

# Chapter 14

## TRANSPORT and COMMUNICATION

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# Chapter 14

## TRANSPORT and COMMUNICATION

### 14.1 TRANSPORT

Man has always sought means of transport that would save time and effort. Horses and oxen were tamed to carry heavier loads quicker and for longer distances than walking could achieve. A fallen log, then a raft and the canoe provided water transport; oars and sails soon followed.

The wheel, invented in about 2 700 BC, provided one of man's greatest discoveries. When linked with the horse it provided 4 000 years of vehicular transport before the power of the horse was replaced first by steam and then by the combustion engine. Wheeled traffic needed roads and empires needed networks of roads to control and govern large territories. The Romans built the first great system of paved roads. In 1815 macadam paving introduced the modern sealed roads.

In 1662, the omnibus, a horse-drawn wagon gave Paris the first public mass transportation system and in 1903 the Wright brothers successfully introduced airplane travel.

With settlement in 1803, Tasmania for the first time began to experience the impact of transport technology; roads and bridges, horse and oxen drawn vehicles, seaports and shipping and later the revolution of the internal combustion engine.

#### 14.1.1 Motor Vehicles

Although Tasmania had missed 4 000 years of horse drawn transport, motor transport arrived just as quickly and with similar impact as in most other parts of the world providing cheap, fast transport and dramatically altering patterns of development and lifestyles.

In 1910 with a total of 400 motor vehicles registered including motor cycles, there were two vehicles for every 1 000 people. By June 1981 almost 85 per cent of Tasmanian households owned at least one motor vehicle. Many owned more; only 13 per cent of households did not have a car. And of those who did have a motor vehicle, most seem to have used it frequently and in preference to other forms of transport.

#### 14.1 Households with Motor Vehicles (a), Tasmania, 1981 Census

<i>Vehicles</i>	<i>Households</i>
0	17 095
1	56 986
2	42 258
3	11 101
4 or more	4 525
Not stated	3 633
Total	135 598

(a) Excludes motor bikes, motor scooters and tractors.

According to the 1981 Census for example, driving the car was by far the most frequently used mode of transport for travelling to work. Indeed Tasmanians rely on the car for getting to work to a significantly greater extent than do people in other Australian States. Public transport is used much less in Tasmania than in other States, particularly New South Wales and Victoria.

#### 14.2 Modes of Travelling to Work, Australian States, 1981 (%)

<i>State</i>	<i>Car</i>		<i>Train, bus or ferry</i>
	<i>Drive</i>	<i>Passenger</i>	
NSW	58.3	10.8	21.2
Victoria	63.2	11.5	16.1
Queensland	63.4	13.3	9.2
SA	64.5	11.4	13.0
WA	68.9	11.9	9.9
Tasmania	77.6	13.7	8.4

Tasmania had the third highest rate of car ownership in Australia, behind Queensland and Western Australia.

#### 14.3 Motor Vehicles Registered, Australian States, 1985

State	Number of vehicles on register	Vehicles per 1000 of population
NSW	2 984 900	55.0
Victoria	2 437 700	59.6
Queensland	1 546 100	61.4
SA	816 900	60.3
WA	866 300	62.4
Tasmania	266 500	60.8
Australia	9 118 300	58.5

#### 14.1.2 Bus Services

Preference for the family car for such journeys as travelling to work has resulted in a relatively low patronage of public transport. Only 8.1 per cent of employed persons used a bus to travel to work in 1981.

Within the metropolitan areas of Hobart, Launceston and Burnie, the provision of public transport is the responsibility of the Metropolitan Transport Trust. Perhaps because of low and declining patronage over recent years, the MTT has attempted to attract or win back passengers with a range of fare packages and in Hobart with a new headquarters, route structure and larger buses.

#### 14.4 MTT Passenger Journeys, Tasmania ('000)

1978-79	16 753
1980-81	16 401
1982-83	14 318
1984-85	14 535

Concessional fares are available to people on low incomes and it is estimated that 69 per cent of passenger trips are undertaken by concession travellers.

A wide range of discounted fares are available to passengers. Weekly and monthly tickets were introduced as from 30 June 1985 and provide a substantial discount to regular bus passengers.

In March 1985 the MTT received delivery of five Volvo articulated buses funded from the Australian Bicentennial Road Development Trust Fund. The 71 seat, 18 metre long buses were purchased for services from the new Springfield Bus Interchange which came into operation in mid 1985. The large capacity buses allow the MTT to operate 'link' services between Springfield and Hobart city.



1985 Volvo B10M articulated bus

#### Springfield Interchange

Construction of the MTT's Springfield depot and new administrative headquarters was commenced in November 1983 and finished in May 1985, estimated cost of the project is \$6.3 million. The development includes modern offices, driver's amenities, bus depot and maintenance facilities as well as a passenger bus interchange to improve bus services to the northern suburbs of Hobart.

#### Other Works

The State Government acquired property used by the MTT to enable construction of an international hotel in Hobart. As a result the MTT's redevelopment plans include construction of a new bus body repair workshop at Mornington at an estimated cost of \$1.6 million and upgrading of the City depot in Campbell Street to provide adequate facilities for bus operations at an estimated cost of \$1.8 million.

#### 14.5 MTT Operating Statistics, 1984-85

Passenger journeys —	
Hobart	10 772 000
Launceston	2 858 000
Burnie	905 000
Vehicle — kilometres	9 643 861
Revenue (\$)	5 402 632
Expenditure (\$)	17 573 082
Employment —	
Hobart	426
Launceston	106
Burnie	27

#### 14.1.3 Roads

In 1807 the first road in Tasmania, a four km link between Hobart and New Town, was built. Just 11 years later, the 199 km Great North Road from Hobart to Launceston was completed. The State now has more than 22 000 kilometres of roads and highways of which some 38 per cent are sealed.

Because of the State's small size, road distances between the major centres of population, are short by comparison with the other Australian States. No major centre is more than 420 kilometres from the capital.

**DISTANCES BETWEEN MAJOR TASMANIAN CENTRES**

KILOMETRES

	Burnie	Campbell Town	Deloraine	Devonport	George Town	Hobart	Launceston	Port Arthur	Queenstown	St Helens	Scottsdale	Smithton	Somerset	Swansea	Ulverstone	Wynyard	Zeehan
Burnie	—	194	97	48	152	326	146	386	179	294	216	89	7	266	28	19	154
Campbell Town	194	—	96	146	118	118	67	191	243	122	137	283	201	72	165	213	280
Deloraine	97	96	—	50	89	228	48	285	202	196	118	187	105	168	69	117	239
Devonport	48	146	50	—	104	278	98	335	235	246	168	137	55	218	19	67	210
George Town	152	118	89	104	—	250	51	307	291	178	79	247	159	190	123	171	306
Hobart	326	132	228	278	250	—	199	100	250	254	269	415	333	139	297	345	287
Launceston	146	67	48	98	51	199	—	262	251	167	70	235	153	139	117	165	288
Port Arthur	386	191	285	335	307	100	262	—	343	311	326	472	390	187	354	402	380
Queenstown	179	243	202	235	291	250	251	343	—	375	321	243	172	354	207	173	37
St Helens	294	122	196	246	178	254	167	311	375	—	99	383	301	126	265	313	412
Scottsdale	216	137	118	168	79	269	70	326	321	99	—	305	223	225	187	235	358
Smithton	89	283	187	137	241	415	235	472	243	383	305	—	82	355	118	70	218
Somerset	7	201	105	55	159	333	153	390	172	301	223	82	—	273	35	12	147
Swansea	266	72	168	218	190	139	139	187	354	126	225	355	273	—	237	285	352
Ulverstone	28	165	69	19	123	297	117	354	207	265	187	118	35	237	—	47	182
Wynyard	19	213	117	67	171	345	165	402	173	313	235	70	12	285	47	—	148
Zeehan	154	280	239	210	306	287	288	380	37	412	358	218	147	352	182	148	—

Although the road network is probably as good as anywhere in relation to the volume of traffic carried, there are always improvements to be made and additional routes to be constructed.

**New Road Works**

The financial year 1984-85 was a year of vigorous road development with new roads being commenced throughout the State with a concentration on three outlet roads to link the north-west and west coast regions.

To overcome the problems of poor road connections to the south and west of Launceston, major outlet roads were being constructed.

The first 6 km stage of the Southern Outlet Road was opened early in 1985, extending from the southern suburb of Glen Dhu to the Midland Highway at Strathroy. Included in this section is the Mt Pleasant interchange, from which a link is being constructed to bypass south of Prospect and join the Bass Highway clear of the urban sprawl. This is due for completion in mid-1987, as are extensions to the southern outlet itself, both northwards through Glen Dhu and southwards to Breadalbane. The whole complex is being built to a dual carriageway standard.

The improvement of arterial traffic movements into and through Burnie has also been a continuing concern. The first stage, known as Burnie Expressway, Stage A, was completed almost a decade ago. Those improvements enabled a much better traffic flow into Burnie from the east, but stopped short of the central business district. The construction of the balance of the system, known as Stage B, through the business

area to North Terrace was commenced in 1983 and has been handled as a series of five contracts. Traffic should be using the new facility by mid-1986, while the outlet to the west along North Terrace will ultimately be further upgraded.

The new road projects which will have the most profound long-term benefits are the three links to the West Coast region from the North-West Coast. These, together, will provide dramatically improved communications between the regions and remove the past dependence on the road through the tortuous Hellyer Gorge region. There will be, for the first time, a choice of routes which is particularly important with frequently severe weather conditions. The recent completion of the Henty Main Road from Zeehan to Strahan and the Hydro-Electric Commission roading activities associated with the Pieman Power Scheme have greatly facilitated the creation of the new links. In all, there will be a very much improved potential for all types of development on the West Coast.

Work started in November 1984 on what will be the most important of the new links, that from Guildford to Hampshire. This link will be 27.5 km in length and will require major bridges over the Hellyer and Wey Rivers. A large part of it traverses forest concession areas and hence special fire protection measures have been designed into the scheme. The route, from the Murchison Highway at Fingerpost through Hampshire and Ridgley into Burnie, is some 10.75 km shorter than the existing route via Somerset. Add to this that the existing route winds down through Hellyer Gorge and the importance of the new link can be appreciated.

As with the Guildford-Hampshire road, work started on the Que River to Cradle Mountain link in November 1984. This road will link the Murchison Highway from near the Que River to Learys Corner near Cradle Mountain. From there a number of alternative routes can be taken to Devonport, with a saving of 41 km in travelling distance from the West Coast to that city over the existing route of the Murchison and Bass Highways. Its principal role should be tourism-based, but it will also have a significant impact upon general transport when it is completed in 1987-88. The Guildford-Hampshire road should be in use the following year.

The third of the inter-regional links will be very much oriented towards tourism, where it should be of particular benefit to the Circular Head Municipality, as well as to the West Coast. It will extend from Smithton to Zeehan, involving the construction of 80 km of new roads and the upgrading of a further 40 km of existing roads and tracks. Essentially, it will go from Marrawah to the Heemskirk Road, one of the Pieman Power Development roads, which leads on to Zeehan. It will open up a very large area of considerable tourism interest and, in association with existing and planned forestry roads and local municipal roads, will provide a circular tourist route in the far north-west, the lack of which has hitherto hindered tourism in that region. A ten year construction period is envisaged, with work having started in October 1985.

South of Hobart the new link from Sandfly to Vines Saddle on the Huon Highway was opened early in November 1985. The route provides a saving of 3 km in distance but removes the need to traverse 7.4 km of the most difficult section of that highway, a section which was also subject to severe weather conditions. The new link provides much improved road communications between the Huon region and northern areas, with a further significant improvement due when the present upgrading of the highway from Vines Saddle to Grove is completed. That will be followed by further upgrading southwards to Huonville.

With some assistance from the Australian Bicentennial Road Development program, the State is upgrading and sealing the Coles Bay Tourist Road. After an early start some years ago at the Apsley River Bridge the emphasis has now been switched to the Coles Bay end. Substantial progress has been made with the improvements as far north as Swannick.

The Hobart Southern Outlet to Kingston is another road which has been inadequate for the demands placed upon it. Accordingly, a large scale improvement program is being undertaken, with the whole length to be brought to a dual carriageway standard. Already it has been

extended from Davey Street to Macquarie Street and has been duplicated up as far as Nelson Saddle. A full grade-separated interchange at that location, is nearing completion.

Intensive studying and planning is underway for a whole series of improvements to the line of the Bass Highway from Prospect to Deloraine, while the first stage of the bypassing of Deloraine, the new bridge over the Meander River, is under construction. The upgrading of the Devonport to Ulverstone section to dual carriageway standard is also well underway, with the Lillicos Beach section in operation. A second bridge over the Forth River is complete as are other works in the Leith area, with other related projects continuing or about to commence. A major grade-separated junction at Turners Beach is to be carried out by a series of contracts.

*Road Signing:* During the 1984-85 financial year much of the new alphanumeric rural and arterial road signing system for the State was completed. Practically all of the rural section of the State, apart from King and Flinders Islands, as well as Greater Hobart have been completed, while the signing of the Launceston area should be finalised in 1985-86.

This signing scheme is broadly based on the British scheme. It signs to pre-selected primary and secondary focal points and to routes, rather than to each town along a road and is thus a simple, easily followed system. However, there has been some concern expressed that not enough individual town names are shown. In the modern high-speed traffic environment it is essential that the number of road signs be minimised and that they provide simple, clear information so as to reduce roadside distractions to motorists.

The body established to oversee the introduction of the system is the Road Direction Signs Advisory Council. It is comprised of representatives of the motoring public, the tourism industry and State and local governments. With all current Lands Department Tasmap, RACT and UBD road maps showing the road numbers it is now practical for a full public education scheme to be implemented. It is expected that once the public fully understands the system its simplicity and ease of use will gain it full acceptance.

As the State road authority, the Department of Main Roads which convened and provided the chairman for the Advisory Committee, has designed, manufactured and installed the signs and will ensure the future maintenance of the system. Even for such a small State it has been a particularly large project, and one which has taken five years to plan and implement but the State has been provided with a signing system that is the national leader.

#### 14.1.4 Rail Services

On 1 July 1975 control of the State's railway system was transferred to the Commonwealth Government and in 1978 all regular passenger train services in Tasmania ceased.

For decades, Tasmania's rail system had carried relatively few passengers. As a result the service was withdrawn when budget restraints forced cutbacks in public expenditure. Today the State's rail system is used only for the transfer of goods except for an occasional tourist excursion.

In 1984-85 Tasrail moved 1 003 000 tonnes of logs and timber, 347 000 tonnes of containers, 319 000 tonnes of cement, 310 000 tonnes of coal, 106 000 tonnes of acid and 74 000 tonnes of fertiliser. Adding in lesser commodities the total moved for the year was 2.2 million tonnes.

Since the transfer of Tasrail from the State Government to the Australian National Railways Commission in 1978 freight hauled has grown by 58 per cent. Freight hauled per employee has grown to 2.5 times the 1978 level. The deficit has been reduced by 31 per cent (\$9 million in current 1985 money values). Derailments have been reduced to the lowest level in 13 years. The track system has been upgraded to a good standard, by spending over \$20 million since 1978. 92 per cent of track is now operating safely without speed restrictions. 340 wagons and 18 locomotives with a total replacement value of \$40 million have been added to the Tasrail fleet.

#### *The Future*

The Commonwealth Government has committed \$52.4 million to support Tasrail operations for the next three years. Track rehabilitation will continue with Commonwealth support, \$7 million in 1985-86 to 1987-88 and upgrading of locomotive and wagon fleet to a modern cost-efficient standard is planned. Tasrail is committed to keeping bulk freight on rail and intends to remain competitive with other forms of transport.

#### 14.1.5 Air Services

Comparatively, Tasmania is well served by air transport. Australia's domestic airlines, Trans Australia Airlines, Ansett Airlines of Australia and East-West Airlines provide regular direct flights between the mainland capitals, Melbourne and Sydney, and Tasmanian airports at Hobart, Launceston, Wynyard and Devonport. Few Tasmanians would live more than 150 kilometres from a major airport; few are more than a two hour's drive from Australia's domestic air network.

Air New Zealand and Trans Australia Airlines continued to operate between Hobart and Christchurch, New Zealand while Qantas operates between Hobart and Auckland.

Internally, Tasair and Par Avion provide charter and tourist flights and operate flights to King and Flinders Islands, and Queenstown from Hobart and Launceston.

#### *Aerodromes*

*Hobart Airport:* Ranks eighth in the volume of passengers handled at Australian terminals. Strengthening of the taxiway and aprons to take Boeing 747 aircraft in full weight was completed in 1985. International operations to New Zealand, commenced during November 1980, with Ansett Airlines (ceased operations on 3 March 1982) and Trans Australia Airlines operating on behalf of Qantas. The airport is equipped with complex aviation aids. A new enlarged terminal and communication buildings were completed in 1976. A new international terminal was opened in 1985.

With a 2251 metre runway, the airport, 18 kilometres from the city, has the capacity to handle international operations, not only to New Zealand, but as far away as Singapore as well.

*Launceston Airport:* 16 kilometres south-east of Launceston, it ranks after Hobart in passenger volume but handles considerably more freight; it is the main terminal for the Ipec DC9 freighter. The area control centre provides air traffic control for Tasmania via repeater stations, south on Mount Wellington and north on Mount Barrow. The airport is also used for commuter operations, flying training, light aircraft charter and aerial work operations.

*Wynyard Airport:* This has one sealed runway of 1513 metres and one 1189 metres long for regular public transport operations, charter, aerial work and private operations. It currently handles F27 aircraft and is currently being upgraded for F28 aircraft. It also caters for a commuter service from Phillip Island (Vic.) operated by Phillip Island Air Charter.

*King Island Airport:* Located six kilometres north-east of Currie. It has three gravel runways, night lighting and radio navigational equipment. It caters for commuter services operated by Airlines of Tasmania Pty Ltd and Kendall Airlines, as well as charter and private aircraft operations.

*Flinders Island Airport:* Located five kilometres north of Whitemark. There are two gravel and one grass landing strips plus an apron, taxiway, terminal and navigation aid facilities. Main services being commuter provided by Airlines of Tasmania Pty Ltd and charter operations.

*Cambridge Airport:* This was constructed during the early period of aviation and has four runways. The proximity of hills prevent further development and after completion of the Hobart

Airport, Cambridge became a centre for light aircraft and helicopter activities.

*Devonport Airport:* Located 6 kilometres east of Devonport, it is owned by the Port of Devonport Authority under the Commonwealth Airport Local Ownership Plan. Originally constructed in the early 1930's it was developed to handle DC3, DC4 and Viscount aircraft in 1950. 1982 saw the commencement of work to bring the airport up to DC9-F28 jet standard which was completed in October 1983 at a cost of \$6.5 million. Regular F27 passenger services of Ansett and F27 and F28 passenger services of East-West, commuter services of Airlines of Tasmania Pty Ltd together with aerial work, flying training, charter and private aircraft operations are carried on from this location.

*Smithton Airport:* Located three kilometres west of Smithton, it is owned by Transport Tasmania. It has a sealed main runway plus lesser gravel strips and is used for regular commuter services as well as itinerant charter and private operations.

*St Helens Airport:* The aerodrome is owned and operated by the Municipality of Portland. A grassed strip 1 189 metres long and 91 metres wide is of sufficient dimensions to permit operations by DC3 and F27 type aircraft. The aerodrome currently services the charter, aerial work and private operation requirements for the area and has a non-directional beacon for instrument navigation.

*Queenstown Airport:* The Municipality of Queenstown under the local ownership plan provided an authorised landing area for light aircraft in 1937. In 1963 work commenced on the construction of a runway suitable for the operation of DC3-type aircraft, which was opened on 17 April 1966. It is served by regular commuters of Airlines of Tasmania Pty Ltd.

*Strahan Airport:* This airport, together with Queenstown Airport, services the West Coast of Tasmania. Opened for regular public transport operations in 1964, Strahan aerodrome was constructed under the aerodrome local ownership plan and is owned by the Municipality of Strahan.

#### 14.6 Aircraft Movements, Passengers and Freight, 1985

Airports	Aircraft movements	Passengers ('000)	Freight (tonnes)
Hobart	p 9 228	571	5 114
Launceston	7 038	387	p 37 500
Devonport	11 166	143	n.a.
Wynyard	5 331	69	p 100

## 14.2 TELECOMMUNICATIONS

**Hailed as a complete success, Mr Alfred Biggs' experimental telephone call between Launceston and Campbell Town in 1877, has been claimed to be the first occasion on which a telephone was used in Australia. And just 100 years later Tasmania scored another telecommunications first. When the manual telephone exchange at Swansea was replaced with an automatic service in June 1977, Tasmania became the first State to have a fully automatic telephone network.**

Tasmania's first telephone, constructed by Mr Biggs, was of Huon Pine turned on his workshop lathe to plans published by Alexander Bell in *The British Mechanic*. Mr Biggs was a self educated head teacher at Campbell Town who had become a keen astronomer and amateur scientist. He made three telephone sets, positioned them at the Launceston and Campbell Town railway stations, and transmitted the 80 kilometre distance along the telegraph line which ran beside the railway.

In 1854 Australia's first telegraph line was opened between Melbourne and Williamstown. Three years later the first telegram was sent between George Town, 64 kilometres north of Launceston, and Mount Lewis, 32 kilometres south of Hobart. It was natural that a link with Melbourne should soon follow. In 1859 a cable was laid from Cape Otway in Victoria to King Island, to Stanley and then to Low Head. After only a few weeks in operation the cable failed, to be finally abandoned in 1861. Ten years elapsed before another cable was laid.

The telegraph remained Tasmania's only link with the outside world until 1936 when a special co-axial cable was designed and laid between Apollo Bay in Victoria and Stanley, again via King Island. It carried five telephone circuits, seven telegraph and one broadcasting circuit and gave Tasmania a direct telephone link with the rest of the world.

The first telephone line in the State linked Hobart and the Mt Nelson signal station in 1880 and by 1883 both Launceston and Hobart had exchanges, only three years after Australia's first exchange opened in Melbourne with 44 subscribers. The Hobart exchange opened with 10 subscribers, and 35 with the Launceston exchange.

Before Federation each State was responsible for its own telephone services. With Federation in 1901 Australia's postal, telegraph and telephone services came under the control of the Commonwealth Postmaster-General's Department and remained that department's responsibility until mid 1975.

Since 1 July 1975 postal and telecommunications functions have been vested in two statutory authorities, the Australian Postal Commission

(Australia Post) and the Australian Telecommunications Commission (Telecom Australia). Australia Post assumed responsibility for mail services; Telecom Australia was given responsibility for internal telecommunications such as telephones, telex, telegrams and similar services.

### 14.2.1 Services

During the 12 months to June 1985, 15 843 new telephone services and 171 new telex services were installed in Tasmania. This brought the total connections to 162 072 telephones and 1 152 telex services.

#### 14.7 Telecommunications Services, Tasmania, June 1985

Services	Number
Private telephones	160 960
Public telephones	1 112
Total telephones	162 072
Instruments in operation	240 512
Telex services	1 152
Datel services	2 643

During the year, the value of local and STD calls was almost \$59 million; a further \$2.3 million worth of calls was registered at public telephones and 62 000 telegrams were lodged.

Apart from Subscriber Truck Dialling (STD) being available to all Tasmanian customers, International Subscriber Dialling (ISD) to more than 165 countries is now available upon request to 139 143 telephone subscribers throughout the State. At 30 October 1985, 85 207 subscribers had availed themselves of this facility.

#### The Datel Service

Today a growing part of our everyday telecommunications traffic is not between people, but between a person and a computer, or even between two computers alone. Computers need to communicate for many reasons; for example people using remote computer terminals may need to call up information from a centralised data base, or to advise a central computer of some change needed in its records. A familiar example of this is booking a ticket with an airline at an outlying agency. Space on a particular flight can be checked, the booking made and confirmed, and the central computer informed that the seat is now filled, all in a matter of seconds by means of data communication along the telecommunications network.

The Datel service has been available for some years, and allows computers to communicate at various speeds using what are basically ordinary telephone lines. To do this, digital signals from the computer are converted by means of a data

modem into a form which can be transmitted along the line in a similar manner to the voice. At the other end, a modem converts the analogue signals back into a digital form.

At 27 November 1985, 2 753 modems were in service in Tasmania.

#### Telefinder

The 'Telefinder Radio Paging Service', which commenced in Hobart on 14 November 1977, in Launceston on 19 February 1979 and in Burnie on 13 April 1984 provides a point to point contact facility whereby a Telefinder subscriber carries a lightweight pocket receiver which emits an audible 'Beep' when it receives a signal broadcast from a paging radio transmitter. The alerted customer then takes some pre-arranged course of action such as contacting his office to receive information. At 12 June 1985, 1321 paging units were in operation in the State.

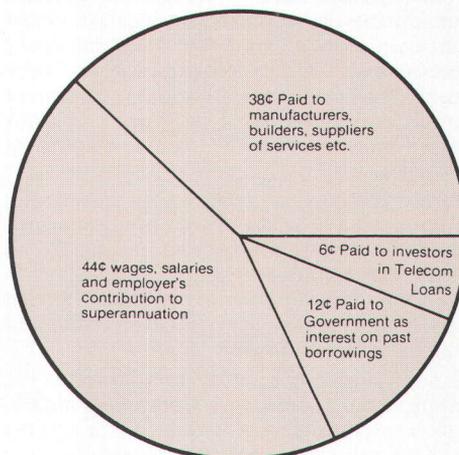
#### Other Services

Other services provided by Telecom include the mobile telephone for busy executives who need to keep in touch at all times. INWATS, a service which provides a customer with a special 008 prefix telephone number which can be called from anywhere in Australia for the cost of a local call. The holder of the INWATS number pays a special charge for each call received.

Statewide and nationwide radio and television broadcasts are carried on Telecom's broadband network out to transmitting stations across the country; the same network also distributes the satellite programs from overseas, once they have been received in Australia.

Facsimile machines are used to send copies of drawings, graphs, handwriting or even photographs over the telecommunications network by connecting machines to ordinary telephone lines.

#### The Telecom Dollar



### 14.2.2 The Future in Telecommunications

Telecom in Tasmania, along with the rest of Australia and other nations, is rapidly developing the communications network for the future.

The network of the future will be digital — all of the information, whether it be voice, data, video or facsimile, is conveyed as a stream of bits, or on/off signals. This is the language of computers. The various services of the future will be integrated, that is, rather than having separate networks for telephones, telex, data, television etc. as at present, most of these services will be carried by the same electronic channels and switched by the same exchanges. Hence the term, Integrated Services Digital Network, or ISDN.

Work is already progressing in Tasmania with the basic network to support this service of the future. The AXE exchanges to provide this service are being installed in the major population centres throughout the State, initially at Hobart, Launceston, Devonport and Burnie. These computer controlled switches will make possible a range of new facilities for telephone customers, services such as three-way conference calls, follow-on calls, do not disturb, and call diversion, as well as the ability to provide a more detailed record of STD calls.

To connect these new exchanges digital 'highways' are being built. In 1986, radio links capable of carrying 140 million bits of information each second will link Hobart, Launceston, Devonport, Burnie and Melbourne.

1986 will also see the introduction to Tasmania of another important new technology — optical fibre transmission. These are essentially very small diameter flexible rods of high purity glass which can carry information — the on/off bits again — which has been impressed on laser light beams. These systems can carry enormous amounts of information, typically, at present, 560 million bits per second for each pair of fibres, which is equivalent to 8400 telephone calls simultaneously. Other advantages are their relatively low cost, a much reduced requirement for amplification compared with current systems and freedom from electrical power and lightning interference.

During 1986 optical fibres will be installed in Tasmania to connect radiocommunications terminals to city exchanges, and in some urban areas to interconnect telephone exchanges. In future years these fibre cables will be extended out into country areas and eventually interconnect the major cities and towns.

A new innovation now available is the ComputerPhone. Telecom's ComputerPhone is a desk top computer providing an integrated suite of software which covers the most common

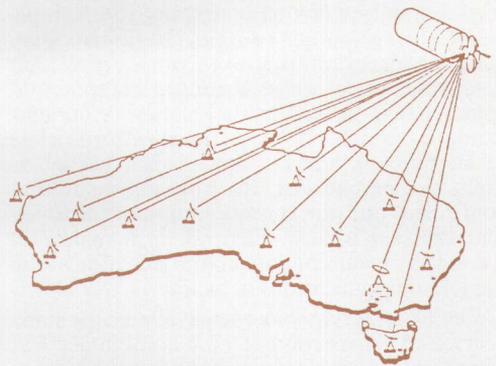
business applications of word processing, data base, spread sheet and graphics. It is based on the Motorola 68008 microprocessor and consists of two units — a 23cm monochrome or a 35cm colour monitor and a control unit.

The ComputerPhone connects directly into a standard telephone socket. Its features include:

- telephone directory of 500+ entries;
- one or two telephone lines for alternate or simultaneous data calls;
- manual dialling via keyboard or separate keypad plus various keys dedicated to telephony;
- quick dial features, including redial last number, redial of last six numbers;
- abbreviated dialling using short codes or alphabetical abbreviations;
- loudspeaker for hands free call connection;
- voice synthesiser for automatic answering;
- optional monitoring of call duration and cost.

Australia's \$73 million domestic communications satellite, Aussat 2, was launched by the space shuttle Atlantis in November 1985. Australia paid \$14.5 million to the National Aeronautics and Space Administration for the launch service. The major use of the satellite is to enable all rural areas to receive radio and television broadcasts.

Telecom also plans to make extensive use of Aussat 2 by providing telecommunications services via the satellite. These services are being given the overall name of the ITERRA Satellite Service. It will be a premium service, of necessity costing more than an ordinary telephone service as befits its much greater cost to provide. The service will provide high-quality telephone, facsimile, telex and data communication. It is expected to be very attractive to large organisations working in remote areas, such as mining companies, off-shore oil explorers, large pastoral stations and remotely-located tourist developments.



ITERRA Network



Bottom left : Bryn Estyn  
Remainder : The Mt. Wellington Water System

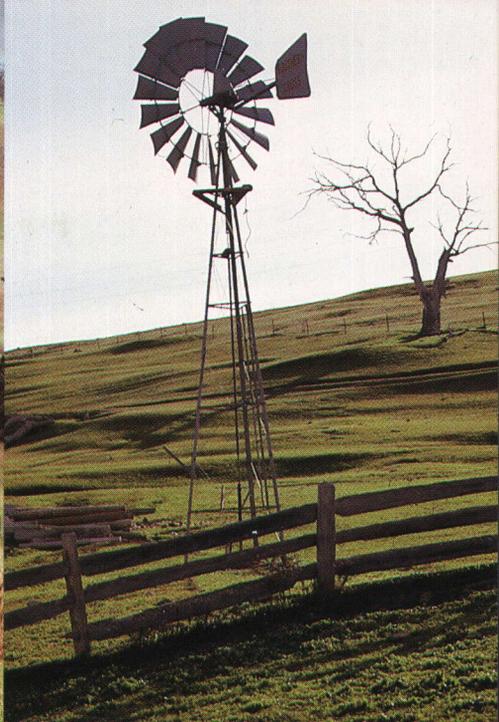
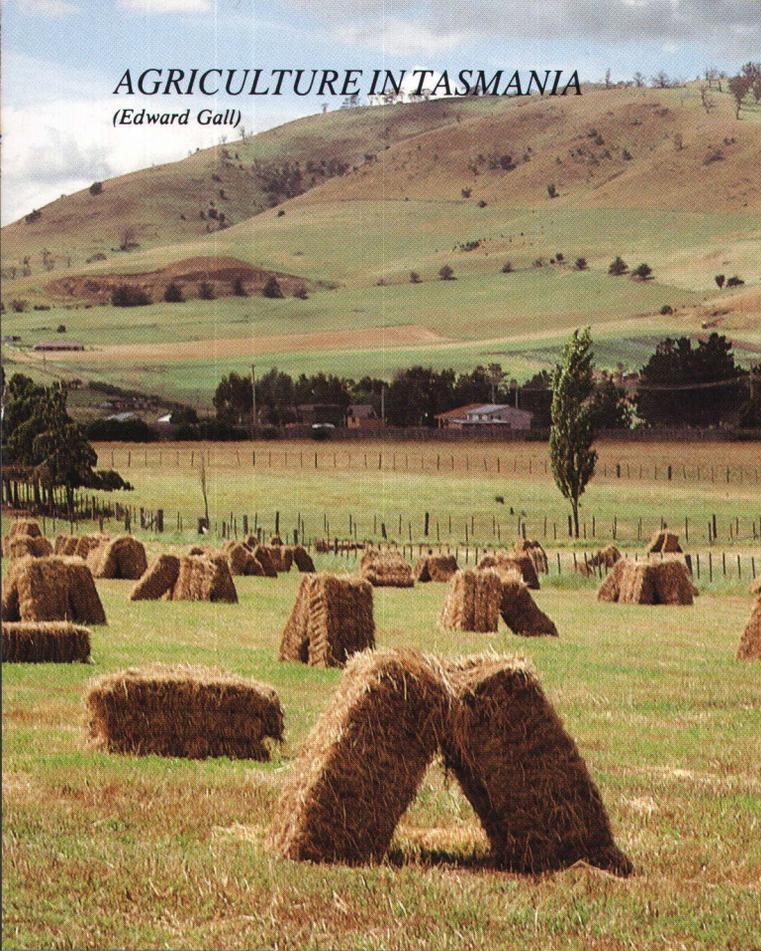
(Government Stills Photographic Section)  
(Edward Gall)



*Cape Wickham microwave repeater on King Island, Tasmania showing the wind generators which provide power for the telecommunications equipment. (Telecom Australia)*

# AGRICULTURE IN TASMANIA

(Edward Gall)

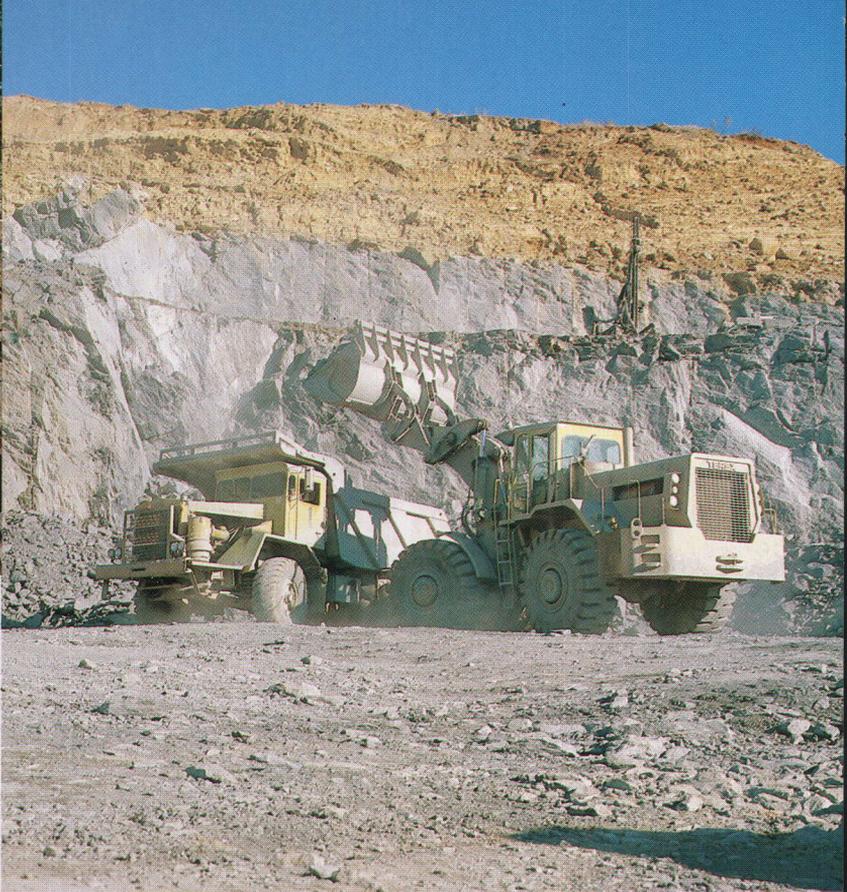




*Train load of ore from Cape Horn ore body, Mt. Lyell.  
(Michael Dix)*



*Diamond drilling at Colebrook Hill, near Rosebery.  
(Peter Collins)*



*Mining limestone at Railton.*

*(Goliath Cement)*



*Savage River Mines open-cut mine.  
(Savage River Mines)*



*Hydraulic development jumbo drill, Mt. Lyell.  
(Government Stills Photographic Section)*

### 14.3 POSTAL SERVICES

Australia Post provides surface and airmail services, both within Australia and to and from other countries for the carriage of letters, cards, aerogrammes, newspapers, packets and parcels.

Special services provided include priority paid, cash on delivery, registered post, response services, private boxes and locked bags and several reduced rate services. It also operates an express courier service and electronic postal services.

Australia Post operates a money transfer service (money order), sells a range of packaging products (postpak), postal stationery and philatelic items and acts as an agent for many services of Commonwealth, State and Local Government departments and authorities. It also acts as an agent for private-sector principals.

On behalf of private enterprise, post offices now issue insurance policies and accept premiums, display investment prospectus booklets, display and accept orders for flags and other promotional material and sell a philatelic magazine.

Services currently being considered or trialled include the sale of interstate coach tickets, key rings designed to be returned through the mail if lost and travellers' cheques.

Australia Post employs approximately 739 staff in Tasmania. Gross postal receipts for 1984-85 in the State were \$20.5 million; \$10.7 million was from the sale of postage stamps including philatelic sales. At Sorell, a new post office was opened.

#### 14.8 Postal Services, Tasmania, 1985

Post Offices —	
Official	41
Non-official	190
Postal traffic —	
Standard letters	53 684 000
Non-standard articles	6 736 000
Parcels	629 000

Mail was distributed to 163 598 different delivery points throughout the State during 1984-85, 150 189 households and 13 409 businesses.

Postal vehicles operating within the State included: 77 mail vans, 6 trucks, 130 motor cycles, 15 sedan cars and wagons and 65 bicycles. This was 10 vehicles more than in 1984.

*Philatelic Service:* A total of 14 stamp issues were released during 1984-85 in Australia.

One series titled 'Navigators and Shipwrecks 1788-1988' featured two prominent early explorers, Tasman and Dampier. The stamps were issued to commemorate 200 years of Australian settlement and are part of the bicentennial collection.

*The Future:* Changes are on the way, involving a major expansion of electronic postal services and the introduction of new technologies to improve customer service and productivity. Australia Post plans to improve productivity and performance by applying new technology to letter sorting and by introducing containerisation in order to remain competitive in the challenging and changing market place.

### 14.4 NEWSPAPERS

by David Waters, Senior Lecturer, School of Librarianship, University of Tasmania.

Tasmanians have enjoyed a tradition of a vigorous and competitive press since early colonial days. The colony's first newspaper, the *Hobart Town Gazette*, was produced by Andrew Bent in 1816. Publication continued until 1825, when Governor Arthur, who had been consistently criticised and attacked by Bent, gained control of the *Gazette* through the intriguing tactic of engaging alternative printers to publish an issue on 24 June with the same name and numbering as Bent's publication! The two publications continued in competition until 19 August, when Bent changed his paper's name to *Colonial Times and Tasmanian Advertiser*. Arthur brought successful libel actions against Bent in 1826 and 1827, and denied him a licence to publish. Several new publications appeared in the following decade, and by mid-century the two major present-day city newspapers were established: *The Examiner* (Launceston) in 1842, and *The Mercury* (Hobart) in 1854.

Although Tasmania's population is relatively small, it is rather decentralized, and for this reason *The Mercury* (average daily circulation about 55 000) and *The Examiner* (45 000) continue to flourish, along with a third regional newspaper, *The Advocate* (26 000), which serves the north-western part of the State. Each paper serves as the major printed source of news — local, national, and overseas — for the majority of people in its region. Each newspaper also produces a weekend edition: *The Sunday Tasmanian* (*The Mercury*) average circulation about 38 500; *The Sunday Examiner* (*The Examiner*), 37 000; and *The Weekender* (*The Advocate*), 14 600. These papers contain a

miscellany of overseas and Australian items from the news agencies, some local reporting, and substantial magazine sections.

*The Mercury* is published by Davies Bros. Ltd., which is 49.98 per cent owned by Herald and Weekly Times Ltd., a large Australian media conglomerate. *The Examiner* is published by ENT Ltd., a Tasmanian company with interests in publishing, television (including ownership of both of Tasmania's commercial channels), advertising, cinemas, accommodation and tourism. *The Advocate* is published by Harris and Co., a local Burnie company with interests in stationery, office machines and property development, as well as publishing.

A recent phenomenon has been the emergence of weekly advertising newspapers, delivered free of charge to letter-boxes. *The Tasmanian Mail* circulates 130 000 copies throughout the State, and *The Southern Star* circulates 60 000 copies in Southern Tasmania. In each case, the emphasis is on local interest and magazine-type articles, as well as advertising promotions. Davies Bros. circulate *The Tasmanian Country*, reporting items of agricultural interest, free of charge to bona fide farmers throughout the State. *The Treasure Islander*, an independent monthly, is aimed at the tourist market, and the *Tasmanian Business Reporter* is published by the Chamber of Commerce for the business community.

Over 20 small local and regional newspapers exist throughout Tasmania. They range from the duplicated publications of local community and school groups, consisting mainly of announcements of local clubs and organizations (for example *Bruny News*; *Kentish Times*; *Waratah Whisper*) to more substantial weekly printed broadsheets with circulations up to 3 000, and reporting local news stories as well as community announcements. These include: *Central Coast Courier* (Orford); *Circular Head Chronicle* (Smithton); *Derwent Valley Gazette* (New Norfolk); *Huon News* (Franklin); *King Island Chronicle* (Currie); *King Island News* (Currie); *North Eastern Advertiser* (Scottsdale).

## 14.5 RADIO AND TELEVISION SERVICES

**Radio and television broadcasting fall within the jurisdiction of the Commonwealth Government and is one of the responsibilities of the Minister for Communications. Federal bodies which are directly involved include the Department of Communications, Australian Broadcasting Tribunal, Australian Broadcasting**

### **Corporation, Special Broadcasting Service and the Australian Telecommunications Commission.**

The Australian broadcasting system consists of three types of services:

- national radio and television services provided by the ABC and SBS;
- commercial radio and television services provided by commercial companies under licence;
- public radio services provided by non-profit making corporations under licence.

*The Broadcasting Act 1942* governs the establishment and operation of commercial and public services. It also contains provisions relating to the SBS and the ABT. *The Australian Broadcasting Corporation Act 1983* provides for the ABC. The Minister for Communications is responsible for developing policy, legislation and for planning of the overall system. The Minister is also responsible for approving the technical operation of services and for investigating interference to the transmission or reception of programs. The Department of Communications provides advice on all matters the Minister is responsible for and in many instances undertakes functions on behalf of the Minister. An important function of the Minister is the consideration of all planning proposals for the establishment of radio and television services. For commercial and public services, once the Minister has approved proposals and invited applications for a licence, such applications are considered by the ABT.

The ABT is responsible for the licensing and supervision of commercial and public licensees and their services (other than technical equipment). It is empowered to grant, renew, suspend or revoke a licence and to determine standards and conditions for the broadcasting of programs and advertisements. The licensing process is conducted through the holding of public inquiries which may include conferences and hearings. A licence may be granted for a period of up to five years and renewed for a period no longer than three years. Standards and conditions are determined after a lengthy process of consultation with industry bodies and the public. The Tribunal investigates alleged breaches of the standards and licence conditions. It is also charged with inquiring into matters determined by the Minister.

### *National Broadcasting Services*

The ABC currently provides one television service nationally, three radio services (two AM and one FM) in the capital cities (except Sydney which has 2 AM and 2 FM) and two radio services (one AM and one FM) in regional areas (although not all areas are yet receiving ABC FM). However, in November 1985, the Minister

announced that draft plans had been issued to establish an extra ABC radio service, the Second Regional Radio Network, in regional areas.

The ABC is a major user of the new Australian satellite system, Aussat, and this enables people living in remote areas or areas in which it is extremely difficult to receive broadcasting signals by terrestrial means to receive ABC television and three ABC radio services. However, reception via satellite will only be possible with the necessary equipment.

The SBS is currently in the process of becoming a national service. At this stage, only the capital cities are being provided with the television service; the introduction of the service in Hobart in early 1986 completed this phase of its development. In Sydney and Melbourne, the SBS also operates a radio station broadcasting multilingual programs. The television service is multicultural in theme and its programs reflect the many cultures of the world which exist in Australia.

casting of advertisements. Commercial broadcasting licensees are required to pay licence fees annually.

A commercial television service is also to be provided to people living in remote or under-served areas. Called the Remote Commercial Television Service (RCTS), it may be received in the same way as the ABC satellite service. The parent company of the licensee companies of television stations TVT Hobart and TNT Tasmania, ENT Limited, is a member of the company which will be granted the licence to provide such a service to the south east of Australia — NSW, Vic and Tas. The service is expected to commence in 1987.

**Public Broadcasting Services**

Public radio services have expanded rapidly throughout Australia since 1978 when the then Minister announced policy guidelines for its development. From 12 stations in 1978, the sector now comprises over 70 services in 1986. In Tasmania, two new services were licensed in 1985 to serve Launceston, a community station to serve a broad range of community groups and interests, and a christian service. There are now five public radio stations in Tasmania. Funds may come from a variety of sources including government and non-government grants, subscriptions and sponsorship announcements. Public radio services are essentially local in focus and may program material which reflect the wide range of interests, informational, cultural and educational, in each service area.

**14.9 Radio Stations in Operation at 30 June 1985**

Call sign	Classification	Location
7ZL	National	Hobart
7ZR	National	Hobart
7NT	National	Launceston
7QN (a)	National	Queenstown
7FG (a)	National	Fingal Valley
7SH (a)	National	St Helens
7HO	Commercial	Hobart
7HT	Commercial	Hobart
7AD	Commercial	Devonport
7BU	Commercial	Burnie
7EX	Commercial	Launceston
7LA	Commercial	Launceston
7QT	Commercial	Queenstown
7SD	Commercial	Scottsdale
7THE-FM	Public	Hobart
7HFC-FM (b)	Public	Hobart
ABC-FM	National	{Hobart Launceston

(a) Transmits, in the main, programs originating from 7NT.

(b) Commenced operation in 1980.

**Commercial Broadcasting Services**

A commercial radio or television licensee is required under the *Broadcasting Act* to undertake to provide an adequate and comprehensive service to people within the service area of the licensee and to use and encourage the use of Australian resources. Whether a licensee has met the undertaking is a matter of judgement for the Tribunal after considering all relevant information, including views and comment from interested members of the public through the licensing process. Commercial broadcasters receive most of their income from the broad-

**14.10 Television Stations in Operation, 30 June 1985**

Call sign and channel	Area	Transmitter location
National —		
ABT 2	Hobart	Mt Wellington
ABNT 3 (a)	NE Tasmania	Mt Barrow
ABKT 11 (a)	King Island	Gentle Annie Hill
Commercial —		
TVT 6	Hobart	Mt Wellington
TNT 9	NE Tasmania	Mt Barrow

(a) Transmits programs originating from ABT 2.

**Program and Advertising Standards**

Commercial and public licensees are required to meet the Tribunal's standards. The ABC is required to have regard to the standards but are not obliged to meet them. The standards include requirements relating to Australian content, the acceptability of program material, duration and suitability of advertisements and, in the case of television, special provisions

relating to children's programs. In 1986 the Tribunal will continue its review of the standards.

In 1985 the Tribunal conducted public inquiries for the renewal of licences for commercial television stations, TVT Hobart and TNT NE Tasmania and in December the licences were renewed for three years.

#### ***Microwave Links, Intrastate Relays and Translator Stations***

The prime sources of programs in Hobart are the commercial and national studios which are linked to their Mt Wellington transmitters (TVT 6 and ABT 2) by microwave links; the commercial studio in Launceston feeds programs to its Mt Barrow transmitter (TNT 9) by the same method. As there is no national studio at Launceston, the transmitter on Mt Barrow (ABNT 3) relays the Hobart national programs through the broadband radio link. A similar service is also available to commercial stations.

#### **14.11 Television Translator Stations in Operation at 30 June 1985**

Area served	Local channel	
	National	Commercial
Burnie	4	10
Derby	..	11
East Devonport	45 (approx.)	48 (approx.)
Lileah	8	6
Maydena	..	8
Queenstown-Zeehan	4	8
Rosebery-Renison Bell	1	10
Savage River-Luina	4	7
Smithton	4	11
South Launceston	1	11
St Helens	0	7
St Marys-Fingal Valley	1	11
Strahan	10	..
Strathgordon	5	8
Swansea-Bicheno	4	8
Taroona	..	8
Waratah	2	11
Wynyard	1	5A

Tasmania, due to its terrain, has areas where television reception direct from the Mt Wellington or Mt Barrow transmitters is either difficult or impossible. To provide good reception in such areas, translator stations, which are low-powered stations receiving signals from a parent station and re-transmitting on a different frequency to areas with poor reception, have been installed. Translator stations cannot broadcast directly.

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