the commercial stations concerning programmes of the National and Commercial Broadcasting Services respectively.

96. As was indicated in its Second Annual Report, the general attitude of the Board to its responsibilities in respect of programmes is to collaborate with the broadcasters in a combined effort to secure what the *Broadcasting Act 1942-1951* describes as the provision of adequate and comprehensive programmes to serve the best interests of the general public. Having regard to the different responsibilities of the Commission and the licensees of commercial broadcasting stations, to which reference has been made briefly in paragraph 94, the Board's functions in respect of programmes relate primarily to the Commercial Broadcasting Service. Nevertheless, the Board is glad to report that there has been a free exchange of views with the Commission on many subjects and it acknowledges the helpful attitude of the Commission on many matters of mutual concern. The Board has reported earlier (paragraph 11), that it has arranged for regular consultations with the Liaison Committee of the Australian Federation of Commercial Broadcasting Stations.

97. In addition to the consultations which it has had with the broadcasters, the Board has conducted a limited amount of research into various aspects of programme services. For example, the study of audience measurement statistics has been developed for the purpose of investigating some aspects of listening habits, trends in popularity of certain types of programme have been examined, and some special investigations have been made relating to the broadcasting of news, parliamentary proceedings, and religious matter. In addition, the Board arranged for officers of the Programme Services Division to make investigations in the districts served by a number of commercial stations, 69 of which were visited during the year.

98. The information which has been gathered as a result of these activities has led the Board to the conclusion that, with some exceptions to which reference will be made later, the programmes which are being broadcast by both national and commercial stations may be said to meet the direction of Parliament that adequate and comprehensive programmes should be broadcast.

99. Details of the programmes broadcast by the Commission are given in the Annual Report submitted by that body to Parliament. It is sufficient here to say that programmes are broadcast by each National

station for an average of more than sixteen hours daily and that the service covers a very comprehensive range of interests designed to serve listeners throughout the Commonwealth, with due regard to the particular requirements of listeners in the individual States. The service provided by the commercial stations can also be said to be adequate in the sense that the great majority of stations transmit programmes each day from early morning until late at night. The quality of the programmes of the Commercial Service varies considerably because much depends on the ability and enthusiasm of the individual managers, and the financial resources of stations. There is, however, a general desire on the part of licensees to fulfil their obligations to provide satisfactory programmes and a willingness to comply with suggestions from the Board to effect improvements in particular directions.

100. Nearly every Australian home has a broadcast receiver—at 30th June, 1951, there were 1,884,834 listeners' licences in force—and if the absence of serious complaint concerning programmes can be taken as a reliable criterion of their acceptability to the general public, there is justification for the view that on the whole listeners are well satisfied with the programmes which are available to them at the present time.

101. In the succeeding paragraphs, the Board will comment in more detail on certain aspects of programmes, with special reference to the particular responsibilities imposed on it by the Act to—

- (i) ensure reasonable variety of programmes;
- (ii) ensure that divine worship or other matter of a religious nature is broadcast for adequate periods and at appropriate times and that no matter which is not of a religious nature is broadcast by a station during any period during which divine worship or other matter of a religious nature is broadcast by that station;
- (iii) ensure that facilities are provided on an equitable basis for the broadcasting of political or controversial matter;
- (iv) determine the extent to which advertisements may be broadcast in the programme of any commercial broadcasting station; and
- (v) fix the hours of service of broadcasting stations, television stations and facsimile stations.

## VARIETY OF PROGRAMMES.

102. The obligation to ensure "reasonable variety of programmes" has been taken by the Board to cover the contents of the programmes of individual stations as well as the availability of alternative programmes for listeners in particular districts. The Board's investigations clearly indicate that it is the practice of the Commission and the licensees of the majority of the commercial broadcasting stations to frame their programmes in such a way that the differing tastes of their very numerous listeners may, as far as practicable, be reasonably satisfied throughout the day. In the case of some commercial stations, however, insufficient attention appears to be paid to this important aspect of programme planning and the Board has invited the attention of the licensees concerned to this consideration.

103. Observations of the programmes of stations situated in the same locality also reveal that their listeners have a reasonable choice of items, except for small periods each week, when events occur which, because of their wide appeal to the great majority of listeners, are included in the programmes of more than one local station. There have been some complaints, for example, that listeners who have no special interest in sporting programmes on Saturday afternoons have

no satisfactory alternative programme. The Board has given some consideration to this problem, in respect of which it is claimed by the broadcasters that the very substantial audience for certain sporting broadcasts fully justifies their inclusion in the programmes of more than one station, because the very large body of listeners who are interested in these programmes are entitled to a choice of commentators describing the events in question, which are mainly horse races. Some support for this view, it may be stated, is forthcoming from audience measurement surveys, which suggest that, whilst there is a very numerous audience for each of the stations engaged in broadcasting the sporting events, the total audience for any alternative programmes represents a very small minority. The Board proposes to have further discussions with the broadcasters on this particular matter because it feels that the minority, even if it does represent only a small percentage of listeners, is sufficiently numerous to expect some acceptable alternative programme. The present position in this regard in the metropolitan areas is not serious. About 60 per cent. of the listeners in the Commonwealth reside in these areas, and at least one alternative programme is always available to them even during those periods when many stations are broadcasting sporting information.

104. The Board feels that many of the complaints which are being made concerning the non-availability of alternative services in country districts will be disposed of when its plans for the development of the National Broadcasting Service, to which reference is made in Part III. of this report, have been implemented.

#### RELIGIOUS BROADCASTS.

105. In regard to its obligation to ensure "that divine worship or other matter of a religious nature" is broadcast "for adequate periods and at appropriate times", the Board desires to report that the arrangements made by the Australian Broadcasting Commission during the past year for religious broadcasts from national stations continued to meet with general approval.

106. In its Second Annual Report, the Board gave details of the principles which it had adopted for the purposes of indicating to licensees of commercial broadcasting stations what was expected of them in the matter of religious broadcasts. The cardinal principle is that each station should devote at least one hour each week to the broadcasting of divine worship, or set aside periods aggregating at least an hour each week for broadcasts of other religious matter, if, as is frequently the case, it is inconvenient for a station or the Churches to arrange for broadcasts of divine worship. Licensees are required to provide the station time free of charge and to afford an opportunity to the various denominations to broadcast with a frequency proportionate to their numerical strength as indicated by the 1947 census.

107. Difficulties have arisen in some cases which have resulted in the failure of certain licensees to comply with these principles, but at the close of the year 84 of the 103 commercial stations were undertaking religious broadcasts to the satisfaction of the Board, which is continuing negotiations with the remaining licensees for the purpose of ensuring that they also discharge their responsibilities in this regard.

108. It is appropriate to mention that an analysis of survey data concerning the extent of the audience for religious broadcasts in Melbourne reveals that on an average approximately 40 per cent. of homes in the metropolitan area tune to one or more religious programmes on Sundays.

109. The Board again invites attention to the view expressed in paragraph 148 of its Second Report that Parliament might see fit to clarify the Board's

obligations, under section 6K of the Act, "to ensure . . . that no matter which is not of a religious nature is broadcast by a station during any period during which divine worship or other matter of a religious nature" is being broadcast.

#### POLITICAL BROADCASTS.

110. Although the Board is required "to ensure that facilities are provided on an equitable basis for the broadcasting of political or controversial matter", it did not take any action in respect of broadcasts by parties or candidates contesting the federal election in April, 1951, other than to request the Australian Broadcasting Commission and the licensees of commercial broadcasting stations to provide details of election speeches which were broadcast during the campaign. In this regard, the Board invites attention to its comments in its Second Annual Report on its attempt to ensure equitable facilities for the various parties at the 1949 federal election and again expresses its firm conviction that the whole question of political broadcasts should be reviewed by the Parliament.

111. In the Second Annual Report, details were given of political broadcasts from national and commercial stations during the 1949 federal election and similar particulars are given hereunder in respect of the 1951 campaign. These figures indicate that in respect of the National Service, time was made available by the Australian Broadcasting Commission on the same basis as in 1949 to the three main parties in the Federal Parliament. In the Commercial Service, there was little change in the attitude of individual commercial stations, although the amount of political matter broadcast varied considerably according to the opinion of political parties and organizations as to the need for more or less intensive campaigns in different electorates.

112. The Board is happy to acknowledge the willing co-operation of both the Australian Broadcasting Commission and the licensees of the commercial stations in providing details of political broadcasts during the 1951 election period. In the paragraphs immediately following, particulars are given of these broadcasts from commercial stations, and in paragraph 119 particulars are given in respect of the National Broadcasting Service.

#### BROADCASTS OF POLICY SPEECHES OF PARTY LEADERS BY COMMERCIAL STATIONS.

113. The initial policy speeches of the leaders of the Country, Labour and Liberal Parties were broadcast on interstate relay by the Australian Broadcasting Commission for a period of one hour in each case. Returns indicate that of the 102 commercial stations in operation at the time 85 broadcast the three policy speeches, fourteen broadcast two policy speeches, and three broadcast only one policy speech.

#### BROADCASTS BY PARTIES AND CANDIDATES FROM COMMERCIAL STATIONS.

114. In addition to the broadcasts of policy speeches by party leaders, the commercial stations allocated a total of 905 hours for the broadcasting of political matter by political parties and candidates. This represents an average of approximately nine hours per station over the election period, which comprised four weeks. The allocation of time by metropolitan and country stations was as follows:—

	Hours.
Metropolitan (24 stations) .. .. .	199
Country (77 stations) .. .. .	706
	<hr/>
Total .. .. .	905
	<hr/>

115. Political matter of some kind was broadcast by all stations except one metropolitan station, which does not operate before 11.30 p.m. The following table shows the allocation of time among parties and candidates. As the Liberal and Country Parties organized joint campaigns in some States, appropriate figures covering these parties together are given in brackets, in the table, where applicable:—

TIME ALLOCATED TO PARTIES AND CANDIDATES.  
(Percentages.)

	C'wealth.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.		
<i>Metropolitan.</i>									
Liberal Party	} 49 {	52	36	} 32 {	} 41 {	} 59 {	57		
Country "		2	4				57	40	
Labour "		39	58				2	1	
Others	5	7	2	16	2	1	..		
	100	100	100	100	100	100	100		
<i>Country.</i>									
Liberal Party	} 56 {	42	23	} 46 {	} 44 {	} 76 {	53		
Country "		18	25				41	53	23
Labour "		38	35				46	13	3
Others	6	5	1	13	3	1	..		
	100	100	100	100	100	100	100		
<i>Metropolitan and Country Combined.</i>									
Liberal Party	} 55 {	44	30	} 43 {	} 43 {	} 69 {	54		
Country "		15	21				43	55	30
Labour "		40	36				48	14	2
Others	5	5	1	14	2	1	..		
	100	100	100	100	100	100	100		

BROADCASTS FROM COMMERCIAL STATIONS BY ORGANIZATIONS AND PERSONS OTHER THAN PARTIES AND CANDIDATES.

116. Broadcasts in this category occupied an additional total of 74 hours on 91 commercial stations, and represented approximately 6 per cent. of the total time (including party leaders' initial speeches) devoted to broadcasts of political matter by commercial stations in the election period. The greater number of broadcasts by organizations took place over stations in country towns. The division of the total time involved between metropolitan and country areas was as follows:—

	Hours.
Metropolitan	16
Country	58
<b>Total</b>	<b>74</b>

In all, 23 organizations participated in these broadcasts, which were widely spread throughout the Commonwealth. Only five of these, however, used 5 per cent. or more of the total time allotted to organizations. The following table sets out the division of time between organizations generally:—

BROADCASTS BY ORGANIZATIONS AND PERSONS OTHER THAN PARTIES OR CANDIDATES: ALLOCATION OF TIME (PERCENTAGES).

Organization.	Percentage of time.
Australian Council of Trade Unions	37
People's Union Party	21
Federal Economic Council	8
Australian Coal and Shale Employees Federation	6
Queensland Institute of Public Affairs	5
Other Organizations and Persons (18)	23
	100

(NOTE.—The above statement does not take into account any part of any programme sponsored by any of the above organizations which did not consist of political matter.)

TOTAL TIME FOR ELECTION BROADCASTS FROM COMMERCIAL STATIONS.

117. The total time allocated to broadcasts of political matter by commercial stations amounted to approximately 1,256 hours, made up as follows:—

	Hours.
Party leaders' initial speeches	277
Parties and candidates, excluding leaders' initial speeches	905
Organizations and persons other than parties and candidates	74
<b>Total</b>	<b>1,256</b>

The amount of time occupied by election broadcasts was considerably less in the 1951 campaign than in 1949 except in the case of party leaders' speeches. The total of 1,256 hours represents an average of approximately 12.3 hours per station, or 3.1 per cent. of the total hours of transmission by the commercial stations during the election period of four weeks. By comparison, the total time allocated to election broadcasts preceding the 1949 election was 2,146 hours, representing an average of 21½ hours per station or 4.2 per cent. of the total hours of transmission during the election period of five weeks and two days.

ELECTION BROADCASTS FROM STATIONS OF THE NATIONAL BROADCASTING SERVICE.

118. The Australian Broadcasting Commission is solely responsible, under section 89 of the Act, for political broadcasts from the national stations. The following account is based on details supplied by the Commission.

119. The total time made available by the Commission for broadcasts by the three major parties contesting the election was 312 hours. As in the case of the 1949 federal election, this time was allocated equally between the retiring Government and the Opposition, and was distributed on a basis of eight hours for each capital city and Newcastle and eight hours per station elsewhere. The distribution of the 33 stations serving the country areas was as follows:—

- New South Wales—ten (including one medium wave in the Australian Capital Territory and one shortwave).
- Victoria—three (including one shortwave).
- Queensland—ten (including two shortwave).
- South Australia—four (including two medium wave in Northern Territory).
- Western Australia—five (including two shortwave).
- Tasmania—one.

Of the eight hours specified, six were allocated to the initial policy speeches of the party leaders and other addresses broadcast on simultaneous national relay throughout the Commonwealth. The remaining two hours per station were allocated to broadcasts on State relay, which took place at different times in the various States.

HOURS OF SERVICE.

120. In the Board's Second Annual Report, reference was made to its obligation under section 6K. (2.) (b) (v) of the Act to fix the hours of service of broadcasting stations and to its general principle that stations should provide a service at all times when there was a reasonable demand for it. Commercial stations outside the State capital cities and Newcastle operate, on an average, for 96 hours per week and the Board has adopted this figure as a general guide to its minimum requirements in this regard. During the year, the Board notified the licensees of 27 commercial stations that it considered that their operating schedules were inadequate and, as a result four of the 27 increased their schedules beyond 96 hours per week.

Of the other 23 cases, seven licensees have increased their hours of service but are still operating for less than 96 hours weekly, two licensees have undertaken to increase their hours at an early date, eleven licensees will do so as soon as circumstances permit, and three licensees have not yet convinced the Board of their willingness to increase their hours of operation. This matter is being pursued by the Board.

121. At 30th June, 1951, the transmitting time of the 103 commercial stations in operation aggregated approximately 10,800 hours per week, or 270 hours per week more than at 30th June, 1950. On 914 occasions, temporary extensions of hours were authorized.

122. The hours of service of national broadcasting stations, within the Commonwealth, vary from 116 to 123 hours per week. The 50 stations, including two in the Territory of Papua and eight domestic short-wave transmitters, operate for over 5,800 hours a week. Transmission hours of each national and commercial station are shown in Appendices "A" and "B".

#### PROVISION OF COMMUNITY SERVICES BY BROADCASTING STATIONS.

123. The Board's Second Annual Report contained particulars of twelve commercial stations in country areas which had been established or acquired by stations operating in metropolitan areas for use primarily as country outlets for their programmes. A thirteenth station has since been added to this category—6NA Narrogin relaying from 6KY Perth. Whilst it recognizes that there are many benefits to be derived from this arrangement, such as the provision of programmes of a higher standard than is likely to be available to individual country stations in sparsely populated districts, the Board considers that the primary obligation of all country stations is to provide a comprehensive service covering matters of district interest as an essential contribution to the welfare of the Australian rural community. For this reason, the Board feels that country stations should broadcast local and general news, and information such as daily weather reports and forecasts; announcements of mail and transport arrangements and other matters bearing on rural and domestic convenience and the social life of the community. They should also keep listeners fully informed during periods of danger to life or property from floods, fire, or other emergencies. In addition, country broadcasters should make time available for an adequate advertising service for their local business communities and give publicity to the activities of local civic authorities and other organizations of various kinds.

124. With these considerations in mind, the Board has urged the licensees of the thirteen stations concerned to devote an increasing proportion of the time of their relay stations to programme items of district interest until approximately one-quarter of their programmes is so occupied. As at 30th June, 1951, the position was as follows:—

- (a) Five stations were giving a local service which was regarded as satisfactory;
- (b) Four stations had made some improvements which could not be accepted as completely adequate;
- (c) Four stations appeared to have made no change.

The Board realizes that in considering a station's ability to devote one-quarter of its time to local community service, allowances must be made for conditions such as the density of population and grouping of settlement in the area served, the community of interest within that area, the problem of providing additional staff and studios, and the prevailing shortages of man-power and buildings. Nevertheless, the Board is pursuing this

question with the licensees of stations which are still failing to provide an adequate community service.

125. Great benefits have been conferred on country residents by the assistance provided by broadcasting stations in times of emergency—such as bush fires, storms and floods—and the Board is encouraging the expansion of this most important public service. In this regard, mention should be made of the fact that in New South Wales, where floods in recent years have been disastrous, the State Flood Warning Committee proposes to set up emergency committees at key towns on the coastal rivers which reach flood level rapidly. One function of these committees will be to co-ordinate information from upstream reporting centres for broadcasting from stations which are most suitably located to give service to the danger areas. The Board will collaborate with the State organization in every possible way.

#### PROGRAMME STANDARDS.

126. The licensee of each commercial broadcasting station is required by section 60 (1.) of the Act to provide programmes which "are to the satisfaction of the Board", and as was indicated in its Second Annual Report, the Board intends to issue a set of programme standards for the guidance of licensees in this regard. The Board has not yet completed this work.

#### BROADCASTS IN FOREIGN LANGUAGES.

127. In consultation with the Department of Immigration, the Board is examining the question of broadcasts in foreign languages. The Board appreciates that such broadcasts may serve a useful purpose if they have as their objective the education of the listeners to whom they are directed, or the assimilation of newcomers into the life of this country. At the same time, it feels that positive encouragement should be given to immigrants from other than English speaking countries to learn and use the English language at all times, thus facilitating their absorption into the Australian community. The Board considers that advertisements should be in the English language, but pending further investigation no objection is being raised to broadcasting in a foreign language advertisements concerning matters of major interest to New Australians, provided that such announcements are followed immediately by an accurate translation into English.

#### PROVISION OF SPECIAL FACILITIES FOR BROADCASTING NEWS.

128. The Australian Broadcasting Commission is required by section 25 of the Act "to broadcast daily from all national stations regular sessions of news and information relating to current events within the Commonwealth and in other parts of the world", and the Commission's daily news sessions are a conspicuous feature of the National Service. The Board considers that the provision of adequate news sessions should be regarded also as an essential part of the programme service of every commercial broadcasting station. Accordingly, it has adopted the principle that each licensee should broadcast at least two news sessions on each week day and at least one on Sundays.

129. As was mentioned in the Board's Second Annual Report, all commercial stations were required to broadcast the national news service three times daily during the war, and a number of them have continued to do so by arrangement with the Commission. Others are broadcasting news services originating from other sources and, at the end of the year, the great majority of commercial stations were complying with the principle mentioned in the preceding paragraph.

130. One of the problems associated with the provision of adequate news services by stations is that those which are situated in localities far removed from the sources of the news would, under ordinary circumstances, be required to pay substantial charges for the

telephone channels needed for the relays. These charges undoubtedly constitute an obstacle to the provision of this very important service, and accordingly the Board and the Postmaster-General's Department, have, with the approval of the Minister, been investigating the problem for the purpose of determining whether an acceptable formula can be devised for substantial relief in the charges. The question is one of considerable complexity requiring as it does the adjustment of anomalies which have been apparent for some time in regard to the charges for landlines for the relaying of the national news service by commercial stations. At the close of the period to which this report relates, there were fairly definite indications that a solution would be found which would be satisfactory to all concerned and ensure the provision of adequate news sessions throughout the Commonwealth.

#### BROADCASTING OF OBJECTIONABLE MATTER.

131. The Board is glad to be able to report again that during the year there was no serious breach of the provisions of section 91 of the Act, which prohibits the broadcasting of any matter which is blasphemous, indecent or obscene. Very few complaints were received of broadcasts offending good taste, a state of affairs which in the opinion of the Board is mainly due to the vigilance of the broadcasters in excluding any matter to which reasonable exception might be taken.

#### BROADCASTING OF AUSTRALIAN COMPOSITIONS.

132. The provisions of section 88 (2.) of the Act have been satisfactorily observed by the Australian Broadcasting Commission and the majority of commercial stations. This section requires that not less than 2½ per cent. of the total time occupied in the broadcasting of music shall be devoted to the works of Australian composers. To check the adequacy of each station's observance of this requirement is a task which could not be performed by the Board's own staff. Grateful acknowledgement is therefore made of the co-operation of the Australasian Performing Right Association which, in the course of its normal operations, extracts the necessary information for the use of individual stations, and of the Board. During the year under review, the Australian Broadcasting Commission devoted 4.08 per cent. of the "music time" of all national stations to Australian compositions and the average time devoted to such compositions by the 102 commercial stations was 4.11 per cent. However, twelve licensees of commercial stations failed to reach the required minimum percentage and two others failed to provide sufficient information to enable their percentages to be calculated. The Board has reminded the licensees of these stations of their obligation in this regard.

133. The following table shows the percentage of time given to the broadcasting of Australian compositions during the last five years:—

#### PERCENTAGE OF TIME DEVOTED TO BROADCASTING AUSTRALIAN COMPOSITIONS.

Australian Broadcasting Commission.		Commercial Stations.		
Period.	Average percentage of all national stations.	Period.	Average percentage of all commercial stations.	Number of stations below 2.5 per cent.
July, 1946–June, 1947	3.59	Jan.–Dec., 1947	3.75	6
1947/48	3.44	1948	3.65	9
1948/49	4.15	July, 1948–June, 1949	4.01	9
1949/50	3.41	1949/50	4.08	7
1950/51	4.08	1950/51	4.11	12

#### OBSERVATIONS OF BROADCAST PROGRAMMES.

134. Extensive observations were made of broadcast programmes during the year by officers of the Board and, by arrangement with the Director-General, Posts and Telegraphs, by monitors employed at Post Office observation centres in each capital city. More than 7,000 hours were devoted to this work, which is done for the dual purpose of observing the quality of service being provided by stations and detecting any breaches of particular provisions of the Act.

The observations disclosed that stations generally are complying with the provisions of the Act.

#### MINISTERIAL BROADCASTS.

135. Under section 65 of the Act, the Minister may, by notice in writing, require the licensee of a commercial broadcasting station to include, without charge, in any programme broadcast from the station, such items of general interest or utility as the Minister, from time to time, determines.

During the year under review, no such requirement was made by the Minister but, by agreement with the Prime Minister, the Australian Federation of Commercial Broadcasting Stations has co-operated generously with the Government in arranging for member stations to make time available for the broadcasting of important statements on national affairs.

#### PART V.—GENERAL.

##### FINANCIAL ACCOUNTS OF THE BOARD.

136. In conformity with the provisions of section 6P of the Act, a statement of the financial accounts of the Board for the year ended 30th June, 1951, together with the report of the Auditor-General as to those accounts, appears in Appendix "E" of this report.

##### DEVELOPMENT OF BROADCASTING IN AUSTRALIA—STATISTICS.

137. The following table shows the progressive development in the number of broadcasting stations and licensed listeners since the inception of broadcasting in 1923—

Year.	Number of broadcasting stations in operation.		Number of licensed listeners.
30th June, 1924	4		1,206
	Class "A".	Class "B".	
1925	7	6	63,874
1926	8	9	128,060
1927	8	12	225,240
1928	8	12	270,507
1929	8	12	301,199
	National.	Commercial.	
1930	8	13	312,192
1931	9	27	331,969
1932	12	43	369,945
1933	12	48	469,477
1934	12	53	599,159
1935	12	57	721,852
1936	14	73	825,136
1937	20	80	940,068
1938	24	94	1,057,911
1939	24	98	1,131,861
1940	26	100	1,212,581
1941	27	96	1,293,266
1942	27	97	1,320,073
1943	27	96	1,370,000
1944	28	98	1,394,880
1945	29	100	1,415,229
1946	29	100	1,436,789
1947	32	101	1,678,276
1948	33	102	1,703,970
1949	37	102	1,762,675
1950	39	102	1,841,211
1951	41	103	1,884,834

In addition to the above national stations there were as at 30th June, 1951, nine short-wave transmitters providing service to listeners in remote areas.

## LISTENERS' LICENCES.

138. In Appendix "F" particulars are given of the various types of broadcast listeners' licences which were current on 30th June, 1951. At that date, there were one or more wireless sets installed in 1,884,834 Australian homes, distributed as shown hereunder:—

State.	Metropolitan area.	Country area.	Total.
New South Wales .. ..	360,242	318,990	679,232
Victoria .. ..	315,691	206,811	522,502
Queensland .. ..	123,536	147,051	270,587
South Australia .. ..	130,243	74,452	204,695
Western Australia .. ..	87,192	52,477	139,669
Tasmania .. ..	22,383	45,766	68,149
Total .. ..	1,039,287	845,547	1,884,834

## COST OF THE NATIONAL BROADCASTING SERVICE.

139. In its Second Annual Report, the Board invited attention to the fact that the fees paid by listeners for licences during the year ended 30th June, 1950, were insufficient to meet the cost of providing the National Broadcasting Service. The deficit in that year was approximately £1,364,000 and during the year under review the financial position deteriorated as a result of the extension of the Service and rapidly rising costs. As it appeared likely that the deficit for the financial year 1950-1951 would approximate £2,000,000, the Board, at the request of the Right Honorable the Treasurer, considered the adequacy, in the prevailing circumstances, of the listeners' licence-fee, and in May, 1951, recommended that it should be increased.

The Government subsequently decided to introduce a Bill to provide—

- (a) for an increase in the ordinary licence-fee from £1 to £2 for listeners in Zone 1 (i.e., those resident within 250 miles of a National broadcasting station);

- (b) for an increase in the ordinary licence-fee from 14s. to 28s. for listeners in Zone 2 (i.e., the remainder of the Commonwealth); and
- (c) for the repeal of the requirement that a separate half-fee licence should be held for each receiver in excess of one in the possession of any licensee.

The net result of the increase in the full-fee licence and the discontinuance of the half-fee licences for receivers in excess of one will be that approximately £1,800,000 additional revenue will be received from licence-fees each year. This additional amount should, on the basis of the present rate of expenditure, be almost sufficient to meet the deficit which would be incurred on the National Broadcasting Service but for the increase in the licence-fees. The actual deficit for the year ended 1950-51 proved to be £1,887,919.

## ACKNOWLEDGMENTS.

140. The Board again wishes to express its gratitude to the Director-General, Posts and Telegraphs (Mr. G. T. Chippindall, C.B.E.), and his senior officers for their co-operation during the year and to the several other officers of the Department who, in accordance with arrangements made with the Director-General, have rendered excellent service to the Board in the performance of duties on its behalf in the various States. The Board also acknowledges the help it has received in many ways from the Australian Broadcasting Commission and the Australian Federation of Commercial Broadcasting Stations.

R. G. OSBORNE, Acting Chairman.

R. B. MAIR, Member.

J. O'KELLY, Secretary,

7th February, 1952.

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## APPENDIX A.

COMMERCIAL BROADCASTING STATIONS IN OPERATION ON 30TH JUNE, 1951.

Call sign.	Location of station.	Licensee.	Frequency (kc/s).	Wave-length (m.).	Operating power.* Watts.	Hours of service per week (to nearest quarter hour).
AUSTRALIAN CAPITAL TERRITORY.						
2CA	Canberra	Canberra Broadcasters Ltd., 133 Phillip street, Sydney	1,050	286	2,000	119
NEW SOUTH WALES.						
<i>Metropolitan.</i>						
2CH	Sydney	New South Wales Council of Churches Service, 28 Kemp-street, Tennyson, Gladsville	1,190	252	1,000	115
2GB	Sydney	Broadcasting Station 2GB Pty. Ltd., 136-138 Phillip-street, Sydney	870	345	1,000	124½
2KY	Sydney	The Trustees, R. H. Erskine and J. H. Thom, and the Secretary, R. A. King, of the Labor Council of New South Wales, Trades Hall, Goulburn-street, Sydney	1,020	294	1,000	113½
2SM	Sydney	Broadcasting Station 2SM Pty. Ltd., 60 Hunter-street, Sydney	1,270	236	1,000	118
2UE	Sydney	Radio 2UE Sydney Pty. Ltd., 29 Bligh-street, Sydney	950	316	1,000	121½
2UW	Sydney	Commonwealth Broadcasting Corporation Pty. Ltd., 49 Market-street, Sydney	1,110	270	1,000	168
<i>Country.</i>						
2AD	Armidale	New England Broadcasters, 113 Faulkner-street, Armidale	1,130	265	200	88½
2AY	Albury	Amalgamated Wireless (A/asia.) Ltd., 47 York-street, Sydney	1,480	203	200	116½
2BE	Bega	J. A. Kerr, Carp-street, Bega	1,490	201	500	72½
2BH	Broken Hill	Radio Siver City Pty. Ltd., enr. Blende and Sulphide streets, Broken Hill	660	455	200	71
2BS	Bathurst	Bathurst Broadcasters Pty. Ltd., 43 Keppel-street, Bathurst	1,500	200	200	117
2CK	Cessnock	Coalfields Broadcasting Co. Pty. Ltd., Vincent-street, Cessnock	1,460	205	300	80½
2DU	Dubbo	Western Broadcasters Pty. Ltd., 129 Macquarie-street, Dubbo	810	370	200	134
2GF	Grafton	Grafton Broadcasting Co. Pty. Ltd., 47 York-street, Sydney	1,210	248	200	113½
2GN	Goulburn	Goulburn Broadcasting Co. Pty. Ltd., 47 York-street, Sydney	1,380	217	200	107½
2GZ	Orange	Country Broadcasting Services Ltd., Hosking House, Hosking-place, 84½ Pitt-street, Sydney	990	303	2,000	117
2HD	Newcastle	Airsales Broadcasting Co. Pty. Ltd., Maitland-road, Sandgate, Newcastle	1,140	263	500	123½
2HR	Lochinvar	Hunter River Broadcasters Pty Ltd., High-street, West Maitland	680	441	300	110½
2KA	Katoomba	2KA Ltd., 77 King-street, Sydney	780	385	1,000	114
2KM	Kempsey	Radio Kempsey Ltd., 4th Floor, Stanway House, 77 King-street, Sydney	980	306	1,000	81½
2KO	Newcastle	Newcastle Broadcasting Co. Pty. Ltd., C.M.L. Building, 72 Hunter-street, Newcastle	1,410	213	500	125
2LF	Young	Young Broadcasters Pty. Ltd., A.M.P. Buildings, Young	1,340	224	300	115½
2LM	Lismore	Richmond River Broadcasters Pty. Ltd., Northern Star Building, Molesworth-street, Lismore	900	333	1,000	111½
2LT	Lithgow	Lithgow Broadcasters Pty. Ltd., Great Western Highway, Bowenfels	1,080	278	100	107½
2MG	Mudgee	Mudgee Broadcasting Co. Pty. Ltd., Wellington-road, Mudgee	1,450	207	100	104
2MO	Gunnedah	2MO Gunnedah Ltd., 59 Marquis-street, Gunnedah	1,370	219	100	58
2MW	Murwillumbah	Tweed Radio and Broadcasting Co. Pty. Ltd., 12 Church-lane, Murwillumbah	1,470	204	500	102½
2NZ	Inverell	Northern Broadcasters Pty. Ltd., Hosking House, Hosking-place, 84½ Pitt-street, Sydney	1,170	256	2,000	114
2PK	Parkes	Parkes Broadcasting Co. Pty. Ltd., 307 Clarinda-street, Parkes	1,400	214	500	111½
2QN	Deniliquin	Regent Broadcasting Co., Regent Theatre, McCallum-street, Swan Hill, Victoria	1,440	208	200	72½
2RG	Griffith	Irrigation Area Newspapers Pty. Ltd., Ulong-street, Griffith	1,070	280	200	48½
2TM	Tamworth	Tamworth Radio Development Co. Ltd., Peel-street, Tamworth	1,300	231	2,000	116½
2WG	Wagga	Riverina Broadcasting Co., 16 Fitzmaurice-street, Wagga	1,150	261	2,000	108
2WL	Wollongong	Wollongong Broadcasting Pty. Ltd., Edward-street, Wollongong	1,430	210	500	113½
2XL	Cooma	Cooma Broadcasters Pty. Ltd., Cromwell-street, Cooma	920	326	500	74½
VICTORIA.						
<i>Metropolitan.</i>						
3AK	Melbourne	Melbourne Broadcasters Pty. Ltd., 480 Bourke-street, Melbourne, C.1.	1,500	200	200	54
3AW	Melbourne	3AW Broadcasting Co. Pty. Ltd., 332 Latrobe-street, Melbourne, C.1.	1,280	234	600	121
3DB	Melbourne	Herald and Weekly Times Ltd., 44-74 Flinders-street, Melbourne, C.1.	1,030	291	600	120½
3KZ	Melbourne	Industrial Printing and Publicity Co., Ltd., 24-30 Victoria-street, Carlton, N.3.	1,180	254	600	121
3UZ	Melbourne	Nilsen's Broadcasting Service Pty. Ltd., 45-47 Bourke-street, Melbourne, C.1.	930	323	600	121½
3XY	Melbourne	Station 3XY Pty. Ltd., Charter House, 4 Bank-place, Melbourne, C.1.	1,420	211	600	120
<i>Country.</i>						
3BA	Ballarat	Ballarat Broadcasters Pty. Ltd., 56 Lydiard-street, Ballarat	1,320	227	500	113½
3BO	Bendigo	Amalgamated Wireless (A/asia.) Ltd., 47 York-street, Sydney	960	313	500	117
3CS	Colac	Colac Broadcasting Co. Pty. Ltd., 241 Murray-street, Colac	1,130	265	200	101½
3CV	Maryborough	Central Victoria Broadcasters Pty. Ltd., Broadcasting House, View Point, Bendigo	1,470	204	500	107½
3GL	Geelong	Geelong Broadcasters Pty. Ltd., Little Malop-street, Geelong	1,350	222	500	116½
3HA	Hamilton	Western Province Radio Pty. Ltd., 239 Collins-street, Melbourne, C.1.	1,000	300	1,000	110½
3LK	Lubeck	Herald and Weekly Times Ltd., 44-74 Flinders-street, Melbourne, C.1.	1,090	275	2,000	120½
3MA	Mildura	Sunraysia Broadcasters Pty. Ltd., 22 Deakin Avenue, Mildura	1,360	221	200	106½
3SH	Swan Hill	Swan Hill Broadcasting Co. Pty. Ltd., Campbell-street, Swan Hill	1,330	226	200	110½

\* Power prior to increases determined by the Board—see Appendix "C".

## COMMERCIAL BROADCASTING STATIONS IN OPERATION ON 30TH JUNE, 1951—continued.

Call sign.	Location of station.	Licensee.	Frequency (kc/s).	Wave-length (m.).	Operating power.*	Hours of service per week (to nearest quarter hour).
					Watts.	
<b>VICTORIA—continued.</b>						
<i>Country—continued.</i>						
3SR ..	Shepparton ..	The Argus Broadcasting Services Pty. Ltd., 365 Elizabeth-street, Melbourne, C.I.	1,260	238	2,000	117
3TR ..	Sale ..	Broadcast Entertainments Pty. Ltd., "The Age", Chambers, 239 Collins-street, Melbourne, C.I.	1,240	242	2,000	113½
3UL ..	Warragul ..	The Argus Broadcasting Services Pty. Ltd., 365 Elizabeth-street, Melbourne, C.I.	880	341	200	110½
3YB ..	Warrnambool	The Argus Broadcasting Services Pty. Ltd., 365 Elizabeth-street, Melbourne, C.I.	1,210	248	200	110½
<b>QUEENSLAND.</b>						
<i>Metropolitan.</i>						
4BC ..	Brisbane ..	Commonwealth Broadcasting Corporation (Qld.) Ltd., 5th Floor, T. & G. Buildings, 189-191 Queen-street, Brisbane	1,120	268	1,000	121½
4BH ..	Brisbane ..	Broadcasters (Aust.) Pty. Ltd., onr. Albert and Charlotte streets, Brisbane	1,390	216	1,000	121
4BK ..	Brisbane ..	Queensland Newspapers Pty. Ltd., 288-298 Queen-street, Brisbane	1,290	233	750	125
4KQ ..	Brisbane ..	The Trustees, H. Boland and S. J. Bryan, of the Queensland Branch of the Australian Labor Party, Dunstan House, 236-238 Elizabeth-street, Brisbane	690	435	1,000	125
<i>Country.</i>						
4AK ..	Oakey ..	Queensland Newspapers Pty. Ltd., 288-298 Queen-street, Brisbane	1,220	246	2,000	125
4AY ..	Ayr ..	Ayr Broadcasters Pty. Ltd., 144 Queen-street, Ayr ..	960	313	500	110½
4BU ..	Bundaberg ..	Bundaberg Broadcasters Pty. Ltd., 117 Bourbong-street, Bundaberg	1,330	226	500	110½
4CA ..	Cairns ..	Amalgamated Wireless (A/asia.) Ltd., 47 York-street, Sydney ..	1,010	297	300	109½
4GR ..	Toowoomba	Gold Radio Service Pty. Ltd., 5th Floor, T. & G. Buildings, Queen-street, Brisbane	860	349	500	117
4GY ..	Gympie ..	Gympie Broadcasting Co. Ltd., Smithfield Chambers, Mary-street, Gympie	1,350	222	500	82½
4IP ..	Ipswich ..	Ipswich Broadcasting Co. Pty. Ltd., 233 Brisbane-street, Ipswich	1,440	208	200	113½
4LG ..	Longreach ..	E. B. Connor, Magpie-Lane, Longreach ..	1,100	273	1,000	65
4MB ..	Maryborough	Maryborough Broadcasting Co. Pty. Ltd., 5th Floor, T. & G. Buildings, Queen-street, Brisbane	1,010	297	300	113½
4MK ..	Mackay ..	Mackay Broadcasting Service Pty. Ltd., 85 Sydney-street, Mackay	1,380	217	100	112½
4RO ..	Rockhampton	Rockhampton Broadcasting Co. Pty. Ltd., 5th Floor, T. & G. Buildings, Queen-street, Brisbane	1,080	278	200	110
4SB ..	Kingaroy ..	South Burnett Broadcasting Co. Ltd., Alford-street, Kingaroy ..	1,060	283	2,000	117½
4TO ..	Townsville	Amalgamated Wireless (A/asia.) Ltd., 47 York-street, Sydney ..	780	385	200	113½
4VL ..	Charleville ..	Charleville Broadcasting Co. Ltd., Alfred-street, Charleville ..	920	326	500	74½
4WK ..	Warwick ..	Warwick Broadcasting Co. Pty. Ltd., Glennie Hall, Albion-street, Warwick	880	341	100	84
4ZR ..	Roma ..	Maranoa Broadcasting Co. Ltd., Bowen-street, Roma ..	1,490	201	500	59½
<b>SOUTH AUSTRALIA.</b>						
<i>Metropolitan.</i>						
5AD ..	Adelaide ..	Advertiser Newspapers Ltd., 11 Weymouth-street, Adelaide ..	1,310	229	500	119
5DN ..	Adelaide ..	Hume Broadcasters Ltd., C.M.L. Building, 41 King William-street, Adelaide	970	309	500	119
5KA ..	Adelaide ..	5KA Broadcasting Co. Ltd., 43 Franklin-street, Adelaide ..	1,200	250	500	119
<i>Country.</i>						
5AU ..	Port Augusta	Port Augusta Broadcasting Co. Ltd., 43 Franklin-street, Adelaide	1,400	214	500	119
5MU ..	Murray Bridge	Murray Bridge Broadcasting Co. Ltd., 11 Weymouth-street, Adelaide	1,460	205	200	119
5PI ..	Crystal Brook	Midlands Broadcasting Services Ltd., 11 Weymouth-street, Adelaide	1,040	288	2,000	119
5RM ..	Renmark ..	River Murray Broadcasters Ltd., C.M.L. Building, 41 King William-street, Adelaide	830	361	2,000	115½
5SE ..	Mount Gambier	South-Eastern Broadcasting Co. Ltd., 11 Weymouth-street, Adelaide	1,370	219	200	119
<b>WESTERN AUSTRALIA.</b>						
<i>Metropolitan.</i>						
6IX ..	Perth ..	W.A. Broadcasters Pty. Ltd., Lyric House, Murray-street, Perth	1,240	242	500	109½
6KY ..	Perth ..	The People's Printing and Publishing Co. of Western Australia Ltd., 38-46 Stirling-street, Perth	1,320	227	500	114
6PM ..	Perth ..	6PM Broadcasters Ltd., St. George's House, St. George's Terrace, Perth	1,130	265	500	112
6PR ..	Perth ..	Nicholson's Ltd., 86-90 Barrack-street, Perth ..	880	341	500	110
<i>Country.</i>						
6AM ..	Northam ..	6AM Broadcasters Ltd., St. George's House, St. George's Terrace, Perth	980	306	2,000	92½
6CI ..	Collie ..	Nicholson's Ltd., 86-90 Barrack-street, Perth ..	1,430	210	500	85
6GE ..	Geraldton ..	Great Northern Broadcasters Ltd., E.S. & A. Bank Buildings, Marine Terrace, Geraldton	1,370	219	500	59
6KG ..	Kalgoorlie ..	Goldfields Broadcasters (1933) Ltd., St. George's House, St. George's Terrace, Perth	1,210	248	500	74½
6MD ..	Merredin ..	W.A. Broadcasters Pty. Ltd., Lyric House, Murray-street, Perth	1,100	273	500	82½
6NA ..	Narrogin ..	The People's Printing and Publishing Co. of Western Australia Ltd., 38-46 Stirling-street, Perth	920	326	2,000	114
6TZ ..	Bunbury ..	Nicholson's Ltd., 86-90 Barrack-street, Perth ..	1,340	224	2,000	101½
6WB ..	Katanning ..	W.A. Broadcasters Pty. Ltd., Lyric House, 223 Murray-street, Perth	1,070	280	2,000	82½

\* Power prior to increases determined by the Board—see Appendix "C".

## COMMERCIAL BROADCASTING STATIONS IN OPERATION ON 30TH JUNE, 1951—continued.

Call sign.	Location of station.	Licensee.	Frequency (kc/s).	Wave-length (m.).	Operating power.*	Hours of service per week (to nearest quarter hour).
					Watts.	
TASMANIA.						
<i>Metropolitan.</i>						
17	7HO .. Hobart ..	Commercial Broadcasters Pty. Ltd., A.M.P. Buildings, cnr. Collins and Elizabeth streets, Hobart	860	349	500	108½
13½	7HT .. Hobart ..	Metropolitan Broadcasters Pty. Ltd., 141-143 Elizabeth-street, Hobart	1,080	278	500	108½
<i>Country.</i>						
10½	7AD .. Devonport ..	Northern Tasmania Broadcasters Pty. Ltd., 29 Paterson-street, Launceston	900	333	300	63
10½	7BU .. Burnie ..	Burnie Broadcasting Service Pty. Ltd., E.S. & A. Bank Chambers, Paterson-street, Launceston	810	370	200	71
21½	7DY .. Derby ..	North-East Tasmanian Radio Broadcasters Pty. Ltd., Paterson-street, Launceston	1,450	207	200	54½
21	7EX .. Launceston ..	7EX Pty. Ltd., 74 Charles-street, Launceston	1,010	297	500	108½
25	7LA .. Launceston ..	Findlay and Wills Broadcasters Pty. Ltd., 21 Paterson-street, Launceston	1,100	273	500	108½
25	7QT .. Queenstown ..	West Coast Broadcasters Pty. Ltd., 21 Paterson-street, Launceston	680	441	300	64½

\* Power prior to increases determined by the Board—see Appendix "C".

## APPENDIX B.

## NATIONAL BROADCASTING STATIONS IN OPERATION ON 30TH JUNE, 1951.

Call sign.	Station.	Frequency (kc/s).	Wave-length (m.).	Aerial power (watts).	Hours of service per week (to nearest quarter hour).
MEDIUM WAVE SERVICES.					
<i>Australian Capital Territory.</i>					
59½	2CY .. Canberra Regional .. .. .	850	353	10,000	122½
<i>New South Wales.</i>					
119	2LG .. Lithgow Regional .. .. .	1,570	191	200	122½
119	2BL .. Sydney .. .. .	740	405	10,000	118½
119	2CO .. Riverina Regional (Corowa) .. .. .	670	448	7,500	122½
119	2CR .. Central Regional (Cumnock) .. .. .	550	545	10,000	122½
119	2FC .. Sydney .. .. .	610	492	10,000	116
119	2NA .. Hunter River Regional No. 2 (Newcastle) .. .. .	820	366	2,000	116
119	2NB .. Broken Hill Regional .. .. .	760	395	1,000	122½
119	2NC .. Hunter River Regional (Newcastle) .. .. .	1,230	244	2,000	118½
115½	2NR .. Northern Rivers Regional (Grafton) .. .. .	700	429	7,000	122½
119	2NU .. Northern Tablelands Regional (Manilla) .. .. .	650	462	10,000	122½
119	2TR .. Manning River Regional (Taree) .. .. .	720	417	200	122½
<i>Victoria.</i>					
109½	3AR .. Melbourne .. .. .	620	484	10,000	116
114	3GI .. Gippsland Regional (Sale) .. .. .	840	357	7,000	122½
114	3LO .. Melbourne .. .. .	770	390	10,000	118½
114	3WV .. Western Regional (Dooen) .. .. .	580	517	10,000	122½
<i>Queensland.</i>					
112	4AT .. Atherton Regional .. .. .	680	441	500	122½
110	4QA .. Mackay Regional .. .. .	720	417	2,000	122½
92½	4QB .. Wide Bay Regional (Pialba) .. .. .	910	330	2,000	122½
85	4QG .. Brisbane .. .. .	790	380	10,000	116
59	4QN .. North Regional (Townsville) .. .. .	630	476	7,000	122½
74½	4QR .. Brisbane .. .. .	590	508	10,000	118½
82½	4RK .. Rockhampton Regional .. .. .	940	319	2,000	122½
114	4QS .. Darling Downs Regional (Dalby) .. .. .	750	400	10,000	122½
101½	4QL .. Longreach Regional .. .. .	540	556	200	122½
82½	4QY .. Cairns Regional .. .. .	890	337	2,000	122½
<i>South Australia.</i>					
114	5AN .. Adelaide .. .. .	890	337	2,000	118½
101½	5CK .. North Regional (Crystal Brook) .. .. .	640	469	7,500	122½
82½	5CL .. Adelaide .. .. .	730	411	5,000	117½
82½	5LN .. Port Lincoln Regional .. .. .	1,530	196	200	122½

NATIONAL BROADCASTING STATIONS IN OPERATION ON 30TH JUNE, 1951—continued.

Call sign.	Station.	Frequency (kc/s).	Wave-length (m.).	Aerial power (watts).	Hours of service per week (to nearest quarter hour).
MEDIUM WAVE SERVICES—continued.					
<i>Western Australia.</i>					
6GF	Goldfields Regional (Kalgoorlie)	720	417	2,000	122½
6GN	Geraldton Regional	820	366	2,000	122½
6WA	South West Regional (Wagin)	560	536	10,000	122½
6WF	Perth	690	435	5,000	116
6WN	Perth	800	375	1,000	118½
<i>Tasmania.</i>					
7NT	North Regional (Kelso)	710	423	7,000	122½
7ZL	Hobart	600	500	2,000	116
7ZR	Hobart	1,160	259	500	118½
<i>Northern Territory.</i>					
5AL	Alice Springs Regional	1,530	196	50	122½
5DR	Darwin Regional	1,500	200	200	122½
<i>Papua.</i>					
9PA	Port Moresby	1,250	240	500	76½
SHORT WAVE SERVICES.					
VLG	Lyndhurst, Victoria	The frequencies on which these stations transmit are varied as required to obtain optimum results		10,000	53½*
VLR	Lyndhurst, Victoria			5,000	116½
VLQ	Brisbane, Queensland			10,000	122½
VLW	Perth, Western Australia			2,000	119
VLH	Lyndhurst, Victoria			10,000	119
VLT	Port Moresby, Papua			2,000	75½
VLX	Perth, Western Australia			10,000	119
VLI	Sydney, New South Wales			2,000	119
VLM	Brisbane, Queensland	10,000	122½		
FREQUENCY MODULATION SERVICES (EXPERIMENTAL).					
..	Melbourne, Victoria	91.100 Mc/s.	..	2,000	..
..	Sydney, New South Wales	92.100 Mc/s.	..	2,000	..
..	Adelaide, South Australia	97.300 Mc/s.	..	250	..

\* Available only part-time for the National Broadcasting Service; also operates for Radio Australia.

APPENDIX C.  
COMMERCIAL BROADCASTING STATIONS.  
INCREASES IN OPERATING POWER DETERMINED BY THE BOARD.  
Position as at 1st September, 1951.

Call sign.	Location of station.	Power previously authorized (watts).	Power determined by Board (watts).	Call sign.	Location of station.	Power previously authorized (watts).	Power determined by Board (watts).
<i>New South Wales.</i>				<i>Queensland.</i>			
2AD	Armidale	200	1,000	4AY	Ayr	500	1,000
2AY	Albury	200	2,000	4BU	Bundaberg	500	1,000*
2BE	Bega	500	1,000	4CA	Cairns	300	1,000
2BS	Bathurst	200	1,000*	4GR	Toowoomba	500	2,000
2DU	Dubbo	200	2,000	4GY	Gympie	200	500*
2GF	Grafton	200	1,000	4IP	Ipswich	200	1,000
2GN	Goulburn	200	2,000	4LG	Longreach	1,000	2,000
2KA	Katoomba	1,000	1,000*	4MB	Maryborough	300	1,000*
2KM	Kempsey	300	1,000*	4MK	Mackay	100	2,000
2LF	Young	300	2,000	4RO	Rockhampton	200	2,000
2LM	Lismore	500	1,000	4TO	Townsville	200	1,000
2LT	Lithgow	100	500	4VL	Charleville	500	1,000
2MG	Mudgee	100	500	4WK	Warwick	100	1,000
2MO	Gunnedah	100	1,000	4ZR	Roma	500	1,000
2MW	Murwillumbah	500	1,000	<i>South Australia.</i>			
2PK	Parkes	200	500	5AU	Port Augusta	200	500
2QN	Deniliquin	200	1,000	5SE	Mount Gambier	200	500
2RG	Griffith	200	1,000	<i>Western Australia.</i>			
2WL	Wollongong	500	2,000	6CI	Collie	500	2,000
2XL	Cooma	500	1,000	6GE	Geraldton	500	2,000
<i>Victoria.</i>				6KG	Kalgoorlie	500	2,000
3BA	Ballarat	500	1,000	6MD	Merridin	500	2,000
3BO	Bendigo	500	1,000	<i>Tasmania.</i>			
3CS	Colac	200	1,000	7HO	Hobart	500	2,000
3CV	Maryborough	500	1,000	7HT	Hobart	500	2,000
3GL	Geelong	500	1,000	7AD	Devonport	300	500
3MA	Mildura	200	1,000	7BU	Burnie	200	500
3SH	Swan Hill	200	1,000	7DY	Derby	200	500
3TR	Sale	1,000	2,000	7EX	Launceston	500	2,000
3UL	Warragul	200	1,000	7LA	Launceston	500	2,000
3YB	Warrnambool	200	1,000				

\* Approved power during day 2,000 watts.

## APPENDIX D.

## STANDARDS FOR THE TECHNICAL EQUIPMENT AND OPERATION OF MEDIUM FREQUENCY BROADCASTING STATIONS.

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## APPENDIX F.

COMMONWEALTH OF AUSTRALIA.

## BROADCAST LISTENERS' LICENCES IN FORCE ON 30TH JUNE, 1951.

Class of licence.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Common- wealth.
LICENCES FOR ONE RECEIVER.							
Ordinary .. .. .	649,042	508,617	260,386	198,560	133,421	65,648	1,815,674
Pensioners .. .. .	27,234	11,825	9,292	5,152	5,899	2,142	61,544
Blind Persons .. .. .	897	647	262	290	236	145	2,477
Schools .. .. .	2,059	1,413	647	693	113	214	5,139
Total .. .. .	679,232	522,502	270,587	204,695	139,669	68,149	1,884,834
Ratio to 100 of Population .. .. .	20.59	23.42	22.71	28.15	24.35	23.15	22.67
LICENCES FOR MORE THAN ONE RECEIVER.							
Ordinary .. .. .	70,091	56,674	16,582	38,006	19,138	8,718	209,209
Motor Cars .. .. .	4,155	7,044	795	1,452	463	837	14,746
Pensioners .. .. .	280	173	55	158	166	39	871
Total .. .. .	74,526	63,891	17,432	39,616	19,767	9,594	224,826