

CHAPTER ONE: EXTERNAL TERRITORIES AS A COMMUNICATIONS MICROCOSM

Australian Communications – the historical context

1.1 In 1977 the then Minister for Posts and Telecommunications, Hon Eric Robinson MP, heralded the introduction of the new satellite technology with a promise of national systems to overcome distance and to supply Australians with better education and health care.¹ How much of the new technology has been delivered, especially to the most remotely situated Australians, is the subject of this report. The universal service obligation of supplying all Australians with telephone access has largely been achieved²; however, the debate is moving rapidly as the more sophisticated services outlined by the Minister in 1977 become both a standard and an expectation.

1.2 Modern communications, it is clear, offer to remote communities solutions to the problems of isolation. The External Territories are remote. Their problems in achieving and maintaining parity with the rest of mainland Australia as well as the Government policies needed to assist them have been explored in the inquiry.

1.3 The communications facilities and needs of Australia's External Territories can be best understood within the context of certain debates about communications that have recurred over the last two hundred years. In that time the issues have changed little. Australia is a large continent with a relatively small population so that the cost of infrastructure is high and the capacity to spread the cost over the population, whether through the raising of private capital or through taxation, is limited.

1.4 Distance, as Geoffrey Blainey impressed upon Australians over 30 years ago, has had a powerful psychological and economic impact on our collective identity. If the intention of the initial colonisers was to exile certain people as far as possible from their roots, they could not have chosen a better place than New South Wales in 1770.³ Equally it is arguable that overcoming distance and isolation has become a national imperative eagerly embraced by successive generations of Australians.

1 For detail see paragraph 1.19.

2 According to Telstra, approximately 96 per cent of all Australian households currently have a telephone service. Telstra, *Rural and Remote Fact Sheet*, 23 May 1998.

3 It was June 1790, over two years after Phillip's arrival in 1788, before the second fleet arrived to relieve the colonists from possible starvation and to bring news of events in England and Europe. This was in part because the supply ship, *Guardian*, had been wrecked off the Cape of Good Hope in 1789. Nevertheless, mail was the only form of communication and it was brought by sailing ship until 1852.

1.5 The history of communications in Australia suggests that there is an innate understanding of and acceptance by all Australians that communications technology offers the opportunity to overcome isolation, both within the continent and of the continent from the rest of the world. In both senses - within the vastness of the Australian continent and across the oceans - distance has been a formidable challenge and an impetus to communications development. Some of the most remarkable and heroic tales of national development have been in the efforts made to get the mail through or to establish the telegraph and telephone networks across difficult and inhospitable terrain and link these networks to the undersea cables that traverse the Pacific and Indian Oceans.

1.6 Australia's geography and sparse population have also determined communication policy. If the *raison d'être* of communications has been the possibility of unifying and developing the nation, then communications had somehow to be made available to the most remote and small communities on the continent. The vastness of Australia and the relative smallness of our population have always made this provision expensive.

Postal Services

1.7 Until the 1850s, the postal system was the only means of communications within Australia and, until the 1870s, between Australia and the rest of the world. In the 19th century, solid and splendid post offices were built in towns and cities. If architectural prominence and expense is a measure of the social importance attached to an activity, then postal services were accorded very high honours. Post is the oldest communications system, and while many of its functions have shifted to electronic forms of communications, it remains of significance to many communities as the means of conveying goods and documents. In small remote communities, postal services have often been combined with other services as a means of allaying the costs associated with delivery. In her history of communication in Australia, Ann Moyal describes the system in the 19th century:

Almost anyone was eligible to become a postmaster – schoolmasters, farmers, carpenters, gaolers, storekeepers, resident magistrates, public servants, though inn keepers were little favoured. The salaries offered were often tokens, as low as five pounds a year, and in the case of a government servant, often nothing at all. ... The practice of encouraging 'semi-official' agency post offices, where small commissions were meted out to those in charge, flourished in rural centres and ancillary suburban districts and in flash in the pan gold mining towns.⁴

1.8 There was a concept of a "people's service" and 'getting the mail through' ... though the costs of transporting the mail into every corner of the countryside made deep inroads into Colonial Exchequers."⁵ By the end of the 19th century, there were over a thousand post offices in Australia; today there are approximately 4,000.⁶ The

4 Moyal, Ann, *Clear Across Australia: A history of telecommunications*, Nelson, 1984, p. 11.

5 *ibid.*, p. 13.

6 On 13 July the then Minister for Communications and the Arts announced a new Service Charter for Australia Post which guaranteed service standards and ensured the continuance of

matter of the cost and the competing notion of the 'people's service', especially in remote regions, still dominate the debate. Today, in the External Territories, separated as they are by the Pacific and Indian Oceans, the cost of postal services and the regularity and reliability of the service remain a problem.

The Telegraph

1.9 Modern electrically-based communication came with the introduction of the telegraph brought to Australia in 1853⁷ by Samuel McGowan. The arrival of the telegraph in Australia was contemporaneous with the gold rushes. It was embraced enthusiastically and was probably as significant as gold to the flourishing of the settlements. The telegraph system conveyed personal news, commercial information and government instruction instantly over long distances. Between 1854 and 1870, Victorians alone had despatched 130,000 telegrams. In Queensland, in 1886, a million messages were sent along 8,000 miles of wires. By 1901 there were 43,000 miles of telegraph lines and Australians sent and received nearly six million telegrams nationally and internationally.⁸ Telegraphic communication enabled and encouraged foreign investment in Australian mineral wealth by informing investors of mineral discoveries and market prices.

1.10 Colonial governments took on the laying of the telegraph wires and they ran deficits in their telegraphic departments in order to invest in the extension of the line.⁹ It was a national investment in a concept of modernity and in future value. In remarkably short periods of time, the overland telegraph line was laid north-south from Darwin to Adelaide between 1870 and 1872 and east-west between Albany and Port Augusta between 1875 and 1877. The line at Darwin connected Australia to London via Indonesia, India, and Europe. This was only the beginning of a huge investment in communications.

1.11 Australia, like Britain and Europe, retained the control and management of all the emerging communications systems, posts, telegraphs and telephones, as government monopolies. This, it was thought, would ensure the direction of the technologies to the benefit of the public. Cross-subsidization was an early tenet of faith and has remained a strong policy principle. The Post Master General, Senator Drake, argued in 1901 against private postal services in urban centres:

By allowing private companies to transact business in the particular districts where it is most profitable to carry letters for a lower rate than

the 4000 postal outlets of which 2500 would be in rural or remote areas. Media Release, Minister for Communications and the Arts, Senator the Hon Richard Alston, 13 July 1998.

7 The first line was erected between Melbourne and Williamstown in 1854. Moyal, op. cit., p. 16.

8 Moyal, op.cit., pp. 28, 62, 85.

9 In 1884, the overland telegraph was estimated to have cost 479,174 pounds. At Federation when the state postal and telegraphic departments were passed to the Commonwealth to administer, the Commonwealth department had assets valued at six million pounds and its 16,000 employees represented 90 per cent of Commonwealth employees, *ibid.* pp. 55, 88.

the departmental charge, it would become impossible for the Postal Department to carry out the service in the remote portions of the state.¹⁰

1.12 And Senator Best endorsed the view and extended the argument from economics to social justice and altruism:

We have here a vast undeveloped continent ... and a duty to those who do not crowd themselves into cities. We ought to offer them every possible facility with a view to making their lives as agreeable as possible.¹¹

Telephone Services

1.13 By 1901 there were 33,000 telephones in Australia. For Australians, the telephone has overcome the tyranny of distance; it has been taken up at a more rapid rate than elsewhere. By 1993-94, 96.3 per cent of Australian households had a connected telephone. Telstra handled 12.3 billion telephone calls in 1992-93. The number of mobile services increased at a compound annual rate of 83 per cent between 1987-88 and 1993-94.¹²

1.14 With the introduction of telephones, instant messages were to become instant voice communication and then, with television, instant vision. All of these technologies have significantly reduced isolation and created opportunities for enterprise, development and social cohesion. The long held views on the importance of cross subsidy to the rural regions of Australia and the structures put in place to ensure nationwide development governed the development of the telephone services in Australia. Geographically, telephone lines had followed the telegraph lines and, organisationally, telecommunications remained a government responsibility within the Postmaster-General's portfolio responsibilities. In 1975, when Telecom Australia was formed, debates about the role and structure of Telecom within or without the structure of government began.

1.15 The creation of Telecom in 1975 was the beginning of a process of corporatisation of telecommunications in Australia. Business principles were to be the guide to operations – efficiency, cost recovery, profits, the raising of capital on the loan market. Telecom was very profitable. However, the seventies were a time of great technological innovation - computerized systems and direct international dialing - and the requirement for large capital injections for infrastructure development was to be an increasing challenge for Telecom. There developed a debate about capital investment versus lower prices and better services for rural customers and whether the

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12 Exhibit No. 28, Bureau of Transport and Communications Economics, Report 87, *Telecommunications in Australia*, 1995, pp. 3-4

services should be partly or wholly privatised; whether cross subsidy obligations and monopoly public ownership inhibited the development and application of new technologies.

1.16 It was also a period of technological change in which computerised switching exchanges, the ARE 11, was likely to reduce the skilled workforce, a process which, beginning in the late 1970s, the relevant unions resisted fiercely but with little effect.

1.17 Essentially, in the last hundred years, the problems and challenges have not changed and the debates are still unresolved; these debates are central to the question of the quality and cost of communications services to remote and regional Australia and especially to the External Territories.

Broadcasting – Satellite Systems

1.18 The ‘ultimate technology’ for a continent of Australia’s size emerged with the development of satellites. The satellites appeared to offer both an alternative to the arduous task of cabling and maintaining cables across a continent and a solution to the paucity of broadcast and telecommunications services in remote and regional locations.

[S]atellites had glamour. They were an entirely new technology; they presented a way of doing things that had not been tried before; they altered the way TV was distributed, telephone calls transmitted, and business information carried around the globe. They also worked from solar energy, did not appear to threaten jobs or skills, and were a ‘catalyst for change’. Importantly also for a country like Australia, costs of transmission by satellite were not governed by distance on land.¹³

1.19 In 1977, the Minister for Posts and Telecommunications, Hon Eric Robinson MP, put similar arguments:

Australia is a large country. The distances are vast. The cost of using current terrestrial systems to take these services throughout Australia is enormous and in some instances difficult to justify. [Satellites offered] a national television distribution system, offered instructional TV, healthcare by telemedicine, closed circuit TV, long distance telephone trunk calls and digital data transmission.¹⁴

1.20 The benefits of satellite communications, mooted in the early 70s, met with questions about costs and benefits and about the technical details of how the system would work. The capital cost and the recurrent costs were high¹⁵ and, in a growing climate of business efficiency and cost recovery, there were significant arguments about funding and doubts about whether the principle of providing telephone services on a non-discriminatory, uniform basis at affordable prices could be preserved.

13 Moyal, op. cit., pp. 337-338.

14 *ibid.*, p. 339.

15 The estimates at the time were that the national satellite would have a capital cost of \$220 million per 5,000 subscribers and an ongoing annual cost of \$8,000 per subscriber or an annual cost to the taxpayer of \$24 million., *ibid.*, pp. 340, 345.

Although Telecom was reluctant to embrace the concept of a national satellite, government decisions based on the perceived long-term advantages saw the development of a domestic satellite system, AUSSAT, in 1981. However, the first satellite was not launched until 1985.

External Territories overview

Norfolk Island

1.21 Norfolk Island is located in the Pacific Ocean some 1,676 km east of Sydney and 890 km east of Lord Howe Island. The Island is an isolated volcanic outcrop eroded by waves to create a rugged coastline. At the 1996 Census, the ordinary resident population was 1772.

1.22 Tourism is the basis of the Island's economy with about half of its population employed in the industry. A large part of the remaining income and employment depend upon tourism. In 1992-93, some 27,376 tourists visited the Island for an average stay of 8 days duration.

1.23 The Commonwealth Department of Transport and Regional Services now oversees national interests on the Island through the Territories Office and the Office of the Administrator Norfolk Island. The objective of the Territories Office is to establish an appropriate level of self-government on Norfolk Island, to protect the Territory's natural and cultural heritage, and to discharge Federal responsibilities under Territory legislation. The Commonwealth and Norfolk Island Governments agreed to fund jointly a household expenditure survey on the island. The Australian Bureau of Statistics completed the survey in late 1995 reporting a year later.

1.24 The draft report of an inquiry into Norfolk Island's economic capacity, financial and administrative arrangements and government services, commenced by the Commonwealth Grants Commission in November 1996, was released in June 1997. Among its findings, it concluded that, in general, postal services, telecommunications, and broadcasting on the Island were comparable with mainland standards. However, it foresaw the need over ten years for indicative capital expenditure of some \$0.5 million for broadcasting and \$5.0 million for telecommunications to provide mainland service standards.

Christmas Island

1.25 Christmas Island is the rugged summit of an extinct undersea volcanic mountain located in the Indian Ocean, some 2,623 km northwest of Perth, 2,800 km west of Darwin and 500 km south of Jakarta, Indonesia. There was a resident population of 1,844 in 1995 according to the Australian Bureau of Statistics figures.

1.26 Phosphate mining has been the mainstay of the economy for many years, although the mine was closed between 1987 and 1990. A five star hotel/casino complex operated discontinuously since 1993 attracting visitors from Indonesia and Singapore. The casino closed in May 1998 owing staff \$1.4 million in redundancy payments and another \$400,000 in wages. The Minister for the Territories, Hon Alex Somlyay MP revoked its licence on 28 July 1998. Negotiations with the receivers

have been taking place for its reopening but at the time of writing this report, no decision had been made.

1.27 The Commonwealth Department of Transport and Regional Services now oversees national interests on the island through the Territories Office and the Christmas Island Administration. The objective of the office is progressively to upgrade public infrastructure to mainland standards. Western Australia provides some state-level services while the Christmas Island Shire Council has provided local government type services since 1992.

1.28 Beginning in 1992-93, the Federal Government committed funding of \$44.8 million to the Christmas Island Rebuilding Program. The objective of the 10-year Rebuilding Program is to bring the badly run-down public infrastructure on the island up to mainland standards. In 1995-96, the Australian Bureau of Statistics conducted studies into the comparative cost of living on Christmas Island, finding severe disability.

1.29 A further inquiry in 1995 by the Commonwealth Grants Commission conducted investigated measures required to ensure that the range and standard of services available to the Christmas Island community was efficient and comparable to mainland communities. The Commission's report was tabled in Parliament on 1 May 1996 and covered matters of finances and levels of service. Arrangements for the delivery of Commonwealth functions such as customs, postal services and telecommunications have improved this decade. According to the report of the Grants Commission, the Commonwealth provided 'appropriate' services in the area of telecommunications; however, postal services, where household delivery was not provided, might need to be reviewed.¹⁶

Cocos (Keeling) Islands

1.30 The Cocos (Keeling) Islands are located in the Indian Ocean some 2,768 km northwest of Perth and 3,700 km west of Darwin and 1,300 km southwest of Jakarta, Indonesia. The main coral atoll contains 27 sandy islands; two of which, Home Island and West Island have inhabitants, with the total population being estimated at 716 in 1993.

1.31 The Commonwealth Grants Commission reported in November 1993 supporting the view that remote communities in Western Australia were an appropriate basis for comparison in determining standards for the Territory.¹⁷ The Commission found that a great deal had been done to improve the level of services for the Cocos Malay people since 1984, when the Cocos Malay people voted for integration with Australia, and that they were now at or very close to mainland standards. The Australian Bureau of Statistics conducted studies into the comparative

16 Exhibit No. 25, Commonwealth Grants Commission, *Report on Christmas Island Inquiry 1995*, p. 121.

17 This inquiry has sought information from remote communities in Western Australia and the Northern Territory by way of establishing some comparative data for assessing communications in the External Territories. See Background to the Inquiry.

living cost of living on Cocos (Keeling) Islands in 1995-96. The Shire of the Cocos (Keeling) Islands provides local government services.

1.32 The Office of Labour Market Adjustment employed consultants Unisearch in February 1994 to develop an Economic Development Plan based on extensive community consultation. The consultant's report considered that the development potential of the Cocos could be achieved principally by the extension of existing activities, including tourism and associated activities, import substitution (with some export capacity), through horticulture, fishing and mariculture, with possible scope for other private sector activities.

The Australian Antarctic Territories

1.33 Within the Australian Antarctic Territories (AAT) and Macquarie Island there are around 100 Australians present over the winter months. A peak number of about 250 occurs at any one time during the summer months with 400 people coming and going then. People from other nations that are signatories to the Treaty, particularly China and Russia are also present. They number around 50 over winter and approximately 200 in summer.

1.34 The four permanent stations are Casey, Davis, Mawson and Macquarie Island. The main bases are Dovers, Scullin Monolith, Commonwealth Bay, Edgeworth David, Gaussberg and Law. A large proportion of the community is scientific with relatively sophisticated communications needs. Advanced remote monitoring equipment is also utilised, especially over winter when the stations and bases become inaccessible.

1.35 Macquarie Island is part of the state of Tasmania and has been since 1825 when Queen Victoria declared Van Dieman's Land a separate colony and included within the new Governor's commission territorial jurisdiction specifically over Macquarie Island. It should be noted that Macquarie Island is not part of the AAT. The island is located north of 60 degrees south latitude, which is the upper bound of the AAT (*Australian Antarctic Territory Act 1954*, Section 4).¹⁸ There are usually 14 to 18 people on Macquarie Island during winter and 45 over summer.

1.36 The Territory of Heard Island and the McDonald Islands fall within the Antarctic program. Heard Island has no permanent residents but has infrequent small party visits. Major AAT users are from the Bureau of Meteorology, Atmospheric and Space Physics, the Australian Geological Survey Organisation, the Australian Land Information Group, and the Antarctic Division itself.

Inquiry focus and issues for examination

1.37 The terms of reference of this inquiry encompass the nature and adequacy of modern communications required in the External Territories and the level of strategic planning being undertaken by both the public and private sectors to address future

18 Exhibit No. 5, Jones, Lee, *Client memorandum on Macquarie Island*, Department of the Parliamentary Library, 20 May 1998, p. 1.

communications needs with and within these territories. In this context, communications include postal, telecommunications, broadcasting and on-line services.

1.38 Within the scope of the inquiry, there are, therefore, technical issues concerning the provision of the infrastructure (undersea cables and satellites) necessary for modern communications. There are economic issues of the cost and maintenance of these services and how they will be paid for - by private or public funding, user pays or on a cross-subsidy basis - and there are national legislative requirements covering such matters as community service obligations and international regulations and agreements. Australia's External Territories have each had unique histories and face these issues in varying ways as they attempt to enter the Information Age.

1.39 A pivotal question for this inquiry was whether the long-standing and dearly-held principle of equity in the provision of communications could be preserved. In many respects the External Territories are a measure of this dilemma; they are remote, small communities, with naturally difficult access to communications services. As the twin and related factors of high technology and expensive satellite systems on the one hand and privatisation and competition on the other enter the telecommunications picture, the danger is that the divergence between what is available in the populous, urban centres and what is available in remote communities may well increase.

1.40 In 1998, the external territories and many remote communities on the mainland are still awaiting the delivery by satellite technology of many of the expectations of 1977 for instructional TV, telemedicine and digital data transmission. Whether governments or the commercial carriers or the communities should pay for expensive infrastructure to allow remote communities to keep pace is as yet a matter of debate. Complex legislation defining the universal service obligations has been introduced. So far it limits the obligations of the carriers to voice telephones. In addition, a labyrinth of regulations and consumer protection agencies has been established. The effectiveness of these strategies will be addressed in later chapters of the report.