

BROADCASTING IN THE 1920s : GOVERNMENT AND PRIVATE INTERESTS*

Alan Barnard

Australian broadcasting has always been subject to government regulation. This paper identifies fundamental changes in regulatory rules in the formative years of the 1920s and relates them to the interests they affected. Pressure by radio dealers determined the character of initial regulation and therefore the early shape of the broadcasting industry: private firms dependent on revenue from government-imposed listeners' licence fees. Government initiative, quite independent of private lobbying, ended that system. Seeking to subsidise broadcasting in small States and rural areas, it 'expropriated' the pioneers in 1929 and replaced them with a single Australia-wide revenue-supported private program contractor using transmission facilities provided by the PMG Department — an immediate forerunner to the creation of the ABC in 1932.

INTRODUCTION

The initiation of broadcasting as an Australian industry in the 1920s, like that of television in the 1950s and of cable television and local satellite communication (in all likelihood) in the 1980s, was critically dependent on the terms of government regulatory control of private business activity. Not merely the ability legally to broadcast radio and television signals for profit, but also the commercial structure and viability of the industries and even the details of the technology they used, were determined, directly or indirectly, by government decision. By contrast with circumstances in the 1950s and 1980s, however, there were no analagous precedents and scant overseas experience to guide government and actively or potentially interested private parties through the establishment of a radio broadcasting industry. Partly for this reason there were frequent major changes in the regulatory framework until the establishment of the Australian Broadcasting

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Commission (ABC) and of the commercial networks in the 1930s defined the medium-term shape of the industry.

This paper is concerned with how and why government powers were exercised in the 1920s.¹ The task is at once simpler than that of analysing the initial regulation of television or the satellite debate because of the smaller number of interests involved and, because of an evolution from a state of near-innocent near-ignorance, more complicated.

The problem is that between 1922 and 1929 (the last major change before the formation of the Australian Broadcasting Commission) the government established four different sets of basic conditions under which broadcasters could operate as businesses.

- In 1922, it issued regulations that were apparently designed to allow a private firm (half-owned by the government) to monopolise the construction of transmitting equipment, the broadcasting of programs and the manufacture and distribution of receiving sets.
- In the following year, in place of that monopoly it sanctioned a rational competitive private enterprise system in which listeners were required to use equipment adjusted and sealed to accept signals from listener-specified broadcaster(s) only, and in which the income of each broadcaster came from its direct sale of priced services to sets accepting its signals. (It was a system analogous to pay/cable T.V.)
- Then, from 1924, listeners were allowed access to all broadcasts provided they paid a fee to the government. A specified group of broadcasters, in turn, received the major part of their income from the payment to them by the government of a portion of those fees. Other broadcasters could and did operate with no income apart from the sale of advertising time.
- Finally, this arrangement too was fundamentally altered. The broadcasting licences of those stations receiving income from listeners' licence fees were not renewed. In their place one company, in return for sole access to income from fees, contracted to provide programs on the wavelength of all non-renewed stations using for that purpose transmitting and studio facilities acquired from the previous broadcasters and now owned and operated by the Postmaster-General's (PMG's) Department.

Between 1922 and 1924, regulation was essentially concerned with how broadcasters could earn an income from their (temporary) possession of exclusive use of a wavelength, a scarce

resource to broadcasters, but potentially a free good to consumers. It first set conditions in which a direct market (monopolistic and then oligopolistic) could be created for specific differentiated broadcast services. It then broke that direct nexus, substituting a government-legitimised uniform 'tax' on listeners (as their cost) on behalf of broadcasters to whom the revenue so raised was distributed on an essentially mechanical basis so that their 'price' bore no relation to costs or to product differentiation. The thrust of regulation in 1929 changed from producers' income to consumers' benefit. It was designed, as we shall see, so that broadcast listeners in small States and rural areas might be subsidised by listeners in populous States and capital cities. The question is why these changes were made.

Everyone, perhaps particularly in the communications industry, knows that government regulation almost inevitably serves some private interests above others, either securing them an advantage or shielding them from loss; and that the form and detail of regulation is open to the influence of private parties.² What is attempted here, therefore, is the identification of the changing interests involved in or affected by the emergent broadcasting industry and their relation to the various 'solutions' reached through government. The central players included manufacturers, importers and retailers of radios; manufacturers of transmitting equipment; broadcasters; theatrical and entertainment companies; and the Postmaster-General and his Department. Because broadcasting was so completely new, interests that in the long run were affected did not foresee the outcomes and were not directly involved in policy-making (sellers of sheet music, artistic performers and orchestral employees). Nor did major potential competitors with broadcasting, newspapers and theatrical companies, see a need to oppose it, as their British counterparts did. At first, of course, there were no consumers, though the potential benefits to rural Australia were immediately seized upon. Those who were actively concerned shared a desire to bring broadcasting to a point from which commercial take-off was possible. The different and changing ways in which they hoped to gain from that development led them to advocate different, changing and often conflicting uses of government power.

IN THE BEGINNING: A BROADCAST SERVICE IS A COMMODITY

In 1905 the Wireless Telegraphy Act vested in the Postmaster-General exclusive privileges to establish, erect, maintain and use

stations and appliances for "transmitting and receiving telegraphic messages by means of electricity without a continuous metallic connection between the transmitter and the receiver" and to license those privileges to others. In 1919, after war had spurred the development of the thermionic valve that made voice transmission possible, the words 'or telephonic' were inserted into the Act after 'telegraphic'. Both seemed natural extensions of existing government control of telegraph and telephone services. Though framed with point-to-point communication in mind (for example, as a vehicle for telegrams or for messages from ship to shore station) and at a time when broadcasting was a thing of the future, those powers meant that government was in a position to control, absolutely, who might broadcast and under what conditions.

Broadcasting — transmitting voice and music that could be listened to by all with a suitable receiver — officially commenced in Australia on 23 November 1923 when station 2SB (later 2BL) was opened, a year after the first regulations were gazetted. The world's first station making regular, systematic broadcasts had been started in the USA in 1920. Development was slow until a court determined that the US government had no power to refuse applications for broadcasting licenses. Then growth was explosive. In the thirteen months from November 1921, 571 licences were issued and, although all stations operated on one of only two wavelengths (thus causing gross interference), 15,000 retailers catered to a public rushing for receiving sets.³ In the United Kingdom, the Marconi Company's twice daily program had been banned by the Post Office in 1920, but it started regular broadcasting again in February 1922. In May 1922 negotiations began that led to the formation of the British Broadcasting Company by English radio manufacturers and to its first broadcasts in December. Under the supervision of the Post Office, which exercised powers similar to the Australian PMG's, the BBC operated six stations by July 1923.⁴ In most European countries regular broadcast stations were not established before 1923. This meagre experience of the UK and USA, therefore, was the only external guide Australians could look to when determining how the Postmaster-General's power should be used.

A monopolist rampant: AWA's first scheme

The two players in our Australian game who first watched overseas developments with close interest were experimental wireless operators and Amalgamated Wireless (Australasia) Ltd. (AWA). By early 1921 there were some 900 specially licensed experimenters in

the country.⁵ Knowledgeable, respected, sometimes vociferous and from a variety of mainly professional (or high earning) occupations, they were united in their belief that the development of broadcasting should be encouraged. Indeed, as early as 1921 some regularly provided concerts from gramophone discs or pianola rolls.⁶ Experimental operators in Australia were not, however, the organised force they were in the UK. They were members either of the Wireless Institute of Australia, dominated by this time by the professional interests of the Post Office and AWA, or of uncoordinated local radio clubs and until August 1922 they lacked even a publication catering to their special interests.⁷ Their special contribution to the development of broadcasting lay in their provision of a bell-weather core of popularisers who convinced other groups that conditions were ripe for its introduction.

AWA was a manufacturer, importer and erector of wireless equipment and holder of Australian rights to the most crucial wireless patents. It was formed in 1913 to abort patent litigation in Australia between the English Marconi and the German Telefunken groups by merging their Australian interests, including their present and future patent rights. It also acquired Australian rights to major American and French wireless patents.⁸

AWA was run and master-minded by E.T. Fisk, the most forceful and expert figure in early Australian wireless. The company at first concentrated on providing and operating point-to-point equipment installed on merchant ships and by August 1914 it had 76 ships in its care. In 1917 in conjunction with the Marconi Company in England, AWA had started a series of experiments that established the feasibility of direct wireless communication between England and Australia. In 1922 it contracted with the Australian government to establish and operate a service for the transmission of commercial messages to England and later Canada and to operate the 19 land and coastal stations already set up by the PMG. As a central feature of this agreement the government bought a controlling interest in the company; its directors were instructed to manage the business (with specified exceptions) on commercial lines.⁹

Then it moved into the field of broadcasting. In July 1922, while British radio manufacturers were still negotiating the number of broadcasting companies there would be in the UK, AWA told the Prime Minister that it wanted to establish a regular broadcasting service. AWA sought government sanction to establish an integrated monopoly. It wanted to erect and equip stations in all capital cities and operate all broadcasting, and proposed that the import of receiving sets be prohibited and that would-be listeners

use only receiving sets, hired from the company, that were tuned to respond only to the wavelengths on which it broadcast.¹⁰

AWA saw no need to seek the sort of agreement with other manufacturers that led to the BBC: there was none of substance. It had grounds for its claims that it alone could conduct an adequate (for the times) service throughout Australia. It was the largest and most experienced wireless concern in the country, with the capacity (legally exclusive, it believed) to manufacture transmitting and receiving equipment and with a staff capable of operating the transmitters. Moreover, its belief that its proposals would be accepted was strengthened by the fact that the terms of its agreement with the government earlier in the year could be interpreted as giving AWA an exclusive licence, subject to Ministerial approval, to *all* wireless operations in Australia.¹¹

The long-term advantages to AWA of the government's acceptance of its proposals are obvious. Hiring sealed sets to listeners meant both that other Australian manufacturers could not produce sets for sale to AWA's clientele (and, thus, force the company into costly patent litigation) and that AWA could set its own hire charges without competition. (In the long run they might well have been set to maximise profits, but in the short run would have been lower so as to stimulate demand.) Import prohibition was a clear enough addition to the protection of the hiring scheme. In case that ploy failed, moreover, AWA had specified that it would broadcast on relatively long wavelengths (in the band 1050 to 1450 metres) thus eliminating potential competition from mass-produced American sets made to receive only the shorter band of 600 metres and less. Even if the monopoly were to last only a short time, AWA would benefit considerably: its future position as a manufacturer would be consolidated by its enhanced status as first entrant and by the establishment of its preferred band of wavelengths; and, given stimulation of demand for broadcasting services, it could look forward to greater demand for its receiving and transmitting equipment and to an income from patent royalties if it chose to license others to manufacture.

Prime Minister Hughes, whose Department was responsible for wireless matters at the time, quickly gave AWA permission to set up broadcast stations, but he denied the call for import prohibition.¹² Regulations under the Wireless Telegraphy Act legitimising this were approved on 20 November 1922. They were very simple. They specified only that broadcasting stations would be licensed on the payment of an annual fee of £5 providing they were operated by certified technicians and did not broadcast commercial traffic or advertising matter. There was no provision

about the wavelengths to be used (as there was for experimental transmitters) nor for licensing broadcast receivers (as there was for experimental receivers).

Sealed sets and competitive services

In fact, no licence was actually issued to AWA. Almost immediately another interest group raised its voice very loudly: actual and potential retailers of radios and radio parts, some of whom were experienced experimental licensees. They were aware of the American retail boom and of the role played by broadcasting stations operated by retailers in generating that demand. AWA's proposals would deprive them not only of the chance to become broadcasters themselves, but even, due to the hiring scheme, of selling receivers. In Melbourne a number of them demanded the right to broadcast and a veritable agitation commenced.¹³

The government was embarrassed. The new regulation provided no basis for accepting one application and rejecting another, and no way of controlling the wavelengths that multiple licensees might use or the technical characteristics of receiving sets. AWA, long attacked both in Parliament and out as a monopolist from the unpopular Marconi stable, could hardly avoid the charge now. Mud must stick to the government as the majority shareholder; something had to be done.

In February 1923 the government changed. The Country Party forced Hughes to cede the Prime Ministership to Bruce as its price for joining the Nationalists in a coalition ministry. The new Postmaster-General, Country Party member W.G. Gibson, was delighted to have responsibility for wireless affairs returned to his Department¹⁴ and to be able to negate some of the patronage given to AWA by its enthusiastic champion, Hughes. With a great show of reluctance he allowed himself to be persuaded by the Association for the Development of Wireless in Australia, New Zealand and Fiji(!) to call a meeting of interested parties to discuss how best to get broadcasting started. The Association had been formed at the end of January 1923 under the energetic auspices of George A. Taylor, for many years a respected experimenter and publicist, who was initially interested in creating an Australian version of the British Broadcasting Co. Its original small membership comprised radio traders and manufacturers (including AWA) and importers (including the Australian branch of British General Electric, a member of the BBC).¹⁵

Association members, Fisk of AWA, and representatives of pastoral interests, major department stores, newspapers and experi-

menters attended the conference in May. Fisk outlined a scheme the basis of which was accepted with relatively little discussion.¹⁶ In essence, it provided for competitive broadcasting by stations each having exclusive use of a particular wavelength in a given area and getting its income from subscriptions paid by listeners whose receivers were sealed to its wavelength alone. To secure each broadcaster's market, radio dealers were to be licensed and obliged to sell sets or parts only to those who paid a listener's licence fee and a subscription to a broadcasting service, both of which the dealers were authorised to collect; they were also to keep records of sales and purchasers.¹⁷ With some important variations, including government rejection of the suggestion that the administration of regulations governing broadcasting be in the hands of a board on which the government, broadcasters, radio manufacturers and dealers and the press were all represented, these propositions formed the basis of the amended Regulations.¹⁸

This solution seemed at first to please everyone. An income producing system was attached to the licence to use a radio frequency. Potential broadcasters knew that their income would be determined by the price they set and the sales they made, just like any other producer's. A market was in prospect; potential listeners could expect that competition for their subscriptions would assure them of programs of increasing attraction and, if they were averse to listening to one station only, knew they could subscribe to two or more services and have their sets appropriately adjusted (and re-sealed). Radio dealers were free to sell any equipment approved by the PMG, to establish their own broadcasting stations and to jockey for position in the race to benefit from the coming boom. Country interests were placated by the news that by appropriate matching of the siting, transmitting power and frequency of broadcasts (all to be specified or approved by the PMG for each station), they as well as city dwellers would be able to receive broadcasts without interference. Newspaper interests seemed content with the conference guarantee that their ownership of the news they printed was not in jeopardy, even though the Regulations made no mention of it, and broadcasting did not threaten their advertising revenue. AWA had seen the costs inherent in maintaining its monopoly stance and had even given up pretensions to be a broadcaster, but it retained access to substantial potential advantages from the popularisation of broadcasting (sales of transmitting and receiving equipment and income from patent royalties). Moreover, it had maintained a good deal of the edge it wanted over American manufacturers by forcing the PMG Department to abandon its efforts to restrict broadcasting to wavelengths in the short band below 525 metres and allow use of those up to 3,500 metres.

The Regulations were approved on 23 July 1923. The first licence was applied for early in August and by the end of the year six had been issued. Four had gone to Farmer & Co., a prominent Sydney department store building up a specialised radio section, one for high-power transmission and one for low power in each of Sydney and Melbourne. Another had gone to Broadcasters (Sydney) Ltd., a group of radio and electrical dealers, and the sixth to Millswood Auto and Radio Ltd. in Adelaide. Broadcasters [Sydney] and Farmers, on stations 2BL and 2FC, were both in regular service by the end of the year and they were joined in January 1924 by 3AR Melbourne, operated by Associated Radio Ltd., manufacturer and retailer of radio products.¹⁹

REVENUE FROM LICENSING: ALL BROADCAST SERVICES FORM ONE PRODUCT

By March 1924 it was widely held that the sealed set system had failed. Only 1,400 listener's licences had been taken out.²⁰ Radio and electrical dealers, the same interest group that had approved the proposals, demanded that the regulations be changed yet again. What had gone wrong?

Failure of sealed sets

With hindsight we can see that these regulations were doomed to failure. Despite the ingenuity devoted to the method of sealing sets and the prohibitions placed on dealers and listeners, the scheme was unenforceable. First, experimental receiving licences were available at the same fee payable to the government by broadcast listeners. Experimenters' sincerity had to be certified by an authorised person (generally an office-holder in a local wireless club), but there was nothing whatever to stop them using their equipment to listen to any broadcast they could receive. By mid-1924 there were about 6,500 experimental licensees (cf. 1,223 listener's licences still extant) and in NSW alone the number applied for had run at 500 a month.²¹ Second, though do-it-yourself tinkerers were required to submit their sets for the ritual sealing and to obtain the tuning component from a licenced dealer, who could control the man who made his own crystal set, its coil wound round a cardboard tube?

These facts were becoming obvious early in 1924. They were not, however, the basis of radio traders' reactions. The crucial objections, first raised in June 1923, rested on fear of consumer

resistance to the basic notion of one receiver/one service, the high cost of listening and the higher cost and inconvenience of converting to one receiver/multiple service. Innumerable variations were rung on these themes in the next nine months, many of them contradictory.²² In the event, subscriptions ranged as high as £4.4.0 a year — nearly 80 per cent more than the cost of buying a newspaper six days a week, and on top of the cost of the set. 2BL offered a 'free' service, costing only the 10 shilling licence fee payable to the government, but it was the only would-be broadcaster to take advantage of this method, explicitly and officially approved in September 1923,²³ to sidestep the price barrier. Other argument questioned the reception quality of sealed sets, prophesying reduced demand and falsification of broadcasters' revenue expectations with consequential deterioration or cessation of services further reducing sales of sets. In addition, radio importers would be disadvantaged and small retailers feared that the sale of sets would be dominated by those retailers who themselves ran broadcast stations.

None of these propositions was testable by March 1924 when matters came to a head. Sydney's two stations had been operating for barely three months, Melbourne's for only a month. The delay between approval of the regulations and the start of broadcasting may well have tempered the expected rush. Retailers' criticism certainly did. At the very beginning, moreover, the stations operated from primitive studios and on a power of only 500 watts, one third of that of the BBC stations whose normal reception was limited to 10 to 20 miles.²⁴ Simply, sealed sets had not been given a fair trial.

Traders and broadcasters confer

Once again, as traders' pressures became insistent, the Postmaster-General allowed himself to be persuaded by the Association for the Development of Wireless (its Australia-wide membership of 137 now almost wholly composed of traders) to convene a meeting to advise him. If sealed sets were to survive, a way had to be found either of effectively bypassing the dissident retailers or of winning them over. If sealed sets were doomed the question of how broadcasters were to get their income became pre-eminent.

The conference, in April 1924, was attended by licensed broadcasters, whether in service or not, representatives of traders (some of them wearing a number of hats), and by H.P. Brown, the permanent head of the PMG Department. (AWA, newspaper interests and consumer representatives were not invited.) The

essence of its conclusions had already been determined at meetings of State representatives of the Association: 'open' sets for listeners and revenue for broadcasters coming from a uniform listener's licence fee.²⁵

Elaborating this basis into a set of final recommendations was achieved only after considerable dissension. Representatives of Farmer and Co. walked out of the conference on the first day. Anthony Horderns and a group of Sydney retailers resigned from the Association before proceedings started and declined an invitation to discuss *their* scheme at the meeting.²⁶ Tension ran high between broadcasting licensees and retailers, between broadcasters who were already operating and those yet to start, and between small retailers and large. Since 1923 new interests had emerged that demanded to be heard.

On the first question — whether sealed sets should be retained — only the representative of Victorian station 3AR argued affirmatively, but briefly. Though lacking the programming ability of its main potential rival, it had expected, through the establishment of a network of distributors selling equipment it manufactured, to secure original sealed set subscribers to its own service and also to sell duplicate licences for other services so that it could, if necessary, swing up on the coat-tails of a more successful competitor.²⁷ Station 2BL, the only other operating broadcaster present after Farmer & Co's departure, wholeheartedly supported open sets. Its shareholders were radio retailers and its service free only because they and Smiths newspapers made weekly contributions to cover its costs, hoping to recover this from increased retail profits or newspaper sales.²⁸ The potential broadcast licensees from South Australia and Western Australia (6WF run by Westralian Farmers) were acutely aware, after Sydney's experience, of the difficulty they would have in generating an adequate subscription income from their smaller potential markets.

Farmer & Co. preferred the status quo from which it, above all, stood to gain. It had the technical backing of AWA and an agreement with J.C. Williamsons and J. & N. Tait giving it exclusive access to the theatrical talent those two concerns controlled. Together, those factors enabled it to broadcast, for example, the whole stage performance of a musical comedy as early as January 1924.²⁹ Moreover, it had exclusive rights to a news service provided by the *Sydney Morning Herald* and *Evening News* and an agreement with a leading piano dealer that provided it with pianos, artists and a cash payment.³⁰ The subscription of three guineas was high, but it intended to use its second NSW licence, for a low powered station, to broadcast a low cost service aimed at children's

entertainment and less ambitious adult programs.³¹ Farmers also held two Victorian licences. These it sold in February 1924 to the Broadcasting Co. of Australia, which planned station 3LO. (The shareholders in this company typified the motives of many radio investors: Farmers and Williamsons and the Taits (40 per cent each), the Herald and Weekly Times (15 per cent) and Buckley & Nunn (5 per cent), the department store, each looked to indirect advertisement of its main business and returns from a speculation investment.³² Two of them also secured sole or preferential rights to supply, respectively, news and live entertainment and a strategic position in an industry that might one day be a competitor.) With these interlocked interests in the two major cities and an impressive array of technical and programming potential, Farmers were likely indeed to out-perform all competitors. Even Farmers, however, had already bowed publicly to the inevitable and accepted the principle of open sets "provided our interests are protected".³³ The traders' victory on this issue was complete.

Without the identifiable market for individual broadcast services that sealed sets permitted, the next question was how broadcasters were to get their income. Some interests, it was known, might be willing to broadcast without direct revenue from the service. The conference agreed that a special class of licence (B class) be available to cater for this possibility. (Although twelve B class stations were operating in 1927, they were typically small, unprofitable and almost amateurish in their approach. They and their problems were quite peripheral to subsequent regulatory change in the 1920s.) The possibility of raising additional or alternative revenue from a sales tax on wireless valves received short shrift,³⁴ perhaps because it would have been directly reflected in the price of sets and reflect directly on retailers. Revenue from broadcasting advertisements, directly or indirectly, was not expected to be large — or so, at least, the short experience of the three existing broadcasters indicated. Some licensees, particularly from the smaller States, insisted that it must nevertheless be available to them to supplement revenue from licences. They were overridden by retail interests, keen to forestall opposition to the whole scheme from newspaper interests.³⁵ (The viability of potential 'B' class stations was not raised.) Traders fundamentally argued, however, that unless there were adequate direct returns to a main group of broadcasters, there would not be the investment in high-powered efficient transmission and programming necessary for the industry to take off and provide their retail profits. The imposition of a uniform licence fee on listeners, sufficient both to 'subsidise' those broadcasters who would hold A class licences and to meet the costs

of government collection and administration seemed the obvious answer.

There were, however, two features that distinguished this use of licence revenue from its British precedent. First, Australian broadcasters did not have the British Broadcasting Company's access to royalty revenue from the sale of radios. Fees would therefore have to be very much higher than the 5 shillings paid in England. The conference decided that broadcasters should receive 40 shillings per listener. Secondly, there was not in Australia the single broadcasting company there was in Britain. The revenue would have to be distributed. But how, and among whom?

This was the crunch for both traders and broadcasters. Traders basically sought the provision of a number of strong competitive broadcast services to cater for a variety of interests and so stimulate higher demand for receivers. As an incentive to competition, it was first proposed that the government initially distribute only 85 per cent of the 40 shillings, the remaining amount to be paid out on the basis of technical efficiency and programming excellence.³⁶ Other suggestions included the division of revenue, presumably within a State, wholly on the basis of listeners' votes.³⁷

Existing broadcast licensees and those with pending applications were determined to protect their position. Traders agreed that a guaranteed share of available revenue was necessary to provide an element of certainty to investors' expectations in the early years. To reinforce that incentive, particularly given the uncertain number of likely listeners, shares had to be equal. Broadcasters argued, however, that only at relatively high levels of revenue could good services be provided at even a modest profit. A compromise figure of £20,000 was reached as the maximum that a broadcaster might receive from licence fees. But that revenue represented 10,000 licensed listeners. In England, after something more than a year's broadcasting, listener's licences had been issued to about 1 in 75 of the population. In America there was a receiving set to every fifty people. If Australia could achieve after two years the penetration record in England, there would be able 80,000 listeners — enough to give £20,000 each to eight stations. There was, however, no guarantee that this would happen. The number of A class broadcasters between whom revenue was shared had, therefore, to be limited.

The conference solution was that, at first, licence revenue (net of an amount to be retained by the government) raised in a State was to be distributed equally between broadcasters already operating in that State or, if none, to the first licensee. When, but only when, the initial broadcaster(s) in a State was receiving £20,000 from licences,

another broadcaster was to be allowed access to the revenue. But the number of A class broadcasters was to be limited to three in each of NSW and Victoria, one in Tasmania, and two in each of the other States.

All that remained of the traders' visions of vigorously competitive broadcasting was the possibly entry of one additional 'A' broadcaster per State after the original licensees were fully established and profitable, and an even more distant 'bonus' distribution, on the basis of listeners' votes, of revenue surplus to the £20,000 paid to the maximum number of stations. They, as well as broadcasters, were content enough with the compromises they had reached.

The Postmaster-General conceals a hand

Neither the traders who dominated the conference nor most of the broadcast licensees realised, however, that the Postmaster-General had his own ideas and was no longer prepared merely to accept a private compromise between conflicting private interests. With the example of the British Broadcasting Company clearly in mind, he (and probably his Departmental head, Brown — where the initiative lay is quite uncertain) wanted a single private company to undertake all licence-funded broadcasting. By this means he hoped to achieve maximum efficiency in the use of geographically separated broadcasting resources and the widest possible reception of high quality programs — or, shorn of its veneer, the subsidisation of broadcasting in States other than NSW and Victoria by concentrating all revenue and all responsibility in one company.

Such a company could be established only by influential private concerns and it was evident, even before the conference, that the small trader interests in the Association would not support it. In March, therefore, Gibson pressed Farmers to accept that role. On 2 April it proposed a scheme with itself and its Melbourne associate, Broadcasting Co. of Australia, at the core. This was the background to Farmers walking out of the conference just six days later: it could *not* be discussed publicly. Informed early in May that its proposal was unacceptable (presumably because ownership would be highly concentrated), it revealed its private, unrealisable preference for five separate, one city/one station companies pooling Australian revenue from a uniform listener's licence fee and distributing it to the relative advantage of those in Perth and Adelaide.³⁸

Another group of Sydney companies, comprising Anthony Horderns, David Jones and Marcus Clark (major department stores), Harringtons and Lasseters (both radio dealers) and New

Systems Telephones (manufacturers), also had a scheme for a single company. Their intention was undoubtedly to achieve a belated entry into the group of 'original' broadcasters and/or to eliminate the advantages they saw accruing to Farmers and 2BL's backers. The scheme was discussed and rejected at meetings of the Association in February or March. As a result, members of the consortium resigned from the Association before the conference and submitted a proposal to Gibson in mid-April.³⁹ On 5 May the consortium agreed to undertake the formation of a company along the lines suggested by *him* in recent talks.⁴⁰ This was one which was to include existing broadcasters, radio manufacturers and dealers among its shareholders, in which no shareholder was to have an initial holding of more than 5 per cent nor an eventual one greater than 10 per cent, whose profit was to be limited, and which was to operate one [sole] licence-funded station in each mainland State capital.⁴¹

News of the PMG's preference for one big company was rumoured after the conference ended and became common knowledge the day after Cabinet discussed the matter on 1 May.⁴² Reaction was immediate. The Association whipped up a mammoth mail protest to Cabinet ministers. It was the more readily fanned because those closest to the conference proceedings believed that Farmers, backed by a wickedly monopolistic AWA, initiated a pressure to which the PMG had bowed. Thus a telegram from the Association to the Prime Minister on 6 May proclaimed

The Marconi stranglehold has been thrown off in England. Thousands of radio dealers and agents are watching your Cabinet's decision to see whether you are strong enough to keep Amalgamated Wireless out of broadcasting control in Australia. Hundreds of our members have sampled public opinion and will take action next election to remove from Parliament members who don't give broadcasting a fair chance on competitive lines suggested by Sydney conference. Remember all broadcasting interests except one agreed with Sydney conference.⁴³

Although it preferred the conference solution, the Association had already, on 2 May, proposed its own pre-emptive version of a single company; one composed of radio interests, limited as to profits but operating a minimum of two stations in all States except Tasmania.⁴⁴ When it was discovered (from Farmers?) that Horderns was the 'leader' of the one big company move, the anti-monopoly campaign's aim shifted, but it did not abate.

The PMG Department brushed this opposition aside. The real obstacle was the obstinacy of the existing broadcasting licensees who, with Farmers in the lead, categorically refused to surrender

the rights to which their five-year concessions entitled them.⁴⁵ Without their co-operation the scheme was politically impractical; claims for compensation for the long, unexpired portions of their licences, allegations of expropriation and of partiality by the Department in its choice of a company promoter would make the government's position very difficult and greatly prejudice the development of the new company. For a month or more Brown and almost certainly the Hordern interests argued, wheedled and tried to compromise with them.⁴⁶ Though it was in vain, the battle was not abandoned until the middle of June.

On the third of the four occasions when the matter went to Cabinet, the weight of the PMG Department (Gibson was by now overseas) was behind the second best of the four options it considered — a scheme "preferable initially so long as the way is open for the attainment of the ideal at a later stage".⁴⁷ The regulations that finally emerged with Cabinet approval were a significant variation of the conference proposal, with the following major provisions: A and B class licences were to be issued, the A class alone to participate in licence revenue; A class licences were to be issued to the then existing licensees in NSW, Victoria (including 3LO), South and Western Australia and to one applicant from each of Queensland and Tasmania and for a period of two years to no other; of the two stations licensed in each of Victoria and NSW, one was to operate with a power of 5 Kw and the other with 1.5 Kw, the higher powered stations receiving 70 per cent of the available revenue raised in their States; A stations were expected to establish relay stations in the country; both A and B class stations were permitted to charge for advertising, though fairly restrictive terms attached to A station advertisements; differential fees for listeners and dealers were imposed depending on distance from the capital city. Cabinet itself reduced the metropolitan listener's fee, inclusive both of the amount retained by the government and that paid by broadcasters as a royalty payment to AWA, from the 55 shillings recommended by the conference and the 40 shillings first proposed by the Department to 35 shillings for 1924/25 and 30 shillings for 1925/26 (later reduced to 27/6).⁴⁸

It was something of a split decision for the conference participants. Traders got their open sets and a listener's fee less likely to inhibit demand than that they had expected. They had lost their argument for guaranteed variety. Existing broadcasters had at least two years exclusive access to available revenue. And in States other than the two most populous there was to be but one A station. Farmer & Co. and their associated interests were put in the more favoured position in NSW and Victoria where reasonable revenue

might be expected. The 70 per cent shares were awarded to 2FC, recently upgraded to a power of 5 Kw, and to 3LO, the Melbourne affiliate that might not even have qualified as an 'original' station in the conference proposal and was not yet in operation when the regulations were issued but was built to use 5 Kw.⁴⁹

A SINGLE BROADCASTER

In the first six months' operation of the new regulations, the number of listener's licences held rose from 1,226 (issued under the 1923 arrangement) to over 38,000 and by June 1925 to over 60,000. In 1925/26 the number doubled and rose by 75 per cent in the following year. The boom had come even though it slowed dramatically from 1927/8.⁵⁰ In 1924 it seemed doubtful that a penetration rate of one licence to every hundred people could be reached within a year. It happened. Moreover, by June 1926 the rate was 1 in 47 and a year later 1 in 27. Heady stuff!

A patchy boom

Sellers of receiving sets and radio parts thrived. The turnover of one retailer, only £8,000 during the sealed set era, jumped to £95,000 in 1924/25 and £146,000 in 1926/27. Four smaller Melbourne retailers reported an aggregate increase of turnover of some 60 per cent in 1926/27, to total some £45,000 including an average gross profit margin of some 22 per cent.⁵¹ As a manufacturer and wholesaler, AWA achieved a sales figure of some £60,000 in the second half of 1924 (and made a profit from the division for the first time). By 1927 it was running at £200,000 a year. A competitor, United Distributors, also had an Australia-wide turnover of over £200,000 by 1926/27.⁵² Imports of radio receivers and valves (including some for telegraphy) totalled some £650,000 in 1926/27, the first year they were recorded separately, more than half the sets coming from the USA.⁵³ (By that time most stations were operating on wavelengths below 600 metres, much to AWA's chagrin.)⁵⁴

Since 1924 significant changes had been incorporated in receiving sets and prices of all types had fallen by a half or more. By 1928 there were even portable sets of 4-valve efficiency — "indispensable to motoring and yachting" — for a mere £25.⁵⁵ Nevertheless, as late as 1927, most metropolitan listeners used crystal sets rather than the technically-superior valve sets. (The estimates go as high as 75 per cent.)⁵⁶ Despite the inconvenience of manipulating the cat's whisker and using headphones, price — and

the absence of large messy batteries — was a powerful attraction. Herein lay a major problem for retailers. Crystal sets had formed the numerical bulk of their sets. But by 1927 the market in the south-eastern States was thought to be nearing saturation. There was, after all, a listener's licence to every 14.5 people in Victoria. Sustained expansion of sales depended on a switch from crystal to valve sets.

Broadcasters themselves, however, were taking much longer to earn profit than they had hoped. 3LO alone paid a dividend (5 per cent) in 1925/26 and in 1927 the Royal Commission on Wireless reckoned that while most other stations were likely to make profits shortly, only 4QG could wipe out its accumulated losses before the current licences expired.⁵⁷ Among the reasons for this were the high prices broadcasters had to pay for copyright in the music they broadcast and for the patent rights they allegedly used. The former were reduced significantly after a conference was convened by the Prime Minister in 1926.⁵⁸ Patent rights, halved as another result of government intervention in 1924, cost the A stations 20 per cent, or 5 shillings, of their licence revenue plus 25 per cent of their advertising revenue.

The main reason lay, however, in the limitations imposed by the distribution of licence revenue. The sharing arrangement favoured stations in the two most populous States and, of them, the two high-power stations. By June 1927 those four stations drew revenue from nearly 180,000 licences. To receive the same revenue as the average eastern station, the Western Australian broadcaster would need a penetration rate there of 1 in 9 and the South Australian 1 in 13 — far greater than the 1 in 23 accomplished over NSW and Victoria.⁵⁹ Without prospect of access to such revenue, the willingness of those companies to produce the effective broadcast services necessary to expand the market for receivers was limited by the size and the duration of the losses they were prepared to accept. It was, essentially, to overcome this uneven distribution of population between and within States that the Postmaster-General and his Department had so strenuously and vainly pushed its idea of one big broadcasting company for Australia in 1924.

Another problem that had become evident by 1926 was that A class broadcasters, concerned to maximise the number of listeners, directed their services to the cities. Reception of those broadcasts in the country depended on the use of the more expensive valve sets and even then was subject to fading and other distortions. The rural population was not reaping the benefits broadcasting was supposed to confer.

Yet broadcasters were not wholly to blame. The 1924 regulations

obliged them to establish country relay stations in areas where potential demand warranted it. All four stations in NSW and Victoria made application to do so in 1925 and 1926, but by 1927 none was in operation. Though some broadcasters changed their plans from time to time, the basic problem was that the PMG Department could not provide the necessary access to landlines.⁶⁰ The difficulty was that, though the increased capacity of the carrier wave system of telephonic transmission was technologically available, the Department's first inter-capital city facility (between Sydney and Melbourne) was not in place until 1925.⁶¹ Even on that link there was not enough capacity for effective relay facilities as well as normal trunk telephone traffic. More importantly, lines needed for country relays were low in priority in the carrier wave conversion program.

A Royal Commission proposes . . .

Once again the Association for the Development of Wireless provided a 'cause' around which it was possible for the bureaucracy to structure a further public review of the whole broadcasting question. The issue was AWA's patent royalties on valves and the agreement it wished traders to sign before they sold AWA products. Set at 12/6 a valve socket, this royalty significantly influenced the price of four- and five-valve sets in which traders saw their future. In May 1926 the Association called for a Royal Commission and pressure was exerted on the government through the rest of the year.⁶²

The Commission, appointed early in 1927, necessarily acted as a public forum at which AWA could be whipped.⁶³ Before it were also paraded all the arguments about how broadcasting services should be rewarded — nationalisation, one big private company, sharing licence revenue with B class stations, access to advertising revenue and retention of the *status quo*. The principle of using licence revenue to support A class stations, and them alone, was not seriously questioned.

It recommended that the listener's fee be reduced by lowering the amount retained by government and reducing that payable by broadcasters to AWA (as broadcasting patent royalties) and the Performing Rights Association. The sum retained by broadcasters would be unchanged. The important preoccupation in our context was with distributing it in a way that produced better services for small State and country populations: it recommended that 'available revenue' be pooled to allow the payment to every A station of an 'operating allowance' of £5,000 after which the rest

would be distributed on the current basis, proportionate to the number of licences in each State. This would immediately double the Western Australian broadcaster's revenue, quadruple Tasmania's and marginally increase the South Australian's and Queenslanders's.

... and government disposes, to some

The government grasped the nettle of patent royalties readily. It had been a cause of embarrassment since 1923. Its hand strengthened by the Royal Commission's pointed, and popular, references to the sanction it held in the power to buy out the private shareholders, it forced AWA to a major retreat. In return for the government paying it 3 shillings from every licence fee, the company 'agreed' to release not only broadcasters but also manufacturers and traders from all royalty obligations for five years.⁶⁴ The traders had won yet again.

Following through the idea of a subsidy from the populous States to others was less expeditious. Prime Minister Bruce met the broadcasters in October. The talks foundered when 3LO, whose £98,000 revenue would have been reduced by 10 per cent under the Commission's plan, refused to subsidise other stations unless it also controlled them. Other broadcasters naturally saw this as an effort to gain a 'permanent supremacy'.⁶⁵

Departmental officers, therefore, looked at different ways of dividing the licence fee so as to produce a more flexible subsidy system. For example, keeping the government's share unchanged and using what was surplus to its administrative costs would provide £12,500 for distribution to Tasmania and Western Australia. Alternatively, the basic revenue available to all broadcasters could be reduced (with little immediate effect in these two States) by an amount to be held by the government to subsidise companies establishing relay stations.⁶⁶ In the event, Cabinet merely reduced the metropolitan fee from 27/6 to 24 shillings, the difference attributable entirely to the lower patent royalty and a smaller payment to consolidated revenue, and deferred the question of subsidising small States and country areas.⁶⁷ The gainers, at least for the time being, were the eastern broadcasters whose revenue was unaffected. It was a temporary respite.

Gibson himself had vetoed the Department operating a relay subsidy fund, maintaining that the companies should accept all responsibility. He was forced now to play a card he wanted to retain a little longer. To Earle Page, the Acting Prime Minister, he had written in December 1926:

Personally, it seems to me the solution of the problem is the amalgamation of the Broadcasting Companies in the several States. I quite realise that this would be looked upon as a monopoly and strenuously opposed by a very large section of the community, but if it were brought about, I feel there should then be no difficulties in giving good programmes in the distant States . . . Although I express this view, it is hardly – at present at any rate – a practicable scheme, and I do not suggest that you make any reference to it.⁶⁸

It was impracticable in 1926 (and *a priori* in 1924) because Gibson had no effective leverage on the broadcasters other than open coercion, and this he would not use. By early 1928 conditions had changed. Most A class licences were due to expire in about eighteen months. Control of their possible renewal was now a powerful weapon in his hands. Gibson therefore publicly urged amalgamation and co-operation on broadcasters as the only way to improve Australian services.⁶⁹ The co-operation, he insisted, had to be close, preferably through a single 'authority'. The public and private campaign waged by his officers had some effect. By May the two Sydney broadcasters had amalgamated to form one company. So too had the two Melbourne stations, and 3LO was reported to have also negotiated a merger with the A station in Adelaide, to be close to a working agreement with those in Perth and Hobart and to be discussing proposals with the Queensland government's 4QG. Two Adelaide stations, one a B class, announced a co-ordinated approach to programming.⁷⁰

Gibson's call for amalgamation was deliberately phrased in terms of improved programming; its public defence (a task he carefully saw was assumed by the broadcasters) was naturally couched in the same language. But the broadcasters looked no further than at a simple co-ordination of some services. Gibson wanted far more: an Australia-wide amalgamation that would reduce administrative and operating costs and, more importantly, syphon revenue from listeners' licences in the eastern States into program expenditures in Western Australia and Tasmania, and from urban listeners' licences into the construction and operation of country relay stations. The interests of the broadcasting companies must be bent to those of the rural electorate.

Eventually, on 22 June 1928, Gibson was able to take to Cabinet two schemes, one proposed by the A class broadcasters and one by AWA.⁷¹ The first outlined the financial control structure of a company, to be formed from the current A class licensees, that would operate licence-funded broadcasting in all States except Queensland (where 4QG was run by the State government). Its only reference to the government's central concern was almost

incidental: "a reasonably long term of licence was necessary to justify the establishment and development of the service on proper lines and the spending of the money necessary for that purpose". Cabinet decided that Bruce and Gibson should discuss this proposal further with the broadcasters. On 19 July, Bruce was still refusing to comment on the schemes until after Cabinet's renewed consideration "next month".⁷²

A sharp break with a short past

Within the week, however, Bruce announced that programming rights for all A class broadcasting would in future be let to a single contractor and that the construction and maintenance of the transmitting stations would be the responsibility of another.⁷³ This is what AWA had proposed to Cabinet, with the company the technical contractor on a cost-plus basis.⁷⁴ After Gibson's long insistence on drawing all the existing A licensees into one big private company to conduct all licence-supported broadcasting in Australia, it was something of a *volte face*. It is the more surprising therefore that no direct reference to it can be found in Departmental or Cabinet records before Cabinet considered implementation recommendations from a newly appointed broadcasting committee, chaired by Brown, in September 1928. Yet certain things are clear, even if only implicitly.

In the first place, few commercial interests apart from AWA and larger broadcasting or entertainment groups with a programming capacity stood to benefit from it. Sir Benjamin Fuller's theatrical enterprises applied to the Prime Minister for licences for a chain of stations in the capital cities.⁷⁵ If, as is most likely, this was done after private discussions with Bruce or other ministers, Fuller's expectation of benefit from the new arrangement may well have been whetted. (It is wholly plausible that Fuller was being manipulated.) For some newspaper groups like the *Age*, which had advocated nationalisation quite vigorously, it meant a limitation of competitors' access to the airwaves.⁷⁶

In the second place, it is clear that Cabinet was deeply dissatisfied with elements of the A class broadcasters' proposals and that that reaction was independent of any considerations affecting other commercial interests. In particular, discussions between Bruce, Gibson and the broadcasters about the extension of licences must have re-inforced the Nationalists' fear of the size of the future vested interest that investment in broadcasting stations by a single Australia-wide company would create. An additional factor of peculiar importance to Country Party ministers was that there was

no guarantee that the single company would in fact provide adequate relay stations. The component companies of the proposed amalgamation were wedded to the idea of land-line relay. The PMG Department was unwilling to provide the requisite facilities, partly on account of the cost and broadcasters' unwillingness to pay an appropriate rental, and partly because the Department thought short-wave relay might provide the proper solution.⁷⁷ Behind these considerations there were also the private interests of the PMG hierarchy. In a series of amalgamations in which Farmers and its associated interests were leaders could it be, despite the companies' protestations, that AWA was not a prominent force? H.P. Brown, the permanent head of the PMG, was always very conscious of the fact that AWA's agreements with the government divided an oversight of wireless matters that should have been centralised in his Department.⁷⁸ He was overseas between August 1927 and July 1928, but it is hard to imagine his deputy, Haldane, not strongly advising his Minister to keep AWA out of this potentially stronger position.

Critics of the policy were united in their belief that it hid a hand-over of technical control to AWA and of programming control to J.C. Williamson.⁷⁹ (It was a perverse objection if that control was already implicit in the private amalgamations.) They were confounded. In May 1929 Cabinet reaffirmed the policy adopted in the preceding September: that the PMG Department would be responsible for the erection and operation of the technical facilities available to the successful tenderer for the "national broadcast system".⁸⁰ The successful tender for programming rights, for a three-year period, was won not by the amalgamated broadcasters nor by Williamsons, who applied separately, but by a group comprising Union Theatres, Fullers Theatres and J. Albert & Son and said to have access to 54 orchestras through Australia.⁸¹ (Predictably they formed the Australian Broadcasting Co.) To rub salt into AWA's wound, moreover, Standard Telephones and Cables won the contract to erect the first two relay stations to be built for the PMG.⁸²

This final form of the first 'national broadcasting scheme' meant not only that a short-term program contractor would be obliged to divert revenue from more to less populous States. It also meant that the government would use revenue from licence fees paid in the cities to erect stations in country areas which to private enterprise would be unremunerative. (That country broadcasting in fact effectively got started, from 1930 to 1932, as a result of private enterprise, not government initiative, is another story.)

CONCLUSION

A single characteristic of broadcasting warranted some government regulation of the industry: the need to allocate wavelengths to broadcast producers in a way that prevented interference to listeners' reception of individual broadcasts. As they tried to turn that regulation to their advantage in the 1920s, apparently powerful groups — AWA, A class broadcasters, the Australian Performing Rights Association — one after another were denied the benefits they sought. Traders were the only active participants to gain substantially. Their activities incidentally enabled various domestic and overseas radio manufacturers, and importers, to grow stronger and, in some respects at least, advantaged consumers.

The regulatory process was immediately 'captured' to create a saleable commodity and define a market structure. AWA, a single firm 'group' with low cost access to political power and the prospect of great potential gain, was the first captor. However, in 1923 it surrendered its monopolistic hopes as being too costly in their unpopularity; its manufacturing dominance was eroded during the decade; and its rentier income from patents severely curtailed in 1927. Its 1922 arrangement would have imposed heavy losses on electrical traders, in the form of an expected boom in radio sales foregone. Though unable to keep out free-loaders, the traders, at first a small group with relatively low costs of organisation, effectively determined the early shape of the industry. 'Serious' broadcasters, always a very small group but with some divisive interests, were able at first to differentiate their products and establish individual markets. Under pressure from traders looking to rubber-stamped government approval, they were later obliged to separate income from product and to accept imposed shares of revenue from an indirect market. Then government initiative forced them to relinquish the long-term rewards of pioneering the industry.

At first, the story is of demands for regulation. The efforts of the PMG and his Department to create a single-firm broadcasting industry introduces considerations of supply. (Independently interventionist motive marks much Australian government regulation.) It was a distributive matter that was at issue. It was also a Country Party initiative, interpreting, even leading, the implicit benefit to accrue to that amorphous, generally passive, 'rural interest'.

Quite clearly the private interests of PMG bureaucrats also had a part to play. Fisk's and AWA's appreciation of the technical and associated organisational arrangements needed for a technically and economically efficient system of revenue-funded broadcasting

in Australia was basically accepted by the PMG Department. Brown, the Departmental head, was not prepared to allow AWA the power that implementing that policy would give it. He used his very great influence in the determination of public policy to ensure that his Department filled the role Fisk had outlined for his own company.

The fact that when Minister and Department tried first, in 1924, to rise above a rubber-stamping or arbitral role, they were unable to assert themselves — that in the event government had to conform with the essential basics of the private compromise — raises a different issue. The contention, that respect for the legal (and moral) obligations of licence agreements constrained government, gains some weight from the events of 1928 and 1929. The bargaining position of revenue-funded broadcasters weakened progressively from mid-1927. As the expiry of their licences grew closer, their ability effectively to exert overt or concealed pressure on the government diminished. They were rendered comparatively powerless to resist official pressure to enforce a subsidy to potential rural listeners through a single amalgamated broadcasting company or, as it turned out, the new single program contractor.

The stage in the development of broadcasting reached in 1929 was far from the end of government interference or of private effort to fashion regulation. From the end of private program contracting, through the formation of the Australian Broadcasting Commission,⁸³ and onward, the influences of different and changing private and government interests waxed or waned in a manner more complex than that outlined here.

NOTES AND REFERENCES

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2. There is a lively and growing economic literature on the theory of regulation. See, for example, G.A. Withers and J.J. Pincus, 'Economics of regulation' in F.H. Gruen (ed.), *Surveys of Australian Economics*, George Allen and Unwin, Sydney, 1983, vol. 3.

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4. Asa Briggs, *The History of Broadcasting in the United Kingdom*, Oxford University Press, Oxford, 1961, vol. 1, pp. 38, 98-123.
5. Curnow, *op. cit.*, 1963, p. 94.
6. G. Maxwell Hall, '50 golden years of broadcasting in Australia: the amateur contribution', *Amateur Radio* (Toorak), August 1973, pp. 7-9.
7. W.J. McLardy started the *Wireless Weekly* in that month. He was an enthusiastic experimenter, later a leading spokesman for Sydney Broadcasters Ltd. (2BL).
8. Curnow, *op. cit.*, 1963, p. 64.
9. E.T. Fisk, 'The application and development of wireless in Australia' in *Proceedings of the Pan-Pacific Science Congress 1923*, Sydney, 1923, pp. 619-31, esp. pp. 622-8. Also Report of Parliamentary Committee into proposed agreement with AWA, Commonwealth Parliamentary Paper No. 30, 1922.
10. Australian Archives (AA), CP 657/4, bundle 3, part 2, PMG Department's 'Historical notes on broadcasting'. The essence of AWA's detailed proposal of 31 October was very similar to that made by the Marconi Company to the UK Post Office in April. See R.H. Coase, *British Broadcasting: a Study in Monopoly*, Longmans Green, London, 1950, p. 9.
11. The company used the argument, unsuccessfully, as late as 1929. See AA, CRS A2718/XM, vol. 6, part 1, Cabinet meeting 3 May 1929, 'National broadcasting service: recent developments', Agenda Paper No. 307C, para. 20.
12. AA, CP 657/4, bundle 3, part 2, PMG Department's 'Historical notes . . . '.
13. *Argus*, 28 November 1922; Royal Commission on Wireless (1927), transcript of evidence, p. 3517 (E.T. Fisk). The transcript was not published; typescript copies are held at AA, CP 657/1 and at the National Library, Canberra.
14. The Report of the PMG for 1922/23 (p. 15) dates the transfer as December 1922, but it was not gazetted until 15 March 1923, retrospective only to the first of that month.
15. *Wireless Weekly*, 2 February 1923.
16. A verbatim account of the proceedings was published in *Wireless Weekly* in the issues of 8, 15, 22, 29 June and 6 July 1923. For shorter reports see *Argus*, 25 and 26 May.
17. The scheme was probably similar to proposals made earlier by AWA. See AA, CRS A458, item A224/1/84, letter from J.W. Wilson (Assistant Manager, AWA) to Secretary, Prime Minister's Department, 8 February 1923 and attached Reference Paper No. indicating that the attachment had been sent to the Controller of Wireless for consideration. The attachment has not been traced in records of the Departments of the Prime Minister or the PMG.
18. AA, CP 657/4, bundle 3, part 2, PMG Department's 'Historical notes . . . ', Appendix B and C for the conference's recommendations and the Department's first draft of the regulations. For negotiations about the detailed content of the regulations, see *Argus*, 16 June and 4 July 1923.
19. *Radio* (Sydney), 23 January 1924.
20. The figure is from AA, CP 657/4, bundle 3, part 2, PMG Department's 'Historical notes . . . '.
21. AA, MP 341, file 34/11451, box 191, 'Broadcasting proposal no. 1' [papers prepared for Cabinet, probably for meeting on 17 June 1924]; *Wireless Weekly*, 7 March 1924.
22. *Age*, 25 June 1923; AA, MP 341, file 24/2536, folio R13855, box 190; *Electrical Times* (Melbourne), 27 July 1923; *Commonwealth Parliamentary Debates*, vol. 104, p. 2341, vol. 105, pp. 2573-6.

23. Curnow, *op. cit.*, 1963 p. 100; AA, MP 341, file 24/2536, folio R9661 and file 23/14825, both box 190.
24. AA, CP 657/12, wireless bundle 1, paper J submitted by AWA; *Radio*, 12 December 1923; P.P. Eckersley, *The Power Behind the Microphone*, Jonathan Cape, London, 1941, p. 68.
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26. *Melbourne Herald*, 9 April; *Sydney News*, 10 April; *Sydney Morning Herald*, 15 April 1924.
27. AA, CRS A458, item A224/1/12, letter from Associated Radio Ltd. to Prime Minister, 2 May 1924.
28. *Sydney Sun*, 18 March 1924; AA, CP 657/12, wireless bundle 1, statement by Broadcasters Sydney Ltd.
29. *Radio*, 23 January 1924.
30. AA, CP 657/12, wireless bundle 1, statement from Farmer & Co.; *Radio*, 23 Jan. 1924.
31. AA, MP 341, file 24/7810, box 190, letter from P.W. Pope (Chairman, Farmers) to Prime Minister, 30 May 1924.
32. Royal Commission on Wireless, *Report*, Commonwealth Parliamentary Paper No. 121, 1926–27, p. 3.
33. *Sydney Telegraph*, 9 April 1924.
34. See *Sydney Telegraph*, 26 February 1924.
35. *Sydney Morning Herald*, 11 April 1924.
36. *Melbourne Herald*, 9 April 1924.
37. *Sydney Morning Herald*, 11 April 1924.
38. AA, MP 341, file 24/7810, box 190 R6483, H.N. Pope (Managing Director, Farmers) to Secretary, PMG Department, 5 May 1924, and P.W. Pope (Chairman, Farmers) to Prime Minister Bruce, 30 May 1924.
39. AA, CRS A458, item A224/1/27, J.S. Rawlings (for the Horderns Consortium) to Prime Minister Bruce, 2 June 1924. No record has been found of the Association's discussions or of this initial proposal to the PMG.
40. AA, MP 341, file 24/781, box 191, telegrams to Postmaster-General Gibson, 3 and 5 May 1924; *Wireless Weekly*, 9 May 1924.
41. Pope to Bruce, 30 May 1924, *op. cit.*
42. *Sydney Telegraph*, 16 April 1924; *Melbourne Evening Sun*, 2 May 1924.
43. AA, CRS 458, item A224/1/[?]19.
44. AA, MP 341, file 24/7810, box 191, two telegrams from W.D. Scott (Association for Developing Wireless) to Prime Minister Bruce, 2 May 1924; *Wireless Weekly*, 9 May 1924.
45. AA, CRS A458, item A224/1/38, W.J. McLardy (Broadcasters (Sydney) Ltd.) to Prime Minister Bruce, 19 June 1924; Pope to Bruce, 30 May 1924, *op. cit.*
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52. *ibid.*; Mitchell Library (ML), MSS 2954, A65/1/12, AWA Board memo on half-yearly accounts to 31 December 1924; Fisk's evidence to Royal Commission, transcript, p. 3531.
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54. *Argus*, 5 March, 24 April and 2 May 1925.
55. *Radio Journal*, 18 January 1928, advertisement.
56. *Argus*, 9 June 1927; Royal Commission transcript, p. 3161, evidence of J. Malone, Chief Manager Telegraphs and Wireless, PMG Department, and p. 4165, evidence of A.L. Brown (station 5CL); AA, CP 657/4, bundle 3, part 1, 'Estimates of crystal set users in each State'.
57. Royal Commission, *Report, op. cit.*, pp. 2-3. The Commission sought financial returns from all A class broadcasters. Some are held among its correspondence at AA, CP 657/4, bundle 1 (e.g., exhibits 219 [3AR] and 225 [5CL]); copies of others are among miscellaneous papers, AA, CP 657/12, wireless bundle 1 (e.g., 3LO, 2BL and 2FC); others appear to be missing.
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60. AA, MP 341, files 27/1057, 26/3698 and 26/4619, all box 219. For later complaints, see *Sydney Morning Herald*, 31 August 1928, *Sydney Sun*, 12 September 1928 and 12 April 1929.
61. Postmaster-General, *Report* (1924/5), p. 17. The carrier wave system, requiring the use of valve amplifiers along the line, increased the capacity of the lines, permitting six people to talk simultaneously on two lines. In addition, the PMG Department was reconstructing telegraph poles, increasing the number of cross-arms to carry more lines and putting telegraph wires at the bottom and telephone wires at the top of the configuration to eliminate induction (interference) between them. See Melbourne *Evening Sun*, 24 April 1924.
62. Complaints were made first in 1923 and government action resulted in the deletion of one clause in the 'licence' AWA issued to retailers (see AA, MP 341, file 24/12432, box 186, folio 11734, letter from G & H Electrical Co., 6 September 1923; MP 341, file 23/10637, box 186, various letters between PMG and officers of AWA 10 September 1923 to 26 November 1923, especially folio 15729); Melbourne *Herald*, 6 May 1926 reporting the Interstate Wireless Conference; AA, MP 341, file 26/4632, box 429, PMG Department Minute 'Royalty charges made by Amalgamated Wireless', 6 July 1926, 'Amalgamated Wireless... Conference in Prime Minister's room... 16/7/26' and 'Discussions with Amalgamated Wireless Ltd', 17 July 1926, all of which were submitted to Cabinet; AA, CRS, A571, item A5/27, Secretary, Association for Developing Wireless... to Acting Prime Minister Page, 26 November 1926; *Commonwealth Parliamentary Debates*, vol. 113, p. 3522, vol. 114, pp. 4034, 4311, 4412.
63. Six pages of its 24-page report were devoted to matters directly affecting AWA.
64. *Wireless Agreement Act*, 1927.
65. *Argus*, 27 October, *Sydney Morning Herald*, 8 November 1927.
66. AA, MP 341, file 35/12603, box 256, minute by G.G. Haldane, 26 October

- reporting meeting with Prime Minister and memorandum from Haldane, 8 November 1927.
67. *Statutory Rules*, 1927, No. 153. Of the 24 shillings, 20 were distributed to broadcasters (from which they paid 1/6 for copyright), 1 shilling was paid into Consolidated Revenue Fund and 3 shillings paid by the PMG Department to AWA. See AA, MP 341, file 35/12603, box 256, minute from Private Secretary to the Postmaster-General to Acting Secretary of the Department, 16 December 1927.
68. AA, CRS A571, item A5/27, W.G. Gibson to Page, 9 December 1926.
69. *Sydney Morning Herald*, 8 February, 21 April, 3 May 1928.
70. *Melbourne Herald*, 5 and 8 May 1928; *Wireless Weekly*, 8 June 1928; *Sydney Morning Herald*, 28 December 1928.
71. The submissions are held at AA, CRS A2718/XM, vol. 4 part 4, agenda no. 238.
72. *Sydney Morning Herald*, 20 July 1928.
73. *Melbourne Herald*, 26 July 1928.
74. It drew heavily on the imaginative and sophisticated proposal Fisk put to the Royal Commission. See transcript, pp. 3409–10, 3499–516, passim, and ML, Mss 2954, A65/1/33, memorandum to AWA Board, undated (early 1927).
75. *Sydney Morning Herald*, 23, 25 June 1928.
76. *Age*, 14 September 1927, 1 May, 1 June 1928. The Melbourne Herald and Weekly Times Ltd. was a shareholder in 3LO.
77. *Sydney Morning Herald*, 2 May, 3 July 1928. Short wave was the solution Fisk first proposed to the Royal Commission. See note 74.
78. Curnow, *op. cit.*, 1963, pp. 90, 92, 105.
79. e.g., *Brisbane Daily Standard*, 4 September 1928, *Sydney Sun*, 31 May 1929, *Age*, 6 February 1929.
80. AA, CRS A2718/XM, vol. 6, part 1, Cabinet Agenda Paper No. 307B and 307C, meeting 3 May 1929.
81. *Argus* and *Sydney Daily Guardian*, 7 June 1928.
82. *Melbourne Herald*, 26 June 1929.
83. See, e.g., G.A. Roberts, 'Business interests and the formation of the A.B.C.', *Politics*, 7, 2, 1978, pp. 149–54.