

CHAPTER 12

TRANSPORT AND COMMUNICATION

The statistics in this chapter relate in the main to the year 1974–75, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Rail, Bus and Air Transport* (14.21), *Public Authority Finance—Federal Authorities* (5.12), and in the annual mimeographed statement *Motor Vehicle Registrations* (14.1). Current information on subjects dealt with in this chapter appears in the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5), *Overseas and Coastal Shipping* (annual) (14.10), *Motor Vehicle Registrations* (quarterly) (14.2), one preliminary monthly statement *Registration of New Motor Vehicles* (14.6), two quarterly bulletins *Road Traffic Accidents involving Casualties* (14.9), (14.14), *Road Accident Fatalities* (monthly) (14.13).

Information additional to that contained in Bureau publications is available in the annual reports and other statements of the Department of Transport, the various harbour boards and trusts, the several Government railway authorities, the Australian Postal Commission, the Australian Telecommunications Commission, the Australian Broadcasting Control Board, and the Australian Broadcasting Commission.

THE AUSTRALIAN TRANSPORT ADVISORY COUNCIL

In April 1946, the State and Commonwealth Governments agreed to establish a co-ordinating and advisory committee at Ministerial level to review annually the various laws and regulations deemed necessary to safeguard the interests of the State Governments and road users generally and to consider matters of transport policy.

The Australian Transport Advisory Council (A.T.A.C.) thus established is comprised of the Commonwealth Minister for Transport as Chairman, the Minister for the Capital Territory and Minister for the Northern Territory and each State Minister for Transport.

The Council primarily considers policy matters relating to transport operations, co-ordination and development. Its functions are: to initiate discussion and report to the respective Governments as necessary on any matter raised by the Council, or any State or Commonwealth Government Authority; generally to exercise its purely advisory functions, and to report as necessary to the respective Governments concerned on any matter which will tend to promote a better co-ordination of transport development, while at the same time encouraging modernisation and innovation to meet changing needs; and to assist in maintaining continuous and comprehensive research in relation to transport development in Australia and abroad; such research to be carried out for the benefit of Australian Transport authorities and agencies.

The regulation of and the executive responsibility for transport is shared between the Commonwealth and State Governments. A.T.A.C. is the meeting ground at a Ministerial level and provides an effective means for inviting discussion and reaching uniformity of approach towards transport administrative procedures and policy. It also provides a means for reviewing and discussing national solutions of transport problems and the rectification of transport deficiencies generally. The Council has been active in: the establishment of special committees and conferences to examine and report on specific problems such as road safety, motor vehicle standards and safety features, motor vehicle emissions, transport economic research, highway planning, level crossing accidents, blood tests for road users, driver improvement, pedestrian behaviour, etc.; the exchange of views and formulation of common policies on a wide range of transport matters; effecting at ministerial level Commonwealth-State and interstate co-operation on such matters as construction and operation of interstate railway links, collecting of fines and fees interstate, policing of regulations, etc.; and the publication of comprehensive surveys of Australian transport.

Typical of matters A.T.A.C. has examined from time to time are the following: the effect of standardisation of railway gauges on other modes of transport; advanced national policies of road development and research; transport in relation to interstate tourist traffic; standardisation of traffic signs and road signs; standard and improved statistical data relating to transport of passengers and goods; uniform road traffic laws and standards for motor vehicle design and equipment; control of emissions from motor vehicles; pipelines as a transport medium; and containerisation and the need for uniform legislation, particularly in relation to maximum weights of road vehicles.

Details of the advisory committees established at February 1973 by the Transport Advisory Council are given in Year Book No. 59, pages 330-1.

SHIPPING

Control of shipping

Commonwealth Government navigation and shipping legislation

For an outline of the development and scope of Commonwealth Government legislation, see Year Book No. 55, pages 366-7.

Commonwealth Government Acts concerned with shipping are: the *Navigation Act* 1912, the *Sea Carriage of Goods Act* 1924, the *Seamen's Compensation Act* 1911, the *Seamen's War Pensions and Allowances Act* 1940, the *Pollution of the Sea by Oil Act* 1960, the *Pollution (Shipping Levy) Act* 1972, the *Pollution (Shipping Levy Collection) Act* 1972, the *Australian Shipping Commission Act* 1956, the *Australian Coastal Shipping Agreement Act* 1956, the *Stevedoring Industry Act* 1956, the *Beaches, Fishing Grounds and Sea Routes Protection Act* 1932, the *Submarine Cables and Pipelines Protection Act* 1963, the *Lighthouses Act* 1911, the *Explosives Act* 1961, the *Inter-State Commission Act* 1975, the *King Island Harbour Agreement Act* 1973, the *King Island Shipping Service Agreement Act* 1974 and the *Ship Construction Bounty Act* 1975.

Australian Shipping Commission

The Commission was established by the *Australian Coastal Shipping Commission Act* 1956. The Commission's role is to establish, maintain and operate interstate, overseas and territorial shipping services. In October 1974 when the Act was amended the title was changed to the Australian Shipping Commission to reflect the increasing importance of overseas trading activities. As at 31 December 1975 the Commission, operating as the Australian National Line, owned and/or operated a fleet of 34 vessels.

The fleet includes seven vessels engaged in overseas trading; five vehicle deck cargo ships, *Australian Emblem* 23,481 tonnes deadweight, *Australian Escort* 23,481 tonnes deadweight, *Australian Enterprise* 14,308 tonnes deadweight, *Australian Explorer* 14,151 tonnes deadweight and *Allunga* 20,626 tonnes deadweight; and two cellular container ships *Australian Endeavour* 26,844 tonnes deadweight and *Australian Exporter* 26,515 tonnes deadweight. The coastal fleet of 27 vessels includes two vehicle deck passenger ships, *Empress of Australia* 2,725 tonnes deadweight and *Australian Trader* 3,479 tonnes deadweight; six vehicle deck cargo ships totalling 35,175 tonnes deadweight; one container/bulkship of 12,093 tonnes deadweight in the Darwin trade; two bulk carriers in the 100,000 tonnes deadweight class; four bulk carriers in the 50-100,000 tonnes deadweight class; eleven other bulk carriers each less than 50,000 tonnes deadweight totalling 132,941 tonnes deadweight; and one 3,261 tonnes deadweight cellular container ship.

The Line has two 25,000 tonnes deadweight bulk carriers and one 5,500 tonnes deadweight vehicle deck (cargo ship) under construction in an Australian yard. Two 121,000 and two 139,000 tonnes deadweight bulk carriers, and one 29,000 tonnes deadweight cellular container vessel are also under construction in overseas yards.

The Line operates specialised terminals at Adelaide, Melbourne, Geelong, Burnie, Devonport, Bell Bay, Hobart, Sydney, Port Kembla, Brisbane, Rockhampton (Port Alma), Mackay, Townsville, Cairns and Darwin.

The vehicular passenger ships *Empress of Australia* and *Australian Trader* carry passengers between the mainland and Tasmania. In the year ended 30 June 1974 they carried 128,940 passengers and the year ended 30 June 1975 a record 133,591 passengers. During the same periods 9.3 and 10.4 million tonnes of cargo respectively, were carried by Australian National Line vessels.

Australian Shipbuilding Board

Advice to the Minister on the shipbuilding industry, including recommendations on bounty for each particular shipbuilding proposal, is provided by the Australian Shipbuilding Board. This Board has a membership of six including a representative of the Naval Board and of the Trade Union movement.

To 31 December 1975, 329 vessels valued at approximately \$734 million had been completed by Australian shipyards. Seventy-two of the vessels (ranging from customs launches to survey and research vessels, landing craft and lighthouse supply vessels, were built for the Commonwealth Government. The remaining 257 were built under the Commonwealth's subsidy scheme for other ship owners, including the Australian National Line.

Three major Australian shipyards are building merchant vessels—one in South Australia, and two in New South Wales; two other shipyards are engaged principally in naval shipbuilding—one in New South Wales and one in Victoria. There are numerous smaller yards building fishing vessels and other small craft and many builders of wooden commercial and pleasure boats.

Shipbuilding Assistance

The shipbuilding industry in Australia has been given Government assistance since the introduction of the shipbuilding subsidy scheme in 1947. The level of maximum subsidy has been determined by the Government on the basis of enquiries into the industry by the former Tariff Board now the Industries Assistance Commission. These enquiries have been held in 1954, 1959, 1963, and 1969.

Present policy is given effect by the *Ship Construction Bounty Act 1975*. Assistance is by way of a bounty at a fixed percentage dependant upon the size of the vessel and for maximum bounty, the date upon which construction was commenced in the shipyard. This rate is applied to the lowest acceptable Australian tender received as a result of public calling of tenders with appropriate deductions applied for items ineligible for bounty. Under the policy Australian owners may seek approval to import ships when overseas prices are less than the bounty-paid Australian price.

Vessels eligible for the bounty are fishing vessels of 21 metres length and above and other vessels of 150 tons Gross (Construction) Tonnage and above. For the smallest vessels bounty is at 25 per cent; this rising at 2½ per cent per 1,000 tons gross to the maximum. The maximum in 1976 is 35 per cent. This diminishes to a long-term rate of 25 per cent for vessels commenced in 1981. The policy and administration of the policy on shipbuilding assistance is the responsibility of the Minister for Industry and Commerce.

Australian Stevedoring Industry Authority

In June 1949 legislation was enacted to abolish the Stevedoring Industry Commission, on which employers and employees were represented, and establish in its place a Stevedoring Industry Board of three members, to attend to administrative matters formerly under the control of the Commission. The industrial functions which previously came within the province of the Commission were assigned to a single Judge of the Commonwealth Court of Conciliation and Arbitration. In August 1956, the Stevedoring Industry Board was replaced by the Australian Stevedoring Industry Authority of three members, including a representative of the management side of industry and a representative of the trade union movement. At the same time the judicial and non-judicial functions formerly exercised by the Commonwealth Court of Conciliation and Arbitration were divided between the Commonwealth Industrial Court and the Commonwealth Conciliation and Arbitration Commission respectively. Awards of the Conciliation and Arbitration Commission subsequently placed payment of sick pay, public holiday pay and annual leave under the administration of the Authority. Under amending legislation, which operated from 6 June 1961, the Authority became responsible for payment of long service leave to registered waterside workers, and its disciplinary powers were strengthened to reduce the time lost through unauthorised stoppages. Further amending legislation which operated from 8 October 1965 made the Authority responsible for the recruitment of waterside workers. In July 1970, by legislative amendment, the management and union positions on the Authority were abolished. The functions of the Authority are now exercised by one full-time Director.

Following adoption of the General Report of the National Stevedoring Industry conference of April 1967, the *Stevedoring Industry (Temporary Provisions) Act 1967* provided for permanent employment of registered waterside workers. This was introduced in Sydney in November 1967 and has since been extended to all the principal ports. Arrangements for a permanent labour force in small ports throughout Australia was introduced into Darwin in November 1974 and into Northern Tasmanian ports and the port of Hobart in November 1975 and January 1976 respectively. Operation of the *Stevedoring Industry (Temporary Provisions) Act*, initially for a period of three years, was extended in 1970, 1972, 1973 and 1974 and is currently due to expire on 30 June 1976.

In July 1970 the National Stevedoring Industry Conference was given a statutory basis and redesignated the Stevedoring Industry Council. The Council is constituted along the same lines as the National Stevedoring Industry Conference. Its functions are primarily to advise the Minister for Employment and Industrial Relations on the operation of the existing employment arrangements, the development of new employment schemes and such other matters as the Minister might refer to it. It is also required to endeavour to bring about amicable agreement in relation to industrial questions in the industry.

The statutory provisions relating to the industry are now contained in the *Stevedoring Industry Act 1956*, the *Stevedoring Industry Act 1965*, the *Stevedoring Industry (Temporary Provisions) Act 1967*, the *Stevedoring Industry Charge Act 1947*, the *Stevedoring Industry Charge Assessment Act 1947* and Division 4 of Part III of the *Conciliation and Arbitration Act 1904*.

Trade Practices Act 1974 (Part X—Overseas Cargo Shipping)

The Overseas Cargo Shipping provisions of the Trade Practices Act are administered by the Minister for Transport.

The principal object of the Overseas Cargo Shipping provisions is the control of the operations of shipping conferences (associations into which shipowners have traditionally combined) and of individual shipowners in relation to the carriage of goods by sea from Australia to other countries. To achieve that object the provisions are designed to facilitate negotiations between shipowners and 'The Australian Shippers' Council', an association, designated under the Act by the Minister, that represents the interests of shippers and producers of goods exported from Australia.

Regarding shipping conferences, the provisions require certain agreements of a specified character between shipowners operating in the outward trades from Australia to be filed with the Clerk of Shipping Agreements. A shipowner who is a party to such an agreement may be requested, by the Minister, to give to the Minister an undertaking to negotiate with the Council with regard to the arrangements for, and the terms and conditions that are applicable to, cargo shipping to which the agreement relates. Whether such a shipowner has failed so to negotiate or whether the services provided pursuant to the agreement are adequate, efficient or economical, are matters that may be referred by the Minister for enquiry and report by the Trade Practices Tribunal. Certain powers are vested in the Governor-General to disapprove the agreement after consideration of a report by the Tribunal to the Minister. A probable effect of such a disapproval would be to force a shipowner party to the agreement to carry on its business in the absence of any agreement with other shipowners. The Governor-General may, however, in his discretion approve such a shipowner entering into another agreement.

Provisions, similar to the provisions in respect of shipping conferences, apply in respect of individual shipowners. In addition, an individual shipowner may, as a result of a declaration by the Governor-General, be prohibited from engaging in certain specified activities in carrying on its business, for example engaging in freight cutting with the object of substantially damaging the business of another shipowner.

The provisions also protect the rights of efficient Australian flag operators to participate to a reasonable extent in overseas cargo shipping.

Maritime Industry Commission of Inquiry

The Commission was established in September 1973 with the following terms of reference:

To ensure that the development of the Australian maritime industry proceeds in harmony with the overall transportation policies and general economic and social aims of the Government and that that development should have full regard to the encouragement of the best use of manpower resources, the application of modern technological developments and the promotion of safe and efficient working operations.

To inquire into, and report upon, all matters related to the development of the Australian maritime industry, so far as they are matters connected with the peace, order and good government of the Commonwealth and are relevant to the exercise and performance of the powers of the Australian Parliament or the performance of the functions of the Australian Government, and to make recommendations for a comprehensive framework for the long-term development of that industry, having regard to the foregoing objectives and the best overseas' policies and practices and recommendations for the specific programs of action required to achieve those objectives.

The inquiry and recommendations shall include, in addition to all other relevant matters, the following specific matters, namely:

- the need for revision and modernisation of existing legislation;
- the most appropriate administrative and organisational arrangements for the exercise of operational and safety policies, standards and controls over the maritime industry;
- the significance of international treaties, conventions and agreements for the industry, and the need for Australian initiatives in relation thereto;
- a desirable program for modernisation and extension of navigational aid systems;
- the adequacy of existing port and associated facilities and their future development requirements, having regard to such factors as location, capacity and user needs, and the requirements of interstate and international trade and commerce; and
- the training requirements of the industry, including the establishment of an Australian Merchant Marine College.

The Commission completed its work in June 1976, having submitted seven reports as follows:
Report on the Training Requirements of Sea-going Personnel, May 1974;
Report on Navigational Aid Systems, November 1974;
Report on Adequacy of Australia's Ports, February 1976;
Report on Australian Maritime Legislation, June 1976;
Report on Maritime Standards and Controls, June 1976;
Report on International Maritime Conventions, June 1976; and
Report on The Future of the Australian Maritime Industry, June 1976.

Collection and presentation of statistics

Basic documents

From 1 July 1966 shipping statistics have been compiled by the Australian Bureau of Statistics from returns submitted by shipping companies or their representatives to Customs Houses at the various seaports throughout Australia. A return is required for the departure of a vessel from a port as well as for its arrival at that port.

Scope of the statistics

Arrivals and departures of vessels are treated separately in shipping statistics. Not all vessels are included in the statistics as returns are not required for (i) naval vessels; (ii) yachts and other craft used for pleasure; (iii) foreign fishing vessels that neither load nor discharge cargo; (iv) Australian registered fishing vessels operating from Australian ports; (v) geographical survey vessels, seismic survey vessels, oceanographic survey vessels; (vi) offshore oil drilling rigs and vessels servicing them; (vii) vessels of 200 registered net tons and under.

Period covered by the statistics

Monthly shipping statistics relate to vessels arriving at and departing from each port in a calendar month. Annual statistics are published on a financial year basis.

Statistics of vessels

Statistics of vessels are compiled in terms of registered net tonnages. Net tonnage is expressed in units of 100 cubic feet (i.e. 100 cu ft equals 1 ton) and represents the volume of enclosed space which can be utilised for cargo or passengers.

Statistics of vessel movements

Returns show the last or next port of call of a vessel according to whether an arrival or departure at a port is being reported. Each vessel is classified to either the overseas or the coastal fleets serving Australia. This information, supplemented by the voyage of the vessel indicated by ports it visits to load or discharge cargo, is the basis on which each vessel movement is allocated to one of the following classifications: overseas direct; overseas via other States; interstate direct; interstate via ports in the same State; intrastate.

Cargo loaded or discharged

Returns for arrivals show cargo discharged, and for departures cargo loaded, in terms of tonnes or cubic metres, depending on the basis on which freight is charged.

Type of service

Overseas shipping cargo statistics are classified by type of service. Coastal shipping cargo statistics, on the other hand, combine all service types.

For overseas shipping, cargo shipped in liners is shown separately from cargo shipped in tramps, bulkships and tankers. A liner is a vessel which, on the voyage on which cargo is loaded or discharged at an Australian port, is operated to provide services on a specified route on a relatively regular basis.

Statistics of cargo shipped in liner services do not necessarily provide a measure of cargo carried by ships operating under shipping conference arrangements. For example, liner services may be provided by shipping companies which are not parties to conference agreements. Cargo may also be shipped under shipping conference conditions in vessels operating on a voyage charter basis for specific cargo, and, in the statistics, such cargo is classified as cargo shipped in tramp vessels.

Country of loading or discharge of overseas cargo

In statistics of overseas shipping cargo, country of loading or discharge of cargo is the country of location of the port where the cargo was loaded on to, or is to be discharged from, a reporting vessel. The countries shown are not necessarily the countries of origin or ultimate destination of

cargo because previous or subsequent transshipments of cargo are not taken into account. The statistics of cargo classified by the country in which it was loaded or discharged cannot therefore be compared directly with statistics of overseas trade classified by country of origin or consignment.

Transshipments of cargo within Australia

The State of loading or discharge shown in the statistics is the State in which cargo is loaded onto, or discharged from, reporting vessels. Cargo loaded in a given State can therefore include cargo previously shipped interstate, while cargo discharged can include cargo which would subsequently be shipped interstate.

Units of measurement

Deadweight tonnage. A measure of the total mass (weight) of cargo, fuel, potable water, boiler feed water, ballast, stores, crew and their gear, etc. It is equal to loaded displacement tonnage less light displacement tonnage.

Gross tonnage. A measure of the enclosed internal volume of a ship and its superstructure, with certain spaces exempted. It is also an indicator of the total volumetric size of a ship.

Net tonnage. A volumetric measure consisting of the gross tonnage less the volume of non-earning spaces, e.g. master's cabin, crew accommodation, wheelhouse, galley, etc., and an allowance for machinery spaces. Volumetric measurement of ships have not yet been converted to metric.

Overseas shipping

Total movement

The following table shows the sum of the number of vessels entered and cleared direct from and to overseas countries, and the aggregate net tonnage involved.

OVERSEAS SHIPPING: VESSELS ENTERED AND CLEARED (COMBINED), AUSTRALIA^(a)

	1970-71	1971-72	1972-73	1973-74	1974-75
Number of vessels	11,054	10,886	11,278	11,844	12,395
Net tonnage '000 tons	102,219	106,636	124,659	143,148	159,577

(a) Excludes vessels of 200 net tons and under.

Particulars of the total overseas movement of shipping for each year from 1822 to 1920-21 were published in Year Book No. 15, page 507, those for each year from 1921-22 to 1950-51 in Year Book No. 40, page 97, while those for each year from 1947-48 are shown in the Statistical Summary of this Year Book.

Total overseas shipping

The following table shows, for each State and the Northern Territory, the number of vessels entered and cleared direct from and to overseas countries, and the aggregate net tonnage involved.

OVERSEAS SHIPPING: VESSELS ENTERED AND CLEARED^(a) 1974-75

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.	
Entered	number	1,598	708	1,136	321	2,049	188	184	6,184
	'000 net tons	15,394	4,877	14,320	2,535	37,855	2,664	2,668	80,313
Cleared	number	1,324	606	1,373	355	2,240	134	179	6,211
	'000 net tons	12,764	4,384	16,131	2,305	39,470	2,330	2,401	79,786

(a) Excludes vessels of 200 net tons and under.

Country of registration of overseas shipping

Particulars of overseas shipping which entered Australian ports are given in the following table according to country of registration of vessels.

OVERSEAS SHIPPING: VESSELS ENTERED DIRECT, BY COUNTRY OF REGISTRATION, AUSTRALIA(a)
(^{'000} net tons)

Country of registration of vessels				Country of registration of vessels			
	1972-73	1973-74	1974-75		1972-73	1973-74	1974-75
Australia	358	331	398	Panama	1,159	2,235	3,189
Denmark	909	884	1,022	Sweden	1,143	1,423	1,506
France	533	171	124	United Kingdom	11,246	10,828	12,263
Germany, Federal Republic of	2,022	2,377	2,575	United States of America	308	618	860
Greece	3,179	4,957	4,248	Other countries	4,289	5,078	7,061
Hong Kong	262	229	345	All countries—			
India	607	1,496	1,548	In cargo	17,736	19,558	19,764
Italy	752	913	978	Proportion of total %	28.3	27.1	24.6
Japan	19,900	20,751	22,904	In ballast	44,892	52,484	60,549
Liberia	8,044	10,077	11,876	Proportion of total %	71.7	72.9	75.4
Netherlands	1,061	1,181	1,213	Grand Total	62,628	72,042	80,313
New Zealand	328	363	289				
Norway	6,528	8,130	7,909				

(a) Excludes vessels of 200 net tons and under.

Australian registered tonnage which entered Australian ports from overseas during the year 1974-1975 represented 0.50 per cent of the total tonnage entered.

Interstate shipping

Interstate movement

Interstate direct. The following table shows the number of coastal vessels entered and the net tonnage recorded into each State and the Northern Territory from any other State during 1974-75. The statistics below are not comparable with those for years prior to 1969-70 because the method of applying the classifications 'overseas' and 'interstate' has been changed. Before July 1969 movements of overseas vessels carrying cargo between two Australian States were classified as 'interstate direct' and were, therefore, included in these statistics. Since July 1969 overseas vessels carrying cargo between two Australian States have been classified as 'overseas via States' and are, therefore, excluded from these statistics. The difference in treatment arose from the practice of classifying movements between two Australian States on the basis of port of loading and port of discharge, whereas the current method classifies these movements on the basis of whether the vessel is considered to be an overseas or a coastal one. Total interstate movements by coastal and overseas vessels are shown in *Total interstate movements* below.

INTERSTATE MOVEMENT: COASTAL VESSELS ENTERED INTERSTATE DIRECT 1974-75(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Number of vessels	1,001	1,327	303	467	246	1,161	89	4,594
Net tonnage ^{'000} tons	7,710	6,806	2,211	2,576	3,314	2,928	360	25,905

(a) Excludes vessels of 200 net tons and under.

Overseas via States. The figures in the following table show the number and aggregate net tonnage of overseas vessels entered and cleared which, having arrived at an Australian port direct from an overseas port, continue their voyages from/to overseas countries via other Australian States. The statistics in the following table are not comparable with those prior to 1 July 1969 because of the change in method of classifying some overseas vessel movements referred to under *Interstate direct*, see above.

INTERSTATE MOVEMENT: OVERSEAS VESSELS ENTERED AND CLEARED VIA OTHER AUSTRALIAN STATES, 1974-75(a)

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entered	number	1,522	1,388	1,111	702	813	352	56	5,944
	^{'000} net tons	10,627	8,933	6,986	4,221	6,174	1,644	621	39,205
Cleared	number	1,819	1,495	857	666	637	404	61	5,939
	^{'000} net tons	13,347	9,466	4,953	4,438	4,872	1,948	341	39,366

(a) Excludes vessels of 200 net tons and under.

Total interstate movement. The following table shows, for each State and the Northern Territory, the total number of vessels entered from and cleared for other States during the year 1974-75 together with the aggregate net tonnage.

**INTERSTATE MOVEMENT: TOTAL VESSELS ENTERED AND CLEARED,
STATES AND NORTHERN TERRITORY, 1974-75(a)**

		<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>Aust.</i>
Entered . . .	number	2,577	2,726	1,619	1,224	1,110	1,602	163	11,021
	'000 net tons	18,627	15,813	9,829	7,204	9,659	4,964	1,026	67,123
Cleared . . .	number	2,866	2,862	1,324	1,144	1,008	1,624	167	10,995
	'000 net tons	21,070	16,648	7,558	7,093	8,838	5,068	732	67,007

(a) Excludes vessels of 200 net tons and under.

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States, for Australia.

INTERSTATE MOVEMENT: TOTAL VESSELS ENTERED AND CLEARED, AUSTRALIA (a)

		<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>
Entered . . .	number	12,169	12,128	11,686	11,423	11,021
	'000 net tons	65,141	66,140	65,363	67,182	67,123
Cleared . . .	number	12,113	12,146	11,633	11,426	10,995
	'000 net tons	64,843	66,228	65,273	67,229	67,007

(a) Excludes vessels of 200 net tons and under.

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or intrastate services at 31 December 1975.

**AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
31 DECEMBER 1975**

(Source: Department of Transport)

<i>Vessels</i>	<i>Number</i>	<i>Deadweight tonnes</i>	<i>Gross tons</i>
Interstate vessels—			
Australian-owned, Australian-registered	64	1,066,044	726,251
Overseas-owned, Australian-registered, engaged in Australian coastal trade—			
New Zealand-owned	3	10,571	10,015
Other	5	147,116	94,044
Australian-owned, overseas-registered	2	44,045	25,056
Overseas-owned, overseas-registered, on charter, engaged in Australian coastal trade	12	687,640	375,661
Total interstate vessels	86	1,955,416	1,231,027
Intrastate vessels	20	213,715	132,923
Total coastal trading vessels	106	2,169,131	1,363,950
Overseas trading vessels—			
Australian-registered	9	172,114	138,855
Overseas-registered	5	110,148	69,319
Total overseas trading vessels	14	282,262	208,174
Total Australian trading vessels	120	2,451,393	1,572,124

Shipping at principal ports

For details of Harbour Boards and Trusts in each State see the chapter Public Finance.

The following table shows the total volume of shipping—overseas and coastal—entering the principal ports of Australia.

TOTAL SHIPPING: VESSELS ENTERED AT PRINCIPAL PORTS, AUSTRALIA(a)

Port of entry	1973-74		1974-75		Port of entry	1973-74		1974-75	
	Number	Net tons	Number	Net tons		Number	Net tons	Number	Net tons
		'000		'000			'000		'000
New South Wales—					Western Australia—				
Sydney(b)	2,971	16,577	2,925	16,481	Fremantle(d)	1,173	8,531	1,243	9,556
Newcastle	1,144	8,369	1,377	9,093	Albany	143	863	127	855
Port Kembla	845	6,663	804	7,401	Bunbury	144	892	154	937
Victoria—					Carnarvon	18	32	16	27
Melbourne	2,524	12,709	2,608	13,059	Geraldton	115	766	109	811
Geelong	458	3,282	420	2,936	Yampi	110	1,031	130	1,577
Queensland—					Port Hedland	655	14,486	639	15,749
Brisbane	1,302	8,068	1,246	8,573	Dampier	532	10,877	532	12,487
Bowen	29	110	26	74	Tasmania—				
Cairns	206	827	176	696	Hobart	534	1,624	505	1,594
Gladstone	421	6,596	429	7,005	Burnie	359	1,315	344	1,398
Mackay	211	956	225	1,056	Devonport	448	1,299	422	1,247
Rockhampton	101	391	80	299	Launceston	420	2,496	413	2,314
Townsville	353	1,643	328	1,700	Port Latta	43	883	40	716
Weipa	261	4,430	285	5,337	Northern Territory—				
South Australia—					Darwin	162	868	134	670
Adelaide(c)	1,117	4,039	1,108	4,087	Groote Island	95	673	96	700
Port Lincoln	148	681	158	809					
Port Pirie	163	910	146	863					
Rapid Bay	27	120	39	113					
Walleroo	29	200	37	270					
Whyalla	285	2,415	311	2,369					

(a) Excludes vessels of 200 net tons and under. (b) Includes Botany Bay. (c) Includes Port Stanvac. (d) Includes Kwinana.

Shipping cargo

Overseas and interstate cargo

The table on page 376 shows the aggregate tonnage of overseas and interstate cargo discharged and loaded at principal Australian ports.

CARGO DISCHARGED AND LOADED: AUSTRALIA
(⁰⁰⁰)

Year	Overseas cargo				Interstate cargo			
	Discharged		Loaded		Discharged		Loaded	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
1970-71	21,754	5,742	101,818	2,959	24,171	2,722	24,934	2,485
1971-72	19,505	5,865	108,047	3,161	25,801	3,087	26,387	2,799
1972-73	20,167	6,084	132,362	3,555	27,364	3,136	28,006	2,927
1973-74	23,055	7,641	150,471	3,071	28,570	3,224	29,471	3,034
1974-75	21,893	8,029	164,866	2,926	27,864	3,201	28,454	3,143

CARGO DISCHARGED AND LOADED AT PRINCIPAL PORTS, 1974-75
(*000)

Port	Overseas cargo				Interstate cargo			
	Discharged		Loaded		Discharged		Loaded	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
New South Wales—								
Sydney	2,936	2,520	5,394	1,105	1,887	307	269	248
Botany Bay	1,674	..	43	..	3,866	..	54	..
Newcastle	1,438	18	10,445	61	3,416	..	1,114	18
Port Kembla	916	12	4,202	..	6,681	19	1,936	8
Other	32	..	319	137	32	..	23	..
<i>Total New South Wales</i>	<i>6,996</i>	<i>2,550</i>	<i>20,403</i>	<i>1,303</i>	<i>15,882</i>	<i>326</i>	<i>3,396</i>	<i>273</i>
Victoria—								
Melbourne	1,579	3,788	1,818	1,001	1,740	1,146	1,280	1,331
Geelong	1,451	28	1,732	43	510	3	833	1
Portland	244	3	121	..	24	..	..	..
Westernport	82	..	1,573	..	350	..	7,899	16
Other . . . . .	..	..	1	..	..	1	..	5
<i>Total Victoria</i>	<i>3,355</i>	<i>3,819</i>	<i>5,245</i>	<i>1,043</i>	<i>2,623</i>	<i>1,150</i>	<i>10,012</i>	<i>1,353</i>
Queensland—								
Brisbane	944	676	1,813	127	3,190	19	89	41
Cairns	57	..	320	..	42	..	18	..
Gladstone	835	..	9,026	..	21	..	421	..
Mackay	68	..	841	..	47	..	115	..
Townsville	287	49	990	2	102	..	131	..
Other	58	..	18,332	1	31	..	539	1
<i>Total Queensland</i>	<i>2,249</i>	<i>725</i>	<i>31,322</i>	<i>130</i>	<i>3,433</i>	<i>19</i>	<i>1,313</i>	<i>42</i>
South Australia—								
Port Adelaide	525	454	744	197	714	21	206	25
Ardrossan . . . . .	..	..	176	..	..	..	319	..
Port Lincoln	96	..	690	1	57	..	37	..
Port Pirie	39	..	550	..	280	..	236	..
Port Stanvac	1,435	..	16	..	436	..	411	..
Rapid Bay . . . . .	..	..	..	..	..	..	3	..
Whyalla	109	..	1,703	..	1,252	..	3,151	..
Other	71	..	859	..	1	..	617	..
<i>Total South Australia</i>	<i>2,275</i>	<i>454</i>	<i>4,738</i>	<i>198</i>	<i>2,740</i>	<i>21</i>	<i>4,980</i>	<i>25</i>
Western Australia—								
Fremantle	2,522	419	5,226	88	1,222	7	1,813	34
Albany	261	..	613	..	1	..	60	..
Bunbury	242	..	871	39	..	..	49	..
Dampier	279	6	33,967	..	4	1	60	..
Geraldton	121	1	857	..	..	..	..	..
Kwinana	1,740	..	135	..	124	..	192	..
Port Hedland	83	3	36,078	..	12	..	4,611	..
Yampi . . . . .	..	..	3,587	..	..	..	143	..
Other	435	..	13,110	38	20	..	471	1
<i>Total Western Australia</i>	<i>5,683</i>	<i>429</i>	<i>94,444</i>	<i>165</i>	<i>1,383</i>	<i>7</i>	<i>7,399</i>	<i>35</i>
Tasmania—								
Hobart	217	24	158	70	649	223	420	163
Burnie	101	..	144	2	248	347	392	174
Launceston	95	10	1,389	10	585	285	199	263
Port Latta	37	..	2,034	..	..	..	..	..
Other	34	..	584	6	184	737	111	786
<i>Total Tasmania</i>	<i>484</i>	<i>34</i>	<i>4,309</i>	<i>88</i>	<i>1,666</i>	<i>1,592</i>	<i>1,122</i>	<i>1,386</i>
Northern Territory—								
Darwin	219	16	280	..	90	34	..	6
Groote Island	2	..	1,188	..	22	15	229	1
Gove	631	1	2,937	..	26	36	2	22
Other . . . . .	..	..	..	..	..	..	..	..
<i>Total Northern Territory</i>	<i>851</i>	<i>17</i>	<i>4,405</i>	<i>..</i>	<i>138</i>	<i>85</i>	<i>231</i>	<i>29</i>
Australia	21,893	8,029	164,866	2,926	27,864	3,201	28,454	3,143

Overseas cargo according to major trade areas and type of service

The following two tables show particulars of cargo loaded in Australia for discharge overseas, and cargo discharged in Australia from overseas, classified according to the major trade areas of the world, by type of shipping service (i.e. liner or tramp, bulkship and tanker).

**CARGO LOADED IN AUSTRALIA FOR DISCHARGE OVERSEAS: MAJOR TRADE AREAS
BY TYPE OF SERVICE**
('000)

Major trade areas	Liners(a)		Tramps, bulkships, tankers		All vessels	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
North America and Hawaii—						
1972-73	700	209	4,097	11	4,797	220
1973-74	627	153	4,399	2	5,026	155
1974-75	718	144	5,547	2	6,265	146
South America—						
1972-73	35	13	787	4	821	17
1973-74	15	4	569	..	584	4
1974-75	35	29	838	16	873	45
Europe (including U.S.S.R.)—						
1972-73	1,296	771	19,560	20	20,856	791
1973-74	1,172	535	21,024	1	22,196	536
1974-75	1,119	505	34,268	65	35,387	570
Africa—						
1972-73	149	125	1,091	..	1,240	125
1973-74	122	151	1,057	15	1,179	166
1974-75	100	123	1,530	14	1,630	137
Asia—						
Eastern Asia—						
1972-73	1,431	540	98,471	20	99,902	560
1973-74	1,193	536	113,508	12	114,701	548
1974-75	1,011	453	111,095	147	112,106	600
Other Asia—						
1972-73	803	446	2,289	212	3,092	658
1973-74	785	466	3,505	143	4,290	609
1974-75	773	432	5,286	147	6,059	579
Total Asia—						
1972-73	2,233	986	100,760	232	102,993	1,217
1973-74	1,978	1,002	117,013	155	118,991	1,157
1974-75	1,784	885	116,381	294	118,165	1,179
Papua New Guinea, New Zealand and Pacific Islands—						
1972-73	562	1,097	1,062	80	1,624	1,177
1973-74	675	991	1,786	54	2,461	1,045
1974-75	887	819	1,647	25	2,534	844
Indian Ocean Islands and Ant- arctic Area—						
1972-73 . . . . .	..	..	30	8	30	8
1973-74 . . . . .	..	..	34	8	34	8
1974-75 . . . . .	..	..	12	5	12	5
Total loaded						
1972-73	4,976	3,200	127,387	355	132,362	3,555
1973-74	4,588	2,835	145,883	236	150,471	3,071
1974-75	4,643	2,503	160,223	424	164,866	2,927

(a) Cargo and passenger liners.

**CARGO DISCHARGED IN AUSTRALIA FROM OVERSEAS: MAJOR TRADE AREAS
BY TYPE OF SERVICE**
(*000)

Major trade areas	<i>Liners(a)</i>		<i>Tramps, bulkships, tankers</i>		<i>All vessels</i>	
	<i>Tonnes</i>	<i>Cubic metres</i>	<i>Tonnes</i>	<i>Cubic metres</i>	<i>Tonnes</i>	<i>Cubic metres</i>
North America and Hawaii—						
1972-73	373	709	1,619	417	1,992	1,126
1973-74	605	1,031	1,903	465	2,508	1,496
1974-75	617	949	1,888	433	2,505	1,382
South America—						
1972-73	6	1	12	..	18	1
1973-74	4	6	10	3	14	9
1974-75	6	10	14	4	20	14
Europe (including U.S.S.R.)—						
1972-73	605	1,813	355	66	959	1,879
1973-74	820	1,910	466	226	1,286	2,136
1974-75	666	2,211	660	415	1,326	2,626
Africa—						
1972-73	102	56	104	..	206	56
1973-74	101	89	97	4	198	93
1974-75	57	67	147	4	204	71
Asia—						
Eastern Asia—						
1972-73	497	1,507	1,782	388	2,279	1,895
1973-74	404	1,865	2,410	742	2,814	2,607
1974-75	383	1,611	2,440	1,338	2,823	2,949
Other Asia—						
1972-73	161	504	11,954	76	12,115	580
1973-74	215	598	12,712	122	12,927	720
1974-75	189	446	11,894	124	12,083	570
Total Asia—						
1972-73	658	2,011	13,736	464	14,394	2,475
1973-74	619	2,463	15,122	864	15,741	3,327
1974-75	572	2,057	14,334	1,462	14,906	3,519
Papua New Guinea, New Zealand and Pacific Islands—						
1972-73	228	499	1,641	47	1,869	546
1973-74	245	513	2,084	67	2,329	580
1974-75	300	385	1,640	20	1,940	405
Indian Ocean Islands and Ant- arctic Area—						
1972-73 . . . . .	..	..	728	1	728	1
1973-74 . . . . .	..	..	979	2	979	2
1974-75	12	..	990	2	1,002	2
Total discharged						
1972-73	1,972	5,090	18,195	994	20,167	6,084
1973-74	2,394	6,012	20,661	1,629	23,055	7,641
1974-75	2,230	5,679	19,673	2,340	21,903	8,019

(a) Cargo and passenger liners.

Overseas cargo according to country of registration of vessels

The following table shows the total overseas cargo, discharged and loaded combined, according to the country in which the vessels were registered.

OVERSEAS CARGO DISCHARGED AND LOADED, BY COUNTRY OF REGISTRATION
OF VESSELS: AUSTRALIA
(^{'000})

Country of registration of vessels	1972-73		1973-74		1974-75	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
Australia	605	505	387	578	367	503
Denmark	2,103	189	1,891	187	2,382	221
France	1,118	142	266	60	158	151
Germany, Federal Republic of	4,070	588	4,644	686	5,465	619
Greece	7,299	171	12,145	193	9,780	132
Hong Kong	635	124	393	108	618	41
India	1,370	72	3,478	92	3,590	74
Italy	1,423	66	2,023	174	1,799	188
Japan	59,719	1,013	59,873	1,351	64,576	1,830
Liberia	19,714	223	25,057	399	28,018	288
Netherlands	2,330	357	2,399	574	2,410	430
New Zealand	502	973	613	1,047	644	629
Norway	16,284	498	20,604	486	18,399	538
Panama	1,912	54	3,968	64	6,021	245
Sweden	2,573	541	3,279	495	3,121	465
United Kingdom	22,479	3,028	21,518	2,884	23,845	2,995
United States of America	161	237	370	370	1,006	378
Other	8,232	858	10,618	965	14,570	1,218
Grand total	152,529	9,639	173,526	10,713	186,769	10,945

World shipping tonnage

At 1 July 1975 the total number of steamships and motorships 100 gross tons and upwards throughout the world was 63,724 with a gross tonnage of 342,162,363. Of those totals, steamships numbered 5,957 for 126,183,796 gross tons, and motorships 57,767 for 215,978,567 gross tons. This includes 7,024 oil tankers of 100 gross tons and upwards with a gross tonnage of 150,057,269. Australian steamships and motorships, 419 for 1,205,248 gross tons constituted 0.66 per cent and 0.35 per cent respectively of the total number and gross tonnage. This information has been derived from *Lloyd's Register of Shipping*.

Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 31 December 1975, classified according to: (i) year of construction; (ii) type of trade in which the vessels were engaged; and (iii) vessels built in Australian or in overseas shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, 31 DECEMBER 1975(a)

(Source: Department of Transport)

Year of construction	Overseas and interstate vessels		Intrastate vessels		Built in Australian yards		Built overseas		Total	
	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons
1971 and earlier	65	719,191	15	51,831	54	569,871	26	201,151	80	771,022
1972.	4	56,682	1	48,947	4	82,143	1	23,486	5	105,629
1973.	5	31,320	1	15,470	6	46,790	..	..	6	46,790
1974.	4	91,397	1	15,939	4	101,394	1	5,942	5	107,336
1975.	3	30,357	..	..	1	4,174	2	26,183	3	30,357
Total registered in Australia	81	928,947	18	132,187	69	804,372	30	256,762	99	1,061,134

(a) 200 gross tons and over.

Miscellaneous

Shipping freight rates

List of shipping freight rates for selected commodities are shown in *Overseas and Coastal Shipping* (14.10)

Shipping casualties

Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast are shown in the table below.

SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(a) AUSTRALIA

Year	Shipping losses			Other shipping casualties			Total shipping casualties		
	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost
1970-71	..	..	..	79	451,196	2	79	451,196	2
1971-72	..	..	..	91	499,195	2	91	499,195	2
1972-73	..	..	..	61	345,102	..	61	345,102	..
1973-74	5	447	3	78	647,157	2	83	647,604	5
1974-75	5	17,470	1	78	1,290,626	7	83	1,308,096	8

(a) Vessels over 50 net tons.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1974-75 a total of 103.5 million tonnes of freight were carried, an increase of 117.9 per cent over the 47.5 million tonnes carried in 1955-56. However, in the same twenty-year period the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 34.0 per cent from 515 million in 1955-56 to 340 millions in 1974-75 (excluding Perth metropolitan passenger journeys). The number of train-kilometres run during 1974-75 (151 million) was a decrease of 2.7 per cent since 1955-56, (155 million) which is an indication of the trend towards heavier train loads with the more powerful motive power now available. Since the introduction of the first mainline diesel-electric locomotives in 1950 their numbers have increased greatly until at 30 June 1975 there were 1,455 throughout Australia. Diesel-electric locomotives during 1974-75 hauled 97 million train-kilometres, while steam locomotives hauled only 40 thousand train-kilometres.

Railway development

The first steam-operated railway in Australia ran between Melbourne and Port Melbourne, a distance of three kilometres, and was opened on 12 September 1854. It was owned and operated by the Melbourne and Hobson's Bay Railway. Within a short time privately-owned railways opened in other States, but owing to the small volume of traffic available they were soon in financial difficulties and all were taken over by the respective State Governments. Under the policy of Government ownership and control the railway networks expanded until at 30 June 1941 there were 43,829 route-kilometres open for traffic in Australia. This was the greatest length ever recorded. Since the 1939-45

War many uneconomic branch lines have been closed. From 1 July 1948 to 30 June 1975, 6,507 kilometres have been closed, the greatest lengths being in Western Australia (2,291 kilometres), Queensland (1,561 kilometres), and Victoria (1,003 kilometres). During this same period 3,271 kilometres of new railway were added to the networks. The following table sets out the route-kilometres of government railways in each State and Territory at various dates since 1855.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, 1855 TO 1975
(Kilometres)

30 June—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a)	23	3	..	11	..	..	..	..	37
1861(a)	117	183	..	90	..	..	..	..	390
1871(a)	576	444	351	214	..	72	..	..	1,657
1881(a)	1,603	2,007	1,287	1,339	148	72	..	..	6,456
1891	3,512	4,447	3,533	2,681	319	565	233	..	15,290
1901	4,580	5,209	4,508	2,794	2,181	735	233	..	20,240
1911	6,054	5,670	6,225	3,114	3,824	756	233	..	25,876
1921	8,116	6,867	9,257	5,485	6,425	1,014	320	8	37,492
1931	10,054	7,265	10,507	5,995	7,458	1,070	510	8	42,867
1941	10,248	7,271	10,569	6,130	7,781	1,033	789	8	43,829
1951	10,226	7,154	10,557	6,124	7,535	987	789	8	43,380
1961	10,144	6,518	10,177	6,173	7,366	832	789	8	42,007
1971	10,129	6,376	9,329	5,927	6,906	805	789	8	40,269
1972	10,129	6,357	9,560	5,829	6,846	805	789	8	40,323
1973	10,129	6,357	9,560	5,904	6,897	830	789	8	40,474
1974	10,130	6,329	9,472	5,905	6,922	851	789	8	40,406
1975	10,131	6,331	9,780	5,909	6,805	851	789	8	40,604

(a) At 31 December.

One feature of the Australian government railways is the variety of gauges to which they are built. There are three principal gauges, 'broad' (1,600 mm), 'standard' (1,435 mm), and 'narrow' (1,067 mm). Extensive route-kilometres of 1,067 mm gauge railway were built in areas where traffic volumes were initially known to be small and where it was imperative to minimise the costs of construction. The following table shows the route-kilometres open in each State and Territory at 30 June 1975 according to gauge.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE, 30 JUNE 1975
(Kilometres)

Gauge	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1600 mm	(a)328	(b)5,992	..	2,531	..	..	..	..	8,851
1435 mm	(c)9,803	325	111	(d)1,824	(e)2,092	..	..	(f)8	14,163
1067 mm	..	..	9,621	(g)1,554	(h)4,713	851	(i)789	..	17,528
762 mm	..	14	..	..	..	..	..	..	14
610 mm	..	..	48	..	..	..	..	..	48
Total	10,131	6,331	9,780	5,909	6,805	851	789	8	40,604
Per 1,000 of population	2.12	1.72	4.90	4.79	6.06	2.10	9.01	0.04	3.01
Per 1,000 square kilometre	12.64	27.82	5.66	6.01	2.69	12.55	0.59	3.29	5.29

(a) Portion of Victorian Railway System. (b) Excludes 325 route-kilometres of 1600 mm gauge which almost parallels the 1435 mm gauge line between Melbourne and Murray River. (c) Includes 47 route-kilometres of 1435 mm gauge line from Broken Hill to Cockburn owned and operated by the South Australian Government Railways. (d) Comprises 1128 kilometres of the Trans-Australian and 349 kilometres of the Central Australia Railway systems and 347 kilometres from Port Pirie to Cockburn. (e) Includes 730 kilometres of the Trans-Australian Railway system. (f) Australian Capital Territory Railway system. (g) Includes 591 kilometres of the Central Australia Railway system. (h) Excludes 127 kilometres of 1067 mm/1435 mm dual gauge line which are included in the 1435 mm gauge line. (i) Comprises 278 kilometres of the Central Australia and 511 kilometres of the North Australia Railway systems.

Government railway systems

Prior to 1 July 1975 there were six separate State Government railway systems and the Commonwealth Railways system. On 1 July 1975 the Tasmanian railways and the non-metropolitan South Australian railways were transferred to the Australian Government. As the former Commonwealth Railways included routes in South Australia and Western Australia, and the Victorian system extended into New South Wales, the system route-kilometres shown in the following table do not represent route-kilometres within each State and Territory. These are shown in the previous table. The route-kilometres of each system open for traffic, according to gauge, at 30 June 1975 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE AND SYSTEM
30 JUNE 1975
(Kilometres)

System	Gauge					Total
	1600 mm	1435 mm	1067 mm	762 mm	610 mm	
New South Wales		(a)9,756	..	..	..	9,756
Victoria	(b)6,320	325	..	14	..	6,659
Queensland . . . . .	..	111	9,621	..	48	9,780
South Australia	2,531	394	963	..	..	3,888
Western Australia . . . . .	..	1,362	(c)4,713	..	..	6,075
Tasmania . . . . .	..	..	851	..	..	851
Commonwealth . . . . .	..	2,215	1,380	..	..	3,595
Australia	8,851	14,163	17,528	14	48	40,604

(a) Includes 446 route-kilometres which are electrified. (b) Excludes 325 route-kilometres of 1600 mm gauge line which almost parallels the 1435 mm gauge line between Melbourne and Murray River. Includes 421 route-kilometres which are electrified. (c) Excludes 127 kilometres of 1067 mm/1435 mm dual gauge line which are included in the 1435 mm gauge line.

The New South Wales system is based on Sydney and extends throughout the State. The Victorian system based on Melbourne radiates throughout the State, extending into areas of southern New South Wales. The Queensland system extends along the coast from Brisbane to Cairns in the north, while branch lines extend inland from Brisbane and the larger coastal cities of Rockhampton and Townsville. The Government railway system in Western Australia is concentrated in the south-western section of the State, and extends north to Meekatharra and east to Kalgoorlie and Esperance. Most of the railways in South Australia are located in the south-east of the State, but an isolated narrow gauge system operates in the Eyre Peninsula area. In Tasmania the main line connects Hobart and Launceston, and there are branch lines along the northern coast.

The former Commonwealth Railways comprised four separate railways. The Trans-Australian Railway, extending from Port Pirie to Kalgoorlie, is of standard gauge, as is that part of the Central Australia Railway from Port Augusta (Sterling North) to Marree. The extension of this railway from Marree to Alice Springs is of narrow gauge, as is the North Australia Railway from Darwin to Birdum. The Australian Capital Territory Railway from Queanbeyan to Canberra is of standard gauge. In this chapter particulars of the four former Commonwealth railways are combined; however, particulars for each railway are shown separately in the annual bulletin *Rail, Bus and Air Transport* (14. 21).

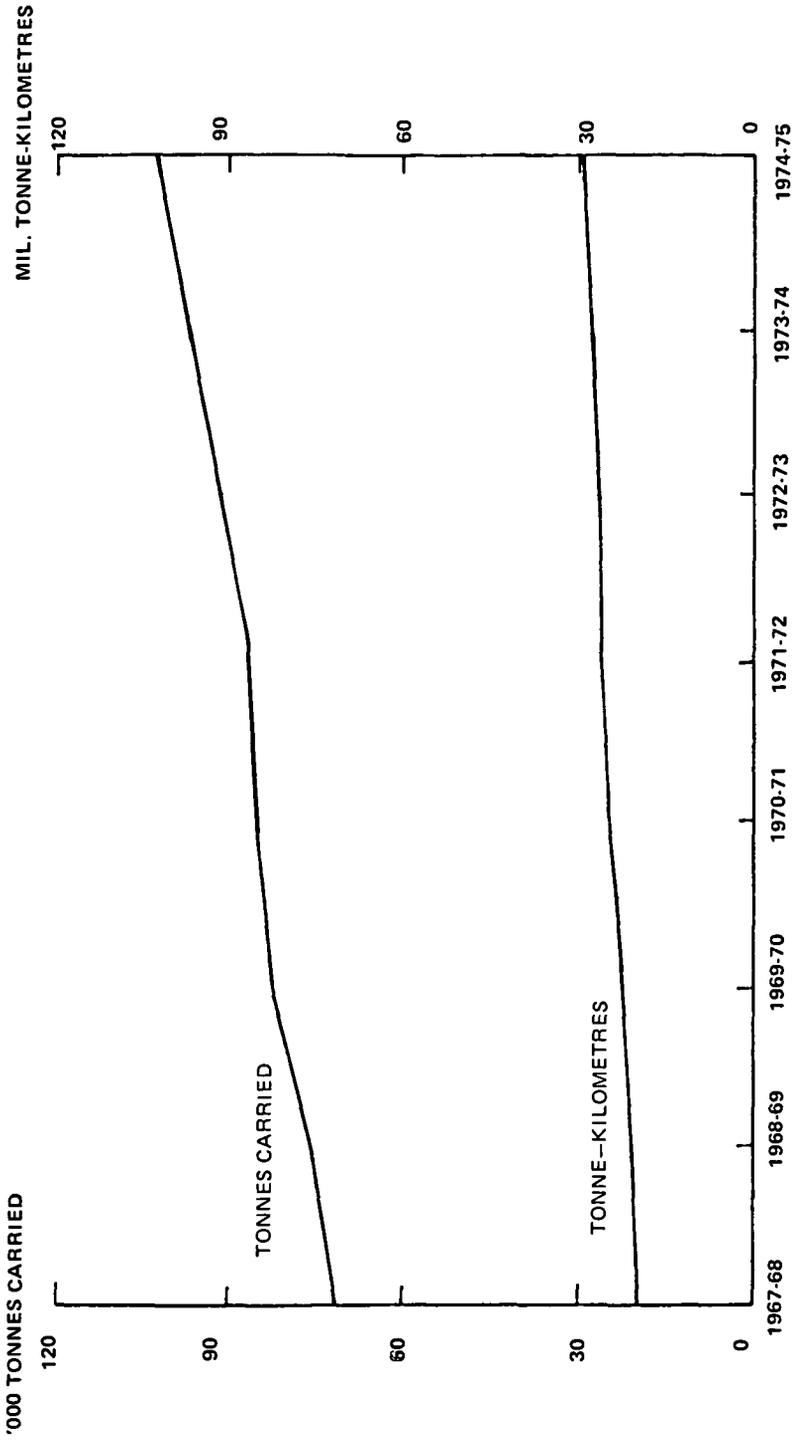
Transfer of State Railways to the Commonwealth Government

Commonwealth and State Government legislation was enacted in 1975 for the transfer to the Commonwealth Government of the Tasmanian Government Railways and the non-metropolitan South Australian Railways. Both transfers took effect from 1 July 1975. The Australian National Railways Commission came into existence on this date to control the two transferred systems and the former Commonwealth Railways.

Standardisation of railway gauges

Information about standardisation of railway gauges, completion and commencement dates of services and centres linked are given in Year Book No. 58, 1972, page 348.

GOVERNMENT RAILWAYS 1967-68 TO 1974-75
FREIGHT TRAFFIC



Developments in standardisation

The Commonwealth Government has enacted legislation for the construction of a standard gauge connection between Adelaide and the Trans-Australian Railway at Crystal Brook, and work on this project has commenced. When this link is completed all mainland State capital cities will be connected to the standard gauge network.

The Commonwealth Government has also enacted legislation for the construction of a new standard gauge railway between Tarcoola, on the Trans-Australian Railway, and Alice Springs. Construction of this line is proceeding. It will replace the existing narrow gauge railway between Marree and Alice Springs.

The West Australian Government has converted to standard gauge the existing narrow gauge railway lines between Kalgoorlie and Esperance, and between Kalgoorlie and Leonora.

Operations of Government railway systems

Particulars of train-kilometres, passenger journeys, passenger-kilometres, freight-tonnes carried, and freight tonne-kilometres included in this section refer only to operations for which revenue is received.

Summary of operations**GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1974-75**

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Cwlth</i>	<i>Aust.</i>
Train-kilometres								
(⁰⁰⁰)(a)—								
Suburban passenger	16,115	14,291	3,323	3,412	2,287	96	..	39,524
Country passenger	13,673	7,815	4,076	1,991	1,486	302	1,518	30,860
Goods(b)	25,873	11,769	22,715	4,786	9,093	1,584	4,418	80,239
Total	55,661	33,876	30,114	10,189	12,866	1,983	5,936	150,624
Passenger journeys								
(⁰⁰⁰)(c)—								
Suburban	167,868	112,757	34,821	11,997	n.a.	273	..	n.a.
Country(d)	3,976	4,963	1,811	700	394	156	239	12,239
Total	171,844	117,720	36,632	12,697	n.a.	428	(e)239	n.a.
Passenger-kilometres								
(⁰⁰⁰)(f)—								
Suburban	n.a.	1,698,614	n.a.	158,962	n.a.	2,709	..	n.a.
Country	n.a.	701,798	n.a.	173,523	141,071	17,518	237,672	n.a.
Total	n.a.	2,400,412	n.a.	332,485	n.a.	20,227	237,672	n.a.
Freight—								
Tonnes carried								
(⁰⁰⁰)(d)	33,476	11,057	30,208	6,738	16,153	1,731	4,102	103,465
Net tonne-kilometres								
(million)(g)	8,782.3	3,091.4	9,118.0	1,756.9	4,262.4	273.3	2,507.4	29,791.7

(a) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one kilometre for revenue purposes. (b) Includes mixed train-kilometres. (c) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys. (d) Inter-system traffic is included in the total for each system over which it passes. (e) Passenger journeys continuing over both the Trans-Australian and Central Australia Railway Systems are counted twice. In 1974-75 these numbered 8,168. (f) One passenger travelling one kilometre. (g) One tonne carried one kilometre.

Rolling stock

GOVERNMENT RAILWAYS: ROLLING STOCK INCLUDED IN CAPITAL ACCOUNT
(Number)

System and date	Locomotives				Total	Coaching stock(b)	Goods stock	Service stock
	Steam	Diesel-electric	Electric	Other(a)				
30 June 1975—								
New South Wales . . . . .	..	421	40	85	546	2,876	16,941	1,961
Victoria	19	265	36	81	401	2,380	18,056	1,612
Queensland . . . . .	..	404	..	85	489	1,170	20,530	2,232
South Australia	4	151	..	..	155	394	7,116	589
Western Australia	2	186	..	23	211	404	11,206	567
Tasmania	12	48	..	21	81	116	2,178	169
Commonwealth . . . . .	..	98	..	..	98	58	2,753	517
Australia	37	1,573	76	295	1,981	(c)7,624	(c)78,810	(c)7,614
30 June—								
1974.	78	1,563	76	294	2,011	7,870	79,086	7,723
1973.	87	1,539	76	291	1,993	7,982	79,913	7,800
1972.	168	1,489	76	267	2,000	8,178	81,135	8,033
1971.	200	1,447	76	256	1,979	8,183	82,279	8,141

(a) Includes non-passenger-carrying diesel power vans. (b) Includes all brake vans and non-powered electric train stock. (c) Includes jointly-owned stock.

Train-kilometres

Train-kilometres by type of service and motive power

GOVERNMENT RAILWAYS: TRAIN-KILOMETRES 1974-75
(^{'000 kilometres})

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
Type of service—								
Passenger—suburban	16,115	14,291	3,323	3,412	2,287	96	..	39,524
Passenger—country	13,673	7,815	4,076	1,991	1,486	302	1,518	30,861
Goods(a)	25,873	11,769	22,715	4,786	9,093	1,584	4,418	80,239
Total	55,661	33,876	30,114	10,189	12,866	1,983	5,936	150,624
Type of motive power—								
Hauled by diesel-electric locomotives	30,549	15,663	27,172	5,850	10,074	1,853	5,772	96,933
Hauled by steam locomotives	5	20	4	6	2	4	..	40
Hauled by electric and other locomotives	3,246	1,531	546	..	..	1	..	5,323
Powered coaching stock	21,861	16,663	2,391	4,332	2,790	125	164	48,328
Total	55,661	33,876	30,114	10,189	12,866	1,983	5,936	150,624

(a) Includes mixed train-kilometres.

Total train-kilometres

TRAIN-KILOMETRES
(^{'000 kilometres})

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
1970-71	63,633	33,524	27,951	10,210	12,785	1,764	6,453	156,370
1971-72	61,176	33,175	29,165	10,018	12,410	1,767	6,013	153,724
1972-73	59,941	33,058	29,523	10,024	11,669	1,960	5,859	152,035
1973-74	58,255	33,345	28,542	10,313	12,617	2,154	5,966	151,192
1974-75	55,661	33,876	30,114	10,189	12,866	1,983	5,936	150,624

Passenger traffic

Passenger journeys

GOVERNMENT RAILWAYS: PASSENGER JOURNEYS(a), SYSTEMS
(*000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
SUBURBAN								
1970-71	238,800	138,131	27,621	13,393	10,557	636	..	429,139
1971-72	(b)196,097	133,840	30,184	12,918	10,800	597	..	384,436
1972-73	194,140	108,970	30,500	12,756	11,143	559	..	358,068
1973-74	192,228	110,141	32,003	12,914	11,332	514	..	359,132
1974-75	167,868	112,757	34,821	11,997	n.a.	273	..	n.a.
COUNTRY(c)								
1970-71	15,987	4,080	1,915	553	362	235	259	23,391
1971-72	(b)12,403	3,954	1,762	515	350	189	207	19,380
1972-73	11,985	4,180	1,645	564	376	193	222	19,165
1973-74	6,716	4,507	1,720	683	416	179	263	14,485
1974-75	3,977	4,963	1,811	700	394	156	239	12,239
TOTAL(c)								
1970-71	254,787	142,211	29,536	13,946	10,919	871	259	452,530
1971-72	(b)208,500	137,794	31,946	13,433	11,150	785	207	403,816
1972-73	206,125	113,150	32,145	13,320	11,518	752	222	377,233
1973-74	198,944	114,648	33,723	13,597	11,748	693	263	373,618
1974-75	171,844	117,720	36,632	12,697	n.a.	429	239	n.a.

(a) Based on ticket sales making allowance for periodical tickets. Tickets sold at concession rates are counted as full journeys. (b) Figures for earlier years include unremunerative journeys. (c) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes.

Passenger-kilometres

GOVERNMENT RAILWAYS: PASSENGER-KILOMETRES(a), SYSTEMS
(*000)

Year	Vic.	S.A.	W.A.	Tas.	Cwlth
SUBURBAN					
1970-71	2,068,414	170,674	n.a.	7,279	..
1971-72	1,941,497	161,979	n.a.	6,653	..
1972-73	1,973,886	172,444	n.a.	6,609	..
1973-74	1,704,902	164,020	n.a.	5,161	..
1974-75	1,698,614	158,962	n.a.	2,709	..
COUNTRY					
1970-71	611,301	147,545	124,193	19,747	227,577
1971-72	534,946	131,084	115,910	16,412	207,409
1972-73	561,273	139,726	126,387	17,728	209,527
1973-74	651,933	173,146	149,084	18,177	262,891
1974-75	701,798	173,523	141,072	17,518	237,672
TOTAL					
1970-71	2,679,715	318,219	n.a.	27,026	227,577
1971-72	2,476,441	293,063	n.a.	23,065	207,409
1972-73	2,535,160	312,170	n.a.	24,337	209,527
1973-74	2,356,835	337,166	n.a.	23,338	262,891
1974-75	2,400,412	332,485	n.a.	20,227	237,672

(a) Particulars for New South Wales, Queensland and the suburban system in Western Australia are not available and as a consequence, no totals for Australia are available.

Freight traffic

Freight carried

GOVERNMENT RAILWAYS: FREIGHT CARRIED(a), SYSTEMS
(^{'000 tonnes})

Commodity and year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
1974-75—								
Wheat	3,100	2,021	612	1,008	3,295	..	..	10,036
Other agricultural produce	1,369	890	3,037	526	490	14	21	6,347
Coal, coke and briquettes	15,846	986	19,831	10	808	96	1,803	39,380
Other minerals(b)	3,530	334	2,455	1,924	8,290	60	461	17,054
Wool	113	129	36	32	137	3	4	454
Fertilisers and manure	236	470	178	289	501	67	4	1,745
Cement	844	852	228	64	125	258	117	2,488
Timber	176	242	112	81	293	345	38	1,287
Livestock	166	255	580	160	67	3	81	1,312
All other commodities	8,096	4,878	3,139	2,644	2,147	885	1,573	23,362
Total	33,476	11,057	30,208	6,738	16,153	1,731	4,102	103,465
1973-74	32,651	11,370	25,401	6,607	14,839	1,828	4,270	96,966
1972-73	31,044	11,475	24,666	5,781	13,706	1,554	4,255	92,481
1971-72	32,310	11,795	19,267	6,014	13,867	1,299	4,119	88,671
1970-71	33,737	12,690	15,665	6,086	13,457	1,220	4,452	87,307

(a) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes. (b) Includes sand and gravel.

Freight net tonne-kilometres

GOVERNMENT RAILWAYS: FREIGHT NET TONNE-KILOMETRES, SYSTEMS
(Million)

Commodity and year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
1974-75—								
Wheat	1,362.1	634.9	(a)	161.1	910.1	..	0.1	(a)
Other agricultural produce	743.4	263.9	(a)	84.7	134.5	2.8	18.7	(a)
Coal, coke and briquettes	1,245.4	178.0	(a)	4.0	117.4	19.5	459.5	(a)
Other minerals(b)	710.1	96.6	(a)	418.5	1,676.1	12.0	134.5	(a)
Wool	50.7	30.7	(a)	8.7	57.3	0.7	4.6	(a)
Fertilisers and manure	136.0	124.3	(a)	84.8	165.4	19.4	6.9	(a)
Cement	232.5	101.5	(a)	22.8	46.3	1.8	24.1	(a)
Timber	129.8	77.0	(a)	26.0	95.0	32.8	55.4	(a)
Livestock	88.3	74.3	286.4	34.5	19.3	0.8	40.1	543.7
All other commodities	4,084.0	1,510.6	8,831.6	911.8	1,041.0	183.5	1,762.4	18,324.9
Total	8,782.3	3,091.4	9,118.0	1,756.9	4,262.4	273.3	2,507.4	29,791.7
1973-74	8,642.5	3,126.2	7,855.1	1,753.1	4,142.5	277.9	2,532.0	28,329.3
1972-73	8,117.6	3,164.8	7,613.1	1,588.4	3,686.2	210.6	2,201.1	26,581.7
1971-72	8,615.2	3,264.2	6,315.1	1,583.0	3,447.8	169.7	2,007.9	25,402.9
1970-71	9,055.9	3,464.5	5,423.0	1,613.8	3,397.9	154.0	2,096.5	25,205.6

(a) Not available separately, included with 'All other commodities'. (b) Includes sand and gravel.

Finance

GOVERNMENT RAILWAYS: GROSS EARNINGS(a), SYSTEMS, 1974-75
(\$'000)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Cwlth</i>	<i>Aust.</i>
Coaching—								
Suburban passenger	52,135	28,371	4,401	2,736	..	38	..	87,681
Country passenger	16,055	11,836	4,688	2,902	3,076	193	5,270	44,020
Other	9,976	5,729	2,561	1,274	2,111	334	654	22,639
<i>Total coaching</i>	<i>78,166</i>	<i>45,936</i>	<i>11,650</i>	<i>6,912</i>	<i>5,187</i>	<i>565</i>	<i>5,924</i>	<i>154,340</i>
Freight (goods and live-stock)—								
Wheat	(c)	13,979	4,818	5,596	21,999	..	1	n.a.
Other agricultural produce	(c)	5,961	15,322	2,681	3,490	107	229	n.a.
Coal, coke and briquettes	(c)	4,211	73,618	65	3,911	381	2,603	n.a.
Other minerals(d)	(c)	1,691	16,035	8,324	20,456	205	1,742	n.a.
Wool	(c)	1,283	1,058	186	2,807	31	62	n.a.
Fertilisers and manure	(c)	2,235	1,968	1,125	3,100	554	59	n.a.
Cement	(c)	3,677	2,579	393	1,081	975	407	n.a.
Timber	(c)	2,109	1,370	438	2,747	984	426	n.a.
Livestock	(c)	1,631	7,848	1,284	609	50	690	n.a.
All other commodities	(c)	35,138	40,612	15,423	26,436	4,153	26,212	n.a.
<i>Total freight</i>	<i>(b)192,947</i>	<i>71,915</i>	<i>165,228</i>	<i>35,515</i>	<i>86,636</i>	<i>7,440</i>	<i>32,431</i>	<i>592,112</i>
Miscellaneous	(b)20,260	12,091	6,809	5,524	15,021	260	3,012	62,977
Grand total	(b)291,373	129,942	183,687	47,950	106,844	8,266	41,367	809,429

(a) Excludes Government grants. (b) Includes State Co-ordination Tax Contribution. (c) Not available separately
(d) Includes sand and gravel.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1974-75
(\$'000)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.(a)</i>	<i>Cwlth</i>	<i>Aust.</i>
Maintenance of way and works								
Motive power(b)	131,788	61,234	81,736	(a)25,291	(a)38,664	6,662	16,308	361,683
Traffic	113,675	79,671	64,658	(a)24,430	29,793	5,488	12,521	330,236
Other charges	108,115	56,971	18,634	12,497	12,802	2,713	15,752	227,484
Total	415,234	243,393	227,925	(a)80,466	(a)103,696	19,973	(a)55,847	1,146,534

(a) Includes provision of reserves for depreciation. (b) Includes maintenance of rolling stock.

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS, SYSTEMS

(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
GROSS EARNINGS								
1970-71	251,899	108,646	110,165	34,399	60,671	5,805	28,979	600,564
1971-72	266,268	112,685	124,782	35,386	63,634	6,123	29,208	638,086
1972-73	254,070	111,833	137,745	35,085	63,600	6,835	31,241	640,408
1973-74	262,691	115,613	149,844	39,531	78,480	7,674	37,217	691,050
1974-75	291,373	129,942	183,687	47,950	106,844	8,266	41,367	809,429
WORKING EXPENSES								
				(a)	(a)	(a)	(a)	
1970-71	242,842	129,054	105,155	42,714	59,652	9,891	29,382	618,690
1971-72	263,484	138,722	119,743	46,521	63,748	10,391	31,540	674,149
1972-73	298,180	156,120	133,384	52,320	68,223	11,829	34,487	754,543
1973-74	349,897	188,599	162,101	60,747	81,916	15,598	44,423	903,281
1974-75	415,234	243,393	227,925	80,466	103,696	19,973	55,847	1,146,534

NET EARNINGS(b)

1970-71	9,057	-20,408	5,010	-8,315	1,019	-4,086	-403	-18,126
1971-72	2,784	-26,036	5,038	-11,135	-115	-4,267	-2,333	-36,063
1972-73	-44,111	-44,287	4,361	-17,236	-4,622	-4,994	-3,247	-114,135
1973-74	-87,206	-72,986	-12,257	-21,216	-3,436	-7,924	-7,206	-212,231
1974-75	-123,861	-113,451	-44,238	-32,516	3,148	-11,707	-14,479	-337,104

(a) Includes provision of reserves for depreciation. (b) Excess of gross earnings over working expenses as shown in this table.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT, SYSTEMS, 30 JUNE 1975

(\$'000)

System	Net earnings—excess of gross earnings over working expenses	Plus grants and other earnings payable to railways			Less other expenses charged to railways				Surplus (+) or deficit (-)		
		State Government grants	Road motor earnings	Other	Total	Interest and ex-change	Sinking fund	Road motor expenses (a)		Other	Total
New South Wales	-123,861	(b)4,686	..	..	4,686	37,934	8,029	..	(c)1,801	47,764	-166,939
Victoria	-113,451	(d)56	89	..	146	12,098	497	386	..	12,981	-126,286
Queensland	-44,238	..	..	..	..	43,435	..	..	(e)1,534	44,969	-89,207
South Australia	-32,516	(f)40,000	364	..	40,364	8,137	..	520	(g)949	9,606	-1,758
Western Australia	3,148	..	1,465	..	1,465	13,544	..	2,711	(h)33	16,289	-11,676
Tasmania	-11,707	..	..	..	..	3,247	..	..	..	3,247	-14,954
Commonwealth	-14,479	..	..	..	..	..	..	..	..	..	-14,479
Australia	-337,104	44,742	1,919	..	46,661	118,395	8,526	3,617	4,317	134,856	-425,299

(a) Includes interest and exchange. (b) Grants to meet losses on country developmental lines, and to subsidise payments due to superannuation account. (c) Loan management and loan flotation expenses. (d) Kerang-Koondrook tramway recoup from Treasury. (e) Demolished assets written off. (f) Grants towards deficiency. (g) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (h) Australian currency revaluation adjustment.

Employment, salaries and wages**GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES (EXCLUDING CONSTRUCTION STAFF) AND SALARIES AND WAGES PAID(a), 1974-75**

	<i>N.S.W.</i>	<i>Vic.(b)</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Cwlth</i>	<i>Aust.</i>
Salaried staff . . .	8,898	5,520	3,994	1,772	2,184	354	771	23,493
Wages staff . . .	31,152	20,454	19,520	5,748	7,633	1,637	3,452	89,596
Total staff . . .	40,050	25,974	23,514	7,520	9,817	1,991	4,223	113,089
SALARIES AND WAGES PAID								
paid . . . \$'000	330,494	198,592	186,311	64,766	74,123	15,198	33,834	903,318

(a) Excludes salaries and wages paid to road motor staff. (b) Includes construction staff.

Private railways

Private railways are operated over a range of gauges and are to be found in each State of Australia. These systems service agricultural areas, mining ventures, industrial complexes and ports. A range of commodities are carried, including coal, iron ore, other minerals and manufactured products.

Details of location, ownership and operation of the major private railway systems were given in Year Book No. 56, 1970, page 364.

TRAM, BUS, AND FERRY SERVICES**Systems in operation**

Tram and trolley-bus. At 30 June 1975 tram services were in operation in Melbourne, Victoria, and in Adelaide, South Australia. The last of the trolley-bus services ceased to operate in Australia with their replacement by buses in Perth, Western Australia, on 29 August 1969. Tram services ceased to operate in Ballarat on 19 September 1971 and in Bendigo on 16 April 1972.

In many parts of Australia private lines used for special purposes in connection with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tram used for the conveyance of passengers, which are dealt with in this section.

Bus. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal bus services located in all State capital cities; Canberra, Australian Capital Territory; Newcastle, New South Wales; Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Western Australian Government Railways. Particulars of bus services under the control of private operators for the States of Victoria, Queensland, South Australia and Western Australia are given in the annual bulletin *Rail, Bus and Air Transport* (14.21).

Ferry. Ferry passenger services are operated in the following States: New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Mersey River at Devonport. Control is exercised by both government authorities and private operators. Particulars of the operations of these services are given in previous issues of this Year Book and in the annual bulletin *Rail, Bus and Air Transport*. In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Government and municipal tram and bus services

Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tram services by bus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL STATES AND TERRITORIES, 1974-75

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-kilometres at 30 June—									
Tram(a) kilometres		217	11						228
Bus " "	998	242	655	754	8,374	458	56	322	11,859
Vehicle-kilometres—									
Tram '000		23,840	676						24,516
Bus " "	65,900	12,027	19,790	30,819	40,734	9,145	929	8,453	187,797
Rolling stock at 30 June—									
Tram number		703	26						729
Bus " "	1,854	295	610	683	861	302	29	333	4,967
Passenger journeys—									
Tram '000		111,077	1,252						112,329
Bus " "	192,906	22,658	50,759	57,046	59,386	20,589	n.a.	12,816	(b)416,160
Gross revenue(c)—									
Tram and bus . . . \$'000	42,510	25,471	12,337	13,427	13,865	2,916	324	1,840	112,690
Working expenses(d)—									
Tram and bus . . . \$'000	76,520	42,244	15,045	18,951	22,000	6,750	798	5,478	187,787
Net revenue—									
Tram and bus . . . \$'000	-34,011	-16,774	-2,708	-5,524	-8,136	-3,834	-473	-3,638	-75,098
Employees at 30 June—									
Tram and bus . . . number	6,844	4,575	1,476	1,668	2,087	668	55	456	17,829
Accidents—									
Tram and bus(e)—									
Persons killed . . . number	6	7	167	204	399	32	..	54	14
Persons injured . . . " "	n.a.	389	..	..	..	..	..	..	(f)1,245

(a) Gauge 1435 mm throughout. (b) Excludes Northern Territory. (c) Excludes government grants.
(d) Includes provision of reserves for depreciation, etc., where possible. (e) Excludes accidents to employees.
(f) Excludes New South Wales.

Minus sign (-) denotes deficit.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL AUSTRALIA

	1970-71	1971-72	1972-73	1973-74	1974-75
Route-kilometres at 30 June—					
Tram kilometres	262	225	228	227	228
Bus " "	10,609	10,495	10,890	11,780	11,859
Vehicle kilometres—					
Tram '000	25,806	25,180	25,119	24,555	24,516
Bus " "	177,049	170,769	172,866	179,702	187,797
Rolling stock at 30 June—					
Tram number	784	722	734	734	729
Bus " "	4,469	4,437	4,442	4,761	4,967
Passenger journeys—					
Tram '000	112,974	104,558	106,333	110,791	112,329
Bus " "	447,646	398,421	410,139	417,513	(a)416,160
Gross revenue(b)—					
Tram and bus . . . \$'000	82,510	91,015	95,171	105,149	112,690
Working expenses(c)—					
Tram and bus . . . \$'000	96,507	103,274	117,598	146,655	187,787
Net revenue—					
Tram and bus . . . \$'000	-13,997	-12,260	-22,426	-41,506	-75,098
Employees at 30 June—					
Tram and bus . . . number	17,776	17,545	17,256	17,549	17,829
Accidents—					
Tram and bus(d)—					
Persons killed . . . number	21	22	30	10	14
Persons injured . . . " "	2,459	2,275	2,732	2,587	(e)1,245

(a) Excludes Northern Territory. (b) Excludes government grants. (c) Includes provision of reserve for depreciation, etc., where possible. (d) Excludes accidents to employees. (e) Excludes New South Wales.

Minus sign (-) denotes deficit.

JOURNEY TO WORK AND JOURNEY TO SCHOOL

In August 1974, a survey was conducted in conjunction with the quarterly population survey (see Chapter 20, Employment and Unemployment) in order to obtain information about the means by which persons travelled to work and students travelled to school, university or other type of educational institution, the time at which they usually left home, the time they usually spent on the journey and the cost of fares and parking fees (if any) incurred. The results of the survey were published in *Journey to Work and Journey to School*, August 1974 (17.5). The results of a similar survey conducted in May 1970 were published in *Journey to Work and Journey to School*, May 1970 (17.5).

MOTOR VEHICLES

The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 31 December 1975 are shown in *Motor Vehicle Registrations, 1975* (14.1).

Tables in this section include vehicles owned by private individuals, local government authorities, State Governments, and the Australian Government (excluding those belonging to the defence services).

Survey of motor vehicle usage

A survey was conducted throughout Australia in late 1971 by the Australian Bureau of Statistics for the purpose of gathering information on the usage of motor vehicles. This survey was similar to one carried out in 1963. The owners of approximately 51,000 vehicles other than buses were approached for information relating to the usage of their vehicles over the twelve months ended 30 September 1971. In addition, usage details of 800 bus fleets were sampled and collected for the twelve months ended 30 June 1971. The framework, from which the sample was drawn, was obtained from the motor vehicle registration authorities in all States and Territories. The survey was based on respondents' recollections of their usage of the selected vehicles/fleets over their period of ownership during the survey year.

The main purpose of the survey was to determine the total distance travelled by vehicles, classified according to area and purpose of travel. Information was also obtained from the survey on: (i) tonne-kilometres; (ii) average load carried; (iii) vehicle usage (i.e. for hire and reward, ancillary or other); (iv) fuel consumption; (v) road surface; (vi) occupant-kilometres; (vii) driver characteristics.

The following table shows, for Australia, total annual kilometres travelled for the twelve months ended 30 September 1971 according to area and purpose of travel. The percentage standard errors (S.E. %) indicate the extent to which the estimates can vary by chance because only a sample and not the total vehicle population was enumerated. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors. For example, if an estimate of 3,000 million kilometres has a standard error of 5 per cent (i.e. 150 million kilometres), then there would be approximately two chances in three that a comparable complete collection would give a figure within the range of 2,850 million kilometres to 3,150 million kilometres, and about nineteen chances in twenty that the figure would be within the range of 2,700 million kilometres to 3,300 million kilometres.

TOTAL ANNUAL KILOMETRES TRAVELLED(a) BY PURPOSE AND AREA OF OPERATION, AUSTRALIA, TWELVE MONTHS ENDED 30 SEPTEMBER 1971

Area of operation	Laden business		Unladen business		Total business(b)		Paid to and from work(c)		Unpaid to and from work		Private		Total	
	million kilometres	S.E. %kilometres	million kilometres	S.E. %kilometres	million kilometres	S.E. %kilometres	million kilometres	S.E. %kilometres	million kilometres	S.E. %kilometres	million kilometres	S.E. %kilometres	million kilometres	S.E. %kilometres
Capital city and environs	3,566.3	1.7	1,804.7	2.1	12,609.2	2.5	2,396.0	5.5	9,566.1	2.8	18,022.6	1.9	42,594.2	1.3
Provincial urban(d)	512.1	4.5	318.8	6.3	1,732.3	8.7	250.7	14.6	1,313.2	7.8	3,234.0	4.3	6,530.4	4.0
Other areas of State or Territory	3,470.6	1.6	2,600.4	1.8	10,523.0	2.3	685.3	12.3	2,849.7	4.9	14,083.0	2.1	28,141.2	1.6
Other States and Territories(e)	396.9	3.6	126.7	5.1	877.4	7.3	48.4	25.7	213.7	15.0	2,095.0	5.0	3,234.6	4.1
Total	7,945.8	1.0	4,850.4	1.3	25,742.1	1.7	3,380.4	5.0	13,942.7	2.3	37,435.1	1.2	80,501.2	0.8

(a) Excludes kilometres travelled by buses. (b) Includes the total kilometres travelled of cars, station wagons and motor cycles for business purposes. The dissection of business travel into laden/unladen for these vehicles was not sought. (c) For the purpose of this survey 'Paid to and from work' travel is not considered to be business travel. (d) Includes centres (other than capital cities) having populations greater than 40,000 at the 1966 Census of Population and Housing. (e) Covers kilometres travelled by vehicles in all States other than that in which the vehicle was registered.

Motor vehicles on register

Details of motor vehicles on the register are compiled by up-dating motor vehicle census data from information made available by the various motor vehicle registration authorities in the States and Territories. Censuses of motor vehicles have been conducted in respect of 31 December 1955, 31 December 1962 and 30 September 1971. At these census dates considerably greater information concerning the particulars shown in the tables following is available. Final detailed results of the 1971 census have been published in separate census bulletins for each State and Territory and for Australia.

A revised classification of motor vehicles has been adopted for publication of statistics of motor vehicle registrations from 1 January 1972. The principal differences between this classification and that which it replaces involve the categories light commercial type vehicles, trucks and other truck type vehicles. Consequently, figures shown from January 1972 for these categories are not strictly comparable with data for previous periods.

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE, 31 DECEMBER 1975
(*000)

State or Territory	Motor cars	Station wagons	Light commercial type vehicles		Trucks (carrying capacity 1 tonne and over)		Other truck type vehicles	Buses	Motor cycles	Total
			open	closed	rigid	articulated				
New South Wales	1,433.0	270.4	144.1	61.6	153.6	14.0	3.7	8.8	88.2	2,177.2
Victoria	1,194.9	233.0	104.1	61.8	97.1	12.4	5.3	7.1	49.4	1,765.1
Queensland	555.7	132.9	85.1	31.0	86.3	5.6	1.4	3.5	69.6	971.2
South Australia	420.8	70.7	37.4	13.2	43.0	3.9	3.3	3.1	33.4	628.9
Western Australia	350.4	73.5	49.6	24.4	58.0	3.2	3.1	3.1	28.7	593.8
Tasmania	136.6	21.6	14.5	5.6	13.1	1.2	0.1	1.5	7.7	201.9
Northern Territory	20.5	8.1	6.5	2.3	8.6	0.6	0.1	0.4	5.8	52.9
Australian Capital Territory	76.7	13.7	5.2	3.3	4.5	0.3	0.1	0.7	6.2	110.7
Total	4,188.5	823.8	446.5	203.1	464.2	41.2	17.1	28.3	289.1	6,501.7

**MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE
AUSTRALIA
(‘000)**

31 December	Motor cars and station wagons	Light commercial type vehicles, other truck type vehicles and buses	Motor cycles	Total vehicles
1971	4,057.5	982.4	164.8	5,204.9
1972	4,259.8	1,020.5	193.4	5,474.0
1973	4,520.2	1,078.3	235.5	5,834.1
1974	4,770.6	1,131.3	274.5	6,176.5
1975	5,012.3	1,200.3	289.1	6,501.7

**MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION
STATES AND TERRITORIES**

31 December	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1971	390.7	398.5	406.1	430.5	432.4	420.1	347.6	436.3	403.2
1972	403.3	411.4	426.4	448.0	449.2	433.8	359.7	471.8	418.1
1973	422.9	433.5	450.2	472.6	470.3	451.0	374.1	501.1	439.7
1974	439.3	452.4	466.3	485.2	485.3	468.2	619.3	534.6	458.0
1975	451.8	478.8	482.6	507.4	522.1	493.8	551.4	550.2	478.0

(a) Excludes tractors, plant and equipment.

Registrations of new motor vehicles

Particulars of registrations of new motor vehicles are shown by type, make, and horsepower of vehicle in monthly, quarterly and annual bulletins of Motor Vehicle Registrations.

In these statistics 'registrations' mean registrations processed by the motor vehicle registration authorities in the States and Territories during the period.

A revised classification of motor vehicles has been adopted for publication of statistics of new motor vehicle registrations from 1 January 1972. The principal differences between this classification and that which it replaces involve the categories light commercial type vehicles, trucks and other truck type vehicles. Consequently, figures shown from January 1972 for these categories are not strictly comparable with data for previous periods.

REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

State or Territory and year	Motor cars	Station wagons	Light commercial type vehicles		Trucks (carrying capacity 1 tonne and over)		Other truck type vehicles	Buses	Total (excludes motor cycles)	Motor cycles
			open	closed	rigid	articu- lated				
1975—										
New South Wales	143,115	25,046	13,657	13,167	11,052	1,127	137	1,299	208,600	20,237
Victoria	108,173	18,043	8,238	8,656	7,100	967	146	805	152,128	8,719
Queensland	52,052	9,943	8,216	5,256	7,278	526	20	218	83,509	15,519
South Australia	42,045	6,027	3,761	2,942	2,768	427	33	269	58,272	7,655
Western Australia	34,755	6,797	5,101	4,458	3,867	348	52	383	55,761	6,214
Tasmania	13,130	2,051	1,228	1,249	1,004	133	16	215	19,026	2,254
Northern Territory	1,744	695	861	290	1,168	46	9	48	4,861	947
Australian Capital Territory	7,567	1,441	567	740	487	30	8	218	11,058	920
Australia	402,581	70,043	41,629	36,758	34,724	3,604	421	3,455	593,215	624,465
1974	413,674	61,924	43,932	32,259	30,131	3,473	392	2,733	588,518	80,538
1973	402,123	57,802	43,118	30,879	31,242	3,878	375	2,441	571,858	77,222
1972	353,924	51,928	38,526	23,513	26,869	2,913	340	2,047	500,060	54,641
1971	362,669	54,555	33,822	22,908	26,900	(a)	(a)	1,263	2,394	504,511

(a) Not directly comparable with figures subsequent to 1971.

Drivers' and riders' licences

At 30 June 1975 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 2,513,321; Victoria, 1,885,874; South Australia, 632,056; Western Australia, 562,724; Tasmania, 194,564; Northern Territory, 27,318; Australian Capital Territory, 110,665. Particulars are not available for Queensland.

ROAD TRAFFIC ACCIDENTS**Compulsory fitting and use of seat belts and protective helmets in Australia**

Through the endorsement of the Australian Transport Advisory Council of Australian Design Rules for Motor Vehicle Safety, the fitting of belts in passenger cars and derivatives in each State was made mandatory for new motor vehicles from 1 January 1970 for front seats and from 1 January 1971 for all positions.

The year 1973 saw the completion of laws requiring the compulsory wearing of seat belts, where fitted, in all motor vehicles, and the mandatory use of protective helmets by motor cycle riders and pillion passengers. The dates on which the laws came into effect were as follows:

	<i>Seat belts</i>	<i>Protective helmets</i>
New South Wales	1 October 1971	1 August 1971
Victoria	22 December 1970	1 January 1961
Queensland	1 January 1972	24 October 1970
South Australia	29 November 1971	31 December 1967
Western Australia	24 December 1971	1 May 1971
Tasmania	13 October 1971	19 December 1966
Northern Territory	1 January 1972	8 November 1972
Australian Capital Territory	1 January 1972	18 March 1973

The laws in force differ between States and Territories on matters such as exemptions and penalties. The exemptions for seat belts relate primarily to delivery men, persons reversing motor vehicles, the elderly, children under the age of 8 years, and persons exempted by a doctor's certificate. There are some minor exemptions for motorcyclists including persons exempted for medical reasons; passengers carried in sidecars in New South Wales, Victoria, South Australia, and Tasmania, persons exempted for religious reasons in New South Wales, and motorcyclists travelling at less than 24 kilometres per hour in South Australia.

The vast majority of belts fitted to vehicles are of the lap-sash type. Recent developments in seat belt design are aimed to improve their comfort to the wearer, their ease of adjustment and their effectiveness.

Accidents involving casualties, persons killed, persons injured**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED, 1975**

<i>State or Territory</i>	<i>Number of accidents</i>	<i>Persons killed</i>	<i>Persons injured</i>	<i>Per 100,000 of mean population</i>			<i>Per 10,000 motor vehicles registered(b)</i>		
				<i>Number of accidents</i>	<i>Persons killed</i>	<i>Persons injured</i>	<i>Number of accidents</i>	<i>Persons killed</i>	<i>Persons injured</i>
New South Wales	28,217	1,288	38,141	587	27	794	132	6	178
Victoria	12,514	910	17,437	340	25	473	73	5	102
Queensland	8,241	635	11,019	412	32	551	87	7	116
South Australia	8,793	339	12,020	710	27	971	143	6	195
Western Australia	5,104	304	6,832	453	27	606	90	5	120
Tasmania	1,496	122	2,137	368	30	525	76	6	109
Northern Territory	554	64	789	625	72	891	115	13	164
Australian Capital Territory	869	32	1,124	452	17	585	83	3	107
Australia	65,788	3,694	89,499	486	27	661	104	6	141

(a) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (b) Average number of motor vehicles (excluding tractors, plant and equipment) on register.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF
ACCIDENTS PERSONS KILLED OR INJURED**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total		
									Number	Per 100,000 of mean popu- lation	Per 10,000 motor vehicles regis- tered(b)
Accidents involving casualties—											
1971	26,575	15,023	8,147	7,386	5,178	1,385	660	856	65,210	510	129
1972	27,365	14,757	7,863	8,116	4,909	1,371	592	777	65,750	506	123
1973	29,308	14,485	8,643	9,267	5,404	1,479	711	854	70,151	533	124
1974	29,853	12,542	8,086	9,469	4,742	1,393	575	813	67,473	504	112
1975	28,217	12,514	8,241	8,793	5,104	1,496	554	869	65,788	486	104
Persons killed—											
1971	1,249	923	594	292	332	130	50	20	3,590	28	7
1972	1,092	915	572	312	340	106	53	32	3,422	26	6
1973	1,230	935	638	329	358	105	55	29	3,679	28	7
1974	1,275	806	589	382	334	111	44	31	3,572	27	6
1975	1,288	910	635	339	304	122	64	32	3,694	27	6
Persons injured—											
1971	36,660	21,371	11,387	10,132	7,328	2,056	926	1,176	91,036	712	180
1972	36,814	20,646	10,788	10,997	6,751	1,968	795	1,007	89,766	691	168
1973	39,294	20,011	11,660	12,625	7,377	2,103	1,012	1,122	95,204	723	169
1974	40,429	17,539	10,627	12,725	6,277	1,911	788	1,042	91,338	683	152
1975	38,141	17,437	11,019	12,020	6,832	2,137	789	1,124	89,499	661	141

(a) See footnote (a) to previous table. (b) See footnote (b) to previous table.

Types of road user killed or injured

Responsibility for cause of accident is not indicated by this classification.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR
INJURED, TYPES OF ROAD USER INVOLVED, 1975**

Type of road user	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Drivers of motor vehicles	475	341	225	136	122	48	20	13	1,380
Motor cyclists	142	70	72	30	24	13	8	6	365
Pedal cyclists	21	16	22	14	7	3	..	2	85
Passengers (all types)(b)	388	287	209	98	94	36	27	8	1,147
Pedestrians	257	194	107	61	52	22	9	3	705
Other classes(c)	5	2	..	..	5	..	..	..	12
Total	1,288	910	635	339	304	122	64	32	3,694
PERSONS INJURED									
Drivers of motor vehicles	14,468	6,756	3,927	4,663	2,867	798	277	439	34,195
Motor cyclists	4,483	1,598	1,804	1,738	678	221	135	197	10,854
Pedal cyclists	754	590	359	529	204	47	10	50	2,543
Passengers (all types)(b)	14,004	6,649	4,074	4,209	2,389	866	319	368	32,878
Pedestrians	4,369	1,816	849	876	675	204	48	68	8,905
Other classes(c)	63	28	6	5	19	1	..	2	124
Total	38,141	17,437	11,019	12,020	6,832	2,137	789	1,124	89,499

(a) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (b) Includes pillion riders. (c) Includes bystanders, tram-drivers, riders of horses and drivers of animal-drawn vehicles.

Age groups of persons killed or injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED BY AGE GROUP, 1975

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Under 5	49	34	29	11	15	3	3	2	146
5 and under 7	16	12	11	5	4	2	1	..	51
7 " " 17	105	74	62	34	29	11	4	3	322
17 " " 21	255	187	132	70	64	43	2	11	764
21 " " 30	272	203	125	60	58	25	29	7	779
30 " " 40	131	86	75	27	38	7	10	1	375
40 " " 50	109	78	62	32	36	11	5	3	336
50 " " 60	121	72	54	39	18	1	3	..	308
60 and over	221	163	85	61	42	19	4	5	600
Not stated	9	1	..	..	..	..	3	..	13
Total	1,288	910	635	339	304	122	64	32	3,694

PERSONS INJURED

Under 5	1,298	591	330	307	218	72	25	33	2,874
5 and under 7	704	310	175	174	147	45	6	14	1,575
7 " " 17	4,298	2,013	1,398	1,686	731	357	87	140	10,710
17 " " 21	8,650	3,895	2,995	2,826	1,520	601	136	292	20,915
21 " " 30	9,209	4,219	2,548	2,334	1,501	450	271	290	20,822
30 " " 40	4,303	1,893	1,071	1,032	725	184	132	119	9,459
40 " " 50	3,364	1,417	795	804	545	144	48	82	7,199
50 " " 60	2,863	1,259	697	693	423	127	40	56	6,158
60 and over	2,982	1,348	829	669	474	144	21	45	6,512
Not stated	470	492	181	1,495	548	13	23	53	3,275
Total	38,141	17,437	11,019	12,020	6,832	2,137	789	1,124	89,499

(a) See footnote (a) to previous table.

Types of accidents

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES^(a)
NUMBER OF ACCIDENTS AND PERSONS KILLED OR INJURED, BY TYPE OF
ACCIDENT, 1975

<i>Type of accident</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust</i>
NUMBER OF ACCIDENTS									
Collisions between vehicles	16,116	7,003	4,273	5,298	2,737	792	256	514	36,989
Vehicle overturning or leaving road	3,381	906	2,495	1,340	1,420	422	154	164	10,282
Vehicle colliding with pedestrian	4,212	1,819	905	894	708	214	51	67	8,870
Vehicle colliding with fixed object ^(b)	4,108	2,441	375	1,115	144	52	74	104	8,413
Passenger accidents	78	142	48	41	28	6	5	14	362
Vehicle colliding with animal	291	101	128	78	54	9	14	6	681
Other	31	102	17	27	13	1	..	..	191
Total	28,217	12,514	8,241	8,793	5,104	1,496	554	869	65,788
PERSONS KILLED									
Collisions between vehicles	562	389	266	143	101	56	19	18	1,554
Vehicle overturning or leaving road	172	73	238	90	140	41	17	3	774
Vehicle colliding with pedestrian	243	190	104	60	52	22	8	3	682
Vehicle colliding with fixed object ^(b)	301	242	16	41	6	1	16	7	630
Passenger accidents	8	8	4	2	2	2	2	1	29
Vehicle colliding with animal	2	3	5	..	3	..	2	..	15
Other . . . . .	..	5	2	3	..	..	..	..	10
Total	1,288	910	635	339	304	122	64	32	3,694
PERSONS INJURED									
Collisions between vehicles	23,461	10,728	6,144	7,599	3,918	1,249	380	708	54,187
Vehicle overturning or leaving road	4,544	1,285	3,326	1,890	1,928	601	244	198	14,016
Vehicle colliding with pedestrian	4,254	1,708	861	891	682	206	47	67	8,716
Vehicle colliding with fixed object ^(b)	5,432	3,339	464	1,466	196	65	93	131	11,186
Passenger accidents	75	145	44	48	26	4	3	13	358
Vehicle colliding with animal	343	121	163	96	66	11	22	7	829
Other	32	111	17	30	16	1	..	..	207
Total	38,141	17,437	11,019	12,020	6,832	2,137	789	1,124	89,499

(a) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (b) Includes parked vehicles.

ROADS

Summary of roads used for general traffic

Proclaimed or declared roads. The table following is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1975. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettal of roads, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, STATES, 30 JUNE 1975
(Kilometres)

Class of road	N.S.W.	Vic.(a)	Qld	S.A.	W.A.	Tas.	Total
State highways . . .	10,492	(b)7,262	10,179	13,593	12,798	1,937	105,571
Trunk roads . . .	7,081	14,604	126				
Ordinary main roads . . .	18,316		8,118				
<i>Total main roads</i> . . .	<i>35,889</i>	<i>21,866</i>	<i>18,423</i>	<i>13,593</i>	<i>12,798</i>	<i>3,002</i>	<i>105,571</i>
Secondary roads . . .	(c)287	..	(d)13,763	..	8,252	292	22,594
Development roads . . .	3,619	..	7,609	..	..	198	11,426
Tourist roads . . .	399	801	..	..	..	114	1,314
Other roads . . .	2,566	(e)1,039	..	..	..	..	3,605
<i>Total other roads</i> . . .	<i>6,871</i>	<i>1,840</i>	<i>21,372</i>	<i>..</i>	<i>8,252</i>	<i>604</i>	<i>38,938</i>
Grand total . . .	42,760	23,706	39,795	13,593	21,050	3,606	144,510

(a) As from 1 July 1974 the Country Roads Board acquired the road making powers, roads and relevant staff of the Melbourne and Metropolitan Board of Works. (b) Includes 206 kilometres of freeways constructed by the Country Roads Board. (c) Metropolitan only. (d) Includes mining access roads, farmers' roads and tourist tracks. (e) Forest roads.

Total roads. The following table represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

ALL ROADS OPEN FOR GENERAL TRAFFIC
LENGTHS, STATES AND TERRITORIES, 30 JUNE 1975
(Kilometres)

Surface of roads	N.S.W.(a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	(a)Total
Bitumen or concrete . . .	66,878	55,789	40,044	17,617	30,666	6,937	4,652	1,437	224,020
Gravel, crushed stone or other improved surface . . .	65,499	45,989	30,998	21,211	31,252	13,277	1,597	375	210,198
Formed only . . .	41,919	28,177	61,322	24,401	45,267	778	4,942	42	410,771
Cleared only . . .	14,690	29,193	59,451	37,026	54,469					9,094	..
Total . . .	188,985	159,148	191,815	100,255	161,654	20,993	20,285	1,854	844,989

(a) Excludes 20,286 kilometres of road dedicated but not trafficable.

Further information on roads, including financial particulars, is included in Chapter 18. Public Finance.

National Association of Australian State Road Authorities

The National Association of Australian State Road Authorities (N.A.A.S.R.A.) was established in 1934 under the title 'Conference of State Road Authorities of Australia', the present name being adopted in 1959. Initially the member authorities were the central road authority in each State but in 1949 this was extended to include the Commonwealth Government Department of Works. The present member authorities are: Department of Main Roads, New South Wales; Country Roads Board, Victoria; Main Roads Department, Queensland; Highways Department, South Australia; Main Roads Department, Western Australia; Department of Public Works, Tasmania; Commonwealth Government Department of Construction.

These authorities are directly responsible for the construction and maintenance of the primary road system which comprises approximately 14 per cent of roads in Australia. The primary roads, generally termed 'main roads', include the principal routes between States, routes linking large cities and regions within the States and certain major arterial roads. The authorities also have a limited responsibility for some secondary roads serving primary and secondary industry, and tourist roads.

The Association's objectives are to provide a central organisation where, by co-operative effort, a uniform approach to the improvement, planning and development of the Australian road system can be achieved. This is done by gathering together experienced engineers and administrators from the member Authorities into a series of committees to develop national standards for road and bridge design, construction and maintenance and to improve methods of administration and financial control. The policies and standards published are widely used by local government authorities and by universities as standard textbooks for courses in road engineering. For structural design, road signs, manufactured items and standard laboratory test procedures it has been a long standing policy of the Association to participate with the Standards Association of Australia in the preparation of national codes of practice.

One item of continuing interest to the Association is road research and in 1959 the Association decided to establish and finance a separate national road research centre. This centre, the Australian Road Research Board (A.R.R.B.), was established in 1960 as a company controlled by a Board consisting of the N.A.A.S.R.A. members. The director and staff of A.R.R.B. regularly report to the N.A.A.S.R.A. executive and technical committees the results and progress of research undertaken for N.A.A.S.R.A. and the individual road authorities.

The Association also assists the Commonwealth Government in a number of national and international projects. Within Australia direct grants are made for the construction of a number of roads and the Association has provided the basic data for the two Australian Roads Surveys. These surveys are conducted regularly in conjunction with the Commonwealth Bureau of Roads and form the basis for determining the Commonwealth Government's policy on financial aid for roads. The Association also regularly confers with the Commonwealth Government Department of Transport, the Commonwealth Bureau of Roads and Australian Transport Advisory Council on major roading policies. As part of the Commonwealth Government's external aid program and in conjunction with the Department of Foreign Affairs, member authorities of the Association conduct engineering training courses for experienced engineers from African and Asian countries.

The secretarial services of the Association are provided by a small staff located in Sydney. This office maintains contact with overseas road bodies and acts as a centre for the receipt and circulation of standards published by these organisations.

Australian Road Research Board

The Australian Road Research Board was established by the road authorities of the Commonwealth and State Governments in 1960 as a national centre for road research. The Board was incorporated in January 1965 as a public company limited by guarantee, memorandum and articles of association being drafted in general conformity with the constitution which had been accepted in 1960. The company members are the Commonwealth Government, the commissioners of the central road authorities in New South Wales, Queensland, South Australia, and Western Australia, the Department of Public Works, Tasmania, and the Country Roads Board, Victoria. The Secretary of the Commonwealth Government Department of Construction and the departmental heads of the other road authorities constitute the Board, which controls all policy and activities. Finance for all activities has been provided by the company members on an agreed basis.

The objectives of A.R.R.B. include planning an adequate program of research and development, arranging for individual projects to be carried out directly and by co-operating organisations, and providing conferences and publications to bring these and other advances to everyone interested in roads. Publications include *Proceedings* of biennial national research conferences commencing in 1962, the journal *Australian Road Research* issued a number of times a year, and separate reports and bulletins resulting from special research projects.

The following list of possible subjects indicates the range of studies provided for in the original constitution: road planning, location, design, safety, materials, construction, maintenance, structures, equipment, traffic and transport, economics, administration, financing, management, accounting, and any other matters affecting the provision, upkeep, use, protection, and development of roads. In planning a creative program the Board continues to look for those subjects which seem to offer the highest benefit to road engineers and the community.

The work on research projects is carried out either directly by the Board's own staff, in many cases acting in co-operation with the road authorities of the various governments, or through co-operative projects established with universities. The Board has endeavoured to provide or sustain the additional staff required for these external projects, but university staff members furnish advice and co-operation in all parts of these studies.

As with most research organisations, the Board has made very full use of systematic consultation through various advisory groups. Members of these groups have been recruited from persons with the ability to contribute, who were prepared to serve as individuals and not as representatives of particular organisations. In an attempt to secure completely unfettered counsel, most of the members of the advisory groups were drawn from outside the Board and its staff. The various committees include a general Advisory Council and several particular types of specialist committees. In addition, the technical committees of the National Association of Australian State Road Authorities have, with the initiation of A.R.R.B., been a continuing and valuable source of advice and consultation. In this way, therefore, exceedingly valuable advice has been obtained from individuals drawn from the State road authorities, local authorities, C.S.I.R.O., Australian universities, several Commonwealth Government departments, and from private companies and consultants.

Commonwealth Bureau of Roads

The Commonwealth Bureau of Roads is a Statutory Authority established under the provisions of the *Commonwealth Bureau of Roads Act* 1964. The Bureau consists of a full-time Chairman and two part-time members appointed by the Governor-General and is served by a small secretariat. Broadly, the responsibilities of the Bureau are to advise the Commonwealth Government, through the Minister for Transport, on matters relating to roads and road transport and government financial assistance in this area.

An article dealing with the development of roads in Australia is given in Year Book No. 60, pages 385-93.

AIR TRANSPORT

Department of Transport (Air Transport Group)

Control of air transport in Australia is exercised by the Department of Transport. The Department's jurisdiction covers Australia and areas of the Indian and Pacific Oceans. Year Books Nos. 16, 19 and 38 trace the establishment of air transport control in Australia and the appropriate Acts of Parliament and Regulations under which this control is exercised. The present functions of the Department are shown in Year Book No. 51, pages 578-9, and further details about its operations are given in the annual reports to the Commonwealth Parliament by the Minister for Transport.

Regular air services within Australia

Interstate services. The majority of scheduled interstate services with passenger and all-freight aircraft are provided by two airlines only, the private enterprise airline Ansett Airlines of Australia (a division of Ansett Transport Industries (Operations) Pty. Ltd., which is a subsidiary of Ansett Transport Industries Ltd.) and the Commonwealth Government-owned Trans-Australia Airlines. All principal routes are competitive, with both airlines providing equal capacities in accordance with legislation passed by the Commonwealth Parliament. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreement Act* 1952 and the *Airlines Equipment Act* 1958. The Airlines Equipment Act established the machinery for the achievement and maintenance of comparable, but not necessarily identical, aircraft fleets between T.A.A. and Ansett

Airlines of Australia, and is designed to prevent the provision of excess aircraft capacity. The Airlines Agreement Act established the basis of control of the two-airline competitive system and extended this machinery until at least 1982.

In addition to purely interstate services, both Ansett Airlines of Australia and Trans-Australia Airlines operate non-competitive intrastate routes in Australia. The Ansett Airlines of Australia non-competitive routes radiate mainly from Melbourne, while those of Trans-Australia Airlines are located within Queensland.

At 30 June 1975 the Ansett Airlines of Australia fleet included twelve Boeing 727s, twelve DC-9s, eleven Friendships, three L188(F)s and two helicopters. At the same date Trans-Australia Airlines operated a fleet of twelve Boeing 727s, twelve DC-9s, fifteen Friendships and five Twin Otter DHC-6.

Intrastate services. In addition to the intrastate services operated by Ansett Airlines of Australia and Trans-Australia Airlines there are a number of smaller regional airlines operating from Sydney (Ansett Airlines of New South Wales and East-West Airlines), Adelaide (Ansett Airlines of South Australia), Perth (MacRobertson Miller Airlines), and Alice Springs (Connair). With the exception of Connair, which provides regular service to outback homesteads and communities, all of these are concerned primarily with traffic moving to and from the respective capital city. With the exception of the independently owned East-West Airlines and Connair, all regional airlines are divisions of Ansett Transport Industries (Operations) Pty. Ltd. The larger aircraft used by these regional airlines are Fellowships, Friendships and Convairs. Connair uses DC3s, Herons and smaller aircraft types.

Commuter services. These are not airline services but regular flights by charter firms with small single and twin-engined aircraft operating to fixed and published timetables. They provide regular air links between many centres, towns and country areas which are either not served by the major airlines or have no direct air service with their capital or nearest major provincial city. The first commuter service approved was for Opal Air Pty Ltd, of Coober Pedy (S.A.), to operate between Adelaide and the South Australian opal fields. At 30 June 1975 twenty-nine charter operators were operating commuter services in Australia. Details of the operations of these commuter services are excluded from the statistics shown in this section.

Scheduled domestic airline services. Statistics of all regular airline services are set out in the following table.

**AIR TRANSPORT: OPERATIONS OF REGULAR INTERNAL SERVICES
AUSTRALIA(a)**

	1970-71	1971-72	1972-73	1973-74	1974-75
Hours flown . . . number	258,793	248,774	256,435	281,611	282,706
Kilometres flown . . . '000	114,605	115,931	121,605	135,209	138,928
Passengers—					
Embarkations . . . number	6,340,036	6,629,316	7,502,892	8,857,654	9,393,104
Passenger-kilometres . . . '000	4,974,220	5,276,524	5,842,540	7,001,336	7,578,752
Freight—					
Tonnes uplifted . . . tonnes	91,401	89,883	94,425	112,654	107,813
Tonne-kilometres . . . '000	78,047	76,475	84,039	101,334	100,942
Mail—					
Tonnes uplifted . . . tonnes	9,916	10,137	10,114	9,916	9,613
Tonne-kilometres . . . '000	9,329	9,589	10,100	9,569	9,312

(a) Includes flights of all Australian-owned airlines, with the exception of those of Qantas Airways Limited, between airports located within Australia.

Internal airline passenger embarkation and disembarkation

The statistics set out in the next table have been compiled by aggregating all internal airline passenger traffic loaded and unloaded at each airport. They include passengers on flights between Australia and Papua New Guinea and Australia and Norfolk Island. At ports where through-passengers transfer between flights, such passengers are counted as embarking as well as disembarking passengers.

**INTERNAL AIRWAYS PASSENGER EMBARKATIONS AND
DISEMBARKATIONS AT PRINCIPAL AUSTRALIAN AIRPORTS**

<i>Airport</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>
Sydney	3,515,231	3,694,498	4,162,659	4,679,513	4,953,051
Melbourne	2,750,602	2,861,896	3,226,294	3,876,877	4,037,585
Brisbane	1,347,118	1,448,920	1,658,043	2,078,812	2,218,780
Adelaide	1,019,320	1,046,840	1,154,384	1,374,645	1,494,675
Canberra	596,171	670,608	813,712	934,069	981,815
Perth	510,328	545,890	536,057	646,699	696,527
Hobart	222,397	227,016	282,676	382,636	375,769
Townsville	197,942	202,160	231,665	315,782	320,153
Coolangatta	166,239	188,917	243,994	278,044	300,854
Launceston	197,500	208,090	244,982	294,694	287,741
Cairns	158,986	182,300	204,414	251,847	266,620
Darwin	118,375	131,703	141,696	182,319	241,003
Mackay	125,220	133,806	159,408	196,951	213,972
Rockhampton	97,264	101,685	113,823	153,075	160,687
Alice Springs	57,299	65,497	89,018	126,572	151,566
Devonport	71,426	75,388	84,290	105,447	104,150
Wynyard	65,563	70,597	75,532	88,074	93,209
Mount Isa	67,938	69,760	68,741	79,297	81,147
Tamworth	50,870	59,557	67,479	74,650	80,409
Wagga	52,181	52,511	56,651	61,723	69,581
Dubbo	55,574	50,827	56,566	58,939	64,925
Kingscote	51,135	47,993	48,609	59,107	61,696

International activity

International organisations. A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council, and the South Pacific Air Transport Council appeared in Year Book No. 37, and particulars of subsequent activity in the international field were included in No. 38. The International Civil Aviation Organization had a membership of 129 nations in June 1975. Australia has continued its position as a member of the Council, which it has held since I.C.A.O. was established in 1947. Further details will be found in Year Book No. 40 and earlier issues.

International agreements. Australia had air service agreements in force with twenty-four countries at 30 June 1975. They were Austria, Britain, Canada, Sri Lanka, Egypt, Fiji, France, Federal Republic of Germany, Greece, India, Indonesia, Ireland, Italy, Japan, Lebanon, Malaysia, Nauru, Netherlands, New Zealand, Philippines, Singapore, Republic of South Africa, Thailand, and the United States of America. Under these agreements Australia is granted rights to operate services between Australia to and through the countries in question; these rights are exercised by Australia's international airline Qantas. In return, the designated airlines of the other countries which are partners to these agreements are granted traffic rights in Australia. Australia also had air service arrangements granting traffic rights with eight other countries at 30 June 1975. These were Bahamas, Bahrain, Iran, Mauritius, Mexico, Portugal, Syria and Turkey.

International air services. At 30 June 1975, twenty-three overseas international airlines were operating regular scheduled services to Australia. These are: Air-India (India), Air Nauru (Nauru), Air New Zealand (New Zealand), Air Niugini (New Guinea), Air Pacific (Fiji), Alitalia (Italy) British Airways Overseas Division (Britain), Canadian Pacific Air Lines (Canada), Cathay Pacific (Hong Kong), Deutsche Lufthansa (Federal Republic of Germany), Garuda (Indonesia), Japan Air Lines (Japan), J.A.L. (Yugoslavia), K.L.M. Royal Dutch Airlines (Netherlands), Singapore International Airlines (Singapore), Merpati Nusantara Airlines (Indonesia), Olympic Airways (Greece), Pan American World Airways (United States of America), Philippines Air Lines (Philippines), South African Airways (Republic of South Africa), Thai International (Thailand) and Union de Transport Aeriens (France). Qantas, Australia's international airline, operates a fleet of twenty-seven aircraft of which fourteen are Boeing 707-338C jet aircraft and ten are Boeing 747B jet aircraft. All the shares in Qantas Airways Limited are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1974-75 moving into and out of an area which embraces Australia, Papua New Guinea, and Norfolk Island. These figures do not include traffic between Australia and Papua New Guinea and Norfolk Island.

**AIR TRANSPORT: INTERNATIONAL AIRLINE TRAFFIC
TO AND FROM AUSTRALIA(a), 1974-75**

<i>Type of traffic</i>	<i>Aircraft movements</i>	<i>Passengers</i>	<i>Freight</i>	<i>Mail</i>
Traffic to Australia—			tonnes	tonnes
Qantas Airways Limited	5,469	561,959	13,032	663
Other airlines	8,125	658,901	28,174	3,795
All airlines	13,594	1,220,860	41,206	4,458
Traffic from Australia—				
Qantas Airways Limited	5,510	533,577	10,120	1,833
Other airlines	7,909	637,665	14,432	698
All airlines	13,419	1,171,242	24,552	2,531

(a) Australian mainland, and Papua New Guinea and Norfolk Island.

Statistics covering the operations of Australia's regular overseas services are shown in the following table. These operations include all stages of Qantas flights linking Australia with external territories and overseas countries, and stages external to Australia for flights of other Australian-owned airlines; they exclude flights over stages located within Papua New Guinea.

AIR TRANSPORT: OPERATIONS OF AUSTRALIA'S REGULAR OVERSEAS SERVICES

	1970-71	1971-72	1972-73	1973-74	1974-75
Hours flown number	97,307	91,357	87,548	90,293	86,231
Kilometres flown '000	70,346	66,270	64,823	69,062	65,045
Passengers—					
Embarkations number	839,629	885,548	1,054,929	1,295,457	1,418,541
Passenger-kilometres '000	4,446,906	4,892,044	6,775,195	8,653,357	9,434,345
Freight—					
Tonnes uplifted tonnes	21,455	20,961	23,239	27,328	29,974
Tonne-kilometres '000	155,143	143,514	150,342	195,078	213,748
Mail—					
Tonnes uplifted tonnes	2,819	2,841	2,791	2,912	2,950
Tonne-kilometres '000	22,862	24,627	22,891	25,071	24,043

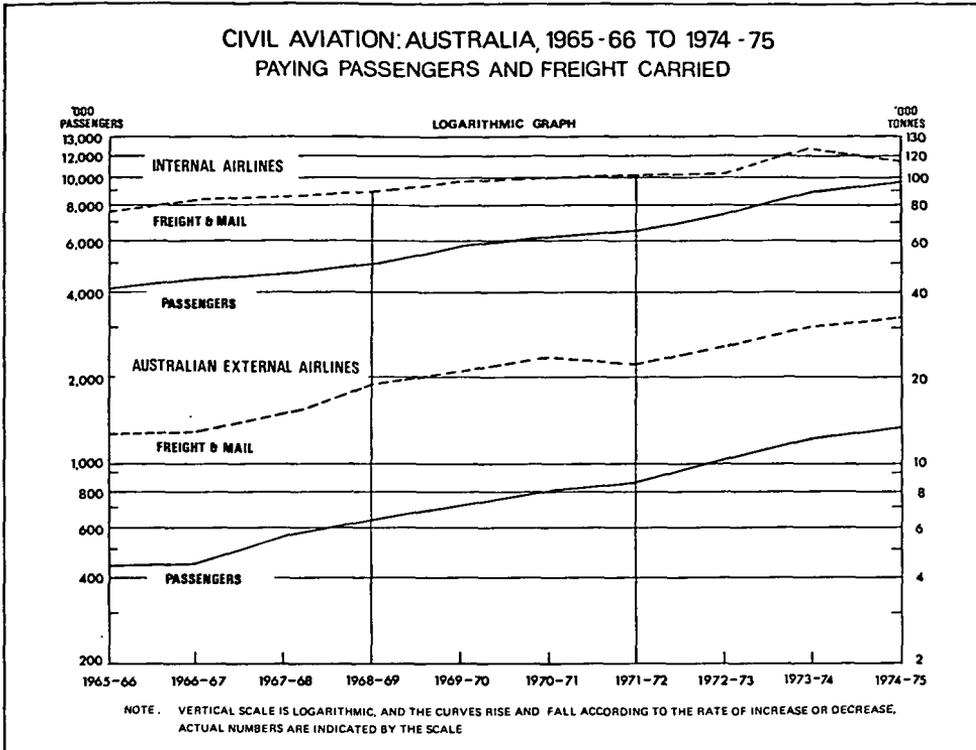


PLATE 38

General aviation

General aviation activity, which covers all non-airline operations such as charter, aerial work and private flying, has grown rapidly throughout Australia in recent years and is an important sector of the Australian aviation industry. In 1974-75 the general aviation hours flown, chiefly with light aircraft totalled 1,100,000 compared with 300,000 hours flown by Australian airline aircraft. At 30 June 1975 aircraft employed in general aviation numbered 4,115.

Aerodromes

The number of aerodromes throughout Australia and its External Territories at 30 June 1975 was 473. Ninety-three were owned by the Commonwealth Government and 380 by local authorities and private interests. Capital expenditure on aerodrome and building construction was \$13.6 million in 1974-75. Maintenance expenditure on Commonwealth Government-owned aerodromes during 1974-75 was \$4.4 million, and development and maintenance grants to licensed aerodromes participating in the Local Ownership Plan totalled \$1,289,000.

Airways facilities

A total of 404 navigational aids were in service at 30 June 1975. The total includes 224 non-directional beacons (NDB), 101 distance measuring equipment (DME), 8 international distance measuring equipment (DMEI), 13 visual-aural ranges (VAR), 41 VHF omni-directional ranges (VOR), 16 instrument landing systems (ILS) and one twin locator approach system.

One hundred and thirty-five aerodromes are now equipped with night landing facilities. Seventy-nine Australian designed 'T' systems (T-VASIS), are operating. Seven long range surveillance radars and two short-range (TAR) are also in operation. There are thirty-one fully equipped Air Traffic Control Centres and sixty flight service units.

Air transport registrations, licences, etc., in force in Australia

At 30 June 1975 there were 4,269 aircraft registered in Australia. There were also, at 30 June 1975, 34,046 pilots' licences in force of which 15,312 were private pilots' licences, 3,470 commercial pilots' licences, and 12,542 student pilots' licences. Flight radio-telephone operators' licences numbered 22,984.

Accidents and casualties

**AIR TRANSPORT: ACCIDENTS INVOLVING CASUALTIES^(a)
AUSTRALIA^(b)**

	1970-71	1971-72	1972-73	1973-74	1974-75
Number	31	28	30	34	24
Persons killed	48	37	41	46	25
Persons seriously injured	24	23	8	19	16

(a) Accidents involving civil aircraft which resulted in death or serious injury. Excludes parachutists killed on contact with earth after an uninterrupted fall. *(b)* Excludes accidents outside Australia involving aircraft on the Australian register.

**POSTS: INTERNAL AND OVERSEAS TELECOMMUNICATION
SERVICES RADIOCOMMUNICATION STATIONS**

In this division particulars for the Australian Capital Territory are included with those for New South Wales, and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated. The Central Office of the Postal and Telecommunications Department is located in Melbourne, Victoria.

Postmaster-General's Department—General

Early in 1975, legislation was passed to establish two statutory authorities—the *Australian Telecommunications Commission* and the *Australian Postal Commission*—which took over the postal and telecommunications responsibility of the Postmaster-General's Department from 1 July 1975. The residual functions of the former department will remain with the new Postal and Telecommunications Department. This mainly involves the administration of the *Wireless Telegraphy Act* which concerns the licensing and management of the radio frequency spectrum. The new Department also took over, from the former Department of the Media, the responsibility for policy matters concerned with broadcasting.

The principal functions of the Department are reflected in the *Post and Telegraph Act 1901*. Since its establishment the Department assumed other responsibilities some of which are currently reflected in the *Wireless Telegraphy Act 1905* and the *Broadcasting and Television Act 1942*.

The basic role of the Department was to provide within Australia a network of facilities which enable people and organisations:

- to send letters, printed matter, parcels and money in Australia and overseas and to receive such items within Australia from overseas.
- to converse by telephone in Australia and overseas.
- to send and receive written messages, data, pictures and other visual matter by electrical means within Australia and to and from overseas.
- to relay on the telecommunications network, radio and television broadcasts emanating within Australia and those on relay to and from overseas.

In addition the Department has the following responsibilities:

- to plan and manage the radio frequency spectrum and regulate radio communications service;
- to construct, maintain and operate the transmitters of the National Broadcasting and Television Service and the Radio Australia Service (see pages 416-18); and
- to provide agency services for Australian and State Government Departments and other instrumentalities

Postal facilities

The following table shows the number of post offices, the area in square kilometres and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square kilometres in each State and in Australia at 30 June 1975.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, 30 JUNE 1975

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Post offices—							
Official	510	331	215	171	161	46	1,434
Non-official	1,455	1,174	790	590	391	234	4,634
Total post offices	1,965	1,505	1,005	761	552	280	6,068
Square kilometres of territory per office	409	151	1,719	3,062	4,575	242	1,266
Inhabitants per office	2,535	2,441	1,987	1,737	2,034	1,450	2,225
Inhabitants per 100 square kilometres	620	1,614	116	57	44	599	176

Employment

PERSONS PROVIDING POST OFFICE SERVICES: CENTRAL OFFICE AND STATES
30 JUNE 1975

	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Official full-time staff(a)—								
Permanent officers	3,530	30,296	22,540	13,931	9,847	8,176	2,877	91,197
Temporary and exempt employees	167	13,994	8,414	3,946	1,857	1,851	545	30,774
Total	3,697	44,290	30,954	17,877	11,704	10,027	3,422	121,971
Other(b)—								
Non-official postmasters and post-mistresses . . . . .	..	1,455	1,174	790	590	391	234	4,634
Other staff at non-official offices . . . . .	..	561	460	337	190	74	24	1,646
Telephone office-keepers . . . . .	..	77	9	14	45	54	1	200
Mail contractors (including persons employed to drive vehicles) . . . . .	..	1,607	878	801	285	300	162	4,033
Total . . . . .	..	3,700	2,521	1,942	1,110	819	421	10,513
Grand total	3,697	47,990	33,475	19,819	12,814	10,846	3,843	132,484

(a) Persons directly under the control of the Department. Excludes 3,893 part-time staff. (b) Persons not directly under the control of the Department. Includes persons employed either full-time or part-time under contract or in return for payments appropriate to work performed.

Financial operations—Postmaster-General's Department

The financial tables which follow allow for the changed accounting arrangements introduced by the Postmaster-General's Department following amendment of the Post and Telegraph Act in 1968.

Earnings

The following table shows the earnings of the Postmaster-General's Department as taken from successive Profit and Loss Statements.

POSTMASTER-GENERAL'S DEPARTMENT: EARNINGS, BY SOURCE
AUSTRALIA
(\$'000)

Year	Postal service			Telecommunications service						Total
	Postages	Money order and postal order fees	Commission on agency services	Other earnings	Telephone rentals	Telephone calls	Telegrams	Leased telegraph services	Other earnings (a)	
1965-66	107,402	2,771	4,277	2,296	93,856	154,304	11,639	6,144	18,585	401,274
1966-67	110,317	2,919	4,300	2,452	100,823	171,100	11,868	7,018	20,691	431,488
1967-68	127,748	3,178	4,406	2,847	108,293	211,812	14,172	7,478	22,722	502,656
1968-69	142,770	3,400	5,591	3,175	116,974	245,571	14,711	8,145	26,872	567,208
1969-70	149,036	3,505	5,698	3,628	126,669	280,757	15,120	9,253	31,579	625,244
1970-71	171,548	4,246	6,348	3,457	153,658	312,111	17,369	10,880	35,996	715,613
1971-72	196,361	4,618	7,857	4,528	184,975	387,538	17,284	12,965	42,367	858,493
1972-73	207,277	4,778	10,055	4,386	192,244	435,404	18,185	13,759	50,973	937,061
1973-74	224,246	4,944	11,863	3,943	235,816	517,375	19,499	15,155	65,590	1,098,431
1974-75	274,073	5,653	13,207	9,055	301,466	637,804	25,775	16,912	86,668	1,370,612

(a) Includes fees for advertisements in telephone directories, proceeds of sales of fixed assets, telephone service connection fees and telex call fees.

Expenses

This table shows the operating and maintenance expenses of the Postmaster-General's Department as taken from successive Profit and Loss Statements.

POSTMASTER-GENERAL'S DEPARTMENT: EXPENSES, BY SOURCE
AUSTRALIA
(\$'000)

Year	Postal service			Telecommunications service			Total
	Operating maintenance and general	Carriage of mail	Depreciation, super-annuation, long service leave and interest	Operating and general	Maintenance of plant	Depreciation, super-annuation, long service leave and interest	
1965-66	84,868	31,143	11,077	74,451	66,489	133,370	401,398
1966-67	95,775	32,395	15,398	83,154	74,063	152,205	452,991
1967-68	107,016	33,114	18,209	92,614	83,645	177,707	512,305
1968-69	106,682	35,678	21,277	101,861	95,022	198,651	559,171
1969-70	123,615	34,911	23,208	116,920	105,711	218,897	623,262
1970-71	144,352	37,722	29,014	135,321	121,731	249,116	717,256
1971-72	155,306	34,880	34,431	154,587	138,123	281,366	798,694
1972-73	173,265	35,404	38,719	176,607	160,182	311,662	895,838
1973-74	203,185	36,638	59,691	217,784	203,635	372,825	1,093,757
1974-75	262,006	42,214	62,364	282,744	250,187	440,567	1,340,083

Profit or loss

The following table shows the net results of the Department's operations for the year 1974-75 together with summarised particulars for the year 1973-74.

POSTMASTER-GENERAL'S DEPARTMENT
CONSOLIDATED STATEMENT OF PROFIT AND LOSS, AUSTRALIA
1973-74 AND 1974-75
(\$'000)

	1973-74		1974-75	
	All services	Postal service	Telecommunications service	All services
Earnings	1,098,431	301,988	1,068,624	1,370,612
Expenses—				
Operating, maintenance and general	661,242	304,221	532,930	837,151
Depreciation	171,514	7,216	185,656	192,872
Superannuation	78,711	32,392	63,890	96,282
Long service leave	20,266	8,871	17,326	26,197
Total expenses	931,733	352,700	799,802	1,152,502
Profit or loss before interest	166,698	-50,712	268,822	218,110
Interest	162,024	13,885	173,696	187,581
Profit or loss after interest	4,674	-64,597	95,126	30,529

Minus sign (—) denotes loss.

Fixed assets, Postmaster-General's Department

POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS
1974-75
(\$'000)

<i>Class of plant</i>	<i>Value at 1 July 1974</i>	<i>Additions during year</i>	<i>Instalments of plant written out</i>	<i>Value at 30 June 1975</i>
Telecommunications plant	3,802,108	576,669	42,813	(a)4,335,964
Postal plant	30,153	4,007	665	(b)33,365
Engineers' moveable plant	59,769	12,037	4,968	66,838
Motor vehicles	43,842	12,604	8,357	48,089
Other plant and equipment	62,048	9,561	2,145	69,464
Buildings	466,579	72,742	1,015	(c)538,306
Land	66,570	10,508	131	76,947
Total	4,531,068	698,127	60,094	(b)5,168,973

(a) Includes plant under construction valued at \$212,955,651. (b) Excludes \$128,561 adjustment for changed service lives. (c) Includes buildings under construction valued at \$58,343,722.

Postal services

Mail delivery network

MAIL DELIVERY NETWORK(a): 31 MARCH 1975

<i>State</i>	<i>Number of mail delivery points</i>				
	<i>Postmen's delivery</i>	<i>Roadside delivery</i>	<i>Private boxes</i>	<i>Private and free bags</i>	<i>Poste restante(b)</i>
New South Wales	1,493,267	71,472	129,694	5,058	49,469
Victoria	1,084,126	49,674	80,369	3,881	36,184
Queensland	481,349	51,048	71,116	6,615	24,496
South Australia	354,515	2,821	45,773	4,227	19,025
Western Australia	302,743	8,456	37,611	795	18,058
Tasmania	94,137	6,895	14,272	1,229	11,666
Australia	3,810,137	190,366	378,835	21,805	158,898

(a) Statistics shown here are from the Mail Delivery Network Survey at 31 March 1975. (b) Delivery of mail at post offices.

Postal articles handled

The following two tables show the number of postal articles handled by the Australian Post Office, according to their State of origin. Each article is counted once only irrespective of the number of times it may be handled in transit.

TRANSPORT AND COMMUNICATION

POSTAL ARTICLES HANDLED(a): 1974-75
(^{'000})

State	Posted for delivery within Australia				Posted for delivery overseas			
	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)
New South Wales	756,976	127,427	9,645	2,409	43,784	8,826	368	1,162
Victoria	596,148	102,911	5,574	1,557	29,227	3,480	391	662
Queensland	287,025	36,678	2,450	1,033	9,746	771	98	88
South Australia	186,909	25,967	1,642	589	4,453	316	82	89
Western Australia	145,862	19,318	1,055	480	7,959	957	75	110
Tasmania	52,172	6,756	244	188	313	31	7	3
Australia	2,025,091	319,051	20,609	6,256	95,482	14,381	1,020	2,113

	Received from overseas			Total postal matter dealt with				
New South Wales	80,599	19,005	967	1,754	881,358	155,258	10,980	5,325
Victoria	50,196	11,547	752	845	675,571	117,938	6,716	3,064
Queensland	9,321	2,929	197	62	306,093	40,379	2,745	1,183
South Australia	6,569	2,288	110	36	197,931	28,571	1,834	714
Western Australia	6,166	4,184	176	97	159,986	24,459	1,307	687
Tasmania	107	265	57	2	52,592	7,052	308	193
Australia	152,957	40,219	2,260	2,797	2,273,531	373,657	23,889	11,165

(a) Number of distinct articles handled. (b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (c) Includes newspapers and postal articles not included in letter mail. (d) Includes registered, cash on delivery and duty parcels. (e) Includes registered articles other than parcels.

POSTAL ARTICLES HANDLED(a): AUSTRALIA
(^{'000})

Year	Letters(b)	Newspapers and packets(c)	Parcels(d)	Registered articles(e)	Total postal articles handled
1970-71	(f)2,436,846	(f)330,858	24,950	13,234	2,805,887
1971-72	2,429,041	300,981	24,574	12,166	2,766,762
1972-73	2,474,996	315,774	25,445	11,372	2,827,587
1973-74	(g)2,459,155	(g)321,814	25,336	11,722	2,818,026
1974-75	2,273,531	373,657	23,889	11,165	2,682,242

(a) Number of distinct articles handled. (b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (c) Includes newspapers and postal articles not included in letter mail. (d) Includes registered, cash on delivery and duty parcels. (e) Includes registered articles other than parcels. (f) Comparable only with previous year. (g) Not comparable with previous years.

During 1974-75 the cost of the carriage of mails, as disclosed by the Profit and Loss Statement of the Postal Service, was as follows: road, \$23,276,872; railway, \$3,710,173; sea, \$1,281,731; air—internal, \$3,005,869; overseas, \$10,939,833; total, \$42,214,478.

MONEY ORDERS AND POSTAL ORDERS: TRANSACTIONS, AUSTRALIA

Year	Money orders(a)			Postal orders		
	Issued		Total commission received	Issued		Fee
	Number	Value		Number	Value	
	'000	\$'000	\$'000	'000	\$'000	\$'000
1970-71 . . .	7,353	161,119	3,031	(b)16,732	44,961	1,193
1971-72 . . .	5,677	143,167	2,808	17,289	55,784	1,779
1972-73 . . .	5,151	144,896	2,807	16,787	57,475	1,903
1973-74 . . .	4,774	154,442	2,948	15,822	60,887	2,000
1974-75 . . .	4,521	182,668	3,308	14,547	60,566	2,353

(a) Money orders issued for payment in Australia and overseas. (b) Postal orders for \$9 and \$10 were introduced in October 1970.

Of the total money orders issued in Australia during 1974-75, 4,160,686 valued at \$177,022,610 were payable in Australia, and 360,750 valued at \$5,645,455 were payable overseas. Of the total money orders paid in Australia during 1974-75, 4,315,557 (\$175,690,854) were issued in Australia, and 153,480 (\$4,197,950) were issued overseas.

Of the total postal orders paid in Australia during 1974-75 (14,546,590 valued at \$60,566,045), 11,106,681 (\$47,791,232) were paid in the State in which issued, and 3,493,317 (\$12,484,618) were paid in States other than those in which issued.

Internal telecommunication services

A brief history of the development of telecommunications in Australia is shown on pages 378-82 of Official Year Book No. 59. Common internal telecommunication operations now comprise telephone, telegram and telex services.

Wire and pole routes

At 30 June 1975 there were 26,099,754 pair kilometres of cable and 733,825 pair kilometres of aerial wire used for telecommunication purposes in Australia. The aerial wires are mounted on 152,903 kilometres of pole routes.

Coaxial cable and broadband relay systems

In recent years trunk telephone, telegraph and television channels have been increasingly provided by coaxial cable and radio relay systems. Broadband radio relay systems and coaxial cables are an alternative means of providing transmission facilities, each radio bearer being similar in carrying capacity to a coaxial tube. At 30 June 1975 there were 31,774 tube kilometres of coaxial cable and 114,145 bearer kilometres of radio relays in operation.

Telephone services in operation

Increasing use of the telephone by the community has resulted in a demand for additional telephone services. The volume of internal telephone traffic has consistently expanded, trunk line calls having the fastest rate of growth.

The following table shows the number of services in operation in each State at 30 June 1975 classified according to type of service, type of exchange to which connected, and location. Telephone services connected to exchanges within 24.1 km of the Sydney and Melbourne General Post Offices, and 16.1 km of the Brisbane, Adelaide, Perth and Hobart General Post Offices are defined as being within a metropolitan area. Telephone services connected to exchanges located between 24.1 km and 40.2 km of the Sydney and Melbourne General Post Offices and between 16.1 km and 32.2 km of Brisbane, Adelaide, Perth and Hobart General Post Offices are defined as being within an outer metropolitan area.

Definitions of terms used in the following table

Ordinary exchange services are services which provide direct access to the exchange system by means of exclusive use of an exchange line.

Duplex services provide for two subscribers sharing a single exchange line, and preserve individual calling, separate metering and secrecy conditions. Duplex services are counted as two services.

Party line services are other shared services involving any number of subscribers, and are counted as one service for one exchange line.

Private branch exchange services are services which provide for any number of extension lines to operate through a switchboard (either automatic or manual) into the exchange system. The relevant figure is the number of exchange lines (as distinct from extension lines). A service with six exchange lines and fifty extension lines is shown as six services.

Public telephones are telephones installed in public thoroughfares and other approved places for the use of the public generally (leased company coin telephones and 'red phones' are not included).

TELEPHONE SERVICES IN OPERATION: 30 JUNE 1975

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Type of service—							
Ordinary exchange services	1,205,025	956,470	399,529	270,036	226,550	87,371	3,144,981
Duplex services	4	..	2	2	2	2	12
Party line services	2,925	702	2,427	870	725	47	7,696
Private branch exchange services	141,930	96,993	37,920	37,818	32,510	6,366	353,537
Public telephones	12,933	7,800	5,193	3,078	2,683	1,107	32,794
Connected to—							
Automatic exchanges	1,311,804	1,033,757	404,925	294,968	254,067	93,394	3,392,915
Manual exchanges	51,013	28,208	40,146	16,836	8,403	1,499	146,105
Located in—							
Metropolitan areas	876,912	785,845	242,887	229,139	198,127	42,066	2,374,976
Country areas	485,905	276,120	202,184	82,665	64,343	52,827	1,164,044
Total	1,362,817	1,061,965	445,071	311,804	262,470	94,893	3,539,020

TELEPHONE SERVICES IN OPERATION: AUSTRALIA

Services connected to—	30 June—				
	1971	1972	1973	1974	1975
Metropolitan exchanges—					
Automatic	1,754,872	1,822,722	1,903,589	2,014,817	2,109,006
Country exchanges—					
Automatic	859,202	949,227	1,060,328	1,179,800	1,283,597
Manual	242,936	205,818	183,153	166,409	146,417
All exchanges—					
Automatic	2,614,074	2,771,949	2,963,917	3,194,617	3,392,603
Manual	242,936	205,818	183,153	166,409	146,417
Total services	2,857,010	2,977,767	3,147,070	3,361,026	3,539,020

Telephone instruments

TELEPHONE INSTRUMENTS IN SERVICE

('000)

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1971	1,683	1,240	475	360	285	109	4,152
1972	1,814	1,294	498	377	304	113	4,400
1973	1,913	1,370	532	399	326	118	4,659
1974	2,055	1,485	553	429	352	126	5,000
1975	2,150	1,544	616	447	377	133	5,267
Number at 30 June 1975 per 100 population	43.2	42.0	30.8	33.5	33.5	32.7	39.0

Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA

Year	Effective paid local calls		Trunk line calls		Total calls '000
	Total '000	Per service number	Total '000	Per service number	
1970-71	2,848,000	1,024	225,300	81	3,073,300
1971-72	2,996,000	1,024	248,700	85	3,244,700
1972-73	3,146,000	1,027	276,300	90	3,422,300
1973-74	3,357,000	1,032	312,200	96	3,669,200
1974-75	3,560,000	1,032	345,000	100	3,905,000

Subscriber trunk dialling (S.T.D.) facilities were introduced during the year 1961-62 from Canberra to the Sydney network and from Warragul (Victoria) to Melbourne. At the end of June 1975 subscriber trunk dialling was in operation at 2,933 exchanges, connected to approximately 3,272,231 services.

Internal telegram traffic

Telegrams can be lodged at any post office, telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be despatched from any subscriber's telephone or telex service. The number of telegrams of various types transmitted within Australia is set out below.

INTERNAL TELEGRAM TRAFFIC: AUSTRALIA

('000)

Year	Ordinary (a)	Urgent	Press	Letter- grams	Meteoro- logical service	Service	Total telegrams
1970-71	16,265	436	63	23	1,099	765	18,651
1971-72	15,401	397	51	20	1,085	781	17,735
1972-73	15,588	489	43	13	1,126	780	18,037
1973-74	15,664	467	14	18	1,004	834	18,002
1974-75	13,775	355	..	23	1,065	875	16,093

(a) Includes radiograms.

Telex network

Particulars of the operations of the telex network, which are additional to the telegraph traffic shown above, are as follows:

TELEX NETWORK SERVICES AND INTERNAL CALLS, AUSTRALIA

Year	Services at end of year	Internal calls during year
1970-71	7,988	14,246,157
1971-72	9,235	15,868,800
1972-73	10,774	17,992,780
1973-74	12,857	21,489,560
1974-75	14,766	24,994,052

Development of telecommunications in Australia

An article dealing with the development of telecommunications in Australia appeared in Year Book No. 59, pages 378-84.

Overseas telecommunication services

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance and operation of telecommunication services between Australia and other countries, with ships at sea and to and between Australia's external Territories.

The Commission was established under the *Overseas Telecommunications Act* 1946. This Act implemented, in Australia, a recommendation of the 1945 Commonwealth Telecommunications Conference for national ownership of the external telecommunications services of the British Commonwealth countries concerned. (Details of overseas communication systems operating in Australia prior to 1946 and developments leading to the establishment of the Commission were published in Year Book No. 37, pages 220-4.)

With most other Commonwealth countries, the Commission is a member of the Commonwealth Telecommunications Organisation, the purpose of which is to promote the efficient exploitation and development of the Commonwealth external telecommunications system; it is a three-tier structure comprising the Commonwealth Conference on Telecommunications, the Commonwealth Telecommunications Council and the Commonwealth Telecommunications Bureau. The Commonwealth Telecommunications Council is the continuing management body of the Organisation with the role of promoting the purpose of the Organisation and carrying out the policies agreed by Governments. The Commonwealth Telecommunications Bureau is the Secretariat for the Organisation and functions under the control and direction of the Council.

The 1972 Commonwealth Telecommunications Conference reviewed the working of the Commonwealth Telecommunications Organisation in the light of experience and recommended new collaborative financial arrangements governing the use of the Commonwealth telecommunications systems. With the adoption of the recommendations of the 1972 Conference by member Governments, the Commonwealth Telecommunications Organisation Financial Agreement 1969 was replaced on 1 April 1973 by the Commonwealth Telecommunications Organisation Financial Agreement 1973.

In association with the Australian Telecommunications Commission within Australia and with communication carriers in other Commonwealth and foreign countries the Commission provides public message telegram, telephone, telex, phototelegram, leased circuit and switched data services to most countries and places throughout the world. International television programs are provided by means of satellite communication facilities with countries operating earth stations.

The Commission, in partnership with the overseas telecommunications authorities of Britain, Canada and New Zealand, installed a large capacity telephone cable across the Pacific Ocean, connecting Australia, New Zealand and Canada via Suva and Honolulu. The cable (COMPAC) was opened in December 1963 and forms part of a British Commonwealth large capacity cable scheme, in which a complementary cable between Britain and Canada (CANTAT) was officially opened in December 1961. The two cable connections are linked across Canada by a microwave system. The Commonwealth cable system feeds into the United States of America network at Hawaii and into the European network at London.

The South-East Asia cable project (SEACOM), extending the large capacity telephone cable system from Sydney to Singapore and Kuala Lumpur via Cairns, Madang, Guam, Hong Kong, and Kota Kinabalu, was opened for service on 30 March 1967.

The Commonwealth Cable Management Committee, comprising representatives of Britain, Canada, Australia, New Zealand, Malaysia and Singapore, administers COMPAC and SEACOM.

The Commission is a joint partner with the New Zealand Post Office in a 640 circuit telephone cable (TASMAN) between Australia and New Zealand which was opened for service in February 1976; and has acquired an interest in 845 circuit submarine cables jointly owned with the American and Japanese international carriers linking U.S. Mainland, Hawaii, Guam and Japan and which were completed in January 1976. The Commission is also a joint partner with the Papua New Guinea Posts and Telegraphs service in the provision of a 640 circuit submarine cable to be known as A-PNG between Cairns and Port Moresby, scheduled to enter service around July 1976.

In August 1964, Australia became a foundation member of the International Telecommunications Satellite Organisation (INTELSAT), a partnership of nations which has established a global communications satellite system. During 1976 Australia had an ownership share of 2.94 per cent making it the eighth largest shareholder among the 93 INTELSAT member countries. Through the Commission Australia is represented on the INTELSAT Board of Governors which is the management board of INTELSAT.

The Interim Agreements under which INTELSAT had operated in the period since 1964 were superseded in February 1973 by permanent arrangements, which are embodied in two inter-related Agreements. The first, an inter-governmental agreement signed by the Commonwealth Government, outlines the principles and objectives of the organisation and defines the basic organisational arrangements. The second, the Operating Agreement, signed by the Commission as the designated Australian signatory, provides the basis for the operation and management of the INTELSAT organisation.

The INTELSAT system comprises satellites located over the Atlantic, Pacific and Indian oceans. At the beginning of 1976 these satellites were providing the equivalent of 7,000 two-way telephone circuits and on demand television service between 104 earth stations located in 71 countries.

In March 1968, a satellite earth station at Moree, New South Wales, owned and operated by the Commission, commenced commercial communications, including a capability for television transmission/reception. This station, which operates to the Pacific Ocean INTELSAT satellite positioned in a stationary orbit 35,900 kilometres above the equator, was the first in Australia constructed as a 'standard' station of the INTELSAT network.

The completion of earth stations at Carnarvon (Western Australia) which operates to the Pacific Ocean INTELSAT satellite, and Ceduna (South Australia), which works to the Indian Ocean satellite, in 1969 and a significant expansion of facilities at the earth station at Moree provided increased telecommunications services via satellite. At the beginning of 1976 circuits provided by these stations provided more than half of Australia's total international telecommunications links.

The original smaller station at Carnarvon (opened in 1967) is now used solely for tracking, telemetry, command and monitoring functions under contract with the INTELSAT organisation. There is provision for four such stations to be spaced around the world so that any INTELSAT satellite can be viewed and controlled no matter where it may be. These stations keep a continuous check of the position of each satellite and its functions by means of signals transmitted by the satellite. When required, signals are transmitted to a satellite to control the direction of its antenna and to change its orbital position. During launches, these stations transmit the commands which fire the satellite motor to place it in final orbit, and during 1975 Carnarvon participated in the launch of the INTELSAT satellites which were placed in orbit over the Atlantic and Indian Oceans.

International telecommunication traffic

Particulars of the volume of international telegraph services, originating and terminating in Australia, during the years ended 31 March 1974 and 1975 are shown in the following table.

INTERNATIONAL TELEGRAPH SERVICES: AUSTRALIA, YEARS ENDED
31 MARCH 1974 AND 1975
(^{'000 words})

Class of traffic	Words transmitted					
	From Australia		To Australia		Total	
	1973-74	1974-75	1973-74	1974-75	1973-74	1974-75
Letter	36,494	35,214	28,484	27,737	64,978	62,951
Ordinary	32,741	30,089	28,988	26,861	61,729	56,950
Press	1,944	1,814	1,854	1,062	3,798	2,876
Greetings	1,608	1,434	2,000	2,010	3,608	3,444
Urgent	2,322	2,311	1,648	1,365	3,970	3,676
Other	531	569	2,380	2,044	2,911	2,613
Total	75,640	71,431	65,354	61,079	140,994	132,510

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the years ended 31 March 1974 and 1975.

INTERNATIONAL TELECOMMUNICATION SERVICES OTHER THAN TELEGRAPHIC
SERVICES: AUSTRALIA, YEARS ENDED 31 MARCH 1974 AND 1975

Service	Transmissions					
	From Australia		To Australia		Total	
	1973-74	1974-75	1973-74	1974-75	1973-74	1974-75
Telephone . . . '000 paid minutes	12,108	16,143	13,359	18,152	25,467	34,295
Telex . . . '000 paid minutes	6,444	8,280	6,101	8,076	12,545	16,356
Television programs . paid minutes	1,008	2,741	4,401	3,982	5,409	6,723

Coastal stations

The Overseas Telecommunications Commission operates fourteen coastal radio stations at points around the Australian coast, and one at Norfolk Island. During the year ended 31 March 1975 the coastal radio service handled 6,780,000 paid words to ships and 4,262,000 words from ships. Ship calls over the radiotelephone service extended over 218,000 paid minutes.

Radiocommunication stations authorised

At 30 June 1975 there were 222,087 civil radiocommunication stations authorised for operation in Australia and its Territories. Of these, 5,627 were stations established at fixed locations, 18,704 were land stations which were established at fixed locations for communication with mobile stations, 17 space and broadcasting stations, 190,886 were mobile stations and 6,853 amateur stations. Particulars of broadcasting stations are shown on page 417.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act 1942* and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service, and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board. Licence fees for commercial broadcasting and television stations are payable under the *Broadcasting Stations Licence Fees Act 1964* and the *Television Stations Licences Fees Act 1964* respectively.

Particulars of the composition, functions and responsibilities of the Australian Broadcasting Control Board are shown in the Twenty-seventh Annual Report for the year ended 30 June 1975.

Broadcasting services

The National Broadcasting Service

In sound broadcasting the programs of the National Broadcasting Service are provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department.

Technical facilities. At 30 June 1975 the National Broadcasting Service comprised ninety-one transmitting stations, of which eighty-five were medium frequency and six high frequency.

The medium-frequency transmitters operate in the broadcast band 530 to 1,590 kilohertz. The high-frequency stations, using frequencies within the band of three to thirty megahertz, provide services to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland.

Many of the programs provided by country stations are relayed from the capital cities, high-quality program transmission lines being used for the purpose. A number of program channels are utilised to link national broadcasting stations in the capital cities of Australia, and when necessary, this system is extended to connect both the national and commercial broadcasting stations.

At 30 June 1975 seventy-one of the Australian medium-frequency stations were situated outside the six State capital cities.

Program facilities. The programs of the Australian Broadcasting Commission cover a wide range of activities. The proportion of broadcasting time allocated on metropolitan stations to the various types of program during 1974-75 was as follows: classical music 25.5 per cent; entertainment 32.1 per cent; news 8.3 per cent; sporting 5.7 per cent; light music 1.5 per cent; spoken word 7.2 per cent; drama and features 3.8 per cent; education 3.0 per cent; parliament 6.0 per cent; religious 2.8 per cent; young people's programs 1.2 per cent; rural 1.9 per cent; and presentation 1.0 per cent. Further particulars of the operations of the Australian Broadcasting Commission in respect of music, drama and features, youth education, talks, rural broadcasts, news, and other activities are shown in the Forty-third Annual Report of the Australian Broadcasting Commission.

The Commercial Broadcasting Service

Commercial broadcasting stations are operated under licences granted and renewed by the Minister for Post and Telecommunications after taking into consideration any recommendations which have been made by the Broadcasting Control Board. The initial period of a licence is five years and renewals are granted for a period of one year.

The fee payable for a licence is \$200 on the grant of the licence, and thereafter \$200 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Broadcasting Stations Licence Fees Act 1964*, during the preceding financial year—1 per cent up to \$500,000; 1.5 per cent \$500,001 to \$1,000,000; 2 per cent \$1,000,001 to \$1,500,000; 2.5 per cent \$1,500,001 to \$2,000,000; 3 per cent \$2,000,001 to \$2,500,000; 3.5 per cent \$2,500,001 to \$3,000,000; 4 per cent \$3,000,001 to \$3,500,000; and 4.5 per cent over \$3,500,000.

Overseas Broadcasting Service

There are seven high-frequency stations at Shepparton and two at Lyndhurst, Victoria, and one at Brisbane, Queensland, which provide the overseas service known as 'Radio Australia'. As in the case of the National Broadcasting Service, these stations are maintained and operated by the Australian Telecommunications Commission, and their programs are arranged by the A.B.C. The programs, which give news and information about Australia presented objectively, as well as entertainment, are directed mainly to South-East Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

Broadcasting stations

BROADCASTING STATIONS: 30 JUNE 1975

Type of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
National—									
Medium frequency .	21	6	20	10	17	4	5	2	85
High frequency .	1	2	2	..	1	..	..	..	6
Overseas (high frequency) .	..	9	1	..	..	..	..	..	10
Commercial (medium frequency) .	39	20	26	8	14	8	2	1	118
Total .	61	37	49	18	32	12	7	3	219

Broadcast listeners' and television viewers licences

As from 17 September 1974 all requirements for broadcast listeners' and television viewers' licences fees were abolished. For details of licences *see* Year Book, No. 60.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department. The first national station (ABN Sydney) commenced regular transmission on 5 November 1956. At 30 June 1975 eighty-four stations were operating, excluding fifty-two translator stations.

The television programs provided by the Australian Broadcasting Commission cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30 June 1975 were as follows: drama, 18.4 per cent; public interest, 12.9 per cent; sporting, 17 per cent; news, 6.2 per cent; variety and acts, 6.7 per cent; education, 25.3 per cent; musical performances, 1.1 per cent; religious, 1.5 per cent; rural, 0.4 per cent; special acts and aesthetics, 2.3 per cent; cartoons, 1.5 per cent; panel and quiz games, 0.2 per cent; and presentation, 6.5 per cent. The average weekly transmission time for the eighty-four national television transmitters was eighty-six hours during the year ended 30 June 1975.

The Commercial Television Service

Commercial television stations are operated under licences granted and renewed by the Minister for Post and Telecommunications. The first commercial station (TCN Sydney) commenced regular transmission on 16 September 1956. At 30 June 1975 forty-eight television stations were operating.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is \$200 for the first year and thereafter \$200 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Television Stations Licence Fees Act 1964*, during the preceding financial year—1 per cent up to \$1,000,000; 2 per cent \$1,000,001 to \$2,000,000; 3 per cent \$2,000,001 to \$4,000,000; and 4 per cent over \$4,000,000.

Colour television

Colour television services commenced officially in Australia on 1 March 1975.

Television stations

During the year ended 30 June 1975, twelve new national television stations commenced regular transmission, namely ABAQ Channel 8, Alpha; ABBQ Channel 10, Barcardine; ABBLQ Channel 9, Blackall; ABCTQ Channel 10, Clermont; ABJQ Channel 6, Longreach; ABSEQ Channel 9, Springsure; ABWNQ Channel 8, Winton in Queensland; ABEW Channel 10, Esperance; ABMW Channel 10, Moora; ABCMW Channel 8, Morawa in Western Australia; ABKD Channel 7, Katherine; and ABTD Channel 9, Tennant Creek in the Northern Territory. Eight new television translator stations went into operation, six for the national service and two commercial service.

Ten remote communities are now provided with A.B.C. programs from tape recorded at Townsville and Perth. The following table shows the number of television stations in operation at 30 June 1975.

TELEVISION STATIONS: 30 JUNE 1975

<i>Type of station and location</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Total</i>
National—									
Metropolitan . . .	1	1	1	1	1	1	1	1	8
Country	13	7	31	5	15	2	3	..	76
<i>Total, National .</i>	<i>14</i>	<i>8</i>	<i>32</i>	<i>6</i>	<i>16</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>84</i>
Commercial—									
Metropolitan . . .	3	3	3	3	2	1	1	1	17
Country	11	6	8	2	3	1	..	..	31
<i>Total, Commercial</i>	<i>14</i>	<i>9</i>	<i>11</i>	<i>5</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>48</i>
All stations . . .	28	17	43	11	21	5	5	2	132