

CHAPTER 12

TRANSPORT, COMMUNICATION AND TRAVEL

The statistics in this chapter relate in the main to the year 1971-72, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Transport and Communication* (14.11), *Public Authority Finance—Commonwealth Authorities* (5.12), and *Public Authority Finance* (5.33), and in the annual mimeographed statement *Motor Vehicle Registrations* (14.1). Current information on subjects dealt with in this chapter appears in the *Quarterly Summary of Australian Statistics* (1.3), the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5), *Overseas Shipping Cargo* (monthly) (14.10), *Motor Vehicle Registrations* (quarterly) (14.2), two preliminary monthly statements *Registrations of New Motor Vehicles* (14.6) (14.8), two quarterly bulletins *Road Traffic Accidents involving Casualties* (14.9) (14.14), *Road Accident Fatalities* (monthly) (14.13), and *Overseas Arrivals and Departures* (monthly and quarterly) (4.3) (4.1). Greater detail on the latter subject is contained in the annual bulletin *Demography* (4.9).

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 Department of Civil Aviation, the Postmaster-General's Department, the Overseas Telecommunications Commission, the Australian Broadcasting Control Board, and the Australian Broadcasting Commission.

THE AUSTRALIAN TRANSPORT ADVISORY COUNCIL

In April 1946, the State and Federal 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 Australian Minister for Transport as Chairman, the Minister for the Australian 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 of Commonwealth and States 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, collection 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; pipelines as a transport medium; and containerisation and the need for uniform legislation, particularly in relation to maximum weights of road vehicles.

Advisory Committees established by the Australian Transport Advisory Council

Some of the Council's most useful work has been accomplished through the agency of committees established by the Council from time to time. Some advisory committees are of a semi-permanent nature. They were established to initiate discussion and action on transport problems referred by member Ministers and other authorities and to undertake specialised work. These committees meet at regular intervals and report to A.T.A.C. through the Council's *Standing Committee of Advisers*, which comprises heads of Ministerial Departments or their deputies, under the chairmanship of the Secretary, Department of Transport.

The administration of the Council and its committees is the responsibility of the Department of Transport.

The general practice is that the Council convenes twice a year, and more frequently if the need arises. The meetings move successively from one State or Territory to another, and are usually held in one of the chambers of the State or Commonwealth Parliaments or the Northern Territory Legislative Council. Ministers are usually accompanied by officials and advisers.

Details of the advisory committees at present established, including their composition and function, are set out hereunder.

The Advisory Committee on Safety in Vehicle Design comprises an ergonomics expert, a medical practitioner, a traffic expert, a research engineer, a mechanical design engineer, a body design engineer, a production engineer, an officer from the Vehicle Structures Safety Branch of the Department of Transport, and a nominee of the *Standing Committee of Advisers*. The Chairman is an officer of the Department of Transport.

The Committee's function is to advise on safety standards in respect of motor vehicles. Recommendations to A.T.A.C. are submitted in the form of Australian design rules for motor vehicle safety, which set out detailed technical specifications of each safety feature, and include appropriate dates of implementations for various classes of vehicles.

Design rules endorsed by the Council up to February 1973 cover the following items:

Reversing signal lamps	Glare reduction in field of view
Door latches and hinges	Rear vision mirrors
Seat anchorages for motor vehicles	Demisting of windscreens
Seat belts	Windscreen wipers and washers
Seat belt anchorage points	Location and visibility of instruments
Direction turn signal lamps	Safety rims
Hydraulic brake hoses	Instrument panels
Safety glass	Head restraints
Standard controls for automatic transmissions	Anti-theft locks
Steering columns	Vehicle engine emission control
Internal sun visors	New pneumatic passenger car tyres
Fuel systems for goods vehicles	Tyre selection
	Motor vehicle noise

A publication *Australian Design Rules for Motor Vehicle Safety*, incorporating design rules endorsed by the Council, is issued by the Department of Transport. Amendments and additions are also issued by that Department.

The Advisory Committee on Vehicle Performance comprises a freight operator, a passenger operator, a motor vehicle design engineer, a private road user, an official of the Transport Worker's Union of Australia, a bus expert, nominees of the National Association of Australian State Road Authorities and the Society of Automotive Engineers (Australia), and an official from each State and Territory, nominated by the respective member Ministers of A.T.A.C. The Chairman is an officer of the Department of Transport.

The function of the Committee is to advise on the on-road standards and equipment of vehicles and their loads. Many of its recommendations to A.T.A.C. are in the form of draft regulations which detail minimum standards for most aspects of vehicle construction and operation, and are recommended for adoption in the legislation of the States and Territories.

A publication *Draft Regulations Defining Vehicle Construction, Equipment and Performance Standards for Road Vehicles*, incorporating provisions endorsed by the Council, is issued by the Department of Transport, which also provides an amendment service.

The *Advisory Committee on Road User Performance and Traffic Codes* comprises a transport operator, a private road user, a lawyer, a medical practitioner, a nominee of vehicle manufacturers, an official of the Transport Worker's Union of Australia, and an official from each State and Territory, nominated by the respective member Ministers of A.T.A.C. The Chairman is an officer of the Department of Transport.

The Committee's function is to review and advise on the ways of achieving improvement in road user performance and to advise on the uniform National Road Traffic Code. Many of the Committee's recommendations to A.T.A.C. are in the form of model traffic laws, which are recommended for adoption in the legislation of the States and Territories.

A document *The National Road Traffic Code*, incorporating model regulations endorsed by the Council, is published by the Department of Transport, which also provides an amendment service.

In addition to traffic laws proper, the Committee has dealt with allied subjects such as driver licensing, medical fitness standards, the uniform number plates scheme, the scheme for visiting motorists, United Nations Conventions on road traffic and uniform accident reporting.

The *Advisory Committee on the Transport of Dangerous Goods* comprises seven Commonwealth and eight State officials, as well as one nominee of the Australian Road Transport Federation, the Australian Chemical Industry Council, the petroleum industry and the Standards Association of Australia. The Chairman is an officer of the Department of Transport.

The function of the Committee is to advise on a uniform code relating to the transport of dangerous goods, and it has prepared a model code relating to the classification, labelling and transport of dangerous goods within Australia.

The *Committee on Motor Vehicle Emissions* comprises of nominees from the automobile and petroleum industries and appropriate Commonwealth and State departments. The Chairman is an officer of the Department of Transport. The function of the Committee is to advise on all aspects of the control of motor vehicle emissions including imposition of controls and their levels, technical developments, and liaison with industries and environmental authorities on these matters.

The *Publicity Advisory Committee on Education in Road Safety* comprises the Secretary/Managers of State and Territory Road Safety Councils. The Chairman is an officer of the Department of Transport.

The Committee's function is to advise on publicity and education in road safety. The Committee co-ordinates and makes recommendations on publicity and education campaigns throughout the States and Territories.

Ad hoc advisory committees. Advisory committees of an ad hoc nature are created as the need arises. Examples are: the Air Cushion Vehicle Committee and the Study Team on Transport Costs.

SHIPPING

Control of shipping

Commonwealth navigation and shipping legislation

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

Commonwealth Acts connected with shipping are: the *Navigation Act 1912-1972*, the *Sea Carriage of Goods Act 1924*, the *Seamen's Compensation Act 1911-1972*, the *Seamen's War Pensions and Allowances Act 1940-1972*, the *Pollution of the Sea by Oil Act 1960-1972*, the *Pollution of the Sea by Oil (Shipping Levy) Act 1972*; the *Pollution of the Sea by Oil (Shipping Levy Collection) Act 1972*; the *Australian Coastal Shipping Commission Act 1956-1969*, the *Australian Coastal Shipping Agreement Act 1956*, the *Stevedoring Industry Act 1956-1971*, the *Beaches, Fishing Grounds and Sea Routes Protection Act 1932-1966*, the *Submarine Cables and Pipelines Protection Act 1963-1966*, the *Lighthouses Act 1911-1971* and the *Explosives Act 1961-1966*.

Australian Coastal Shipping Commission

The Commission was established in 1956 for the purpose of maintaining and operating inter-state, overseas and territorial shipping services. It operates as The Australian National Line, a Commonwealth-owned merchant shipping service which at 31 December 1972 comprised twenty-eight ships. The total included one large bulk carrier on charter from a foreign owner.

The fleet included four vessels in overseas trading; the 14,082 ton (deadweight) vehicle deck/container ship, *Australian Enterprise*; the 26,420 tons (deadweight) cellular/container ship *Australian Endeavour*; the 26,097 tons (deadweight) cellular/container ship *Australian Exporter*; the 20,276 tons (deadweight) roll-on/roll-off ship *Allunga*; two vehicle deck passenger ships *Empress of Australia* 8,196 tons (gross) and *Australian Trader* 7,005 tons (gross); four vehicle deck cargo ships totalling 14,919 tons (deadweight); one container/ore carrier of 11,900 tons (deadweight) in the Darwin trade; three bulk carriers in the 50,000 tons (deadweight) class; thirteen other bulk carriers totalling 130,358 tons (deadweight); one 3,210 tons (deadweight) cellular/container ship.

During 1972, one of two vehicle deck steel carriers of 7,500 tons (deadweight) each ordered from an Australian shipyard was launched as the *Lysaght Enterprise*. The second is scheduled for launching in 1973.

To service the Australian National Line's vehicle deck ships and container/ore carriers, terminals have been established at fifteen ports: Adelaide in South Australia; Melbourne and Geelong in Victoria; Burnie, Devonport, Bell Bay and Hobart in Tasmania; Sydney and Port Kembla in New South Wales; Brisbane, Rockhampton (Port Alma), Mackay, Townsville and Cairns in Queensland; and Darwin in the Northern Territory.

In the year ended 30 June 1972 the vehicular passenger ships *Empress of Australia*, *Australian Trader* and *Princess of Tasmania* (which was sold late in 1972) carried a total of 128,919 passengers and 46,419 passenger and trade vehicles between the mainland and Tasmania. Over the same period over 7.8 million tons of cargo were carried by Australian National Line vessels.

Australian Shipbuilding Board

Established in March 1941 as a wartime measure under the National Security (Shipbuilding) Regulations and constituted in 1948 under the *Supply and Development Act 1939-1948*, the Board consists of a Chairman, and four Members, one of whom is also a Member of the Naval Board. Members are appointed by the Minister for Transport.

The functions of the Board are to advise the Minister on matters concerning the shipbuilding industry including the consideration of tenders for ships to be built in Australia, the prices at which vessels may be purchased and sold on behalf of the Commonwealth, the levels of subsidy suitable for each project and the state and prospects of the industry generally.

To 31 December 1972 the Board had arranged for the construction of 233 vessels valued at approximately \$695 million. These vessels included specialised craft such as an oil drilling rig, dredgers of various types, off-shore drilling service vessels, floating cranes, as well as bulk carriers, oil tankers, container ships and roll-on/roll-off vessels.

Sixty of the vessels, ranging from Customs launches to survey and research vessels, landing craft and large lighthouse supply vessels, were built for the Commonwealth Government. The remaining 173 were built with Government subsidy for commercial shipowners.

There are five major Australian shipyards building merchant vessels—two in Queensland, two in South Australia, and one in New South Wales; and two shipyards engaged principally in naval shipbuilding—one in New South Wales and one in Victoria. There are also numerous small yards, situated in every State, building smaller steel, wooden, aluminium and fibre-glass working and pleasure craft.

Shipbuilding subsidy. The Australian shipbuilding industry has been subsidised since 1947. The Government on 31 May 1972 announced that all vessels over 200 tons gross ordered from any Australian shipyard after 1 June 1972 would attract subsidy at the rate of 25 per cent for vessels 200-1,000 tons gross, the rate increasing by 2½ per cent for each additional 1,000 tons gross to a maximum of 45 per cent, reducing to 35 per cent in 1976 and, subject to a further Tariff Board review in 1978, to 25 per cent in 1980. Previously, subsidy was applied only to vessels over 200 tons gross constructed at one of the six major ('recognised') yards and, to equate the price to the owner to the cost of building a similar vessel in the United Kingdom, to a maximum 33½ per cent of the construction cost. As in the past, all ships are prohibited imports, unless specific approval is granted by the Minister for Transport, except for certain classes where a 'general consent' applies.

Australian Stevedoring Industry Authority

In March 1947 legislation established a permanent Stevedoring Industry Commission to continue in peace-time the functions performed during the war by the Commission established under National Security legislation. 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, such as the operation of labour bureaux at ports, payment of attendance money and provision of amenities. 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, following a Committee of Inquiry into the stevedoring industry, 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.

In October 1965 the Government invited the Australian Council of Trade Unions, the Waterside Workers' Federation of Australia, the Association of Employers of Waterside Labour, the Australian Stevedoring Industry Authority and the Department of Labour and National Service to confer under the Chairmanship of Mr A. E. Woodward, Q.C., with the overall objective of improving the long-term conditions in the stevedoring industry. Following a series of meetings, the Conference, known as the National Stevedoring Industry Conference, published a General Report in April 1967 recording agreement between the parties on a number of matters. These included *inter alia* weekly hire for all registered waterside workers in major ports, together with a pension scheme and provision for reducing the statutory retirement age progressively from seventy to sixty-five years of age. Special arrangements have been agreed to cover any prospective redundancy problems. After the Report had been adopted by all the parties, including the Government, enabling legislation in the form of the *Stevedoring Industry (Temporary Provisions) Act 1967* was introduced to allow the changes to be implemented. Permanent employment was commenced in Sydney on 27 November 1967. In Melbourne, Port Kembla, Adelaide, Fremantle and Brisbane permanent arrangements were introduced on the following respective dates in 1968— 8 January, 19 February, 4 March, 18 March and 12 August. Newcastle was brought into the scheme on 10 March 1969 and Whyalla on 6 July 1970. The operation of the *Stevedoring Industry (Temporary Provisions) Act* has been twice extended (in 1970 and 1972) and is currently due to expire on 1 July 1973.

In July 1970 the National Stevedoring Industry Conference was given statutory backing and re-designated 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 Labour on the operation of the existing employment arrangements, the development of new employment schemes and such other matters as the Minister refers 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 (Temporary Provisions) Act 1967-1972* (and Regulations made thereunder), the *Stevedoring Industry Act 1956-1971*, Division 4 of Part III of the *Conciliation and Arbitration Act 1904-1972*, and the *Stevedoring Industry Act 1965*.

Restrictive Trade Practices Act 1971-1972 (Part XII—Overseas Cargo Shipping)

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

The legislation is an extension of similar provisions previously enacted under the *Trade Practices Act 1965-1969* (now repealed) and the *Restrictive Trade Practices Act 1971* (as amended).

The 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. The Council has taken over the separate roles of the 'shipper bodies' that were set up under previous legislation (one particular body for each of five trades) and is able to represent all shippers and producers in all outward trades.

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 secure reasonable rights for Australian flag operators in respect of the operation of their vessels in trades from Australia.

Collection and presentation of statistics

Basic documents

From 1 July 1966 shipping statistics have been compiled by the Commonwealth Bureau of Census and 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 and shows the following details:

- name of the port at which the return is submitted;
- name of vessel;
- type of shipping service (liner, tramp, bulkship, tanker);
- port registered;
- registered net tonnage;
- last port of call (arrival) or next port of call (departure);
- with cargo or in ballast;
- date of arrival or date of departure;
- ports of loading of cargo (arrival) or ports of discharge of cargo (departure);
- quantity of cargo for each port of loading or discharge.

Prior to 1 July 1966, returns were completed by officers of the Department of Customs and Excise at each port, the major differences then being that the system did not, in the main, rely on information supplied direct by shipping companies or their representatives, and the detail on returns did not include information on type of shipping service or ports of loading and discharge of cargo.

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 units of weight or in terms of units of measurement, depending on the basis on which freight is charged. A ton measurement is a unit of 40 cubic feet. Cargo statistics show separate figures for cargo recorded in tons weight and cargo recorded in tons measurement.

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 by a common carrier in providing 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.

Interstate shipping

Interstate movement

Interstate direct. The following table shows the number of entrances and the net tonnage of coastal vessels recorded into each State and the Northern Territory from any other State during 1971-72. 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: ENTRANCES OF COASTAL VESSELS INTERSTATE DIRECT STATES AND NORTHERN TERRITORY, 1971-72(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Number of vessels	1,249	1,516	397	610	258	1,370	91	5,491
Net tonnage '000 tons	7,890	7,027	2,606	3,674	2,231	3,285	309	27,021

(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 entrances and clearances of overseas vessels 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: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES AND NORTHERN TERRITORY, 1971-72(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances number	1,690	1,503	1,313	780	934	331	86	6,637
. '000 net tons	9,523	10,923	6,028	4,478	6,063	1,842	258	39,116
Clearances number	1,971	1,496	1,128	738	882	335	122	6,672
. '000 net tons	11,767	9,810	4,846	4,889	5,913	1,698	406	39,328

(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 entrances and clearances of vessels from and for other States during the year 1971-72 together with the aggregate net tonnage.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES STATES AND NORTHERN TERRITORY, 1971-72(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances number	2,939	3,019	1,710	1,390	1,192	1,701	177	12,128
. '000 net tons	17,413	17,950	8,637	8,151	8,295	5,127	567	66,140
Clearances number	3,209	3,023	1,516	1,346	1,139	1,699	214	12,146
. '000 net tons	19,566	16,879	7,382	8,317	8,406	4,967	710	66,228

(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 for each of the years 1967-68 to 1971-72.

**INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES
AUSTRALIA, 1967-68 TO 1971-72(a)**

		1967-68	1968-69	1969-70	1970-71	1971-72
Entrances	number	10,595	10,830	10,843	12,169	12,128
	'000 net tons	44,588	47,005	53,732	65,141	66,140
Clearances	number	10,566	10,824	10,781	12,113	12,146
	'000 net tons	44,529	47,070	53,523	64,843	66,228

(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 30 June 1972.

**AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
30 JUNE 1972**

(Source: Department of Transport)

<i>Vessels</i>	<i>Number</i>	<i>Dead-weight tons</i>	<i>Gross tons</i>
Interstate vessels—			
Australian-owned, Australian-registered	71	929,215	668,382
Overseas-owned, Australian-registered, engaged in Australian coastal trade—			
New Zealand-owned	7	21,561	19,305
Other	7	230,055	144,159
Overseas-owned, overseas-registered, on charter, engaged in Australian coastal trade	11	310,861	187,569
Total interstate vessels	96	1,491,692	1,019,415
Intrastate vessels	28	180,192	120,508
Total coastal trading vessels	124	1,671,884	1,139,923
Overseas trading vessels—			
Australian-owned, Australian-registered operated mainly on overseas services	6	78,599	60,397
Australian-owned, overseas-registered operated wholly on overseas services	3	24,664	19,677
Total overseas trading vessels	9	103,263	80,074
Total Australian trading vessels	133	1,775,147	1,219,997

Shipping at principal ports

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

The following table shows the total volume of shipping—overseas and coastal—which entered the principal ports of Australia during the years 1970-71 and 1971-72.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA
1970-71 AND 1971-72(a)

Port of entry	1970-71		1971-72		Port of entry	1970-71		1971-72	
	Num-ber	Net tons	Num-ber	Net tons		Num-ber	Net tons	Num-ber	Net tons
		'000		'000			'000		'000
New South Wales—					Western Australia—				
Sydney(b)	3,883	19,552	3,652	19,562	Fremantle(d)	1,388	9,403	1,524	11,657
Newcastle	1,359	7,699	1,197	7,460	Albany	168	967	167	1,021
Port Kembla	874	5,184	932	5,818	Bunbury	156	807	138	776
Victoria—					Carnarvon	16	24	20	32
Melbourne	2,818	13,710	2,823	14,003	Geraldton	125	776	123	791
Geelong	554	4,640	559	4,412	Yampi	172	1,457	149	1,315
Queensland—					Port Hedland	592	8,155	546	8,718
Brisbane	1,508	7,938	1,469	8,144	Dampier	475	6,918	396	6,522
Bowen	19	69	34	123	Tasmania—				
Cairns	160	524	176	524	Hobart	600	1,636	612	1,730
Gladstone	375	4,799	372	5,179	Burnie	388	1,390	425	1,542
Mackay	208	754	242	977	Devonport	467	958	493	1,048
Rockhampton	129	552	134	559	Launceston	488	1,591	468	1,614
Townsville	337	1,338	370	1,528	Port Latta	39	799	40	754
Weipa	286	3,191	279	3,326	Northern Territory—				
South Australia—					Darwin	230	1,006	232	979
Adelaide(c)	1,270	5,218	1,263	6,116	Groote Island	68	319	82	408
Port Lincoln	190	781	110	668					
Port Pirie	213	1,331	183	899					
Rapid Bay	41	156	31	124					
Wallaroo	40	245	29	179					
Whyalla	289	3,021	276	2,565					

(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 340 shows the aggregate tonnage of overseas and interstate cargo discharged and shipped at principal Australian ports.

CARGO DISCHARGED AND SHIPPED: AUSTRALIA, 1967-68 TO 1971-72

(*000 tons)

Year	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
1967-68	27,572	4,684	41,339	2,102	16,980	2,079	17,207	1,876
1968-69	29,298	5,212	54,956	2,054	18,158	2,161	18,511	1,932
1969-70	28,201	5,159	76,849	2,127	20,308	2,248	20,478	2,030
1970-71	21,410	5,069	100,210	2,612	23,789	2,403	24,540	2,194
1971-72	19,197	5,178	106,340	2,791	25,393	2,725	25,970	2,471

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1971-72

('000 tons)

Port	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
New South Wales—								
Sydney	2,141	1,962	5,218	940	2,421	229	283	272
Botany Bay	1,716	..	75	..	2,984	..	67	..
Newcastle	859	6	8,236	14	3,148	1	1,063	11
Port Kembla	479	2	3,466	..	5,700	..	1,647	..
Other . . . . .	..	..	195	..	34	..	2	..
<i>Total New South Wales</i>	<i>5,195</i>	<i>1,970</i>	<i>17,188</i>	<i>954</i>	<i>14,287</i>	<i>231</i>	<i>3,061</i>	<i>283</i>
Victoria—								
Melbourne	1,980	2,291	1,685	1,000	1,495	980	854	1,035
Geelong	1,970	1	2,301	18	982	1	573	5
Portland	209	..	508	..	29	..	1	..
Westernport	420	..	1,096	..	5	8	7,470	3
Other . . . . .	..	..	..	..	..	..	..	..
<i>Total Victoria</i>	<i>4,579</i>	<i>2,292</i>	<i>5,591</i>	<i>1,018</i>	<i>2,510</i>	<i>989</i>	<i>8,899</i>	<i>1,042</i>
Queensland—								
Brisbane	834	355	1,540	154	2,877	133	156	90
Cairns	21	..	369	..	17	1	1	1
Gladstone	513	..	7,862	..	33	..	263	..
Mackay	40	2	746	..	13	..	69	..
Townsville	60	13	806	1	63	1	163	..
Other	37	..	8,000	2	10	2	752	..
<i>Total Queensland</i>	<i>1,505</i>	<i>370</i>	<i>19,329</i>	<i>157</i>	<i>3,013</i>	<i>136</i>	<i>1,406</i>	<i>91</i>
South Australia—								
Port Adelaide	307	210	799	122	751	17	279	9
Adrossan . . . . .	..	..	180	..	..	..	336	..
Port Lincoln	33	..	593	1	32	..	327	..
Port Pirie	24	..	678	..	184	..	280	..
Port Stanvac	1,559	..	14	..	426	..	559	..
Rapid Bay . . . . .	..	..	..	..	1	..	38	..
Whyalla	96	..	1,336	..	888	..	4,218	..
Other	26	..	893	18	7	..	459	..
<i>Total South Australia</i>	<i>2,045</i>	<i>210</i>	<i>4,494</i>	<i>140</i>	<i>2,289</i>	<i>17</i>	<i>6,496</i>	<i>9</i>
Western Australia—								
Fremantle	899	252	4,189	293	999	5	940	13
Albany	137	..	645	2	..	..	..	..
Bunbury	138	..	721	29	..	..	50	..
Dampier	206	5	18,632	..	18	11	..	..
Geraldton	58	..	1,249	17	..	..	..	..
Kwinana	3,340	..	193	..	234	..	433	..
Port Hedland	25	11	24,631	..	5	2	1,206	..
Yampi . . . . .	..	..	1,765	..	86	..	1,186	..
Other	237	32	2,526	17	27	14	924	1
<i>Total Western Australia</i>	<i>5,039</i>	<i>301</i>	<i>54,550</i>	<i>358</i>	<i>1,370</i>	<i>32</i>	<i>4,738</i>	<i>14</i>
Tasmania—								
Hobart	142	12	154	118	676	220	463	160
Burnie	77	1	141	14	239	204	361	143
Launceston	83	1	46	25	722	262	136	175
Port Latta	14	..	2,113	..	21	..	..	..
Other	52	2	420	6	138	506	209	523
<i>Total Tasmania</i>	<i>369</i>	<i>16</i>	<i>2,874</i>	<i>163</i>	<i>1,797</i>	<i>1,192</i>	<i>1,170</i>	<i>1,001</i>
Northern Territory—								
Darwin	258	14	828	..	86	16	14	2
Groote Island	2	..	630	..	18	1	185	..
Gove	205	7	857	1	24	112	1	29
Other . . . . .	..	..	..	..	..	..	..	..
<i>Total Northern Territory</i>	<i>465</i>	<i>20</i>	<i>2,315</i>	<i>1</i>	<i>127</i>	<i>129</i>	<i>200</i>	<i>31</i>
Australia	19,197	5,178	106,340	2,791	25,393	2,725	25,970	2,471

Overseas cargo according to major trade areas and type of service

The following two tables show for the years 1969-70 to 1971-72 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: 1969-70 TO 1971-72

('000 tons)

Major trade areas	Liners (a)		Tramps, bulk ships, tankers		All vessels	
	Weight	Meas.	Weight	Meas.	Weight	Meas.
North America and Hawaii—						
1969-70	649	123	3,240	1	3,890	124
1970-71	542	160	4,056	6	4,598	166
1971-72	586	176	4,456	24	5,042	200
South America—						
1969-70	50	6	427	..	477	6
1970-71	52	11	541	..	593	11
1971-72	40	5	618	..	658	5
Europe—						
1969-70	1,363	509	9,100	11	10,462	520
1970-71	1,123	538	14,861	..	15,984	538
1971-72	1,176	498	15,707	51	16,883	550
Africa—						
1969-70	238	99	370	15	608	114
1970-71	201	102	1,953	1	2,154	103
1971-72	168	91	2,550	7	2,719	98
Asia—						
Eastern Asia—						
1969-70	1,490	193	54,960	..	56,450	193
1970-71	1,148	392	70,004	10	71,152	402
1971-72	1,039	369	74,655	36	75,694	405
Other Asia—						
1969-70	919	378	2,291	62	3,210	439
1970-71	755	374	3,065	120	3,820	494
1971-72	737	386	2,862	231	3,600	617
Total Asia—						
1969-70	2,409	570	57,251	62	59,660	632
1970-71	1,903	766	73,069	130	74,972	896
1971-72	1,777	755	77,517	268	79,294	1,023
Papua New Guinea, New Zealand and Pacific Islands—						
1969-70	708	666	1,017	59	1,725	724
1970-71	578	840	1,301	52	1,879	892
1971-72	517	829	1,199	79	1,716	908
Indian Ocean Is. and Antarctic Area—						
1969-70 . . . . .	..	..	26	6	26	7
1970-71 . . . . .	..	..	29	5	29	5
1971-72 . . . . .	..	..	29	7	29	7
Total loaded						
1969-70	5,417	1,973	71,432	154	76,849	2,127
1970-71	4,399	2,417	95,810	194	100,210	2,612
1971-72	4,264	2,354	102,076	437	106,340	2,791

(a) Cargo and passenger liners.

**CARGO DISCHARGED IN AUSTRALIA FROM OVERSEAS: MAJOR TRADE AREAS
BY TYPE OF SERVICE: 1969-70 TO 1971-72**

('000 tons)

<i>Major trade areas</i>	<i>Liners(a)</i>		<i>Tramps, bulk-ships, tankers</i>		<i>All vessels</i>	
	<i>Weight</i>	<i>Meas.</i>	<i>Weight</i>	<i>Meas.</i>	<i>Weight</i>	<i>Meas.</i>
North America and Hawaii—						
1969-70	406	619	1,361	376	1,768	994
1970-71	457	612	1,309	366	1,766	978
1971-72	362	628	1,444	356	1,806	984
South America—						
1969-70	13	3	19	..	32	3
1970-71	36	3	11	..	47	3
1971-72	24	2	16	..	40	2
Europe—						
1969-70	623	1,811	150	195	774	2,007
1970-71	623	1,623	148	156	771	1,779
1971-72	573	1,532	177	118	750	1,650
Africa—						
1969-70	120	56	106	..	226	56
1970-71	106	57	164	..	270	57
1971-72	91	70	69	..	161	71
Asia—						
Eastern Asia—						
1969-70	374	1,050	995	227	1,369	1,277
1970-71	471	1,057	1,523	280	1,994	1,337
1971-72	417	1,143	1,552	345	1,968	1,488
Other Asia—						
1969-70	155	431	20,956	57	21,110	488
1970-71	128	431	14,047	66	14,175	497
1971-72	134	411	12,356	90	12,490	501
Total Asia—						
1969-70	528	1,481	21,951	285	22,479	1,765
1970-71	599	1,488	15,570	346	16,169	1,834
1971-72	550	1,554	13,908	435	14,459	1,989
Papua New Guinea, New Zealand and Pacific Islands—						
1969-70	318	323	1,813	9	2,131	332
1970-71	300	389	1,457	29	1,757	418
1971-72	219	410	1,231	71	1,449	482
Indian Ocean Is. and Antarctic Area—						
1969-70 . . . . .	..	..	791	2	791	2
1970-71 . . . . .	..	..	629	..	629	..
1971-72 . . . . .	..	..	532	1	532	1
Total discharged						
1969-70	2,008	4,293	26,193	866	28,201	5,159
1970-71	2,121	4,172	19,288	897	21,410	5,069
1971-72	1,819	4,196	17,378	982	19,197	5,178

(a) Cargo and passenger liners.

Overseas cargo according to country of registration of vessels

The following table shows the total overseas cargo, discharged and shipped combined, according to the country in which the vessels were registered, during each of the years 1969-70 to 1971-72.

**OVERSEAS CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION OF
VESSELS: AUSTRALIA, 1969-70 TO 1971-72**
(*000 tons)

Vessels registered at ports in	1969-70		1970-71		1971-72	
	Weight	Meas.	Weight	Meas.	Weight	Meas.
Australia	823	206	649	384	648	461
Denmark	1,340	84	1,234	121	991	133
France	1,514	109	1,134	69	1,339	138
Germany, Federal Republic of	2,147	413	1,812	471	2,623	497
Greece	5,799	180	9,395	108	7,048	131
Hong Kong	716	106	935	61	1,264	58
India	1,175	71	1,526	83	1,608	69
Italy	643	61	989	57	940	51
Japan	30,071	697	35,708	900	44,397	798
Liberia	21,622	199	27,142	224	23,104	249
Netherlands	2,488	375	2,176	310	2,128	301
New Zealand	662	468	560	658	452	749
Norway	11,069	442	11,469	450	11,541	378
Panama	2,406	43	2,811	47	2,173	81
Sweden	1,592	495	2,485	502	2,098	529
United Kingdom	15,248	2,797	15,167	2,425	16,133	2,545
United States of America	333	171	588	190	292	177
Other	5,402	370	5,840	621	6,758	625
Grand total	105,050	7,285	121,620	7,681	125,537	7,969

World shipping tonnage

At 1 July 1972 the total number of steamships and motorships 100 gross tons and upwards throughout the world was 57,391 with a gross tonnage of 268,340,145. Of those totals, steamships numbered 6,799 for 94,974,167 gross tons, and motorships 50,592 for 173,365,978 gross tons. This includes 6,462 oil tankers of 100 gross tons and upwards with a gross tonnage of 105,128,937. Australian steamships and motorships, 370 for 1,184,010 gross tons constituted 0.67 per cent and 0.44 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 30 June 1972, 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, 30 JUNE 1972(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
1968 and earlier	74	677,320	21	56,103	56	480,108	39	253,315	95	733,423
1969	7	79,805	1	32,404	6	77,735	2	34,474	8	112,209
1970	5	62,144	..	..	4	52,814	1	9,330	5	62,144
1971	3	55,364	1	357	2	39,416	2	16,305	4	55,721
1972(b)	2	17,610	..	..	2	17,610	..	..	2	17,610
Total registered in Australia	91	892,243	23	88,864	70	667,683	44	313,424	114	981,107

(a) 200 gross tons and over. (b) 1972 figures are as at 30 June 1972. Previous years are on a calendar year basis.

Miscellaneous

Shipping freight rates

Lists of shipping freight rates for selected commodities are shown in the *Quarterly Summary of Australian Statistics*.

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 during each of the years 1967-68 to 1971-72 are shown in the table below.

SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(a) AUSTRALIA, 1967-68 TO 1971-72

Year	Shipping losses			Other shipping casualties			Total shipping casualties		
	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost
1967-68	100	416,332	..	100	416,332	..
1968-69	105	434,028	..	105	434,028	..
1969-70	1	734	21	83	318,024	..	84	318,758	21
1970-71	79	451,196	2	79	451,196	2
1971-72	91	499,195	2	91	499,195	2

(a) Vessels over 50 net tons.

Lighthouses; distances by sea; depth of water and tides at main ports

A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light will be found in *Transport and Communication*, Bulletin No. 62. (14.11).

The distances by sea between principal ports of Australia and some important ports in other countries which trade with Australia and the depths of water and tides at principal ports of Australia will be found in *Transport and Communication*, Bulletin No. 62.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1971-72 a total of 87.3 million tons of freight were carried, an increase of 97.1 per cent over the 44.3 million tons carried in 1951-52. However, in the same twenty-year period the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 19.4 per cent from 501 millions in 1951-52 to 404 millions in 1971-72. The number of train miles run during 1971-72 (95.5 million) was only 2.2 per cent greater than in 1951-52, 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 1972 there were 1,360 throughout Australia. Diesel-electric locomotives during 1971-72 hauled 61 million train-miles, while steam locomotives hauled only 402 thousand train-miles.

Railway development

The first steam-operated railway in Australia ran between Melbourne and Port Melbourne, a distance of two miles, 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 27,234 route-miles open for traffic in Australia. This was the greatest mileage ever recorded. Since the 1939-45

War many uneconomic branch lines have been closed. From 1 July 1948 to 30 June 1972 3,489 miles have been closed, the greatest lengths being in Western Australia (1,029 miles), Queensland (889 miles), and Victoria (623 miles). During this same period 1,338 miles of new railway were added to the networks. The following table sets out the route-miles of government railways in each State and Territory at various dates since 1855.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES
1855 TO 1972

(Miles)

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a)	14	2	..	7	..	..	..	..	23
1861(a)	73	114	..	56	..	..	..	..	243
1871(a)	358	276	218	133	..	45	..	..	1,030
1881(a)	996	1,247	800	832	92	45	..	..	4,012
1891	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1901	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1911	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1921	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931	6,247	4,514	6,529	3,725	4,634	665	317	5	26,636
1941	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1961	6,303	4,050	6,324	3,836	4,577	517	490	5	26,102
1968	6,265	4,012	5,825	3,780	4,269	500	490	5	25,146
1969	6,265	3,972	5,824	3,759	4,280	500	490	5	25,095
1970	6,294	3,962	5,813	3,714	4,282	500	490	5	25,060
1971	6,294	3,962	5,797	3,683	4,291	500	490	5	25,022
1972	6,294	3,950	5,940	3,622	4,254	500	490	5	25,055

(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' (5ft 3in), 'standard' (4ft 8½in), and 'narrow' (3ft 6in). Extensive route-mileages of 3ft 6in 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 mileages open in each State and Territory at 30 June 1972 according to gauge.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE
STATES AND TERRITORIES, 30 JUNE 1972

(Miles)

Gauge	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5ft 3in	(a)204	(b)3,739	..	1,570	..	..	..	..	5,513
4ft 8½in	(c)6,090	202	69	(d)1,088	(e)904	..	..	(f)5	8,358
3ft 6in	..	..	5,841	(g)964	(h)3,350	500	(i)490	..	11,145
2ft 6in	..	9	..	..	..	..	..	..	9
2ft 0in	..	..	30	..	..	..	..	..	30
Total	6,294	3,950	5,940	3,622	4,254	500	490	5	25,055
Per 1,000 of population	1.35	1.11	3.21	3.06	4.06	1.27	5.45	0.03	1.94
Per 1,000 square miles	20.34	44.95	8.91	9.53	4.36	18.95	0.94	5.32	8.44

(a) Portion of Victorian Railway system. (b) Excludes 202 route-miles of 5ft 3in gauge which almost parallels the 4ft 8½in gauge line between Melbourne and the Murray River. (c) Includes 29 route-miles of 4ft 8½in gauge line from Broken Hill to Cockburn owned and operated by the South Australian Government Railways. (d) Comprises 654 miles of the Trans-Australian and 217 miles of the Central Australia Railway systems and 217 miles from Port Pirie to Cockburn. (e) Includes 454 miles of the Trans-Australian Railway system. (f) Australian Capital Territory Railway system. (g) Includes 367 miles of the Central Australia Railway system. (h) Excludes 248 miles of 3ft 6in gauge line which parallels the 4ft 8½in gauge line and 75 miles of 3ft 6in/4ft 8½in dual gauge line which are included in the 4ft 8½in gauge line. (i) Comprises 173 miles of the Central Australia and 317 miles of the North Australia Railway systems.

Government railway systems

There are six separate State Government railway systems and one Commonwealth railway system. As the Commonwealth system includes mileages in South Australia and Western Australia, and the Victorian system extends into New South Wales, the system route-mileages shown in the following table do not represent mileages within each State and Territory. These are shown in the previous table. The route-mileage of each system open for traffic, according to gauge, at 30 June 1972 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE AND SYSTEM
30 JUNE 1972
(Miles)

System	Gauge					Total
	5ft 3in	4ft 8½in	3ft 6in	2ft 6in	2ft 0in	
New South Wales . . . . .	..	(a)6,061	..	..	..	6,061
Victoria	(b)3,943	202	..	9	..	4,154
Queensland . . . . .	..	69	5,841	..	30	5,940
South Australia	1,570	246	597	..	..	2,413
Western Australia . . . . .	..	450	(c)3,350	..	..	3,800
Tasmania . . . . .	..	..	500	..	..	500
Commonwealth . . . . .	..	1,330	857	..	..	2,187
Australia	5,513	8,358	11,145	9	30	25,055

(a) Includes 270 route-miles which are electrified. (b) Excludes 202 route-miles of 5ft 3in gauge line which almost parallels the 4ft 8½in gauge line between Melbourne and the Murray River. Includes 262 route-miles which are electrified. (c) Excludes 248 miles of 3ft 6in gauge line which parallels the 4ft 8½in gauge line and 74 miles of 3ft 6in/4ft 8½in dual gauge line which are included in the 4ft 8½in 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 main South Australian system is in the South-east of the State, but an isolated narrow-gauge system operates in the Eyre Peninsula area. The railway system in Western Australia is established in the south-western section of the State, but extends north to Meekatharra and east to Kalgoorlie and Esperance. In Tasmania the main line connects Hobart and Launceston, and there are branch lines along the northern coast.

The Commonwealth Railways comprises four separate railways. The Trans-Australian Railway, extending from Port Pirie to Kalgoorlie, is of 4ft 8½in gauge, as is that part of the Central Australia Railway from Port Augusta (Sterling North) to Marree. A further extension of this railway from Marree to Alice Springs is of 3ft 6in gauge, as is the North Australia Railway from Darwin to Birdum. The Australian Capital Territory Railway from Queanbeyan to Canberra is of 4ft 8½in gauge. In this chapter particulars of the four Commonwealth railways are combined; however, particulars for each railway are shown separately in the annual bulletin *Transport and Communication*.

A graph showing the route-mileages and traffic of all Government railways from 1870 to 1971-72 appears on plate 28 on page 347.

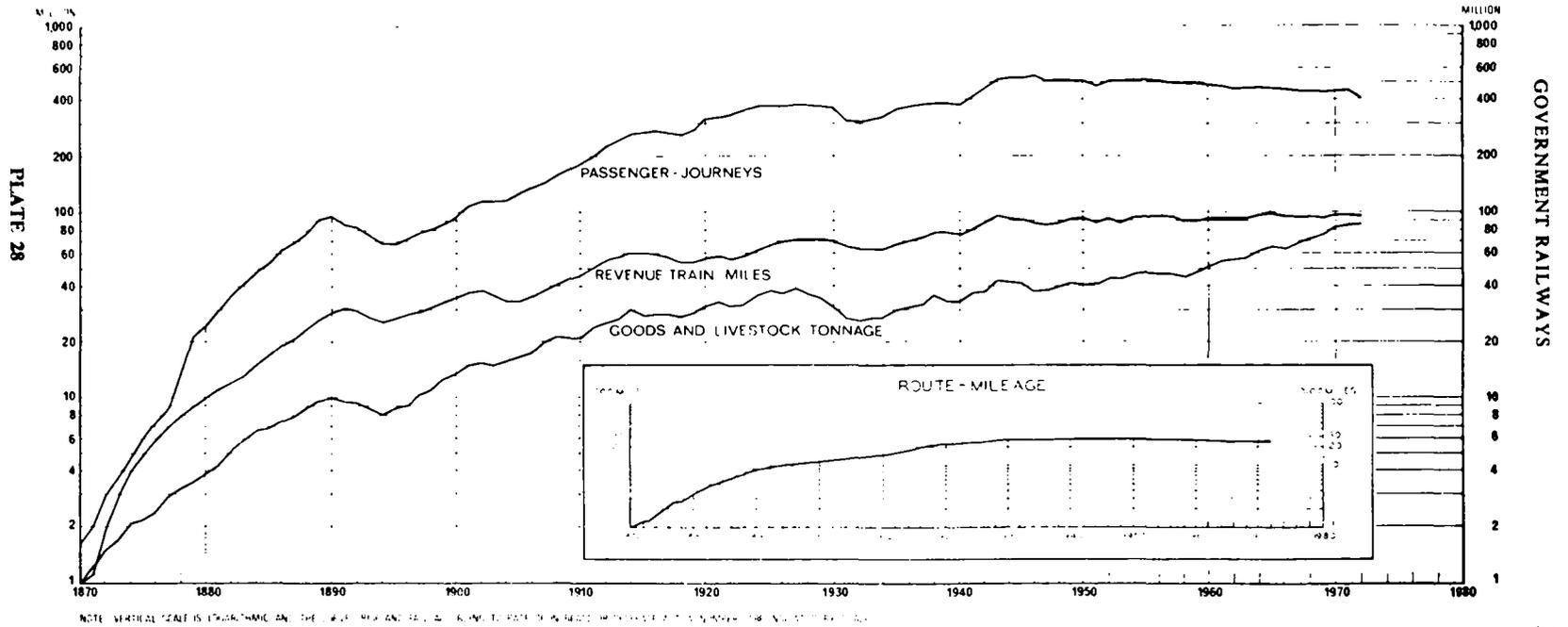
Standardisation of railway gauges

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: AUSTRALIA, 1870 TO 1971-72

ROUTE MILEAGE AND TRAFFIC

LOGARITHMIC GRAPH



Future developments in standardisation

The Commonwealth Government has announced its intention to finance a standard gauge connection between Adelaide and the new standard gauge railway. Details of the connection have yet to be decided. When this link is forged all mainland state capital cities will then be connected to the interstate standard gauge network. However, the direct link between Adelaide and Melbourne will still be broad gauge (5ft 3in).

A new standard gauge railway between Port Augusta and Whyalla (South Australia), 47 miles long, owned and operated by Commonwealth Railways was opened in October 1972. It connects Whyalla with the interstate standard gauge network. In addition to general goods and passenger traffic, it is used to transport considerable quantities of steel products to Melbourne and Sydney.

The Commonwealth Government has also approved a proposal for a new standard gauge railway, about 522 miles long, between Tarcoola on the Trans-Australian Railway, and Alice Springs to replace the existing narrow gauge railway between Marree and Alice Springs. Survey work has commenced.

The Western Australian Government has decided to convert to standard gauge the existing narrow gauge railway between Kalgoorlie and Esperance, a distance of about 258 miles.

Operations of Government railway systems

Particulars of train-mileages, passenger-journeys, passenger-miles, freight tons carried, and freight ton-miles included in this section refer only to operations for which revenue is received.

Summary of operations**GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1971-72**

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Cwth</i>	<i>Aust.</i>
Train-mileage								
(^{'000})(a)—								
Suburban passenger	10,256	8,287	2,024	2,064	1,368	105	..	24,104
Country passenger	10,313	4,761	2,932	1,205	995	224	942	21,372
Goods(b)	17,444	7,566	13,166	2,957	5,348	769	2,793	50,043
Total	38,013	20,614	18,122	6,225	7,711	1,098	3,736	95,519
Passenger-journeys								
(^{'000})(c)—								
Suburban	196,097	133,840	30,184	12,918	10,800	597	..	384,436
Country(d)	12,403	3,954	1,762	515	350	189	207	19,380
Total	208,500	137,794	31,946	13,433	11,150	785	207	403,816
Passenger-miles								
(^{'000})(e)—								
Suburban	n.a.	1,206,390	n.a.	100,649	n.a.	4,134	..	n.a.
Country	n.a.	332,400	n.a.	81,452	72,023	10,198	128,878	n.a.
Total	n.a.	1,538,789	n.a.	182,101	n.a.	14,332	128,878	n.a.
Freight—								
Tons carried (^{'000})(d)	31,800	11,609	18,963	5,919	13,648	1,278	4,054	87,271
Net ton-miles								
(million)(f)	5,268.6	1,996.2	3,862.0	968.1	2,108.5	103.8	1,227.9	15,535.1

(a) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one mile for revenue purposes. (b) Includes mixed train-mileage. (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 (including each Commonwealth railway) over which it passes. (e) One passenger travelling one mile. (f) One ton carried one mile.

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 1972—								
New South Wales	60	400	41	66	567	(c)3,270	18,278	2,099
Victoria	37	249	35	81	402	(c)2,420	19,471	1,602
Queensland . . . . .	..	357	..	81	438	1,213	19,834	2,126
South Australia	4	151	..	..	155	(c)424	7,184	607
Western Australia	48	184	..	18	250	(c)448	11,878	871
Tasmania	18	40	..	21	79	120	2,055	177
Commonwealth	1	108	..	..	109	(c)86	2,410	530
Australia	168	1,489	76	267	2,000	(d)8,178	(d)81,135	(d)8,033
30 June—								
1971	200	1,447	76	256	1,979	8,183	82,279	8,141
1970	368	1,388	76	230	2,062	8,281	83,840	8,205
1969	753	1,283	76	209	2,321	8,127	84,584	7,972
1968	1,077	1,186	76	168	2,507	8,619	85,552	7,904

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

Train-mileage

Train-mileage by type of service and motive power

GOVERNMENT RAILWAYS: TRAIN MILEAGE 1971-72
(*000 miles)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
Type of service—								
Passenger—suburban	10,256	8,287	2,024	2,064	1,368	105	..	24,104
Passenger—country	10,313	4,761	2,932	1,205	995	224	942	21,372
Goods(a)	17,444	7,566	13,166	2,957	5,348	769	2,793	50,043
Total	38,013	20,614	18,122	6,225	7,711	1,098	3,736	95,519
Type of motive power—								
Hauled by diesel-electric locomotives	21,050	9,826	16,025	3,599	6,148	959	3,650	61,256
Hauled by steam locomotives	372	13	3	3	11	..	..	402
Hauled by electric and other locomotives	2,173	941	414	..	..	10	..	3,538
Powered coaching stock	14,417	9,835	1,680	2,624	1,552	129	86	30,323
Total	38,013	20,614	18,122	6,225	7,711	1,098	3,736	95,519

(a) Includes mixed train-miles.

Total train-mileage

TRAIN MILEAGE, 1967-68 TO 1971-72
(*000 miles)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
1967-68	38,535	19,885	16,831	6,418	8,372	1,247	3,206	94,494
1968-69	38,201	19,689	17,109	6,176	7,901	1,197	3,559	93,832
1969-70	39,128	20,543	18,263	6,192	7,848	1,180	3,963	97,119
1970-71	39,540	20,831	17,368	6,344	7,944	1,096	4,010	97,133
1971-72	38,013	20,614	18,122	6,225	7,711	1,098	3,736	95,519

Passenger traffic

Passenger-journeys

GOVERNMENT RAILWAYS: PASSENGER-JOURNEYS(a), SYSTEMS, 1967-68 TO 1971-72
('000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
SUBURBAN								
1967-68	238,061	141,733	24,065	14,447	9,628	870	..	428,804
1968-69	233,211	140,788	25,771	13,760	9,832	838	..	424,200
1969-70	236,347	140,309	26,317	13,441	10,227	712	..	427,354
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
COUNTRY(c)								
1967-68	15,253	4,535	2,526	795	342	217	347	24,015
1968-69	15,257	4,078	2,395	664	338	207	298	23,237
1969-70	15,231	4,000	2,197	549	352	194	244	22,768
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
TOTAL(c)								
1967-68	253,313	146,268	26,591	15,242	9,970	1,087	347	452,818
1968-69	248,469	144,866	28,165	14,423	10,170	1,045	298	447,437
1969-70	251,578	144,309	28,515	13,990	10,580	907	244	450,122
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

(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-miles

GOVERNMENT RAILWAYS: PASSENGER-MILES(a), SYSTEMS, 1967-68 TO 1971-72
('000)

Year	Vic.	S.A.	W.A.	Tas.	Cwth
SUBURBAN					
1967-68	1,250,058	117,764	n.a.	5,665	..
1968-69	1,263,823	112,039	n.a.	5,567	..
1969-70	1,252,955	108,790	n.a.	4,941	..
1970-71	1,285,253	106,052	n.a.	4,523	..
1971-72	1,206,390	100,649	n.a.	4,134	..
COUNTRY					
1967-68	375,783	89,629	68,065	11,427	119,772
1968-69	368,139	84,633	67,627	11,322	125,612
1969-70	355,755	86,547	74,581	10,695	135,830
1970-71	379,845	91,680	77,170	12,270	141,410
1971-72	332,400	81,452	72,023	10,198	128,878
TOTAL					
1967-68	1,625,840	207,393	n.a.	17,092	119,772
1968-69	1,631,962	196,672	n.a.	16,889	125,612
1969-70	1,608,710	195,337	n.a.	15,636	135,830
1970-71	1,665,098	197,732	n.a.	16,793	141,410
1971-72	1,538,789	182,101	n.a.	14,332	128,878

(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} tons)

Commodity and year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
1971-72—								
Wheat	3,277	2,048	527	781	2,538	..	..	9 171
Other agricultural produce	1,057	1,050	2,848	551	916	24	31	6,477
Coal, coke and briquettes	13,769	1,156	11,092	6	191	96	1,513	27,823
Other minerals(b)	3,375	157	1,020	1,756	7,546	23	1,001	14,878
Wool	189	165	23	22	144	4	2	549
Fertilisers and manure	244	743	116	277	416	88	3	1,887
Cement	1,040	842	203	56	(c)	280	135	2,556
Timber	258	452	141	61	277	355	36	1,580
Livestock	171	268	552	137	80	12	109	1,329
All other commodities	8,419	4,728	2,439	2,272	(d)1,540	398	1,223	21,019
Total	31,800	11,609	18,963	5,919	13,648	1,278	4,054	87,271
1970-71	33,204	12,490	15,418	5,990	13,244	1,201	4,382	85,929
1969-70	33,442	11,835	14,439	5,888	10,665	1,258	4,824	82,351
1968-69	31,871	11,316	12,975	5,003	8,934	1,242	4,401	75,742
1967-68	30,745	11,116	11,133	4,368	8,910	1,162	3,627	71,061

(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. (c) Cement included with 'All other commodities'. (d) Includes cement.

Freight net ton-miles

GOVERNMENT RAILWAYS: FREIGHT NET TON-MILES, SYSTEMS
(Million)

Commodity and year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
1971-72—								
Wheat	1,020.1	392.6	(a)	73.6	417.8	..	..	n.a.
Other agricultural produce	397.9	199.4	(a)	59.5	157.8	2.6	23.1	n.a.
Coal, coke and briquettes	575.7	119.5	(a)	1.7	10.1	11.9	235.9	n.a.
Other minerals(b)	420.6	16.3	(a)	252.0	866.0	1.3	129.4	n.a.
Wool	47.1	23.6	(a)	4.1	36.8	0.5	1.5	n.a.
Fertilisers and manure	80.3	119.9	(a)	52.7	80.2	16.0	2.1	n.a.
Cement	153.0	58.4	(a)	11.2	(c)	15.2	11.8	n.a.
Timber	109.5	74.5	(a)	12.5	56.0	18.6	31.9	n.a.
Livestock	57.1	49.9	159.6	20.2	13.6	1.8	37.7	339.9
All other commodities	2,407.3	942.2	3,702.4	480.5	(d)470.2	35.9	754.5	8,793.0
Total	5,268.6	1,996.2	3,862.0	968.1	2,108.5	103.8	1,227.9	15,535.1
1970-71	5,538.1	2,118.7	3,316.4	986.9	2,078.0	94.2	1,282.1	15,414.5
1969-70	5,384.3	2,037.2	3,110.2	947.6	1,749.1	119.5	1,312.5	14,660.5
1968-69	4,942.4	1,903.0	2,617.5	803.7	1,525.8	117.2	1,216.3	13,125.9
1967-68	4,844.1	1,776.2	2,201.3	680.9	1,571.7	117.2	1,072.3	12,263.7

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

Finance

GOVERNMENT RAILWAYS: GROSS EARNINGS(a), SYSTEMS, 1971-72
(**\$'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	45,722	26,773	3,472	2,152	1,590	69	..	79,777
Country passenger	20,138	7,968	3,938	1,944	1,944	142	3,468	39,541
Other	9,561	5,669	2,863	1,050	1,463	217	622	21,447
<i>Total, coaching</i>	<i>75,421</i>	<i>40,410</i>	<i>10,273</i>	<i>5,146</i>	<i>4,997</i>	<i>428</i>	<i>4,090</i>	<i>140,765</i>
Freight (goods and live-stock)—								
Wheat	(c)	12,714	4,323	3,365	12,170	..	..	n.a.
Other agricultural produce	(c)	6,018	15,325	2,350	4,781	127	326	n.a.
Coal, coke and briquettes	(c)	4,276	33,833	33	582	377	1,740	n.a.
Other minerals(d)	(c)	432	10,543	7,504	13,980	71	2,221	n.a.
Wool	(c)	1,429	769	134	2,129	30	33	n.a.
Fertilisers and manure	(c)	3,394	1,462	939	2,110	751	17	n.a.
Cement	(c)	2,897	2,188	295	(e)	862	282	n.a.
Timber	(c)	2,922	1,749	293	2,033	906	330	n.a.
Livestock	(c)	1,566	7,404	951	505	81	611	n.a.
All other commodities	(c)	28,904	33,466	11,233	(f)16,876	2,235	17,487	n.a.
<i>Total, freight</i>	<i>(b)174,886</i>	<i>64,552</i>	<i>111,063</i>	<i>27,098</i>	<i>55,166</i>	<i>5,441</i>	<i>23,045</i>	<i>461,251</i>
Miscellaneous	(b)15,962	7,724	3,446	3,142	3,471	254	2,073	36,072
Grand total	(b)266,268	112,685	124,782	35,386	63,634	6,123	29,208	638,086

(a) Excludes Government grants. (b) Includes State Co-ordination Tax Contribution. (c) Not available separately. (d) Includes sand and gravel. (e) Cement included with 'All other commodities'. (f) Includes cement.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1971-72
(**\$'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	42,577	27,909	35,328	(a)11,707	(a)15,419	2,315	7,897	143,152
Motive power(b)	84,639	35,429	43,760	(a)15,540	(a)23,903	3,507	8,825	215,603
Traffic	68,609	42,286	32,610	(a)13,490	15,824	2,992	6,159	181,970
Other charges	67,658	33,097	8,046	5,784	8,603	1,577	8,659	133,424
Total	263,484	138,722	119,743	(a)46,521	(a)63,748	10,391	(a)31,540	674,149

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

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS SYSTEMS, 1967-68 TO 1971-72
(\$'000)

<i>Year</i>	<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>
GROSS EARNINGS								
1967-68	224,966	99,301	94,018	28,046	51,628	6,587	22,233	526,779
1968-69	228,560	100,502	102,452	30,300	49,364	6,947	25,371	543,496
1969-70	247,288	105,045	108,831	33,340	56,044	6,920	27,649	585,116
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
WORKING EXPENSES								
				(a)	(a)	(a)	(a)	
1967-68	194,939	105,084	87,435	34,610	47,745	8,751	21,308	499,872
1968-69	205,164	111,216	91,427	36,154	49,947	9,089	24,614	527,611
1969-70	217,660	118,558	96,530	39,040	54,992	9,031	27,156	562,967
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
NET EARNINGS(b)								
1967-68	30,027	-5,784	6,583	-6,564	3,883	-2,164	925	26,906
1968-69	23,396	-10,714	11,025	-5,854	-583	-2,142	757	15,885
1969-70	29,628	-13,513	12,301	-5,699	1,051	-2,111	493	22,150
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

(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 1972

(\$'000)

<i>System</i>	<i>Net earnings—excess of gross earnings over working expenses</i>	<i>Plus grants and other earnings payable to railways</i>			<i>Less other expenses charged to railways</i>					<i>Surplus (+) or deficit (-)</i>	
		<i>State Government grants</i>	<i>Road motor earnings</i>	<i>Other</i>	<i>Total</i>	<i>Interest and exchange</i>	<i>Sinking fund</i>	<i>Road motor expenses (a)</i>	<i>Other</i>		<i>Total</i>
New South Wales	2,784	(b)3,700	..	..	3,700	30,647	7,163	..	(c)1,282	39,092	.. 32,608
Victoria	-26,036	(d)34	71	..	106	9,159	393	178	..	9,730	.. -35,661
Queensland	5,038	..	..	..	..	29,651	(e)99	..	(f)2,000	31,750	(g) -26,711
South Australia	-11,135	(h)19,500	217	..	19,717	7,308	..	284	(i)967	8,560	.. 23
Western Australia	-115	..	1,213	..	1,213	11,826	..	1,420	..	13,246	.. -12,148
Tasmania	-4,267	..	..	(j)6	6	1,520	..	..	..	1,520	.. -5,781
Commonwealth	-2,333	..	..	..	..	..	..	..	..	..	.. -2,333
Australia	-36,063	23,234	1,501	6	24,742	90,111	7,655	1,882	4,250	103,898	-115,219

(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) Queensland 4ft 8½ in gauge system only. (f) Demolished assets written off. (g) Includes deficit (\$1,334,699) on the Queensland 4ft 8½ in gauge system. (h) Grants towards deficiency. (i) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (j) Miscellaneous goods revenue from rail-ferry service traffic not carried by rail and Commonwealth Government contribution towards cost of flood damage.

Employment, salaries and wages**GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES (EXCLUDING CONSTRUCTION STAFF) AND SALARIES AND WAGES PAID(a), 1971-72**

	<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	9,580	5,383	4,150	1,815	2,160	404	692	24,184
Wages staff	33,831	20,587	18,547	6,069	7,832	1,582	3,236	91,684
Total staff	43,411	25,970	22,697	7,884	9,992	1,986	3,928	115,868
SALARIES AND WAGES PAID								
paid \$'000	195,983	107,797	95,708	36,878	41,906	7,914	17,128	503,315

(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 the Commonwealth. 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. In recent years there has been considerable growth in the total route mileage of private railways, from an estimated 300 route miles in 1965, to approximately 1,082 by December 1972. The construction of 686 miles of heavy duty railway for north-west Western Australia iron ore projects accounts for much of the increase.

In addition to the above, there are approximately 2,000 route miles of permanent privately owned sugar cane railways or 'tramways' along the north-east coast of Australia. The bulk of this is 2 ft 0 in gauge. Additional temporary lines are laid during the cane harvesting season. These lines connect 30 sugar mills to the Queensland Government Railway system. Other private railways exist within factory and industrial areas for the internal transport of goods and materials but at present no statistics are available as to the extent of the mileage involved and traffic task performed.

The carriage of passengers by private railways is now negligible; however, tonnages of freight carried are increasing as indicated in the following table.

**PRIVATE RAILWAYS: ESTIMATED DOMESTIC FREIGHT TRAFFIC TASK(a)
1965-66 TO 1970-71**

(Source: Department of Transport)

<i>Year</i>	<i>Tons carried</i>	<i>Private as a</i>	<i>Ton-miles</i>	<i>Private as a</i>
		<i>percentage of</i>		<i>percentage of</i>
	<i>'000</i>	<i>total tons</i>	<i>million</i>	<i>total ton-miles</i>
		<i>carried(b)</i>		<i>performed(b)</i>
		<i>per cent</i>		<i>per cent</i>
1965-66	30,752	32.3	427	3.7
1966-67	35,895	34.4	1,141	9.0
1967-68	43,273	37.8	2,008	14.1
1968-69	52,545	41.0	3,347	20.3
1969-70	65,591	44.3	5,715	28.0
1970-71	78,728	47.8	8,426	35.3

(a) Includes tons and ton-miles performed by sugar tramways, but excludes internal industrial plant railways. (b) Total equals government plus private.

During the period 1965-66 to 1970-71 tonnages of freight carried increased by 156 per cent. During the same period freight ton-miles performed increased almost twenty-fold. The extent of this growth has been such as to increase the private railway system's share of the total freight traffic task performed by all railways in Australia.

Mineral ores and concentrates are the predominant items of freight and, in contrast to the Government railways, carriage of general merchandise is of minor importance. The rapid growth of tons carried and ton-miles performed since 1964-65 reflects the growing traffic task performed by the Western Australian iron ore railways. In 1970-71 these railways alone carried 53 per cent of the total tonnage carried by all private railways, and accounted for 94 per cent of the ton-miles performed.

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

TRAMWAY, TROLLEY-BUS, BUS, AND FERRY SERVICES

Systems in operation

Tramway and trolley-bus. At 30 June 1972 tramway 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. Tramway 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 tramways used for the conveyance of passengers, which are dealt with in this section. For further details, see page 354.

Motor 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 motor 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 *Transport and Communication* up to 1970-71.

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 *Transport and Communication*. In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Government and municipal tramway, trolley-bus 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 tramway and trolley-bus services by motor bus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations.

TRAMWAY, AND BUS SERVICES: GOVERNMENT AND MUNICIPAL STATES AND TERRITORIES, 1971-72

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-miles at 30 June—									
Tram(a) miles		133		7					140
Bus „	618	146	291	164	4,879	239	84	100	6,521
Vehicle-miles—									
Tram '000		15,047		418					15,466
Bus „	40,853	6,953	13,125	10,354	24,934	5,373	770	3,749	106,111
Rolling stock at 30 June—									
Tram number		696		26					722
Bus „	1,864	272	607	396	823	283	29	163	4,437
Passenger-journeys—									
Tram '000		102,973		1,585					104,558
Bus „	189,220	20,470	60,493	39,257	60,199	19,606	1,125	8,049	398,421
Gross revenue(b)—									
Tram and bus \$'000	36,650	23,189	10,101	6,978	9,780	2,639	295	1,383	91,015
Working expenses(c)—									
Tram and bus \$'000	43,586	24,127	9,421	7,282	12,625	3,806	459	1,968	103,274
Net revenue—									
Tram and bus \$'000	- 6,936	- 939	681	- 304	- 2,845	- 1,168	164	- 585	- 12,260
Employees at 30 June—									
Tram and bus number	7,470	4,331	1,684	1,145	2,022	608	36	249	17,545
Accidents—									
Tram and bus(d)—									
Persons killed number		9	5	4	3	1			22
Persons injured „	1,176	423	93	147	358	36	1	41	2,275

(a) Gauge 4 ft 8½ in throughout. (b) Excludes government grants. (c) Includes provision of reserves for depreciation, etc., where possible. (d) Excludes accidents to employees.

Minus sign (—) denotes deficit.

**TRAMWAY, TROLLEY-BUS AND BUS SERVICES: GOVERNMENT AND MUNICIPAL
AUSTRALIA, 1967-68 TO 1971-72**

	1967-68	1968-69	1969-70	1970-71	1971-72
Route-miles at 30 June—					
Tram miles	222	163	163	163	140
Trolley-bus „	64	9	..	..	..
Bus „	6,794	6,362	7,198	6,592	6,521
Vehicle miles—					
Tram '000	22,813	20,038	16,492	16,035	15,646
Trolley-bus „	2,038	1,018	66	..	..
Bus „	99,357	102,049	108,940	110,013	106,111
Rolling stock at 30 June—					
Tram number	1,004	771	780	784	722
Trolley-bus „	138	50	..	..	..
Bus „	3,571	4,210	4,345	4,469	4,437
Passenger-journeys—					
Tram '000	179,280	149,055	115,297	112,974	104,558
Trolley-bus and bus „	429,819	441,036	459,859	447,646	398,421
Gross revenue(a)—					
Tram, trolley-bus and bus . \$'000	72,847	79,288	80,542	82,510	91,015
Working expenses(b)—					
Tram, trolley-bus and bus . \$'000	79,199	84,649	85,929	96,507	103,274
Net revenue—					
Tram, trolley-bus and bus . \$'000	-6,350	-5,361	-5,387	-13,997	-12,260
Employees at 30 June—					
Tram, trolley-bus and bus number	18,735	17,840	17,781	17,776	17,545
Accidents—					
Tram, trolley-bus and bus(c)—					
Persons killed number	39	27	33	21	22
Persons injured „	2,246	2,328	2,416	2,459	2,275

(a) Excludes government grants.
(c) Excludes accidents to employees.

(b) Includes provision of reserves for depreciation, etc., where possible.

Minus sign (-) denotes deficit.

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 30 June 1971 are shown in *Transport and Communication*, Bulletin No. 62, 1970-71.

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

Survey of Motor Vehicle Usage

A survey was conducted throughout Australia in late 1971 by the Bureau of Census and 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 mileage travelled by vehicles, classified according to area and purpose of travel. Information was also obtained from the survey on: (i) ton-miles, (ii) average load carried, (iii) vehicle usage (i.e. for hire and reward, ancillary or other), (iv) fuel consumption, (v) road surface, (vi) occupant-miles, (vii) driver characteristics.

The following table shows, for Australia, total annual mileage 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 miles has a standard error of 5 per cent (i.e. 150 million miles), 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 miles to 3,150 million miles, and about nineteen chances in twenty that the figure would be within the range of 2,700 million miles to 3,300 million miles.

**TOTAL ANNUAL MILEAGE(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 miles	S.E. %	million miles	S.E. %	million miles	S.E. %	million miles	S.E. %	million miles	S.E. %	million miles	S.E. %	million miles	S.E. %
Capital city and environs	2,227.1	1.7	1,124.5	2.1	7,789.9	2.5	1,498.8	5.5	5,985.9	2.8	11,279.9	1.9	26,644.8	1.3
Provincial urban(d)	319.7	4.5	198.5	6.3	1,081.9	8.7	156.8	14.6	821.2	7.8	2,022.2	4.3	4,082.1	4.0
Other areas of State or Territory	2,173.5	1.6	1,628.5	1.8	6,588.3	2.3	429.1	12.3	1,783.0	4.9	8,810.7	2.1	17,611.3	1.6
Other States and Territories(e)	248.1	3.6	79.6	5.1	549.1	7.3	30.4	25.7	133.9	15.0	1,310.7	5.0	2,024.2	4.1
Total	4,968.4	1.0	3,031.0	1.3	16,099.3	1.7	2,115.2	5.0	8,724.1	2.3	23,423.9	1.2	50,362.9	0.8

(a) Excludes mileage by buses. (b) Includes the total mileage of cars, station wagons and motor cycles for business purposes. The dissection of business miles into laden/unladen for these vehicles was not sought. (c) For the purpose of this survey 'Paid to and from work' mileage is not considered to be business mileage. (d) Includes centres (other than capital cities) having populations greater than 40,000 at the 1966 Census of Population and Housing. (e) Covers mileage 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 1972
('000)**

State or Territory	Motor cars	Station wagons	Light commercial type vehicles		Trucks (carrying capacity 20 cwt and over)		Other truck type vehicles	Buses	Motor cycles	Total
			open	closed	rigid	articulated				
New South Wales	1,247.5	251.0	128.4	53.7	136.1	12.7	3.8	8.4	74.7	1,916.3
Victoria	987.1	207.3	91.0	49.7	82.1	9.7	3.9	5.6	36.7	1,473.1
Queensland	463.1	125.0	83.5	23.2	68.8	4.8	0.8	3.4	37.1	809.6
South Australia	356.2	64.2	34.2	10.3	40.4	3.1	1.9	2.9	22.7	536.0
Western Australia	288.8	66.3	42.5	16.4	41.7	2.4	1.6	2.7	16.2	478.7
Tasmania	113.3	20.3	14.0	4.9	12.6	0.9	0.1	1.4	4.1	171.6
Northern Territory	13.6	5.7	4.5	1.1	5.4	0.3	0.1	0.2	2.6	33.6
Australian Capital Territory	53.8	10.6	3.3	2.0	3.0	0.1	0.1	0.5	3.5	77.0
Total	3,523.4	750.4	401.4	161.3	390.1	34.0	12.3	25.1	197.6	5,495.9

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE
AUSTRALIA, 1968 TO 1972
('000)

31 December—	Motor cars and station wagons	Light commercial type vehicles, truck type vehicles and buses	Motor cycles	Total vehicles
1968	3,396.2	904.8	90.4	4,391.4
1969	3,619.9	929.9	106.1	4,655.9
1970	3,834.0	949.0	127.7	4,910.7
1971	4,057.5	982.4	164.8	5,204.9
1972	4,274.0	1,024.1	197.6	5,495.9

MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION
STATES AND TERRITORIES, 1968 TO 1972

31 December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968	345.0	362.5	363.7	392.1	390.4	377.7	300.6	386.8	361.6
1969	359.0	374.1	377.5	407.3	406.7	391.2	319.3	395.9	375.3
1970	371.3	387.5	390.7	418.8	417.3	404.8	321.3	415.0	387.8
1971	390.7	398.6	406.0	430.5	432.4	420.1	344.9	435.2	403.2
1972	408.1	411.7	426.5	448.0	449.2	433.8	349.3	465.8	419.8

(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' means 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 20 cwt and over)		Other truck type vehicles	Buses	Total (excludes motor cycles)	Motor cycles
			Open	Closed	Rigid	Articu- lated				
1972—										
New South Wales	135,007	18,511	12,808	10,193	9,186	829	65	766	187,365	20,006
Victoria	92,802	13,400	7,630	5,523	5,750	894	125	399	126,523	11,120
Queensland	45,787	8,094	8,373	2,853	5,510	436	33	162	71,248	9,300
South Australia	32,779	4,193	3,141	1,258	2,034	342	69	326	44,142	6,523
Western Australia	29,380	5,279	4,427	2,572	2,560	184	21	228	44,651	4,661
Tasmania	11,051	1,204	1,054	487	727	147	17	83	14,770	1,089
Northern Territory	1,318	460	650	143	686	56	9	34	3,356	1,116
Australian Capital Territory	5,800	787	462	463	416	25	1	49	8,003	826
Australia	353,924	51,928	38,545	23,492	26,869	2,913	340	2,047	500,958	54,641
			(a)	(a)	(a)	(a)	(a)			
1971	362,669	54,555	33,822	22,908	26,900	1,263	2,394	504,511	48,786	
1970	358,181	54,880	35,881	19,701	29,476	1,289	2,190	501,598	32,701	
1969	343,275	57,604	36,510	17,621	29,700	1,407	2,041	488,158	25,386	
1968	310,267	58,569	34,734	16,711	26,705	970	1,745	449,701	22,887	

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

Drivers' and riders' licences

At 30 June 1972 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 2,222,510; Victoria, 1,634,118; South Australia, 561,862; Western Australia, 493,431; Tasmania, 173,670; Northern Territory, 47,703; Australian Capital Territory, 109,165. 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 for front seats from 1 January 1970 and for all positions from 1 January 1971.

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, women in advanced stages of pregnancies, and persons exempted by a doctor's certificate. Exemptions for motor cyclists vary greatly and include persons exempted for religious reasons in New South Wales, passengers carried in side cars in Victoria and South Australia, and motor cyclists travelling at less than 15 miles per hour in South Australia.

Different types of belts fitted to vehicles include lap, diagonal, sash, lap and sash, harness and child restraints. 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 STATES AND TERRITORIES, 1971**

<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	26,575	1,249	36,660	578	27	797	146	7	202
Victoria	15,023	923	21,371	429	26	610	108	7	154
Queensland	8,147	594	11,387	446	33	623	111	8	155
South Australia	7,386	292	10,132	628	25	862	150	6	206
Western Australia	5,178	332	7,328	503	32	712	113	7	160
Tasmania	1,385	130	2,056	354	33	526	84	8	125
Northern Territory	660	50	926	772	58	1,083	227	17	318
Australian Capital Territory	856	20	1,176	594	14	817	131	3	179
Australia	65,210	3,590	91,036	511	28	714	127	7	177

(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
STATES AND TERRITORIES, 1967 TO 1971**

Year	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Total		
									Number	Per 100,000 of mean popu- lation	Per 10,000 motor vehicles regis- tered(c)
Accidents involving casualties—											
1967	21,610	14,331	7,015	7,242	4,659	1,342	359	695	57,253	484	139
1968	22,774	15,377	7,118	6,421	4,708	1,240	357	764	58,759	488	135
1969	24,164	16,527	7,494	6,895	4,809	1,416	500	792	62,597	509	136
1970	25,434	16,435	7,869	7,424	5,218	1,425	528	877	65,210	521	134
1971	26,575	15,023	8,147	7,386	5,178	1,385	660	856	65,210	511	127
Persons killed—											
1967	1,117	887	502	253	256	101	27	23	3,166	27	8
1968	1,211	949	477	275	320	118	18	14	3,382	28	8
1969	1,188	1,011	556	251	311	114	45	26	3,502	29	8
1970	1,309	1,061	537	349	351	118	42	31	3,798	30	8
1971	1,249	923	594	292	332	130	50	20	3,590	28	7
Persons injured—											
1967	29,501	20,636	9,850	9,955	6,426	2,095	541	1,017	80,021	677	194
1968	30,919	22,095	10,151	8,902	6,553	1,928	512	1,150	82,210	683	189
1969	32,752	23,797	10,406	9,961	6,788	2,264	727	1,169	87,864	714	191
1970	34,886	23,737	10,940	10,484	7,373	2,171	714	1,249	91,554	732	188
1971	36,660	21,371	11,387	10,132	7,328	2,056	926	1,176	91,036	714	177

(a) See footnote (a) to previous table. (b) Prior to 1 October 1967 includes accidents in which the injured persons did not require surgical or medical treatment and the number of persons injured in accidents who did not require surgical or medical treatment. (c) 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, STATES AND TERRITORIES, 1971**

Type of road user	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
PERSONS KILLED									
Drivers of motor vehicles	465	334	255	109	136	51	22	8	1,380
Motor cyclists	106	45	44	14	5	12	6	3	235
Pedal cyclists	16	28	24	9	2	5	..	1	85
Passengers (all types)(b)	411	286	192	103	118	36	15	6	1,167
Pedestrians	250	229	78	57	64	26	7	2	713
Other classes(c)	1	1	1	..	7	..	..	..	10
Total	1,249	923	594	292	332	130	50	20	3,590
PERSONS INJURED									
Drivers of motor vehicles	14,671	8,325	4,533	3,991	3,228	815	379	461	36,403
Motor cyclists	3,783	1,195	1,034	930	439	142	135	167	7,825
Pedal cyclists	804	792	430	546	242	46	8	37	2,905
Passengers (all types)(b)	13,073	8,500	4,483	3,860	2,736	848	359	403	34,262
Pedestrians	4,292	2,525	897	799	661	205	45	99	9,523
Other classes(c)	37	34	10	6	22	..	..	9	118
Total	36,660	21,371	11,387	10,132	7,328	2,056	926	1,176	91,036

(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: STATES AND TERRITORIES, 1971

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Under 5	35	34	14	10	10	4	3	3	113
5 and under 7	19	23	7	3	6	3	1	..	62
7 " " 17	95	66	65	30	34	13	1	1	305
17 " " 21	254	196	132	69	52	38	5	4	750
21 " " 30	282	198	130	52	72	28	14	5	781
30 " " 40	125	87	61	30	33	7	9	2	354
40 " " 50	105	83	56	28	29	6	8	2	317
50 " " 60	118	74	47	27	34	10	6	2	318
60 and over	215	159	82	43	62	21	2	1	585
Not stated	1	3	..	..	..	..	1	..	5
Total	1,249	923	594	292	332	130	50	20	3,590
PERSONS INJURED									
Under 5	1,051	835	355	297	246	67	35	31	2,917
5 and under 7	589	444	172	141	116	41	11	21	1,535
7 " " 17	4,017	2,453	1,504	1,301	826	316	42	154	10,613
17 " " 21	8,609	4,608	2,791	2,401	1,619	574	139	324	21,065
21 " " 30	8,860	5,266	2,523	1,883	1,594	409	359	299	21,193
30 " " 40	4,155	2,437	1,108	938	785	176	160	142	9,901
40 " " 50	3,510	2,074	1,014	834	668	152	88	102	8,442
50 " " 60	2,754	1,536	819	613	470	122	41	61	6,416
60 and over	2,606	1,511	755	570	481	110	16	39	6,088
Not stated	509	207	346	1,154	523	89	35	3	2,866
Total	36,660	21,371	11,387	10,132	7,328	2,056	926	1,176	91,036

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

Types of accidents

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a)
NUMBER OF ACCIDENTS AND PERSONS KILLED OR INJURED, BY TYPE OF ACCIDENT
STATES AND TERRITORIES, 1971

<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	15,188	8,509	4,103	4,222	3,041	732	280	489	36,564
Vehicle overturning or leaving road	3,387	1,014	2,542	851	1,209	373	228	208	9,812
Vehicle colliding with pedestrian	4,258	2,513	917	808	705	227	49	94	9,571
Vehicle colliding with fixed object(b)	3,400	2,763	397	1,380	143	44	86	44	8,257
Passenger accidents	141	71	43	48	19	4	5	8	339
Vehicle colliding with animal	200	81	92	48	26	3	12	6	468
Other	1	72	53	29	35	2	..	7	199
Total	26,575	15,023	8,147	7,386	5,178	1,385	660	856	65,210
PERSONS KILLED									
Collisions between vehicles	550	401	267	125	121	59	11	13	1,547
Vehicle overturning or leaving road	222	59	208	51	125	45	24	4	738
Vehicle colliding with pedestrian	247	219	77	54	66	26	8	2	699
Vehicle colliding with fixed object(b)	218	230	22	55	10	..	5	1	541
Passenger accidents	10	6	3	5	4	..	2	..	30
Vehicle colliding with animal	2	3	6	..	1	..	..	..	12
Other . . . . .	..	5	11	2	5	..	..	..	23
Total	1,249	923	594	292	332	130	50	20	3,590
PERSONS INJURED									
Collisions between vehicles	22,593	13,277	6,316	5,996	4,696	1,209	408	733	55,228
Vehicle overturning or leaving road	4,610	1,574	3,468	1,281	1,690	562	336	268	13,789
Vehicle colliding with pedestrian	4,293	2,400	902	789	679	210	46	93	9,412
Vehicle colliding with fixed object(b)	4,763	3,889	497	1,927	178	64	113	60	11,491
Passenger accidents	159	67	41	49	16	5	3	8	348
Vehicle colliding with animal	241	91	111	59	28	4	20	6	560
Other	1	73	52	31	41	2	..	8	208
Total	36,660	21,371	11,387	10,132	7,328	2,056	926	1,176	91,036

(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 1972. 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 gazettals of mileages, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, STATES, 30 JUNE 1972

(Miles)

Class of road	N.S.W.	Vic.(a)	Qld	S.A.	W.A.(b)	Tas.	Total
State highways . . .	6,565	(c)4,498	6,314	8,156	7,651	1,197	65,122
Trunk roads . . .	4,375	9,076	77				
Ordinary main roads . . .	11,513		5,039				
<i>Total main roads</i> . . .	<i>22,452</i>	<i>13,574</i>	<i>11,430</i>	<i>8,156</i>	<i>7,651</i>	<i>1,859</i>	<i>65,122</i>
Secondary roads . . .	(d)177	..	(e)8,574	..	5,434	187	14,372
Developmental roads . . .	2,553	..	4,772	..	..	89	7,414
Tourist roads . . .	251	483	..	..	..	47	781
Other roads . . .	..	(f)646	..	..	..	..	646
<i>Total other roads</i> . . .	<i>2,981</i>	<i>1,129</i>	<i>13,346</i>	<i>..</i>	<i>5,434</i>	<i>323</i>	<i>23,213</i>
Grand total . . .	25,433	14,703	24,776	8,156	13,086	2,182	88,336

(a) Includes only roads declared by the Country Roads Board. Does not include 8 miles of metropolitan freeways constructed by the Melbourne and Metropolitan Board of Works. (b) Main Roads Department revised series. (c) Includes 70 miles of freeways constructed by the Country Roads Board. (d) Metropolitan only. (e) Includes mining access roads, farmers' roads and tourist tracks. (f) 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 1972

(Miles)

Surface of roads	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
Bitumen or concrete . . .	37,702	33,237	22,319	11,146	17,646	3,910	2,694	714	129,368
Gravel, crushed stone or other improved surface . . .	40,642	28,927	19,429	13,464	18,350	8,333	1,061	241	130,447
Formed only . . .	24,778	19,603	38,515	15,192	26,769	618	1,981	26	276,936
Cleared only . . .	26,105	17,310	39,999	23,073	36,857				
Total . . .	129,227	99,077	120,263	62,875	99,624	12,861	11,895	981	536,801

Further information on roads, including financial particulars, is included in Chapter 18. Public Authority 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 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 Department of Works.

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 Australian 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 Australian Government's policy on financial aid for roads. The Association also regularly confers with the Commonwealth Department of Transport, the Commonwealth Bureau of Roads and Australian Transport Advisory Council on major roading policies. As part of the Australian 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, memoranda and articles of association being drafted in general conformity with the constitution which had been accepted in 1960. The company members are the Commonwealth of Australia, 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 Director-General of the Commonwealth Department of Public Works 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 four 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 profit 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, from 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 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.

CIVIL AVIATION

Department of Civil Aviation

Control of civil aviation in Australia is exercised by the Department of Civil Aviation which was established in 1939 to take over from the Civil Aviation Board the regulation of civil aviation in Australia. The Department's jurisdiction covers not only Australia but also Papua New Guinea and areas of the Indian and Pacific Oceans. Year Books Nos 16, 19 and 38 trace the establishment of civil aviation 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 Civil Aviation.

Regular air services within Australia

Interstate services. Scheduled interstate services with passenger and all-freight aircraft are provided by two airlines only, the private enterprise airline Ansett Airlines of Australia (a subsidiary of Ansett Transport Industries) and the Commonwealth-owned Trans-Australia Airlines. All principal routes are competitive, with both airlines providing equal capacities in accord 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 1952-1961* 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 to 1977.

In addition to purely interstate services, both Ansett Airlines of Australia and Trans-Australia Airlines operate routes to Papua New Guinea and 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. In addition, Trans-Australia Airlines operate services within Papua New Guinea in competition with Ansett Airlines of Papua New Guinea.

At 30 June 1972 the Ansett Airlines of Australia fleet included six Boeing 727's, twelve DC-9's, twelve Friendships, two Carvairs, one DC-4 and two helicopters. At the same date Trans-Australia Airlines operated a fleet of six Boeing 727's, twelve DC-9's, twelve Friendships and six 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 (Airlines of New South Wales and East-West Airlines), Adelaide (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 subsidiaries of Ansett Transport Industries. The larger aircraft used by these regional airlines are Fellowships, Friendships and Convairs. Connair uses 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 1972 twenty-one 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.

Internal operations. Particulars of the revenue operations of all regular internal air services during each of the years 1967-68 to 1971-72 are set out in the next table.

**CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES
AUSTRALIA(a), 1967-68 TO 1971-72**

	1967-68	1968-69	1969-70	1970-71	1971-72
Hours flown number	240,801	244,606	251,582	258,793	248,774
Miles flown '000	56,724	60,348	66,241	71,212	72,036
Passengers—					
Embarkations number	4,668,153	5,184,828	5,911,002	6,340,036	6,629,316
Passenger-miles '000	2,125,314	2,401,783	2,802,717	3,090,837	3,278,680
Freight—					
Tons uplifted short tons	85,063	89,947	100,100	100,752	99,079
Ton-miles(b) '000	42,320	45,521	51,021	53,457	52,380
Mail—					
Tons uplifted short tons	9,417	9,876	10,625	10,931	11,174
Ton-miles(b) '000	5,174	5,498	5,950	6,390	6,568

(a) Includes flights of all Australian-owned airlines, with the exception of those of Qantas Airways Limited, between airports located within the Commonwealth. (b) In terms of short tons.

Internal passenger embarkations and disembarkations

Traffic statistics have been compiled by aggregating for all individual airline flights the traffic loaded and unloaded at each airport. Flights between Australia and Papua New Guinea and Australia and Norfolk Island are included. At ports where different flights connect, figures are overstated to the extent of the through traffic transferring between flights.

**INTERNAL AIRWAYS PASSENGER EMBARKATIONS AND
DISEMBARKATIONS AT PRINCIPAL AUSTRALIAN AIRPORTS
1967-68 TO 1971-72**

<i>Airport</i>	<i>1967-68</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>
Sydney	2,641,147	2,933,795	3,390,322	3,515,231	3,694,498
Melbourne	2,043,542	2,278,032	2,603,320	2,750,602	2,861,896
Brisbane	937,660	1,009,060	1,184,846	1,347,118	1,448,920
Adelaide	863,652	930,207	1,016,689	1,019,320	1,046,840
Canberra	410,701	461,888	541,791	596,171	670,608
Perth	315,744	357,236	420,603	510,328	545,890
Hobart	182,459	196,335	200,638	222,397	227,016
Launceston	156,443	171,612	179,614	197,500	208,090
Townsville	188,761	168,247	197,107	197,942	202,160
Coolangatta	85,543	102,764	132,102	166,239	188,917
Cairns	92,048	101,031	127,252	158,986	182,300
Mackay	78,179	87,313	95,841	125,220	133,806
Darwin	65,535	78,165	98,523	118,375	131,703
Rockhampton	68,150	74,760	83,883	97,264	101,685
Devonport	61,250	68,125	68,257	71,426	75,388
Wynyard	54,888	57,132	63,041	65,563	70,597
Mount Isa	34,013	37,423	52,272	67,938	69,760
Alice Springs	34,953	39,549	52,522	57,299	65,497
Tamworth	41,960	46,558	51,640	50,870	59,557
Wagga	46,314	49,519	54,378	52,181	52,511
Dubbo	49,856	51,775	56,014	55,574	50,827
Kingscote	44,316	45,993	50,878	51,135	47,993

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 125 nations in June 1972. 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-three countries at 30 June 1972. They were Austria, Britain, Canada, Ceylon, Egypt, 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 1972. These were Bahrain, Fiji, Iran, Mauritius, Mexico, Portugal, Syria and Turkey.

International air services. At 30 June 1972, twenty-two overseas international airlines were operating regular scheduled services to Australia. These are: Air-India (India), Air Nauru (Nauru), Air New Zealand (New Zealand), Air Pacific (Fiji), Alitalia (Italy), American Airlines (United States of America), British Overseas Airways Corporation (Britain), Canadian Pacific Air Lines (Canada), Cathay Pacific (Britain), Deutsche Lufthansa (Federal Republic of Germany), Garuda (Indonesia), Japan Air Lines (Japan), 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), Philippine Air Lines (Philippines), South African Airways (Republic of South Africa), Thai International (Thailand) and Union de Transport

Aeriens (France). Trans-Australia Airlines operates between Darwin and Portuguese Timor under charter to Transportes Aereos de Timor. Qantas, Australia's international airline, operates a fleet of twenty-nine aircraft of which twenty-one are Boeing 707-338C jet aircraft and four are Boeing 747B superjet 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 1971-72 moving into and out of an area which embraces the Commonwealth of Australia, Papua New Guinea, and Norfolk Island. These figures do not include traffic between Australia and Papua New Guinea and Norfolk Island.

**CIVIL AVIATION: INTERNATIONAL AIRLINE TRAFFIC
TO AND FROM AUSTRALIA(a), 1971-72**

<i>Type of traffic</i>	<i>Aircraft movements</i>	<i>Passengers</i>	<i>Freight</i>	<i>Mail</i>
			short tons	short tons
Traffic to Australia—				
Qantas Airways Limited	3,606	289,331	9,300	722
Other airlines	5,675	434,152	12,190	2,873
All airlines	9,281	723,483	21,490	3,595
Traffic from Australia—				
Qantas Airways Limited	3,645	288,844	7,216	1,571
Other airlines	5,647	421,412	8,175	698
All airlines	9,292	710,256	15,391	2,269

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

Particulars of revenue 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 the Commonwealth for flights of other Australian-owned airlines; they exclude flights over stages located within Papua New Guinea.

**CIVIL AVIATION: OPERATIONS OF AUSTRALIA'S REGULAR OVERSEAS SERVICES
1967-68 TO 1971-72**

	1967-68	1968-69	1969-70	1970-71	1971-72
Hours flown number	70,611	74,757	84,684	97,307	91,357
Miles flown '000	31,914	33,591	37,537	43,711	41,178
Passengers—					
Embarkations number	562,855	642,524	751,315	839,629	885,548
Passenger-miles '000	1,970,008	2,247,241	2,498,180	2,763,179	3,039,775
Freight—					
Tons uplifted short tons	13,733	18,537	21,165	23,650	23,105
Ton-miles(a) '000	67,733	92,488	103,717	106,262	98,297
Mail—					
Tons uplifted short tons	3,170	2,862	2,925	3,107	3,132
Ton-miles(a) '000	19,209	15,680	15,143	15,659	16,868

(a) In terms of short tons.

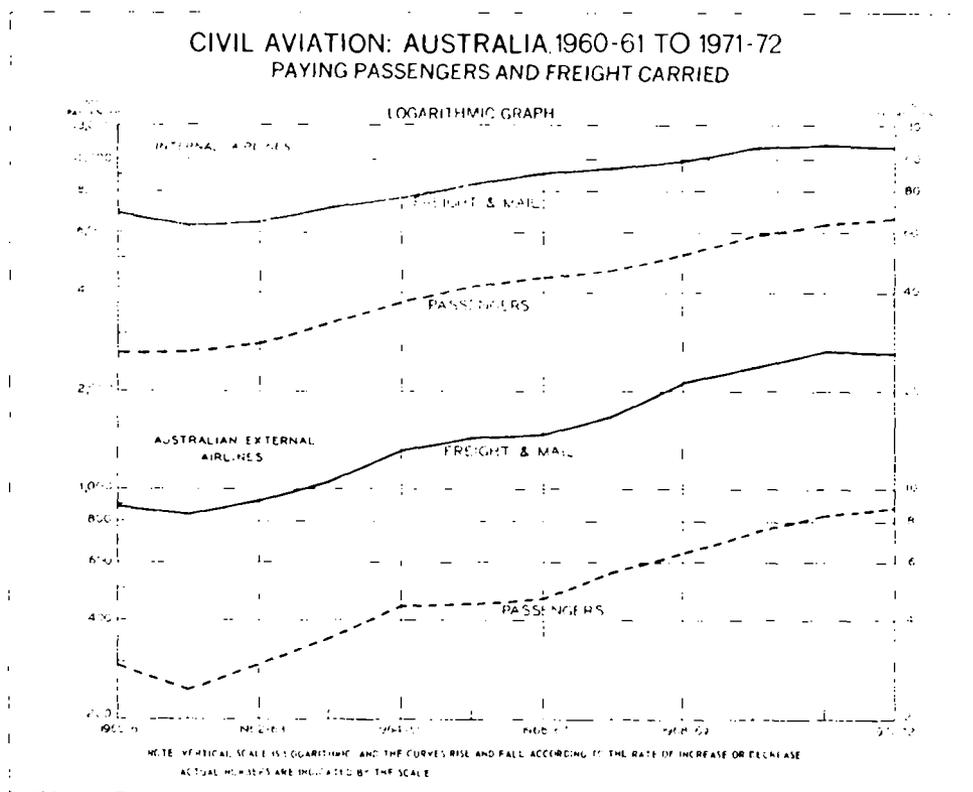


PLATE 29

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 the post-war period so that now it is an important sector of the Australian aviation industry. In 1972, hours flown totalled 1,013,000 compared with 565,000 hours flown by Australian airline aircraft. At 30 June 1972, aircraft employed in general aviation numbered 3,802.

Aerodromes

The number of aerodromes throughout Australia and its External Territories at 30 June 1972 was 705. One hundred and fourteen were owned by the Commonwealth Government and 591 by local authorities and private interests. Capital expenditure on aerodrome and building construction was \$28.6 million in 1971-72. Maintenance expenditure on Commonwealth-owned aerodromes during 1971-72 was \$2.3 million, and development and maintenance grants to licensed aerodromes participating in the Local Ownership Plan totalled \$1.05 million.

Airways facilities

A total of 407 navigational aids were in service at 30 June 1972. The total includes 229 non-directional beacons (NDB), 106 distance measuring equipment (DME), 20 visual-aural ranges (VAR), 33 VHF Omni-directional ranges (VOR), 17 instrument landing systems (ILS) and 2 twin locator approach systems.

One hundred and twenty-seven aerodromes are now equipped with night landing facilities and sixty-nine visual approach slope indicators (VASIS) are now operating comprising sixty-seven Australian designed 'T' systems and two Red-White systems.

Six long range surveillance radars are in operation.

Civil aviation registrations, licences, etc., in force in Australia

At 30 June 1972 there were 3,802 aircraft registered in Australia. There were also, at 30 June 1972, 28,214 pilots' licences in force of which 12,738 were private pilots' licences, 3,274 commercial pilots' licences, and 9,844 student pilots' licences. Flight radio-telephone operators' licences numbered 19,813.

Accidents and casualties

**CIVIL AVIATION: ACCIDENTS INVOLVING CASUALTIES(a)
AUSTRALIA(b), 1967-68 TO 1971-72**

	1967-68	1968-69	1969-70	1970-71	1971-72
Number	36	17	47	31	28
Persons killed	47	47	49	48	37
Persons seriously injured	29	20	41	24	23

(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 Postmaster-General's Department is located in Melbourne, Victoria.

Postmaster-General's Department—General

Under the provisions of the *Post and Telegraph Act* 1901-1971 the Postmaster-General's Department is responsible for the control and operation of postal, telegraphic and telephonic services throughout Australia. The Postmaster-General's Department is also responsible for the provision and operation of the transmitters and technical facilities, other than studio equipment, required for broadcasting and television services by the Australian Broadcasting Commission (*see* pages 387-91), and, in conjunction with the Overseas Telecommunications Commission (*see* pages 385-7), with whom there is close co-operation, provides facilities for communication with overseas countries. Subsidiary to its major activities, the Postmaster-General's Department performs a number of important functions for other Commonwealth and State departments including the collection of broadcast and television licence fees, war service and repatriation repayments, the provision of banking facilities on behalf of the Commonwealth Savings Bank, the sale of tax and duty stamps, the collection of land tax and the over-the-counter distribution of a variety of official forms.

Research

The Postmaster-General's Department maintains its own research facilities as part of the headquarters organisation in Melbourne. The P.M.G. Research Laboratories had an establishment in 1972 of 430 including 150 professional staff, mainly engineers, physicists, chemists and metallurgists. The main responsibilities of the laboratories are to conduct research and development in telecommunication theory and practice, particularly as applying to the Australian region; to appraise new developments in telecommunication equipment, and to design apparatus and systems required for special applications in the telecommunications and mail handling networks in Australia in cases where these needs could not be met from commercial sources.

Postal facilities

The following table shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square miles in each State and in Australia at 30 June 1972.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, STATES
30 JUNE 1972

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Post offices—							
Official	512	333	220	175	161	46	1,447
Non-official	1,596	1,357	876	651	422	288	5,190
Total post offices	2,108	1,690	1,096	826	583	334	6,637
Square miles of territory per office	147	52	609	1,090	1,674	79	447
Inhabitants per office	2,297	2,108	1,719	1,557	1,816	1,177	1,963
Inhabitants per 100 square miles	1,560	4,052	282	143	109	1,489	439

Employment

PERSONS PROVIDING POST OFFICE SERVICES: CENTRAL OFFICE AND STATES
30 JUNE 1972

	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Official full-time staff (a)—								
Permanent officers	2,948	27,709	20,762	12,164	8,831	6,777	2,758	81,949
Temporary and exempt employees	206	13,332	8,157	3,352	1,678	2,530	600	29,855
Total	3,154	41,041	28,919	15,516	10,509	9,307	3,358	111,804
Other (b)—								
Non-official postmasters and post-mistresses		1,657	1,350	884	654	423	237	5,205
Other staff at non-official offices		514	506	316	202	72	27	1,637
Telephone office-keepers		124	28	266	71	143	6	638
Mail contractors (including persons employed to drive vehicles)		1,520	824	1,013	256	297	128	4,038
Total		3,815	2,708	2,479	1,183	935	398	11,518
Grand total	3,154	44,856	31,627	17,995	11,692	10,242	3,756	123,322

(a) Persons directly under the control of the Department. Excludes 3,242 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, 1962-63 TO 1971-72
(\$'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)	
1962-63	91,835	2,501	3,501	2,008	59,913	117,570	9,831	4,844	10,936	302,939
1963-64	97,842	2,638	3,976	2,121	64,422	129,736	10,641	5,172	12,746	329,293
1964-65	103,032	2,722	4,243	2,194	82,175	142,722	11,423	5,847	15,687	370,045
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

(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, 1962-63 TO 1971-72
 (\$'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	Main-tenance of plant	Depreciation, super-annuation, long service leave and interest	
1962-63 . . .	65,107	25,304	8,384	57,483	55,318	92,868	304,465
1963-64 . . .	69,655	26,682	9,284	62,651	58,290	103,325	329,887
1964-65 . . .	75,987	28,710	10,111	69,637	60,269	121,118	365,833
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

Profit or Loss

The following table shows the net results of the Department's operations for the year 1971-72 together with summarised particulars for the year 1970-71.

POSTMASTER-GENERAL'S DEPARTMENT
CONSOLIDATED STATEMENT OF PROFIT AND LOSS, AUSTRALIA, 1970-71 AND 1971-72
 (\$'000)

	1970-71		1971-72	
	All services	Postal service	Telecommunications service	All services
Earnings	715,613	213,364	645,129	858,493
Expenses—				
Operating, maintenance and general	439,126	190,186	292,710	482,896
Depreciation	127,789	4,496	135,244	139,740
Superannuation	26,855	11,907	21,063	32,970
Long service leave	9,123	4,261	7,452	11,713
<i>Total expenses</i>	<i>602,893</i>	<i>210,850</i>	<i>456,469</i>	<i>667,319</i>
Profit or loss before interest	112,720	2,514	188,660	191,174
Interest	114,363	13,767	117,607	131,374
Profit or loss after interest	-1,643	-11,253	71,052	59,799

Minus sign (-) denotes loss.

Fixed assets, Postmaster-General's Department

**POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS
1971-72
(\$'000)**

<i>Class of plant</i>	<i>Value at 1 July 1971</i>	<i>Additions during year</i>	<i>Instalments of plant written out</i>	<i>Value at 30 June 1972</i>
Telecommunications plant	2,694,627	340,322	33,749	(a)3,001,200
Postal plant	20,641	2,585	122	23,103
Engineers' moveable plant	47,237	7,257	2,732	51,761
Motor vehicles	32,829	12,274	7,779	37,325
Other plant and equipment	48,302	7,387	1,967	53,722
Buildings	324,958	48,433		(b)373,392
Land	32,665	8,900	121	41,444
Total	3,201,259	427,157	46,470	3,581,946

(a) Includes plant under construction valued at \$142,948,000. (b) Includes buildings under construction valued at \$30,135,000.

Postal services

Mail delivery network

MAIL DELIVERY NETWORK(a): STATES, 31 MARCH 1972

<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	1,456,328	84,525	110,354	7,024	51,865
Victoria	990,098	56,206	65,064	7,542	38,960
Queensland	479,161	47,333	57,962	6,488	35,704
South Australia	368,912	2,797	44,318	4,884	21,794
Western Australia	264,045	17,667	41,549	1,067	17,397
Tasmania	89,029	4,669	12,191	1,494	15,218
Australia	3,647,573	213,197	331,438	28,499	180,938

(a) Statistics shown here are from the Mail Delivery Network Survey at 31 March 1972. (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.

POSTAL ARTICLES HANDLED(a): STATES, 1971-72
(*000)

State	Newspapers and Registered articles				Registered articles			
	Letters (b)	packets (c)	Parcels (d)	articles (e)	Letters (b)	packets (c)	Parcels (d)	articles (e)
	<i>Posted for delivery within Australia</i>				<i>Posted for delivery overseas</i>			
New South Wales	830,378	117,765	9,876	2,779	52,180	4,084	490	1,295
Victoria	631,969	78,763	5,810	1,929	34,174	2,792	338	586
Queensland	302,859	33,050	2,787	1,242	9,180	695	77	66
South Australia	200,023	18,897	1,738	660	9,130	690	92	74
Western Australia	154,859	12,993	1,193	626	10,124	742	80	103
Tasmania	53,259	6,235	303	262	365	54	9	3
Australia	2,173,347	267,703	21,707	7,496	115,153	9,057	1,088	2,127
	<i>Received from overseas</i>				<i>Total postal matter dealt with</i>			
New South Wales	66,496	9,678	785	1,631	949,054	131,526	11,151	5,705
Victoria	50,077	6,049	543	764	716,220	87,605	6,691	3,278
Queensland	8,968	2,634	169	35	321,007	36,379	3,033	1,343
South Australia	6,692	2,293	94	36	215,845	21,880	1,924	769
Western Australia	7,153	3,084	150	75	172,137	16,819	1,423	803
Tasmania	1,155	484	39	4	54,780	6,773	352	268
Australia	140,542	24,221	1,780	2,543	2,429,041	300,981	24,574	12,166

(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, 1967-68 TO 1971-72
(*000)

Year	Letters (b)	Newspapers and packets (c)	Parcels (d)	Registered articles (e)	Total postal articles handled
1967-68	2,203,089	411,091	20,783	12,908	2,647,871
1968-69	(f)2,205,525	(f)407,922	22,092	12,748	2,648,287
1969-70	(f)2,410,300	(f)336,392	23,682	13,104	2,783,478
1970-71	(g)2,436,846	(g)330,858	24,950	13,234	2,805,887
1971-72	2,429,041	300,981	24,574	12,166	2,766,762

(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) Not comparable with previous years due to revised methods of measuring mail statistics. (g) Comparable only with previous year.

During 1971-72 the cost of the carriage of mails, as disclosed by the Profit and Loss Statement of the Postal Service, was as follows: road, \$15,177,691; railway, \$4,292,597; sea, \$842,257; air—internal, \$4,202,394; overseas, \$10,364,745; total, \$34,879,684.

Money orders and postal orders

The issue of money orders and postal orders is regulated by Sections 74-9 of the *Post and Telegraph Act 1901-1971*. The maximum amount for which a single money order payable within Australia may be obtained is \$200, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent by any one person to a person or persons outside Australia is \$50 a week. A postal order is not available for a sum larger than ten dollars. The following table shows the number and value of money orders and postal orders issued in Australia in each of the years 1966-67 to 1971-72 and the income therefrom which has accrued to the Post Office.

**MONEY ORDERS AND POSTAL ORDERS: TRANSACTIONS, AUSTRALIA
1967-68 TO 1971-72**

Year	Money orders(a)			Postal orders		
	Issued		Total commission received	Issued		Fee
	Number	Value		Number	Value	
	'000	\$'000	\$'000	'000	\$'000	\$'000
1967-68	(b)11,373	438,668	2,544	(c)12,364	22,149	657
1968-69	9,672	209,868	2,637	13,525	27,262	772
1969-70	9,153	175,446	2,640	14,866	31,431	861
1970-71	7,353	161,119	3,031	(d)16,732	44,961	1,193
1971-72	5,677	143,167	2,808	17,289	55,784	1,779

(a) Money orders issued for payment in Australia and overseas. (b) Includes official money orders used in bringing to account telephone accounts and collections on War Service Homes repayments. (c) Postal orders for \$5, \$6, \$7 and \$8 were introduced in October 1967. Until then the highest denomination was \$4. (d) Postal orders for \$9 and \$10 were introduced in October 1970.

Of the total money orders issued in Australia during 1971-72, 5,201,581 valued at \$137,832,976 were payable in Australia, and 475,274 valued at \$5,333,612 were payable overseas. Of the total money orders paid in Australia during 1971-72, 5,492,570 (\$141,554,526) were issued in Australia, and 210,064 (\$4,737,940) were issued overseas.

Of the total postal orders paid in Australia during 1971-72 (17,115,826 valued at \$55,281,054), 12,956,407 (\$44,798,117) were paid in the State in which issued, and 4,159,419 (\$10,482,937) 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. Internal telecommunication operations now comprise telephone, telegraph, and telegraph exchange (telex) services.

Wire and pole routes

At 30 June 1972 there were 26,330,802 single wire miles of cable and 1,015,505 miles of aerial wire used for telecommunication purposes in Australia. The aerial wires are mounted on 103,135 miles 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 1972 there were 18,055 tube miles of coaxial cable and 50,187 bearer miles 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 1972 classified according to type of service, type of exchange to which connected, and location. Telephone services connected to exchanges located within fifteen miles of the Sydney and Melbourne and ten miles of the Brisbane, Adelaide, Perth, and Hobart General Post Offices are defined as being within a 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 number of exchange lines (as distinct from extension lines) is the relevant figure (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: STATES, 30 JUNE 1972

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
Type of service—							
Ordinary exchange services	1,026,042	803,278	323,665	225,325	179,600	74,373	2,632,283
Duplex services	444	..	18	2	150	12	626
Party line services	3,584	1,280	2,677	1,097	975	78	9,691
Private branch exchange services	125,226	84,472	30,078	32,168	27,393	4,906	304,243
Public telephones	11,881	7,585	4,852	3,016	2,513	1,077	30,924
Connected to—							
Automatic exchanges	1,094,702	848,152	314,068	241,877	197,387	75,763	2,771,949
Manual exchanges	72,475	48,463	47,222	19,731	13,244	4,683	205,818
Located in—							
Metropolitan areas	718,503	590,077	172,785	167,363	143,866	30,128	1,822,722
Country areas	448,674	306,538	188,505	94,245	66,765	50,318	1,155,045
Total	1,167,177	896,615	361,290	261,608	210,631	80,446	2,977,767

TELEPHONE SERVICES IN OPERATION: AUSTRALIA, 1968 TO 1972

<i>Services connected to—</i>	<i>30 June—</i>				
	<i>1968</i>	<i>1969</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>
Metropolitan exchanges—					
Automatic	1,456,179	1,548,479	1,663,849	1,754,872	1,822,722
Country exchanges—					
Automatic	594,977	681,668	778,651	859,202	949,227
Manual	307,681	281,084	261,168	242,936	205,818
All exchanges—					
Automatic	2,051,156	2,230,147	2,442,500	2,614,074	2,771,949
Manual	307,681	281,084	261,168	242,936	205,818
Total services	2,358,837	2,511,231	2,703,668	2,857,010	2,977,767

Telephone instruments

TELEPHONE INSTRUMENTS IN SERVICE: STATES, 1968 TO 1972
(*000)

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1968	1,371	1,020	398	302	208	93	3,392
1969	1,444	1,080	423	321	232	98	3,599
1970	1,575	1,182	452	344	256	104	3,913
1971	1,683	1,240	475	360	285	114	4,157
1972	1,814	1,294	498	377	304	113	4,400
Number at 30 June 1972 per 100 population	37.7	36.5	26.8	29.6	28.9	28.6	34.0

Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA
1967-68 TO 1971-72

Year	Effective paid local calls		Trunk line calls		Total calls '000
	Total '000	Per service number	Total '000	Per service number	
1967-68	2,295,000	999	151,400	66	2,446,400
1968-69	2,442,000	1,004	172,200	71	2,614,200
1969-70	2,662,000	1,021	198,400	76	2,860,400
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

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 1972 subscriber trunk dialling was in operation at 1,682 exchanges, connected to approximately 2,488,305 services.

Internal telegraph 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 telegraph exchange (telex) equipment. The number of telegrams of various types transmitted within the Commonwealth during the years 1967-68 to 1971-72 is set out below.

INTERNAL TELEGRAPH TRAFFIC: AUSTRALIA, 1967-68 TO 1971-72
(*000)

Year	Ordinary (a)	Urgent	Press	Letter- grams	Meteoro- logical service	Service	Total telegrams
1967-68	18,723	440	68	38	1,060	719	21,047
1968-69	18,543	440	68	33	1,068	718	20,869
1969-70	18,217	454	63	32	1,040	754	20,560
1970-71	16,265	436	63	23	1,099	765	18,651
1971-72	15,401	397	51	20	1,085	781	17,735

(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, 1967-68 TO 1971-72**

<i>Year</i>	<i>Services at end of year</i>	<i>Internal calls during year</i>
1967-68 . . .	4,054	8,377,816
1968-69 . . .	5,067	9,977,018
1969-70 . . .	6,430	12,092,737
1970-71 . . .	7,988	14,246,157
1971-72 . . .	9,235	15,868,800

Development of telecommunications in Australia

Telegraphs

The electric telegraph was first introduced into Australia for use by the public in the year 1854, when a line from Melbourne to Williamstown was opened. The first line in South Australia, from Adelaide to Port Adelaide, was opened in 1856, while the first line in New South Wales was brought into operation in 1858, when the line from Sydney to South Head, 6 miles in length, was opened. In Tasmania the first telegraph line was completed in 1857, while in the following year communication was established between Sydney, Melbourne, and Adelaide. The first lines to be constructed in Queensland were those between Brisbane and Ipswich, and Brisbane and Lytton, distances of 24 and 12 miles respectively, and in 1861 Brisbane was connected to Sydney by telegraph. In Western Australia the first telegraph constructed was from Perth to Fremantle, a distance of 12 miles, and was brought into use in 1869. In the same year the cable joining Tasmania with the mainland of Australia was completed, and in 1877 the intercapital link, Perth to Adelaide was established.

On 22 August 1872 the construction of the Overland Telegraph Line was completed. This line was the first telegraphic link to span Australia from coast to coast, stretching from Port Augusta in South Australia to Port Darwin in the Northern Territory, a distance of approximately 1,800 miles. The route of the telegraph line followed closely the path of the expeditions of John McDouall Stuart (1859-62), who had shown that there was a practicable route for an overland telegraph. The line joined the overseas cable terminating in Darwin, which was completed in November 1871, and enabled Australia to communicate with Europe by submarine cable by way of Singapore and Madras. For the first time in history Australia was in direct contact with the outside world.

Eleven repeater stations were established between Port Augusta and Port Darwin. The original Overland Telegraph Line consisted of a single galvanised-iron wire which for over 25 years carried the overseas telegraphic business of Australia. Increasing traffic necessitated the erection of a second line on the same poles as the first line in 1899. This time copper wire was used and as a result a relatively high-speed duplex circuit was provided. The Overland Telegraph Line was operated by the South Australian Government until 1901 when federation of the Australian colonies vested the responsibility for posts and telegraphs in the Commonwealth Government.

An article about the Overland Telegraph Line is contained in the South Australian Year Book No. 7, 1972, pages 526-31.

During the period from 1871 to 1891 great progress was made in telegraphic construction throughout Australia, with over 27,500 pole miles of line, exclusive of railway telegraph lines, being opened for use, making the total length of the line open at the end of 1891, 39,506 pole miles. In 1902 a submarine cable, touching only British territory on its way from Australia to Canada, provided an 'All Red' route, for a cable system between England and Australia. Between 1902 and 1923, further construction increased the length of telegraph line to 66,648 pole miles and by 1929 a further 26,589 pole miles had been constructed giving a total of 93,237 pole miles by the end of 1929.

Under the *Wireless and Telegraphy Act* 1905 the Commonwealth Postmaster-General was given exclusive control over establishing, erecting, maintaining and using stations and appliances for the purpose of transmitting and receiving messages by wireless telegraphy. The Act also empowered him to issue licences, inflict penalties, confiscate appliances unlawfully used, and take proceedings in courts of summary jurisdiction for offences under the Act.

In 1912 Sydney Radio, the first coastal radio station, commenced operation. In the same year radio telegraph services were commenced. The use of radio also enabled the economic establishment of an inland radio-telegraph system linking isolated settlements and homesteads with the ordinary land surface telegraph system.

By 1872 Australia had established an internal telegraph system based on Morse code and operated manually. In 1923 Morse Code was converted to machine operation on main telegraph routes.

In 1929 the telegraph system was extended to include the first picturegram service between Sydney and Melbourne. Further growth in the telegraph system was forestalled by the Great Depression, the number of telegram messages sent falling from 16 million in 1929-30 to 13 million in 1930-31. Prior to the 1939-45 War, Australians were at one time averaging more telegrams per head of population than in any other country in the world. However, following the war there was a large drop in usage. From a peak of nearly 30 million telegrams annually during the later war years (1942-45) and immediately after, the number fell and stabilized at about 20 million despite improvements in services and rapid population and economic growth. This was associated with an increased use of telephones, changing demands by major users for telegram transmission facilities and the increased use of private wire teleprinter services (originally introduced in 1933) which enabled users to hire direct lines on a 'permanent' basis and use their own teleprinters to send and receive a constant flow of telegraph messages.

In 1959, the Postmaster-General's Department introduced TRESS (Teleprinter Reperforator Switching System) and within the next three years it took over entirely from the Morse telegraph system. Whilst teleprinters had gradually been taking over from morse key and sound equipment in the busier post office telegraph offices, TRESS made possible the automatic transmission of telegrams through intermediate transit points, without manual handling, which greatly reduced transmission times.

The TELEX (Teleprinter Exchange) service was introduced for the first time in Australia in 1954 with 80 subscribers in Sydney and Melbourne. The system rapidly developed in other states with typical subscribers being motel organisations, banks, manufacturing companies, hotels and the news media. In 1972, there were more than 9,000 telex subscribers all over Australia.

In 1966 the Australian telex network was converted to automatic operation permitting subscribers to exchange calls direct with all other subscribers in Australia and to be charged on an actual time used basis similar to the Subscriber Trunk Dialing (S.T.D.) system in operation for long distance telephone calls. At the same time, this facility was extended to 20 of the 100 countries overseas with which the telex service was linked.

In the 1950s and 1960s there was growing demand for facsimile transmissions of photographic and other data and by 1966 newspaper printing could also be transmitted between capital cities by this method.

In 1969 the Postmaster-General's Department introduced its DATEL (Data Transmission) service to cope with growing demands on its telegraphic networks. Compared with the Morse code system by which one or two characters could be transmitted per second, data could now be transmitted at rates up to 4,500 characters per second by the use of coaxial cable or microwave transmission.

On private line services, the DATEL system was extended in January 1971, so that about 300 characters per second could be transmitted. This is in the medium range speeds. In June 1972, through the use of microwave transmissions, a special private line service operating at 4,500 characters per second, was opened to link a customer's computers in Sydney and Melbourne.

The growth and future potential of data transmission in Australia has been emphasized by the installation of 565 modems through the Commonwealth in the first 18 months of operation to June 1970. Modems (modulator/demodulator) translate signals, passed either by electric impulse or by radio waves, into a language that the receiving machine can reproduce. Thus a message sent from a telex with one language can be received by another telex with a different language through the use of modems. Any one modem can serve up to 200 transmission reception devices.

Telephones

In 1878 two years after Alexander Graham Bell demonstrated the telephone in U.S.A. the first long-distance telephone call in Australia was conducted over a distance of 240 miles between Semaphore and Port Augusta, in South Australia. By 1880 exchanges were established as private businesses in Brisbane, Sydney and Melbourne, and in 1882 a Government-owned exchange was established in Sydney. Private exchanges were opened in Adelaide and Hobart in 1883, and in Perth in 1888. All private exchanges were eventually taken over by the colonial governments and operated by their respective Post and Telegraphs departments.



Telegraph Operating Room, G.P.O., Sydney, about 1902



The Central Manual Telephone Exchange, Lonsdale St., Melbourne, about 1908

Photos by courtesy of the Postmaster-General's Department

PLATE 30

On 1 March 1901, the six separate State Post and Telegraph departments were amalgamated and formed into the Commonwealth Postmaster-General's Department.

In 1902 the first interstate telephone trunk line service was opened—between Mt Gambier, South Australia and Nelson, Victoria and in 1907 the Sydney-Melbourne telephone trunk line service was completed. In 1912 the first automatic telephone exchange in Australia and the second only in the British Empire was opened in Geelong, Victoria.

In 1924 trunk-telephone operators in Victoria were able, for the first time, to dial some other distant exchanges direct. In 1926, two-way mobile radio telephone services were introduced. By 1929, the number of telephones connected reached the half million mark—and Australia, with an average of 7.93 telephones per 100 population had the sixth highest telephone density in the world.

The depression in the 1930s had a marked effect in reducing demand for communication services. In 1930-31, for the first time, cancellation of telephone services exceeded new connections and the number of instruments in service fell by 22,000. The volume of calls also declined, local calls falling by nearly 23 million from the preceding 1929-30 turnover of 420,600,000 and trunk line calls by over 5 million from 35,400,000. Nevertheless, there were many developments in telephone services in the 1930s. In 1930, the overseas radio-telephone service commenced between Australia and England. In 1933, the first Australian made handset telephone was introduced, and in 1936 the Tasmania-Mainland telephone service was opened through a submarine cable under Bass Strait. At the time, it was the longest submarine telephone communications cable in the world. By 1939, telephone connections had again reached the half million mark of 1929.

During the 1939-45 War the Postmaster-General's Department accepted responsibility for a great deal of specialised work on behalf of the Defence Forces, and this involved the diversion of large numbers of highly skilled technicians and other officers from their normal duties.

In the post-war years there was a dramatic increase in the number of telephone subscriber service connections. From 577,777 services connected in 1945 the number almost doubled to reach 1,152,930 in 1955, and almost doubled again to reach 2,010,124 in 1965. With this growth in demand came the problem of 'deferred applications', the installations which could not be met quickly or, in cases, within years. Deferred applications reached a peak of 128,000 in 1951 but declined progressively to about 13,000 in 1972. During the same period all figure numbering increasingly replaced the alpha-numeral system commonly in use.

Since 1945 the percentage of telephone subscriber services connected to automatic operation has been increasing. In 1945, just under 60 per cent of the 580,000 services were connected to automatic exchanges. The automation of the national telephone service gained impetus with the introduction of the Community Service Telephone Plan in May 1960, whereby the areas for many local call facilities were rearranged and extended and telephone calls which would previously have been short distance trunk calls became local calls. By 1972, services connected to automatic exchanges had reached 92 per cent in a total of 3 million services.

In 1951 the external circulation system was modified and direct communication was established between an increasing number of centres which were formerly sent through intermediate repeating centres. In 1953, the first 34-channel carrier system on trunk cable was introduced.

In 1956 the Postmaster-General's Department introduced direct trunk calling by subscribers in Australia—between Dandenong and Melbourne and St Mary's and Sydney—known as Subscribers Trunk Dialling (S.T.D.). By 1972, nearly 83 per cent or 2,488,000, of Australia's telephone subscriber's services had some measure of S.T.D. service and more than 57 per cent of all trunk calls were being dialled directly by the subscriber compared with less than 10 per cent in 1965. An added advantage to the S.T.D. caller, apart from speed and ease of operation, is that S.T.D. calls are charged on a metered basis for the actual time of the call, instead of the minimum 3 minute charge for trunk calls.

Until 1967, S.T.D. development in Australia had been limited to point to point operation, for example, Melbourne to Sydney. In 1967, however, the first automatic trunk switching centres were brought into operation in Sydney, Canberra, Newcastle, Geelong and Launceston. This enabled long distance calls to be automatically switched through without need for a direct line; for example, a subscriber in Launceston could now dial Newcastle direct without the need to go through any intermediate switching stations.

Other centres were progressively added to the network and by 1972, most areas in Australia could be dialled direct by the subscriber. The popularity of S.T.D. can be gauged by the fact that where the facility was available approximately 85 per cent of calls made in 1972 were dialled direct by callers.

Other recent advances in the telephone service include recorded information service, early morning and reminder call service, communication aids introduced to meet the needs of the partially

deaf, a highly sensitive transmitter to help telephone users with serious larynx problems, and an increase in the range of telephones available for customers' use. Also, private companies during the 1960s were licensed to install and operate, by financial agreement with the Post Office, public telephones in shops, banks and similar premises.

Broadcasting and television

In 1923 the first radio broadcasting stations were established in Australia under the call signs 2FC and 2BL. Rapid development in broadcasting followed. In 1925, the Inland Wireless System began operating. In the same year, on 2 May, a radio broadcast in London was transmitted to radio listeners in Australia. In April 1929, the National Broadcasting Service was established, with the Postmaster-General's Department responsible for buildings, transmitter equipment and provision of program relay lines for its emerging radio networks systems. In 1932, the Australian Broadcasting Commission was constituted to administer the programs of the National Service. Since 1929, nearly 200 national and commercial, medium-frequency radio stations have been established throughout Australia. In addition the National Service operates the external, or international short-wave service created in 1940 and known as 'Radio-Australia'.

In 1950, the mobile radio-telephone service was first introduced by the Post Office in Australia. Today there are just over 120,000 mobile services authorised covering taxi services, ambulances and many other organisations.

In 1956, television was introduced into Australia with the Postmaster-General's Department becoming responsible for the provision and operation of the National Television Service transmitting stations and technical equipment for the purpose of television programs, and the issue of television viewers' licences and the policing of the provisions of the *Broadcasting and Television Act 1942-1956*. A Federal Government plan laid down a gradual expansion of T.V. services, both national and commercial throughout Australia for the following 10 years. While the commercial services have been set up and operated on a local studio and transmission basis the National Television Service has been established and operated on a more centralised basis, with direct relays of capital city programs to provincial and country stations. By the end of 1972 a total of 100 National Service and commercial T.V. stations were providing programs to an area containing 97 per cent of the population.

In 1972 a complementary group of 97 translator stations were in operation with more than one third of these having been established for the National Television Service. The function of the translator stations is to 'repeat' or reflect transmissions from the nearest master transmitter station to more geographically remote populated locations.

Broadband systems

Broadband systems of either microwave radio or coaxial cable are operated on a broadband of radio frequencies and can provide thousands of trunk circuits for all manner of telecommunication transmissions including T.V. program relays. Compared with the first 34-channel carrier, some of the present broadband systems now have capacities of over 300 channels. In 1959 the first broadband trunk system was installed—a microwave radio system between Melbourne and Bendigo.

In 1962, a coaxial cable system was brought into operation between Melbourne and Sydney. Since then broadband systems have spread extensively over Australia so that by July 1972, inter-linked coaxial cable and microwave trunk systems had linked the major centres of population, and the route distance of the system was over 10,000 miles.

In 1972 new equipment was introduced on trunk routes to increase the capacity of a pair of coaxial cable tubes to 2,700 telephone circuits or 1,200 telephone circuits and a T.V. channel in each direction. The Postmaster-General's Department's broadband systems have also done much to make the spread of S.T.D. possible as they have the necessary large circuits capacity to cope with its peak demands. With S.T.D. the traffic demand cannot be regulated as it can by manual operation and the trunk system must be able to cater for hundreds of subscribers in Sydney and Melbourne, for example, making calls in either direction virtually at the same instant.

The broadband network is linked, in turn, with the COMPAC and SEACOM submarine cables which are the main trunk lines for all Australia's overseas telecommunications traffic. In 1967, a microwave link was established from Sydney to feed traffic through the Overseas Telecommunication Commission's earth station at Moree. This station handles incoming and outgoing traffic including television transmissions/receptions through the medium of the INTELSAT satellite system.

The use of INTELSAT III in 1969 to provide 24 circuits for trunk calling to and from Western Australia, pending completion of the East-West microwave link, was probably the first successful use by any country of satellites for domestic trans-continental trunk calling.

TELEGRAPH PLANT, AUSTRALIA, 1872 TO 1971-72

Year	Cable wire	Aerial wire	Total	Pole routes	Coaxial cable	Conduits	Broadband radio relay systems
	miles	miles	miles	miles	tube-miles	duct miles	miles
1872	n.a.	(a)17,102	n.a.	(a)11,000	..	n.a.	..
1882	n.a.	(a)41,750	n.a.	25,046	..	n.a.	..
1892	n.a.	(a)70,456	n.a.	40,017	..	n.a.	..
1902	(b)16,085	(a)114,822	130,907	41,992	..	50	..
1912	(a)258,795	(a)101,218	360,013	(a)52,000	..	1,072	..
1921-22	682,544	386,165	1,068,709	62,489	..	2,926	..
1931-32	1,784,388	811,733	2,596,121	100,507	..	6,217	..
1941-42	2,584,014	861,611	3,445,625	97,585	..	13,828	..
1951-52	4,421,204	1,112,392	5,533,596	108,797	..	21,187	..
1961-62	10,330,679	1,381,925	11,712,604	122,308	3,095	(c)15,586	1,704
1971-72	26,330,802	1,015,505	27,346,307	103,135	18,055	(c)40,389	50,187

(a) Partly estimated. (b) Excludes details of submarine cable, morse cable and junction circuits. (c) After 1953-54, "conduits" cover only ducts and conduits of 2 inches and over internal diameter—prior to that those of diameters under 2 inches were also included.

NOTE. Although there have been several minor changes in the definition of items covered under each column heading, comparability over the last fifty years is not seriously affected. Prior to 1914, the reliability of "comparable" items is doubtful and for this reason, the figures above are more restricted in coverage before 1914.

TELEPHONE PLANT, AUSTRALIA, 1872 TO 1971-72

(number)

Year	Exchanges in service			Services in operation			Instruments in service
	Automatic	Manual	Total	Automatic (a)	Manual (a)	Total (a)	
1872 . . . . .	..	..	..	..	..	..	..
1882 . . . . .	..	(b)10	(b)10	..	n.a.	n.a.	n.a.
1892 . . . . .	..	(b)40	(b)40	..	(b)7,000	(b)7,000	n.a.
1902 . . . . .	..	123	123	..	27,713	27,713	35,863
1912	1	1,031	1,032	1,100	94,865	95,965	117,479
1921-22	20	2,683	2,703	35,000	160,886	195,886	258,881
1931-32	66	6,003	6,069	141,575	221,997	363,572	484,626
1941-42	265	6,118	6,383	307,263	223,812	531,075	738,666
1951-52	656	6,334	6,990	600,536	338,433	938,789	1,300,790
1961-62	1,949	5,107	7,056	1,353,347	365,222	1,718,569	2,382,478
1971-72	3,443	2,536	5,979	2,771,949	205,818	2,977,767	4,399,782

(a) Described as "lines in service" as distinct from "services in operation" though the terms appear to be interchangeable up to 1941-42. From then on, the term "services in operation" only has been used. (b) Partly estimated.

INTERNAL TELEGRAM AND TELEX TRAFFIC, AUSTRALIA, 1872 TO 1971-72

Year	Telegrams		Telex	
	Number of offices (a)	Total	Services at end of year	Internal calls during year
1872	(b)380	..	..
1882	(b)1,140	..	..
1892	(b)2,360	..	..
1902	2,589	..	..
1912	4,180	..	..
1921-22	6,641	..	..
1931-32	9,225	..	..
1941-42	9,479	..	..
1951-52	9,830	..	..
1961-62	9,329	1,215	733
1971-72	(b)7,200	9,235	15,869

(a) Includes Railways Departments' telegraph offices. (b) Partly estimated.

INTERNAL TELEPHONE TRAFFIC, AUSTRALIA, 1872 TO 1971-72

Year	Effective paid local calls		Trunk line calls		Total calls
	Total	Per service number	Total	Per service number	
	'000		'000		'000
1872 . . . . .	..	..	..	..	..
1882	n.a.	n.a.	n.a.	n.a.	n.a.
1892	n.a.	n.a.	n.a.	n.a.	7,500
1902	n.a.	n.a.	n.a.	n.a.	n.a.
1912	n.a.	n.a.	n.a.	n.a.	111,300
1921-22	220,600	1,126	14,000	71	234,600
1931-32	368,600	1,014	28,900	80	397,500
1941-42	619,000	1,166	45,300	85	664,300
1951-52	967,900	1,031	69,400	74	1,037,300
1961-62	1,650,000	960	76,500	45	1,726,500
1971-72	2,996,000	1,006	248,700	84	3,244,700

INTERNATIONAL TELEGRAM TRAFFIC, AUSTRALIA, 1872 TO 1971-72

Year	Telegrams			
	Outgoing	Outgoing	Incoming	Incoming
	'000	'000 paid words	'000	'000 paid words
1872	1	n.a.	1	n.a.
1882	19	n.a.	20	n.a.
1892	44	n.a.	44	n.a.
1902	161	n.a.	127	n.a.
1912	298	3,607	289	3,752
1921-22	500	8,163	499	8,200
1931-32	611	11,702	564	10,769
1941-42	1,329	35,408	1,146	34,213
1951-52	1,329	37,496	1,357	42,159
1961-62	1,435	35,502	1,416	41,394
1971-72(a)	2,489	64,862	2,353	58,113

(a) Year ended 31 March 1972.

INTERNATIONAL TELEPHONE AND TELEX TRAFFIC, AUSTRALIA, 1872 TO 1971-72

Year	Telephone				Telex			
	Outgoing calls		Incoming calls		Outgoing calls		Incoming calls	
	'000	'000 paid minutes	'000	'000 paid minutes	'000	'000 paid minutes	'000	'000 paid minutes
1872 . . . . .	..	..	..	..	..	..	..	..
1882 . . . . .	..	..	..	..	..	..	..	..
1892 . . . . .	..	..	..	..	..	..	..	..
1902 . . . . .	..	..	..	..	..	..	..	..
1912 . . . . .	..	..	..	..	..	..	..	..
1921-22 . . . . .	..	..	..	..	..	..	..	..
1931-32	1	n.a.	..	n.a.	..	..	..	..
1941-42	n.a.	n.a.	n.a.	n.a.	..	..	..	..
1951-52	21	124	19	114	..	..	..	..
1961-62	66	319	69	366	50	342	60	371
1971-72(a)	1,072	7,206	n.a.	7,090	1,491	4,238	1,352	4,108

(a) Year ended 31 March 1973.

Overseas telecommunication services

The Overseas Telecommunications Commission (Australia) (O.T.C.) 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 Post Office 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, while the switched data service is available to a number of countries.

To meet Australia's increasing demand for overseas communication channels, and because of limitations to performance and capacity inherent in telegraph cables and high frequency radio systems, 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.

In August 1964, Australia became a foundation member of the International Satellite Organisation (INTELSAT), a partnership of nations concerned in establishing a global communications, satellite system. Australia has an ownership share of 2.7 per cent making it the ninth largest contributor among the 82 INTELSAT member countries, and through the O.T.C. Australia is represented on the INTELSAT board of governors, which is the management board of INTELSAT.

The Interim Agreements under which INTELSAT has 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 Australian Government, outlines the principles and objectives of the organisation and defines the basic organisational arrangements. The second, the Operating Agreement, signed by the O.T.C. as the designated Australian telecommunications entity, provides the basis for the operation and management of the INTELSAT system.

The INTELSAT system comprises satellites located over the Atlantic, Pacific and Indian oceans. At the beginning of 1973 these satellites were providing the equivalent of 3,763 two-way telephone circuits and on demand television service between 81 earth stations located in 49 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 22,300 miles above the equator, was the first in Australia constructed as a 'standard' station of the INTELSAT network, and carries direct circuits between Australia and other countries in the Pacific region. The link with Japan, the first by satellite from Australia to an Asian country, was established for commercial operation on 14 March, 1969.

The completion of the new standard earth stations at Carnarvon (Western Australia) and Ceduna (South Australia) in 1969 and a significant expansion of facilities at the earth station at Moree (N.S.W.) provided increased telecommunication services via satellite.

The original non-standard station in Carnarvon (opened in 1967) is now used solely for telemetry, tracking and command (T.T. & C.) functions under contract with the INTELSAT organisation. The T.T. & C. function provides 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 functioning 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. The Interim Communications Satellite Committee selected the Carnarvon station for this purpose after calling competitive tenders from earth station owners in the coverage zone of the Indian Ocean and Pacific Ocean satellites.

The second Carnarvon station, operating via the Pacific Ocean INTELSAT satellite, provides a link for the National Aeronautics and Space Administration (NASA) between its Carnarvon space tracking stations and the United States. The earth station at Ceduna, operated through the Indian Ocean INTELSAT satellite, offers services to earth stations in the United Kingdom, Indonesia, India and other countries in the coverage area of the Indian Ocean satellite.

International telecommunication traffic

Particulars of the volume of international telegraph services, originating and terminating in Australia, during the years ended 31 March 1971 and 1972 are shown in the following table.

INTERNATIONAL TELEGRAPH SERVICES: AUSTRALIA, YEARS ENDED
31 MARCH 1971 AND 1972
(*000 words)

Class of traffic	Words transmitted					
	From Australia		To Australia		Total	
	1970-71	1971-72	1970-71	1971-72	1970-71	1971-72
Letter	30,205	30,004	26,553	24,684	56,758	54,688
Ordinary	28,841	27,528	26,851	25,344	55,692	52,872
Press	3,786	3,004	4,315	2,687	8,102	5,691
Greetings	1,607	1,689	1,731	1,919	3,338	3,607
Urgent	1,891	1,907	1,540	1,485	3,431	3,392
Other	574	731	1,697	1,995	2,271	2,726
Total	66,905	64,862	62,687	58,113	129,592	122,976

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the years ended 31 March 1971 and 1972.

INTERNATIONAL TELECOMMUNICATION SERVICES OTHER THAN TELEGRAPHIC SERVICES: AUSTRALIA, YEARS ENDED 31 MARCH 1971 AND 1972

Service	Transmissions					
	From Australia		To Australia		Total	
	1970-71	1971-72	1970-71	1971-72	1970-71	1971-72
Telephone paid minutes	5,754,134	7,205,822	6,369,815	7,089,960	12,123,949	14,295,782
Telex paid minutes	3,608,420	4,238,247	3,301,077	4,108,174	6,909,497	8,346,421
Television programs paid minutes	1,952	2,058	2,580	1,809	4,532	3,867
Phototelegrams pictures	1,759	1,020	2,760	1,816	4,519	2,836

Coastal stations

The Overseas Telecommunications Commission operates fourteen coastal radio stations at points around the Australian coast, three on the Papua New Guinea coast and one at Norfolk Island. During the year ended 31 March 1972 the coastal radio service handled 6,345,837 paid words to ships and 4,212,574 words from ships. Ship calls over the radiotelephone service extended over 143,687 paid minutes.

Radiocommunication stations authorised

At 30 June 1972 there were 165,063 civil radiocommunication stations authorised for operation in the Commonwealth and its Territories. Of these, 6,368 were stations established at fixed locations, 13,809 were land stations which were established at fixed locations for communication with mobile stations, 25 space and broadcasting stations, 138,339 were mobile stations and 6,522 amateur stations. Particulars of broadcasting stations and broadcast listeners' licences are shown on pages 388 and 390 respectively.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act 1942-1972* 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 1964-1966* and the *Television Stations Licence Fees Act 1964-1966* respectively.

Particulars of the composition, functions and responsibilities of the Australian Broadcasting Control Board are shown in Year Book No. 51, pages 594-5. The functions of the Board as shown therein were subsequently amended by repealing the Board's power to regulate the establishment and operation of networks. Pursuant to the *Broadcasting and Television Act 1942-1972*, the Australian Broadcasting Commission now consists of nine members, one of whom shall be a woman.

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 1972 the National Broadcasting Service comprised eighty-one transmitting stations, of which seventy-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 1972 sixty-three 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 to the various types of program during 1971-72 was as follows: classical music, 24.6 per cent; entertainment, 31.4 per cent; news, 9.0 per cent; sporting, 5.5 per cent; light music, 1.7 per cent; spoken word, 6.9 per cent; drama and features, 4.3 per cent; education, 3.2 per cent; Parliament, 4.7 per cent; religious, 2.8 per cent; young people's programs, 1.4 per cent; rural, 2.0 per cent; and presentation, 1.8 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 Year Book No. 51, pages 596-7.

The Commercial Broadcasting Service

Commercial broadcasting stations are operated under licences granted and renewed by the Postmaster-General 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 \$50 on the grant of the licence, and thereafter \$50 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Broadcasting Stations Licence Fees Act 1964-1966*, 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.

Overseas Broadcasting Service

There are seven high-frequency stations at Shepparton and two at Lyndhurst, Victoria, and three repeater stations at Darwin, Northern Territory, 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 Postmaster-General's Department, 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: STATES AND TERRITORIES, 30 JUNE 1972

Type of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
National—									
Medium frequency .	19	5	17	10	14	4	4	2	75
High frequency .	1	2	2	..	1	..	..	..	6
Overseas (high frequency) .	..	9	..	..	..	..	3	..	12
Commercial (medium frequency) .	39	20	26	8	14	8	2	1	118
Total .	59	36	45	18	29	12	9	3	211

Tables showing the call sign, location, frequency, and aerial power of national and commercial broadcasting stations in operation at 30 June 1971 are shown in *Transport and Communication, Bulletin No. 62*.

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 1972 fifty-two stations were operating, excluding thirty-eight 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 1972 was as follows: drama, 23.7 per cent; public interest, 12.0 per cent; sporting 10.5 per cent; news, 5.9 per cent; variety and acts, 7.2 per cent; education, 27.4 per cent; musical performances 0.4 per cent; religious, 1.7 per cent; rural, 1.0 per cent; special arts and aesthetics, 0.5 per cent; presentation, 6.0 per cent. The average weekly transmission time for the fifty-two national television transmitters was eighty-five hours during the year ended 30 June 1972.

The Commercial Television Service

Commercial television stations are operated under licences granted and renewed by the Postmaster-General. The first commercial station (TCN Sydney) commenced regular transmission on 16 September 1956. At 30 June 1972 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 1964-1966*, 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

The Government has announced that colour television will be introduced into Australia from 1 March 1975.

Television stations

During the year ended 30 June 1972, four new national television stations commenced regular transmissions, namely ABMQ Channel 9, Mary Kathleen in Queensland, ABCNW Channel 7, Carnarvon in Western Australia, ABKT Channel 11, King Island in Tasmania and ABD Channel 6, Darwin in Northern Territory. Two new commercial television stations commenced regular transmission, ITQ Channel 8, Mt Isa in Queensland and NTD Channel 8, Darwin in the Northern Territory. The following table shows the number of television stations in operation at 30 June 1972.

TELEVISION STATIONS: STATES AND TERRITORIES
30 JUNE 1972

Type of station and location	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
National—									
Metropolitan	1	1	1	1	1	1	1	1	8
Country	12	7	13	3	7	2	..	..	44
<i>Total, National</i>	13	8	14	4	8	3	1	1	52
Commercial—									
Metropolitan	3	3	3	3	2	1	1	1	17
Country	11	6	8	2	3	1	..	..	31
<i>Total, Commercial</i>	14	9	11	5	5	2	1	1	48
<i>All stations</i>	27	17	25	9	13	5	2	2	100

Tables showing the call sign, location, frequencies, polarisation, aerial power, and weekly hours of transmission of National and Commercial television stations in operation at 30 June 1971 are shown in *Transport and Communication Bulletin*, No. 62.

Broadcast listeners' and television viewers' licences

Broadcast listeners', television viewers', and combined receiving licences are issued at post offices in accordance with the provisions of the *Broadcasting and Television Act 1942-1972*, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A broadcast listener's licence or a television viewer's licence, whichever is appropriate, authorises the operation of any broadcast receiver or any television receiver, which is: (a) in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and is ordinarily kept at that address; (b) installed in a vehicle which is ordinarily in the possession of that holder, or a member of his family, and is ordinarily kept at that address when not in use. A person who has both broadcast and television receivers at the one address may take out a combined receiving licence, provision for which was introduced by legislation effective from 1 April 1965.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school, and at a concession to certain classes of pensioners. Receivers provided for the use of inmates of an approved institution (including a hospital) are covered by an appropriate licence held by the institution. Persons residing in Zone 2 may also be granted a broadcast listener's licence at a reduced rate. Zone 1 is the area within 250 miles of specified broadcasting stations and Zone 2 is the remainder of Australia.

Each broadcast or television receiver let out on hire (except under a hire purchase agreement) must be covered by a hirer's licence held by the person or firm from whom the receiver is hired. The keeper of a lodging-house (which includes a hotel, motel, boarding-house, or any other premises where lodging or sleeping accommodation is provided for reward) must take out a lodging-house licence for each broadcast or television receiver provided by the proprietor in any room or part of the lodging-house occupied or available for occupation by lodgers.

The fees payable for the various classes of licence from 1 October 1972 are as follows.

BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES RATES

Licence	Rate	
	Ordinary rate	Pensioner rate
	\$	\$
Broadcast listener's licence and hirer's licence for a broadcast receiver	Zone 1 8.00	1.00
	Zone 2 4.25	0.70
Lodging-house licence for a broadcast receiver	Zone 1 8.00	..
	Zone 2 4.25	..
Television viewer's licence and hirer's licence for a television receiver	19.00	3.00
Lodging house licence for a television receiver	19.00	..
Combined receiving licence	26.50	4.00

Numbers of broadcast listeners' and television viewers' licences

BROADCAST LISTENERS' LICENCES IN FORCE(a): STATES, 1968 TO 1972

30 June—	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1968	934,877	724,711	371,637	290,051	181,356	77,228	2,579,860
1969	952,634	728,647	382,869	297,877	189,633	78,552	2,630,212
1970	960,223	747,508	384,951	302,519	196,679	78,513	2,670,393
1971	959,036	754,762	394,669	310,485	200,570	79,417	2,698,939
1972	996,822	758,042	405,181	315,612	205,230	77,096	2,757,983

(a) Includes short-term hirers' licences and combined broadcast listeners' and television viewers' licences. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

TELEVISION VIEWERS' LICENCES IN FORCE(a): STATES, 1968 TO 1972

30 June—	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1968	948,153	726,518	335,913	268,595	165,632	74,581	2,519,392
1969	993,145	747,080	367,289	280,420	183,307	78,216	2,649,457
1970	1,031,739	782,819	372,609	292,359	197,692	80,756	2,757,974
1971	1,042,724	806,077	399,947	303,252	209,882	83,286	2,845,168
1972	1,088,648	811,573	418,688	318,357	218,783	82,609	2,938,658

(a) Includes short-term hirers' licences and combined broadcast listeners' and television viewers' licences. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

The numbers of combined receiving licences included in both of the foregoing tables as at 30 June 1972 are: New South Wales, 891,832; Victoria, 699,652; Queensland, 335,199; South Australia 248,820; Western Australia, 174,798; Tasmania, 69,613; Australia, 2,419,914.

Television hirers' licences (including short term) (included above) at 30 June 1972 were: New South Wales, 104,704; Victoria, 38,845; Queensland, 41,956; South Australia, 49,553; Western Australia, 29,655; Tasmania, 6,411; Australia, 271,124.

Revenue received from broadcast and television licence fees

The following table shows the revenue received from broadcast listeners' licence fees, television viewers' licence fees and from fees for combined licences during the years 1967-68 to 1971-72.

REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES
STATES, 1967-68 TO 1971-72
(\$'000)

Year	N.S.W.(a)	Vic.	Qld	S.A.(b)	W.A.	Tas.	Aust.
1967-68	14,554	11,265	5,321	4,219	2,666	1,157	39,182
1968-69	16,700	12,747	6,306	4,930	3,127	1,314	45,125
1969-70	17,782	13,795	6,694	5,238	3,483	1,397	48,389
1970-71	17,912	14,023	6,921	5,586	3,689	1,429	49,562
1971-72	22,445	17,165	8,807	7,057	6,642	1,670	61,785

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.

TRAVEL

An article outlining the history and growth of travel and the structure of tourist organisations in Australia, prepared by the Australian National Travel Association, appeared in Year Book No. 52, pages 1158-84. The following pages contain statistics of travel to and from Australia, together with some descriptive matter. Current statistics on overseas travel are published in monthly, quarterly and annual mimeographed statements *Overseas Arrivals and Departures*.

Overseas travel

Statistics about travellers to and from Australia are classified in the first instance by the actual or intended length of stay in Australia or in a country abroad; this classification distinguishes between permanent and temporary movement.

Statistics of permanent arrivals (immigrants) and permanent departures (emigrants) are shown in Chapter 7—Population.

Traveller statistics (overseas visitors and Australian residents)

Statistics of temporary arrivals and departures which are in the nature of travel statistics are included in this chapter. They comprise two main categories.

- (i) *Short-term*. Those who intend to stay or have stayed in Australia (overseas visitors) or in a country overseas (Australian residents) for less than a year.
- (ii) *Long-term*. Those who intend to stay or have stayed in Australia (overseas visitors) or in a country overseas (Australian residents) for a year or more, but not permanently.

Short-term movement includes Australian troops, regardless of their length of stay abroad, and Australian residents who may be away for more than a year but whose actual or intended stay in any one country is less than a year. It excludes persons who arrive in and depart from Australia on the same ship's voyage or on the same flight (variously called direct transit or 'through' passengers) or who change flights without leaving the airport's transit area, passengers on pleasure cruises commencing and finishing in Australia (see page 397), and all crew. However, it includes persons who pass through the Customs barrier and declare the purpose of their visit to Australia to be 'in transit'. Short-term visitors are more numerous than long-term visitors and have come to be regarded as 'tourists' by many users of the statistics.

During the period October 1967 to December 1971, 276,885 United States troops came to Australia on rest and recreation leave. The last of them completed their leave in January 1972. For statistical purposes they were classified as short-term visitors travelling by air for holiday purposes and their country of residence and country of embarkation or disembarkation were shown as 'Asia—other'.

**TRAVELLER STATISTICS—SUMMARY, AUSTRALIA
1968 TO 1972**

Year	Overseas Visitors				Australian Residents			
	Short-term		Long-term		Short-term		Long-term	
	Arriving in Australia	Departing from Australia	Arriving in Australia	Departing from Australia	Departing from Australia	Returning to Australia	Departing from Australia	Returning to Australia
1968	299,889	311,181	23,473	12,617	251,880	252,773	51,386	36,387
1969	361,277	372,747	26,867	15,602	288,805	288,990	59,027	38,308
1970	416,128	431,039	31,194	18,727	352,526	351,929	64,215	42,099
1971	432,393	450,022	30,500	21,433	413,917	412,598	67,699	47,782
1972	426,403	441,320	26,559	24,251	504,519	490,962	66,853	54,278

In addition to the basic classification of travellers shown above, certain other characteristics are ascertained. These characteristics are as follows.

- (i) For all travellers: sex, age, marital status, nationality, country of birth, occupation, intended and actual length of stay, purpose of journey and mode of transport.
- (ii) For arrivals: country of last residence, country of embarkation, State of intended residence and State of disembarkation.
- (iii) For departures: country of intended residence, country of disembarkation, State of residence in Australia and State of embarkation.

The categories shown in the previous table are cross-classified by the characteristics listed above and the resulting statistics are shown in considerable detail in the quarterly and annual bulletins *Overseas Arrivals and Departures* (4.1 and 4.23) and in the annual bulletin *Demography* (4.9). Certain unpublished information is available on request. Selected traveller statistics are shown in the following tables.

**OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY
BY MARITAL STATUS, AGE AND SEX: AUSTRALIA, 1972**

Characteristics	Short-term			Long-term		
	Males	Females	Persons	Males	Females	Persons
OVERSEAS VISITORS ARRIVING						
Marital status						
Never married	73,679	58,647	132,326	9,507	6,778	16,285
Married	158,536	101,100	259,636	4,864	4,130	8,994
Widowed or divorced	9,686	24,755	34,441	392	888	1,280
Age (years)						
0-14	19,625	18,987	38,612	2,045	2,000	4,045
15-24	28,792	26,881	55,673	6,488	4,932	11,420
25-44	100,333	53,036	153,369	4,943	3,082	8,025
45-64	73,221	61,561	134,782	969	1,196	2,165
65 and over	19,930	24,037	43,967	318	586	904
Total	241,901	184,502	426,403	14,763	11,796	26,559

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING
TEMPORARILY, BY MARITAL STATUS, AGE AND SEX: AUSTRALIA, 1972—*continued*

Characteristics	Short-term			Long-term		
	Males	Females	Persons	Males	Females	Persons
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Marital status—						
Never married	92,353	80,008	172,361	19,979	18,445	38,424
Married	172,978	127,794	300,772	12,980	13,591	26,571
Widowed or divorced	8,203	23,183	31,386	586	1,272	1,858
Age (years)—						
0-14	29,624	28,515	58,139	7,684	7,401	15,085
15-24	36,446	42,245	78,691	8,333	11,770	20,103
25-44	112,586	71,200	183,786	14,078	10,853	24,931
45-64	79,144	70,796	149,940	2,920	2,631	5,551
65 and over	15,734	18,229	33,963	530	653	1,183
Total	273,534	230,985	504,519	33,545	33,308	66,853

The following tables show country of residence of visitors arriving (i.e. in which they last stayed for one year or more); and country of disembarkation of Australian residents departing. No information is available as to the country in which Australian residents going abroad in the short-term classification intend to spend most time.

OVERSEAS VISITORS ARRIVING, BY COUNTRY OF RESIDENCE^(a)
AND MODE OF TRANSPORT: AUSTRALIA, 1972

Country of residence ^(a)	Short-term			Long-term		
	By sea	By air	Total	By sea	By air	Total
Africa—						
Commonwealth countries	315	2,250	2,565	37	189	226
South Africa	1,204	4,179	5,383	318	164	482
Other	24	863	887	10	120	130
America—						
Canada	987	13,750	14,737	374	1,081	1,455
Other Commonwealth countries	23	651	674	2	33	35
United States of America	1,459	76,368	77,827	142	4,031	4,173
Other	31	2,617	2,648	8	219	227
Asia—						
Bangladesh, India, Pakistan, Sri Lanka	24	3,053	3,077	5	395	400
Hong Kong	313	7,510	7,823	2	210	212
Malaysia and Singapore	654	13,062	13,716	41	1,190	1,231
Other Commonwealth countries	22	482	504	3	73	76
Japan	408	14,927	15,335	14	981	995
Other	84	17,025	17,109	21	1,575	1,596
Europe—						
United Kingdom and Ireland	5,933	51,515	57,448	1,300	2,955	4,255
Other Commonwealth countries	99	797	896	10	59	69
France	119	3,681	3,800	17	184	201
Germany	219	7,998	8,217	58	218	276
Greece	21	1,893	1,914	3	303	306
Italy	129	4,649	4,778	16	294	310
Netherlands	397	7,243	7,640	51	128	179
Other	322	10,851	11,173	66	1,103	1,169
Oceania—						
Fiji	299	5,374	5,673	13	141	154
New Zealand	3,523	107,645	111,168	1,387	6,301	7,688
Papua New Guinea	976	35,028	36,004	13	454	467
Other Commonwealth countries	541	2,918	3,459	11	119	130
Other	57	11,891	11,948	4	113	117
Total	18,183	408,220	426,403	3,926	22,633	26,559

(a) Country in which the visitor was last resident for a period of one year or more.

**AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY, BY COUNTRY OF
DISEMBARKATION(a) AND MODE OF TRANSPORT: AUSTRALIA, 1972**

<i>Country of disembarkation(a)</i>	<i>Short-term</i>			<i>Long-term</i>		
	<i>By sea</i>	<i>By air</i>	<i>Total</i>	<i>By sea</i>	<i>By air</i>	<i>Total</i>
Africa—						
Commonwealth countries	11	1,681	1,692	4	263	267
South Africa	699	5,069	5,768	777	657	1,434
Other	31	12	43	60	3	63
America—						
Canada	798	1,606	2,404	120	168	288
Other Commonwealth countries	6	66	72	14	5	19
United States of America—ex- cluding Hawaii	1,111	20,831	21,942	357	1,617	1,974
Hawaii	111	16,062	16,173	17	1,263	1,280
Other	345	1,083	1,428	366	81	447
Asia—						
Bangladesh, India, Pakistan, Sri Lanka	27	2,782	2,809	3	343	346
Hong Kong	946	43,199	44,145	38	3,862	3,900
Malaysia and Singapore	8,910	58,789	67,699	2,682	11,471	14,153
Other Commonwealth countries . . . . .	..	379	379	..	63	63
Japan	4,621	2,695	7,316	92	154	246
Other	111	30,361	30,472	18	3,814	3,832
Europe—						
United Kingdom and Ireland	9,042	34,870	43,912	5,599	3,925	9,524
Other Commonwealth countries	156	1,320	1,476	153	102	255
Greece	235	14,398	14,633	356	4,227	4,583
Italy	4,176	18,452	22,628	3,069	2,214	5,283
Netherlands	576	6,467	7,043	603	512	1,115
Other	861	17,541	18,402	644	2,924	3,568
Oceania—						
Fiji	644	33,463	34,107	65	921	986
New Zealand	3,820	109,688	113,508	1,232	4,420	5,652
Papua New Guinea	399	28,519	28,918	74	6,727	6,801
Other Commonwealth countries	288	8,331	8,619	121	191	312
Other	459	8,472	8,931	6	456	462
Total	38,383	466,136	504,519	16,470	50,383	66,853

(a) Refers to the intended country of disembarkation from the particular ship or aircraft which takes the passenger from Australia.

**OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY
BY STATED PURPOSE OF JOURNEY AND SEX: AUSTRALIA, 1972**

<i>Purpose of Journey</i>	<i>Short-term</i>			<i>Long-term</i>		
	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
OVERSEAS VISITORS ARRIVING						
In transit	47,712	29,880	77,592	..	..	..
Business	62,496	6,734	69,230	1,923	769	2,692
Holiday	109,632	135,368	245,000	3,253	3,546	6,799
Education	8,756	4,403	13,159	2,232	1,442	3,674
Other and not stated	13,305	8,117	21,422	7,355	6,039	13,394
Total	241,901	184,502	426,403	14,763	11,796	26,559
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Business	73,069	9,559	82,628	6,475	3,761	10,236
Holiday	176,335	209,472	385,807	17,446	18,620	36,066
Education	4,969	3,070	8,039	2,232	1,623	3,855
Other and not stated	19,161	8,884	28,045	7,392	9,304	16,696
Total	273,534	230,985	504,519	33,545	33,308	66,853

Short-term travel

Information about the countries of residence of short-term visitors, the countries of disembarkation of Australian residents travelling overseas in the short-term, and intended lengths of stay, are of particular interest to the tourist industry.

OVERSEAS VISITORS ARRIVING BY COUNTRY OF RESIDENCE AND INTENDED LENGTH OF STAY AND AUSTRALIAN RESIDENTS DEPARTING BY COUNTRY OF DISEMBARKATION AND INTENDED LENGTH OF STAY: AUSTRALIA, 1972

Country of residence (visitors) and country of disembarkation (residents)	Overseas visitors arriving—intended length of stay					Total	Australian residents departing—intended length of stay					Total
	Under 1 week	1 week and under 1 month	1 month and under 3 months	3 months and under 12 months	Indefinite, not stated etc.		Under 1 week	1 week and under 1 month	1 month and under 3 months	3 months and under 12 months	Indefinite, not stated etc.	
Africa—												
Commonwealth countries		562	628	439	217	2,565	23	242	697	640	90	1,692
South Africa	1,666	1,471	1,133	756	357	5,383	25	840	2,434	2,052	417	5,768
Other	303	208	155	156	65	887		2	11	26	4	43
America—												
Canada	2,169	7,069	3,085	1,621	793	14,737	10	468	980	769	177	2,404
Other Commonwealth countries	132	280	164	68	30	674		19	33	14	6	72
United States of America—excluding Hawaii	24,628	39,566	7,943	3,685	2,005	77,827	272	6,198	8,545	5,340	1,587	21,942
Hawaii							459	5,826	6,541	2,409	938	16,173
Other	628	978	438	410	194	2,648	8	270	559	428	163	1,428
Asia—												
Bangladesh, India, Pakistan, Sri Lanka	845	869	552	504	307	3,077	32	480	996	1,119	182	2,809
Hong Kong	2,135	2,627	1,714	772	575	7,823	1,713	7,569	17,702	14,535	2,626	44,145
Malaysia and Singapore	2,727	3,964	2,935	2,628	1,462	13,716	2,331	22,329	19,694	16,985	6,360	67,699
Other Commonwealth countries	116	98	197	47	46	504		8	44	266	61	379
Japan	6,064	5,944	1,529	841	957	15,335	97	1,369	4,978	515	357	7,316
Other	5,894	5,019	3,023	2,018	1,155	17,109	1,277	8,833	8,567	9,033	2,762	30,472
Europe—												
United Kingdom and Ireland	10,927	13,359	15,778	12,857	4,527	57,448	67	3,448	17,936	19,514	2,947	43,912
Other Commonwealth countries	95	108	219	418	56	896		4	59	1,320	93	1,476
Greece	246	212	215	1,018	223	1,914	17	453	2,268	9,964	1,931	14,633
Italy	914	869	1,034	1,555	406	4,778	29	859	4,543	14,269	2,928	22,628
Netherlands	1,539	1,165	1,939	2,078	919	7,640	8	507	3,336	2,801	391	7,043
Other	6,820	6,201	4,450	3,991	1,728	23,190	21	753	5,860	10,360	1,408	18,402
Oceania—												
Fiji	1,637	1,629	1,140	804	463	5,673	3,963	25,358	2,395	1,080	1,311	34,107
New Zealand	30,778	54,782	11,803	5,679	8,126	111,168	9,820	76,755	15,460	6,492	4,981	113,508
Papua New Guinea	5,967	7,995	12,876	8,137	1,029	36,004	4,535	11,380	6,977	2,398	3,628	28,918
Other Commonwealth countries	793	913	809	691	253	3,459	834	6,612	510	239	424	8,619
Other	2,719	3,409	3,745	1,016	1,059	11,948	824	5,090	1,665	953	399	8,931
Total	110,461	159,297	77,504	52,189	26,952	426,403	26,365	185,672	132,790	123,521	36,171	504,519

Short-term travel is subject to marked seasonal variation, December being the peak month for the arrival of visitors and the departure of Australian residents.

OVERSEAS VISITORS AND AUSTRALIAN RESIDENTS: ARRIVALS AND DEPARTURES BY MONTH OF ARRIVAL OR DEPARTURE AND MODE OF TRANSPORT AUSTRALIA, 1972

Month	Overseas visitors						Australian residents					
	Arriving			Departing			Departing			Returning		
	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total
January	2,011	34,412	36,423	2,901	48,887	51,788	3,223	26,808	30,031	4,208	57,612	61,820
February	1,865	36,188	38,053	2,133	39,601	41,734	4,698	21,410	26,108	2,479	30,238	32,717
March	2,087	36,725	38,812	2,294	37,452	39,746	4,183	36,855	41,038	2,665	26,597	29,262
April	991	27,685	28,676	1,605	34,192	35,997	3,724	44,943	48,667	1,375	26,839	28,214
May	1,213	28,929	30,142	1,519	33,561	35,080	3,957	43,158	47,115	3,181	32,125	35,306
June	783	23,025	23,808	1,582	25,832	27,414	4,480	44,134	48,614	2,940	32,197	35,137
July	983	27,751	28,734	1,007	26,567	27,574	2,241	37,790	40,031	3,352	35,680	39,032
August	859	33,062	33,921	957	33,211	34,168	2,520	50,051	52,571	2,659	44,067	46,726
September	1,051	28,700	29,751	848	32,691	33,539	1,936	30,241	32,177	2,233	56,606	58,839
October	1,294	38,673	39,967	1,414	36,992	38,406	2,169	27,585	29,754	3,948	48,567	52,515
November	2,267	38,868	41,135	1,923	36,836	38,759	2,731	28,945	31,676	3,286	35,645	38,930
December	2,779	54,202	56,981	966	36,149	37,115	2,521	74,216	76,737	2,883	29,580	32,463
Total	18,183	408,220	426,403	19,149	422,171	441,320	38,383	466,136	504,519	35,209	455,753	490,962

Long-term travel

Many long-term travellers travel for business or education and intend to follow an occupation in the country visited during their stay in Australia or overseas. This is evident from the statistics shown in the table on page 394 which classify travellers according to the purpose of their journey. Statistics of the occupations of long-term visitors arriving in Australia and Australian residents departing overseas (long-term) are of general interest and are shown in the following table.

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING, BY OCCUPATION AND SEX: AUSTRALIA, 1972

Occupation group	Overseas visitors arriving			Australian residents departing		
	Males	Females	Persons	Males	Females	Persons
Professional, technical, and related workers	2,431	1,979	4,410	5,433	5,385	10,818
Administrative, executive, and managerial workers	958	104	1,062	1,725	223	1,948
Clerical workers	519	1,908	2,427	2,158	6,124	8,282
Sales workers	521	193	714	1,028	641	1,669
Farmers, fishermen, hunters, timber getters, and related workers	444	15	459	499	32	531
Miners, quarrymen, and related workers	69	..	69	155	..	155
Workers in transport and communication	508	105	613	975	247	1,222
Craftsmen and production-process workers	2,620	218	2,838	6,593	883	7,476
Labourers(a)	733	..	733	3,943	..	3,943
Service (protective and other), sport, and recreation workers	1,072	525	1,597	904	1,030	1,934
Occupation inadequately described or not stated	678	162	840	645	171	816
Persons not in the labour force—						
Children and students	3,892	3,132	7,024	8,869	8,489	17,358
Other	318	3,455	3,773	618	10,083	10,701
Total	14,763	11,796	26,559	33,545	33,308	66,853

(a) Labourers (so described), not elsewhere classified and freight handlers, including waterside workers.

Direct transit travellers

As indicated on page 392, all the preceding figures in this section exclude persons who arrive in and depart from Australia on the same ship's journey or on the same flight or who do not leave the airports' transit area. Persons thus excluded are not normally considered visitors to Australia. For instance, settlers or other persons going to New Zealand, Papua New Guinea, or other neighbouring countries, or leaving such countries may travel through Australia on their way. On the other hand, all persons visiting Australia on cruise vessels, which may remain in Australian waters for a considerable time, are also treated as direct transit travellers and are thus excluded from the figures shown on previous pages. Information about direct transit passengers on ships calling at Australian ports is given in the next table.

OVERSEAS SHIPPING PASSENGERS IN DIRECT TRANSIT(a): AUSTRALIA, 1970 TO 1972

Approximate period from first to last Australian port (days)	1970		1971		1972	
	Passengers	Passenger days	Passengers	Passenger days	Passengers	Passenger days
Less than 3	3,942	5,057	3,965	6,316	5,066	8,267
3 and less than 5	4,701	14,924	2,429	8,592	3,752	12,211
5 and less than 7	6,516	37,445	2,402	14,397	2,944	17,348
7 and less than 9	3,745	28,107	7,568	56,586	7,483	54,718
9 and less than 11	3,362	30,668	3,964	37,000	3,155	29,418
11 and less than 22	2,267	26,304	580	7,765	263	3,615
22 and over	161	4,506	35	1,024	24	903
Total	24,694	147,011	20,943	131,680	22,687	126,480

(a) Persons who arrived in and departed from Australia on the same ship's voyage.

Sea cruises from Australia

The foregoing statistics exclude passengers on pleasure cruises commencing and finishing in Australia on ships not then engaged in regular voyages, and to which modified documentation requirements apply. Until 13 June 1972 such cruises were restricted to a period not exceeding 30 days and to ports in the South-West Pacific. On that date the period was extended to 6 weeks and the ports visited to those adjoining the Pacific or Indian oceans but excluding those on the east coast of Africa or the west coast of the Americas. The numbers of cruises and cruise passengers during the last three years are shown in the following table.

SHORT PLEASURE CRUISES IN THE SOUTH-WEST PACIFIC
AUSTRALIA, 1970 TO 1972

Duration of cruise in days(a)	1970		1971		1972	
	Cruises	Passengers	Cruises	Passengers	Cruises	Passengers
Less than 7	3	3,543	2	1,672	..	..
7 and less than 10	3	2,993	3	3,443	6	6,604
10 and less than 13	18	18,912	7	6,568	14	12,574
13 and less than 16	12	11,725	31	28,195	30	20,999
16 and less than 19	9	4,514	20	2,542	8	4,359
19 and less than 22 . . . . .	..	..	2	1,742	2	740
22 and less than 31	3	1,897	..	..	3	1,509
31 and over . . . . .	..	..	..	..	1	249
Total	48	43,584	65	44,162	64	47,034

(a) The duration of a cruise is the period during which the ship is absent from Australia.

Tourist organisation

The Australian Tourist Commission was established by the Commonwealth Government under the *Australian Tourist Commission Act 1967*. Its objectives are the encouragement of visits to Australia, and travel in Australia by people from other countries. The seven man Commission comprises a chairman appointed by the Commonwealth Government; two appointees to represent private industry, selected by the Commonwealth Government from a panel of names put forward by the Australian National Travel Association; two other voting members, at least one of whom is an officer of the Public Service of the Commonwealth; and two non-voting representatives nominated by the State Governments.

For 1971-72 the Commonwealth Government provided \$2,650,000 to the Commission, to be spent, mainly in overseas countries, on advertising campaigns and in associated promotional activities. The Commission brings to Australia travel agents, writers, photographers and other publicists to see at first hand what the country has to offer visitors. It takes no part in the detailed organisation of tourist activities in Australia but is a member of the Australia and New Zealand Government Tourist Conference and provides the secretariat for the Tourist Ministers' Council. The Minister for Tourism and Recreation is a member of the Tourist Ministers' Council together with Ministers in charge of tourism in the six States, the Northern Territory and Papua New Guinea. The Commission has its Head Office in Melbourne and branch offices in London, Frankfurt, New York, Chicago, Los Angeles, Auckland, Tokyo and Sydney.

The Australian National Travel Association, which is described on pages 1161-2 of the special article *Travel and Tourism in Year Book No. 52*, was formerly responsible, *inter alia*, for the promotion overseas of Australia as a tourist destination. Since the creation of the Australian Tourist Commission, the Association concentrates on the encouragement of the growth and development of travel and tourism within Australia, and the improvement of the standard and variety of facilities and services provided by private enterprise for the use of both domestic and overseas visitors. It acts as a co-ordinating body for its members, provides a clearing house for information, and conducts surveys into aspects of local tourist activity. The Association is governed by a Board representative of travel and tourist interests on which the Commonwealth Government is no longer represented. The Association's office is located in Sydney.

