

TRANSPORT

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 Chief Secretary. 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 25,000 persons and operating a rail network of 6,578 kilometres. In the 1976-77 financial year, the Victorian Railways carried 103,000,000 passengers and transported about 11,000,000 tonnes of freight. Expenditure in this financial year amounted to \$302m. 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 eight members. The Board comprises representatives from business 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

will be 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.

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 people 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 123,000,000 persons in 1976–1977. The Board comprises three members, employs 4,500 persons, and maintains about 220 kilometres of tram services and 250 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. 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 50,000,000 kilometres and carry about 67,000,000 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 Authority is to be established to co-ordinate and manage the metropolitan public transport system. The authority will have the

task of ensuring that Melbourne has totally integrated public transport 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 \$500m programme to re-equip and modernise the metropolitan transport system with the aim of providing rapid, frequent, and comfortable public transport.

Board of Inquiry into Land Transport in Victoria, 1975

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

Establishment of regional freight centres has been an important part of the rationalisation. 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 far more convenient freight service.

Buses are also proving more economic and flexible in place of little used country passenger services. In both cases the road operators are under contract to the Victorian Railways, and charges are based on equivalent rail fares and freight rates.

Urban transport improvements are continuing, as far as funds allow, to help the Melbourne suburban rail system meet future demand.

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 eight, 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.

Co-ordinated transport

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

Victoria's rail system was developed during the second half of the last 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 Railways first regional freight centre, which opened at Horsham in March 1976, has pointed to 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—Edenhope and Apsley, for example—are now linked to the regional freight centre system.

Savings are widespread, as seen, for example, in maintenance costs on branch lines and staff costs at poorly patronised stations, and more than 1,000 badly needed freight wagons, as well as many locomotives, are being released for other more commercially viable services. More than 350 open level crossings will be closed. Uneconomic country passenger services on many 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. Work on modal interchanges at two of Melbourne's busiest stations, Box Hill and Frankston, is already under way, and car parks at many suburban stations have been improved and enlarged.

The Victorian Government during 1976 also announced a new authority to co-ordinate public transport, and a Pass Master, a one day ticket covering unlimited travel on suburban trains, trams, and tramway buses, was introduced.

Improvements to suburban services are being made in most areas; they range from major projects such as extra tracks and modern signalling to station rebuilding and lineside beautification. Two new tracks between Footscray and South Kensington, to ease a bottleneck on western suburban and country lines, opened in November 1976, and work is continuing on the construction of a third track between Caulfield and Mordialloc. A second track has been opened between Sunshine and Deer Park West, while extra tracks are due to open between Ringwood and Croydon, Ringwood and Fern Tree Gully, and Greensborough and Macleod.

A new highly automated signal box near Flinders Street was opened in 1976, and it is planned to link this with a similar box at Spencer Street, to a metropolitan train control centre by the time the underground loop is operating.

Rolling stock

The Victorian Railways' order for 50 silver trains for Melbourne suburban services is almost filled, and tenders for a further order, subject to finance, were called in 1977.

Eventually the Victorian Railways hopes to replace all wooden bodied suburban trains, which will not be able to operate through the underground loop. However, with extra demand arising from extended running on outer suburban lines, as well as the electrification of other lines over the next 10 years, the wooden bodied trains are unlikely to be replaced until well into the 1980s, (on the basis of the present orders for new trains).

Due to high maintenance costs the replacement of out-dated freight rolling stock is a similar problem. A total of 375 wagons have been ordered including container wagons, covered vans, and hopper wagons to transport bulk freight such as briquettes, wheat and cement. Part of this order had been filled by the end of 1977.

Delivery of 10 new 2,200 h.p. main line diesel locomotives was completed in 1976, and 10 new 3,300 h.p. locomotives were due to be delivered in 1978.

Freight

Freight business generally continued to be adversely affected by economic conditions during 1976. The total freight traffic decreased to 10.8 million tonnes in 1975-76 compared to 11 million tonnes the previous financial year.

There was only a minimal fall in inter-system traffic; the main losses were in Victorian business, such as wheat, superphosphate, petroleum products, and solid fuels. The introduction of regional freight centres is stream-lining operations and providing a more reliable and regular service, with less expenditure.

It has become increasingly apparent that the Victorian Railways' greatest advantage is in the transporting of bulk freight, where the Railways enjoy a differential advantage, and it is a main objective of Victorian Railways' policy to win more of this type of traffic.

Melbourne underground rail loop

The *Melbourne Underground Rail Loop Act* 1970 provided for the setting up 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 of 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 will be constructed on the eastern and northern boundaries of the central business district which, together with the two existing stations on the southern and western boundaries (Flinders Street station and Spencer Street station) will form a five station core to handle the city's work 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, will greatly increase the train operating capacity at the centre of the system. The tunnels will be large enough to accommodate existing passenger rolling stock and possible future double deck carriages.

Civil engineering construction for the loop comprises four major components:

- (1) Construction below street level of three additional city stations—Flagstaff, Museum, and Parliament, so named after the adjacent features on the route of the loop;
- (2) construction under La Trobe and Spring Streets of four tunnels for four separate underground tracks to link the three underground stations with the surface system;
- (3) construction under railway sidings and running tracks of tunnels and ramps for underground tracks to connect with the surface system in the areas between Flinders Street and Richmond stations and between Spencer Street and North Melbourne stations; and
- (4) construction of a new overpass structure parallel to Flinders Street from west of King Street to Queens Bridge to provide for two additional tracks between Flinders Street and Spencer Street stations.

Electric power supply, signalling, and communications essential for train operation on the loop are further components of the project.

The first beams of the overpass structure in Flinders Street were moved into place in August 1977.



Construction of Clifton Hill/City Circle platform at Flagstaff Station site.
Melbourne Underground Rail Loop Authority



Lower level of Museum Station with provision for Northern loop track on the right.

Melbourne Underground Rail Loop Authority

Late in 1977 the first complete loop of the city was made, with the break through between Flagstaff and Museum stations occurring on 2 September 1977.

Further reference, 1977

Finance

In 1975-76 Victorian Railways passenger income rose by \$6.4m compared with 1974-75. On the freight side revenue increased by \$8.5m compared with 1974-75.

Operational expenses

An increase of \$28.6m in expenditure was due in large measure to the effects of wage increases flowing over from the previous year or granted during 1975-76—the overall increase in wages amounted to \$18.9m. 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 \$545.0m at 30 June 1976. After deducting the value of securities purchased from the National Debt Sinking Fund and cancelled (\$93.8m), the net liability on current loans outstanding at that date was \$451.2m.

The total liability of the State for railways construction, etc., at 30 June 1976 (which includes the liability referred to in the previous paragraph) was \$607.0m. Deduction of securities purchased from the National Debt Sinking Fund and cancelled (\$127.4m) together with cash at credit in the Fund (\$0.5m) reduced the amount outstanding at the end of the year to a net liability of \$479.1m.

The *Railways (Funds) Act* 1961 provided that interest and other charges on moneys 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 moneys borrowed for the purposes of the *Railways Act* 1958 on and after 1 July 1960. The total annual interest payable on the liability of \$479.1m at 30 June 1976 amounted to \$31.5m at an average rate of 6.581 per cent. Of this amount, the Victorian Railways are liable for \$16.2m. In addition, the State is required to pay a contribution of \$5.7m at a rate of 4.5 per cent on cancelled securities.

Additional funds, which amounted to \$91.3m at 30 June 1976, 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.)

Further reference, 1977

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 566.

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 1972 to 1976 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		
1972	395,032	484	19	395,535
1973	403,158	561	19	403,738
1974	416,357	663	19	417,039
1975	442,723	1,030	19	443,772
1976	471,009	2,333	19	473,361

(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 1975 the capital cost of rolling stock, after being written down in accordance with the *Railways (Finances Adjustment) Act* 1936, and allowing for depreciation was : \$139.5m broad gauge, \$10,661 narrow gauge, and \$4.2m uniform gauge.

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 five financial years 1971-72 to 1975-76 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
1971-72	5,383	20,587	25,970	108,272
1972-73	5,303	20,495	25,798	125,025
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

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 1972 to 1976 :

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

Rolling stock in service	1972	1973	1974	1975	1976
Locomotives—					
Steam	37	26	22	19	19
Electric	35	35	35	35	35
Diesel electric	249	249	249	249	257
Other (a)	95	92	92	92	93
Total	416	402	398	395	404
Passenger coaches—					
Electric suburban	1,090	1,084	1,079	1,120	1,127
Other (b)	597	584	576	556	545
Total	1,687	1,668	1,655	1,676	1,672
Goods stock (c)	20,264	19,831	19,438	19,223	18,930
Service stock	1,602	1,588	1,594	1,612	1,481

(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 1972 to 1976 is shown in the following table. It should be noted that the Victorian Railways operate certain services in New South Wales. At 30 June 1976 the total length of these services was 326.6 route kilometres. This distance is included in the single track broad gauge section of the following table.

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

Lines open for traffic	1972	1973	1974	1975	1976
Single track —Broad gauge (a)	5,850	5,829	5,816	5,789	5,784
—Narrow gauge	13	13	13	13	14
Double track —Broad gauge (a)	707	710	719	720	719
Other multi-track—Broad gauge (a)	130	135	136	136	137
Total route distance	6,700	6,687	6,684	6,658	6,654

(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 Railways for the years 1971–72 to 1975–76 are shown in the following table :

VICTORIA—RAILWAYS TRAFFIC (EXCLUDING ROAD MOTOR SERVICES)

Traffic		1971–72	1972–73	1973–74	1974–75	1975–76
Traffic train kilometres—Country	'000	7,662	7,747	7,803	7,815	7,823
Suburban	'000	13,337	13,290	13,584	14,291	14,721
Goods	'000	12,176	12,020	11,958	11,769	11,274
Total	'000	33,175	33,057	33,345	33,876	33,818
Passenger journeys—Country	'000	3,954	4,180	4,507	4,963	4,921
Suburban	'000	133,840	108,970	110,141	112,757	104,748
Total	'000	137,794	113,150	114,648	117,720	109,669
Goods and livestock carried	'000 tonnes	11,795	11,475	11,370	11,057	10,803

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 1973-74 to 1975-76 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		
	1973-74	1974-75	1975-76	1973-74	1974-75	1975-76
Grain—						
Barley	237	355	444	66,003	105,477	125,785
Wheat	1,431	2,021	1,866	453,345	634,888	573,989
Other	141	135	281	34,812	30,115	76,833
Flour	134	145	129	30,767	30,411	28,742
Stockfood and fodder	84	84	65	22,551	21,520	16,664
Fruit—						
Fresh	124	108	90	47,791	41,095	34,692
Dried	35	48	63	18,421	26,228	34,176
Beverages	182	188	172	43,667	46,139	41,322
Solid fuels	1,036	986	758	184,036	178,103	134,572
Cement	918	852	822	110,186	101,454	101,448
Mining and quarry products	376	334	319	103,702	96,605	84,140
Dairy produce	51	35	35	11,727	8,473	8,113
Milk, condensed, powdered, etc.	119	85	98	22,380	17,735	18,589
Tinplate	106	51	41	32,993	15,292	13,483
Iron, steel, and metals, unfabricated	759	629	635	204,070	163,663	191,379
Manures	908	470	394	226,580	124,277	102,605
Motor cars and accessories	298	267	241	89,295	75,248	64,351
Petroleum products	423	427	415	114,262	123,381	122,566
Paper products	236	226	193	64,101	64,435	59,815
Pipes	114	110	74	30,639	27,978	19,649
Timber	276	242	261	87,696	76,997	84,435
Wool	134	129	223	30,611	30,698	45,345
All other goods	3,036	2,875	2,829	1,032,760	976,962	980,895
Total goods	11,158	10,802	10,447	3,062,395	3,017,174	2,963,587
Total livestock	212	255	356	63,769	74,265	107,786
Grand total goods and livestock	11,370	11,057	10,803	3,126,164	3,091,439	3,071,373

Railways revenue and expenditure

Revenue for 1975-76 increased by \$17,363,000 compared with 1974-75. Total working expenses increased by \$28,616,000 as compared with the previous year.

VICTORIA—RAILWAYS REVENUE AND EXPENDITURE
(*000)

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
REVENUE					
Passenger, etc., business—					
Passenger fares	34,806	35,971	38,343	40,283	46,662
Parcels, mails, etc.	4,322	4,515	4,885	5,736	7,049
Other	101	91	154	131	111
Goods, etc., business—					
Goods	62,370	59,937	60,057	69,653	77,687
Livestock	1,566	1,364	1,179	1,631	2,262
Miscellaneous	619	732	743	637	471

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

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
REVENUE— <i>continued</i>					
Miscellaneous—					
Dining car and refreshment services	3,592	3,808	4,369	5,418	6,116
Rentals	2,655	2,710	2,904	3,100	3,188
Bookstalls	1,085	1,139	1,263	1,434	1,515
Advertising	259	273	300	335	299
Melbourne Underground Rail Loop Authority special levy	952	899	895	922	1,395
Other	464	491	635	807	697
Total revenue	112,791	111,930	115,727	130,087	147,450
EXPENDITURE					
Working expenses—					
General expenses	122,484	138,451	166,778	215,968	237,230
Pensions	6,533	7,308	8,325	9,695	12,642
Contributions to Railway Renewals and Replacement Fund	400	400	400	400	400
Contributions to Railway Accident and Fire Insurance Fund	1,936	1,807	2,347	2,626	3,294
Pay-roll tax	3,400	4,006	6,067	8,957	10,399
Long service leave	2,355	2,621	3,036	3,786	5,696
Appropriation to Melbourne Underground Rail Loop Authority construction	952	899	895	922	1,395
Other (a) (b)	840	836	1,058	1,426	1,341
Total working expenses	138,900	156,327	188,906	243,779	272,395
Net revenue	-26,109	-44,397	-73,180	-113,692	-124,945
Debt charges—					
Interest charges and expenses (b)	9,077	10,021	10,893	12,043	13,792
Exchange on interest payments and redemption	81	66	44	55	57
Contribution to National Debt Sinking Fund	393	419	455	497	527
Net result for year	-35,660	-54,903	-84,572	-126,287	-139,321
Proportion of working expenses to revenue	per cent	per cent	per cent	per cent	per cent
	123.1	139.7	163.2	187.4	184.7

(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 1971-72 to 1975-76 are shown in the following table :

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

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
Average number of kilometres open for traffic	6,700	6,687	6,685	6,658	6,654
Gross revenue per average kilometre open	\$ 16,824	16,727	17,300	19,525	22,145
Working expenses per average kilometre open	\$ 20,705	23,347	28,212	36,556	40,869

Road motor services

The following table shows, for each of the years 1971-72 to 1975-76, 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	1971-72	1972-73	1973-74	1974-75	1975-76
Bus kilometres	353,362	360,064	351,494	372,849	392,901
Passenger journeys	857,406	759,209	760,684	792,952	790,070
Gross revenue	\$ 71,384	73,832	76,047	89,302	94,781
Working expenses	\$ 178,072	207,348	307,021	385,838	455,522
Capital expenditure at end of year (less depreciation written off)	\$ 19,252	19,212	19,172	19,132	19,092

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 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 metropolitan area, and a fleet of buses operating on routes permitted by the Transport Regulation Board.

VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD :
TRAMWAYS

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
1972-73	217	4	24,443	104,719	19,852	23,938	(b)696	4,283
1973-74	217	4	23,873	109,368	20,552	29,370	(b)697	4,193
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

(a) Includes omnibus employees. Tramways employees not available separately.

(b) Includes 42 in reserve or idle.

As the population increases and the use of private motor vehicles extends, passengers using public transport become fewer and this causes financial strain. Notwithstanding this, the Board has a policy of expansion and in 1961 acquired a privately owned network of buses in the rapidly developing suburbs of Box Hill, Nunawading, Ringwood, Mitcham, Doncaster, Bulleen, and Warrandyte, and extended some other services.

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

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
1972-73	233	11,882	20,993	4,308	6,393	(b)272	4,283
1973-74	237	11,918	22,168	4,486	7,939	(b)272	4,193
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

(a) Includes tramways employees. Omnibus employees not available separately.

(b) Includes 24 in reserve or idle.

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

Particulars	1972-73	1973-74	1974-75	1975-76	1976-77
REVENUE					
Traffic receipts	23,909	24,751	25,168	29,968	32,194
Miscellaneous operating receipts	251	287	303	304	179
Non-operating receipts	511	293	325	418	458
Total revenue	24,671	25,331	25,796	30,690	32,831
EXPENDITURE					
Traffic operation costs	14,332	17,587	22,729	25,761	29,148
Maintenance—					
Permanent way	1,298	1,331	1,603	1,765	1,827
Tramcars	3,499	4,118	5,096	5,523	6,249
Buses	1,416	1,710	2,216	2,522	2,837
Electrical equipment of lines and sub-stations	842	945	1,237	1,429	1,498
Buildings and grounds	403	515	621	699	730
Electric traction energy	804	856	889	1,048	1,178
Fuel oil for buses	275	329	374	533	561
Bus licence and road tax fees	22	22	9	3	1
General administration and stores department costs	1,885	2,355	3,019	3,031	3,598
Pay-roll tax	771	1,174	1,721	1,967	2,191
Workers compensation payments	649	1,382	1,822	3,239	2,706
Depreciation	920	918	909	1,156	1,479
Non-operating expenses	106	110	147	146	186
Provisions—					
Long service leave	471	619	690	984	1,138
Retiring gratuities	732	1,077	1,262	1,587	1,785
Accrued sick leave	59	76	146	163	165
Public risk insurance	325	618	827	886	853
Interest on loans	1,630	1,678	1,947	2,361	3,094
Total expenditure	30,438	37,419	47,264	54,803	61,224
Net surplus (+) or deficit (—)	—5,767	—12,088	—21,468	—24,113	—28,393
Capital outlay	945	992	6,059	8,761	9,621
Loan indebtedness at 30 June	27,620	28,457	31,935	37,225	45,725

The following tables show an analysis of operating receipts, operating expenses, etc., for each of the years 1972-73 to 1976-77 :

**VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD :
TRAMWAYS : OPERATING RECEIPTS, OPERATING EXPENSES, ETC.,
PER KILOMETRE, 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
1972-73	19,851	81.21	18.96	23,938	97.93	120.59
1973-74	20,552	86.09	18.79	29,370	123.03	142.91
1974-75	20,916	87.73	18.83	37,176	155.94	177.75
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

**VICTORIA—MELBOURNE AND METROPOLITAN TRAMWAYS BOARD :
MOTOR OMNIBUS SYSTEMS : OPERATING RECEIPTS, OPERATING
EXPENSES, ETC., PER KILOMETRE, 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
1972-73	4,308	36.26	20.52	6,393	53.80	148.40
1973-74	4,486	37.64	20.24	7,939	66.61	176.97
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	229.50

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 1975-76 route operations accounted for 49 per cent of total distance travelled, while charter, school, and other special services accounted for 18, 32, and 1 per cent, respectively.

VICTORIA—PRIVATE MOTOR OMNIBUS SERVICES

Particulars	1971-72	1972-73	1973-74	1974-75r	1975-76
Number of vehicles	3,030	3,171	3,118	3,130	3,205
Distance travelled	'000 kilometres	96,659	98,990	101,266	97,782
	\$'000	\$'000	\$'000	\$'000	\$'000
Revenue	28,628	32,074	35,916	45,389	52,548
Expenditure—					
Drivers' wages	10,236	11,368	13,753	17,667	20,273
Repairs and maintenance	3,477	3,845	4,250	5,597	6,702
Depreciation	2,364	2,464	2,557	2,678	3,144
Other	9,741	11,008	12,360	15,545	18,180
Total expenditure	25,818	28,685	32,920	41,487	48,299

VICTORIA—PRIVATE MOTOR OMNIBUS SERVICES—*continued*

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
	\$'000	\$'000	\$'000	\$'000	\$'000
Assets (a)—					
Motor vehicles	7,221	7,457	7,261	7,695	9,953
Other assets	11,024	12,333	13,559	14,665	16,399
Total assets	18,245	19,790	20,820	22,360	26,352
Liabilities (a)	8,177	9,612	10,834	11,734	14,841

(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, both being replaced by privately operated bus services. Parts of the Ballarat and Bendigo systems were re-opened during 1972 as tourist attractions operating during weekends and holidays.

Further reference, 1977 ; Melbourne tramways 1930-1961, 1963

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 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 1976 comprised 7,036 kilometres of State highways, 223 kilometres of freeways, 795 kilometres of tourists' roads, 1,039 kilometres of forest roads, and 14,577 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 1976 there were 7,036 kilometres of State highways, 6,788 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 capitals ; (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 between the outskirts of Melbourne and east of Ballan, a freeway by-passing the settlement of Gordon, and dual carriageways between Leigh Creek and Ballarat. The completion of the by-pass of Ballan, 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 Lower Yarra Freeway ; the Calder Freeway to Keilor East ; the Western Freeway at Bacchus Marsh, Pentland Hills, Gordon 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 ; Mornington Peninsula Freeway between Dromana and Rosebud ; Frankston Freeway ; and sections of the Hume Freeway between Melbourne and Seymour. Construction has been completed of the Eastern Freeway and the Mulgrave Freeway west of Forster Road. The West Gate Freeway in South Melbourne and Port Melbourne is 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 *Tourists' Road Act* 1936 empowered the Board to carry out permanent works on and maintain tourists' roads which are proclaimed as such by the Governor in Council. Of the 801 kilometres of tourists' roads, the best known is the Great Ocean Road between Torquay and Peterborough. The Great Ocean Road was proclaimed in 1936 and is the only memorial road in Australia. It was built by the Board for the Great Ocean Road Trust to give employment to returned soldiers and sailors and as a memorial to their fallen comrades.

Other tourists' roads have been built to provide access to places of interest such as the Grampians and the various alpine ski resorts at Mount Hotham, Mount Buffalo, Mount Buller, and Falls Creek.

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 1,039 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 1975-76 Board expenditure on proclaimed forest roads was \$1.3m, but grants could only be made 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 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 1976 there were 14,577 kilometres of main roads.

Rural roads

Victoria is the most densely populated State in Australia, with some 3.6 million people living in 140,600 square kilometres.

The pattern of Victoria's rural life has come to depend heavily 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 50 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.

There are now 143,880 kilometres of rural public roads in Victoria (excluding public roads in the Melbourne Metropolitan Planning Scheme area and the urban areas of Geelong, Bendigo, and Ballarat) of which some 22,281 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 1975-76 the Board spent \$75.5m on the construction (\$50.3m) and maintenance (\$25.2m) of rural roads in Victoria. Of this total \$32.5m was expended by municipal councils on rural roads from allocations made by the Board.

The State'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 progressively being upgraded to freeway standard. These highways form part of an Australia-wide national highway network. During 1975-76 the Board spent \$18m on upgrading these two highways.

The secondary 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 could be called feeder roads, providing local access to farming or residential areas.

Each system is co-ordinated with the other to enable vehicles, either private or commercial, to move rapidly between all points in the State.

Roadside development

Roads are among the most permanent structures, and once built they cannot be considered apart from their surroundings. 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 annually on declared road reserves. The Board is also developing roadside stopping places for motorists' convenience. They 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 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 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 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 moneys received under Part II of the Commercial Goods Vehicles Act (tonne-kilometre tax).

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

(15) Any special moneys appropriated by Parliament.

(16) Loan money.

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

Moneys are also provided from Commonwealth sources. In 1975-76 receipts from the Commonwealth amounted to \$92m.

Total funds available to the Board in 1975-76, including unexpended balance of \$0.7m brought forward from 1974-75, amounted to \$188.5m.

For the three year period 1 July 1974 to 30 June 1977, Commonwealth financial assistance to Victoria for roads was provided under three Commonwealth Acts: the National Roads Act, 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 1971-72 to 1975-76 are shown in the following table:

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

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
RECEIPTS					
Fees—Motor Car Act (less cost of collection)	34,296	35,428	37,537	41,985	50,827
Municipalities contributions—permanent works and maintenance—main roads	2,190	2,182	2,136	2,047	2,233
Commonwealth grants (a)	45,300	49,785	55,274	78,977	92,132
Roads (Special Projects) Fund	6,721	5,675	7,643	30,429	30,192
Proceeds from Commercial Goods Vehicles Act	9,136	9,745	10,359	10,038	10,132
Loans from Victorian Government	400	400	300	300	325
Grants from Victorian Government	983	1,333	568	772	427
Other receipts	713	703	860	1,247	1,525
Total	99,739	105,251	114,677	165,795	187,793
EXPENDITURE					
Construction, maintenance, etc., of roads and bridges	81,453	83,411	92,349	135,107	146,920
Plant purchases	2,060	1,765	1,116	1,783	1,234
Buildings, workshops, etc.	331	641	565	806	313
Interest and sinking fund payments	2,584	2,612	2,619	2,688	2,793
Payment to Tourist Fund	658	686	709	751	840
Payment to Transport Regulation Board	534	548	585	622	602
Payment to Traffic Authority Fund	329	343	354	375	420
Payment to Melbourne and Metropolitan Tramways Board	200	200	200	200	200
Planning and research	1,283	1,157	1,039	2,205	3,663
Management and operating expenditure (b)	10,252	12,123	16,207	21,432	23,303
Total	99,685	103,488	115,742	165,969	180,288

(a) Includes relief of unemployment grants : 1974-75, \$3,134,000 ; and 1975-76, \$2,202,000.

(b) Includes residual liability for loan funds—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 five years 1971-72 to 1975-76 :

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

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
State highways—					
Construction	15,581	10,931	11,385	17,165	18,871
Maintenance	6,531	7,113	7,589	9,280	12,101
Freeways—					
Construction	17,875	23,341	29,677	47,983	53,204
Maintenance	471	516	714	1,368	1,779
Main roads—					
Construction	14,217	14,468	13,535	18,029	16,633
Maintenance	6,155	6,192	6,608	8,469	10,147
Unclassified roads—					
Construction	13,737	14,122	15,061	24,169	25,020
Maintenance	3,110	3,391	4,181	4,165	4,601

**VICTORIA—COUNTRY ROADS BOARD: EXPENDITURE ON
ROADS AND BRIDGES—continued**
(£'000)

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
Tourists' roads—					
Construction	1,566	1,054	1,032	1,032	518
Maintenance	717	695	828	1,102	1,235
Forest roads—					
Construction	380	349	370	416	475
Maintenance	478	491	540	686	867
Metropolitan bridges	..	..	..	1	2
State Intersection Control Programme	..	..	..	333	424
Murray River bridges and punts	120	130	177	123	228
Traffic line marking	515	619	652	784	816
Total construction	63,356	64,265	71,060	108,794	114,721
Total maintenance	17,462	18,398	20,460	25,071	30,730
Total other	635	748	829	1,242	1,469
Total expenditure	81,453	83,411	92,349	135,107	146,920

Loan liability to the State

The loan liability of the Board to the Victorian Government as at 30 June 1976 was \$30.9m.

Further reference, 1977

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.

VICTORIA—REGISTRATION AND LICENCE RATES AT 1 MARCH 1977

Type of registration or licence	Annual rate
REGISTRATION	
Motor cycle	\$7.40 plus \$2.00 surcharge (a)
Motor car (private use)	\$1.10 for each power-weight unit (b) plus \$2.00 surcharge (a)
Motor car (private and business use)	\$1.35 for each power-weight unit (b) plus \$4.00 surcharge (a)
Trailer (attached to motor car)	From \$4.50 each, according to the unladen weight and use
Motor car (commercial passenger vehicle) operating on a stage omnibus service	\$2.60 plus \$4.00 surcharge (a)
Motor car (commercial passenger vehicle) operating on a temporary school service licence	\$26.70 plus \$4.00 surcharge (a)
Motor car (used for carrying passengers or goods for hire or in the course of trade)	From \$2.10 to \$2.80 for each power-weight unit (b) according to the unladen weight plus \$4.00 surcharge (a)
Motor car (constructed for the carriage of goods, including station wagons) owned by primary producer and used solely in connection with his business	From \$0.55 to \$1.10 for each power-weight unit (b) according to the number of wheels (when more than one motor car is so owned, the rate shall apply to one motor car only) plus \$2.00 surcharge (a)
Mobile crane, self-propelled (used otherwise than for lifting and towing vehicles)	\$48.90 (unless a lower fee would otherwise have been payable) plus \$4.00 surcharge (a)
Recreation vehicle	\$3.00 for vehicle with not more than 3 wheels, in any other case \$10.00

VICTORIA—REGISTRATION AND LICENCE RATES AT 1 MARCH 1977—*continued*

Type of registration or licence	Annual rate
LICENCE	
Driver's or rider's licence	\$18.00 issued for a three year period (An appointment fee of \$3.00 and testing fee of \$7.00 is payable by all applicants for new licences)
Learner's permit	\$2.00 for twelve months and \$2.00 for a three month extension, if required. Appointment and testing fees as above, are also payable
Instructor's licence	\$40.00 issued for a three year period

(a) Surcharges apply to registrations or re-registrations effected on and after 1 August 1972 and renewals due on and after that date.

(b) The number of power-weight units is that number which is equal to the sum of the horsepower and the weight in 50-kilogram units of a motor car unladen and ready for use.

NOTE. The minimum annual fee for the registration of any motor vehicle other than a motor cycle is \$21.50.

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

Type of licence	1972	1973	1974	1975	1976
Drivers'	1,585,095	1,660,454	1,801,203	1,829,298	1,888,560
Riders'	49,023	51,354	55,707	56,576	68,496
Total	1,634,118	1,711,808	1,856,910	1,885,874	1,957,056

The following table shows the number of motor vehicles on the register by type at the end of 1962 and 1971 (motor vehicle census years), and at 31 December 1972 to 1975. 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)	At 31 December—			
			1972	1973	1974	1975
			'000	'000	'000	'000
Motor cars	610,974	929,477	987.1	1,054.9	1,123.0	1,194.9
Station wagons	69,528	201,884	207.3	213.0	219.8	233.0
Light commercial type vehicles—						
Open	94,470	89,764	91.0	93.4	97.7	104.1
Closed	31,851	46,539	49.7	53.3	57.7	61.8
Trucks—						
Rigid	76,591	79,386	82.1	87.2	92.1	97.1
Articulated		9,417	9.7	10.5	11.1	12.4
Other truck type vehicles	2,890	3,520	3.9	4.3	4.7	5.3
Buses	3,409	5,129	5.6	6.0	6.6	7.1
Motor cycles	15,802	28,160	36.7	44.7	47.3	49.4
Total	905,515	1,393,276	1,473.1	1,567.4	1,660.0	1,765.1

(a) A revised classification of motor vehicles was adopted for the census of motor vehicles at 30 September 1971. The principal differences between the new classification and that at 31 December 1962 are:

- (i) "Light commercial type vehicles" include utilities, panel vans, and trucks with carrying capacity under one tonne, and ambulances and hearses.
- (ii) "Rigid trucks" include utilities and panel vans with a carrying capacity of one tonne 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". Direct comparisons, therefore, between the two censuses can only be made for the categories motor cars, station wagons, and motor cycles. However, for comparative purposes utilities registered at 31 December 1962 have been included in the classification "light commercial vehicles—open" and panel vans and ambulances and hearses, registered at the same date, in the classification "light commercial type vehicles—closed". 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—REGISTRATION 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		
	1973-74	1974-75	1975-76	1973-74	1974-75	1975-76
Alfa Romeo	178	694	406	..	..	..
B.M.W.	282	480	331	..	..	..
Chrysler (a)	8,859	8,528	7,740	1,620	1,999	1,455
Datsun	10,482	13,361	12,357	337	378	1,287
Fiat	583	853	461	..	..	..
Ford	24,849	24,734	23,490	4,390	5,514	5,332
Holden (b)	24,874	25,843	25,052	6,084	5,419	5,309
Honda	2,144	3,663	1,692	..	..	150
Jaguar	201	410	383	..	..	..
Leyland (c)	6,136	3,139	1,068	1	..	..
Mazda	8,784	8,286	6,621	992	1,622	1,721
Mercedes Benz	847	1,047	812	..	..	..
Peugeot	527	978	717	3	8	33
Renault	1,655	1,825	1,205	224	455	412
Rover	118	206	147	51	154	227
Saab	129	221	125	..	..	..
Statesman	1,454	1,258	1,341	..	..	..
Subaru	436	282	332	34	115	327
Toyota	10,068	14,397	12,454	753	1,435	1,742
Triumph	549	528	647	..	..	..
Volkswagen	1,627	1,810	1,818	349	385	365
Volvo	1,171	1,780	1,540	148	446	318
Other	561	820	715	46	90	36
Total	106,514	115,143	101,454	15,032	18,020	18,714

(a) Dodge, Hillman, and Mitsubishi are included with Chrysler.

(b) Excludes Statesman, which is shown separately.

(c) From 1 January 1973, Austin, Morris, M.G., and B.M.C. are included with Leyland.

**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	1974-75 (a)				1975-76 (a)			
	Light commercial type vehicles (a)		Other (a)	Total	Light commercial type vehicles (a)		Other (a)	Total
	Open	Closed (b)			Open	Closed (b)		
Bedford	..	2	1,162	1,164	..	1	1,405	1,406
Chrysler (c)	1,384	10	733	2,127	745	2	810	1,557
Daihatsu	1	106	174	281	89	41	117	247
Datsun	476	198	331	1,005	530	229	936	1,695
Ford	2,038	2,812	888	5,738	1,934	3,137	893	5,964
Holden	3,479	2,872	4	6,355	2,896	2,724	5	5,625
International	..	1	1,257	1,258	..	..	1,215	1,215
Kenworth	..	..	139	139	..	..	92	92
Land Rover	194	6	127	327	166	1	91	258
Leyland	141	255	165	561	204	179	183	566
Mazda	372	538	278	1,188	512	788	335	1,635
Mercedes Benz	..	..	224	224	..	..	138	138
Suzuki	240	105	..	345	372	289	..	661

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

Make	1974-75 (a)				1975-76 (a)			
	Light commercial type vehicles (a)		Other (a)	Total	Light commercial type vehicles (a)		Other (a)	Total
	Open	Closed (b)			Open	Closed (b)		
Toyota	..	359	2,286	2,645	..	360	3,182	3,542
Volkswagen	45	1,211	198	1,454	46	884	555	1,485
Volvo	..	..	126	126	..	..	151	151
Other	144	25	261	430	198	12	544	754
Total	8,514	8,500	8,353	25,367	7,692	8,647	10,652	26,991

(a) From 1 January 1972 a revised classification of motor vehicles has been adopted and used also as a basis for a census of motor vehicles at 30 September 1971. For further information see notes to table on page 576 dealing with vehicles on the register.

(b) Includes ambulances and hearses.

(c) Chrysler includes all Dodge, Commer, Hillman, and Mitsubishi vehicles.

Transport Regulation Board

General

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 of 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	1971-72	1972-73	1973-74	1974-75	1975-76
Licences issued "as of right"—					
40 kilometres of Melbourne	15,901	16,489	18,113	20,877	22,121
40 kilometres of Ballarat, Bendigo, or Geelong	1,577	1,667	1,869	2,176	2,413
40 kilometres of owner's place of business	6,787	7,004	7,683	9,159	10,305
Primary producers (vehicles over 2 tonnes load capacity)	17,477	17,534	17,363	17,132	17,091
Butter, milk, and cheese factories	355	347	420	344	577
80 kilometres of owner's place of business (vehicles up to 4 tonnes load capacity) (a)	56,612	58,658	47,995	34,155	32,707
State-wide rights for carriage of own goods (vehicles not exceeding 500 kilograms)	..	..	10,358	19,890	19,133
Third Schedule (basically perishable) commodities	13,294	13,461	12,108	10,189	9,009
Approved decentralised secondary industries	1,128	1,192	1,430	1,630	1,836
80 kilometres of Melbourne	..	..	318	481	559
80 kilometres of Portland	..	..	10	36	41
Bulk tankers—petroleum products	..	..	185	466	502

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

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
"Discretionary" licences—					
Passenger—					
Omnibuses	3,391	3,450	3,537	3,536	3,663
Taxis and hire-cars	3,486	3,464	3,531	3,572	3,563
Omnibus temporary/special	163	177	171	183	197
Goods	14,699	14,756	12,451	10,862	10,253
Goods—passenger	26	25	22	19	18
Total licences issued	134,896	138,224	137,564	134,707	133,988
Financial transactions—	\$'000	\$'000	\$'000	\$'000	\$'000
Revenue	2,946	3,125	4,510	6,296	6,932
Expenditure (including payments to local authorities for comfort stations and bus shelters)	2,949	3,231	3,900	5,218	6,212
Levy to Transport Fund	..	..	..	356	524
Balance	—3	—106	610	722	196
Collections—					
Road maintenance contributions collected and transferred direct to Country Roads Board	9,138	9,745	10,362	10,039	10,133
Motor boat registration fees collected and paid to Tourist Fund	305	333	397	580	855
Log book fees	10	10	11	10	12

(a) Vehicles up to 6 tonnes load capacity after February 1974.

Licences, permits, and drivers' certificates

During the year ended 30 June 1976 the Board issued 83,641 goods permits for temporary variation of the operations of a vehicle. There was 1 new tow truck licence issued and at 30 June 1976 there were 710 licences on record. For the year ended 30 June 1976 there were 5,497 new drivers certificates issued: 4,302 commercial passenger, 681 private omnibus, and 514 tow-truck.

Buses

Commercial buses at 30 June 1976 totalled: metropolitan 1,483, urban 145 (Ballarat 38, Bendigo 30, and Geelong 77), country 1,944, touring omnibus 91, and temporary special licence, 197.

Taxis and hire-cars

Taxis and hire-cars at 30 June 1976 totalled: metropolitan 2,919, urban 201 (Ballarat 50, Bendigo 37, and Geelong 114), and country 443.

Passenger fares

At 30 June 1976 adult bus fares were 16c, 26c, 32c, and 34c, respectively, for the first four sections travelled, rising by 2c up to section 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 public holidays. Taxi fares at 1 July 1976 were 45c flagfall (including the first 90 metres on tariff 1 and the first 72 metres on tariff 2), plus 5c for each additional 180 or 144 metres for tariff 1 or tariff 2, respectively.

Goods and passenger applications

For the year ended 30 June 1976, the Board heard 7 goods and 108 passenger applications at public hearings. The majority of the applications were determined and settled without the need for a public hearing and numbered 3,212 goods and 3,180 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 registration totalled \$854,902 for 1975-76. 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. At 30 June 1976 there were 76,800 motor boats registered by the Board.

Commercial goods transport

The Victorian Government stated late in 1976 that goods regulation in its present form would be progressively phased out within five years. Road and rail services should eventually operate in a competitive condition, subject to both modes, i.e., road and rail transport, meeting their proper costs.

The Board's role in this interim period is to administer existing legislation so as to provide the Victorian Railways with an opportunity to adjust to the changes that would occur when regulation is phased out.

A principal feature of the railways' review has been the establishment of seven regional freight centres and the simultaneous closing of some non-remunerative branch lines. Distribution in these areas is being undertaken by private road operators who are under sole contract to the railways. This will enable the railways to compete in efficiency and service with road transport.

Passenger services

A major change is likely to occur with the proposal to set up a Metropolitan Transit Authority, an announced segment of government transport planning. This new body is expected to take over control of public passenger transport in Melbourne. The Board's current planning is based on a rationalisation and consolidation philosophy to assist the Metropolitan Transit Authority in its contractual arrangements when it is established.

In the meantime the Victorian Government is providing a subsidy for the route bus services of private operators. The subsidy scheme was introduced in October 1974 and provides financial assistance to operators of private omnibus services in the following areas:

- (1) A passenger fare subsidy to minimise the need for operators to seek to cover cost increases by charging higher fares;
- (2) loans, at concessional interest rates, are provided to assist operators in the purchase of new vehicles and ticket machines; and
- (3) reduction of Transport Regulation Board licence and registration fees to a nominal level (\$2 per annum).

Taxi industry

In October 1975, the Board permitted owners in a suburban taxi group to transfer to operations under radio control from the depot of a metropolitan taxi group. This was the first such transfer approved by the Board, and during 1976 several other MT and ST depots have had discussions concerning amalgamation in order to increase efficiency within the industry.

Because of the particular operational advantages of ultra-high frequency (UHF) radio communications systems, two major metropolitan groups and two suburban taxi depots are already installing this equipment. Other depots are

expected to change over to UHF in the future. However, installation of the equipment is costly and can only be justified where the number of dependent cabs is sufficiently large to provide an acceptable spread of costs.

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 (\$136m since 1956) is paid to the Country Roads Board Fund—Maintenance Account. An amount equal to 6 per cent of collections is recouped to help to defray the collection costs.

Road charges collected during 1975–76 amounted to \$10.133m compared with \$10.38m during 1974–75. While collections increased during this financial year they were still below the level of collections attained in 1973–74; this reflects the depressed state of the trucking industry due to the prevailing economic conditions.

Tow trucks

In 1975 the Board was concerned at the many and growing undesirable features of accident towing services. In response to a request by the Board, an officer group was commissioned to produce a blueprint of future licensing and control of towing designed to reduce costs and wasteful use of trucks and manpower. The Board's report in the form of a working paper was completed shortly after the close of the financial year, and has been passed to interested parties for comment and further development of acceptable lines of action.

West Gate Bridge Authority

The Authority is at present constructing the West Gate Bridge over the lower reaches of the Yarra River, Melbourne. Under the terms of its franchise from the Victorian Government, the Authority will operate and maintain the bridge, together with its associated works, as a toll crossing.

Under the provisions of the *Lower Yarra Crossing Authority Act 1965*, the Authority finances 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 are subject to the prior approval of the Victorian Treasury and the Governor in Council and accordingly are Government 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 40 years from the date on which the bridge is opened to traffic and, as soon as it is free from all encumbrances, it is to be handed over to the Victorian Government.

The Authority has, through its contractors, completed the concrete approaches, toll plaza and associated equipment, three road overpasses, two traffic interchanges, and other associated works for the operation of the bridge as a toll facility.

The steel bridge, comprising five spans, with a total length of 848 metres, was still under construction at mid December 1977. At that time 15.6 metres of steel box girder from the east bank, and 55 metres from the west bank, remained to be erected. The east bank steel bridge works comprise 27 steel box girder sections of which only one and a half remained to be erected to the centre of the main span at mid December 1977. In addition, on the east side, the cable support tower had been erected. The inner permanent cables and 16 strands of the total 32 strands in the outer permanent cables had also been erected and stressed.

The west bank works also comprise 27 steel box girder sections. Two sections remained to be erected to the centre of the main span and two and a half

remained to be erected to complete the connection with the concrete west approach viaduct. Additionally, the cable support tower and the inner permanent cables had been erected and the cables fully stressed. The method of construction on the west side requires that temporary cables be erected. At mid December 1977 the inner temporary cables had been utilised and dismantled and the outer temporary cables had been erected and fully stressed. Work was proceeding with the erection of the outer permanent cables.

Closure of the bridge at mid-river of the main central span was planned for early 1978,* while the bridge's completion was expected by mid 1978. The delays in the completion of the project, and construction now being carried out during a period of high inflation, have resulted in costs increasing beyond the control of the Authority. In December 1977, the estimated cost of the project was \$135m, plus holding charges.

The F9 Freeway Extension, which will connect the east side bridge approach roads to Kingsway and St Kilda Road, South Melbourne, is due for completion in the early 1980s. This Freeway, in conjunction with the Johnson Street Bridge (now under construction over the Yarra River), will provide adequate capacity for expected traffic demands following the completion of the West Gate Bridge.

Further reference, 1977

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 Chief Secretary 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 Victorian 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, 1977

Motor Accidents Board

The Motor Accidents Board of Victoria has been made responsible for setting up and administering a "no fault" motor accident insurance 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.

* It took place on 31 May 1978.

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 insurance 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 February 1974.

Further reference, 1977

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 232.

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
1971-72	14,988	884	21,090	424	25	596
1972-73	14,611	949	20,312	408	27	568
1973-74	13,452	877	18,634	372	24	515
1974-75	12,693	887	17,765	346	24	485
1975-76	12,591	898	17,596	337	24	471

The table which follows provides a description of types of road users killed or injured in road traffic accidents occurring during the years 1973-74 to 1975-76 :

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

Description	1973-74		1974-75		1975-76	
	Killed	Injured	Killed	Injured	Killed	Injured
Drivers of motor vehicles	313	7,272	334	6,872	344	6,871
Motor cyclists	68	1,445	71	1,504	77	1,663
Passengers (any type)	253	7,179	275	6,852	262	6,559
Pedestrians	210	2,075	185	1,902	187	1,832
Pedal cyclists	30	640	21	606	26	644
Other	3	23	1	29	2	27
Total	877	18,634	887	17,765	898	17,596

Particulars of victims of road traffic accidents during the years 1973-74 to 1975-76 are shown according to age in the following table :

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

Age group (years)	1973-74		1974-75		1975-76	
	Killed	Injured	Killed	Injured	Killed	Injured
Under 5	35	675	28	622	26	542
5 and under 7	18	361	14	327	15	332
7 and under 17	77	2,147	75	1,970	75	2,037
17 and under 21	167	3,994	179	3,954	173	3,903
21 and under 30	181	4,422	199	4,171	195	4,242
30 and under 40	74	1,991	75	1,965	97	1,884
40 and under 50	80	1,664	84	1,522	69	1,436
50 and under 60	73	1,245	73	1,302	72	1,255
60 and over	169	1,390	159	1,417	169	1,355
Not stated	3	745	1	515	7	610
Total	877	18,634	887	17,765	898	17,596

Further reference, 1977 ; Traffic Commission, 1961-1971 ; Australian Road Safety Council, 1966

SEA TRANSPORT

Shipping

Introduction

During the 1830s settlers quickly found that, because of the absence 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 for many decades encouraged the regular use of ships to a greater extent than other coastal areas of the State, with cargoes from the western region including dairy products, livestock, and timber, and from the eastern region, fish. Servicing of the goldfields of Walhalla and the Tambo valley was also provided by way of Port Albert.

The Port of Melbourne was established in 1876 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 the 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 1972-73 to 1975-76:

VICTORIA—TASMANIA : SEAROAD SERVICE (a)

Name of vessel	Passengers				Accompanied vehicles			
	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
<i>Empress of Australia</i>	108,330	110,462	114,663	112,142	28,807	33,351	30,171	31,567
<i>Bass Trader</i>	498	106	52	..	286	15	10	..
Other Australian Shipping Commission vessels	..	2	1	..	..	1	1	..
Total	108,828	110,570	114,716	112,142	29,093	33,367	30,182	31,567

(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 five years 1971-72 to 1975-76 were as follows :

VICTORIA—OVERSEAS AND INTERSTATE SHIPPING

Particulars		1971-72	1972-73	1973-74	1974-75	1975-76
Entrances	number	4,052	3,680	3,530	3,496	3,261
	'000 net tonnes	26,087	22,419	21,840	21,244	20,806
Clearances	number	4,058	3,670	3,510	3,508	3,251
	'000 net tonnes	26,046	22,338	21,725	21,313	20,803

Nationality of shipping

The countries of registration of vessels which entered or were cleared at Victorian ports during the years 1974-75 and 1975-76 were as follows :

VICTORIA—NATIONALITY OF SHIPPING

('000 net tonnes)

Vessels registered at ports in—	Vessels entered		Vessels cleared	
	1974-75	1975-76	1974-75	1975-76
Australia	8,030	7,765	8,060	7,854
Denmark	422	159	422	171
France	78	81	78	81
Germany, Federal Republic of	715	574	705	541
Greece	466	519	465	502
Hong Kong	61	187	69	178
India	86	147	89	121
Italy	258	266	255	269
Japan	1,314	1,448	1,321	1,403
Liberia	941	1,019	950	1,006
Nauru	111	54	111	54
Netherlands	591	486	585	453
Antilles (Netherlands)	234	131	234	148
New Zealand	136	94	137	92
Norway	799	593	785	593
Panama	918	1,077	952	1,092
Singapore	239	253	243	251
South Africa	62	96	62	85
Sweden	422	379	411	358
United Kingdom	3,744	3,557	3,756	3,630
United States of America	635	620	641	620
U.S.S.R.	367	402	368	391
Yugoslavia	51	83	68	72
Other	564	816	546	838
Total	21,244	20,806	21,313	20,803

Shipping entered at Victorian ports

Particulars of shipping which entered each principal port of Victoria are shown in the following table for the years 1974-75 and 1975-76 :

VICTORIA—VESSELS ENTERED AT EACH PORT

Class of vessel	Melbourne		Geelong		Portland		Western Port	
	1974-75	1975-76	1974-75	1975-76	1974-75	1975-76	1974-75	1975-76
NUMBER								
Overseas—								
Direct	520	427	108	134	33	26	50	60
Other	1,049	1,076	175	124	26	49	139	189
Interstate	1,025	856	115	96	14	11	183	168
Intrastate	14	10	22	17	9	12	14	6
Total	2,608	2,369	420	371	82	98	386	423
NET TONNES ('000)								
Overseas—								
Direct	3,010	2,690	782	1,062	226	184	879	1,034
Other	6,670	6,660	1,409	950	124	336	752	1,121
Interstate	3,266	2,835	544	626	93	45	2,957	2,863
Intrastate	113	59	202	157	86	115	132	72
Total	13,059	12,245	2,936	2,794	529	678	4,720	5,089

Cargoes discharged and shipped

The following tables show the tonnage of overseas and interstate cargoes discharged and shipped in Victorian ports during 1974-75 and 1975-76, as well as the tonnage of overseas cargoes discharged and shipped during the years 1973-74 to 1975-76 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	
	1974-75	1975-76	1974-75	1975-76	1974-75	1975-76	1974-75	1975-76
DISCHARGED								
Interstate—								
Tonnes	1,740	1,571	510	436	24	47	350	404
Cubic metres	1,146	1,000	3	..	..	..	..	..
Overseas—								
Tonnes	1,579	1,568	1,451	1,167	244	94	82	135
Cubic metres	3,788	3,511	28	6	3	..	..	..
SHIPPED								
Interstate—								
Tonnes	1,280	997	833	897	..	19	7,899	7,930
Cubic metres	1,331	1,151	..	..	..	..	13	..
Overseas—								
Tonnes	1,818	2,115	1,732	2,060	121	259	1,573	1,615
Cubic metres	1,001	714	43	3	..	1	..	..

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

Geographic trade area of origin or consignment	1973-74		1974-75		1975-76	
	Discharged	Shipped	Discharged	Shipped	Discharged	Shipped
North America and Hawaiian Islands—						
Tonnes	621,147	225,422	500,608	356,370	359,357	422,722
Cubic metres	680,067	90,540	698,271	85,248	623,694	117,428
South America—						
Tonnes	2,669	125,016	1,093	56,326	1,990	47,858
Cubic metres	601	2,044	7,635	32,377	4,869	11,420
Europe (incl. U.S.S.R.)—						
Tonnes	401,680	437,475	244,479	547,457	170,067	911,435
Cubic metres	1,241,105	240,471	1,483,153	189,065	1,230,806	166,918
Africa—						
Tonnes	82,965	166,120	55,362	267,810	54,958	331,678
Cubic metres	44,112	53,041	29,887	48,244	39,636	22,752
Asia—						
Tonnes	2,878,897	2,948,391	1,907,864	3,100,128	1,789,619	3,417,497
Cubic metres	1,441,451	469,045	1,476,956	449,272	1,574,303	313,544
Papua New Guinea, New Zealand, and Pacific Islands—						
Tonnes	517,445	962,358	431,488	916,484	466,722	917,822
Cubic metres	268,320	380,731	122,099	238,255	39,013	80,106
Indian Ocean Islands and Antarctic area—						
Tonnes	190,750	1,160	214,504	222	121,142	6
Cubic metres	9	185	1,123	940	3,890	6,313
Total—Tonnes	4,695,553	4,865,942	3,355,398	5,244,797	2,963,855	6,049,018
Cubic metres	3,675,665	1,236,057	3,819,124	1,043,401	3,516,211	718,481

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

Vessels registered at ports in—	1974-75				1975-76			
	Discharged		Shipped		Discharged		Shipped	
	tonnes	cubic metres	tonnes	cubic metres	tonnes	cubic metres	tonnes	cubic metres
Australia	16	202	47	75	102	309	98	58
Denmark	115	103	19	16	46	74	60	19
France	4	56	16	21	7	52	18	7
Germany, Federal Republic of	192	294	148	63	103	204	103	81
Greece	51	48	338	5	176	39	463	1
Italy	44	79	33	22	42	56	37	8
Japan	370	664	455	97	374	643	510	70
Liberia	334	60	569	2	255	98	803	11
Netherlands	115	142	333	47	172	109	382	42
Antilles (Netherlands)	236	11	13	13	121	13	11	6
New Zealand	70	98	46	152	175	12	128	10
Norway	384	233	204	35	150	196	248	25
Panama	82	99	958	15	104	110	872	9
Singapore	30	55	120	76	69	38	64	34
Sweden	24	159	93	74	43	141	88	41
United Kingdom	1,103	1,120	1,070	191	741	977	1,011	187
United States of America	46	171	58	21	37	162	56	20
U.S.S.R.	25	43	132	15	54	275	5	5
Other	114	182	593	118	231	229	822	84
Total	3,355	3,819	5,245	1,043	2,963	3,516	6,049	718

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 reference, 1977; Lighthouses, 1964; Principal ports of Victoria, 1965; Australian Shipbuilding Board, 1975

Port Phillip Sea Pilots

Forty-one 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 1966-67 to 1975-76. 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
1966-67	4,606	142	1971-72	3,941	567
1967-68	4,481	127	1972-73	3,921	560
1968-69	4,388	171	1973-74	3,903	644
1969-70	4,433	377	1974-75	4,117	665
1970-71	4,322	541	1975-76	3,778	744

Further reference, 1977

Melbourne Harbor Trust

Administration

The Melbourne Harbor Trust Commissioners is a financially independent, corporate body operating under the provisions of the *Melbourne Harbor Trust Act* 1958 and amendments. The land and waters of the 27½ 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 commissioners who, in accordance with the Act must be associated with various port activities, i.e., shipping, primary production, imports, exports, and labour.

The Melbourne Harbor Trust Commissioners is both the Port authority and the conservancy authority of the Port of Melbourne. The Trust 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 1977 the Port handled a volume of 17.67 million tonnes of import, export, and transshipment cargo. This volume was handled by coastal and overseas shipping which paid 2,496 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 twelve months ended 30 June 1977 the Port handled 3.64 million tonnes of bulk cargo, and 14.03 million tonnes of general cargo including empty returns; 8 million tonnes of general cargo was carried in 425,843 containers.

Roll-on roll-off facilities

The Melbourne Harbor Trust from the late 1950s 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 four-berth container complex, and the roll-on roll-off complex at Webb Dock. During 1976 construction work was commenced at Swanson Dock on a further two berths. In 1977 modernisation of berths 16 to 21 Victoria Dock to accommodate modern cargo handling requirements was 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 Trust'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 spend 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 1977 the Trust had approximately \$167m invested in port assets. Capital works are financed out of revenue and out of loans, which are raised and financed by the Trust itself and guaranteed by the Victorian Government. The Trust 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 Melbourne Harbor Trust for the years 1972 to 1977:

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

Particulars	1972	1 Jan. 1973 –30 June 1974 (a)	1974–75	1975–76	1976–77
REVENUE					
Wharfage and tonnage rates	9,397	18,187	14,124	18,192	20,567
Rent of sheds	652	1,030	639	518	502
Special berth charges	319	522	439	324	331
Rent of lands	2,492	4,545	3,555	4,396	4,561
Crane fees	1,320	3,049	2,547	2,191	2,383
Other	1,298	2,782	2,852	2,297	2,752
Total revenue	15,478	30,115	24,156	27,918	31,096
EXPENDITURE AND APPROPRIATIONS					
Administration and general expenses	1,626	2,286	2,156	2,222	3,199
Port operating expenses	4,258	7,138	6,825	7,127	7,547
Maintenance—					
Dredging	1,410	2,149	1,663	1,554	2,836
Harbour	185	315	300	320	298
Wharves	898	1,398	1,204	1,466	1,554
Approaches	203	337	323	383	439
Railways	70	93	93	96	118
Cargo handling equipment	387	838	865	1,087	1,240
Other properties	46	195	116	117	119
Interest	2,506	4,118	3,088	3,715	4,195
Depreciation and renewals	2,745	5,494	4,399	4,844	5,440
Insurance	122	254	250	330	507
Sinking fund	..	1,350	650	1,000	1,000
General reserve	..	2,000	1,000	2,300	1,000
Payments to Consolidated Fund	1,486	1,470	916	1,117	1,250
Other	..	..	52	1	1
Total expenditure and appropriations	15,942	29,435	23,900	27,679	30,743
CAPITAL OUTLAY					
Land and property	336	539	6,444	1,327	629
Reclamation	195	1,250	1,241	513	393
Deepening waterways	1,013	3,710	2,881	3,095	4,896
Wharves and sheds construction	1,660	4,930	5,222	3,914	4,262
Cargo handling equipment	704	237	239	1,618	409
Approaches construction	638	492	699	427	267
Floating plant	47	545	1,765	3,901	2,038
Other works, etc.	594	692	443	1,072	1,568
Total capital outlay	5,187	12,395	18,934	15,867	14,462
Loan indebtedness at end of period	45,644	48,051	51,060	56,018	61,303

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

Further reference, 1977; Changing trends in port development, 1968; Port facilities, 1969; Port emergency service, 1970; Advent of new cargo pattern, 1971; New cargo handling era, 1974; Forward Development Plan, 1975; Co-ordinated port development plan, 1975

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 of 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 1972 to 1976:

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

Particulars	1972	1973	1974	1975	1976
REVENUE					
Wharfage, tonnage, and special berth rates	2,050	2,096	2,175	2,169	2,195
Shipping services	773	1,100	1,512	1,233	1,852
Rents, fees, and licences	132	136	145	158	185
Freezing works and abattoirs	95	150	171	179	191
Other	50	22	17	26	31
Total revenue	3,100	3,504	4,020	3,765	4,454
EXPENDITURE AND APPROPRIATIONS					
Management expenses	745	985	1,324	1,488	1,588
Shipping services	839	992	1,383	1,541	1,524
Maintenance—					
Wharves and approaches	147	186	207	229	296
Harbour	146	162	177	213	309
Floating plant	23	32	36	53	71
Other	33	41	58	71	64
Interest on loans	310	263	210	156	151
Sinking fund	49	48	31	29	26
Depreciation provision	873	892	913	905	906
Other	24	25	11	33	193
Total expenditure and appropriations	3,189	3,626	4,350	4,718	5,128
CAPITAL OUTLAY (NET)					
Floating plant	3	4	..	..	..
Land and property	171	140	46	75	55
Wharves and approaches	178	103	124	18	9
Other	19	..	111	91	38
Total capital outlay	371	247	281	184	102
LOAN INDEBTEDNESS AT 31 DECEMBER					
Victorian Government	67	67	33	..	..
Public	4,865	4,763	3,110	2,611	2,560
Total loan indebtedness	4,932	4,830	3,143	2,611	2,560

Further reference, 1977

Portland Harbor Trust

Situated on the south-west coast of Victoria, the Port of Portland is administered by a board of three commissioners and serves an area of more than 103,000 square kilometres of western Victoria and the south-east of South Australia. The Port is within a few kilometres of main shipping routes with deep-water approaches right to the entrance of the harbour basin.

During 1975–76 the construction of the Port's new cargo berth began and several important new trades with future growth potential were established. These contributed to overall results as they accounted for approximately one-third of the number of vessels berthed. Within this category were imports of sulphuric acid and paper pulp, while export traffic involved twelve bulk tallow tankers and five livestock vessels. Exports of bulk barley and bagged rice from the Riverina



The proposed 5.6 hectare World Trade Harbor Trust site at Melbourne. This location has been a part of the Melbourne Harbor Trust since 1877.
The Melbourne Harbor Trust Commission



Bridge works nearing completion on the West Gate bridge site, December 1977.
West Gate Bridge Authority



A dramatic aerial photograph of the West Gate bridge showing construction on the 336 metre main river span, December 1977.

West Gate Bridge Authority



The bucket dredge *A. S. Mayne* at work in the River Yarra channel in the Port of Melbourne.

The Melbourne Harbor Trust Commission

district of New South Wales during the latter part of the year indicate the growing influence of the Port throughout areas of its huge hinterland.

Forward planning to provide a depth of 12.2 metres alongside No. 1 berth enabled a number of large bulk carriers that were incapable of being fully laden with wheat at the Geelong terminal to be diverted to Portland to fill their holds.

The overall tonnage handled throughout Victoria in 1975-76 increased by 10.62 per cent to 644,835 tonnes. Of the total, new trades accounted for 74,000 tonnes. Cargo statistics show that although export trade increased by 121,353 tonnes (73.9 per cent), imports decreased by 59,439 tonnes (14.1 per cent). The latter was attributable mainly to the depressed rural economy and a decline in the tonnage of raw materials landed for fertiliser manufacture.

The following table shows particulars of the financial operations of the Portland Harbor Trust for the years 1971-72 to 1975-76:

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

Particulars	1971-72	1972-73	1973-74	1974-75	1975-76
REVENUE					
Wharfage rates	323	285	347	288	290
Tonnage rates	59	41	37	48	49
Shipping services	287	227	209	225	275
Victorian Government grant	580	785	1,314	974	1,384
Grain terminal	559	236	265	417	760
Cold store operations	33	32	18	51	7
Other	92	78	122	87	83
Total revenue	1,933	1,684	2,312	2,090	2,848
EXPENDITURE AND APPROPRIATIONS					
Administration	165	183	233	298	340
Maintenance	111	133	120	167	164
Shipping services	214	221	290	300	409
Depreciation	43	52	52	52	53
Interest on loans	1,021	1,055	1,123	1,220	1,305
Sinking fund	52	53	51	54	55
Loan redemption	86	87	93	98	103
Grain terminal (excl. depreciation)	268	163	179	196	343
Cold store operations	20	25	16	35	16
Total expenditure and appropriations	1,980	1,972	2,157	2,420	2,788
CAPITAL OUTLAY					
Port rail system	3	23	97	..	..
Road works	..	..	..	156	30
Reclamation	7	6	7	208	39
Grain terminal	69	253	114	2	46
Deepening waterways	49	61	1	72	77
Wharves and sheds	188	32	69	199	441
Breakwater construction	..	..	60	4	..
Floating plant	57	358	44	..	..
Other	175	68	123	53	148
Total capital outlay	548	801	515	694	781
LOAN INDEBTEDNESS AT 30 JUNE					
Victorian Government	3,673	3,673	3,673	3,673	3,673
Public	17,502	18,055	18,612	19,114	19,711
Total loan indebtedness	21,175	21,728	22,285	22,787	23,384

Further reference, 1977

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, respectively, in the northern and western arms. 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 1972-73 to 1976-77:

VICTORIA—WESTERN PORT: PORT TRAFFIC

Year	Petroleum products		Steel and cars		General cargo	
	Tankers	Tonnes	Vessels	Tonnes	Vessels	Tonnes
1972-73	318	'000 9,587	22	'000 54	34	19
1973-74	247	10,500	88	497	..	..
1974-75	329	10,128	68	461	4	1
1975-76	380	10,647	60	465	..	..
1976-77	376	11,165	81	572	..	..

Further reference, 1977

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 the following:

- (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, aerial work, and charter 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.

Aerodromes

Victoria is served by eight Commonwealth Government-owned aerodromes at Melbourne (International), Essendon, Moorabbin, Avalon, Bacchus Marsh, Mallacoota, Mangalore, and Sale and by twenty-seven licensed aerodromes at Ararat, Bairnsdale, Ballarat, Benalla, 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 the licensed aerodromes except Whittlesea are held by the relevant local government authority. Under the aerodrome local ownership plan assistance is given to local authorities to maintain licensed aerodromes on a \$1 for \$1 basis. 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 in the year ended 30 June 1977 was \$102,384 for development and \$148,729 for maintenance works.

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

Private operations

In this category, aircraft are used for the personal purposes of the owner. The extent of this activity within Victoria may be gauged from the fact that there were 664 aircraft registered in the private category and approximately 4,000 licensed private aeroplane pilots in Victoria at 30 June 1977.

Aerial work operations

Aerial survey, spotting, agricultural operations, advertising, flying training, aerial ambulance operations, and aerial photography are examples of the operations included in this category. In terms of hours flown, the most significant operations are agricultural and flying training. To 31 December 1976 over 80,000 training hours were flown by training organisations in Victoria.

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 31 December 1976 there were 102 Victorian based operators licensed to conduct charter operations. To 31 December 1976 over 42,000 hours were flown by these organisations.

Commuter services

Since the Second World War country or feeder air services within Victoria have commenced on different occasions but ceased when they proved to be uneconomic. In 1966 the Commonwealth Government decided a new attempt should be made to provide this type of air service between Melbourne and many 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 Victorian 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 1977, Victorian commuter services of the type in question were operating between the following centres on a regular basis: Essendon—Sale—Bairnsdale—Canberra, Essendon—Warracknabeal—Horsham, Essendon—Warrnambool—Portland—Hobart, Melbourne—Bendigo—Swan Hill, and Essendon—Flinders Island.

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 could not be further enlarged. The completed aerodrome is 20 kilometres from the G.P.O., Melbourne and 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 mm 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 km/h. 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 1976 were as follows:

**VICTORIA—DOMESTIC PASSENGER MOVEMENTS
ON REGULAR AIR SERVICES**

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

The following table shows particulars for 1975 and 1976 of regular interstate and intrastate air services terminating in Victoria :

**VICTORIA—REGULAR INTERSTATE AND INTRASTATE
AIR SERVICES TERMINATING IN VICTORIA**

Particulars		Interstate		Intrastate		Total	
		1975	1976	1975	1976	1975	1976
Kilometres flown	'000	54,692	48,687	351	342	55,043	49,029
Passenger kilometres	'000	3,437,328	3,238,762	9,141	8,603	3,446,469	3,247,365
Freight—							
Tonnes		56,967	60,697	40	41	57,007	60,738
Tonne kilometres	'000	45,756	46,511	28	18	45,784	46,529
Mail—							
Tonnes		4,311	4,198	11	12	4,322	4,210
Tonne kilometres	'000	3,633	3,448	5	6	3,638	3,454

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

VICTORIA—AIRCRAFT REGISTERED AND LICENCES ISSUED

Particulars	1972	1973	1974	1975	1976
Registered aircraft owners	528	504	658	647	900
Registered aircraft	817	891	1,012	1,015	1,240
Student pilot licences	2,751	2,963	2,910	3,005	3,756
Private pilot licences	3,484	3,615	3,737	3,747	3,948
Commercial pilot licences	844	850	862	892	851
Airline pilot licences	888	963	1,057	1,085	1,131
Aircraft maintenance engineer licences	1,040	1,121	1,134	1,100	1,216

VICTORIA—MELBOURNE (TULLAMARINE) AIRPORT

Particulars	1972	1973	1974	1975	1976
Domestic aircraft movements	59,985	67,517	72,037	71,993	68,473
Domestic passengers embarked	1,474,973	1,798,331	1,994,115	2,068,415	2,065,897
Domestic passengers disembarked	1,474,664	1,783,826	1,996,732	2,068,923	2,063,022
International aircraft movements	5,757	6,117	6,389	7,278	7,528
Passengers arriving/departing overseas	280,235	587,976	465,642	551,626	653,529

Civil aircraft manufacture

The major proportion of the aircraft manufacturing industry in Australia is located in Victoria and centred mainly in the Melbourne area.

One hundred and twenty-eight organisations in Victoria have been approved by the Commonwealth Department of Transport, after inspection by airworthiness officers, to manufacture aircraft parts. Many of these organisations are small, and aircraft manufacture is a minor part of their normal activities. The total is made up of a number of aircraft maintenance firms which occasionally fabricate small components and replacement parts.

A significant activity is also carried out by a number of specialist manufacturers who are engaged in the supply of items such as wheels, tyres, brakes, aircraft safety equipment, fuel tanks, and controls. For example, one company manufactures aircraft tyres ranging in size to suit aircraft from small two-seat trainers to four-engined jet transports.

The standards necessary for the civil aviation industry are maintained by the Commonwealth Department of Transport, which requires that an organisation has approved design data, adequate facilities, and skilled staff to engage in the activity. This is followed up by a system of inspections at regular intervals by the Department's airworthiness staff to ensure that these standards are maintained.

Many of the larger organisations are also engaged in the manufacture of military aircraft and components, and this activity is carried out under a separate system of control.

The Commonwealth Aircraft Corporation Limited employs 1,650 persons and is one of the three major components of the Australian Aerospace manufacturing industry.

The Government Aircraft Factories at Fishermens Bend and Avalon are a division of the Commonwealth Department of Productivity. The most significant civil aircraft manufacturing project for many years has been the Government Aircraft Factories' "Nomad" light utility transport.

Further information about the manufacture of the "Nomad" is found on page 689 of the *Victorian Year Book* 1977.

Total production authorised to date has been 120 aircraft and sales total 66. These include 12 for the Philippines Air Force, 12 for the Indonesian Defence Forces, 11 for the Australian Army, 6 for the Northern Territory Medical Service, and 3 for the Papua New Guinea Defence Force. Sales have also been made to P.N.G. civil operators.

The type certification for the N22B variant to FAR Part 23 standards was received from the United States Federal Aviation Administration (FAA) in May 1977. Action is now in hand to certify both N22B and N24A variants for regular passenger transport standards in Australia and the U.S. This will be followed by applications to the U.K. Civil Airworthiness Authority who have already evaluated the aircraft, and also to other European Authorities.

The "Nomad" project uses the services of a number of Victorian firms for sub-contract work to the Government Aircraft Factories.

Further reference, 1977; History of civil aviation, 1962; Classification of flying activities, 1964; Radio aids to air navigation in Victoria, 1965; Aerial agricultural operations, 1966; Flying training in Victoria, 1967; Regular public transport, 1968; Commuter services, 1969; Radar development in the Melbourne area, 1971; Aerodrome local ownership plan, 1974; Use of radar in air traffic control, 1975

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