CHAPTER 12

TRANSPORT, COMMUNICATION AND TRAVEL

The statistics in this chapter relate in the main to the year 1970–71, 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 Shipping and 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 Commonwealth Minister for Shipping and Transport as Chairman, the Commonwealth Minister for the Interior, (responsible for transport in the Australian Capital Territory and 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 in 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 concurrently 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 pressing 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, safety features in motor vehicles, 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 inititate 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 Shipping and Transport.

The administration of the Council and its committees is the responsibility of the Commonwealth Department of Shipping and 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 Shipping and Transport, and a nominee of the Standing Committee of Advisers. The Chairman is an officer of the Department of Shipping and 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 1972 cover the following:

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
	Vehicle engine emission control
Steering columns	New pneumatic passenger car tyres
Internal sun visors	Tyre selection

A publication *Australian Design Rules for Motor Vehicle Safety*, incorporating design rules endorsed by the Council, is issued by the Department of Shipping and 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 Shipping and 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 Shipping and 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 representative 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 Shipping and 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 Shipping and 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 representatives, as well as one representative from the Australian Road Transport Federation, one representative from the Australian Chemical Industry Council and one from the Standards Association of Australia. The Chairman is an officer of the Department of Shipping and 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 *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 Shipping and 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 Pollution Committee, 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* 1912–1970, the *Sea Carriage of Goods Act* 1924, the *Seamen's Compensation Act* 1911–1971, the *Seamen's War Pensions and Allowances Act* 1940–1971, the *Pollution of the Sea by Oil Act* 1960–1965, 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* 1911–1970 and the *Explosives Act* 1961–1966.

Australian Coastal Shipping Commission

The Commission was established in 1956 for the purpose of maintaining and operating interstate, overseas and territorial shipping services. It operates The Australian National Line, a Commonwealth-owned merchant shipping service which at 31 December 1971 comprised thirty ships with a total deadweight of 395,853 tons. The total included one large bulk carrier on charter from a foreign owner.

The fleet included the 9,330 ton (deadweight) vehicle deck/container ship *Australian Enterprise* and the 26,420 ton (deadweight) cellular container ship *Australian Endeavour*, both in overseas trade; three vehicle deck/passenger ships, *Empress of Australia* 12,037 tons gross, *Australian Trader* 7,005 tons gross, and *Princess of Tasmania* 3,981 tons gross; four vehicle deck cargo ships totalling 14,919 deadweight tons; one container/ore carrier of 11,900 deadweight tons in the Darwin trade; three bulk carriers in the 50,000 ton (deadweight) class; fifteen other bulk carriers totalling 157,898 deadweight tons; one 3,400 deadweight tons cellular container ship; and one conventional general cargo ship of 6,425 deadweight tons.

At 31 December 1971 the Commission had on order from an Australian shipyard two vehicle deck steel carriers of 7,500 deadweight tons each.

Overseas, a 26,000 ton (deadweight) cellular container ship was on order from a West German yard for the Australia–East Coast of North America trade. In addition, A.N.L. is a member of P.A.D. Shipping Australia Pty Ltd, and operates the *Allunga*, a 20,300 deadweight tons roll-on/roll-off vessel in the Australia–West Coast of North America trade.

To service the 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 ending 31 December 1971 the vehicular/passenger vessels *Empress of Australia*, *Australian Trader* and *Princess of Tasmania* carried a total of 123,913 passengers and 31,882 passengers' cars between the mainland and Tasmania. Over the same period over 8.6 million tons of cargo were carried by The 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 from 1951 has operated under the control of the Minister for Shipping and Transport. In November 1963 it became a division of the Department of Shipping and Transport. The Division's staff numbers 130 including naval architects, engineers, technical, and administrative staff.

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 Shipping and 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, and the state and prospects of the industry generally.

To 31 December 1971 the Board had arranged for the construction of 222 vessels valued at approximately $611 million.

The Board has arranged for the construction of 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.

Orders held by the Board at 31 December 1971 were valued at $166 million and numbered twenty-seven vessels. These included three tankers of approximately 24,000 tons deadweight, two of 62,000 tons deadweight, two dredgers, two product carriers of 14,400 tons deadweight, one large ore carrier of 78,000 tons deadweight, four offshore supply vessels, one tug, two cargo vessels of 6,500 tons deadweight, two vehicle-deck vessels of 7,600 tons deadweight, seven landing craft, and one small launch.

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, and following the 1963 Tariff Board inquiry into measures of assistance to the Australian shipbuilding industry, the Government decided to extend the shipbuilding subsidy at its existing rate of up to one-third of the cost of construction to include all types of vessels of 200 tons gross and over built in recognised shipyards and intended for use in Australian coastal or inland waterways. This came into effect on 20 May 1964. In respect of vessels of less than 200 tons gross, Australian shipbuilders are afforded protection under the Customs Tariff.

The Tariff Board again inquired into the Australian shipbuilding industry during 1969. The report and recommendations arising from the inquiry have been submitted to the Government.

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. Following adoption of the Report by all the parties, including the Government, enabling legislation 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 on the respective dates, 8 January, 19 February, 4 March, 18 March, and 12 August 1968, in Newcastle on 10 March 1969 and Whyalla on 6 July 1970. Other appropriate ports will follow progressively. To enable the permanency arrangements to continue beyond 1 July 1970, the operation of the *Stevedoring Industry (Temporary Provisions) Act* 1967–1968 was extended until 1 July 1972.

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

The statutory provisions relating to the industry are now contained in the *Stevedoring Industry (Temporary Provisions) Act* 1967–1970 (and Regulations made thereunder), the *Stevedoring Industry Act* 1956–1971, and Division 4 of Part III. of the *Conciliation and Arbitration Act* 1904–1970.

Trade Practices Act 1965-1969 (Part XA—Overseas Cargo Shipping)

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

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 shipper bodies (associations, designated by the Minister, that represent the interests of producers and shippers in Australia of goods exported from Australia).

Regarding shipping conferences, the provisions require certain agreements of a specified character between shipowners operating in the outward trades from Australia to be filed with the Clerk of Shipping Agreements. A shipowner who is a party to such an agreement may be requested, by the Minister, to give to the Minister an undertaking to negotiate with a shipper body 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.

Since the Act came into force two shipper bodies have been designated by the Minister—the Australia to Europe Shippers Association and the Singapore/West Malaysia Shippers Association. Shippers are in the process of forming additional bodies in respect of other trades.

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

Collection and presentation of statistics

Basic documents

From 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 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 transhipments 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.

Transhipments 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.

Overseas shipping

Total movement

The following table shows the number of entrances and clearances (combined) of vessels from and to overseas countries, and the aggregate net tonnage, during each of the years 1966–67 to 1970–71.

OVERSEAS SHIPPING: ENTRANCE AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA 1966-67 TO 1970-71(*a*)

	1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*
Number of vessels	7,994	7,985	8,750	10,022	11,054
Net tonnage '000 tons	55,062	60,387	72,578	89,058	102,219

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

Particulars of the total overseas movement of shipping for each year from 1822 to 1920–21 were published in Year Book No. 15, page 507, those for each year from 1921–22 to 1950–51 in Year Book No. 40, page 97, while those for each year from 1941–42 are shown in the Statistical Summary of this Year Book.

Total overseas shipping

The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to overseas countries, and the aggregate net tonnage, during the year 1970–71.

OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT, STATES AND NORTHERN TERRITORY, 1970-71(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entrances	number	1,446	492	1,150	290	1,807	110	181	5,476
	'000 net tons	12,095	2,892	8,790	2,386	22,704	952	1,001	50,820
Clearances	number	1,196	586	1,338	352	1,857	99	150	5,578
	'000 net tons	10,289	4,842	9,805	2,086	22,537	1,010	830	51,399

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

Country of registration of overseas shipping

Particulars of overseas shipping which entered Australian ports during each of the years 1968–69 to 1970–71 are given in the following table according to country of registration of vessels.

OVERSEAS SHIPPING: ENTRANCES DIRECT, BY COUNTRY OF REGISTRATION OF VESSELS AUSTRALIA, 1968-69 TO 1970-71(*a*)

('000 net tons)

Vessels registered at ports in—	*1968–69*	*1969–70*	*1970–71*	*Vessels registered at ports in—*	*1968–69*	*1969–70*	*1970–71*
Australia	235	490	446	Panama	880	1,134	1,156
Denmark	669	555	569	Sweden	771	724	1,027
France(*b*)	503	788	552	United Kingdom	7,899	8,923	8,632
Germany, Federal Republic of	462	1,068	952	United States of America	250	300	394
Greece	1,672	2,493	3,953	Other countries	1,244	2,441	2,851
Hong Kong	228	360	459				
India	444	459	692	All countries—			
Italy	681	663	694	In cargo	19,592	20,043	17,571
Japan	7,377	9,640	11,868	Proportion of total %	53 8	45.0	34.6
Liberia	7,419	8,570	10,543	In ballast	16,827	24,452	33,249
Netherlands	1,043	1,280	1,078	Proportion of total %	46.2	55.0	65.4
New Zealand	322	330	337				
Norway	4,320	4,277	4,617	**Grand total**	36,419	44,495	50,820

(*a*) Excludes vessels of 200 net tons and under. (*b*) Includes New Caledonia, 3 during 1968–69, and 9 during 1969–70.

Australian registered tonnage which entered Australian ports from overseas during the year 1970–71 represented 0.88 per cent of the total tonnage entered.

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 1970–71. The statistics below are not comparable with those for years prior to 1969–70 because the method of applying the classification 'interstate direct' has been changed to exclude overseas vessels. Before July 1969 overseas vessels were frequently classified as moving 'interstate direct' as distinct from 'overseas via States'. This difference in treatment arose from the practice of classifying movements in terms of port data on individual shipping returns, whereas the current method is to classify primarily on the basis of whether vessels are overseas or coastal.

INTERSTATE MOVEMENT: ENTRANCES OF COASTAL VESSELS INTERSTATE DIRECT STATES AND NORTHERN TERRITORY, 1970-71(*a*)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Number of vessels	1,085	1,349	372	593	244	1,232	92	4,967
Net tonnage '000 tons	6,981	5,752	2,014	3,910	1,815	2,920	259	23,651

(*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 to and from overseas countries via other Australian States. The statistics in the following table are not comparable with those prior to 1969–70 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, 1970-71(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entrances	number	1,889	1,686	1,223	908	1,012	386	98	7,202
	'000 net tons	10,377	11,800	5,632	4,920	6,595	1,917	249	41,490
Clearances	number	2,156	1,610	1,038	863	949	404	129	7,149
	'000 net tons	12,281	9,991	4,639	5,534	6,424	1,881	412	41,163

(*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 1970–71 together with the aggregate net tonnage.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES STATES AND NORTHERN TERRITORY, 1970-71(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entrances	number	2,974	3,035	1,595	1,501	1,256	1,618	190	12,169
	'000 net tons	17,358	17,552	7,646	8,830	8,410	4,837	508	65,141
Clearances	number	3,244	2,947	1,413	1 448	1,203	1,635	223	12,113
	'000 net tons	19,249	15,661	6,674	9,206	8,579	4,797	677	64,843

(*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 1966–67 to 1970–71.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES
AUSTRALIA, 1966-67 TO 1970-71(*a*)

		1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*
Entrances	number	10,536	10,595	10,830	10,843	12,169
	'000 net tons	43,272	44,588	47,005	53,732	65,141
Clearances	number	10,542	10,566	10,824	10,781	12,113
	'000 net tons	43,398	44,529	47,070	53,523	64,843

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

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or intrastate services at 31 December 1971.

AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
31 DECEMBER 1971

(*Source*: Department of Shipping and Transport)

Vessels	*Number*	*Dead-weight tons*	*Gross tons*
Interstate vessels—			
Australian-owned, Australian-registered	74	922,785	674,164
Overseas-owned, Australian-registered, engaged in Australian coastal trade—			
New Zealand-owned	7	21,548	19,305
Other	10	278,844	177,779
Overseas-owned, overseas-registered, on charter, engaged in Australian coastal trade	8	171,828	107,783
Total interstate vessels	99	1,395,005	979,031
Intrastate vessels(*a*)	23	124,889	83,466
Total coastal trading vessels	*122*	*1,519,894*	*1,062,497*
Overseas trading vessels—			
Australian-owned, Australian-registered operated mainly on overseas services	7	85,219	64,866
Australian-owned, overseas-registered operated wholly on overseas services	4	25,203	20,623
Total overseas trading vessels	*11*	*110,422*	*85,489*
Total Australian trading vessels	**133**	**1,630,316**	**1,147,986**

(*a*) Includes two vessels registered overseas of 45,379 and 754 deadweight tons.

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, interstate and coastal—which entered the principal ports of Australia during the years 1969–70 and 1970–71.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA
1969-70 AND 1970-71(*a*)

Port of entry	1969–70 Number	1969–70 Net tons	1970–71 Number	1970–71 Net tons
		'000		'000
New South Wales—				
Sydney(*b*)	4,289	21,422	3,883	19,552
Newcastle	1,514	8,005	1,359	7,699
Port Kembla	1,001	5,787	874	5,184
Victoria—				
Melbourne	2,854	13,714	2,818	13,710
Geelong	517	4,588	554	4,640
Queensland—				
Brisbane	1,621	7,684	1,508	7,938
Bowen	33	139	19	69
Cairns	187	473	160	524
Gladstone	370	4,327	375	4,799
Mackay	149	605	208	754
Rockhampton	135	555	129	552
Townsville	372	1,461	337	1,338
Weipa	226	2,333	286	3,191
South Australia—				
Adelaide(*c*)	1,473	7,180	1,270	5,218
Port Lincoln	294	867	190	781
Port Pirie	238	1,008	213	1,331
Rapid Bay	41	142	41	156
Wallaroo	42	276	40	245
Whyalla	357	3,159	289	3,021
Western Australia—				
Fremantle(*d*)	1,414	10,112	1,388	9,403
Albany	161	905	168	967
Bunbury	145	779	156	807
Carnarvon	15	37	16	24
Geraldton	104	702	125	776
Yampi	160	1,211	172	1,457
Port Hedland	499	5,045	592	8,155
Dampier	373	5,032	475	6,918
Tasmania—				
Hobart	643	1,763	600	1,636
Burnie	452	1,562	388	1,390
Devonport	450	988	467	958
Launceston	461	1,440	488	1,591
Port Latta	41	833	39	799
Northern Territory—				
Darwin	186	815	230	1,006
Groote Island	92	298	68	319

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

CARGO DISCHARGED AND SHIPPED: AUSTRALIA, 1966-67 TO 1970-71
('000 tons)

Year	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
1966–67	27,109	4,152	32,691	1,943	15,565	1,900	15,692	1,728
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

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1970-71

('000 tons)

Port	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
New South Wales—								
Sydney	2,710	1,864	5,422	885	1,982	180	295	245
Botany Bay	2,231	..	71	..	2,609	..	148	..
Newcastle	1,054	9	8,187	2	3,319	..	1,430	33
Port Kembla	372	..	2,929	1	5,449	..	1,557	..
Other	3	..	79	4	46	..	..	..
Total New South Wales	*6,370*	*1,873*	*16,688*	*892*	*13,405*	*180*	*3,430*	*278*
Victoria—								
Melbourne	2,220	2,183	1,516	1,138	1,471	832	746	935
Geelong	2,373	6	2,209	3	979	..	488	..
Portland	131	1	502	1	12	..	5	..
Westernport	419	..	606	..	49	11	5,408	1
Other	..	..	..	..	..	..	..	..
Total Victoria	*5,143*	*2,190*	*4,833*	*1,142*	*2,511*	*843*	*6,647*	*936*
Queensland—								
Brisbane	1,390	369	1,278	155	1,861	86	139	67
Cairns	51	..	356	..	33	..	14	..
Gladstone	20	..	7,920	..	59	..	295	..
Mackay	28	..	567	..	27	..	81	..
Townsville	64	6	782	..	96	1	101	..
Other	376	1	6,008	10	13	2	553	2
Total Queensland	*1,929*	*376*	*16,911*	*165*	*2,089*	*89*	*1,183*	*69*
South Australia—								
Port Adelaide	367	251	821	106	807	21	209	11
Ardrossan	..	..	196	..	5	..	345	..
Port Lincoln	17	..	552	5	18	..	435	..
Port Pirie	26	..	761	..	149	..	278	..
Port Stanvac	1,811	..	16	..	303	..	552	..
Rapid Bay	..	..	..	..	..	..	81	..
Whyalla	119	..	1,690	..	1,218	..	5,066	..
Other	59	..	882	..	2	..	398	..
Total South Australia	*2,399*	*251*	*4,918*	*111*	*2,502*	*21*	*7,364*	*11*
Western Australia—								
Fremantle	923	311	3,924	178	1,121	10	1,130	17
Albany	147	..	616	..	1	..	..	..
Bunbury	176	..	757	35	..	..	57	..
Dampier	6	..	18,961	..	11	..	43	..
Geraldton	..	..	1,404	..	5	..	..	..
Kwinana	3,007	..	189	..	221	..	491	..
Port Hedland	42	15	22,184	..	17	6	566	..
Yampi	1	..	2,066	..	23	..	1,309	..
Other	549	3	2,482	14	6	..	1,220	..
Total Western Australia	*4,851*	*329*	*52,583*	*227*	*1,405*	*16*	*4,816*	*17*
Tasmania—								
Hobart	158	7	244	40	620	218	459	149
Burnie	78	8	132	12	235	213	197	136
Launceston	110	10	81	11	679	239	143	177
Port Latta	..	..	2,020	..	12	..	..	..
Other	62	1	60	11	129	415	177	408
Total Tasmania	*408*	*26*	*2,537*	*74*	*1,675*	*1,085*	*976*	*870*
Northern Territory—								
Darwin	276	12	1,079	..	126	21	11	2
Groote Island	4	..	618	..	25	3	111	..
Gove	30	11	44	..	49	144	3	11
Other	..	..	..	..	..	..	..	..
Total Northern Territory	*310*	*23*	*1,741*	..	*200*	*168*	*125*	*13*
Australia	**21,410**	**5,069**	**100,210**	**2,612**	**23,789**	**2,403**	**24,540**	**2,194**

Overseas cargo according to major trade areas and type of service

The following two tables show for the years 1968–69 to 1970–71 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: 1968-69 TO 1970-71

('000 tons)

Major trade areas	*Liners (a)*		*Tramps, bulk ships, tankers*		*All vessels*	
	Weight	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
North America and Hawaii—						
1968–69	582	112	2,452	..	3,034	112
1969–70	649	123	3,240	1	3,890	124
1970–71	542	160	4,056	6	4,598	166
South America—						
1968–69	25	5	300	2	325	7
1969–70	50	6	427	..	477	6
1970–71	52	11	541	..	593	11
Europe—						
1968–69	1,148	515	6,672	133	7,820	648
1969–70	1,363	509	9,100	11	10,462	520
1970–71	1,123	538	14,861	..	15,984	538
Africa—						
1968–69	150	85	237	..	387	85
1969–70	238	99	370	15	608	114
1970–71	201	102	1,953	1	2,154	103
Asia—						
Eastern Asia—						
1968–69	1,134	151	38,290	4	39,424	155
1969–70	1,490	193	54,960	..	56,450	193
1970–71	1,148	392	70,004	10	71,152	402
Other Asia—						
1968–69	872	343	1,622	130	2,494	473
1969–70	919	378	2,291	62	3.210	439
1970–71	755	374	3,065	120	3,820	494
Total Asia—						
1968–69	*2,006*	*494*	*39,912*	*134*	*41,918*	*628*
1969–70	*2,409*	*570*	*57,251*	*62*	*59,660*	*632*
1970–71	*1,903*	*766*	*73,069*	*130*	*74,972*	*896*
Papua New Guinea, New Zealand and Pacific Islands—						
1968–69	596	551	855	17	1,451	568
1969–70	708	666	1,017	59	1,725	724
1970–71	578	840	1,301	52	1,879	892
Indian Ocean Is. and Antarctic Area—						
1968–69	..	..	20	5	20	5
1969–70	..	..	26	6	26	7
1970–71	..	..	29	5	29	5
Australia—						
1968–69	**4,508**	**1,763**	**50,448**	**291**	**54,956**	**2,054**
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**

(a) Cargo and passenger liners.

CARGO DISCHARGED IN AUSTRALIA FROM OVERSEAS: MAJOR TRADE AREAS BY TYPE OF SERVICE: 1968-69 TO 1970-71

('000 tons)

Major trade areas	*Liners(a)*		*Tramps, bulk-ships, tankers*		*All vessels*	
	Weight	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
North America and Hawaii—						
1968–69	391	616	1,715	474	2,106	1,090
1969–70	406	619	1,361	376	1,768	994
1970–71	457	612	1,309	366	1,766	978
South America—						
1968–69	11	1	23	1	34	2
1969–70	13	3	19	..	32	3
1970–71	36	3	11	..	47	3
Europe—						
1968–69	676	1,620	263	233	940	1,853
1969–70	623	1,811	150	195	774	2,007
1970–71	623	1,623	148	156	771	1,779
Africa—						
1968–69	121	60	62	..	183	60
1969–70	120	56	106	..	226	56
1970–71	106	57	164	..	270	57
Asia—						
Eastern Asia—						
1968–69	316	1,023	976	343	1,292	1,366
1969–70	374	1,050	995	227	1,369	1,277
1970–71	471	1,057	1,523	280	1,994	1,337
Other Asia—						
1968–69	137	397	21,473	90	21,610	487
1969–70	155	431	20,956	57	21,110	488
1970–71	128	431	14,047	66	14,175	497
Total Asia—						
1968–69	*453*	*1,420*	*22,449*	*433*	*22,902*	*1,853*
1969–70	*528*	*1,481*	*21,951*	*285*	*22,479*	*1,765*
1970–71	*599*	*1,488*	*15,570*	*346*	*16,169*	*1,834*
Papua New Guinea, New Zealand and Pacific Islands—						
1968–69	277	346	2,007	6	2,283	352
1969–70	318	323	1,813	9	2,131	332
1970–71	300	389	1,457	29	1,757	418
Indian Ocean Is. and Antarctic Area—						
1968–69	..	..	851	2	851	2
1969–70	..	..	791	2	791	2
1970–71	..	..	629	..	629	..
Australia—						
1968-69	**1,929**	**4,064**	**27,369**	**1,148**	**29,298**	**5,212**
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**

(*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 1968–69 to 1970–71.

OVERSEAS CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION OF VESSELS: AUSTRALIA, 1968-69 TO 1970-71

('000 tons)

Vessels registered at ports in	*1968–69*		*1969–70*		*1970–71*	
	Weight	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
Australia	532	129	823	206	649	384
Denmark	1,672	93	1,340	84	1,234	121
France	864	114	1,514	109	1,134	69
Germany, Federal Republic of	771	375	2,147	413	1,812	471
Greece	3,496	182	5,799	180	9,395	108
Hong Kong	438	114	716	106	935	61
India	926	58	1,175	71	1,526	83
Italy	550	49	643	61	989	57
Japan	22,429	703	30,071	697	35,708	900
Liberia	18,803	239	21,622	199	27,142	224
Netherlands	2,086	409	2,488	375	2,176	310
New Zealand	577	424	662	468	560	658
Norway	11,317	595	11,069	442	11,469	450
Panama	2,005	33	2,406	43	2,811	47
Sweden	1,622	537	1,592	495	2,485	502
United Kingdom	13,480	2,802	15,248	2,797	15,167	2,425
United States of America	231	139	333	171	588	190
Other	2,455	271	5,402	370	5,840	621
Grand total	**84,254**	**7,266**	**105,050**	**7,285**	**121,620**	**7,681**

World shipping tonnage

At 1 July 1971 the total number of steamships and motorships 100 gross tons and upwards throughout the world was 55,041 with a gross tonnage of 247,202,634. Of those totals, steamships numbered 7,350 for 87,518,130 gross tons, and motorships 47,691 for 159,684,504. This includes 6,292 oil tankers of 100 gross tons and upwards with a gross tonnage of 96,141,475. Australian steamships and motorships, 350 for 1,105,236 gross tons constituted 0.64 per cent and 0.45 per cent respectively of the total number and gross tonnage. This information has been derived from *Lloyd's Register of Shipping*.

Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 31 December 1971, classified according to: (i) year of construction, (ii) type of trade in which the vessels were engaged and (iii) vessels built in Australian or in overseas shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, 31 DECEMBER 1971(*a*)

(*Source:* Department of Shipping and 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*
1967 and earlier	79	638,469	16	19,116	55	427,105	40	230,480	95	657,585
1968	4	99,326	2	669	5	63,907	1	36,088	6	99,995
1969	7	80,755	2	32,709	7	78,990	2	34,474	9	113,464
1970	5	62,144	..	..	4	52,814	1	9,330	5	62,144
1971	3	55,420	1	357	2	39,416	2	16,361	4	55,777
Total registered in Australia	**98**	**936,114**	**21**	**52,851**	**73**	**662,232**	**46**	**326,733**	**119**	**988,965**

(*a*) 200 gross tons and over.

Miscellaneous

Shipping freight rates

Lists of shipping freight rates for selected commodities are shown annually in the bulletin *Transport and Communication* and quarterly, in less detail, 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 1966–67 to 1970–71 are shown in the table below.

SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(*a*) AUSTRALIA, 1966-67 TO 1970-71

	Shipping losses			*Other shipping casualties*			*Total shipping casualties*		
Year	*Vessels*	*Net tons*	*Lives lost*	*Vessels*	*Net tons*	*Lives lost*	*Vessels*	*Net tons*	*Lives lost*
1966–67	..	..	..	104	545,927	..	104	545,927	..
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

(*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. 61.

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. 61.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1970–71 a total of 85.9 million tons of freight were carried, an increase of 109.9 per cent over the 40.9 million tons carried in 1950–51. However, in the same twenty-year period the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 4.9 per cent from 476 millions in 1950–51 to 453 millions in 1970–71. The number of train miles run during 1970–71 (97.1 million) was only 9.5 per cent greater than in 1950–51, 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 1971 there were 1,323 throughout Australia. Diesel-electric locomotives during 1970–71 hauled 62 million train-miles, while steam locomotives hauled only 1 million 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 1971 3,373 miles have been closed, the greatest lengths being in Western Australia (997 miles), Queensland (869 miles), and Victoria (621 miles). During this same period 1,175 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 1971

(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
1967	6,259	4,027	5,730	3,779	4,269	500	490	5	25,059
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

(*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 1971 according to gauge.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE
STATES AND TERRITORIES, 30 JUNE 1971

(Miles)

Gauge	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
5ft 3in	(*a*)204	(*b*)3,751	..	1,570	..	..	..	..	5,525
4ft 8½in	(*c*)6,090	202	69	(*d*)1,088	(*e*)905	..	..	(*f*)5	8,359
3ft 6in	..	..	5,698	(*g*)1,025	(*h*)3,386	500	(*i*)490	..	11,099
2ft 6in	..	9	..	..	..	..	..	..	9
2ft 0in	..	..	30	..	..	..	..	..	30
Total	**6,294**	**3,962**	**5,797**	**3,683**	**4,291**	**500**	**490**	**5**	**25,022**
Per 1,000 of population	1.38	1.14	3.20	3.16	4.26	1.28	5.96	0.04	1.98
Per 1,000 square miles	20.34	45.08	8.69	9.69	4.40	18.95	0.94	5.32	8.43

(*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 428 miles of the Central Australia Railway system. (*h*) 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. (*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 1971 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE AND SYSTEM
30 JUNE 1971
(Miles)

System	Gauge					Total
	5ft 3in	4ft 8½in	3ft 6in	2ft 6in	2ft 0in	
New South Wales	..	(a)6,061	..	..	..	6,061
Victoria	(b)3,955	202	..	9	..	4,166
Queensland	..	69	5,698	..	30	5,797
South Australia	1,570	246	597	..	..	2,413
Western Australia	..	451	(c)3,386	..	..	3,837
Tasmania	..	..	500	..	..	500
Commonwealth	..	1,330	918	..	..	2,248
Australia	**5,525**	**8,359**	**11,099**	**9**	**30**	**25,022**

(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 1970–71 appears on plate 28 on page 349.

Standardisation of railway gauges

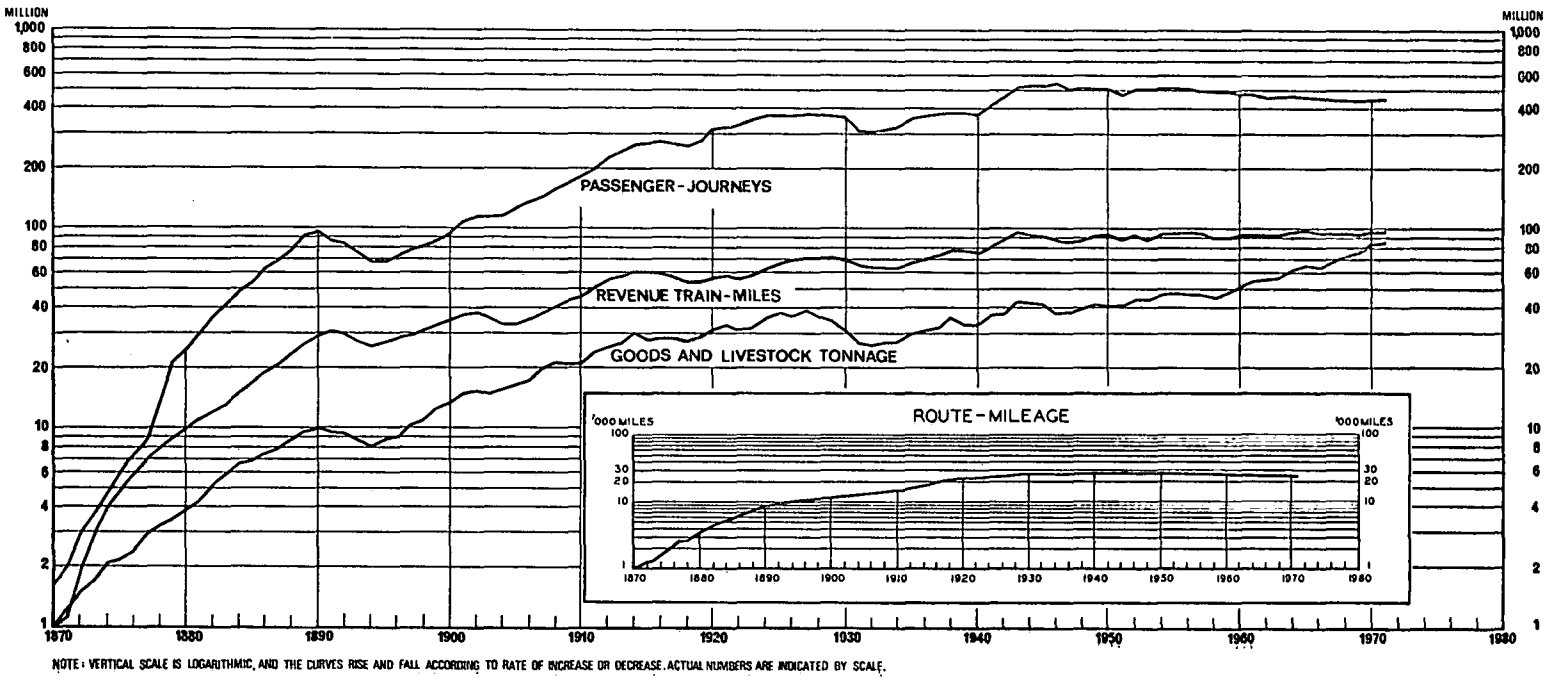
The completion of the standard gauge line from Broken Hill to Cockburn in November 1969 saw the final step in the standard gauge link between Fremantle (Western Australia) and Sydney (New South Wales). The first through freight service to operate between Sydney and Fremantle commenced on 12 January 1970 and the new passenger service over the same route was inaugurated on 23 February 1970. This passenger service has been named the *Indian-Pacific* after the oceans it links.

At this stage all mainland capital cities, except Adelaide, are linked by the standard gauge system. This system now extends from South Brisbane to Sydney via Kyogle (New South Wales); from Sydney to Melbourne via Albury (New South Wales); from Sydney to Cockburn (on the South Australia/New South Wales border) via Parkes and Broken Hill; from Cockburn to Port Pirie (South Australia); from Port Pirie to Kalgoorlie (Western Australia) via Port Augusta (South Australia); and from Kalgoorlie to Fremantle via Koolyanobbing, Merredin and Northam (Western Australia). Although the task of linking Australia by standard gauge was commenced in 1912 with the beginning of construction of the standard gauge line between Port Augusta and Kalgoorlie it took almost sixty years to complete. Major factors contributing to the delay in construction were a lack of funds and the failure of successive State and Commonwealth Governments to agree on matters concerning the introduction of the standard gauge.

GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1970-71

ROUTE MILEAGE AND TRAFFIC

LOGARITHMIC GRAPH



NOTE: VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE.

The major benefits of standardisation are the saving in time and costs due to the elimination of the multiple handling of goods and the trans-shipment of passengers at points of break-in-gauge. The through freight services between Sydney and Perth takes 3½ days compared with the 8 to 10 days which applied previously. Similarly passenger services have been improved and travelling time cut from about 80 hours to 65 hours.

The historical background to the standardisation of railway gauges is given in Year Book No. 53 pages 440–5, and a special article outlining the stages in the development and completion of the *Indian-Pacific* route (Perth-Sydney) is given in Year Book No. 56, pages 353–8.

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).

Work is proceeding on a new standard gauge railway between Port Augusta and Whyalla (South Australia). This will be 47 miles long and will be owned and operated by Commonwealth Railways. It will connect Whyalla with the interstate standard gauge network. In addition to general goods and passenger traffic, it will be used for the carriage of considerable quantities of steel products which are at present transported by road between Whyalla and Port Augusta (for rail transport to Melbourne and Sydney).

The Commonwealth Government also has 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, 1970-71

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
Train-mileage ('000)(*a*)—								
Suburban passenger	10,416	8,315	1,993	2,098	1,388	108	..	24,319
Country passenger	10,601	4,768	3,053	1,248	990	230	961	21,852
Goods(*b*) . .	18,523	7,747	12,323	2,998	5,566	758	3,049	50,963
Total . .	**39,540**	**20,831**	**17,368**	**6,344**	**7,944**	**1,096**	**4,010**	**97,133**
Passenger-journeys ('000)(*c*)—								
Suburban . .	238,800	138,131	27,621	13,393	10,557	636	..	429,139
Country(*d*) . .	15,987	4,080	1,915	553	362	235	259	23,392
Total . .	**254,787**	**142,211**	**29,536**	**13,946**	**10,919**	**871**	**259**	**452,530**
Passenger-miles ('000)(*e*)—								
Suburban . .	n.a.	1,285,253	n.a.	106,052	n.a.	4,523	..	n.a.
Country . .	n.a.	379,845	n.a.	91,680	77,170	12,270	141,410	n.a.
Total . .	**n.a.**	**1,665,098**	**n.a.**	**197,732**	**n.a.**	**16,793**	**141,410**	**n.a.**
Freight—								
Tons carried ('000)(*d*)	33,204	12,490	15,418	5,990	13,244	1,201	4,382	85,929
Net ton-miles (million)(*f*) . .	5,538.1	2,118.7	3,316.4	986.9	2,078.0	94.2	1,282.1	15,414.5

(*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					Coaching stock(b)	Goods stock	Service stock
	Steam	Diesel-electric	Electric	Other(a)	Total			
30 June 1971—								
New South Wales	89	395	41	55	580	(c)3,279	18,710	2,143
Victoria	38	246	35	81	400	(c)2,398	19,731	1,617
Queensland	..	345	..	81	426	1,227	19,989	2,155
South Australia	5	146	..	..	151	(c)422	7,292	617
Western Australia	48	178	..	18	244	(c)458	12,080	911
Tasmania	19	38	..	21	78	126	2,140	171
Commonwealth	1	99	..	..	100	(c)74	2,312	506
Australia	**200**	**1,447**	**76**	**256**	**1,979**	**(d)8,183**	**(d)82,279**	**(d)8,141**
30 June—								
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
1967	1,337	1,054	76	156	2,623	8,727	86,887	7,920
1966	1,591	925	76	150	2,742	8,748	88,205	7,987

(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 1970-71
('000 miles)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Type of service—								
Passenger—suburban	10,416	8,315	1,993	2,098	1,388	108	..	24,319
Passenger—country	10,601	4,768	3,053	1,248	990	230	961	21,852
Goods(a)	18,523	7,747	12,323	2,998	5,566	758	3,049	50,963
Total	**39,540**	**20,831**	**17,368**	**6,344**	**7,944**	**1,096**	**4,010**	**97,133**
Type of motive power—								
Hauled by diesel-electric locomotives	22,208	9,952	15,303	3,637	6,254	933	3,920	62,207
Hauled by steam locomotives	502	12	2	2	287	7	..	813
Hauled by electric and other locomotives	2,269	994	418	..	..	16	..	3,697
Powered coaching stock	14,561	9,873	1,645	2,704	1,403	139	90	30,416
Total	39,540	20,831	17,368	6,344	7,944	1,096	4,010	97,133

(a) Includes mixed train-miles.

Total Train-mileage

TRAIN MILEAGE, 1966-67 TO 1970-71
('000 miles)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
1966–67	37,638	20,035	16,876	6,584	8,316	1,275	2,958	93,682
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

Passenger traffic

Passenger-journeys

GOVERNMENT RAILWAYS: PASSENGER-JOURNEYS(*a*), SYSTEMS, 1966-67 TO 1970-71
('000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
				SUBURBAN				
1966–67	239,986	141,593	23,703	14,608	9,468	973	..	430,331
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
				COUNTRY(*b*)				
1966–67	15,298	4,674	2,668	824	343	224	371	24,402
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
				TOTAL(*b*)				
1966–67	255,284	146,268	26,372	15,432	9,811	1,197	371	454,735
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

(*a*) Based on ticket sales making allowance for periodical tickets. Tickets sold at concession rates are counted as full journeys. (*b*) 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, 1966-67 TO 1970-71
('000)

Year	Vic.	S.A.	W.A.	Tas.	Cwlth
		SUBURBAN			
1966–67	1,256,759	121,549	n.a.	6,306	..
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	..
		COUNTRY			
1966–67	393,121	96,331	67,897	14,843	129,764
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
		TOTAL			
1966–67	1,649,880	217,880	n.a.	21,149	129,764
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

(*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.*
1970–71—								
Wheat	3,461	2,541	313	1,059	2,424	..	(*b*)	9,798
Other agricultural produce	1,228	1,044	2,653	345	714	23	37	6,044
Coal, coke and briquettes	14,657	1,243	7,930	15	186	90	1,604	25,725
Other minerals(*c*)	3,301	121	1,198	1,609	7,471	30	1,126	14,856
Wool	207	172	28	22	129	4	4	566
Fertilisers and manure	281	822	110	263	414	91	4	1,985
Cement	1,073	844	191	125	(*d*)	250	126	2,609
Timber	296	477	144	64	292	353	32	1,658
Livestock	196	242	537	159	70	14	146	1,364
All other commodities	8,504	4,984	2,314	2,329	(*e*)1,544	346	1,303	21,324
Total	**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
1966–67	29,275	12,075	10,185	4,876	7,873	1,079	3,121	68,484
1965–66	27,004	12,156	10,049	4,789	6,384	1,072	2,976	64,430

(*a*) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes. (*b*) Less than 500 tons. (*c*) Includes sand and gravel. (*d*) Cement included with 'All other commodities'. (*e*) 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.*
1970–71—								
Wheat	1,041.7	440.8	(*a*)	91.2	355.2	..	(*b*)	n.a.
Other agricultural produce	488.8	207.2	(*a*)	39.0	123.7	2.1	27.5	n.a.
Coal, coke and briquettes	603.7	126.3	(*a*)	4.3	9.8	11.2	249.7	n.a.
Other minerals(*c*)	416.8	8.5	(*a*)	238.9	932.0	1.1	150.4	n.a.
Wool	51.2	23.9	(*a*)	4.5	33.5	0.5	3.3	n.a.
Fertilisers and manure	89.9	134.3	(*a*)	51.0	79.8	16.3	2.5	n.a.
Cement	156.2	58.8	(*a*)	14.7	(*d*)	10.7	9.9	n.a.
Timber	120.5	74.7	(*a*)	13.2	61.9	18.9	27.2	n.a.
Livestock	72.2	42.4	145.1	24.5	11.0	2.1	51.1	348.4
All other commodities	2,497.1	1,001.8	3,171.3	505.6	(*e*)471.1	31.2	760.5	8,438.6
Total	**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
1966–67	4,554.8	1,937.4	2,003.6	739.4	1,244.1	118.2	919.2	11,516.7
1965–66	4,281.8	1,989.5	2,002.0	749.3	1,020.8	113.4	881.4	11,038.2

(*a*) Not available separately, included with 'All other commodities'. (*b*) Less than 100,000 ton-miles. (*c*) Includes sand and gravel. (*d*) Cement included with 'All other commodities'. (*e*) Includes cement.

Finance

GOVERNMENT RAILWAYS: GROSS EARNINGS(a), SYSTEMS, 1970-71
($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Coaching—								
Suburban passenger	33,548	23,986	2,913	2,048	1,543	62	..	64,099
Country passenger	17,893	7,816	3,870	1,808	2,050	146	3,112	36,694
Other	9,065	4,206	2,875	884	1,550	220	642	19,442
Total, coaching	*(b)60,506*	*36,008*	*9,658*	*4,740*	*5,143*	*427*	*3,754*	*120,236*
Freight (goods and live-stock)—								
Wheat	(c)	14,640	2,580	4,134	10,232	..	..	n.a.
Other agricultural produce	(c)	5,981	14,453	1,360	3,938	135	398	n.a.
Coal, coke and briquettes	(c)	4,222	24,184	73	555	346	1,843	n.a.
Other minerals(d)	(c)	277	11,195	7,148	14,141	82	2,348	n.a.
Wool	(c)	1,473	902	138	1,914	40	59	n.a.
Fertilisers and manure	(c)	2,935	1,321	858	2,099	711	24	n.a.
Cement	(c)	2,741	1,976	390	(e)	727	226	n.a.
Timber	(c)	2,802	1,848	276	2,141	986	288	n.a.
Livestock	2,590	1,221	6,755	1,016	440	90	683	12,795
All other commodities	173,124	28,305	32,344	11,544	(f)16,875	2,023	17,384	281,599
Total, freight	*(b)175,714*	*64,597*	*97,558*	*26,938*	*52,335*	*5,142*	*23,255*	*445,539*
Miscellaneous	(b)15,679	8,041	2,949	2,723	3,193	235	1,970	34,789
Grand total	**(b)251,899**	**108,646**	**110,165**	**34,399**	**60,671**	**5,805**	**28,979**	**600,564**

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

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1970-71
($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(a)	Cwlth	Aust.
Maintenance of way and works	38,827	26,153	30,580	(a)10,144	(a)14,440	2,423	7,757	130,324
Motive power(b)	79,057	33,469	38,270	(a)14,437	(a)22,791	3,202	8,168	199,394
Traffic	63,291	39,216	29,490	(a)12,342	15,014	2,847	5,714	167,915
Other charges	61,667	30,215	6,814	5,792	7,408	1,418	7,741	121,056
Total	**242,842**	**129,054**	**105,155**	**(a)42,714**	**(a)59,652**	**9,891**	**(a)29,382**	**618,690**

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

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS SYSTEMS, 1966-67 TO 1970-71

($'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
GROSS EARNINGS								
1966–67	213,335	104,477	87,864	30,220	48,008	6,588	19,428	509,920
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
WORKING EXPENSES								
				(*a*)	(*a*)	(*a*)	(*a*)	
1966–67	184,992	103,423	84,295	33,962	44,513	8,325	19,411	478,921
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
NET EARNINGS(*b*)								
1966–67	28,343	1,054	3,569	−3,742	3,496	−1,737	17	31,000
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

(*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 1971

($'000)

System	Net earnings—excess of gross earnings over working expenses	Plus grants and other earnings payable to railways				Less other expenses charged to railways					Surplus (+) or deficit (−)
		State Government grants	Road motor earnings	Other	Total	Interest and exchange	Sinking fund	Road motor expenses (*a*)	Other	Total	
New South Wales	9,057	(*b*)3,200	..	..	3,200	30,729	6,952	..	(*c*)1,054	38,736	−26,478
Victoria	−20,408	(*d*)49	64	..	113	8,172	365	161	..	8,698	−28,993
Queensland	5,010	..	..	..	..	26,368	(*e*)92	..	(*f*)950	27,411	(*g*) −22,401
South Australia	−8,315	(*h*)14,500	235	..	14,735	6,815	..	295	(*i*)935	8,045	−1,624
Western Australia	1,019	..	1,246	..	1,246	11,604	..	1,366	..	12,970	−10,705
Tasmania	−4,086	..	..	(*j*)62	62	1,344	..	..	..	1,344	−5,368
Commonwealth	−403	..	..	..	..	..	..	..	..	..	−403
Australia	−18,126	17,749	1,545	62	19,356	85,032	7,410	1,822	2,940	97,203	−95,973

(*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 8½in gauge system only. (*f*) Demolished assets written off. (*g*) Includes deficit ($891,298) on the Queensland 4ft 8½in 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

The average number of staff employed and salaries and wages paid ($'000) during the year 1970–71 were as follows: N.S.W. 43,505 ($182,439); Vic. 26,180 ($101,506); Qld 22,568 ($85,998); S.A. 8,944 ($34,687); W.A. 10,303 ($40,649); Tas. 2,153 ($7,637); Cwlth 3,799 ($15,893); Aust. 117,452 ($468,809).

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 965 by 1971. The construction of 582 miles of heavy duty railway for north-west Western Australia iron ore projects accounts for much of the increase.

Two private railways are currently under construction. These are a railway for Cliffs Western Australian Mining Company Proprietary Limited in north-west Western Australia, and a railway at Weipa in Queensland for the Comalco Company. The former, which will be used for the carriage of iron ore, will link Mount Enid with Port Lambert (approximately 104 miles). The latter will link Andoom with Weipa (approximately 13 miles) and will be used for the carriage of bauxite. These railways which will be of heavy duty standard gauge construction are both scheduled for completion in mid-1972.

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*) 1964-65 TO 1969-70

(*Source:* Department of Shipping and Transport)

Year	*Tons carried*	*Private as a percentage of total tons carried(b)*	*Ton-miles*	*Private as a percentage of total ton-miles performed(b)*
	'000	per cent	million	per cent
1964–65	29,632	31.4	391	3.4
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	39.0

(*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 1964–65 to 1969–70 tonnages of freight carried increased by 121.4 per cent. During the same period freight ton-miles performed increased almost fourteen-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 1969–70 these railways alone carried 45 per cent of the total tonnage carried by all private railways, and accounted for 91 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, OMNIBUS, AND FERRY SERVICES

Systems in operation

Tramway and trolley-bus. At 30 June 1971 tramway services were in operation in Melbourne, Bendigo and Ballarat in Victoria, and in Adelaide, South Australia. The last of the trolley-bus services ceased to operate in Australia with their replacement by omnibuses in Perth, Western Australia on 29 August 1969.

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 356.

Motor omnibus. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal omnibus 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 omnibus 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.*

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 omnibus 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 omnibus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations. The two following tables present combined statistics of public tramway and motor omnibus services with separate details shown for each form of transport where possible. The second table also shows some statistics for trolley-bus services up to 1969–70.

TRAMWAY, AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL
STATES AND TERRITORIES, 1970-71

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Route-miles at 30 June—										
Tram(*a*)	miles	..	156	..	7	..	..	..	..	163
Omnibus	,,	615	140	382	163	4,877	238	36	141	6,952
Vehicle-miles—										
Tram		..	15,619	..	416	..	..	..	..	16,035
Omnibus	,,	44,434	7,018	14,224	10,384	24,391	5,447	755	3,360	110,013
Rolling stock at 30 June—										
Tram	number	..	758	..	26	..	..	..	..	784
Omnibus	,,	1,890	273	666	376	795	283	34	152	4,469
Passenger-journeys—										
Tram	'000	..	111,386	..	1,588	..	..	..	..	112,974
Omnibus	,,	229,892	22,753	67,168	39,671	58,054	20,797	1,533	7,778	447,646
Gross revenue(*b*)—										
Tram and omnibus	$'000	31,685	20,521	10,017	6,881	9,624	2,321	301	1,159	82,510
Working expenses(*c*)—										
Tram and omnibus	$'000	41,261	22,305	9,207	6,986	11,004	3,614	413	1,716	96,507
Net revenue—										
Tram and omnibus	$'000	−9,576	−1,784	810	−104	−1,380	−1,293	−112	−557	−13,997
Employees at 30 June—										
Tram and omnibus	number	7,414	4,484	1,803	1,233	1,964	619	38	221	17,776
Accidents—										
Tram and omnibus(*d*)—										
Persons killed	number	5	10	2	1	..	3	..	..	21
Persons injured	,,	1,326	574	64	129	260	56	1	49	2,459

(*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 OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL AUSTRALIA, 1966-67 TO 1970-71

		1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*
Route-miles at 30 June—						
Tram	miles	222	222	163	163	163
Trolley-bus	,,	65	64	9	..	..
Omnibus	,,	6,329	6,794	6,362	7,198	6,592
Vehicle miles—						
Tram	'000	23,310	22,813	20,038	16,492	16,035
Trolley-bus	,,	2,594	2,038	1,018	66	..
Omnibus	,,	98,531	99,357	102,049	108,940	110,013
Rolling stock at 30 June—						
Tram	number	1,004	1,004	771	780	784
Trolley-bus	,,	149	138	50	..	..
Omnibus	,,	3,469	3,571	4,210	4,345	4,469
Passenger-journeys—						
Tram	'000	186,346	179,280	149,055	115,297	112,974
Trolley-bus and omnibus	,,	435,054	429,819	441,036	459,859	447,646
Gross revenue(*a*)—						
Tram, trolley-bus and omnibus	$'000	72,362	72,847	79,288	80,542	82,510
Working expenses(*b*)—						
Tram, trolley-bus and omnibus	$'000	77,078	79,199	84,649	85,929	96,507
Net revenue—						
Tram, trolley-bus and omnibus	$'000	−4,716	−6,350	−5,361	−5,387	−13,997
Employees at 30 June—						
Tram, trolley-bus and omnibus	number	18,843	18,735	17,840	17,781	17,776
Accidents—						
Tram, trolley-bus and omnibus(*c*)—						
Persons killed	number	37	39	27	33	21
Persons injured	,,	2,303	2,246	2,328	2,416	2,459

(*a*) Excludes government grants. (*b*) Includes provision of reserves for depreciation, etc., where possible. (*c*) Excludes accidents to employees.

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).

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 are taken periodically, and at these census dates considerably greater information concerning the particulars shown in the tables following is available. Particulars of the 1962 Census are shown in Year Book No. 53, 1967, *Transport and Communication*, Bulletin No. 54 1962–63 and in special census publications. A further census of motor vehicles on the register was taken at 30 September 1971 and the results are currently being processed.

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE(a)

State or Territory and year	Motor cars	Station wagons	Other motor vehicles: Total	Utilities	Panel vans	Trucks	Other truck-types	Omnibuses	Total	Motor cycles	Total
31 December 1971—											
New South Wales	1,216,549	246,641	1,463,190	130,949	77,207	115,851	4,433	8,192	336,632	70,060	1,869,882
Victoria	945,391	200,962	1,146,353	92,494	40,313	94,504	3,869	5,296	236,476	33,935	1,416,764
Queensland	n.a.	n.a.	552,638	102,528	(b)	68,382	(c)	3,351	174,261	28,578	755,477
South Australia	334,526	60,679	395,205	37,226	12,513	35,421	1,953	2,998	90,111	17,489	502,805
Western Australia	284,855	69,358	354,213	n.a.	n.a.	n.a.	n.a.	n.a.	106,788	14,251	475,252
Tasmania	110,663	18,217	128,880	14,544	8,087	11,055	340	1,336	35,362	3,662	167,904
Northern Territory	12,973	5,695	18,668	6,265	1,386	2,621	67	235	10,514	1,953	31,195
Australian Capital Territory	n.a.	n.a.	58,990	n.a.	n.a.	n.a.	n.a.	n.a.	8,146	2,830	69,966
Australia	n.a.	n.a.	4,118,137	n.a.	n.a.	n.a.	n.a.	n.a.	998,350	172,758	5,289,245
31 December—											
1970	n.a.	n.a.	3,898,488	581,146	(b)	390,352	(d)	(d)	971,498	136,460	5,006,446
1969	n.a.	n.a.	3,676,241	570,672	(b)	357,797	(c)	21,118	949,587	113,684	4,739,512
1968	n.a.	n.a.	3,444,806	558,439	(b)	343,539	(c)	19,727	921,705	96,740	4,463,251
1967	n.a.	n.a.	3,241,485	550,862	(b)	331,626	(c)	18,730	901,218	80,193	4,222,896
1966	n.a.	n.a.	3,060,578	544,459	(b)	326,025	(c)	17,934	888,418	68,913	4,017,909
1962(e)	2,068,698	231,436	2,300,134	414,156	119,897	270,881	8,091	14,319	827,344	81 859	3,209,337

(a) All figures after December 1962 are subject to revision. (b) Panel vans included with utilities. (c) Other truck-types included with trucks. (d) Other truck-types and omnibuses included with trucks. (e) Motor vehicle census figures.

MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION STATES AND TERRITORIES, 1962 TO 1971

31 December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1962(b)	280	301	286	339	326	293	229	316	296
1967(c)	343	351	354	379	393	366	288	396	355
1968(c)	357	365	365	387	407	384	307	414	368
1969(c)	373	376	379	402	426	398	324	426	383
1970(c)	387	390	393	412	438	413	330	445	396
1971(c)	403	401	409	425	454	428	357	465	411

(a) Excludes tractors, trailers, plant and equipment, etc. (b) Based on motor vehicle census figures. (c) Subject to revision.

Registrations of new motor vehicles

Particulars of registrations of new motor vehicles are shown by type and make of vehicle in the annual bulletin *Transport and Communication*, and 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.

REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

State or Territory and year	Motor cars	Station wagons	Ambulances and hearses	Utilities	Panel vans	Trucks	Other truck-types	Omnibuses	Motor cycles	Total
1971—										
New South Wales	139,550	19,893	154	11,489	10,870	7,914	449	920	20,768	212,007
Victoria	94,582	14,139	79	6,682	4,085	6,655	514	547	10,421	137,704
Queensland	44,332	7,775	80	5,861	2,238	(a)6,274	(a)6	176	7,186	73,928
South Australia	33,563	4,134	52	2,410	1,409	1,925	149	337	4,474	48,453
Western Australia	32,900	5,889	44	4,829	2,636	2,816	93	184	3,306	52,697
Tasmania	10,633	1,282	11	1,076	624	690	24	97	851	15,288
Northern Territory	1,456	584	2	1,065	185	417	12	29	1,021	4,771
Australian Capital Territory	5,653	859	3	410	436	209	16	104	759	8,449
Australia	362,669	54,555	425	33,822	22,483	26,900	1,263	2,394	48,786	553,297
1970	358,181	54,880	426	35,881	19,275	29,476	1,289	2,190	32,701	534,299
1969	343,275	57,604	355	36,510	17,266	29,700	1,407	2,041	25,386	513,544
1968	310,051	58,569	393	34,734	16,318	26,705	970	1,745	22,887	472,372
1967	275,594	59,947	329	34,726	15,546	24,590	871	1,470	17,306	430,379
1966	245,175	61,513	349	33,154	13,351	22,970	837	1,399	9,738	388,486

(a) Most other truck-types included with trucks.

Drivers' and riders' licences

At 30 June 1971 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 2,134,870; Victoria, 1,566,396; South Australia, 544,115; Western Australia, 450,837; Tasmania, 172,854; Northern Territory, 37,026; Australian Capital Territory, 95,622. Particulars are not available for Queensland.

ROAD TRAFFIC ACCIDENTS

Accidents involving casualties, persons killed, persons injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED
STATES AND TERRITORIES, 1970

State or Territory	Number of accidents	Persons killed	Persons injured	Per 100,000 of mean population: Number of accidents	Per 100,000 of mean population: Persons killed	Per 100,000 of mean population: Persons injured	Per 10,000 motor vehicles registered(*b*): Number of accidents	Per 10,000 motor vehicles registered(*b*): Persons killed	Per 10,000 motor vehicles registered(*b*): Persons injured
New South Wales	25,434	1,309	34,886	563	29	772	148	8	203
Victoria	16,435	1,061	23,737	477	31	689	124	8	180
Queensland	7,869	537	10,940	439	30	610	114	8	158
South Australia	7,424	349	10,484	641	30	905	157	7	222
Western Australia	5,218	351	7,373	526	35	743	122	8	172
Tasmania	1,425	118	2,171	368	30	560	91	7	138
Northern Territory	528	42	714	672	53	908	205	16	278
Australian Capital Territory	877	31	1,249	666	24	948	152	5	217
Australia	**65,210**	**3,798**	**91,554**	**521**	**30**	**732**	**134**	**8**	**188**

(*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, equipment, etc.) on register.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED
STATES AND TERRITORIES, 1966 TO 1970

Year	N.S.W.	Vic.	Qld	S.A. (*b*)	W.A.	Tas.	N.T.	A.C.T.	Total: Number	Total: Per 100,000 of mean population	Total: Per 10,000 motor vehicles registered(*c*)
Accidents involving casualties—											
1966	20,919	14,084	6,878	7,031	4,346	1,377	310	593	55,538	479	141
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
Persons killed—											
1966	1,143	955	466	270	253	104	34	17	3,242	28	8
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	28	8
1970	1,309	1,061	537	349	351	118	42	31	3,798	30	8
Persons injured—											
1966	28,981	20,160	9,936	9,369	5,997	2,092	446	856	77,837	671	198
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	198
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

(*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, 1970

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	494	393	233	144	137	32	16	11	1,460
Motor cyclists . .	93	24	22	12	8	10	..	4	173
Pedal cyclists . .	26	40	13	10	4	3	1	1	98
Passengers (all types)(*b*)	404	352	156	128	120	46	18	9	1,233
Pedestrians . . .	291	252	111	55	74	26	7	6	822
Other classes(*c*) . .	1	..	2	..	8	1	..	..	12
Total . .	**1,309**	**1,061**	**537**	**349**	**351**	**118**	**42**	**31**	**3,798**
PERSONS INJURED									
Drivers of motor vehicles	13,710	9,725	4,493	4,315	3,247	883	318	542	37,233
Motor cyclists . .	2,967	823	784	812	361	137	50	127	6,061
Pedal cyclists . .	771	946	442	513	247	36	11	46	3,012
Passengers (all types)(*b*)	13,051	9,477	4,306	4,017	2,806	907	276	442	35,282
Pedestrians . . .	4,346	2,735	907	827	689	205	58	85	9,852
Other classes(*c*) . .	41	31	8	..	23	3	1	7	114
Total . .	**34,886**	**23,737**	**10,940**	**10,484**	**7,373**	**2,171**	**714**	**1,249**	**91,554**

(*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, 1970

Age group (years)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
PERSONS KILLED									
Under 5 . . .	52	44	10	7	14	4	2	1	134
5 and under 7 . .	20	20	3	4	3	5	..	1	56
7 ,, ,, 17 . .	109	95	48	35	31	23	1	4	346
17 ,, ,, 21 . .	233	184	100	67	58	25	4	8	679
21 ,, ,, 30 . .	302	209	111	61	76	24	19	6	808
30 ,, ,, 40 . .	118	117	50	32	34	6	6	3	366
40 ,, ,, 50 . .	124	108	59	38	41	7	5	1	383
50 ,, ,, 60 . .	119	103	65	39	42	6	3	2	379
60 and over . . .	230	181	91	66	52	17	2	5	644
Not stated . . .	2	..	..	..	..	1	..	..	3
Total . .	**1,309**	**1,061**	**537**	**349**	**351**	**118**	**42**	**31**	**3,798**
PERSONS INJURED									
Under 5 . . .	997	809	314	262	238	54	15	27	2,716
5 and under 7 . .	616	422	165	153	117	38	20	21	1,552
7 ,, ,, 17 . .	3,765	2,745	1,360	1,326	815	304	49	145	10,509
17 ,, ,, 21 . .	8,140	5,059	2,695	2,212	1,624	607	115	362	20,814
21 ,, ,, 30 . .	8,202	5,662	2,363	1,987	1,524	435	247	331	20,751
30 ,, ,, 40 . .	3,959	2,667	1,114	927	765	194	134	144	9,904
40 ,, ,, 50 . .	3,545	2,416	1,035	884	697	154	67	101	8,899
50 ,, ,, 60 . .	2,643	1,796	870	629	480	137	33	61	6,649
60 and over . . .	2,510	1,797	807	593	479	144	13	46	6,389
Not stated . . .	509	364	217	1,511	634	104	21	11	3,371
Total . .	**34,886**	**23,737**	**10,940**	**10,484**	**7,373**	**2,171**	**714**	**1,249**	**91,554**

(*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, 1970

Type of accident	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
NUMBER OF ACCIDENTS									
Collisions between vehicles	14,005	9,279	3,826	4,283	3,064	731	194	535	35,917
Vehicle overturning or leaving road	3,438	971	2,583	857	1,188	401	191	204	9,833
Vehicle colliding with pedestrian	4,364	2,741	957	806	735	223	58	87	9,971
Vehicle colliding with fixed object(*b*)	3,330	3,218	326	1,347	143	56	66	33	8,519
Passenger accidents	129	80	36	39	24	6	8	12	334
Vehicle colliding with animal	164	81	91	37	23	6	5	1	408
Other	4	65	50	55	41	2	6	5	228
Total	**25,434**	**16,435**	**7,869**	**7,424**	**5,218**	**1,425**	**528**	**877**	**65,210**
PERSONS KILLED									
Collisions between vehicles	560	466	192	190	130	54	15	20	1,627
Vehicle overturning or leaving road	231	74	212	49	129	36	16	5	752
Vehicle colliding with pedestrian	291	246	105	51	75	26	7	6	807
Vehicle colliding with fixed object(*b*)	221	268	15	56	3	1	2	..	566
Passenger accidents	3	6	2	2	6	..	2	..	21
Vehicle colliding with animal	3	1	3	..	1	..	..	..	8
Other	..	..	8	1	7	1	..	..	17
Total	**1,309**	**1,061**	**537**	**349**	**351**	**118**	**42**	**31**	**3,798**
PERSONS INJURED									
Collisions between vehicles	20,830	14,809	5,884	6,389	4,727	1,220	295	848	55,002
Vehicle overturning or leaving road	4,763	1,501	3,525	1,295	1,668	653	248	261	13,914
Vehicle colliding with pedestrian	4,327	2,619	902	803	706	208	58	84	9,707
Vehicle colliding with fixed object(*b*)	4,635	4,558	422	1,845	173	76	87	38	11,834
Passenger accidents	134	77	35	43	23	6	7	12	337
Vehicle colliding with animal	113	103	116	43	32	7	8	1	503
Other	4	70	56	66	44	1	11	5	257
Total	**34,886**	**23,737**	**10,940**	**10,484**	**7,373**	**2,171**	**714**	**1,249**	**91,554**

(*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 1971. 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 1971
(Miles)

Class of road	*N.S.W.*	*Vic.(a)*	*Qld*	*S.A.*	*W.A.(b)*	*Tas.*	*Total*
State highways	6,566	(c)4,499	6,311			1,197	
Trunk roads	4,332	9,075	77	8,156	7,656	..	64,975
Ordinary main roads	11,408		5,035			663	
Total main roads	*22,306*	*13,574*	*11,423*	*8,156*	*7,656*	*1,860*	*64,975*
Secondary roads	(d)170	..	(e)8,619	..	5,437	188	14,414
Developmental roads	2,670	..	4,778	..	..	85	7,533
Tourist roads	243	483	..	..	..	47	773
Other roads	..	(f)646	..	..	..	93	739
Total other roads	*3,083*	*1,129*	*13,397*	..	*5,437*	*412*	*23,458*
Grand total	**25,389**	**14,703**	**24,820**	**8,156**	**13,093**	**2,273**	**88,433**

(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 freeways. (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 1971
(Miles)

Surface of roads	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A. (a)*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
Bitumen or concrete	33,493	32,303	21,184	9,775	15,980	3,765	2,584	645	119,729
Gravel, crushed stone or other improved surface	41,659	28,789	18,364	18,788	14,948	8,318	802	246	131,914
Formed only	28,169	20,983	40,459	7,638	27,308	764	1,992	26	297,741
Cleared only	26,424	19,523	40,069	39,316	39,110		*b* 5,960	..	
Total	**129,745**	**101,598**	**120,076**	**75,517**	**97,348**	**12,847**	(b)11,338	**918**	**549,384**

(a) Main Roads Department revised series. (b) Excludes stock routes.

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

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 programme 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 programme 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 Shipping and 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 1971 the Ansett Airlines of Australia fleet included six Boeing 727's, ten DC-9's, eleven Friendships, three Carvairs, one Twin Otter DHC-6, one DC-4 and two helicopters. At the same date Trans-Australia Airlines operated a fleet of six Boeing 727's, ten DC-9's, thirteen Friendships, six Twin Otter DHC-6 and one DC-3.

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 1971 eighteen 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 1966–67 to 1970–71 are set out in the next table.

CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES AUSTRALIA(*a*), 1966-67 TO 1970-71

		1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*
Hours flown	number	255,510	240,801	244,606	251,582	258,793
Miles flown	'000	56,759	56,724	60,348	66,241	71,212
Passengers—						
Embarkations	number	4,424,652	4,668,153	5,184,828	5,911,002	6,340,036
Passenger-miles	'000	1,972,469	2,125,314	2,401,783	2,802,717	3,090,837
Freight—						
Tons uplifted	short tons	82,056	85,063	89,947	100,100	100,752
Ton-miles(*b*)	'000	40,148	42,320	45,521	51,021	53,457
Mail—						
Tons uplifted	short tons	9,587	9,417	9,876	10,625	10,931
Ton-miles(*b*)	'000	5,144	5,174	5,498	5,950	6,390

(*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 1966-67 TO 1970-71

Airport	*1966–67*	*1967–68*	*1968–69*	*1969–70*	*1970–71*
Sydney	2,435,284	2,641,147	2,933,795	3,390,322	3,515,231
Melbourne	1,880,860	2,043,542	2,278,032	2,603,320	2,750,602
Brisbane	854,370	937,660	1,009,060	1,184,846	1,347,118
Adelaide	770,408	863,652	930,207	1,016,689	1,019,320
Canberra	341,058	410,701	461,888	541,791	596,171
Perth	278,662	315,744	357,236	420,603	510,328
Hobart	178,314	182,459	196,335	200,638	222,397
Townsville	145,161	188,761	168,247	197,107	197,942
Launceston	159,402	156,443	171,612	179,614	197,500
Coolangatta	97,343	85,543	102,764	132,102	166,239
Cairns	86,598	92,048	101,031	127,252	158,986
Mackay	72,407	78,179	87,313	95,841	125,220
Darwin	57,557	65,535	78,165	98,523	118,375
Rockhampton	65,777	68,150	74,760	83,883	97,264
Devonport	55,213	61,250	68,125	68,257	71,426
Mount Isa	33,507	34,013	37,423	52,272	67,938
Wynyard	51,932	54,888	57,132	63,041	65,563
Alice Springs	28,419	34,953	39,549	52,522	57,299
Dubbo	44,852	49,856	51,775	56,014	55,574
Wagga	53,273	46,314	49,519	54,378	52,181
Kingscote	44,764	44,316	45,993	50,878	51,135
Tamworth	38,141	41,960	46,558	51,640	50,870

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 120 nations in June 1971. 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-two countries at 31 December 1971. They were Austria, Britain, Canada, Ceylon, France, Federal Republic of Germany, Greece, India, Indonesia, Ireland, Italy, Japan, Lebanon, Malaysia, Nauru, Netherlands, New Zealand, Singapore, Republic of South Africa, Thailand, United Arab Republic, 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 with fifteen other countries at 31 December 1971. These were Bulgaria, Burma, Republic of Khmer (formerly Cambodia), Republic of China (Taiwan), Iran, Laos, Mauritius, Mexico, the Philippines, Portugal, Saudi Arabia, Syria, Turkey, the Republic of Vietnam, and Yugoslavia. Qantas also operates services through several of these countries under these arrangements and in other cases overflies the country concerned.

International air services. At 30 June 1971, nineteen overseas international airlines were operating regular scheduled services to Australia. These are: Air-India (India), Air Nauru (Nauru), Air New Zealand (New Zealand), 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), Fiji Airways (Fiji), Garuda (Indonesia), Japan Air Lines (Japan), K.L.M. Royal Dutch Airlines (Netherlands), Malaysia-Singapore Airlines (Malaysia and Singapore), 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 Transports 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-eight aircraft of which twenty-two 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 1970–71 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*), 1970-71

Type of traffic	*Aircraft movements*	*Passengers*	*Freight*	*Mail*
Traffic to Australia—			short tons	short tons
Qantas Airways Limited	3,510	265,504	9,710	796
Other airlines	5,022	350,195	10,513	2,524
All airlines	**8,532**	**615,699**	**20,223**	**3,320**
Traffic from Australia—				
Qantas Airways Limited	3,525	256,762	7,035	1,328
Other airlines	5,010	326,687	6,733	780
All airlines	**8,535**	**583,449**	**13,768**	**2,107**

(*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 1966-67 TO 1970-71

		1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*
Hours flown	number	66,840	70,611	74,757	84,684	97,307
Miles flown	'000	29,201	31,914	33,591	37,537	43,711
Passengers—						
Embarkations	number	466,849	562,855	642,524	751,315	839,629
Passenger-miles	'000	1,608,868	1,970,008	2,247,241	2,498,180	2,763,179
Freight—						
Tons uplifted	short tons	12,259	13,733	18,537	21,165	23,650
Ton-miles(*a*)	'000	62,939	67,733	92,488	103,717	106,262
Mail—						
Tons uplifted	short tons	2,697	3,170	2,862	2,925	3,107
Ton-miles(*a*)	'000	16,500	19,209	15,680	15,143	15,659

(*a*) In terms of short tons.

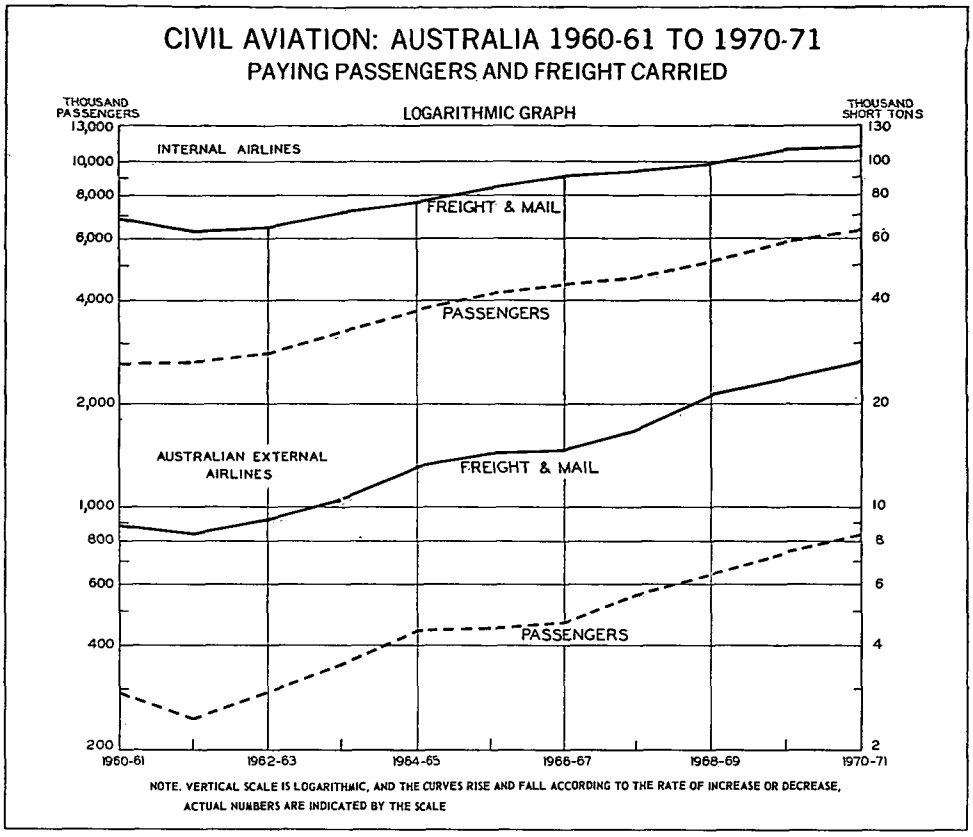


PLATE 29

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 1971, hours flown totalled 1,155,000 compared with 485,000 hours flown by Australian airline aircraft. At 30 June 1971, aircraft employed in general aviation numbered 3,609.

Aerodromes

The number of aerodromes throughout Australia and its External Territories at 30 June 1971 was 708. One hundred and seventeen were owned by the Commonwealth Government and 591 by local authorities and private interests. Capital expenditure on aerodrome and building construction was $39.7 million in 1970–71. Maintenance expenditure on Commonwealth-owned aerodromes during 1970–71 was $2.52 million, and development grants to licensed aerodromes participating in the Local Ownership Plan totalled $770,000.

Airways facilities

A total of 388 navigational aids were in service at 30 June 1971. The total includes 244 non-directional beacons (NDB), 99 distance measuring equipment (DME), 21 visual-aural ranges (VAR), 27 VHF Omni-directional ranges (VOR), 15 instrument landing systems (ILS) and 2 twin locator approach systems.

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

Six long range surveillance radars are in operation.

Aircraft on the Australian register

CIVIL AVIATION: AIRCRAFT ON AUSTRALIAN REGISTER, 30 JUNE 1971

Type of Aircraft	*Number of engines*				*Total aircraft*
	One	*Two*	*Three*	*Four*	
Fixed-wing powered aircraft—					
Turbo-jet	..	31	12	22	65
Turbo-prop	4	83	..	6	93
Piston-engined 20,000 lb and over maximum take-off weight	..	54	..	9	63
Piston-engined under 20,000 lb maximum take-off weight	2,950	486	5	6	3,447
Helicopters	124	2	..	..	126
Total powered aircraft	**3,078**	**656**	**17**	**43**	**3,794**
Gliders	..	..	..	..	292

Particulars of powered aircraft according to manufacturer and air navigation class in which registered, and further details of gliders, may be found in the bulletin *Transport and Communication*, No. 62, 1970–71.

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

At 30 June 1971 there were 3,794 aircraft registered in Australia. There were also, at 30 June 1971, 28,089 pilots' licences in force of which 12,043 were private pilots' licences, 3,835 commercial pilots' licences, and 10,317 student pilots' licences. Flight radio-telephone operators' licences numbered 18,824. The number of aerodromes in Australia at 30 June 1971 totalled 472 of which 103 were government and 369 licensed, i.e. under the control of a municipality, shire, station owner, etc.

Accidents and casualties

CIVIL AVIATION: ACCIDENTS INVOLVING CASUALTIES(*a*) AUSTRALIA(*b*), 1966-67 TO 1970-71

	1966–67	*1967–68*	*1968–69*	*1969–70*	*1970–71*
Number	38	36	17	47	31
Persons killed	66	47	47	49	48
Persons seriously injured	24	29	20	41	24

(*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* 1901–1968 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 379–83), and, in conjunction with the Overseas Telecommunications Commission (*see* pages 377–9), 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 1971 of 421 including 147 professional staff, mainly engineers, physicists, chemists and metallurgists. The main responsibilities of the laboratories are to conduct research and development in telecommunications 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 1971.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, STATES
30 JUNE 1971

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Post offices—							
Official	527	336	225	175	163	50	1,476
Non-official	1,713	1,423	925	686	430	307	5,484
Total post offices	**2,240**	**1,759**	**1,150**	**861**	**593**	**357**	**6,960**
Square miles of territory per office	139	50	580	1,046	1,646	74	426
Inhabitants per office	2,098	1,976	1,573	1,451	1,704	1,090	1,815
Inhabitants per 100 square miles	1,514	3,955	271	139	104	1,476	426

Employment

PERSONS PROVIDING POST OFFICE SERVICES: CENTRAL OFFICE AND STATES
30 JUNE 1971

	Central Office	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Official full-time staff (*a*)—								
Permanent officers	2,694	26,452	19,240	11,788	8,582	6,400	2,687	77,843
Temporary and exempt employees	283	14,049	9,338	3,321	1,688	2,767	673	32,119
Total	*2,977*	*40,501*	*28,578*	*15,109*	*10,270*	*9,167*	*3,360*	*109,962*
Other(*b*)—								
Non-official postmasters and postmistresses	..	1,761	1,396	903	688	430	222	5,400
Other staff at non-official offices	..	511	534	305	214	72	34	1,670
Telephone office-keepers	..	136	37	247	83	161	7	671
Mail contractors (including persons employed to drive vehicles)	..	1,798	899	1,098	257	338	85	4,475
Total	..	*4,206*	*2,866*	*2,553*	*1,242*	*1,001*	*348*	*12,216*
Grand total	**2,977**	**44,707**	**31,444**	**17,662**	**11,512**	**10,168**	**3,708**	**122,178**

(*a*) Persons directly under the control of the Department. Excludes 3,193 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, 1961-62 TO 1970-71

($'000)

	Postal service				*Telecommunications service*					
Year	*Postages*	*Money order and postal order fees*	*Commission on agency services*	*Other earnings*	*Telephone rentals*	*Telephone calls*	*Telegrams*	*Leased telegraph services*	*Other earnings (a)*	*Total*
1961–62	87,886	2,366	2,420	1,949	56,008	106,955	9,664	4,283	8,881	280,412
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

(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, 1961-62 TO 1970-71

($'000)

	Postal service			*Telecommunications service*			
Year	*Operating maintenance and general*	*Carriage of mail*	*Depreciation, superannuation, long service leave and interest*	*Operating and general*	*Maintenance of plant*	*Depreciation, superannuation, long service leave and interest*	*Total*
1961–62	63,594	23,978	7,803	55,437	59.086	74,436	284,335
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

Profit or Loss

The following table shows the net results of the Department's operations for the year 1970–71 together with summarised particulars for the year 1969–70.

POSTMASTER-GENERAL'S DEPARTMENT: CONSOLIDATED STATEMENT OF PROFIT AND LOSS, AUSTRALIA, 1969-70 AND 1970-71

($'000)

	1969–70	*1970–71*		
	All services	*Postal service*	*Telecommunications service*	*All services*
Earnings	625,244	185,599	530,014	715,613
Expenses—				
Operating, maintenance and general	381,157	182,074	257,052	439,126
Depreciation	113,569	4,314	123,475	127,789
Superannuation	21,631	10,011	16,844	26,855
Long service leave	7,984	3,417	5,706	9,123
Total expenses	*524,341*	*199,816*	*403,077*	*602,893*
Profit or loss before interest	100,903	−14,217	126,937	112,720
Interest	98,921	11,272	103,091	114,363
Profit or loss after interest	**1,982**	**−25,489**	**23,846**	**−1,643**

Minus sign (−) denotes loss.

Fixed assets, Postmaster-General's Department

POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS 1970-71

($'000)

Class of plant	*Value at 1 July 1970*	*Adjustments to values*	*Additions during year*	*Instalments of plant written out*	*Value at 30 June 1971*
Telecommunications plant	2,428,337	−6,826	300,281	27,164	(*a*)2,694,627
Postal plant	18,884	..	1,667	142	20,408
Engineers' moveable plant	47,892	−3,630	5,629	2,655	47,237
Motor vehicles	33,291	..	5,969	6,430	32,829
Other plant and equipment	44,517	195	5,556	1,735	48,534
Buildings	280,121	..	44,837	..	(*b*)324,958
Land	28,778	..	4,009	122	32,665
Total	**2,881,821**	**−10,261**	**367,947**	**38,248**	**3,201,259**

(*a*) Includes plant under construction valued at $128,612,709. (*b*) Includes buildings under construction valued at $29,148,671.

Minus sign (−) denotes a reduction in values of assets.

Postal services

Mail delivery network

MAIL DELIVERY NETWORK(*a*): STATES, 31 MARCH 1971

State	*Postmen's delivery*	*Roadside delivery*	*Private boxes*	*Private and free bags*	*Poste restante(b)*
New South Wales	1,428,102	79,080	101,361	7,590	25,727
Victoria	957,322	56,362	60,377	5,926	13,732
Queensland	460,978	46,474	55,575	6,688	11,627
South Australia	356,442	2,510	42,146	4,955	9,658
Western Australia	259,494	16,231	33,814	2,176	16,130
Tasmania	86,091	4,014	11,513	1,715	4,631
Australia	**3,548,429**	**204,671**	**304,786**	**29,050**	**81,505**

(*a*) Statistics shown here are from the Mail Delivery Network Survey at 31 March 1971. (*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, 1970-71

('000)

State	*Letters (b)*	*Newspapers and packets (c)*	*Parcels (d)*	*Registered articles (e)*	*Letters (b)*	*Newspapers and packets (c)*	*Parcels (d)*	*Registered articles (e)*
	Posted for delivery within Australia				*Posted for delivery overseas*			
New South Wales	802,809	135,398	9,928	3,514	56,068	4,770	527	1,121
Victoria	640,991	85,800	5,777	2,145	35,295	3,549	334	610
Queensland	295,159	34,039	2,864	1,419	11,184	903	63	70
South Australia	194,852	17,124	1,770	754	9,675	1,063	85	85
Western Australia	158,178	13,719	1,417	718	9,724	878	46	110
Tasmania	56,645	8,123	308	306	333	73	4	4
Australia	**2,148,634**	**294,203**	**22,064**	**8,855**	**122,280**	**11,237**	**1,059**	**1,999**

State	*Received from overseas*				*Total postal matter dealt with*			
New South Wales	64,136	9,328	805	1,525	923,013	149,495	11,260	6,159
Victoria	50,781	11,297	565	716	727,067	100,646	6,676	3,471
Queensland	8,127	2,357	175	36	314,470	37,299	3,103	1,524
South Australia	5,871	2,202	104	35	210,398	20,389	1,958	874
Western Australia	7,036	2,931	137	65	174,939	17,528	1,600	893
Tasmania	937	444	42	4	57,916	8,640	353	313
Australia	**136,888**	**28,559**	**1,827**	**2,380**	**2,407,802**	**333,998**	**24,950**	**13,234**

(*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, 1966-67 TO 1970-71
('000)

Year	Letters(b)	Newspapers and packets(c)	Parcels(d)	Registered articles(e)	Total postal articles handled
1966–67	2,232,881	417,980	19,196	13,097	2,683,154
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)2,326,119	(f)382,545	23,682	13,104	2,745,450
1970–71	(g)2,407,802	(g) 333,998	24,950	13,234	2,779,983

(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 1970–71 the cost of the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Service, was as follows: road, $13,658,251; railway, $4,702,676, sea; $692,621; air—internal, $4,781,096; overseas, $13,887,556; total, $37,722,200.

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* 1901–1968. 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 1970–71 and the income therefrom which has accrued to the Post Office.

MONEY ORDERS AND POSTAL ORDERS: TRANSACTIONS, AUSTRALIA
1966-67 TO 1970-71

	Money orders(a)			Postal orders		
	Issued		Total commission received	Issued		
Year	Number	Value		Number	Value	Fee
	'000	$'000	$'000	'000	$'000	$'000
1966–67	(b)12,594	434,942	2,332	13,499	18,454	629
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	175,447	2,640	14,866	31,431	861
1970–71	7,353	161,119	3,031	(d)16,732	44,961	1,193

(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 1970–71, 6,903,119 valued at $156,355,238 were payable in Australia, and 449,545 valued at $4,764,069 were payable overseas. Of the total money orders paid in Australia during 1969–70, 7,133,182 ($155,609,033) were issued in Australia, and 216,758 ($4,477,747) were issued overseas.

Of the total postal orders paid in Australia during 1970–71 (16,330,318 valued at $43,531,979), 11,934,902 ($34,355,814) were paid in the State in which issued, and 4,395,416 ($9,176,165) were paid in States other than those in which issued.

Internal telecommunication services

A review of the development of telegraph services in Australia up to 1921 appeared in Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. Internal telecommunication operations now comprise telephone, telegraph, and telegraph exchange (telex) services.

Wire and pole mileages

At 30 June 1971 there were 24,543,220 single wire miles of cable and 1,047,360 miles of aerial wire used for telecommunication purposes in Australia. The aerial wires are mounted on 103,757 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 1971 there were 17,181 tube miles of coaxial cable and 46,877 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 1971 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.

TELEPHONE SERVICES IN OPERATION: STATES, 30 JUNE 1971

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Type of service—							
Ordinary exchange services	984,246	776,852	311,732	218,113	170,578	71,155	2,532,676
Duplex services	422	..	22	2	174	34	654
Party line services	4,161	1,504	2,785	1,172	1,071	200	10,893
Private branch exchange services	116,173	78,078	28,204	29,075	25,289	5,365	282,184
Public telephones	11,717	7,610	4,794	2,968	2,446	1,068	30,603
Connected to—							
Automatic exchanges	1,028,395	805,875	295,488	227,835	184,349	72,132	2,614,074
Manual exchanges	88,324	58,169	52,049	23,495	15,209	5,690	242,936
Located in—							
Metropolitan areas	689,868	572,047	165,817	161,479	136,810	28,851	1,754,872
Country areas	426,851	291,997	181,720	89,851	62,748	48,971	1,102,138
Total	**1,116,719**	**864,044**	**347,537**	**251,330**	**199,558**	**77,822**	**2,857,010**

TELEPHONE SERVICES IN OPERATION: AUSTRALIA, 1967 TO 1971

	30 June—				
Services connected to—	*1967*	*1968*	*1969*	*1970*	*1971*
Metropolitan exchanges—					
Automatic	1,383,475	1,456,179	1,548,479	1,663,849	1,754,872
Country exchanges—					
Automatic	523,697	594,977	681,668	778,651	859,202
Manual	327,531	307,681	281,084	261,168	242,936
All exchanges—					
Automatic	1,907,172	2,051,156	2,230,147	2,442,500	2,614,074
Manual	327,531	307,681	281,084	261,168	242,936
Total services	**2,234,703**	**2,358,837**	**2,511,231**	**2,703,668**	**2,857,010**

Telephone instruments

TELEPHONE INSTRUMENTS IN SERVICE: STATES, 1967 TO 1971
('000)

30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
1967	1,276	958	377	287	191	89	3,178
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
Number at 30 June 1971 per 100 population	35.5	35.5	26.0	28.6	27.8	29.3	32.7

Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA
1966-67 TO 1970-71

	Effective paid local calls		*Trunk line calls*		
Year	*Total* '000	*Per service number*	*Total* '000	*Per service number*	*Total calls* '000
1966–67	2,179,000	1,001	134,200	62	2,313,200
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

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 1971 subscriber trunk dialling was in operation at 1,214 exchanges, connected to approximately 2,260,507 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 1966–67 to 1970–71 is set out below.

INTERNAL TELEGRAPH TRAFFIC: AUSTRALIA, 1966-67 TO 1970-71
('000)

Year	*Ordinary (a)*	*Urgent*	*Press*	*Letter-grams*	*Meteoro-logical service*	*Service*	*Total telegrams*
1966–67	19,019	494	78	47	1,014	719	21,372
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

(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, 1966-67 TO 1970-71

Year	*Services at end of year*	*Internal calls during year*
1966–67 . . .	3,154	6,336,464
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

Overseas telecommunication services

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

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

At the 1966 Commonwealth Telecommunications Conference the British Commonwealth countries completed a review of the machinery for their collaborative arrangements in telecommunications. Following adoption of the recommendations of the 1966 Conference by the representative Governments the Commonwealth Telegraphs Agreements of 1948 and 1963, under which the earlier collaborative financial arrangements had been established, were formally terminated on 31 March 1969. The new Commonwealth Telecommunications Organisation became fully operative from 1 April 1969 when the Commonwealth Telecommunications Organisation Financial Agreement entered into force.

The Commonwealth Telecommunications Organisation, the purpose of which is to promote the efficient exploitation and development of the Commonwealth external telecommunications system, 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.

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 and leased circuit services to most countries and places throughout the world. International television programmes 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 Kote 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 INTELSAT, a partnership of nations concerned in establishing a global communications, satellite system. Australia has an ownership share (2.4 per cent) making it the sixth largest contributor among the 83 INTELSAT member countries, and it is represented by the O.T.C. Commission. Australia is one of the 18 representatives on the Interim Communications Satellite Committee (ICSC), which is the management body of INTELSAT.

The Agreements under which the INTELSAT Consortium has operated in the period since 1964 were interim in nature, providing for the negotiation of permanent arrangements for the consortium after experience had been gained during the initial period. Negotiations of the permanent Agreements for INTELSAT commenced in Washington DC in 1969 and were successfully concluded in May 1971 at a Plenipotentiary Conference attended by some 92 countries.

The permanent arrangements for INTELSAT are embodied in two inter-related Agreements. The first is an inter-Governmental Agreement which outlines the principles and objectives of the consortium and defines the basic organisational arrangements. The second, the Operating Agreement, provides the basis for the operation and management of the INTELSAT system and may be signed by Governments or telecommunications entities designated by Governments. The new Agreements opened for signature in Washington on 20 August 1971, and were signed on that date by the Australian Government and the O.T.C. Commission, as the designated Australian national communications authority.

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 IV 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 IV 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 III 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 1970 and 1971 are shown in the following table.

INTERNATIONAL TELEGRAPH SERVICES: AUSTRALIA, YEARS ENDED 31 MARCH 1970 AND 1971

('000 words)

	Words transmitted					
	From Australia		*To Australia*		*Total*	
Class of traffic	*1969–70*	*1970–71*	*1969–70*	*1970–71*	*1969–70*	*1970–71*
Letter	30,137	30,205	26,492	26,553	56,629	56,758
Ordinary	27,433	28,841	25,541	26,851	52,973	55,692
Press	3,149	3,786	3,630	4,315	6,779	8,102
Greetings	1,749	1,607	1,884	1,731	3,632	3,338
Urgent	1,718	1,891	1,399	1,540	3,117	3,431
Other	729	574	2,153	1,697	2,882	2,271
Total	**64,914**	**66,905**	**61.099**	**62,687**	**126,013**	**129,592**

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the years ended 31 March 1970 and 1971.

INTERNATIONAL TELECOMMUNICATION SERVICES OTHER THAN TELEGRAPHIC SERVICES: AUSTRALIA, YEARS ENDED 31 MARCH 1970 AND 1971

		Transmissions					
		From Australia		*To Australia*		*Total*	
Service		*1969–70*	*1970–71*	*1969–70*	*1970–71*	*1969–70*	*1970–71*
Telephone . .	paid minutes	4,310,962	5,754,134	4,900,644	6,369,815	9,211,606	12,123,949
Telex . . .	paid minutes	2,476,404	3,608,420	2,371,303	3,301,077	4,847,707	6,909,497
Television programmes	paid minutes	1,326	1,952	2,268	2,580	3,594	4,532
Leased services . .	paid hours	870,664	922,707	314,712	237,694	1,185,376	1,160,401
Phototelegrams . .	pictures	1,260	1,759	4,521	2,760	5,781	4,519

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 1971 the coastal radio service handled 6,532,744 paid words to ships and 4,036,212 words from ships. Ship calls over the radiotelephone service extended over 129,355 paid minutes.

Radiocommunication stations authorised

At 30 June 1971 there were 150,797 civil radiocommunication stations authorised for operation in the Commonwealth and its Territories. Of these, 6,006 were stations established at fixed locations, 12,225 were land stations which were established at fixed locations for communication with mobile stations, 126,094 were mobile stations and 6,472 amateur stations. Particulars of broadcasting stations and broadcast listeners' licences are shown on pages 380 and 382 respectively.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act* 1942–1971 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* 1942–1971, 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 programmes 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 1971 the National Broadcasting Service comprised seventy-nine transmitting stations, of which seventy-three 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 programmes provided by country stations are relayed from the capital cities, high-quality programme transmission lines being used for the purpose. A number of programme 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 1971 sixty-one of the Australian medium-frequency stations were situated outside the six State capital cities.

Programme facilities. The programmes of the Australian Broadcasting Commission cover a wide range of activities. The proportion of broadcasting time allocated to the various types of programme during 1970–71 was as follows: classical music, 25.7 per cent; entertainment, 28.4 per cent; news, 9.2 per cent; sporting, 5.6 per cent; light music, 2.5 per cent; spoken word, 7.6 per cent; drama and features, 4.0 per cent; education, 3.4 per cent; Parliament, 3.9 per cent; religious, 2.9 per cent; young people's programmes, 1.5 per cent; rural, 2.2 per cent; and presentation, 2.3 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 programmes are arranged by the A.B.C. The programmes, 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 1971

Type of station	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
National—									
Medium frequency	19	5	16	9	14	4	4	2	73
High frequency	1	2	2	..	1	..	..	..	6
Overseas (high frequency)	..	9	..	..	..	..	3	..	12
Commercial (medium frequency)	37	20	26	8	14	8	2	1	116
Total	**57**	**36**	**44**	**17**	**29**	**12**	**9**	**3**	**207**

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 1971 forty-eight stations were operating, excluding thirty-six translator stations.

The television programmes 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 1971 was as follows: drama, 28.5 per cent; public interest, 12.7 per cent; sporting 10.4 per cent; news, 6.4 per cent; variety and acts, 6.8 per cent; education, 22.7 per cent; musical performances 0.8 per cent; religious, 1.1 per cent; rural, 0.8 per cent; special arts and aesthetics, 4.0 per cent; presentation, 5.9 per cent. The average weekly transmission time for the forty-eight national television transmitters was eighty-five hours during the year ended 30 June 1971.

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 1971 forty-six 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 1971 seven new national television stations commenced regular transmissions, namely ABNW Channel 7, Norseman in Western Australia; ABCLQ Channel 7, Cloncurry, ABHQ Channel 9, Hughenden, ABIQ Channel 6, Mount Isa, ABJQ Channel 10, Julia Creek, ABRDQ Channel 6, Richmond in Queensland and ABRS Channel 3, Central East (Loxton), in South Australia. One new commercial television station commenced regular transmission in Western Australia, VEW Channel 8, Kalgoorlie. The following table shows the number of television stations in operation at 30 June 1971.

TELEVISION STATIONS: STATES AND AUSTRALIAN CAPITAL TERRITORY
30 JUNE 1971

Type of station and location	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Total*
National—								
Metropolitan	1	1	1	1	1	1	1	7
Country	12	7	12	3	6	1	..	41
Total, National	*13*	*8*	*13*	*4*	*7*	*2*	*1*	*48*
Commercial—								
Metropolitan	3	3	3	3	2	1	1	16
Country	11	6	7	2	3	1	..	30
Total, Commercial	*14*	*9*	*10*	*5*	*5*	*2*	*1*	*46*
All stations	**27**	**17**	**23**	**9**	**12**	**4**	**2**	**94**

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* 1942-1971, 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 at 1 October 1971 were as follows.

BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES
RATES

Licence		*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, 1967 TO 1971

30 June—	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.(c)*	*W.A.*	*Tas.*	*Aust.*
1967	950,788	712,813	340,477	278,069	173,571	82,322	2,538,040
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

(*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, 1967 TO 1971

30 June—	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1967	927,038	690,857	302,575	254,504	159,048	71,113	2,405,135
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

(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 1971 are: New South Wales, 848,342; Victoria, 690,464; Queensland, 318,001; South Australia, 241,384; Western Australia, 168,132; Tasmania, 70,534; Australia, 2,336,857.

Short-term hirers' licences (included above) at 30 June 1971 were: New South Wales, 105,736; Victoria, 41,732; Queensland, 43,421; South Australia, 46,264; Western Australia, 26,524; Tasmania, 5,765; Australia, 269,442.

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 1966–67 to 1970–71.

REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES
STATES, 1966-67 TO 1970-71
($'000)

Year	N.S.W.(a)	Vic.	Qld	S.A.(b)	W.A.	Tas.	Aust.
1966–67	14,244	10,840	4,951	4,101	2,571	1,127	37,835
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

(a) Includes Australian Capital Territory. (b) Includes Northern Territory in respect of broadcast licence fees.

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 and quarterly 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), passengers on short pleasure cruises in the south-west Pacific commencing and finishing in Australia, and all crew. However, it includes persons who, on arrival, declare the purpose of their visit to Australia to be 'in transit', if a change of ship or flight takes place. 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 1967 TO 1971

	Overseas Visitors				*Australian Residents*			
	Short-term		*Long-term*		*Short-term*		*Long-term*	
Year	*Arriving in Australia*	*Departing from Australia*	*Arriving in Australia*	*Departing from Australia*	*Departing from Australia*	*Returning to Australia*	*Departing from Australia*	*Returning to Australia*
1967	221,821	231,762	21,637	12,801	217,746	223,038	52,148	35,655
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

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 bulletin *Overseas Arrivals and Departures* (4.1) 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, 1971

	Short-term			*Long-term*		
Characteristics	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
OVERSEAS VISITORS ARRIVING						
Marital status						
Never married	103,761	53,742	157,503	11,649	7,373	19,022
Married	156,213	90,869	247,082	5,797	4,354	10,151
Widowed or divorced	8,701	19,107	27,808	443	884	1,327
Age (years)						
0–14	17,190	16,529	33,719	2,251	2,082	4,333
15–24	60,448	25,930	86,378	8,291	5,502	13,793
25–44	103,612	47,431	151,043	5,779	3,223	9,002
45–64	69,445	54,689	124,134	1,229	1,269	2,498
65 and over	17,980	19,139	37,119	339	535	874
Total	**268,675**	**163,718**	**432,393**	**17,889**	**12,611**	**30,500**

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY BY MARITAL STATUS, AGE AND SEX: AUSTRALIA, 1971—*continued*

Characteristics	*Short-term*			*Long-term*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Marital status—						
Never married	80,250	63,526	143,776	19,900	18,704	38,604
Married	146,541	98,150	244,691	13,271	13,933	27,204
Widowed or divorced	6,480	18,970	25,450	563	1,328	1,891
Age (years)—						
0–14	21,279	20,599	41,878	7,866	7,521	15,387
15–24	39,193	35,168	74,361	8,298	12,223	20,521
25–44	95,130	52,730	147,860	13,986	10,756	24,742
45–64	64,949	56,782	121,731	2,973	2,735	5,708
65 and over	12,720	15,367	28,087	611	730	1,341
Total	**233,271**	**180,646**	**413,917**	**33,734**	**33,965**	**67,699**

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, 1971

Country of residence(a)	*Short-term*			*Long-term*		
	By sea	*By air*	*Total*	*By sea*	*By air*	*Total*
Africa—						
Commonwealth countries	284	2,102	2,386	31	188	219
South Africa	938	3,904	4,842	304	172	476
Other	23	1,195	1,218	6	136	142
America—						
Canada	1,125	11,390	12,515	480	1,265	1,745
Other Commonwealth countries	32	626	658	10	37	47
United States of America	1,714	81,569	83,283	224	4,307	4,531
Other	43	2,809	2,852	6	260	266
Asia—						
Ceylon, India and Pakistan	29	3,124	3,153	5	455	460
Hong Kong	299	6,496	6,795	12	213	225
Malaysia and Singapore	366	12,321	12,687	48	1,985	2,033
Other Commonwealth countries	8	372	380	2	46	48
Japan	429	15,613	16,042	19	922	941
Other	160	58,852	59,012	25	1,875	1,900
Europe—						
United Kingdom and Ireland	4,958	39,266	44,224	1,146	2,201	3,347
Other Commonwealth countries	57	455	512	10	42	52
France	123	3,225	3,348	19	159	178
Germany	297	6,470	6,767	64	230	294
Greece	19	1,225	1,244	16	273	289
Italy	206	4,108	4,314	27	308	335
Netherlands	510	4,979	5,489	74	154	228
Other	360	9,208	9,568	70	1,857	1,927
Oceania—						
Fiji	268	4,841	5,109	3	202	205
New Zealand	3,280	95,177	98,457	1,517	8,309	9,826
Papua New Guinea	964	32,848	33,812	17	490	507
Other Commonwealth countries	486	2,539	3,025	21	118	139
Other	101	10,600	10,701	6	134	140
Total	**17,079**	**415,314**	**432,393**	**4,162**	**26,338**	**30,500**

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

AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY, BY COUNTRY OF DISEMBARKATION(a) AND MODE OF TRANSPORT: AUSTRALIA, 1971

Country of disembarkation(a)	Short-term			Long-term		
	By sea	By air	Total	By sea	By air	Total
Africa—						
Commonwealth countries	21	1,255	1,276	9	243	252
South Africa	1,090	3,133	4,223	737	788	1,525
Other	274	..	274	532	1	533
America—						
Canada	927	1,136	2,063	187	281	468
Other Commonwealth countries	24	74	98	7	1	8
United States of America—excluding Hawaii	1,287	14,690	15,977	493	1,703	2,196
Hawaii	93	13,586	13,679	9	1,190	1,199
Other	338	956	1,294	308	119	427
Asia—						
Ceylon, India and Pakistan	24	2,035	2,059	12	279	291
Hong Kong	2,550	21,419	23,969	59	2,892	2,951
Malaysia and Singapore	7,168	45,339	52,507	935	9,801	10,736
Other Commonwealth countries	25	351	376	81	26	107
Japan	7,234	2,545	9,779	118	102	220
Other	1,250	31,643	32,893	54	2,729	2,783
Europe—						
United Kingdom and Ireland	11,286	14,512	25,798	8,619	2,104	10,723
Other Commonwealth countries	369	1,330	1,699	497	46	543
Greece	884	9,591	10,475	2,006	4,613	6,619
Italy	5,935	14,286	20,221	5,076	1,762	6,838
Netherlands	628	4,850	5,478	910	281	1,191
Other	1,074	10,107	11,181	940	1,865	2,805
Oceania—						
Fiji	488	31,180	31,668	41	1,091	1,132
New Zealand	4,793	94,716	99,509	1,290	4,008	5,298
Papua New Guinea	464	29,667	30,131	66	7,948	8,014
Other Commonwealth countries	332	7,357	7,689	215	187	402
Other	395	9,206	9,601	34	404	438
Total	**48,953**	**364,964**	**413,917**	**23,235**	**44,464**	**67,699**

(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, 1971

Purpose of journey	Short-term			Long-term		
	Males	Females	Persons	Males	Females	Persons
OVERSEAS VISITORS ARRIVING						
In transit	40,475	24,252	64,727	..	..	..
Business	59,788	6,401	66,189	2,740	884	3,624
Holiday	145,739	120,668	266,407	3,786	3,767	7,553
Education	8,178	3,936	12,114	3,014	1,660	4,674
Other and not stated	14,495	8,461	22,956	8,349	6,300	14,649
Total	**268,675**	**163,718**	**432,393**	**17,889**	**12,611**	**30,500**
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Business	67,842	8,184	76,026	7,119	3,857	10,976
Holiday	134,231	163,060	297,291	17,042	19,063	36,105
Education	3,935	2,314	6,249	2,150	1,508	3,658
Other and not stated	27,263	7,088	34,351	7,423	9,537	16,960
Total	**233,271**	**180,646**	**413,917**	**33,734**	**33,965**	**67,699**

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, 1971

Country of residence (visitors) and country of disembarkation (residents)	*Overseas visitors arriving—intended length of stay*						*Australian residents departing—intended length of stay*					
	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.*	*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.*	*Total*
Africa—												
Commonwealth countries	728	496	561	401	200	2,386	27	207	466	489	87	1,276
South Africa	1,567	1,141	1,175	648	311	4,842	17	569	1,774	1,427	436	4,223
Other	421	261	156	172	208	1,218	..	2	11	142	119	274
America—												
Canada	1,858	5,491	2,758	1,563	845	12,515	12	424	851	645	131	2,063
Other Commonwealth countries	133	280	130	78	37	658	2	21	35	34	6	98
United States of America—excluding Hawaii	27,960	40,620	8,161	4,196	2,346	83,283	142	4,901	6,347	3,493	1,094	15,977
Hawaii							627	4,383	5,699	2,242	728	13,679
Other	771	1,142	475	257	207	2,852	2	235	441	440	176	1,294
Asia—												
Ceylon, India, Pakistan	844	882	515	539	373	3,153	38	478	760	639	144	2,059
Hong Kong	1,735	2,305	1,222	746	787	6,795	1,144	5,393	11,650	4,366	1,416	23,969
Malaysia and Singapore	2,830	3,350	2,887	2,318	1,302	12,687	2,743	13,806	17,514	12,374	6,070	52,507
Other Commonwealth countries	88	64	149	51	28	380	..	2	18	332	24	376
Japan	6,342	6,271	1,533	685	1,211	16,042	87	1,484	7,389	391	428	9,779
Other	48,237	5,038	2,724	1,607	1,406	59,012	956	6,889	7,740	5,112	12,196	32,893
Europe—												
United Kingdom and Ireland	8,402	11,416	11,290	9,097	4,019	44,224	30	1,665	8,252	13,594	2,257	25,798
Other Commonwealth countries	49	92	259	89	23	512	..	5	99	1,451	144	1,699
Greece	195	117	150	546	236	1,244	8	238	1,419	7,020	1,790	10,475
Italy	1,053	1,025	705	1,036	495	4,314	33	857	4,112	12,012	3,207	20,221
Netherlands	1,087	858	1,414	1,408	722	5,489	2	373	3,067	1,758	278	5,478
Other	5,679	5,811	3,347	3,046	1,800	19,683	11	543	3,148	6,639	840	11,181
Oceania—												
Fiji	1,413	1,435	1,006	846	409	5,109	4,069	23,005	2,240	1,070	1,284	31,668
New Zealand	24,297	49,603	10,798	6,753	7,006	98,457	7,840	67,940	13,442	5,933	4,354	99,509
Papua New Guinea	5,041	7,562	12,113	8,086	1,010	33,812	3,623	10,918	7,078	5,721	2,791	30,131
Other Commonwealth countries	665	783	657	712	208	3,025	669	5,939	495	189	397	7,689
Other	2,075	2,998	3,508	989	1,131	10,701	1,022	5,477	1,594	1,067	441	9,601
Total	**143,470**	**149,041**	**67,693**	**45,869**	**26,320**	**432,393**	**23,104**	**155,754**	**105,641**	**88,580**	**40,838**	**413,917**

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, 1971

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	1,062	34,575	35,637	2,172	45,864	48,036	3,161	23,211	26,372	3,492	46,532	50,024
February	2,004	35,979	37,983	2,171	39,158	41,329	5,424	18,908	24,332	2,711	26,078	28,789
March	1,970	35,709	37,679	1,952	38,871	40,823	5,493	26,273	31,766	2,769	23,931	26,700
April	1,062	29,455	30,517	1,899	33,677	35,576	4,816	29,154	33,970	2,912	22,047	24,959
May	1,245	39,489	40,734	2,565	42,137	44,702	7,764	36,111	43,875	3,603	27,383	30,986
June	597	25,118	25,715	969	26,658	27,627	2,351	37,621	39,972	3,895	24,847	28.742
July	761	28,178	28,939	1,339	27,956	29,295	3,487	32,152	35,639	2,963	29,420	32,383
August	788	33,800	34,588	729	34,258	34,987	1,957	35,311	37,268	2,128	35,933	38,061
September	788	29,231	30,019	1,410	32,157	33,567	2,493	23,205	25,698	2,398	45,976	48,374
October	1,553	36,613	38,166	1,541	32,836	34,377	4,466	23,169	27,635	6,090	36,731	42,821
November	1,812	38,321	40,133	2,467	39,317	41,784	1,999	23,811	25,810	3,910	27,760	31,670
December	3,437	48,846	52,283	1,715	36,204	37,919	5,542	56,038	61,580	4,867	24,222	29,089
Total	**17,079**	**415,314**	**432,393**	**20,929**	**429,093**	**450,022**	**48,953**	**364,964**	**413,917**	**41,738**	**370,860**	**412,598**

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 386 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, 1971

	Overseas visitors arriving			*Australian residents departing*		
Occupation group	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Professional, technical, and related workers	2,648	1,877	4,525	5,146	5,243	10,389
Administrative, executive, and managerial workers	1,111	124	1,235	1,614	259	1,873
Clerical workers	607	2,113	2,720	2,165	6,195	8,360
Sales workers	644	233	877	1,058	607	1,665
Farmers, fishermen, hunters, timber getters, and related workers	530	21	551	592	34	626
Miners, quarrymen, and related workers	89	..	89	190	..	190
Workers in transport and communication	635	131	766	988	282	1,270
Craftsmen and production-process workers	3,162	329	3,491	6,605	1,069	7,674
Labourers(*a*)	940	..	940	4,073	..	4,073
Service (protective and other), sport, and recreation workers	1,096	520	1,616	924	1,048	1,972
Occupation inadequately described or not stated	1,383	204	1,587	805	233	1,038
Persons not in the labour force—						
Children and students	4,723	3,441	8,164	8,935	8,497	17,432
Other	321	3,618	3,939	639	10,498	11,137
Total	**17,889**	**12,611**	**30,500**	**33,734**	**33,965**	**67,699**

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

Direct transit travellers

As indicated on page 384, 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. 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, 1969 TO 1971

	1969		*1970*		*1971*	
Approximate period from first to last Australian port (days)	*Passengers*	*Passenger days*	*Passengers*	*Passenger days*	*Passengers*	*Passenger days*
Less than 3	3,989	6,601	3,942	5,057	3,965	6,316
3 and less than 5	4,237	12,990	4,701	14,924	2,429	8,592
5 and less than 7	5,960	34,001	6,516	37,445	2,402	14,397
7 and less than 9	5,735	43,840	3,745	28,107	7,568	56,586
9 and less than 11	4,549	41,376	3,362	30,668	3,964	37,000
11 and less than 22	1,341	15,958	2,267	26,304	580	7,765
22 and over	109	3,395	161	4,506	35	1,024
Total	**25,920**	**158,161**	**24,694**	**147,011**	**20,943**	**131,680**

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

Sea cruises from Australia

Excluded from the foregoing statistics are passengers on short pleasure cruises in the south-west Pacific, commencing and finishing in Australia on ships not then engaged in regular voyages. 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, 1969 TO 1971

	1969		*1970*		*1971*	
Duration of cruise in days(a)	*Cruises*	*Passengers*	*Cruises*	*Passengers*	*Cruises*	*Passengers*
Less than 7	2	2,352	3	3,543	2	1,672
7 and less than 10	2	1,000	3	2,993	3	3,443
10 and less than 13	8	8,590	18	18,912	7	6,568
13 and less than 16	23	23,115	12	11,725	31	28,195
16 and less than 19	4	2,685	9	4,514	20	2,542
19 and less than 22	1	652	..	..	2	1,742
22 and over	1	409	3	1,897	..	..
Total	**41**	**38,803**	**48**	**43,584**	**65**	**44,162**

(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 1970–71 the Commonwealth Government provided $2,350,000 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 in Charge of Tourist Activities 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.