23

TRANSPORT*

VICTORIAN MINISTRY OF TRANSPORT

The Victorian Ministry of Transport, in association with the statutory authorities under the Minister of Transport's jurisdiction, controls land transport in Victoria. Two exceptions to this situation are traffic management and vehicle registration, both of which lie within the administration of the Minister for Police and Emergency Services. The Ministry was established under the terms of the *Transport Act* 1951 for the purpose of securing the improvement, development, and better co-ordination of passenger and freight transportation in Victoria. As part of this responsibility, the Ministry carries out detailed investigations into all aspects of land transport and acts as the policy adviser to the Minister of Transport.

Victoria's transport authorities are responsible for the operation and maintenance of the transport system and the Ministry of Transport oversees their activities and formulates policy. Including the West Gate Bridge Authority, seven transport authorities report to the Minister of Transport.

The Victorian Railways is by far the largest Victorian transport authority, employing some 23,000 persons and operating a rail network of 6,304 kilometres. During the 1978–79 financial year, the Victorian Railways carried 94,000,000 passengers (98,000,000 in 1977–78) and transported about 11,000,000 tonnes of freight. Expenditure in this financial year amounted to $349m ($333m in 1977–78). Late in 1972, legislation was enacted to change the governing body of the Victorian Railways from three commissioners to a Board of seven members, which has since been expanded to nine members. The Board comprises representatives from the business community and the Victorian Railways.

It became evident during the 1960s that the Flinders Street station area could no longer handle the demand for peak hour train travel and so the Victorian Government, after examining methods of reducing this bottleneck, decided that the best solution was to convert the central terminal into a five section complex by the construction of an underground rail loop around the central business district. When completed, the Melbourne underground rail loop will substantially enlarge the capacity of the whole Melbourne metropolitan area rail network.

The Melbourne Underground Rail Loop Authority was created when the Melbourne Underground Rail Loop Act was proclaimed on 1 January 1971. The Authority is a corporate body comprising nine members. It is responsible for supervising and co-ordinating the planning, financing, and construction of the underground rail loop, which will comprise four new rail tracks under Spring Street and La Trobe Street, linking tracks in the existing railway system from points east of Flinders Street and Princes Bridge to points north of Spencer Street. Three new stations will be built underground and two additional tracks have been constructed between Flinders Street and Spencer Street stations. To assist in financing the underground rail loop, the Victorian Railways collects a small levy on each suburban rail journey. The balance of the funds required to complete the underground rail loop are to be provided by the Victorian Government, the Melbourne and Metropolitan Board of Works, and the Melbourne City Council.

* The 1979 edition of the *Victorian Year Book* contains a comprehensive special article on the relationship between transport and the Victorian environment (pages 1–25), supported by articles on the history of transport administration in Victoria (pages 129–30) and transport in agriculture (pages 370–1).

Another railway authority which plays an important role in Victoria's transport system is the Railway Construction Board. The Railways Act prescribes that "the Board shall construct and complete all lines of railway which Parliament may hereafter authorise to be constructed". The Board's major current tasks are to plan the eastern railway and supervise the construction of transport centres at Frankston and Box Hill.

Many cities around the world have abandoned their tramway systems. Melbourne, however, has retained its trams, and they have become a significant asset in moving persons over comparatively short distances up to 13 kilometres from Melbourne. In fact, the Melbourne and Metropolitan Tramways Board carries more passengers than the Victorian Railways—about 120,000,000 persons in 1978–79. The board comprises three members, employs 4,700 persons, and maintains about 220 kilometres of tram services and 276 kilometres of bus services in the Melbourne metropolitan area.

A necessary part of Victoria's transport system is the operation of commercial road passenger and goods vehicles. The regulation of these functions is the responsibility of the Transport Regulation Board, which comprises three members. The regulatory pattern takes the form of a compulsory licensing system designed to meet public needs and to assist in the balanced use of transport resources.

In 1974, the Victorian Parliament passed the *Metropolitan Bridges, Highways, and Foreshores Act* 1974, thereby creating a single Victorian highway authority by transferring to the Country Roads Board the responsibility for metropolitan bridges and highways. The Country Roads Board maintains nearly 24,000 kilometres of roads and is responsible for planning and constructing new roads. The Board comprises three members and employs about 5,000 persons.

In 1964, a special Victorian Government committee recommended that a proposed crossing over the lower Yarra River should be built as a high level bridge with six traffic lanes. This recommendation was agreed to by the Victorian Government in 1965 and legislation was passed in December 1965 giving the West Gate Bridge Authority, or the Lower Yarra Crossing Authority as it was then known, the power to construct and operate a toll bridge over the lower Yarra River, which was opened in November 1978. Subsequent traffic estimates led the Authority to increase the number of traffic lanes from six to eight. The Authority was founded as a non-profit company limited by guarantee and is registered under the Victorian *Companies Act* 1961 and administered by a chairman, deputy chairman, and seven directors.

Complementing the Victorian public transport system is an extensive privately owned bus and taxi network. With the exception of a small number of services into the central business district, Melbourne's private bus network operates on cross suburban routes linking residential areas and local shopping centres, schools, and railway stations. Private buses operate over routes covering 36,000,000 kilometres and carry about 56,000,000 passengers a year. The Victorian Government is subsidising private bus services to minimise increases in fares and providing low interest loans to facilitate the purchase of new buses.

A Metropolitan Transit Council has been established to co-ordinate and manage the metropolitan public transport system. The Council has the task of ensuring that Melbourne has a totally integrated public transport system with a single uniform price ticket interchangeable between rail, tram, and bus.

In co-operation with Victoria's various transport authorities, the Ministry of Transport has embarked on a major programme to re-equip and modernise the metropolitan transport system with the aim of providing rapid, frequent, and comfortable public transport.

Further reference: Board of Inquiry into Land Transport in Victoria, *Victorian Year Book* 1975, p. 634

LAND TRANSPORT

Railways

Introduction

The Victorian railways system is undergoing its first major period of rationalisation for many years. The Victorian Government decided during 1976 to close 23 uneconomic

country railway lines. The services on these lines are being replaced by various forms of road transport, and the changes are part of a co-ordinated transport policy for Victoria.

Establishment of regional freight centres has been an important part of the rationalisation process. Freight to and from country centres is railed in bulk to the nearest regional freight centre, and local deliveries are made by road carriers. This combines rail and road in their most efficient forms, and has also given most of the State a more frequent and usually a more convenient freight service. There are 35 of these centres operating throughout Victoria.

During 1978, a further nine passenger services on branch lines were withdrawn and replaced by modern buses. As with the road carriers, these services are operated under contract to the Victorian Railways by local operators and offer faster, more comfortable travel. As a consequence, there has been a substantial increase in the number of passengers carried.

Urban transport improvements are continuing, as far as funds allow, to help the Melbourne suburban rail system meet the future demands that are expected to be placed on it.

Administration

The Victorian Railways was established in 1856, two years after Australia's first train ran to Sandridge (now Port Melbourne), and was administered first by the Board of Land and Works, and then by either one or three commissioners. A seven-man board, since increased to nine, replaced the commissioners in 1973. The full-time chairman is responsible to the Victorian Government through the Minister of Transport. Day to day matters are controlled by the general manager who is responsible to the chairman for managing the Victorian Railways within board guidelines.

Total transport service

Victoria's rail system was developed during the second half of the nineteenth century, with main lines radiating from Melbourne. Branch lines were built to serve areas which were virtually isolated. The development of road transport has meant drastic economic changes, and the twin expense of maintaining road and rail links to many centres is no longer acceptable.

The Victorian Government's decision, in September 1976, to replace uneconomic rail services with road transport not only offers the Victorian Railways significant savings, but also ensures improved transport services in many country areas.

The Victorian Railways first regional freight centre, which opened at Horsham in March 1976, has indicated an efficient co-ordinated freight transport system. The concept uses rail's advantage as a fast bulk carrier, linked with the flexibility of road transport for local services. Local deliveries in many country areas are now more frequent, compared with the former rail services on branch lines, yet the customer still pays the equivalent of through-rail freight rates. Some towns previously without rail freight services, such as Edenhope and Apsley, are now linked to the regional freight centre system.

There have been widespread savings in such areas as maintenance costs on branch lines, staff costs at inadequately patronised stations, and the release of more than 1,000 much needed freight wagons, as well as many locomotives, for other more profitable services. More than 350 open level crossings are being closed. Uneconomic country passenger services on many railway lines have been replaced by contracted bus services, with similar advantages for both passengers and the Victorian Railways.

Urban transport

Co-ordinated public transport was a feature of the 1969 Melbourne Transportation Committee's plan for 1985. The Report emphasised the need for developing such projects as station car parking facilities, and tram and bus facilities at modal interchange stations to help develop the public transport network. Car parks at many suburban stations have been improved and enlarged.

The number of suburban fare zones have been reduced from 78 to 10 charge zones. Tickets were redesigned from "destination" type single tickets to "section" type single tickets. These new tickets show only the name of the selling station. This will result in

substantial savings with a lesser number of ticket issues and will facilitate the introduction of ticket vending machines.

Improvements to suburban services are made in most areas each year, ranging from major projects such as extra tracks and modern signalling, to station rebuilding and line-side beautification. Power signalling has been installed between Bayswater and Ferntree Gully. Duplication work continued between Macleod and Greensborough, Ringwood and Croydon, and Ringwood and Bayswater. Construction of the third track between Caulfield and Mordialloc also continued.

A number of suburban stations were reconstructed during 1978. The stations were Ashburton, Bayswater, Darebin, Glen Iris, Heathmont, Lalor, McKinnon, Tooronga, and Williamstown Pier. New station buildings were constructed at Watsonia in connection with the duplication work on the track.

Another highly automated signal box at Spencer Street station was brought into service late in 1978. Together with the signal box at Flinders Street station it is planned to link this signal box with other signal boxes around Flinders and Spencer Streets stations, to a metropolitan train control system by the time the underground rail loop is in operation.

Rolling stock

The initial order for fifty silver trains for the suburban network has almost been completed. An interim order for a further nine trains has been placed and orders have been placed for a further fifty.

Eventually, the Victorian Railways intends to replace all wooden bodied suburban trains. However, with extra demand arising from extended traffic on outer suburban lines, as well as the electrification of other lines over the next ten years, the wooden bodied trains are unlikely to be replaced until the 1980s.

During 1978, 150 new covered wagons, container wagons, and hopper wagons were constructed in Victorian Railways workshops and entered service. These wagons are being used to carry bulk freight items such as superphosphate, briquettes, glass making sand, soda ash, and cement. A further 225 wagons are on order, and 3,590 obsolete freight wagons were withdrawn and scrapped during 1978.

In 1978, the order of ten new 3,300 h.p. "C" class diesels was completed. These diesels are now the most powerful locomotives used by the Victorian Railways.

Freight

Although freight business was affected by the dry season and the industrial dispute involving State Electricity Commission employees, the total tonnage carried rose from 10,900,000 tonnes in 1976–77 to 11,100,000 tonnes in 1977–78. The extra traffic resulted from a substantial increase in wheat traffic, and increased carrying of mining and quarry products, manufactured products, and containers, which more than offset a decline in primary products and industrial raw materials carried. The introduction of regional freight centres is rationalising operations and providing a more reliable and regular service, with reduced expenditure.

It has become apparent that the Victorian Railways most significant economic advantage lies in the transportation of bulk freight, where the Railways enjoy a differential advantage, and a major objective of Victorian Railways policy is to secure more of this type of traffic.

Melbourne Underground Rail Loop Authority

The *Melbourne Underground Rail Loop Act* 1970 provided for the establishment of a new authority — the Melbourne Underground Rail Loop Authority to be responsible for the supervision and co-ordination of the planning, financing, and construction of the Melbourne underground rail loop. The Authority, comprising nine members appointed by the Governor in Council, was constituted in 1971.

The loop is not a new railway system superimposed on existing transport facilities but, as stated in the preamble to the Act, the loop and ancillary works are "for the purpose of increasing the capacity and efficiency of the existing Melbourne suburban rail network"

Three underground stations constructed on the eastern and northern boundaries of the central business district, together with the two existing stations on the southern and

western boundaries (Flinders Street station and Spencer Street station), form a five station core to handle the city's labour force during peak hours. Linking the three new stations, Parliament station under Spring Street, Museum station and Flagstaff station under La Trobe Street, by four underground tracks in four separate tunnels and connecting them to the existing surface tracks to form a loop, significantly increases the train operating capacity at the centre of the system. The tunnels are large enough to accommodate existing passenger rolling stock and possible future double-deck carriages.

Considerable progress has been made recently in many facets of the loop project. Museum underground station and two of the four loops — the Burnley lines loop and the Caulfield/Sandringham lines loop — are scheduled to come into service before the end of 1980. Construction of the other two underground stations, Parliament and Flagstaff, and the remaining two loops (Clifton Hill lines and North Melbourne lines) is well advanced.

Much of the laying of rail tracks in the tunnels has been completed, as well as power lines, signalling equipment, and communication cables. The construction of ramps to bring the underground tracks up to the surface and the re-arrangement of surface tracks to provide adequate connections has been virtually completed.

Finance

In 1977–78, Victorian Railways passenger income rose by $1.4m compared with 1976–77. On the freight side revenue increased by $6.1m compared with 1976–77.

Operational expenses

An increase of $31.1m in expenditure was due in large measure to the effects of wage increases flowing over from the previous year or granted during 1977–78—the overall increase in wages amounted to $16.2m. It is a paradox that railways, while being a most economical user of labour per passenger per kilometre or tonne per kilometre performed, are at the same time highly labour intensive in terms of wages as a proportion of total costs. This factor makes the railways extremely vulnerable to the financial effects of wage increases.

Loan liability and interest

The face value of stock and bonds allocated to the Railways Department, as reduced in accordance with the *Railways (Finances Adjustment) Act* 1936, amounted to $607.7m at 30 June 1978. After deducting the value of securities purchased from the National Debt Sinking Fund and cancelled ($107.3m), the net liability on current loans outstanding at that date was $500.4m.

The total liability of the State for railways construction, etc., at 30 June 1978 (which includes the liability referred to in the previous paragraph) was $669.7m. Deduction of securities purchased from the National Debt Sinking Fund and cancelled ($139.5m), together with cash at credit in the Fund ($5.6m), reduced the amount outstanding at the end of the year to a net liability of $524.6m.

The *Railways (Funds) Act* 1961 provided that interest and other charges on money borrowed for the purposes of the *Railways Act* 1958 should not henceforth be included in the accounts of the Victorian Railways, but would be charged against the revenues of the State. However, the *Railways (Funds) Act* 1964 reimposed on the Railways, with effect from 1 July 1964, the obligation to pay interest and debt charges on money borrowed for the purposes of the *Railways Act* 1958 on and after 1 July 1960. The total annual interest payable on the liability of $524.6m at 30 June 1978 amounted to $38.8m at an average rate of 7.323 per cent. Of this amount, the Victorian Railways are liable for $22.9m. In addition, the State is required to pay a contribution of $6.3m at a rate of 4.5 per cent on cancelled securities.

Additional funds, which amounted to $111.7m at 30 June 1978, have been provided for railway construction, equipment, stores, etc., out of the Consolidated Fund, the Uniform Railway Gauge Trust Fund, the State Grants (Urban Public Transport) Trust Account, and other funds. No interest is charged against railway revenue on these amounts, with the exception that interest, at 5 per cent, is payable to the Commonwealth Government on the repayable principal amount outstanding in respect of expenditure on the uniform gauge. (See page 621 of the *Victorian Year Book* 1966.)

Railway statistics

The following tables relate to the State railways and road motor services under the control of the Victorian Railways Board. Certain border railways in New South Wales are, by agreement between the Victorian and New South Wales Governments, under the control of the Victorian Railways Board. Particulars of these have been included with those of the State railways being operated within Victoria. Details of the operations of the road motor services are shown on page 534.

Capital cost of railways and equipment

The capital cost of all lines constructed and in course of construction, and of all works, rolling stock, and equipment of the Railways Department at 30 June for each of the years 1974 to 1978 is shown in the following table:

VICTORIA—TOTAL CAPITAL COST OF RAILWAYS, ETC.: EQUIPMENT AND ROLLING STOCK
($'000)

At 30 June—	Railways		Road motor services	Total capital cost *(a)*
	Lines open	Lines in process of construction		
1974	416,357	663	19	417,039
1975	442,723	1,030	19	443,772
1976	471,009	2,333	19	473,361
1977	484,954	3,979	19	488,952
1978	494,901	5,297	19	500,217

(a) Written down in accordance with *Railways (Finances Adjustment) Act* 1936, and allowing for depreciation since 1 July 1937. Particulars are exclusive of the cost of stores and materials on hand and in course of manufacture.

At 30 June 1978, the capital cost of rolling stock, after being written down in accordance with the *Railways (Finances Adjustment) Act* 1936, and allowing for depreciation, was $191.9m.

Railways staff

The number of officers and employees in the railways (including casual labour and butty-gang workers) and the amount of salaries and wages (including travelling and incidental expenses) paid for each of the financial years 1973–74 to 1977–78 are shown in the following table:

VICTORIA—RAILWAYS STAFF: NUMBERS, SALARIES, ETC.

Period	Average number of employees			Salaries, wages, and travelling expenses
	Salaried staff	Wages staff	Total	
				$'000
1973–74	5,378	19,865	25,243	153,910
1974–75	5,520	20,454	25,974	199,729
1975–76	5,363	19,735	25,098	218,609
1976–77	5,299	19,110	24,409	234,816
1977–78	5,382	18,454	23,836	251,055

Railways rolling stock

The following table provides a description of the various types of rolling stock in service (exclusive of road motor rolling stock) at 30 June for each of the years 1974 to 1978:

VICTORIA—RAILWAYS ROLLING STOCK IN SERVICE AT 30 JUNE (EXCLUDING ROAD MOTOR SERVICES)

Rolling stock in service	1974	1975	1976	1977	1978
Locomotives—					
Steam	22	19	19	17	11
Electric	35	35	35	35	35
Diesel electric	249	249	257	258	265
Other *(a)*	92	92	93	93	90
Total	398	395	404	403	401
Passenger coaches—					
Electric suburban	1,079	1,120	1,127	1,087	1,056
Other *(b)*	576	556	545	540	490
Total	1,655	1,676	1,672	1,627	1,546
Goods stock *(c)*	19,438	19,223	18,930	17,869	14,574
Service stock	1,594	1,612	1,481	1,428	1,230

(a) Other locomotives comprise diesel hydraulic locomotives, cranes, rail motor diesel power units, and non-passenger carrying tractors.
(b) Passenger coaches owned jointly with New South Wales and South Australia have been included.
(c) All parcels and brake vans including display cars and standard gauge stock have been included.

Railways route distance

The route distance of the railways (exclusive of road motor service route distance) at 30 June for each of the years 1974 to 1978 is shown in the following table. It should be noted that the Victorian Railways operate certain services in New South Wales.

VICTORIA—RAILWAYS ROUTE DISTANCE AT 30 JUNE (EXCLUDING ROAD MOTOR SERVICES)
(kilometres)

Lines open for traffic	Gauge width	1974	1975	1976	1977	1978
Single track	—Broad gauge *(a)*	5,816	5,789	5,784	5,700	5,499
	—Narrow gauge	13	13	14	13	—
Double track	—Broad gauge *(a)*	719	720	719	725	725
Other multi-track	—Broad gauge *(a)*	136	136	136	140	140
Total route distance		6,684	6,658	6,653	6,578	6,364

(a) Broad gauge refers to 1,600 mm and 1,435 mm gauge track.

Railways traffic

The traffic of the railways (exclusive of road motor traffic) for each of the years 1973–74 to 1977–78 are shown in the following table:

VICTORIA—RAILWAYS TRAFFIC (EXCLUDING ROAD MOTOR SERVICES)

Traffic	Unit	1973–74	1974–75	1975–76	1976–77	1977–78
Traffic train kilometres—Country	'000	7,803	7,815	7,823	7,654	7,135
Suburban	'000	13,584	14,291	14,721	14,423	13,887
Goods	'000	11,958	11,769	11,274	11,412	10,990
Total	'000	33,345	33,876	33,818	33,489	32,013
Passenger journeys—Country	'000	4,507	4,963	4,921	4,402	4,108
Suburban	'000	110,141	112,757	104,748	98,252	93,546
Total	'000	114,648	117,720	109,669	102,654	97,654
Goods and livestock carried	'000 tonnes	11,370	11,057	10,803	10,971	11,120

The tonnes carried and tonne kilometres of various classes of goods and the total tonnes carried and tonne kilometres of livestock carried by the Victorian Railways for the years 1974–75 to 1977–78 are shown in the following table:

VICTORIA—RAILWAYS GOODS AND LIVESTOCK TRAFFIC (EXCLUDING ROAD MOTOR GOODS SERVICES)
('000 tonnes)

Class of goods	Tonnes carried				Tonne kilometres			
	1974–75	1975–76	1976–77	1977–78	1974–75	1975–76	1976–77	1977–78
Grain—								
Barley	355	444	452	362	105,477	125,785	133,249	95,833
Wheat	2,021	1,866	1,837	2,359	634,888	573,989	563,780	735,572
Other	135	281	166	206	30,115	76,833	34,415	42,336
Flour	145	129	116	82	30,411	28,742	25,900	18,505
Stockfood and fodder	84	65	57	50	21,520	16,664	14,893	11,475
Fruit—								
Fresh	108	90	92	74	41,095	34,692	35,568	27,538
Dried	48	63	53	48	26,228	34,176	28,637	25,794
Beverages	188	172	160	157	46,139	41,322	38,857	37,296
Solid fuels	986	758	837	740	178,103	134,572	138,847	125,546
Cement	852	822	903	803	101,454	101,448	113,546	108,438
Mining and quarry products	334	319	512	758	96,605	84,140	100,298	126,217
Dairy produce	35	35	18	15	8,473	8,113	4,260	3,726
Milk, condensed, powdered, etc.	85	98	99	75	17,735	18,589	18,137	13,699
Tinplate	51	41	45	19	15,292	13,483	14,492	7,069
Iron, steel, and metals, unfabricated	629	635	675	591	163,663	191,379	213,818	196,664
Manures	470	394	593	616	124,277	102,605	154,264	155,893
Motor cars and accessories	267	241	233	181	75,248	64,351	58,123	43,897
Petroleum products	427	415	427	402	123,381	122,566	126,608	121,179
Paper products	226	193	203	179	64,435	59,815	67,669	59,674
Pipes	110	74	56	66	27,978	19,649	15,612	17,617
Timber	242	261	247	189	76,997	84,435	79,467	62,590
Wool	129	223	126	104	30,698	45,345	31,610	26,806
All other goods	2,875	2,829	2,755	2,768	976,962	980,895	935,359	960,776
Total goods	10,802	10,447	10,662	10,844	3,017,174	2,963,587	2,947,410	3,024,141
Total livestock	255	356	310	277	74,265	107,786	94,776	84,537
Grand total of goods and livestock	11,057	10,803	10,971	11,120	3,091,439	3,071,373	3,042,186	3,108,678

Railways revenue and expenditure

Revenue for 1977–78 increased by $12,966,177 compared with 1976–77. Total working expenses increased by $31,106,380 over the same period.

VICTORIA—RAILWAYS REVENUE AND EXPENDITURE
($'000)

Particulars	1973–74	1974–75	1975–76	1976–77	1977–78
REVENUE					
Passenger, etc., business—					
Passenger fares	38,343	40,283	46,662	52,417	53,813
Parcels, mails, etc.	4,885	5,736	7,049	7,336	7,202
Other	154	131	111	104	106
Goods, etc., business—					
Goods	60,057	69,653	77,687	86,282	92,543
Livestock	1,179	1,631	2,262	2,260	2,191
Miscellaneous	743	637	471	614	561
Miscellaneous—					
Dining car and refreshments services	4,369	5,418	6,116	6,891	7,371
Rentals	2,904	3,100	3,188	3,689	4,804
Bookstalls	1,263	1,434	1,515	1,576	1,587
Advertising	300	335	299	326	335
Melbourne Underground Rail Loop Authority special levy	895	922	1,395	1,833	1,798
Other	635	807	697	351	4,334
Total revenue	115,727	130,087	147,450	163,677	176,644

VICTORIA—RAILWAYS REVENUE AND EXPENDITURE—*continued*
($'000)

Particulars	1973–74	1974–75	1975–76	1976–77	1977–78
EXPENDITURE					
Working expenses—					
General expenses	166,778	215,968	237,230	261,504	288,238
Pensions	8,325	9,695	12,642	16,263	19,591
Contributions to Railway Renewals and Replacement Fund	400	400	400	400	400
Contributions to Railway Accident and Fire Insurance Fund	2,347	2,626	3,294	3,677	3,639
Pay-roll tax	6,067	8,957	10,399	10,894	11,695
Long service leave	3,036	3,786	5,696	5,501	5,513
Appropriation to Melbourne Underground Rail Loop Authority construction	895	922	1,395	1,833	1,798
Other *(a) (b)*	1,058	1,426	1,341	1,682	1,989
Total working expenses	188,906	243,779	272,395	301,755	332,861
Net revenue	-73,180	-113,692	-124,945	-138,077	-156,217
Debt charges—					
Interest charges and expenses *(b)*	10,893	12,043	13,792	16,760	20,779
Exchange on interest payments and redemption	44	55	57	38	31
Contribution to National Debt Sinking Fund	455	497	527	572	630
Net result for year	-84,572	-126,287	-139,321	-155,448	-177,657
	per cent	per cent	per cent	per cent	per cent
Proportion of working expenses to revenue	163.2	187.4	184.7	184.4	188.4

(a) Including interest paid to the Commonwealth Government under the Railways Standardisation Agreement.
(b) Including loan conversion expenses.

The gross revenue and working expenses per average kilometre of railway worked for each of the years 1973–74 to 1977–78 are shown in the following table:

VICTORIA—RAILWAYS REVENUE AND EXPENDITURE PER AVERAGE KILOMETRE OPEN (EXCLUDING ROAD MOTOR SERVICES)

Particulars	1973–74	1974–75	1975–76	1976–77	1977–78
Average number of kilometres open for traffic	6,685	6,658	r6,654	r6,610	6,449
Gross revenue per average kilometre open	$ 17,300	19,525	22,145	24,748	27,391
Working expenses per average kilometre open	$ 28,212	36,556	40,869	45,572	51,614

Road motor services

The following table shows, for each of the years 1973–74 to 1977–78, particulars of the operations of the road motor services under the control of the Victorian Railways Board:

VICTORIA—ROAD MOTOR SERVICES
(Under the control of the Victorian Railways Board)

Particulars	1973–74	1974–75	1975–76	1976–77	1977–78
Bus kilometres	351,494	372,849	392,901	367,834	293,164
Passenger journeys	760,684	792,952	790,070	754,250	621,000
Gross revenue	$ 76,047	89,302	94,781	91,673	82,497
Working expenses	$ 307,021	385,838	455,522	522,470	352,640
Capital expenditure at end of year (less depreciation written off) *(a)*	$ 19,172	19,132	19,092	19,092	19,092

(a) From 1 July 1976, rather than being applied to assets as in the past, depreciation is being charged as working expenses.
NOTE. The apparent discrepancy between the amount of working expenses and revenue was brought about by revenue not having received a proportion of combined rail and road services earnings, while working expenses have been charged with road motor operating cost in full.

Tramway and omnibus services

Melbourne and Metropolitan Tramways Board

The Melbourne and Metropolitan Tramways Board was established by an Act of the Victorian Parliament in 1919, and on 1 November of that year took over the cable tramway system then operating in Melbourne. It progressively acquired the assets and obligations of the various municipal tramway trusts which had been operating as separate bodies and merged them into a single tramway system for the metropolitan area. The Board embarked upon a programme of electric tramway construction and the conversion to electric operation of the previous cable tramway system, resulting in the formation of the tramway network which exists today.

The Melbourne and Metropolitan Tramways Act provides for a Board consisting of a chairman, a deputy chairman, and a member appointed by the Governor in Council. Subject to the direction of the Minister, the Board controls, manages, operates, and maintains the tramways of the Melbourne metropolitan area, and a fleet of passenger buses operating on routes authorised by the Transport Regulation Board.

The Board is at present carrying out an extensive programme of upgrading its fleet of trams and buses by introducing new vehicles of modern design to improve the standard of comfort and service offered to its passengers. Following the completion of an initial purchase of 115 new tramcars, an order has been placed for a further 100 tramcars for delivery between 1979 and 1983. New buses are also being obtained to replace the older vehicles in the fleet and to provide for improved services.

In July 1978, the first new tramway extension for more than twenty years — a new 3.4 kilometre tramway along the Burwood Highway from the previous terminus at Warrigal Road to Middleborough Road, East Burwood — was opened. Preparations were being made for an extension of the East Preston tramway to Bundoora.

The following two tables show an analysis of the Board's operations for each of the years 1974–75 to 1978–79:

VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD: TRAMWAYS: OPERATIONS

Period	Track open at end of year		Tram kilometres	Passenger journeys	Operating receipts	Operating expenses	At end of year	
	Double	Single					Rolling stock	Persons employed *(a)*
	kilometres	kilometres	'000	'000	$'000	$'000	number	number
1974–75	217	4	23,840	111,077	20,916	37,176	*(b)* 713	4,575
1975–76	217	4	24,235	106,126	24,986	42,844	*(b)* 728	4,540
1976–77	217	4	24,166	102,886	26,684	47,981	*(b)* 747	4,624
1977–78	217	4	24,185	r101,296	27,981	r50,780	*(b)* 748	4,708
1978–79	220	4	24,191	101,070	29,836	57,331	*(b)* 750	4,749

(a) Includes omnibus employees. Tramways employees not available separately.
(b) Includes rolling stock in reserve or idle.

VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD: MOTOR OMNIBUS SYSTEMS: OPERATIONS

Period	Route kilometres	Bus kilometres	Passenger journeys	Operating receipts	Operating expenses	At end of year	
						Rolling stock	Persons employed *(a)*
		'000	'000	$'000	$'000	number	number
1974–75	242	12,027	22,658	4,555	9,941	*(b)* 263	4,575
1975–76	249	12,681	20,821	5,286	11,813	*(b)* 258	4,540
1976–77	249	12,762	20,073	5,688	13,057	*(b)* 259	4,624
1977–78	258	12,874	19,339	5,760	14,472	*(b)* 305	4,708
1978–79	276	12,879	19,927	6,264	16,523	*(b)* 278	4,749

(a) Includes tramways employees. Omnibus employees not available separately.
(b) Includes rolling stock in reserve or idle.

The following three tables show an analysis of the Board's revenue and expenditure items for each of the years 1974–75 to 1978–79:

VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD: REVENUE, EXPENDITURE, ETC.
($'000)

Particulars	1974–75	1975–76	1976–77	1977–78	1978–79
REVENUE					
Traffic receipts	25,168	29,968	32,194	33,546	35,654
Miscellaneous operating receipts	303	304	179	195	445
Non-operating receipts	325	418	458	551	569
Payment from drivers' licence suspense account	897	1,028	116	1,927	1,900
Total revenue	26,693	31,718	32,947	36,219	38,569
EXPENDITURE					
Traffic operation costs	22,729	25,761	29,148	31,709	37,319
Maintenance—					
Permanent way	1,603	1,765	1,827	1,667	2,341
Tramcars	5,096	5,523	6,249	6,982	8,609
Buses	2,216	2,522	2,837	3,182	3,636
Electrical equipment of lines and sub-stations	1,237	1,429	1,498	1,511	1,882
Buildings and grounds	621	699	730	827	1,027
Electric traction energy	889	1,048	1,178	1,376	1,571
Fuel oil for buses	374	533	561	661	840
Bus licence and road tax fees	9	3	1	2	1
General administration and stores department costs	3,019	3,031	3,598	2,397	4,787
Pay-roll tax	1,721	1,967	2,191	2,281	*(a)*
Workers compensation payments	1,822	3,239	2,706	1,499	*(a)*
Depreciation	909	1,156	1,479	1,780	2,080
Non-operating expenses	147	146	186	241	268
Provisions—					
Long service leave	690	984	1,138	1,282	1,012
Retiring gratuities	1,262	1,587	1,785	2,122	1,759
Accrued sick leave	146	163	165	216	201
Public liability claims	827	886	853	1,317	1,423
Interest on loans	1,947	2,361	3,094	4,441	4,888
Leasing of rolling stock	—	—	—	—	479
Total expenditure	47,264	54,803	61,224	65,492	74,122
Net surplus (+) or deficit (–)	–20,571	–23,085	–28,277	–29,273	–35,553
Capital outlay	6,059	8,761	9,621	r10,787	12,095
Loan indebtedness at 30 June	31,935	37,225	45,725	54,413	63,161

(a) These two labour-related items of expenditure have been distributed over the operating expense accounts which contain labour costs.

VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD: TRAMWAYS: OPERATING RECEIPTS, OPERATING EXPENSES, ETC.

Period	Operating receipts			Operating expenses		Ratio operating expenses to operating receipts
	Amount	Per vehicle kilometre	Per passenger	Amount	Per vehicle kilometre	
	$'000	cents	cents	$'000	cents	per cent
1974–75	20,916	87.73	18.83	37,176	155.94	177.74
1975–76	24,986	103.10	23.54	42,844	176.79	171.47
1976–77	26,684	110.42	25.94	47,981	198.55	179.81
1977–78	27,981	115.70	27.62	50,780	209.97	181.48
1978–79	29,836	123.34	29.52	57,331	236.99	192.15

VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD: MOTOR OMNIBUS SYSTEMS: OPERATING RECEIPTS, OPERATING EXPENSES, ETC.

Period	Operating receipts			Operating expenses		Ratio operating expenses to operating receipts
	Amount	Per vehicle kilometre	Per passenger	Amount	Per vehicle kilometre	
	$'000	cents	cents	$'000	cents	per cent
1974–75	4,555	37.87	20.10	9,941	82.66	218.24
1975–76	5,286	41.68	25.39	11,813	93.16	223.48
1976–77	5,689	44.58	28.34	13,057	102.31	229.51
1977–78	5,760	44.74	29.78	14,472	112.41	251.25
1978–79	6,264	48.64	31.43	16,523	128.30	263.78

Private motor omnibus services

The following table shows particulars of Victorian private omnibus services, including details of route operations, charter, schools, and other special services. In the year 1977–78, route operations accounted for 48.63 per cent of total distance travelled, while charter, school, and other special services accounted for 19.94, 30.63, and 0.81 per cent, respectively.

VICTORIA—PRIVATE MOTOR OMNIBUS SERVICES

Particulars	1973–74	1974–75	1975–76	1976–77	1977–78
Number of vehicles	3,118	3,130	3,205	3,310	3,341
Distance travelled '000 kilometres	101,266	97,782	99,427	103,342	103,959
	$'000	$'000	$'000	$'000	$'000
Revenue	35,916	45,389	52,548	61,045	67,049
Expenditure—					
Drivers' wages	13,753	17,667	20,273	22,908	25,547
Repairs and maintenance	4,250	5,597	6,702	7,934	8,777
Depreciation	2,557	2,678	3,144	3,677	4,215
Other	12,360	15,545	18,180	21,592	24,507
Total expenditure	32,920	41,487	48,299	56,111	63,046
Assets *(a)*—					
Motor vehicles	7,261	7,695	9,953	12,041	13,756
Other assets	13,559	14,665	16,399	18,290	20,306
Total assets	20,820	22,360	26,352	30,331	34,062
Liabilities *(a)*	10,834	11,734	14,841	17,332	20,119

(a) Incomplete. Assets and liabilities of operators engaged solely in school bus services are not available.

Tramways in provincial cities

Tramway services in Ballarat and Bendigo ceased on 19 September 1971 and 16 April 1972, respectively, to be replaced by privately operated bus services. Sections of the Ballarat and Bendigo systems were re-opened during 1972 as tourist attractions operating during weekends and holidays.

Further reference: Melbourne tramways 1930–1961, *Victorian Year Book* 1963, pp. 771–2

Country Roads Board

Introduction

The Country Roads Board, constituted under the *Country Roads Act* 1912, commenced operations in 1913.

There are about 160,000 kilometres of public roads in Victoria, of which some 23,700 kilometres comprise the State's principal system of Country Roads Board declared roads. Under the provisions of the Country Roads Act the Board may, subject to the confirmation of the Governor in Council, declare any road to be a State highway, a

freeway, or a main road. The Board also has the power to recommend to the Governor in Council that any road be proclaimed as a tourists' road or a forest road.

The Board meets the full cost of works required to cater for the needs of through traffic on State highways, freeways, tourists' roads, and forest roads. State highways and freeways, while serving the immediate district through which they pass as arterial routes, also carry much long distance traffic. Tourists' roads and forest roads generally pass through areas where little or no rate revenue is available to the local municipality. Main roads, the construction and maintenance costs of which are partly borne by local municipal councils, form what may be described as a secondary system of important roads in Victoria. In addition, there is a vast network of unclassified roads, many of which carry considerable traffic and which, within the limits of available finance, are subsidised by the Board as needs and priorities warrant.

The Board's system of classified or declared roads at 30 June 1979 comprised 7,022 kilometres of State highways, 288 kilometres of freeways, 798 kilometres of tourists' roads, 1,031 kilometres of forest roads, and 14,567 kilometres of main roads.

State highways

Under legislation passed in 1924, a "State highway" in Victoria has a specific meaning. It is a road declared as such by the Board with the confirmation of the Governor in Council. State highways are the principal road arteries forming interstate connections and links between important provincial centres. The more important State highways also form part of the national route system of interstate highways. At 30 June 1979, there were 7,022 kilometres of State highways, 6,780 kilometres of which had a sealed surface.

National highways in Victoria

A national highway is a road or proposed road that, in the opinion of the Commonwealth Department of Transport, is or will be the principal road linking: (1) two or more State capital cities; (2) a State capital city and Canberra; (3) a State capital city and Darwin; (4) Brisbane and Cairns; or (5) Hobart and Burnie; or a road or proposed road that should, in the opinion of the Commonwealth Department of Transport, be treated by reason of its national importance as a national highway.

The construction of national highways in Victoria is carried out by the Country Roads Board as the State's road authority. At present the Hume Highway and the Western Highway have been declared as national highways under the National Roads Act, excluding sections within the urban areas of Melbourne and Ballarat.

Long-term proposals for the Hume Highway include its development to a dual carriageway road from the outskirts of Melbourne to Wodonga. The construction of local by-passes and deviations around settlements and townships, for example, Seymour, Mangalore, Avenel, Euroa, Violet Town, Benalla, and Wangaratta will be considered. The completion of the freeway between Wallan and Broadford in mid-1976 extended the construction of dual carriageways from the outskirts of Melbourne to Seymour.

The Western Highway between Melbourne and Ballarat is being progressively developed to dual carriageway standard. Further work on the sections between Ballarat and Murray Bridge at the South Australian border is a long-term consideration. Work already commenced or completed includes the construction of a four-lane highway from the outskirts of Melbourne to west of Gordon. The completion of the by-pass of Wallace and Bungaree will provide a continuous four-lane carriageway between Melbourne and Ballarat.

Freeways

An amendment to the Country Roads Act in 1956 gave the Board power to construct by-pass roads (freeways), the first constructed being the Maltby Freeway at Werribee, opened in 1961. Since then the development of freeways by the Board has continued with the opening of the Westgate Freeway; the Calder Freeway to Keilor East; the Western Freeway at Bacchus Marsh, Pentland Hills, Gordon, Ballan, and Myrniong; the Mulgrave Freeway from Forster Road, Mount Waverley, to north of Dandenong; the South Eastern Freeway; the South Gippsland Freeway; the Tullamarine Freeway; the Princes Freeway,

between Moe and Morwell; sections of the Princes Freeway between Melbourne and Geelong; the Mornington Peninsula Freeway between Dromana and Rosebud; the Frankston Freeway; sections of the Hume Freeway between Melbourne and Seymour, and the Eastern Freeway. The Mulgrave Freeway west of Forster Road, and the West Gate Freeway in South Melbourne and Port Melbourne were under construction.

Some sections of freeway were developed from existing single carriageway State highways, while others were completely new routes adding to Victoria's total road length.

Tourists' roads

The Country Roads (Tourists' Roads) Act was passed in 1936. Under its terms, the Governor in Council, on the recommendation of the Country Roads Board, may proclaim suitable roads to be tourists' roads.

The Board constructs and maintains tourists' roads in, and leading to, places of special tourist interest in various parts of Victoria. Victoria has about 800 kilometres of proclaimed tourists' roads. The Board bears the full cost of works required to cater for the needs of through traffic, and generally, carries out the works concerned.

The Great Ocean Road is the longest tourists' road in Victoria. For 207 kilometres, the road follows the rugged south-west coast, from Torquay to Peterborough. The road was built by the Board for the Great Ocean Road Trust. The Trust's purpose was to open up the country to tourists and provide a road to connect the coastal towns. The road was built largely by returned soldiers and sailors of the First World War, and stands as a memorial to the servicemen in that war. The Great Ocean Road was completed in 1932 and proclaimed as a tourists' road in 1936.

Other tourists' roads that cater for holiday travellers include the Phillip Island Road (23 kilometres) and the Wilsons Promontory Road (31 kilometres).

In winter, the tourists' roads leading to Victoria's ski resorts carry many holiday travellers and ski enthusiasts. The major ski resorts are at Mt Hotham, Mt Buller, Falls Creek, and Mt Buffalo. The tourists' roads leading to these ski resorts are the Mt Buffalo Road (39 kilometres), the Mt Buller Road (27 kilometres), the Bogong High Plains Road (66 kilometres) to Falls Creek, and the Alpine Road (83 kilometres) to Mt Hotham. Each winter the Board's snow-clearing teams keep these roads open to traffic. The Donna Buang Road (34 kilometres) and the Acheron Way (35 kilometres) lead to Mt Donna Buang.

The number of persons visiting the alpine resorts is increasing each year. The Board's task of maintaining the tourists' roads that lead to the State's resorts benefits both an important tourist industry and the people it serves. In winter and summer, travellers along many tourists' roads can enjoy scenic drives and take a break from driving by stopping at a roadside rest area or scenic lookout.

The Board, local councils, and other authorities have provided roadside stops with eating facilities, toilets, tables, and litter bins to give drivers and passengers an opportunity to stop in a pleasant roadside environment.

Forest roads

Forest roads proclaimed under the provisions of the Country Roads Act are situated within or adjacent to any State forest, or in areas considered by the Country Roads Board to be timbered, mountainous, or undeveloped.

The Board bears the full cost of works required to cater for the needs of through traffic, with about half the work being carried out by municipal councils on behalf of the Board.

The Board's proclaimed forest roads throughout Victoria have had an important effect on the growth of the State's timber extraction industry. Their most important use is in the transport of logs from the forest to the saw mills. About 520 kilometres of the State's 1,031 kilometres of forest roads are used for this purpose. A further 120 kilometres are used to transport sawn timber from the mills to markets. The other forest roads are used for carting local produce, posts, and firewood.

More than 90 per cent of Victoria's saw log and pulp wood production comes from State forests under licence from the Forests Commission, and the Board's forest roads carry 28 per cent of that production. Many of the roads used for timber extraction are in

isolated and mountainous areas and often become a financial burden for local councils because they earn very little rate revenue.

The Board was first given the power to declare forest roads under the *Forest Roads and Stock Routes Act* 1943. When the Country Roads Board takes over responsibility for such roads, municipalities are relieved of all the construction and maintenance costs for them. In 1978–79, Board expenditure on proclaimed forest roads was $1.8m, but grants could be made only for the most urgent works required. Grants for forest roads are allocated on the basis of need, and work priorities are determined by the Board.

The longest forest road in the State stretches 145.5 kilometres from Heyfield to Jamieson, winding through the Great Dividing Range. It is also Victoria's busiest forest road and carries the most timber. However, the road has only been open as a continuous link between Heyfield and Jamieson since 1969 when the Board completed construction of a 16 kilometre section near Mt Skene in the Great Dividing Range. The Board spent $385,000 on constructing this road. The Heyfield–Jamieson Road provides an additional link between Gippsland and northern Victoria for tourist and commercial traffic as well as for logging trucks.

Main roads

The Board is empowered under the Country Roads Act to declare as a main road any road which in its opinion is of sufficient importance. Main roads are generally roads linking centres of industry, commerce, or settlement. At 30 June 1979, there were 14,567 kilometres of main roads in Victoria.

Rural roads

Victoria is the most densely populated State of Australia, with some 3,850,000 persons inhabiting 140,600 square kilometres. The pattern of Victoria's rural life has come to depend significantly on the rural road system. Since the development of the motor vehicle the demand placed on the road system has increased and rural commerce relies heavily on trucks using roads to carry produce to the railway yards, or directly to the ports.

On 1 January 1913, the Country Roads Act was proclaimed and after fifty years of unco-ordinated control, since the abolition of the Department of Roads and Bridges, the Act once more established a central road authority. The Victorian Government had previously allocated money for roads but, with no State-wide body to co-ordinate road development, regional areas, particularly Gippsland, suffered from inequalities in the distribution of funds. When it was established in 1913, one of the first tasks of the new Country Roads Board was to evaluate the condition of roads in the Gippsland region of Victoria.

There are now about 140,000 kilometres of rural public roads in Victoria (excluding public roads in the Melbourne Statistical Division, the Geelong Statistical District, and the urban areas of Bendigo and Ballarat) of which some 21,800 kilometres comprise the principal rural system of Country Roads Board declared roads. In addition to its declared roads the Board, within the limits of available finance, subsidises works carried out by municipal councils on thousands of kilometres of unclassified roads.

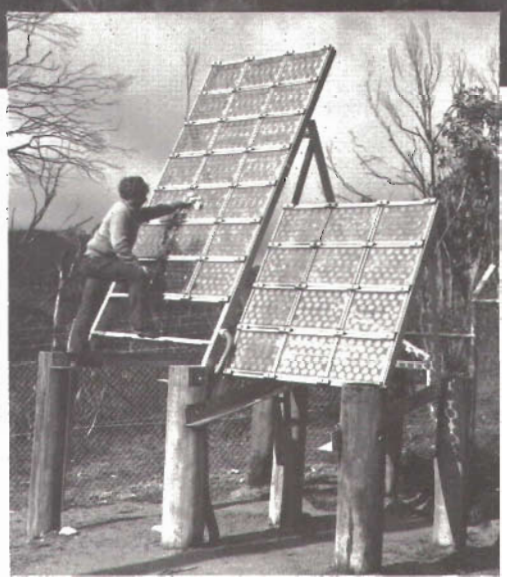
In 1978–79, the Board spent $108.5m on the construction ($73.3m) and maintenance ($35.2m) of rural roads in Victoria.

Victoria's rural roads can be divided into three systems. The rural State highways are the principal arteries forming interstate connections and link the larger centres of population in the State. State highways such as the Hume, the Western, and the Princes connect Victoria's road system to the highways of the neighbouring States of New South Wales and South Australia. The Hume Highway between Melbourne and Wodonga, and the Western Highway between Melbourne and Ballarat, are being progressively upgraded to freeway standard. These highways form part of an Australia-wide national highway network. During 1978–79, the Board spent $23m on upgrading these two highways.

The second system consists of the main roads linking centres of population with other centres or with areas of industry, commerce, or settlement. These roads provide a means for primary producers and manufacturers to move their products to the nearest railway line or highway system, and also cater for recreational traffic. The third system comprises

Aerial view of the completed Dartmouth Dam on the Mitta Mitta River in north-eastern Victoria.

State Rivers and Water Supply Commission



(Above and right) Telecom Australia's first solar-powered telephone exchange at Glen Valley, in the Omeo district of Gippsland.

Telecom Australia

(Below) Phototypesetting technology is now part of the production process of the *Victorian Year Book;* an operator using the word processor keyboard.

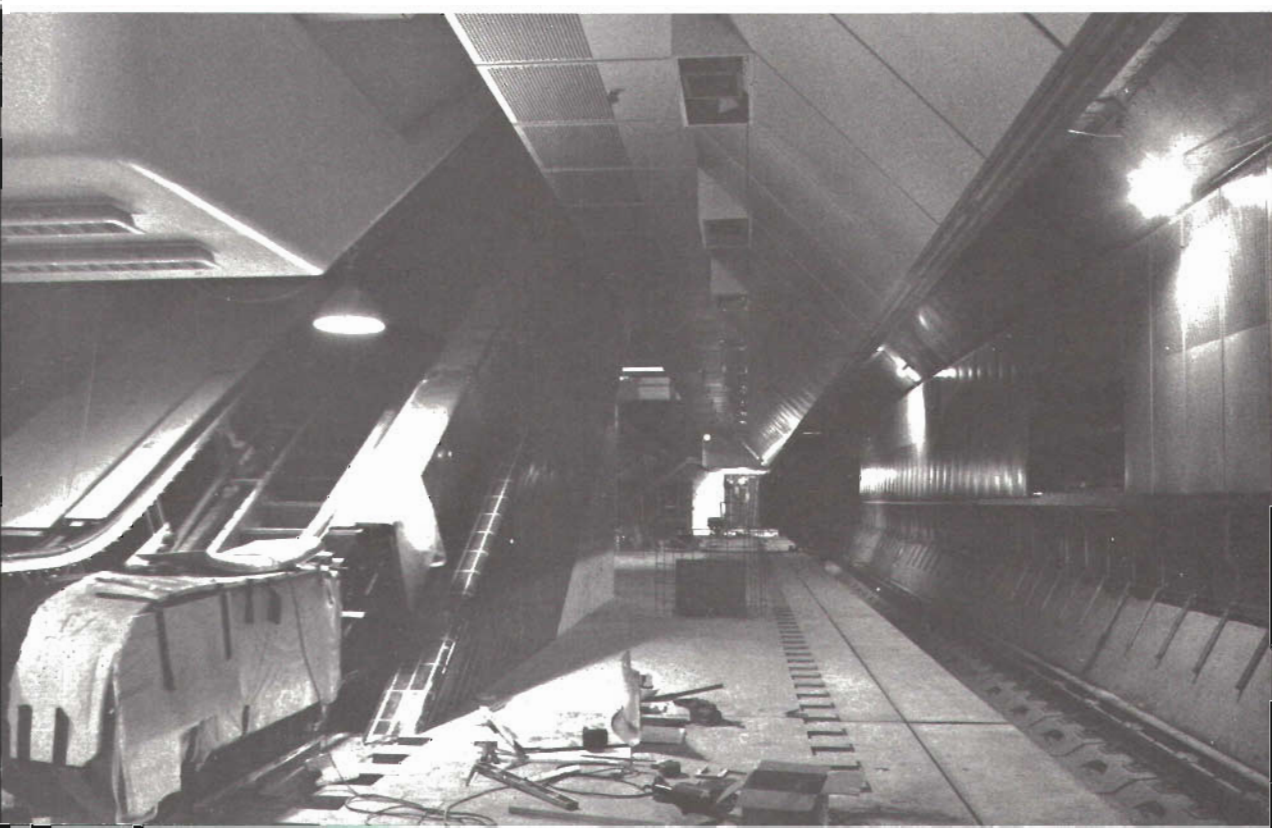
Bailes and Reid Typesetters Pty Ltd

A unique line of restored terrace houses: Tasma Terrace in East Melbourne, which houses the headquarters of the National Trust of Australia (Victoria).

National Trust of Australia (Victoria)

One of the platforms of Museum Station nearing completion.

Melbourne Underground Rail Loop Authority



In Geelong, the newly completed State Public Offices and, under construction, the District Performing Arts Centre.

City of Geelong

(Right) The headquarters of the Victorian Government in London, Victoria House, situated in The Strand.

Department of the Premier

Melbourne's newly constructed Centrepoint Mall fronts on to the Bourke Street Mall.

John Brown Photography Pty Ltd

feeder roads, providing local access to farming or residential areas. Each system is co-ordinated with the other systems to enable vehicles, either private or commercial, to move freely between all points in the State.

Roadside development

Roads are among the most permanent structures on the landscape, and once built they cannot be considered apart from their surrounding environment. In recent years the Board has furthered the development of what is termed the complete highway to provide a balanced combination of safety, utility, economy, and beauty. Such factors as the preservation of flora, conservation of landscape features, rehabilitation of cleared areas, and erosion control are important aspects of the Board's road design practices. Some 80,000 trees and shrubs are planted each year on declared road reserves. The Board is also developing roadside stopping places for the convenience of travellers. These include rest areas with water and toilet facilities, wayside stops, scenic view points, and parking areas.

Sources of finance

The Board's two main sources of finance are Commonwealth and Victorian Government funds. Funds derived from Victorian Government sources are:

(1) *Motor registration fees.* Fees payable on the registration and re-registration of motor vehicles and trailers, less the costs of collecting the fees (excluding metropolitan omnibus registration fees and a major proportion of registration fees paid to the Roads [Special Projects] Fund).

(2) *Registration number plate fees.* Fees payable for the provision and/or replacement of number plates, less the costs of providing the plates and collecting the fees.

(3) *Examiners' licence fees.* Fees payable by persons licensed to conduct motor car roadworthiness examinations, less the cost of collection of the fees.

(4) *Authorised log book fees.* Fees payable for the purchase of log books, less the cost of providing the books and collecting the fees.

(5) *Learner drivers permit fees.* Seven-eighths of the permit fee and the permit extension fee payable by applicants for, and/or holders of, learner driver permits, less seven-eighths of the cost of collection of the fees (one-eighth less one-eighth cost of collection is paid to the Drivers' Licence Suspense Accounts).

(6) *Drivers' licence testing fees.* Seven-eighths of $4.00 of the fee payable for the test of proficiency of candidates for motor car drivers' licences less seven-eighths of the cost of conducting the test and collecting the fee (one-eighth of $4.00 less one-eighth of the cost of collection, is paid to the Drivers' Licence Suspense Account) and the amount of each fee above $4.00 is paid to the Consolidated Fund.

(7) *Motor car drivers' licence fees and tractor drivers' licence fees.* One-eighth of the fees payable for the issue of drivers' licences less one-eighth of the cost of collecting the fees. (One-half, less one-half cost of collection, is paid to the Consolidated Fund; one-quarter, less one-quarter cost of collection, is paid to the Municipalities Assistance Fund; and one-eighth, less one-eighth cost of collection, is paid to the Drivers' Licence Suspense Account.)

(8) *Motor driving instructors' appointment and testing fees.* Fees payable by candidates for motor driving instructors' licences, less the cost of collection of the fees.

(9) *Motor driving instructors' licence fees.* One-quarter of the fees payable for the issue of motor driving instructors' licences less one-quarter of the costs of collection of the fees. (One-half, less one-half cost of collection, is paid to the Consolidated Fund; and one-quarter, less one-quarter cost of collection, is paid to the Municipalities Assistance Fund.)

(10) *Unregistered vehicle permit fee.* A fee for the issue of a permit to use an unregistered motor car or trailer on a highway for a period of not more than seven days, less the costs of collection of the fee.

(11) *Proprietorship notification fee.* A fee payable with the notification by a proprietor of a motor car or trailer of repossession of the item under a hire purchase agreement, bill of sale or like instrument, less the costs of collection of the fee.

(12) Fines imposed under the provisions of the Country Roads Act.

(13) All money received under Part II of the Commercial Goods Vehicles Act (tonne-kilometre tax). The tonne-kilometre tax ceased to operate from 1 July 1979; however, some money is still being received for the period prior to 1 July, 1979.

(14) A proportion of the revenue raised from licence fees issued under the *Business Franchise (Petroleum Products) Act*, 1979.

The Act adopted a franchise licensing system and provided for the raising of revenue for a licence fee payable by persons who carry on petroleum wholesaling or retailing in Victoria. From 1 September 1979, the Act requires petroleum wholesalers to hold a licence, the monthly licence fee being $50, together with the payment of an amount of 4.5 per cent of the value of motor spirit and 7.1 per cent of the value of diesel fuel sold by the licence holder in the course of intrastate trade during the month, two months prior to the month to which the licence relates. Petroleum retailers are also required to hold a licence for which an annual fee of $50 is paid on a similar basis to the fee applicable to the petroleum wholesaler's licence, except that the *ad valorem* fee does not apply to fuel purchased by a petroleum retailer from a licensed petroleum wholesaler.

The Act also established a "Roads and Special Projects Fund" into which is to be paid an amount equal to the licence fees collected under the Act after deduction of costs of administration. The Act provides for money in the Roads and Special Projects Fund to be paid to the Country Roads Board Fund and to the Transport Fund as determined by the Minister of Transport with the proviso that the amount paid to the Country Roads Board Fund in each financial year shall not be less than one-quarter of the amount credited in licence fees under the Act during the financial year or $10m whichever is the greater and that the minimum amount so paid shall be available for road maintenance.

(15) Municipal payments on account of main road works.

(16) Any special money appropriated by the Victorian Parliament.

(17) Loan money.

(18) Allocation from the Roads (Special Projects) Fund.

Money is also provided from Commonwealth Government sources. In 1978–79, receipts from the Commonwealth Government amounted to $105m.

Total funds available to the Board in 1978–79, including unexpended balance of $1.8m brought forward from 1977–78, amounted to $238.8m.

From 1 July 1978, Commonwealth Government financial assistance to Victoria for roads has been provided by two Commonwealth Acts of Parliament — the Roads Grants Act and the Transport (Planning and Research) Act.

Receipts and expenditure

Receipts and expenditure covering the operations of the Board for each of the years 1974–75 to 1978–79 are shown in the following table:

VICTORIA—COUNTRY ROADS BOARD: RECEIPTS AND EXPENDITURE
($'000)

Particulars	1974–75	1975–76	1976–77	1977–78	1978–79
RECEIPTS					
Fees—Motor Car Act (less cost of collection)	41,985	50,827	60,801	75,978	78,571
Municipalities contributions—permanent works and maintenance—main roads	2,047	2,233	2,518	2,891	2,956
Commonwealth Government grants *(a)*	78,977	92,132	91,192	98,980	105,652
Roads (Special Projects) Fund	30,429	30,192	28,963	33,456	36,320
Proceeds from Commercial Goods Vehicles Act	10,038	10,132	9,968	9,818	9,577
Loans from Victorian Government	300	325	325	325	1,325
Grants from Victorian Government	772	427	638	581	463
Other receipts	1,247	1,525	1,746	1,924	2,194
Total	165,795	187,793	196,151	223,953	237,058
EXPENDITURE					
Construction, maintenance, etc., of roads and bridges	135,107	146,920	169,281	182,131	189,174
Plant purchases	1,783	1,234	1,366	2,059	2,857
Buildings, workshops, etc.	806	313	726	1,063	899
Interest and Sinking Fund payments	2,688	2,793	2,934	2,993	3,059
Payment to Tourist Fund	751	840	1,017	1,216	1,520
Payment to Transport Regulation Board	622	602	608	598	589
Payment to Traffic Authority Fund	375	420	508	608	760

VICTORIA—COUNTRY ROADS BOARD: RECEIPTS AND EXPENDITURE—*continued*
($'000)

Particulars	1974–75	1975–76	1976–77	1977–78	1978–79
Payment to Melbourne and Metropolitan Tramways Board	200	200	195	356	535
Planning and research	2,205	3,663	2,843	2,817	3,722
Management and operating expenditure *(b)*	21,432	23,303	24,042	29,102	29,903
Temporary investments	—	—	—	—	1,000
Total	165,969	180,288	203,520	222,943	234,019

(a) Includes relief of unemployment grants: 1974–75, $3,134,000 and 1975–76, $2,202,000.
(b) Includes residual liability for loan funds under the *Metropolitan Bridges, Highways and Foreshores Act* 1974: $371,000 in 1975–76.

Expenditure on roads and bridges

The following table summarises the total expenditure by the Country Roads Board on roads and bridges during each of the years 1974–75 to 1978–79:

VICTORIA—COUNTRY ROADS BOARD: EXPENDITURE ON ROADS AND BRIDGES
($'000)

Particulars	1974–75	1975–76	1976–77	1977–78	1978–79
State highways—					
Construction	17,165	18,871	22,712	27,594	25,649
Maintenance	9,280	12,101	13,697	14,659	16,602
Freeways—					
Construction	47,983	53,204	53,617	51,551	56,055
Maintenance	1,368	1,779	2,130	2,912	3,231
Main roads—					
Construction	18,029	16,633	21,150	23,031	23,056
Maintenance	8,469	10,147	11,621	12,753	13,949
Unclassified roads—					
Construction	24,169	25,020	31,877	34,690	33,597
Maintenance	4,165	4,601	6,256	7,124	7,428
Tourists' roads—					
Construction	1,032	518	1,473	1,445	1,683
Maintenance	1,102	1,235	1,593	1,781	1,926
Forest roads—					
Construction	416	475	557	687	745
Maintenance	686	867	923	930	1,053
Metropolitan bridges	1	2	13	—	502
Rail/road bridges protection	—	—	—	456	563
State Intersection Control Programme	333	424	305	625	745
Murray River bridges and punts	123	228	145	287	566
Traffic line marking	784	816	1,212	1,606	1 824
Total construction	108,794	114,721	131,386	138,998	140,785
Total maintenance	25,071	30,730	36,220	40,159	44,189
Total other	1,242	1,469	1,675	2,974	4,200
Total expenditure	135,107	146,920	169,281	182,131	189,174

Loan liability to the State

The loan liability of the Board to the Victorian Government at 30 June 1979 was $28.7m.

Motor vehicles

Registration, licences, etc.

Every motor car and motor cycle must be registered with the Chief Commissioner of Police if used on Victorian roads, as well as all trailers (except agricultural implements and certain small trailers for private use), fore-cars, and side-cars drawn by or attached to motor cars or motor cycles.

Further reference: ***Victorian Year Book*** **1979, p. 529**

VICTORIA—DRIVERS' AND RIDERS' LICENCES IN FORCE AT 30 JUNE

Type of licence	1975	1976	1977	1978	1979
Drivers'	1,829,298	1,888,560	1,961,382	1,945,501	1,999,646
Riders'	56,576	68,496	71,138	70,562	72,526
Total	1,885,874	1,957,056	2,032,520	2,016,063	2,072,172

The following table shows the number of motor vehicles on the register by type. Particulars of Commonwealth Government-owned vehicles, with the exception of defence service vehicles, are included. Tractor-type vehicles, plant, and trailers are excluded.

VICTORIA—NUMBER OF MOTOR VEHICLES ON REGISTER BY TYPE OF VEHICLE

Type of vehicle	Census, 31 December 1962	Census, 30 September 1971 *(a)*	Census, 30 September 1976 *(a)*	At 31 December 1977	At 31 December 1978
Motor cars	610,974	929,477	1,222,733	1,261,157	1,311,497
Station wagons	69,528	201,884	233,480	237,209	245,424
Utilities	94,470	89,764	104,538	108,812	112,414
Panel vans	31,851	46,539	46,980	50,870	55,064
Trucks —					
Rigid	76,591	79,386	117,764	121,918	128,854
Articulated		9,417	9,766	9,740	10,172
Other truck type vehicles	2,890	3,520	4,867	5,761	6,090
Buses	3,409	5,129	7,294	8,078	8,704
Motor cycles	15,802	28,160	51,931	50,270	52,780
Total	905,515	1,393,276	1,799,353	1,853,815	1,930,999

(a) Revised classifications of motor vehicles were adopted for the censuses of motor vehicles at 30 September 1971 and 1976. The principal differences between the new classification for 30 September 1971 and that at 31 December 1962 were:

(i) Utilities and panel vans include "light commercial type vehicles" and trucks with a carrying capacity under 1.016 tonnes, and ambulances and hearses (which were previously included under motor cars).

(ii) "Rigid trucks" include utilities and panel vans with a carrying capacity of 1.016 tonnes and over.

(iii) "Other truck type vehicles" consist of those truck type vehicles which are designed for purposes other than freight carrying, e.g., street flushers or fire engines. Previously, this category incorporated vehicles such as tankers and concrete agitators which are now classified as "trucks".

The 1976 Motor Vehicle Census had as its main features:

(i) Allocation of commercial vehicles to the categories "utilities", "panel vans", or "rigid trucks" solely on the basis of the body type as recorded by the registration authority.

(ii) The inclusion in "other truck types" of ambulances, hearses, and motorised caravans.

Direct comparisons, therefore, between the three censuses can only be made for the categories station wagons, buses, and motor cycles. However, for comparative purposes "light commercial type vehicles—open" registered at 30 September 1971 have been included in the classification utilities and "light commercial type vehicles—closed", registered at the same date, are included in the classification panel vans. Trucks and other truck types registered at 31 December 1962 have also been included under similar headings but attention is drawn to the changes in definition of those categories outlined above.

The following tables, showing new vehicle registrations by types and makes of vehicles, include details of Commonwealth Government-owned vehicles (other than those of the defence services):

VICTORIA—REGISTRATIONS OF NEW MOTOR CARS AND STATION WAGONS ACCORDING TO MAKE
(Includes Commonwealth Government-owned vehicles other than those of the defence services)

Make	Motor cars				Station wagons			
	1974–75	1975–76	1976–77	1977–78	1974–75	1975–76	1976–77	1977–78
Alfa Romeo	694	406	383	537	—	—	—	—
B.M.W.	480	331	354	503	—	—	—	—
Chrysler	8,528	7,740	6,992	6,586	1,999	1,455	1,726	807
Datsun	13,361	12,357	12,302	13,423	378	1,287	1,186	1,216
Fiat	853	461	430	352	—	—	22	62
Ford	24,734	23,490	24,106	22,745	5,514	5,332	5,212	5,588
Holden	25,843	25,052	22,885	22,659	5,419	5,309	4,936	4,391
Honda	3,663	1,692	1,763	2,453	—	150	276	172
Jaguar	410	383	417	337	—	—	—	—

VICTORIA—REGISTRATIONS OF NEW MOTOR CARS AND STATION WAGONS ACCORDING TO MAKE—*continued*
(Includes Commonwealth Government-owned vehicles other than those of the defence services)

Make	Motor cars				Station wagons			
	1974–75	1975–76	1976–77	1977–78	1974–75	1975–76	1976–77	1977–78
Leyland	3,139	1,068	971	1,181	—	—	—	—
Mazda	8,286	6,621	5,719	5,303	1,622	1,721	1,815	1,026
Mercedes Benz	1,047	812	898	901	—	—	—	—
Peugeot	978	717	788	488	8	33	73	78
Renault	1,825	1,205	1,131	610	455	412	323	258
Rover	206	147	117	68	154	227	259	198
Saab	221	125	132	82	—	—	—	—
Statesman	1,258	1,341	1,406	1,235	—	—	—	—
Subaru	282	332	327	290	115	327	572	465
Toyota	14,397	12,454	12,909	13,974	1,435	1,742	2,389	3,427
Triumph	528	647	747	629	—	—	—	—
Volkswagen	1,810	1,818	1,387	811	385	365	252	52
Volvo	1,780	1,540	1,269	1,144	446	318	385	379
Other	820	715	868	909	90	36	67	29
Total	115,143	101,454	98,301	97,220	18,020	18,714	19,493	18,148

VICTORIA—REGISTRATIONS OF NEW MOTOR VEHICLES OTHER THAN MOTOR CARS, STATION WAGONS, AND MOTOR CYCLES ACCORDING TO MAKE
(Includes Commonwealth Government-owned vehicles other than those of the defence services)

Make	1976–77				1977–78			
	Utilities	Panel vans	Other	Total	Utilities	Panel vans	Other	Total
Bedford	—	62	1,014	1,076	—	30	941	971
Bedford Isuzu	—	—	315	315	—	—	332	332
Chevrolet	135	—	138	273	115	—	274	389
Chrysler	363	55	40	458	292	232	11	535
Daihatsu	162	75	154	391	233	137	183	553
Datsun	443	46	291	780	349	178	299	826
Dodge	273	6	641	920	25	—	583	608
Ford	2,135	2,763	1,348	6,246	1,882	2,415	1,331	5,628
Holden	2,008	2,383	1,229	5,620	2,115	2,168	1,372	5,655
International	11	—	1,258	1,269	—	—	1,232	1,232
Leyland	202	177	161	540	227	172	253	652
Mazda	486	565	481	1,532	411	325	638	1,374
Nissan	884	76	536	1,496	558	—	712	1,270
Suzuki	292	361	—	653	306	450	12	768
Toyota	1,698	844	2,146	4,688	1,691	644	3,273	5,608
Volkswagen	36	530	441	1,007	17	247	242	506
Other	270	9	1,008	1,287	184	169	988	1,341
Total	9,398	7,952	11,201	28,551	8,405	7,167	12,676	28,248

Transport Regulation Board

Introduction

The *Transport Regulation Act* 1932 set up a Board of Inquiry to investigate Victoria's land transport problems. The recommendations of this Board led to the constitution of the Transport Regulation Board in 1934. The Board, consisting of a chairman, a primary producers' representative, and a representative of commercial interests outside a radius of 40 kilometres from the G.P.O., Melbourne, is a statutory authority originally constituted "for the purpose of securing improvement and co-ordination of means of and facilities for locomotion and transport" and for the purposes of carrying into effect the provisions of specific legislation in this field. Although by later amending legislation a Ministry of

Transport was established with particular functions, the Board's functions as a licensing authority are still to channel the evolution of road transport in the interests of the most efficient use of community resources.

VICTORIA—TRANSPORT REGULATION BOARD: LICENCES ISSUED: SUMMARY OF FINANCIAL OPERATIONS

Particulars	1973–74	1974–75	1975–76	1976–77	1977–78
Licences issued "as of right"—					
40 kilometres of Melbourne	18,113	20,877	22,121	23,617	24,417
40 kilometres of Ballarat, Bendigo, or Geelong	1,869	2,176	2,413	2,636	2,699
40 kilometres of owner's place of business	7,683	9,159	10,305	10,896	11,254
Primary producers (vehicles over 2 tonnes load capacity)	17,363	17,132	17,091	16,919	16,955
Butter, milk, and cheese factories	420	344	577	511	513
80 kilometres of owner's place of business (vehicles up to 6 tonnes load capacity) *(a)*	47,995	34,155	32,707	32,121	29,181
State-wide rights for carriage of own goods (vehicles not exceeding 500 kilograms)	10,358	19,890	19,133	18,188	19,034
Third Schedule (basically perishable) commodities	12,108	10,189	9,009	8,366	8,040
Approved decentralised secondary industries	1,430	1,630	1,836	1,861	2,061
80 kilometres of Melbourne	318	481	559	530	558
80 kilometres of Portland	10	36	41	47	55
Bulk tankers—petroleum products	185	466	502	497	504
"Discretionary" licences—					
Passenger—					
Omnibuses	3,537	3,536	3,663	3,741	3,827
Taxis and hire-cars	3,531	3,572	3,563	3,570	3,555
Omnibus temporary/special	171	183	197	182	192
Goods	12,451	10,862	10,253	11,320	10,094
Goods—passenger	22	19	18	16	14
Total licences issued	137,564	134,707	133,988	135,018	132,953
Financial transactions—	$'000	$'000	$'000	$'000	$'000
Revenue	4,510	6,296	6,932	7,996	8,298
Expenditure	*(b)* 3,900	5,218	6,212	7,214	7,954
Levy to Transport Fund	—	356	524	580	681
Balance	+610	+722	+196	+202	-337
Collections—					
Road maintenance contributions collected and transferred direct to Country Roads Board	10,362	10,039	10,133	9,969	9,819
Motor boat registration fees collected and paid to Tourist Fund	397	580	855	975	1,036
Log book fees	11	10	12	15	15

(a) Vehicles up to 4 tonnes load capacity before February 1974.
(b) Includes payments to local government authorities for comfort stations and bus shelters.

Licences, permits, and drivers' certificates

During the year ended 30 June 1978, the Board issued 76,053 goods permits for the temporary variation of the operations of a vehicle. There were 5 new tow truck licences issued and at 30 June 1978 there were 732 licences on record. For the year ended 30 June 1978, there were 5,625 new drivers' certificates issued: 4,221 commercial passenger, 873 private omnibus, and 531 tow truck.

Buses

Commercial buses at 30 June 1978 totalled: metropolitan 1,516, urban 150 (Ballarat 40, Bendigo 32, and Geelong 78), country 2,047, touring omnibus 114, and temporary special licence, 192.

Taxis and hire-cars

Taxis and hire-cars at 30 June 1978 totalled: metropolitan 2,916, urban 201 (Ballarat 50, Bendigo 37, and Geelong 114), and country 438.

Passenger fares

At 30 June 1978, adult bus fares were 20c, 30c, and 35c, respectively, for the first three sections travelled, rising to 45c for sections 4 and 5 and 50c for sections 6 to 10, and thereafter by various amounts.

Since 1 October 1975, there have been two tariffs operating for taxi fares. The second tariff represents a 20 per cent loading on the normal meter distance charge and applies between 9.00 p.m. and 6.00 a.m. Monday to Saturday, midday Saturday to midnight Sunday, and on public holidays. Taxi fares at 30 June 1978 were 50c flagfall (including the first 80 metres on tariff 1 and the first 64 metres on tariff 2), plus 5c for each additional 160 or 128 metres for tariff 1 or tariff 2, respectively.

Goods and passenger applications

For the year ended 30 June 1978, the Board heard 10 goods and 132 passenger applications at public hearings. The majority of these applications were determined and settled without the need for a public hearing, and numbered 2,575 goods and 4,898 passenger cases.

Motor boats

The Board is responsible for the registration of motor boats (under 20 metres in length) and for keeping records of ownership. Fees collected from motor boat registrations totalled $1,036,063 during 1977–78. These fees, less the cost of collection and administration of the Motor Boating Act, are paid into the Tourist Fund administered by the Department of State Development Decentralization and Tourism. At 30 June 1978, there were 87,319 motor boats registered by the Board.

Commercial freight transport

In 1976, the Victorian Government decided that transport regulation in its present form would be progressively phased out within five years; and that road and rail services would eventually operate in a competitive condition. Since that time the Board has been required to administer existing legislation so as to provide the Victorian Railways with the opportunity to adjust to the changes that would occur in a more competitive environment.

A principal feature of the Victorian Railways' review has been the design of a State-wide network of regional freight centres. Seventeen of these centres were established and operating at the end of 1977–78. The total network will comprise thirty-five centres.

Road distribution from regional freight centres is undertaken by private transport operators, under contract to the Victorian Railways. In most cases, the combined service is designed to operate as an overnight "door to door" delivery service between Melbourne and consignees' premises in respective freight centre locations.

Passenger services

The Victorian Government provides financial assistance to operators of private bus services. The subsidy scheme was introduced in 1974 pending the results of a major study into the future of the industry and the establishment of administrative machinery necessary to implement plans of rationalisation and consolidation. The scheme provides assistance in the areas of revenue support through a direct fare subsidy, and vehicle replacement through an allocation of funds for low interest loans.

Taxi industry

Following a public hearing in July 1977, the Board decided to grant a small group of suburban taxis permanent rights to operate as metropolitan taxis, which resulted in these cars being integrated into the metropolitan fleet without any adverse effect on the services provided to the public.

The Board's decision followed the hearing of interested parties and the experimental use of all metropolitan taxi stands by the group of suburban taxis. The effect of this decision is intended to add support for a programme of rationalisation and consolidation in the taxi industry by providing impetus for amalgamation.

Road maintenance charges

The owners of commercial goods vehicles with a load capacity exceeding 4.1 tonnes are required to pay a tonne-kilometre charge as compensation for wear and tear caused to Victorian roads. The total amount collected ($154.5m since 1956) is paid to the Country Roads Board Fund—Road Maintenance Account. An amount equal to 6 per cent of collections is recouped to help defray the collection costs.

Road charges collected during 1977–78 amounted to $9.8, compared with $10.0m during 1976–77. This represents a decline of 1.5 per cent from last year's figure and can be attributed mainly to the unchanged general economic conditions.

Enforcement

Enforcement action relating to the provisions of the Transport Regulation Act, the Commercial Goods Vehicles Act, and the Transport Consolidated Regulations is the responsibility of the Board's field staff comprising inspectors located at Head Office and its twelve regional offices. In addition, the Board is considerably involved in other legislation which its officers are empowered to enforce, including the Motor Car Act and Regulations and the Road Traffic Act and Regulations as they relate to commercial road transport.

VICTORIA—TRANSPORT REGULATION BOARD:
PROSECUTIONS TAKEN TO COURTS UNDER ENFORCEMENT LEGISLATION

Acts or Regulations	1973–74	1974–75	1975–76	1976–77	1977–78
Transport Regulation Act (Passenger)	125	98	127	96	91
Commercial Goods Vehicles Act—Part 1	804	1,059	1,176	1,617	1,649
Transport Consolidated Regulations 1977	308	319	250	217	211
Motor Car Act	1,814	1,448	1,710	1,293	1,681
Motor Car Regulations	629	619	493	274	291
Road Traffic Regulations	571	531	400	202	232
Summary Offences Act	—	5	4	6	2
Magistrates' Court Act	—	—	—	—	—
Total	4,251	4,079	4,160	3,705	4,157

Tow trucks

The operation and control of tow trucks in the Melbourne metropolitan area has been a matter of concern to the Board for some years, and a representative steering committee, comprising members of the towing industry, panel repair industry, insurance companies, Victoria Police, social protection groups, and the Board has undertaken a co-ordinated study into the whole field of accident towing.

Draft reports following survey and analysis tasks undertaken by a firm of consultants were received by the steering committee late in 1977, and subsequent work resulted in endorsement by interested parties of a recommendation that proposals for rationalisation of the industry be accepted by the Board. The main features of the recommended plan embrace a zoned distribution of accident-attending tow trucks, a central control base to allocate emergency tow jobs, imposition of standard charges for towing and storage, and a suitable driver training scheme.

Further work is proceeding to assess the acceptability of the rationalisation proposals within a wider industry and community context, before any recommendation is made to the Victorian Government seeking legislative changes that would be required to give effect to these proposals.

West Gate Bridge Authority

Background

The West Gate Bridge was officially opened to traffic on 15 November 1978. The bridge carries eight lanes of traffic, four in each direction, as well as two service lanes for emergency vehicles and breakdowns. All activity on the bridge is monitored by the bridge controllers in the control room, where emergency service vehicles, the emergency telephone system, hazard warning lights, and traffic signal system are co-ordinated. The control room also has direct lines to the police, ambulance, fire brigade, and the Port of Melbourne Authority.

Under the provisions of the *Lower Yarra Crossing Authority Act* 1965, the Authority financed the construction of the project by raising private loan funds from savings banks, life offices, private superannuation funds, and other private lenders. All such loans were subject to the prior approval of the Victorian Treasury and the Governor in Council, and accordingly, are guaranteed as to repayment of all principal and interest thereon. The Act requires that the project be amortised over a period of not more than forty years from the date on which the bridge was opened to traffic and, as soon as it is free from all encumbrances, it is to be handed over to the Victorian Government.

Operations

By the end of June 1979, the Bridge had recorded nearly 4,400,000 vehicle crossings without a single accident or incident of a serious nature. All operational functions of the Bridge have performed satisfactorily, including the advanced traffic monitoring equipment. Those motorists that do have difficulties or experience breakdowns are assisted by the Authority's service vehicles. The Authority's staffing strength is currently 97 persons, covering operations, maintenance, and administrative divisions.

Improved directional signposting on feeder routes to the Bridge from the eastern, south-eastern, and southern suburbs of Melbourne to assist motorists in locating the correct routes has been implemented by the Country Roads Board, after agreement with the respective municipal councils following joint consultations with the Authority. Plans are also underway to provide a system of directional signs from the western end of the Bridge through to the Western Highway, F.8.

Additional signs have also been installed at the toll plazas, to indicate where a toll officer is on duty for those motorists who do not have the correct money for the automatic lanes or who wish to purchase or tender toll vouchers.

Road Safety and Traffic Authority

The Road Safety and Traffic Authority (RoSTA) has the responsibility of framing policies for the safe and orderly movement of traffic and pedestrians on Victorian roads and implementation of such policies as directed by the Victorian Government. The Authority's functions under the Road Traffic Act are to carry out research and investigation into road accident prevention; promote road accident prevention practices; request municipal councils to adopt specific practices; and advise the Minister for Police and Emergency Services on accident prevention policies, regulations, and any matter for the improvement of traffic conditions or control. These functions embody those of the former Traffic Commission which the Authority replaced in March 1971.

Since 1958, the Authority has received from the Victoria Police a comprehensive statistical record of reported road accidents involving casualties and certain types of property damage accidents. This information forms the basis of the State Traffic Accident Record.

A part of the State Traffic Accident Record, Accidents by Location, which shows reported accidents by location and road user movement has been produced on an annual basis since 1968. Interim accumulative statistics are provided on a quarterly basis and supplied to highway authorities approximately two months after the end of the quarter. The information contained in the State Traffic Accident Record is also used as a basis for research into road accidents, for advice to the Victorian Government and the Parliamentary Road Safety Committee, as well as to highlight areas where promotion of road safety practices and the development of accident countermeasures is required.

Further reference: ***Victorian Year Book*** **1977, pp. 670–1**

Motor Accidents Board

The Motor Accidents Board of Victoria administers a "no fault" motor accident compensation scheme. This scheme excludes any attempts to introduce degrees of fault, allocation of negligence, and similar concepts. It is the first of its type in Australia and is proving of interest overseas.

The "no fault" concept is a fundamental departure from the law of tort. Such are the complexities and numbers of accidents in current society, many of which are not related to negligence or fault, that payment of some compensation is seen as a social liability paid for by the community.

The beginning of the Victorian Government's move for a "no fault" system of motor accident compensation was in the recommendation of two committees, the first appointed to report on methods of reducing the time involved and the high costs of litigation procedures, and the second to draw up in draft detailed provisions for "no fault" benefits and administration. The Motor Accidents Act, which embraced most of the second committee's recommendations concerning a "no fault" system, received Royal Assent in April 1973. Its administrative provisions, including appointment of the Board, were enacted in September 1973, and benefits began to operate from 12 February 1974. The total amount of benefits paid by the Board to 30 June 1978 was $69,908,721.

Road traffic accidents

The following tables include particulars of those road traffic accidents reported by the Victoria Police during the periods specified, which satisfied the following conditions:
(1) That the accident occurred on any road, street, lane, thoroughfare, footpath, or place open to or used by the public by right or custom, at the time of the accident;
(2) that it involved:
(i) any road vehicle which, at the time of the accident, was in motion; or
(ii) any animal which, at the time of the accident, was in motion and was being used for the purpose of transportation or travel; or
(iii) any train passing over a level crossing for the time being open to the public; and
(3) that the accident resulted in:
(i) death of any person within a period of thirty days after the accident; or
(ii) bodily injury to any person to an extent requiring surgical or medical treatment.

While there is a requirement for accidents involving a casualty to be reported to the Victoria Police, in practice not all such accidents are so reported, particularly where injury of minor severity has occurred, and there is some evidence of understatement in recent years of the numbers of accidents and persons injured compared with earlier years.

The tables do not include figures of accidents on railway lines (except at level crossings), or on private property. For these and other reasons, the total number of deaths shown in these tables is not comparable with that shown on page 215.

VICTORIA—ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES: NUMBER OF PERSONS KILLED OR INJURED

Period	Number of accidents	Persons killed	Persons injured	Per 100,000 of mean population		
				Number of accidents	Persons killed	Persons injured
1973–74	13,452	877	18,634	368	24	510
1974–75	12,693	887	17,765	343	24	480
1975–76	12,591	898	17,596	337	24	471
1976–77	13,673	915	18,558	363	24	493
1977–78	14,964	926	20,243	394	24	533

The table which follows provides a description of types of road users killed or injured in road traffic accidents occurring during the years 1974–75 to 1977–78:

VICTORIA—ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES: DESCRIPTION OF PERSONS KILLED OR INJURED

Description	1974–75		1975–76		1976–77		1977–78	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Drivers of motor vehicles	334	6,872	344	6,871	333	7,448	343	8,437
Motor cyclists	71	1,504	77	1,663	86	1,677	76	1,620
Passengers (any type)	275	6,852	262	6,559	255	6,626	268	7,112
Pedestrians	185	1,902	187	1,832	207	1,969	207	2,120
Pedal cyclists	21	606	26	644	33	814	27	925
Other	1	29	2	27	1	24	5	29
Total	887	17,765	898	17,596	915	18,558	926	20,243

Particulars of victims of road traffic accidents during the years 1974–75 to 1977–78 are shown according to their ages in the following table:

VICTORIA—ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES: AGES OF PERSONS KILLED OR INJURED

Age group (years)	1974–75		1975–76		1976–77		1977–78	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Under 5	28	622	26	542	22	533	25	539
5 and under 7	14	327	15	332	16	351	15	364
7 and under 17	75	1,970	75	2,037	80	2,044	66	2,196
17 and under 21	179	3,954	173	3,903	170	3,954	183	4,147
21 and under 30	199	4,171	195	4,242	207	4,442	214	4,948
30 and under 40	75	1,965	97	1,884	81	2,133	93	2,244
40 and under 50	84	1,522	69	1,436	74	1,484	77	1,593
50 and under 60	73	1,302	72	1,255	79	1,297	81	1,440
60 and over	159	1,417	169	1,355	172	1,367	162	1,598
Not stated	1	515	7	610	14	953	10	1,174
Total	887	17,765	898	17,596	915	18,558	926	20,243

Further references: Australian Road Safety Council, *Victorian Year Book* 1966, p. 761; Traffic Commission, 1971, pp. 741–2

SEA TRANSPORT

Shipping

Introduction

During the 1830s, settlers quickly found that, because of the lack of roads, sea transport was essential in and between the settlements of the Port Phillip District. Despite the rapid growth and spread of speedier land transport in the next one hundred years, the size of Port Phillip Bay encouraged the regular use of ships to a greater extent than other coastal areas of the State for many decades, with cargoes from the western region including dairy products, livestock, and timber, and from the eastern region, fish. Servicing of the goldfields at Walhalla and the Tambo Valley was also provided by way of Port Albert.

The Port of Melbourne was established in 1877 when the Melbourne Harbor Trust Commissioners was constituted as the port authority under the Melbourne Harbor Trust Act. The port expanded with the growth of Victoria's population and consequent trade also utilised facilities at Geelong and Portland.

The Pool of Melbourne opposite the Customs House and other Yarra River and Bay berths were crowded with the masts of sailing ships and Victoria became associated with the clipper classic, the annual grain race. By the early years of the twentieth century sail had been superseded by coal and oil fuels, with their accompanying dock, bunkering, and maintenance requirements.

In the years following the Second World War, Australian shipowners revised their trading practices as a result of vigorous competition from land-based transport operators. Consequently, the entire coastal trade by sea was transformed, and ships modified to make them more useful as a means of transportation around the coast.

One of the results of this trend was the expansion of the bulk cargo trade to include goods, such as sugar, as well as various oil and oil products. Later, unit loads and containers with improved handling facilities on both ship and shore were introduced. These new methods led to the specialised ship, exclusively designed and equipped to meet requirements of the particular trade. These were the roll-on roll-off stern loading ships for cargo packed on-road vehicles, and the container ship designed for containerised cargo and other unit loads.

New packaging and cargo handling methods, as well as new ships, are bringing changes to port facilities, where specially designed wharves, equipment, and port modifications are matching the new concepts in ship and cargo handling around the Australian coast and the demands of Australian overseas trade.

The types of cargo handled by the other major Victorian ports still reflect proximity to the rural sectors of the State, with wheat and wool exports being made from Geelong and

Portland. Western Port has developed in the last decade as a major port for petroleum products and steel with the development of secondary industry in the region surrounding the port. The Port of Melbourne, with its expanded container handling facilities, caters for all types of cargo for both the coastal trade and overseas trade.

Searoad service between Victoria and Tasmania

The following table shows details of the searoad service operated by the Australian Shipping Commission between Victoria and Tasmania during the years 1973–74 to 1976–77:

VICTORIA—TASMANIA: SEAROAD SERVICE *(a)*

Vessel	Passengers				Accompanied vehicles			
	1973–74	1974–75	1975–76	1976–77	1973–74	1974–75	1975–76	1976–77
Empress of Australia	110,462	114,663	112,142	111,622	33,351	30,171	31,567	31,775
Bass Trader	106	52	—	—	15	10	—	—
Other Australian Shipping Commission vessels	2	1	—	—	1	1	—	—
Total	110,570	114,716	112,142	111,622	33,367	30,182	31,567	31,775

(a) Excludes commercial cargo which consists of unit loads, i.e., containers, trailers, timber packs, etc.

Vessels entered and cleared

The number of vessels entering Victorian ports, the number cleared from those ports, and their total tonnage in each of the years 1973–74 to 1977–78 were as follows:

VICTORIA—OVERSEAS AND INTERSTATE SHIPPING

Particulars	Unit	1973–74	1974–75	1975–76	1976–77	1977–78
Entrances	number	3,530	3,496	3,261	3,409	2,825
	'000 net tonnes	21,840	21,244	20,806	22,413	20,047
Clearances	number	3,510	3,508	3,251	3,368	2,855
	'000 net tonnes	21,725	21,313	20,803	21,984	20,288

Nationality of shipping

The countries of registration of vessels which entered or were cleared at Victorian ports during the years 1975–76 to 1977–78 were as follows:

VICTORIA—NATIONALITY OF SHIPPING
('000 net tonnes)

Vessels registered at ports in—	Vessels entered			Vessels cleared		
	1975–76	1976–77	1977–78	1975–76	1976–77	1977–78
Australia	7,765	9,284	8,803	7,854	9,270	8,932
Denmark	159	184	297	171	184	289
France	81	180	62	81	152	95
Germany, Federal Republic of	574	766	660	541	740	630
Greece	519	843	1,104	502	828	1,067
Hong Kong	187	206	199	178	196	232
India	147	245	154	121	256	154
Italy	266	172	67	269	155	67
Japan	1,448	1,361	1,197	1,403	1,351	1,177
Liberia	1,019	1,144	771	1,006	1,100	756
Netherlands	486	327	228	453	312	228
Antilles (Netherlands)	131	66	42	148	72	42
New Zealand	94	37	102	92	39	144
Norway	593	748	475	593	748	458
Panama	1,077	1,200	1,140	1,092	1,108	1,095
Poland	102	126	122	108	121	87
Singapore	253	254	357	251	237	361
South Africa	96	62	89	85	62	89

VICTORIA—NATIONALITY OF SHIPPING—*continued*
('000 net tonnes)

Vessels registered at ports in—	Vessels entered			Vessels cleared		
	1975–76	1976–77	1977–78	1975–76	1976–77	1977–78
Sweden	379	323	139	358	333	139
Taiwan	89	78	28	95	65	75
United Kingdom	3,557	3,340	2,241	3,630	3,188	2,410
United States of America	620	572	616	620	579	613
U.S.S.R.	402	403	206	391	393	214
Other	762	493	948	761	494	935
Total	20,806	22,413	20,047	20,803	21,984	20,288

Shipping entered at Victorian ports

Particulars of shipping which entered each principal port of Victoria are shown in the following table for the years 1975–76 to 1977–78:

VICTORIA—VESSELS ENTERED AT EACH PORT

Class of vessel	Melbourne			Geelong			Portland			Western Port		
	1975–76	1976–77	1977–78	1975–76	1976–77	1977–78	1975–76	1976–77	1977–78	1975–76	1976–77	1977–78
	NUMBER											
Overseas—												
Direct	427	459	267	134	103	172	26	43	46	60	53	39
Other	1,076	1,113	816	124	106	95	49	49	54	189	177	59
Interstate	856	937	818	96	105	115	11	16	4	168	183	254
Intrastate	10	8	10	17	23	34	12	12	16	6	22	21
Total	2,369	2,517	1,911	371	337	416	98	120	120	423	435	373
	NET TONNES ('000)											
Overseas—												
Direct	2,690	3,251	1,996	1,062	805	1,618	184	279	385	1,034	925	888
Other	6,660	7,151	5,767	950	932	685	336	322	484	1,121	1,485	283
Interstate	2,835	2,952	2,546	626	791	841	45	92	13	2,863	2,696	3,695
Intrastate	59	56	80	157	213	291	115	131	150	72	331	307
Total	12,244	13,410	10,389	2,795	2,741	3,437	680	824	1,035	5,090	5,437	5,175

Cargoes discharged and shipped

The following tables show the tonnage of overseas and interstate cargoes discharged and shipped in Victorian ports during 1976–77 and 1977–78, as well as the tonnage of overseas cargoes discharged and shipped during the years 1974–75 to 1977–78 according to the countries of origin and consignment, and the nationalities of the vessels in which the cargoes were carried:

VICTORIA—CARGOES DISCHARGED AND SHIPPED AT EACH PORT
('000)

Particulars	Melbourne		Geelong		Portland		Western Port	
	1976–77	1977–78	1976–77	1977–78	1976–77	1977–78	1976–77	1977–78
	DISCHARGED							
Interstate—								
Tonnes	2,448	1,647	421	467	19	10	413	491
Cubic metres	202	689	—	1	—	—	—	7
Overseas—								
Tonnes	1,688	1,020	1,137	1,390	163	195	132	1
Cubic metres	3,694	1,606	2	14	1	—	—	—
	SHIPPED							
Interstate—								
Tonnes	2,002	1,207	1,106	1,176	11	5	9,242	9,408
Cubic metres	190	758	—	—	—	—	—	—
Overseas—								
Tonnes	1,999	1,130	1,576	2,974	243	488	1,421	1,323
Cubic metres	712	387	3	40	—	4	—	—

VICTORIA—OVERSEAS CARGOES DISCHARGED AND SHIPPED ACCORDING TO GEOGRAPHIC TRADE AREAS

Geographic trade area of origin or consignment	1974–75		1975–76		1976–77		1977–78	
	Discharged	Shipped	Discharged	Shipped	Discharged	Shipped	Discharged	Shipped
North America and Hawaiian Islands—								
Tonnes	500,608	356,370	359,357	422,722	529,067	261,667	330,528	305,766
Cubic metres	698,271	85,248	623,694	117,428	706,780	130,351	418,042	140,316
South America—								
Tonnes	1,093	56,326	1,990	47,858	23,102	36,966	1,201	55,745
Cubic metres	7,635	32,377	4,869	11,420	7,561	22,995	2,187	46,523
Europe (incl. U.S.S.R.)—								
Tonnes	244,479	547,457	170,067	911,435	289,595	696,369	133,147	553,691
Cubic metres	1,483,153	189,065	1,230,806	166,918	1,187,401	171,258	665,811	76,208
Africa—								
Tonnes	55,362	267,810	54,958	331,678	48,969	293,283	64,459	575,653
Cubic metres	29,887	48,244	39,636	22,752	21,156	14,343	30,362	7,422
Asia—								
Tonnes	1,907,864	3,100,128	1,789,619	3,417,497	1,610,697	3,096,805	1,451,526	3,765,344
Cubic metres	1,476,956	449,272	1,574,303	313,544	1,706,759	283,987	693,216	165,415
Papua New Guinea, New Zealand, and Pacific Islands—								
Tonnes	431,488	916,484	466,722	917,822	485,561	852,545	502,758	845,107
Cubic metres	122,099	238,255	39,013	80,106	64,482	88,055	23,233	56,382
Indian Ocean Islands and Antarctic area—								
Tonnes	214,504	222	121,142	6	132,338	1,256	177,921	11,520
Cubic metres	1,123	940	3,890	6,313	1,957	4,108	440	4,288
Total—Tonnes	3,355,398	5,244,797	2,963,855	6,049,018	3,119,329	5,238,891	2,661,540	6,112,826
Cubic metres	3,819,124	1,043,401	3,516,211	718,481	3,696,096	715,097	1,833,291	496,554

VICTORIA—OVERSEAS CARGOES DISCHARGED AND SHIPPED ACCORDING TO NATIONALITIES OF VESSELS ('000)

Vessels registered at ports in—	1975–76				1976–77				1977–78			
	Discharged		Shipped		Discharged		Shipped		Discharged		Shipped	
	tonnes	cubic metres	tonnes	cubic metres	tonnes	cubic metres	tonnes	cubic metres	tonnes	cubic metres	tonnes	cubic metres
Australia	102	309	98	58	55	409	114	37	70	195	130	32
Denmark	46	74	60	19	20	69	91	21	279	31	173	10
France	7	52	18	7	58	46	55	8	7	25	7	1
Germany, Federal Republic of	103	204	103	81	199	303	237	145	211	210	242	141
Greece	176	39	463	1	388	64	551	12	250	36	984	—
Italy	42	56	37	8	7	38	38	6	8	41	20	6
Japan	374	643	510	70	290	650	584	31	141	475	569	26
Liberia	255	98	803	11	210	153	752	31	345	38	573	1
Netherlands	172	109	382	42	155	64	102	22	17	56	71	14
Antilles (Netherlands)	121	13	11	6	48	3	9	2	—	—	62	—
New Zealand	175	12	128	10	65	—	34	—	57	1	41	—
Norway	150	196	248	25	201	195	146	13	133	96	99	12
Panama	104	110	872	9	121	132	773	11	84	77	846	9
Singapore	69	38	64	34	66	55	97	44	66	17	72	31
Sweden	43	141	88	41	35	154	79	33	16	58	23	5
United Kingdom	741	977	1,011	187	923	959	793	192	653	313	704	95
United States of America	37	162	56	20	48	120	46	16	144	70	60	19
U.S.S.R.	15	54	275	5	20	65	100	—	1	3	125	2
Other	231	229	822	84	210	218	638	91	180	89	1,311	92
Total	2,963	3,516	6,049	718	3,119	3,696	5,239	715	2,661	1,833	6,112	497

NOTE. Part of the cargo is recorded in tonnes and part in cubic metres. As the total cannot be stated accurately as either tonnes or cubic metres, each is recorded and published separately.

Further references: Lighthouses, *Victorian Year Book* 1964, pp. 665–6; Principal ports of Victoria, 1965, pp. 744–7; Australian Shipbuilding Board, 1975, pp. 665–6

Port Phillip Sea Pilots

Forty-two former shipmasters operate the Port Phillip Pilot Service, sixteen of whom are also licensed for Western Port. The Service is conducted on a co-operative, non-profit basis. Licences as pilots are issued by the Marine Board of Victoria, each ingoing pilot purchasing a share of the pilot vessels and other plant. The Port Phillip Pilot Service is one of the oldest organisations in Victoria, the first pilot licence having been issued to one George Tobin by Governor Sir George Gipps of New South Wales on 26 June 1839.

The following table shows the number of ships (sailing inwards and outwards) piloted through Port Phillip Heads and the entrance to Western Port during the period 1969–70 to 1978–79. Although the number of ships has not increased, tonnes carried has risen markedly because of larger vessels such as container, roll-on roll-off, and LASH (lighter aboard ship) ships.

VICTORIA—NUMBER OF SHIPS PILOTED THROUGH PORT PHILLIP HEADS AND THE ENTRANCE TO WESTERN PORT

Year	Number of ships		Year	Number of ships	
	Port Phillip	Western Port		Port Phillip	Western Port
1969–70	4,433	377	1974–75	4,117	665
1970–71	4,322	541	1975–76	3,778	744
1971–72	3,941	567	1976–77	3,717	741
1972–73	3,921	560	1977–78	3,897	620
1973–74	3,903	644	1978–79	3,824	683

Port of Melbourne Authority

Administration

The Port of Melbourne Authority (formerly known as the Melbourne Harbor Trust Commissioners which was established in 1877 by an Act of the Victorian Parliament) is a financially independent, corporate body operating under the provisions of the *Port of Melbourne Authority Act* 1978. The land and waters of the 27.5 square kilometre Port area are vested in the body corporate which is appointed by the Governor in Council. It comprises a full-time chairman who also is virtually the Port's managing director, and five part-time members who, in accordance with the Act must be associated with various port activities, i.e., shipping, primary production, imports, exports, and labour.

The Port Authority is also the conservancy authority for the Port of Melbourne. The Authority maintains, improves, and develops the Port and is empowered under its Act to make regulations for the management and financing of the Port subject to the approval of the Governor in Council.

Cargo pattern

Container and unit-load methods of cargo handling in the Port of Melbourne were introduced and extended during the 1960s. By 1970, the cumulative effect of gradually developing these new facilities had had a significant impact on the Port as a whole and the emphasis of cargo handling activities in the Port had shifted from the long established conventional cargo handling areas to five principal areas catering for container and unit-load ships and cargo handling methods. During the year ended 30 June 1978, the Port handled a volume of 17,090,000 tonnes of import, export, and transhipment cargo. This volume was handled by coastal and overseas shipping which paid 2,489 calls at the Port.

The changes in the character of the Port became really noticeable when the first overseas container ship on the United Kingdom–Australia service arrived in March 1969. Cargoes flowing through all ports of the world are classed as either wet or dry bulk cargoes (such as oil carried in tankers or sugar carried loose in the hold of a bulk carrier) or general, which includes the variety of goods usually crated, boxed, or carried in some other individual packaging. Container ships carry this general cargo in containers of various international standard sizes.

Unit-load multi-purpose vessels, which first began to operate out of Melbourne in the overseas service in 1966 and in the coastal trade some eight years earlier, are vessels especially designed to carry containers and unit-loads, which are a collection of general cargo assembled into one load, usually on a tray or pallet. These ships can also carry conventional cargo, namely, individual items of general cargo handled and loaded separately, and handled individually inside the ship and on shore. During the year ended 30 June 1978, the Port handled 3,930,000 tonnes of bulk cargo, and 13,160,000 tonnes of general cargo, including empty returns; 7,400,000 tonnes of general cargo was carried in 413,773 containers.

Container handling facilities

Since the late 1950s, the Authority has been involved in capital works programmes devoted principally to new specialised areas in the Port of Melbourne to handle container/cellular and roll-on roll-off ships. The most notable has been the Swanson Dock six-berth container complex, and the four-berth roll-on roll-off complex at Webb Dock. In 1977, modernisation of berths 16 to 21 Victoria Dock to accommodate modern cargo handling requirements commenced.

The Johnson Street Bridge project made redundant berths up to 6 North Wharf and 10 South Wharf. Included on the North Wharf section of the Port were berths 1 and 2 which were roll-on roll-off berths for the Union Steam Ship Company of New Zealand vessels operating services to Tasmanian and New Zealand ports.

Preliminary work on the reconstruction and redevelopment of berths 5, 6, and 7 Victoria Dock, now called 5 and 6 Victoria Dock, for the Union Steam Ship Company roll-on roll-off services began soon after the Victorian Government decided that the Johnson Street Bridge had to be built to ease congestion of vehicular traffic in the city proper and also allow a faster and uninterrupted flow of traffic between industrial areas—including the port and commercial establishments on both sides of the Yarra River. The new roll-on roll-off terminal became operational on 1 May 1975.

The completed project is now equipped with two roll-on roll-off berths, two stern loading ramps, a new terminal of approximately 4.45 hectares, three steel framed sheds, a sub-station to cater for crane, ramp, lighting, and other power needs, a rail siding into the terminal, and crane rails built on the wharf apron for a future container crane, if needed.

Finance

The Port of Melbourne is self-supporting and does not receive any financial grants from the Victorian Government. The Authority's revenue is derived from a number of charges paid by the users of the Port. The charges are principally wharfage rates levied on each tonne of cargo landed in, or shipped out of the Port, and tonnage rates levied on the gross registered tonnage of ships and the time they spent in port. Other charges cover rent of sheds, hire of Port-owned cargo handling equipment, general port services, and rental of land reserved for essential long-term port development. Expenditure is on port maintenance, reconstruction, modernisation, and development, with any surplus being put back into port development. At 30 June 1978, the Authority had approximately $184m invested in port assets. Capital works are financed out of revenue and out of loans, which are raised and financed by the Authority itself and guaranteed by the Victorian Government. The Authority is required to pay into the Consolidated Fund of the Victorian Government approximately 4 per cent of its revenue from import wharfage and tonnage.

The following table shows particulars of the financial operations of the Port of Melbourne Authority for the years 1973 to 1978:

VICTORIA—PORT OF MELBOURNE AUTHORITY: REVENUE, EXPENDITURE, ETC.
($'000)

Particulars	1 January 1973 –30 June 1974 *(a)*	1974–75	1975–76	1976–77	1977–78
REVENUE					
Wharfage and tonnage rates	18,187	14,124	18,192	20,567	19,821
Rent of sheds	1,030	639	518	502	488
Special berth charges	522	439	324	331	279
Rent of lands	4,545	3,555	4,396	4,561	4,967
Crane fees	3,049	2,547	2,191	2,383	2,089
Other	2,782	2,852	2,297	2,752	2,973
Total revenue	30,115	24,156	27,918	31,096	30,617
EXPENDITURE AND APPROPRIATIONS					
Administration and general expenses	2,286	2,156	2,222	3,199	2,869
Port operating expenses	7,138	6,825	7,127	7,547	8,027

VICTORIA—PORT OF MELBOURNE AUTHORITY: REVENUE, EXPENDITURE, ETC.—*continued*
($'000)

Particulars	1 January 1973 –30 June 1974 *(a)*	1974–75	1975–76	1976–77	1977–78
Maintenance—					
Dredging	2,149	1,663	1,554	2,836	2,241
Harbour	315	300	320	298	416
Wharves	1,398	1,204	1,466	1,554	1,895
Approaches	337	323	383	439	558
Railways	93	93	96	118	135
Cargo handling equipment	838	865	1,087	1,240	1,295
Other properties	195	116	117	119	143
Interest	4,118	3,088	3,715	4,195	4,610
Depreciation and renewals	5,494	4,399	4,844	5,440	5,896
Insurance	254	250	330	507	537
Sinking Fund	1,350	650	1,000	1,000	1,000
General reserve	2,000	1,000	2,300	1,000	—
Payments to Consolidated Fund	1,470	916	1,117	1,250	700
Other	—	52	1	1	—
Total expenditure and appropriations	29,435	23,900	27,679	30,743	30,322
CAPITAL OUTLAY					
Land and property	539	6,444	1,327	629	3,382
Reclamation	1,250	1,241	513	393	606
Deepening waterways	3,710	2,881	3,095	4,896	4,433
Wharves and sheds construction	4,930	5,222	3,914	4,262	4,494
Cargo handling equipment	237	239	1,618	409	589
Approaches construction	492	699	427	267	152
Floating plant	545	1,765	3,901	2,038	1,567
Other works, etc.	692	443	1,072	1,568	2,288
Total capital outlay	12,395	18,934	15,867	14,462	17,511
Loan indebtedness at end of period	48,051	51,060	56,018	61,303	68,769

(a) Eighteen months ended 30 June 1974. The Authority's accounting period was altered from a calendar year to a fiscal year from 1 January 1973.

Further references: Changing trends in port development, *Victorian Year Book* 1968, p. 745; Port facilities, 1969, p. 755; Port emergency service, 1970, pp. 750–1; Advent of new cargo pattern, 1971, pp. 715–8; New cargo handling era, 1974, pp. 749–50; Forward development plan, 1975, pp. 672–3; Co-ordinated port development plan, 1975, pp. 673–4

Geelong Harbor Trust

The Port of Geelong is under the control of the Geelong Harbor Trust which was constituted under an Act of the Victorian Parliament in 1905. The Trust consists of three commissioners appointed by the Governor in Council.

Entrance to the Port is by 24 kilometres of channel dredged to a depth of 11 metres and a width of 122 metres. There are nineteen effective berths in the Port and two berths at the Commonwealth Explosives Pier, Point Wilson, owned and operated by the Commonwealth Government. The Harbor Trust has floating plant which includes six tugs, several barges, and one diesel-powered floating crane of 35 tonnes.

The following table shows particulars of the financial operations of the Geelong Harbor Trust for the calendar years 1974 to 1978:

VICTORIA—GEELONG HARBOR TRUST: REVENUE, EXPENDITURE, ETC.
($'000)

Particulars	1974	1975	1976	1977	1978
REVENUE					
Wharfage, tonnage, and special berth rates	2,175	2,169	2,195	2,618	3,100
Shipping services	1,512	1,233	1,852	2,198	2,445
Rents, fees, and licences	145	158	185	212	285
Freezing works and abattoirs	171	179	191	99	} 363
Other	17	26	31	179	}
Total revenue	4,020	3,765	4,454	5,306	6,193

VICTORIA—GEELONG HARBOR TRUST: REVENUE, EXPENDITURE, ETC.—*continued*
($'000)

Particulars	1974	1975	1976	1977	1978
EXPENDITURE AND APPROPRIATIONS					
Management expenses	1,324	1,488	1,588	1,657	1,773
Shipping services	1,383	1,541	1,524	1,665	1,933
Maintenance—					
Wharves and approaches	207	229	296	292	324
Harbour	177	213	309	327	275
Floating plant	36	53	71	76	96
Other	58	71	64	72	69
Interest on loans	210	156	151	142	115
Sinking Fund	31	29	26	22	15
Depreciation provision	913	905	906	844	861
Other	11	33	193	16	32
Total expenditure and appropriations	4,350	4,718	5,128	5,113	5,493
CAPITAL OUTLAY (NET)					
Floating plant	—	—	—	27	—
Land and property	46	75	55	11	263
Wharves and approaches	124	18	9	191	103
Other	111	91	38	43	11
Total capital outlay	281	184	102	272	376
LOAN INDEBTEDNESS AT 31 DECEMBER					
Victorian Government	33	—	—	—	—
Public	3,110	2,611	2,560	2,239	1,479
Total loan indebtedness	3,143	2,611	2,560	2,239	1,479

Portland Harbor Trust

Situated on the south-west coast of Victoria, Portland is a small, but modern port capable of handling the import and export requirements of one of Australia's most productive hinterlands. The port is within a few kilometres of major shipping routes, with deep water approaches right to the entrance of the harbor basin.

Most of the port's trade comprises the handling of bulk commodities such as grains, fertiliser components, and petroleum products. Four shipping berths are backed by modern shore installations and existing berths will shortly be augmented by a new multi-purpose berth that will cater for roll-on roll-off vessels and, ultimately, fully integrated container traffic.

New container park facilities being developed by the Portland Harbor Trust will, in the initial stage, cover an area of some 2.6 hectares and cater for the storage and handling of 80 refrigerated and 500 dry containers.

An overall rise of 7.6 per cent in the volume of trade handled through Portland during 1976–77 reflects the importance of new trades established during the two preceding years. With a total throughput of 694,054 tonnes, export trade amounted to 274,346 tonnes and imports totalled 419,708 tonnes.

The importance of the growing trade with Middle East countries is shown in port statistics which indicate that 20 per cent of total export tonnage and 25 per cent of all vessels engaged in Portland's export trade during the year were involved in servicing these expanding trade outlets. Cargoes comprised livestock, bagged wheat and flour, carton meat, building components, stock pellets, and processed cheese.

The following table shows particulars of the financial operations of the Portland Harbor Trust for the years 1972–73 to 1976–77:

VICTORIA—PORTLAND HARBOR TRUST: REVENUE, EXPENDITURE, ETC.
($'000)

Particulars	1972–73	1973–74	1974–75	1975–76	1976–77
REVENUE					
Wharfage rates	285	347	288	290	370
Tonnage rates	41	37	48	49	61
Shipping services	227	209	225	275	399
Victorian Government grant	785	1,314	974	1,384	1,220

VICTORIA—PORTLAND HARBOR TRUST: REVENUE, EXPENDITURE, ETC.—*continued*
($'000)

Particulars	1972–73	1973–74	1974–75	1975–76	1976–77
Grain terminal	236	265	417	760	723
Cold store operations	32	18	51	7	28
Other	78	122	87	83	83
Total revenue	1,684	2,312	2,090	2,848	2,884
EXPENDITURE AND APPROPRIATIONS					
Administration	183	233	298	340	356
Maintenance	133	120	167	164	140
Shipping services	221	290	300	409	444
Depreciation	52	52	52	53	55
Interest on loans	1,055	1,123	1,220	1,305	1,402
Sinking Fund	53	51	54	55	56
Loan redemption	87	93	98	103	110
Grain terminal (excluding depreciation)	163	179	196	343	353
Cold store operations	25	16	35	16	26
Total expenditure and appropriations	1,972	2,157	2,420	2,788	2,942
CAPITAL OUTLAY					
Port rail system	23	97	—	—	—
Road works	—	—	156	30	—
Reclamation	6	7	208	39	5
Grain terminal	253	114	2	46	54
Deepening waterways	61	1	72	77	—
Wharves and sheds	32	69	199	441	919
Breakwater construction	—	60	4	—	—
Floating plant	358	44	—	—	—
Other	68	123	53	148	46
Total capital outlay	801	515	694	781	1,024
LOAN INDEBTEDNESS AT 30 JUNE					
Victorian Government	3,673	3,673	3,673	3,673	3,823
Public	18,055	18,612	19,114	19,711	20,401
Total loan indebtedness	21,728	22,285	22,787	23,384	24,224

Western Port

Western Port is an extensive inlet eastward of and adjacent to Port Phillip, and is separated from it by the Mornington Peninsula which is about 16 kilometres wide. The Port is sheltered from Bass Strait by Phillip Island at its south-eastern end and the waters between the western side of this island and the mainland form the entrance to the Port. It is approximately 42 kilometres from the entrance to the northern extremity of the inlet.

Although the entrance contains some large sandbanks, a deep water channel up to 31 metres deep marked by 37 light buoys runs close to the island. This navigable channel extending from the western entrance to Crib Point is 21 kilometres long with low water depths of 14 metres and 15 metres, in the northern and western arms, respectively. Tidal rises are of the order of 3 metre springs and 2 metre neaps.

The Crib Point Refinery Jetty provides two berthing heads each 38 metres in length; the Long Island Jetty has a berthing head of 109 metres in length. The Steel Industry Wharf (No. 1) consists of a loading ramp and fender wharf 46 metres in length and the Steel Industry Wharf (No. 2) consists of a wharf 152 metres long.

The following table shows particulars of port traffic through Western Port for the years 1974–75 to 1978–79:

VICTORIA—WESTERN PORT: PORT TRAFFIC

Year	Petroleum products		Steel and cars		General cargo	
	Tankers	Tonnes	Vessels	Tonnes	Vessels	Tonnes
		'000		'000		'000
1974–75	329	10,128	68	461	4	1
1975–76	380	10,647	60	465	—	—
1976–77	376	11,165	81	572	—	—
1977–78	319	11,362	79	570	—	—
1978–79	368	10,799	89	703	—	—

AIR TRANSPORT

Civil aviation

Administration

The Victorian *Air Navigation Act* 1958 prescribes that control of aviation within Victoria shall be vested in the Commonwealth Government. The Air Navigation Act and Regulations in Victoria are consequently administered by the Commonwealth Department of Transport through its Director in Melbourne.

The functions performed by the Department include:

(1) Registration and marking of aircraft;

(2) determination and enforcement of airworthiness requirements for aircraft and the issue of certificates of airworthiness, certificates of type approval, and supervision of aircraft design;

(3) licensing of pilots, navigators, aircraft radio operators, flight engineers, and aircraft maintenance engineers;

(4) licensing of airline, charter, and aerial work operators, and supervision of their activities;

(5) provision and maintenance of aeronautical communications, navigation aids, aerodromes, and landing grounds;

(6) establishment and operation of air traffic control, flight service, aeronautical information, search and rescue, and fire-fighting and rescue services; and

(7) investigation of aircraft accidents, incidents, and defects.

Victorian aerodromes

The major aerodromes in Victoria are owned and operated by the Commonwealth Government through the Department of Transport. Since 1957, Commonwealth Government policy has been that aerodromes (except capital city airports) should be owned and operated by local government authorities under the local ownership plan.

At present in Victoria there are eight Commonwealth Government owned aerodromes at Melbourne (Tullamarine), Avalon, Bacchus Marsh, Essendon, Mallacoota, Mangalore, Moorabbin, and Sale, as well as twenty-eight licensed aerodromes at Ararat, Bairnsdale, Ballarat, Benalla, Bendigo, Birchip, Corryong, Echuca, Hamilton, Hopetoun, Horsham, Kerang, La Trobe Valley, Maryborough, Mildura, Nhill, Orbost, Portland, Robinvale, St Arnaud, Shepparton, Stawell, Swan Hill, Warracknabeal, Warrnambool, Whittlesea, Wycheproof, and Yarram.

The licences of all licensed aerodromes, except Whittlesea, are held by the appropriate local government authority. Under the local ownership plan, the Commonwealth Government pays 50 per cent of the development costs of new aerodromes or transfers existing aerodromes free of cost to local authorities and then pays 50 per cent of future approved maintenance and development costs. Similar assistance is given to the local authority to develop and maintain aerodromes which are, or will be, served by a regular public transport service. Local authorities which have received developmental assistance include Ballarat, Bendigo, Birchip, Hopetoun, La Trobe Valley, Maryborough, Portland, Robinvale, St Arnaud, Shepparton, and Warrnambool.

The assistance authorised by the Commonwealth Government to Victorian local authorities for aerodrome works during the year ending 30 June 1978 was $47,254 for development, and $191,034 for maintenance works.

In addition to these main aerodromes, there are hundreds of authorised landing areas which serve the needs of the increasing number of light aircraft users throughout Victoria.

Classification of flying activities

Flying activities are classified by regulation into the following categories:

(1) *Private operations*

These are operations in which an aircraft is used for personal transportation—private or business, carriage of persons or goods for other than hire or reward, or other activities of a non-commercial nature. The extent of this activity within Victoria may be gauged from the fact that there were 763 aircraft classified in the private category and approximately 4,250 licensed private aeroplane pilots in Victoria at 30 June 1978.

(2) *Aerial work operations*

These operations refer to aircraft being used for aerial survey, spotting, photography, agriculture, flying training, and the cartage of goods for purposes of trade. In terms of hours flown, the most significant operations are agricultural and flying training. To 30 June 1977, over 104,600 training hours were flown by training organisations in Victoria.

(3) *Charter operations*

These consist of flights for the carriage of passengers or cargo for hire or reward, but which may not be notified to the general public as being operated between fixed terminals or to fixed schedules, or for the carriage of passengers or cargo between fixed terminals to fixed schedules in circumstances in which the accommodation in the aircraft is not available to members of the public. During the 1950s, most charter operations were conducted in single engine aircraft, but there is an increasing use of twin engine aircraft. Twin jet aircraft are being used increasingly in executive type work. At 30 June 1977, there were 97 Victorian based operators licensed to conduct charter operations; over 58,800 hours were flown by these organisations.

(4) *Commuter operations*

Since the end of the Second World War, country or feeder air services within Victoria have commenced on different occasions but ceased operations when they proved to be uneconomic. In 1966, the Commonwealth Government decided that a new attempt should be made to provide this type of air service between Melbourne and numerous country centres. As it was felt charter operators would be prevented by the Air Navigation Regulations from operating to a fixed schedule, it was decided to grant certain exemptions under the Regulations. A charter operator who met appropriate additional requirements and standards would be permitted to operate air services between centres to a fixed schedule and on a regular basis. This type of operation is usually known as a commuter service.

By October 1967, exemptions under the Regulations had been granted to three operators. Using single and light twin engined aircraft capable of carrying six to thirteen passengers, these operators were approved to operate services to Stawell, Ararat, Ballarat, Kerang, Swan Hill, Echuca, Shepparton, La Trobe Valley, West Sale, and Bairnsdale, and to the interstate centres of Albury and Merimbula. Some of these services commenced in November 1967 and others followed with varying degrees of success and continuity. At June 1978, Victorian commuter services of the type in question were operating between the following centres on a regular basis: Essendon — Flinders Island, Essendon — Maroochydore, Essendon — Sale — Bairnsdale, Essendon — Strahan — Queenstown, Essendon — Warrnambool — Portland, Essendon — Wollongong, Melbourne — Mallacoota — Merimbula, Melbourne — Bendigo — Swan Hill — Mildura, Melbourne — Geelong, Melbourne — Wagga Wagga, Mildura — Adelaide, and Mildura — Hay — Sydney.

(5) *Regular public transport*

Although commuter operations are regular public transport services, this heading usually refers to aircraft operating in accordance with an airline licence, to carry passengers and cargo according to fixed schedules and on specified routes.

Services based or terminating at Melbourne Airport are domestic—Ansett Airlines of Australia and Trans Australia Airlines, or international—Qantas, Air New Zealand, Lufthansa, Cathay Pacific, Garuda Airlines, Malaysian Airline System, Singapore Airlines, K.L.M., Alitalia, Air Nauru, Pan American, British Airways, and Philippine Airlines.

Gliding clubs

Gliding is mainly carried out at Bacchus Marsh, Benalla, Bendigo, Casterton, Colac, Corowa, Horsham, Kurweeton, La Trobe Valley, Laverton, Leongatha, Mildura, Moorooduc, and Tocumwal. Many other areas are used to a lesser extent. A Commonwealth Government subsidy is granted to clubs through the Gliding Federation of Australia.

Air traffic control

Control of air traffic is maintained by the Commonwealth Department of Transport through its air traffic control organisation. This includes the closely co-ordinated sections of operational control, which are concerned with each individual flight; airport control, which applies to all movements on or within 32 kilometres of an aerodrome; and area control, which controls aircraft along the main air routes to ensure the avoidance of collisions. In conjunction with air traffic control, the Department maintains a wide range of air navigation aids and a comprehensive search and rescue organisation. The function of navigation aids is described in detail on pages 773–6 of the *Victorian Year Book* 1965.

Melbourne (Tullamarine) Airport

The Tullamarine site of 2,140 hectares was chosen for the development of Melbourne Airport when Essendon Airport could not be further enlarged. The completed aerodrome is 20 kilometres from the G.P.O., Melbourne, 7 kilometres from Essendon Airport, and is accessible by a freeway.

The 15 kilometres of runways and taxiways were completed early in 1968. The north-south runway (2,591 metres) and the east-west runway (2,286 metres) are both designed for the operation of modern jet aircraft. They are 147 centimetres thick and are capable of taking the weight of the Boeing 747 ("Jumbo" jet) and supersonic aircraft. High speed turnouts have been provided to both runways which allow aircraft to turn off the runway at 100 kilometres per hour. The north-south runway was extended to 3,658 metres in 1972. There is a provision for future development of the east-west runway to extend to 2,743 metres and for a second set of parallel runways.

Civil aviation statistics

Domestic passenger movements, which represent the total of embarkations and disembarkations for each Victorian aerodrome served by a regular service for the years 1973 to 1977 were as follows:

VICTORIA—DOMESTIC PASSENGER MOVEMENTS OF REGULAR AIR SERVICES

Airport	Passenger movements				
	1973	1974	1975	1976	1977
Melbourne	3,582,157	3,990,847	4,137,338	4,114,456	4,291,450
Mildura	16,130	17,707	19,786	19,094	20,214
Hamilton	9,695	9,622	8,842	7,210	7,009

The following table shows particulars for 1976 and 1977 of regular interstate and intrastate air services terminating in Victoria:

VICTORIA—REGULAR INTERSTATE AND INTRASTATE AIR SERVICES TERMINATING IN VICTORIA

Particulars		Interstate		Intrastate		Total	
		1976	1977	1976	1977	1976	1977
Kilometres flown	'000	48,687	48,713	342	333	49,029	49,046
Passenger kilometres	'000	3,238,762	3,371,280	8,603	9,225	3,247,365	3,380,505
Freight—							
Tonnes		60,697	61,918	41	31	60,738	61,949
Tonne kilometres	'000	46,511	47,439	18	14	46,529	47,453
Mail—							
Tonnes		4,198	4,263	12	11	4,210	4,274
Tonne kilometres	'000	3,448	3,663	6	5	3,454	3,668

The first of the following tables deals with aircraft registered and licences issued by the Commonwealth Department of Transport in Victoria, while the second describes activities at Melbourne (Tullamarine) Airport:

VICTORIA—AIRCRAFT REGISTERED AND LICENCES ISSUED

Particulars	1973	1974	1975	1976	1977
Registered aircraft owners	504	658	647	900	938
Registered aircraft	891	1,012	1,015	1,240	1,363
Student pilot licences	2,963	2,910	3,005	3,756	4,299
Private pilot licences	3,615	3,737	3,747	3,948	4,481
Commercial pilot licences	950	862	892	851	934
Airline pilot licences	963	1,057	1,085	1,131	1,154
Aircaft maintenance engineer licences	1,121	1,134	1,100	1,216	1,263

VICTORIA—MELBOURNE (TULLAMARINE) AIRPORT

Particulars	1973	1974	1975	1976	1977
Domestic aircraft movements	67,517	72,037	71,993	68,473	68,558
Domestic passengers embarked	1,798,331	1,994,115	2,068,415	2,065,897	2,144,619
Domestic passengers disembarked	1,783,826	1,996,732	2,068,923	2,063,022	2,146,831
International aircraft movements	6,117	6,389	7,278	7,528	8,578
Passengers arriving/departing overseas	587,976	465,642	551,626	653,529	685,219

Further references: History of civil aviation, *Victorian Year Book* 1962, p. 742; Classification of flying activities, 1964, pp. 843–4; Radio aids to air navigation in Victoria, 1965, pp. 773–6; Aerial agricultural operations, 1966, pp. 764–5; Flying training in Victoria, 1967, pp. 783–5; Regular public transport, 1968, pp. 779–81; Commuter services, 1969, pp. 790–1; Radar development in the Melbourne area, 1971, pp. 748–50; Aerodrome local ownership plan, 1974, p. 791; Use of radar in traffic control, 1975, pp. 682–4; Civil aircraft manufacture, 1977, pp. 688–90

BIBLIOGRAPHY

ABS publications

Victorian Office

Monthly summary of statistics (1303.2)
Motor vehicle census (irregular) (9302.2)
Motor vehicle registrations (monthly) (9301.2)
Road traffic accidents involving casualties (annual) (9402.2)
Road traffic accidents involving casualties (quarterly) (9401.2)

Central Office

Bus fleet operations survey (irregular) (9203.0)
Exports by mode of transport (quarterly) (5415.0)
Journey to work and journey to school (irregular) (9205.0)
Motor vehicle census (irregular) (9309.0)
Motor vehicle registrations (annual) (9304.0)
Motor vehicle registrations (quarterly) (9303.0)
Outward overseas cargo (annual) (9206.0)
Overseas and coastal shipping (annual) (9207.0)
Rail, bus, and air transport (annual) (9201.0)
Road traffic accidents involving casualties (quarterly) (9402.0)
Road traffic accidents involving casualties (quarterly) (9403.0)
Road traffic accidents involving fatalities (monthly) (9401.0)
Survey of motor vehicle usage (irregular) (9208.0)
Survey of motor vehicle usage: accidents exposure data (irregular) (9210.0)
Survey of motor vehicle usage: commercial vehicle usage (irregular) (9209.0)