

CHAPTER 12

TRANSPORT, COMMUNICATION AND TRAVEL

The statistics in this chapter relate in the main to the year 1969–70, 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*, *Commonwealth Finance*, and *State, Territory and Local Government Authorities' Finance and Government Securities*, and in the annual mimeographed statement *Motor Vehicle Registrations*. Current information on subjects dealt with in this chapter appears in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, *Overseas Shipping Cargo* (quarterly), *Motor Vehicle Registrations* (monthly) and two preliminary monthly statements *Registrations of New Motor Vehicles*, *Road Traffic Accidents involving Casualties* (quarterly), *Road Accident Fatalities* (monthly), and *Overseas Arrivals and Departures* (monthly and quarterly). Greater detail on the latter subject is contained in the annual bulletin *Demography*.

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 railways 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 AND ITS STANDING COMMITTEES

The Australian Transport Advisory Council, established April 1946, comprises the Commonwealth Minister for Shipping and Transport as Chairman, the Commonwealth Minister for the Interior and each State Minister for Transport. The administration of the Council and the committees it has established is the responsibility of the Commonwealth Department of Shipping and Transport. The general practice is that the Council convenes twice a year, the meetings moving successively from one capital city to another. The Council primarily considers policy matters relating to transport operation, co-ordination and development.

The regulation of, and the executive responsibility for transport is shared between the Commonwealth and State Governments. The Australian Transport Advisory Council is the meeting ground of Commonwealth and States at a ministerial level and provides an effective means of inviting discussion and reaching, by way of mutual consent and understanding, a uniformity of approach towards transport administrative procedures and policy. It also provides a means of reviewing and discussing national solutions of pressing transport problems and the rectification of transport deficiencies generally.

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 committees are of a semi-permanent nature. They were established to initiate discussion and action on transport problems referred by member Ministers and other authorities and to undertake specialised work. The current committees are: The Standing Committee of Advisers, The Advisory Committee on Safety in Vehicle Design, The Advisory Committee on Vehicle Performance, The Advisory Committee on Road User Performance and Traffic Codes, The Advisory Committee on Transport of Dangerous Goods, and The Publicity Advisory Committee on Education in Road Safety. Advisory committees of an ad hoc nature are also created as the need arises, e.g. The Air Pollution Committee, The Air Cushion Vehicle Committee.

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 1956-1966, the Beaches, Fishing Grounds and Sea Routes Protection Act 1932-1966, the Submarine Cables and Pipelines Protection Act 1963-1966, and the Lighthouses Act 1911-1970, 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 1970 comprised thirty-one ships with a total deadweight of 403,374 tons. The total included one large bulk carrier on charter from a foreign owner.

The fleet included two vessels in overseas trading, the 14,082 ton (deadweight) vehicle deck/container ship *Australian Enterprise* and the 26,420 ton (deadweight) cellular container ship *Australian Endeavour*; 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; and three conventional general cargo ships totalling 9,405 deadweight tons.

At 31 December 1970 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. will be part owner and will crew and operate a roll on/roll off vessel of 20,300 deadweight tons in the Australia-West Coast of North America trade. This ship was under construction in Sweden at 31 December 1970.

To service the Line's vehicle deck ships and container/ore carrier, 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 1970 the vehicular/passenger vessels *Empress of Australia*, *Australian Trader* and *Princess of Tasmania* carried a total of 135,919 passengers and 33,699 passengers' cars between the mainland and Tasmania. Over the same period a total of 6,589,187 tons of cargo was 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 consist 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 1970 the Board had arranged for the construction of 214 vessels valued at approximately \$581 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 1970 were valued at \$139 million and numbered twenty-four vessels. These included a large bulk carrier of 78,000 tons deadweight and two tankers of 62,000 tons deadweight and three tankers 22,000 to 24,000 tons deadweight, two 7,600 tons deadweight vehicle deck cargo vessels, four tugs and four dredgers of various types, and eight landing craft.

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 not yet 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 1956-1966*, 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 via ports in the same State.

Cargo loaded or discharged

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

Type of service

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

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

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

Country of loading or discharge of overseas cargo

In statistics of overseas shipping cargo, country of loading or discharge of cargo is the country of location of the port where the cargo was loaded on to, or is to be discharged from, a reporting vessel. The countries shown are not necessarily the countries of origin or ultimate destination of cargo because previous or subsequent transshipments of cargo are not taken into account. The statistics of cargo classified by the country in which it was loaded or discharged cannot therefore be compared directly with statistics of overseas trade classified by country of origin or consignment.

Transshipments of cargo within Australia

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

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 1965-66 to 1969-70.

**OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES
(COMBINED) OF VESSELS DIRECT, AUSTRALIA
1965-66 TO 1969-70**

	1965-66	1966-67(a)	1967-68(a)	1968-69(a)	1969-70(a)
Number of vessels	7,958	7,994	7,985	8,750	10,022
Net tonnage '000 tons	46,382	55,062	60,387	72,578	89,058

(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, States, etc.

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 1969-70.

OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT, STATES AND NORTHERN TERRITORY, 1969-70(a)

		<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>Aust.</i>
Entrances	number	1,537	419	1,045	329	1,392	113	134	4,969
	'000 net tons	13,668	2,388	7,659	3,114	15,902	996	768	44,495
Clearances	number	1,281	552	1,250	322	1,452	83	113	5,053
	'000 net tons	11,171	5,788	8,643	1,767	15,580	946	679	44,573

(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 1967-68 to 1969-70 are given in the following table according to country of registration of vessels.

OVERSEAS SHIPPING: ENTRANCES DIRECT, BY COUNTRY OF REGISTRATION OF VESSELS AUSTRALIA, 1967-68 TO 1969-70(a)

('000 net tons)

<i>Vessels registered at ports in—</i>	1967-68 1968-69 1969-70			<i>Vessels registered at ports in—</i>	1967-68 1968-69 1969-70		
	Australia	261	235		490	Panama	756	880	1,134
Denmark	441	669	555	Sweden	669	771	724
France(b)	556	503	788	United Kingdom	7,468	7,899	8,923
Germany, Federal Republic of	447	462	1,068	United States of America	252	250	300
Greece	1,421	1,672	2,493	Other countries	894	1,244	2,441
Hong Kong	187	228	360	All countries—			
India	353	444	459	In cargo	18,024	19,592	20,043
Italy	791	681	663	Proportion of total %	59.9	53.8	45.0
Japan	5,130	7,377	9,640	In ballast	12,085	16,827	24,452
Liberia	5,391	7,419	8,570	Proportion of total %	40.1	46.2	55.0
Netherlands	1,067	1,043	1,280	Grand total	30,109	36,419	44,495
New Zealand	305	322	330				
Norway	3,720	4,320	4,277				

(a) Excludes vessels of 200 net tons and under. and 9 during 1969-70.

(b) Includes New Caledonia, 2 during 1967-68, 3 during 1968-69

Australian registered tonnage which entered Australian ports from overseas during the year 1969-70 represented 1.01 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 1969-70. The statistics below are not comparable with those for previous years because the method of applying the classification 'interstate direct' has been changed to exclude overseas vessels. Prior to 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, 1969-70(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Number of vessels	1,087	1,150	363	655	285	1,183	111	4,834
Net tonnage '000 tons	5,331	3,184	1,259	3,340	1,800	2,539	239	17,693

(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 for previous years because of the change in method of classifying some overseas vessel movements referred to under *Interstate direct*, see previous page.

INTERSTATE MOVEMENT: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES AND NORTHERN TERRITORY, 1969-70(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances number	1,591	1,795	893	722	496	462	50	6,009
. '000 net tons	9,174	12,809	4,208	4,285	3,404	2,035	124	36,039
Clearances number	1,880	1,653	696	744	418	491	69	5,951
. '000 net tons	11,856	9,369	3,256	5,920	3,264	2,053	217	35,935

(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 1969-70 together with the aggregate net tonnage.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES STATES AND NORTHERN TERRITORY, 1969-70(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances number	2,678	2,945	1,256	1,377	781	1,645	161	10,843
. '000 net tons	14,505	15,993	5,467	7,625	5,204	4,574	363	53,732
Clearances number	2,965	2,801	1,058	1,384	713	1,683	177	10,781
. '000 net tons	17,073	12,540	4,509	8,931	5,415	4,604	450	53,523

(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 1965-66 to 1969-70.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES AUSTRALIA, 1965-66 TO 1969-70

	1965-66	1966-67(a)	1967-68(a)	1968-69(a)	1969-70(a)
Entrances number	11,113	10,536	10,595	10,830	10,843
. '000 net tons	43,644	43,272	44,588	47,005	53,732
Clearances number	11,097	10,542	10,566	10,824	10,781
. '000 net tons	43,609	43,398	44,529	47,070	53,523

(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 1970.

**AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
31 DECEMBER 1970**

(Source: Department of Shipping and Transport)

<i>Vessels</i>	<i>Number</i>	<i>Dead-weight tons</i>	<i>Gross tons</i>
Interstate vessels—			
Australian-owned, Australian-registered	85	908,967	673,225
Overseas-owned, Australian-registered, engaged in Australian coastal trade—			
New Zealand-owned	6	17,247	15,410
Other	9	264,987	167,593
Overseas-owned, overseas registered, on charter, engaged in Australian coastal trade	6	163,166	100,584
Total interstate vessels	106	1,354,367	956,812
Intrastate vessels(a)	23	126,042	84,474
<i>Total coastal trading vessels</i>	129	1,480,409	1,041,286
Overseas trading vessels—			
Australian-owned, Australian-registered operated mainly on overseas services	8	66,370	67,244
Australian-owned, overseas-registered operated wholly on overseas services	6	55,063	40,907
<i>Total overseas trading vessels</i>	14	121,433	108,151
Total Australian trading vessels	143	1,601,842	1,149,437

(a) Includes two vessels registered overseas of 46,133 deadweight tons and 30,545 gross tons.

Shipping at principal ports

For details of Harbour Boards and Trusts in each State see the chapter Local Government.

The following table shows the total volume of shipping—overseas, interstate and coastal—which entered the principal ports of Australia during the years 1968-69 and 1969-70.

**TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA
1968-69 AND 1969-70(a)**

<i>Port of entry</i>	<i>1968-69</i>		<i>1969-70</i>		<i>Port of entry</i>	<i>1968-69</i>		<i>1969-70</i>	
	<i>Number</i>	<i>Net tons</i>	<i>Number</i>	<i>Net tons</i>		<i>Number</i>	<i>Net tons</i>	<i>Number</i>	<i>Net tons</i>
		'000		'000			'000		'000
New South Wales—					Western Australia—				
Sydney(b)	4,412	19,267	4,289	21,422	Fremantle(d)	1,389	8,920	1,414	10,112
Newcastle	1,768	7,456	1,514	8,005	Albany	159	891	161	905
Port Kembla	1,081	5,530	1,001	5,787	Bunbury	154	806	145	779
Victoria—					Carnarvon	13	22	15	37
Melbourne	2,927	12,585	2,854	13,714	Geraldton	123	686	104	702
Geelong	465	3,790	517	4,588	Yampi	166	1,274	160	1,211
Queensland—					Port Hedland	309	2,107	499	5,045
Brisbane	1,595	7,159	1,621	7,684	Dampier	271	3,727	373	5,032
Bowen	33	143	33	139	Tasmania—				
Cairns	206	587	187	473	Hobart	566	1,598	643	1,763
Gladstone	307	3,517	370	4,327	Burnie	550	1,353	452	1,562
Mackay	156	653	149	605	Devonport	471	870	450	988
Rockhampton	111	452	135	555	Launceston	416	1,323	461	1,440
Townsville	330	1,316	372	1,461	Port Latta	28	481	41	833
Weipa	186	1,867	226	2,333	Northern Territory—				
South Australia—					Darwin	174	757	186	815
Adelaide(c)	1,520	7,448	1,473	7,180	Groote Island	56	239	92	298
Port Lincoln	276	712	294	867					
Port Pirie	212	908	238	1,008					
Rapid Bay	36	131	41	142					
Walleroo	29	160	42	276					
Whyalla	377	2,517	357	3,159					

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

The following table shows the total shipping tonnage which entered selected ports of Australia, New Zealand and the United Kingdom during 1969-70.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM, 1969-70

('000 net tons)

Port	Net tonnage entered	Port	Net tonnage entered	Port	Net tonnage entered
AUSTRALIA—		NEW ZEALAND—		ENGLAND AND WALES—continued	
Sydney (N.S.W.)(a)	21,422	Wellington	5,027	Dover	13,135
Melbourne (Vic.)	13,714	Auckland	4,994	Manchester (including	
Fremantle (W.A.)(b)	10,112	Lyttleton	3,007	Ellesmere Port and	
Newcastle (N.S.W.)	8,005	Whangarei	2,528	Runcorn	5,341
Adelaide (S.A.)(c)	7,180	Otago	1,128	Tyne Ports	5,370
Brisbane (Qld)	7,684	Napier	1,449	Hull (including Keadby)	6,258
Port Kembla (N.S.W.)	5,787	Bluff	1,017	Middlesbrough	8,671
Geelong (Vic.)	4,588	Taranaki	847	Bristol	4,752
Dampier (W.A.)	5,032	Tauranga	1,654	Swansea	4,507
Gladstone (Qld)	4,327			Cardiff	2,874
Whyalla (S.A.)	3,159	ENGLAND AND WALES—		SCOTLAND—	
Port Hedland (W.A.)	5,045	London	44,081	Glasgow	5,388
Weipa (Qld)	2,333	Southampton	25,286		
Hobart (Tas.)	1,763	Liverpool and		NORTHERN IRELAND—	
Burnie (Tas.)	1,562	Birkenhead	21,946	Belfast	9,718

(a) Includes Botany Bay.

(b) Includes Kwinana.

(c) Includes Port Stanvac.

Shipping cargo

Overseas and interstate cargo

The table on page 334 shows the aggregate tonnage of overseas and interstate cargo discharged and shipped at Australian ports.

CARGO DISCHARGED AND SHIPPED: AUSTRALIA, 1965-66 TO 1969-70

('000 tons)

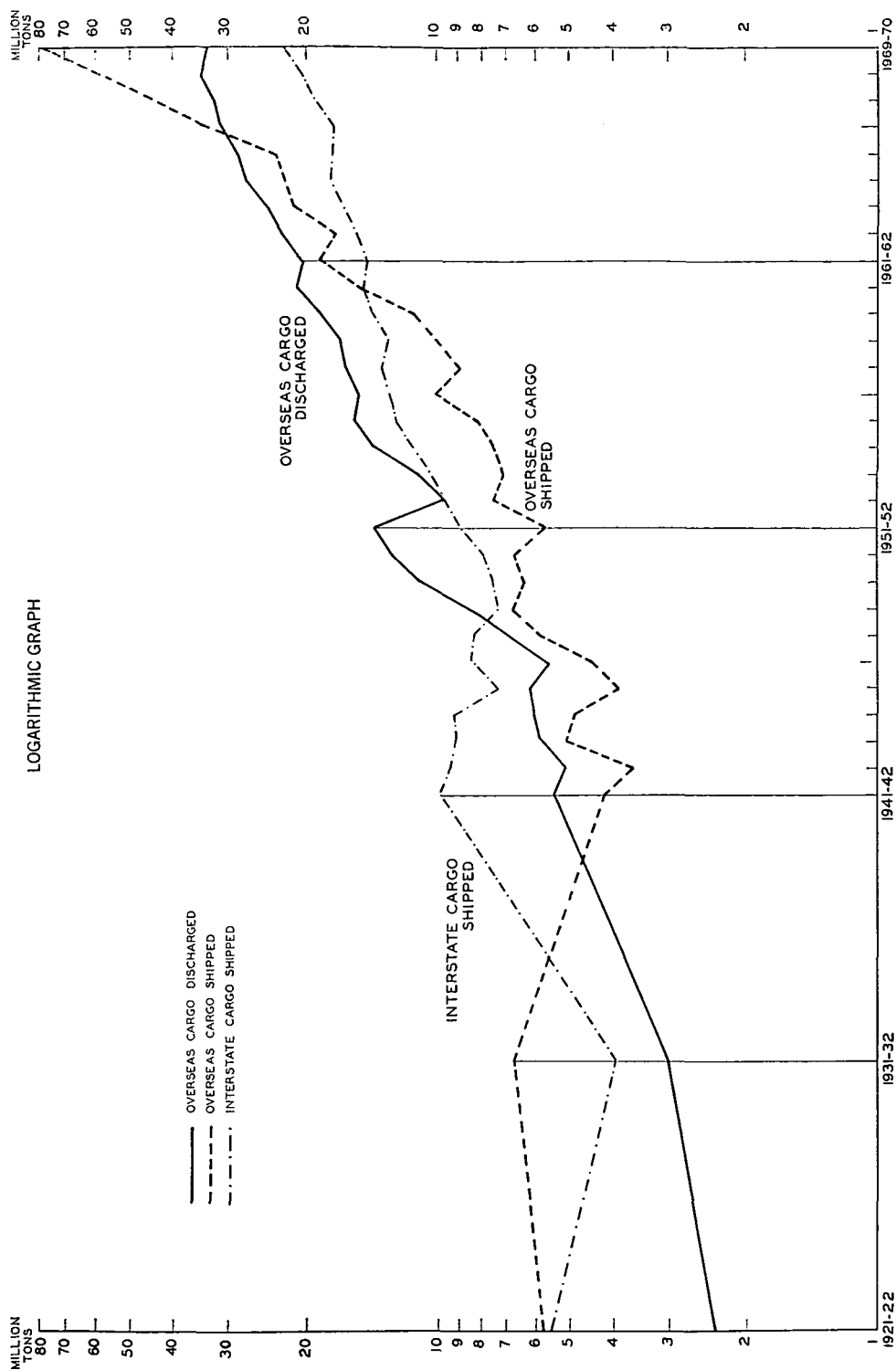
Year	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
1965-66	24,156	4,119	21,749	2,043	15,349	1,942	16,172	1,484
1966-67	27,109	4,152	32,691	1,943	15,565	1,900	15,692	1,728
1967-68	27,572	4,684	41,339	2,102	16,980	2,079	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

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1969-70
(^{'000 tons})

Port	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
New South Wales—								
Sydney	3,634	2,108	5,247	637	1,398	76	568	154
Botany Bay	3,838	..	50	..	673	..	226	..
Newcastle	1,043	18	7,834	..	3,759	..	1,383	8
Port Kembla	461	..	3,871	6	5,243	..	1,662	..
Other . . . . .	..	..	12	..	7	..	1	..
<i>Total, New South Wales</i>	<i>8,977</i>	<i>2,126</i>	<i>17,015</i>	<i>644</i>	<i>11,080</i>	<i>76</i>	<i>3,841</i>	<i>161</i>
Victoria—								
Melbourne	3,514	2,075	1,379	811	1,516	910	655	1,019
Geelong	3,812	11	1,758	23	1,096	..	560	..
Portland	162	..	230	5	100	..	3	..
Westernport	902	..	36	..	75	19	920	2
Other . . . . .	..	..	..	..	..	..	..	..
<i>Total, Victoria</i>	<i>8,390</i>	<i>2,086</i>	<i>3,402</i>	<i>839</i>	<i>2,788</i>	<i>929</i>	<i>2,138</i>	<i>1,020</i>
Queensland—								
Brisbane	2,706	304	1,172	168	698	9	153	12
Cairns	31	..	280	1	22	3	3	3
Gladstone	220	..	6,672	..	78	..	122	..
Mackay	11	1	444	..	19	2	125	..
Townsville	31	14	781	..	99	3	118	..
Other	72	1	3,767	1	4	6	662	1
<i>Total, Queensland</i>	<i>3,071</i>	<i>320</i>	<i>13,116</i>	<i>170</i>	<i>921</i>	<i>24</i>	<i>1,183</i>	<i>16</i>
South Australia—								
Port Adelaide	522	271	830	154	789	26	260	7
Ardrossan . . . . .	..	..	163	..	..	..	309	..
Port Lincoln	90	..	495	5	35	..	455	..
Port Pirie . . . . .	..	..	738	4	239	..	275	..
Port Stanvac	1,742	..	15	..	241	..	312	..
Rapid Bay . . . . .	..	..	..	..	5	..	93	..
Whyalla	151	..	1,701	..	1,126	..	5,075	..
Other	64	..	640	2	6	..	416	..
<i>Total, South Australia</i>	<i>2,569</i>	<i>271</i>	<i>4,582</i>	<i>165</i>	<i>2,440</i>	<i>26</i>	<i>7,196</i>	<i>7</i>
Western Australia—								
Fremantle	844	284	2,467	178	1,067	17	886	18
Albany	173	..	243	1	20	..	..	..
Bunbury	139	..	672	33	3	..	56	..
Dampier	146	6	14,113	..	..	..	91	..
Geraldton	100	..	1,087	..	11	..	..	..
Kwinana	2,958	..	99	..	91	..	569	..
Port Hedland	84	9	14,441	..	9	2	292	1
Yampi	1	..	581	..	23	..	1,827	..
Other	137	3	998	5	39	..	1,367	1
<i>Total, Western Australia</i>	<i>4,582</i>	<i>301</i>	<i>34,701</i>	<i>217</i>	<i>1,262</i>	<i>20</i>	<i>5,088</i>	<i>20</i>
Tasmania—								
Hobart	148	14	267	40	609	206	426	127
Burnie	87	3	114	17	213	254	123	130
Launceston	52	9	58	23	616	196	158	136
Port Latta	5	..	2,085	..	32	..	..	..
Other	30	20	21	13	186	439	214	409
<i>Total, Tasmania</i>	<i>322</i>	<i>45</i>	<i>2,545</i>	<i>92</i>	<i>1,656</i>	<i>1,095</i>	<i>920</i>	<i>801</i>
Northern Territory—								
Darwin	260	9	979	..	117	34	1	2
Groote Island	7	..	509	..	16	13	112	..
Gove	23	1	..	..	29	31	..	1
Other . . . . .	..	..	..	..	..	..	..	..
<i>Total, Northern Territory</i>	<i>290</i>	<i>10</i>	<i>1,488</i>	<i>..</i>	<i>162</i>	<i>78</i>	<i>113</i>	<i>3</i>
Australia	28,201	5,159	76,849	2,127	20,308	2,248	20,478	2,030

OVERSEAS AND INTERSTATE SHIPPING CARGO: AUSTRALIA

1921-22 TO 1969-70



Overseas cargo according to major trade areas and type of service

The tables on pages 336-7 show for the years 1967-68 to 1969-70 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: 1967-68 TO 1969-70

('000 tons)

Major trade areas	Liners (a)		Tramps, bulk ships, tankers		All vessels	
	Weight	Meas.	Weight	Meas.	Weight	Meas.
North America and Hawaii—						
1967-68	555	120	1,888	..	2,443	120
1968-69	582	112	2,452	..	3,034	112
1969-70	649	123	3,240	1	3,890	124
South America—						
1967-68	65	8	314	..	379	8
1968-69	25	5	300	2	325	7
1969-70	50	6	427	..	477	6
Europe—						
1967-68	1,120	657	4,508	70	5,628	727
1968-69	1,148	515	6,672	133	7,820	648
1969-70	1,363	509	9,100	11	10,462	520
Africa—						
1967-68	144	61	247	3	391	64
1968-69	150	85	237	..	387	85
1969-70	238	99	370	15	608	114
Asia—						
Eastern Asia—						
1967-68	(b)	(b)	26,527	2	(b)	(b)
1968-69	1,134	151	38,290	4	39,424	155
1969-70	1,490	193	54,960	..	56,450	193
Other Asia—						
1967-68	(b)	(b)	2,234	118	(b)	(b)
1968-69	872	343	1,622	130	2,494	473
1969-70	919	378	2,291	62	3,210	439
Total Asia—						
1967-68	2,042	433	28,761	120	30,803	553
1968-69	2,006	494	39,912	134	41,918	628
1969-70	2,409	570	57,251	62	59,660	632
Papua and New Guinea, New Zealand and Pacific Islands—						
1967-68	582	609	1,086	6	1,668	615
1968-69	596	551	855	17	1,451	568
1969-70	708	666	1,017	59	1,725	724
Indian Ocean Is. and Antarctic Area—						
1967-68 . . . . .	..	..	26	13	26	13
1968-69 . . . . .	..	..	20	5	20	5
1969-70 . . . . .	..	..	26	6	26	7
Australia—						
1967-68	4,508	1,889	36,831	213	41,339	2,102
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

(a) Cargo and passenger liners. (b) Separate details not available.

**CARGO DISCHARGED IN AUSTRALIA FROM OVERSEAS: MAJOR TRADE AREAS
BY TYPE OF SERVICE: 1967-68 TO 1969-70**

('000 tons)

<i>Major trade areas</i>	<i>Liners(a)</i>		<i>Tramps, bulk-ships, tankers</i>		<i>All vessels</i>	
	<i>Weight</i>	<i>Meas.</i>	<i>Weight</i>	<i>Meas.</i>	<i>Weight</i>	<i>Meas.</i>
North America and Hawaii—						
1967-68	341	657	1,856	371	2,196	1,028
1968-69	391	616	1,715	474	2,106	1,090
1969-70	406	619	1,361	376	1,768	994
South America—						
1967-68	28	3	14	3	42	6
1968-69	11	1	23	1	34	2
1969-70	13	3	19	..	32	3
Europe—						
1967-68	651	1,516	137	129	788	1,644
1968-69	676	1,620	263	233	940	1,853
1969-70	623	1,811	150	195	774	2,007
Africa—						
1967-68	93	55	200	7	293	62
1968-69	121	60	62	..	183	60
1969-70	120	56	106	..	226	56
Asia—						
Eastern Asia—						
1967-68	(b)	(b)	665	209	(b)	(b)
1968-69	316	1,023	976	343	1,292	1,366
1969-70	374	1,050	995	227	1,369	1,277
Other Asia—						
1967-68	(b)	(b)	20,130	67	(b)	(b)
1968-69	137	397	21,473	90	21,610	487
1969-70	155	431	20,956	57	21,110	488
Total Asia—						
1967-68	396	1,337	20,795	276	21,190	1,612
1968-69	453	1,420	22,449	433	22,902	1,853
1969-70	528	1,481	21,951	285	22,479	1,765
Papua and New Guinea, New Zealand and Pacific Islands—						
1967-68	227	325	1,887	4	2,115	330
1968-69	277	346	2,007	6	2,283	352
1969-70	318	323	1,813	9	2,131	332
Indian Ocean Is. and Antarctic Area—						
1967-68 . . . . .	..	..	947	2	947	2
1968-69 . . . . .	..	..	851	2	851	2
1969-70 . . . . .	..	..	791	2	791	2
Australia—						
1967-68	1,736	3,892	25,836	792	27,572	4,684
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

(a) Cargo and passenger liners. (b) Separate details not available.

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 1967-68 to 1969-70.

OVERSEAS CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION OF VESSELS: AUSTRALIA, 1967-68 TO 1969-70
(^{'000 tons})

<i>Vessels registered at ports in—</i>	<i>1967-68</i>		<i>1968-69</i>		<i>1969-70</i>	
	<i>Weight</i>	<i>Meas.</i>	<i>Weight</i>	<i>Meas.</i>	<i>Weight</i>	<i>Meas.</i>
Australia	475	154	532	129	823	206
Denmark	946	125	1,672	93	1,340	84
France and New Caledonia	1,012	91	864	114	1,514	109
Germany, Federal Republic of	914	339	771	375	2,147	413
Greece	3,006	113	3,496	182	5,799	180
Hong Kong	378	93	438	114	716	106
India	757	53	926	58	1,175	71
Italy	577	63	550	49	643	61
Japan	15,000	630	22,429	703	30,071	697
Liberia	13,921	128	18,803	239	21,622	199
Netherlands	2,226	407	2,086	409	2,488	375
New Zealand	527	463	577	424	662	468
Norway	10,376	458	11,317	595	11,069	442
Panama	1,690	17	2,005	33	2,406	43
Sweden	1,453	581	1,622	537	1,592	495
United Kingdom	13,379	2,719	13,480	2,802	15,248	2,797
United States of America	231	162	231	139	333	171
Other	2,043	190	2,455	271	5,402	370
Grand total	68,911	6,786	84,254	7,266	105,050	7,285

World shipping tonnage

At 1 July 1970 the total number of steamships and motorships 100 gross tons and upwards throughout the world was 52,444 with a gross tonnage of 227,489,864. Of those totals, steamships numbered 9,959 for 82,064,527 gross tons, and motorships 44,485 for 145,425,337. This includes 6,103 oil tankers of 100 gross tons and upwards with a gross tonnage of 88,139,853. Australian steamships and motorships, 344 for 1,074,112 gross tons constituted 0.66 per cent and 0.47 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 1970, 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 1970(a)

(Source: Department of Shipping and Transport)

<i>Year of construction</i>	<i>Overseas and interstate vessels</i>		<i>Intrastate vessels</i>		<i>Built in Australian yards</i>		<i>Built overseas</i>		<i>Total</i>	
	<i>No.</i>	<i>Gross tons</i>	<i>No.</i>	<i>Gross tons</i>	<i>No.</i>	<i>Gross tons</i>	<i>No.</i>	<i>Gross tons</i>	<i>No.</i>	<i>Gross tons</i>
1966 and earlier	90	619,722	15	19,972	61	410,668	44	229,026	105	639,694
1967	2	47,021	1	204	3	47,225	..	..	3	47,225
1968	4	99,326	2	669	5	63,907	1	36,088	6	99,995
1969	7	88,005	3	33,014	8	79,295	2	41,724	10	121,019
1970	5	69,398	..	..	4	52,814	1	16,584	5	69,398
Total registered in Australia	108	923,472	21	53,859	81	653,909	48	323,422	129	977,331

(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 1965-66 to 1969-70 are shown in the table below.

SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(a) AUSTRALIA, 1965-66 TO 1969-70

Year	Shipping losses			Other shipping Casualties			Total shipping casualties		
	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost
1965-66	1	287	13	87	375,161	..	88	375,448	13
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

(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. 60.

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. 60.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1969-70 a total of 82.4 million tons of freight were carried, an increase of 103.0 per cent over the 40.6 million tons carried in 1949-50. However, in the same twenty-year period the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 10.3 per cent from 505 millions in 1949-50 to 450 millions in 1969-70. The number of train miles run during 1969-70 (97.1 million) was only 4.0 per cent greater than in 1949-50, 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 1970 there were 1,273 throughout Australia. Diesel-electric locomotives during 1969-70 hauled 60 million train-miles, while steam locomotives hauled only 3 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 1970, 3,326 miles have been closed, the greatest lengths being in Western Australia (997 miles), Queensland (853 miles), and Victoria (621 miles). During this same period 1,166 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 1970**

(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
1966	6,259	3,984	5,785	3,781	4,201	500	490	5	25,005
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	6,265	3,962	5,813	3,743	4,282	500	490	5	25,060

(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 1970 according to gauge.

**GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE
STATES AND TERRITORIES, 30 JUNE 1970**

(Miles)

Gauge	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5ft 3 in	(a)204	(b)3,751	..	1,601	..	..	..	..	5,556
4ft 8½ in	(c)6,090	202	69	(d)1,088	(e)905	..	..	(f)5	8,359
3ft 6 in	..	..	5,714	(g)1,025	(h)3,377	500	(i)490	..	11,106
2ft 6in	..	9	..	..	..	..	..	..	9
2ft 0in	..	..	30	..	..	..	..	..	30
Total	6,294	3,962	5,813	3,714	4,282	500	490	5	25,060
Per 1,000 of population	1.37	1.15	3.23	3.21	4.37	1.27	6.86	0.04	2.00
Per 1,000 square miles	20.25	45.08	8.72	9.85	4.39	18.95	0.94	5.32	8.44

(a) Portion of Victorian Railway system. (b) Excludes 202 route-miles of 5ft 3in gauge which almost parallels the 4ft 8½in gauge line between Melbourne and the Murray River. (c) Includes 29 route-miles of 4ft 8½in gauge line from Broken Hill to Cockburn owned and operated by the South Australian Government Railways. (d) Comprises 654 miles of the Trans-Australian and 217 miles of the Central Australia Railway systems and 217 miles from Port Pirie to Cockburn. (e) Includes 454 miles of the Trans-Australian Railway system. (f) Australian Capital Territory Railway system. (g) Includes 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 1970 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE AND SYSTEM
30 JUNE 1970
(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	5,714	..	30	5,813
South Australia	1,601	246	597	..	..	2,444
Western Australia	..	451	(c)3,377	..	..	3,828
Tasmania	..	..	500	..	..	500
Commonwealth	..	1,330	918	..	..	2,248
Australia	5,556	8,359	11,106	9	30	25,060

(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 appears on plate 29 on page 342.

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 services 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 1969-70
ROUTE MILEAGE AND TRAFFIC

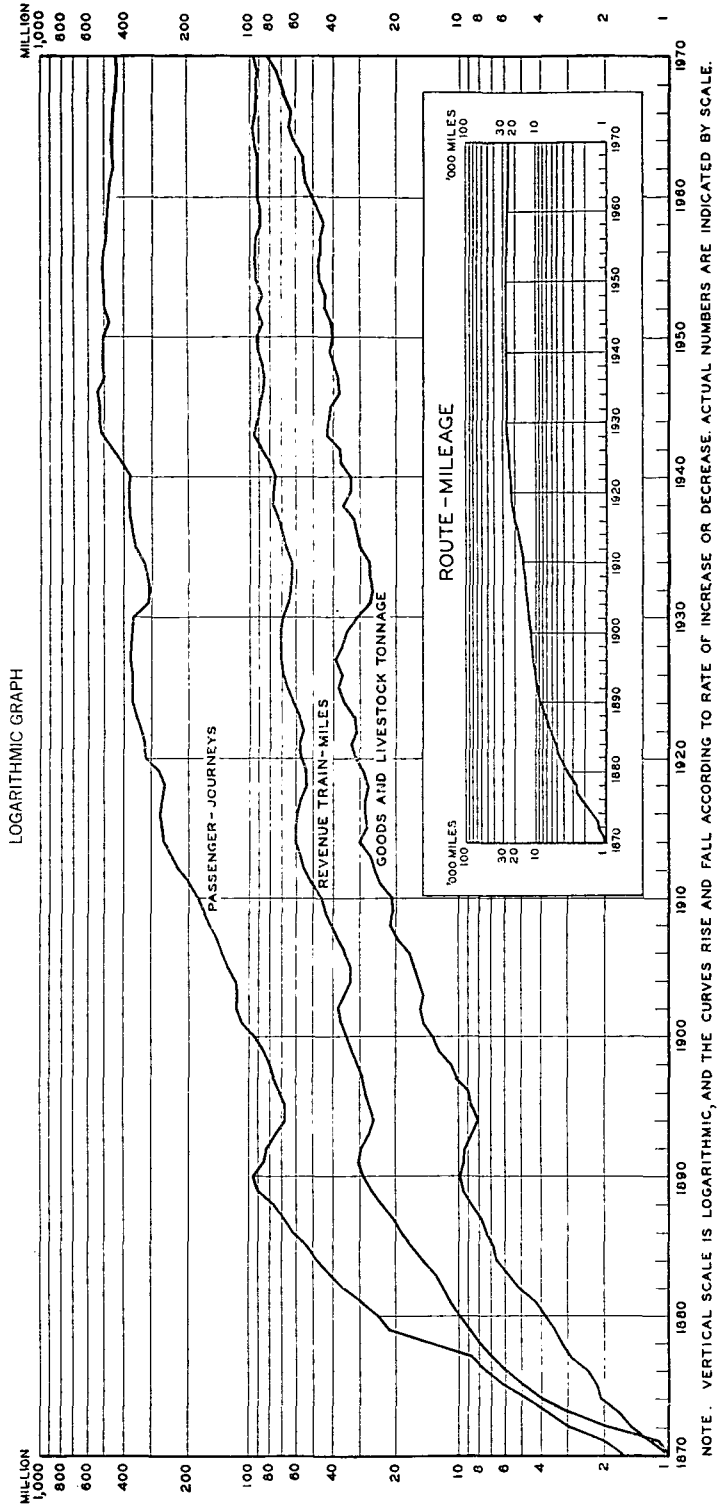


PLATE 29

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 will take 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. Further improvements will follow as the new track settles down and higher operating speeds become possible.

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 most direct link between Adelaide and Melbourne will still be broad gauge (5ft 3in).

Work has commenced 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. Work is expected to commence in 1971-72.

The Western Australian Government is considering the possibility of converting 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, 1969-70

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
Train-mileage								
(⁰⁰⁰)(a)—								
Suburban passenger	10,358	8,361	1,979	2,090	1,377	118	..	24,283
Country passenger	10,358	4,738	3,479	1,180	927	217	841	21,740
Goods(b)	18,412	7,445	12,805	2,922	5,544	846	3,123	51,096
<i>Total</i>	<i>39,128</i>	<i>20,543</i>	<i>18,263</i>	<i>6,192</i>	<i>7,848</i>	<i>1,180</i>	<i>3,963</i>	<i>97,119</i>
Passenger-journeys								
(⁰⁰⁰)(c)—								
Suburban	236,347	140,309	26,317	13,441	10,227	712	..	427,354
Country(d)	15,231	4,000	2,197	549	352	194	244	22,768
<i>Total</i>	<i>251,578</i>	<i>144,309</i>	<i>28,515</i>	<i>13,990</i>	<i>10,580</i>	<i>907</i>	<i>244</i>	<i>450,122</i>
Passenger-miles								
(⁰⁰⁰)(e)—								
Suburban	n.a.	1,252,955	n.a.	108,790	n.a.	4,941	..	n.a.
Country	n.a.	355,755	n.a.	86,547	74,581	10,695	135,830	n.a.
<i>Total</i>	<i>n.a.</i>	<i>1,608,710</i>	<i>n.a.</i>	<i>195,337</i>	<i>n.a.</i>	<i>15,636</i>	<i>135,830</i>	<i>n.a.</i>
Freight—								
Tons carried (⁰⁰⁰)(d)	33,442	11,835	14,439	5,888	10,665	1,258	4,824	82,351
Net ton-miles (million)(f)	5,384.3	2,037.2	3,110.2	947.6	1,749.1	119.5	1,312.5	14,660.5

(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				Total	Coaching stock(b)	Goods stock	Service stock
	Steam	Diesel-electric	Electric	Other(a)				
30 June 1970—								
New South Wales . . .	129	389	41	35	594	(c)3,342	19,258	2,181
Victoria	45	240	35	81	401	(c)2,401	20,342	1,619
Queensland	15	326	..	74	415	1,291	20,441	2,110
South Australia	4	145	..	..	149	(c)493	7,542	622
Western Australia . . .	154	163	..	19	336	464	11,845	984
Tasmania	20	37	..	21	78	126	2,227	180
Commonwealth	1	88	..	..	89	75	2,161	508
Australia	368	1,388	76	230	2,062	(d)8,281	(d)83,840	(d)8,205
30 June—								
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
1965	1,782	821	76	147	2,826	8,777	88,781	8,144

(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 automotive power

GOVERNMENT RAILWAYS: TRAIN MILEAGE 1969-70
(*000 miles)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Type of service—								
Passenger—suburban	10,358	8,361	1,979	2,090	1,377	118	..	24,283
Passenger—country . .	10,358	4,738	3,479	1,180	927	217	841	21,740
Goods(a)	18,412	7,445	12,805	2,922	5,544	846	3,123	51,096
Total	39,128	20,543	18,263	6,192	7,848	1,180	3,963	97,119
Type of motive power—								
Hauled by diesel-electric locomotives	21,258	9,616	16,026	3,445	5,103	1,020	3,874	60,342
Hauled by steam locomotives	1,168	16	182	61	1,356	6	2	2,791
Hauled by electric and other locomotives	2,301	1,012	313	..	..	16	..	3,642
Powered coaching stock	14,401	9,899	1,742	2,686	1,389	138	88	30,343
Total	39,128	20,543	18,263	6,192	7,848	1,180	3,963	97,119

(a) Includes mixed train-miles.

Total Train-mileage

TRAIN MILEAGE
(*000 miles)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
1965-66	37,694	20,145	17,640	6,492	8,043	1,283	2,955	94,252
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

Passenger traffic

Passenger-journeys

GOVERNMENT RAILWAYS: PASSENGER-JOURNEYS(a), SYSTEMS, 1965-66 TO 1969-70
(^{'000})

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
SUBURBAN								
1965-66	242,216	144,332	23,227	14,671	9,748	1,097	..	435,291
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
COUNTRY(b)								
1965-66	15,352	4,793	2,752	840	419	207	342	24,705
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
TOTAL(b)								
1965-66	257,568	149,125	25,979	15,511	10,168	1,304	342	459,997
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

(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, 1965-66 TO 1969-70
(^{'000})

Year	Vic.	S.A.	W.A.	Tas.	Cwlth
SUBURBAN					
1965-66	1,273,380	122,720	67,826	7,062	..
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	..
COUNTRY					
1965-66	396,226	95,410	66,968	11,132	121,351
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
TOTAL					
1965-66	1,669,606	218,130	134,794	18,194	121,351
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

(a) Particulars for New South Wales and Queensland, and in consequence the totals for Australia, are not 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.
1969-70—								
Wheat	3,397	1,588	513	949	2,281	..	(b)	8,728
Other agricultural produce	1,076	944	2,366	383	286	23	31	5,108
Coal, coke and briquettes	15,385	1,396	7,068	7	135	94	2,126	26,211
Other minerals(c)	3,100	143	1,125	1,705	5,436	30	1,172	12,711
Wool	236	168	36	28	126	4	4	602
Fertilisers and manure	396	883	116	324	560	111	7	2,397
Cement	1,038	852	164	151	(d)	253	130	2,589
Timber	334	493	122	73	333	392	36	1,783
Livestock	258	294	734	172	84	15	168	1,725
All other commodities	8,222	5,074	2,193	2,094	(e)1,423	336	1,150	20,492
Total	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
1964-65	27,889	12,596	10,031	5,089	5,229	1,091	2,919	64,844

(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.
1969-70—								
Wheat	1,038.1	296.8	(a)	91.0	375.7	..	0.1	n.a.
Other agricultural produce	457.7	172.6	(a)	41.5	56.7	2.5	21.7	n.a.
Coal, coke and briquettes	569.8	141.4	(a)	1.9	7.5	11.4	331.0	n.a.
Other minerals(b)	412.0	12.9	(a)	252.9	659.2	1.1	147.0	n.a.
Wool	58.7	22.6	(a)	5.3	32.0	0.5	2.4	n.a.
Fertilisers and manure	122.1	145.2	(a)	56.8	106.6	18.9	4.7	n.a.
Cement	159.5	58.8	(a)	17.3	(e)	13.1	8.5	n.a.
Timber	138.3	78.1	(a)	12.7	85.9	20.3	28.9	n.a.
Livestock	86.5	52.9	199.3	26.6	14.2	2.1	65.4	447.0
All other commodities	2,341.6	1,055.9	2,910.9	441.5	(d)411.2	49.5	702.8	7,913.4
Total	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
1964-65	4,706.0	2,028.2	1,800.9	765.4	842.1	116.6	885.8	11,145.0

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

Finance

GOVERNMENT RAILWAYS: GROSS EARNINGS(a), SYSTEMS, 1969-70
(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
Coaching—								
Suburban passenger	33,149	24,175	2,768	1,996	1,439	63	..	63,589
Country passenger	16,582	7,521	3,886	1,657	2,051	139	2,824	34,661
Other	7,230	4,223	3,129	895	1,599	210	635	17,921
<i>Total, coaching</i>	<i>(b)(c)58,648</i>	<i>35,919</i>	<i>9,782</i>	<i>4,548</i>	<i>5,090</i>	<i>412</i>	<i>3,458</i>	<i>(c)117,857</i>
Freight (goods and live-stock)—								
Wheat	(d)	9,711	4,186	3,817	11,312	..	1	n.a.
Other agricultural produce	(d)	5,060	14,419	1,464	1,796	148	310	n.a.
Coal, coke and briquettes	(d)	5,226	20,686	37	391	363	2,444	n.a.
Other minerals(e)	(d)	370	10,617	7,472	10,393	73	2,401	n.a.
Wool	(d)	1,448	1,250	172	1,815	39	58	n.a.
Fertilisers and manure	(d)	3,189	1,360	965	2,822	853	39	n.a.
Cement	(d)	2,745	1,626	439	(f)	739	191	n.a.
Timber	(d)	2,895	1,591	315	2,514	1,063	314	n.a.
Livestock	3,333	1,521	8,987	1,122	628	101	959	16,651
All other commodities	171,333	29,602	31,333	10,474	(g)16,479	2,866	15,726	277,813
<i>Total, freight</i>	<i>(b)174,665</i>	<i>61,766</i>	<i>96,055</i>	<i>26,276</i>	<i>48,151</i>	<i>6,246</i>	<i>22,443</i>	<i>435,603</i>
Miscellaneous	(b)13,974	7,360	2,994	2,516	2,803	261	1,747	31,655
Grand total	(b)247,288	105,045	108,831	33,340	56,044	6,920	27,649	585,116

(a) Excludes Government grants. (b) Includes State Co-ordination Tax Contribution. (c) Includes earnings which cannot be allocated among suburban, country or other coaching earnings. (d) Not available separately, included with 'All other commodities'. (e) Includes sand and gravel. (f) Cement included with 'All other commodities'. (g) Includes cement.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1969-70
(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(a)	Cwth	Aust.
Maintenance of way and works								
Motive power(b)	35,372	23,969	28,879	(a)9,914	(a)14,351	2,129	8,037	122,651
Traffic	70,588	30,589	35,527	(a)13,228	(a)20,639	3,095	7,388	181,054
Other charges	55,995	35,803	26,008	(a)10,797	13,152	2,555	4,934	149,244
Other charges	55,706	28,196	6,117	5,102	6,849	1,253	6,796	110,019
Total	217,660	118,558	96,530	(a)39,040	(a)54,992	9,031(a)	27,156	562,967

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

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS SYSTEMS, 1965-66 TO 1969-70
(\$'000)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Cwlth</i>	<i>Aust.</i>
GROSS EARNINGS								
1965-66	195,336	99,519	84,178	28,947	42,571	5,985	18,091	474,627
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
WORKING EXPENSES								
				(a)	(a)	(a)	(a)	
1965-66	179,792	101,006	84,126	32,388	39,730	7,547	17,316	461,905
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
NET EARNINGS(b)								
1965-66	15,544	-1,486	52	-3,441	2,841	-1,561	775	12,724
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

(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 1970
(\$'000)

<i>System</i>	<i>Net earnings—excess of gross earnings over working expenses</i>	<i>Plus grants and other earnings payable to railways</i>			<i>Less other expenses charged to railways</i>					<i>Surplus (+) or deficit (-)</i>	
		<i>State Government grants</i>	<i>Road motor earnings</i>	<i>Other</i>	<i>Interest and exchange</i>	<i>Sinking fund</i>	<i>Road motor expenses (a)</i>	<i>Other</i>	<i>Total</i>		
New South Wales	29,628	(b)3,200	..	..	3,200	28,228	6,461	..	(c)948	35,637	-2,809
Victoria	-13,513	(d)9	66	..	74	7,161	330	153	..	7,645	-21,084
Queensland	12,301	..	..	..	..	24,681	(e)85	..	(f)1,400	26,166	(g)-13,865
South Australia	-5,699	(h)14,674	226	..	14,900	6,359	..	255	(i)686	7,300	1,900
Western Australia	1,051	..	1,196	..	1,196	10,547	..	1,273	..	11,821	-9,573
Tasmania	-2,111	..	..	(j)31	31	1,133	..	..	..	1,133	-3,214
Commonwealth	493	..	..	..	..	..	..	..	..	..	493
Australia	22,150	17,883	1,487	31	19,401	78,110	6,876	1,681	3,035	89,702	-48,152

(a) Includes interest and exchange. (b) Grants to meet losses on country developmental lines, to subsidise payments due from superannuation account. (c) Loan management and loan flotation expenses. (d) Kerang-Koondrook tramway recoup from Treasury. (e) Queensland 4 ft 8½ in gauge system only. (f) Demolished assets written off. (g) Includes deficit (\$733,029) on the Queensland 4 ft 8½ in gauge system. (h) Grants towards working expenses and debt charges. (i) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (j) Miscellaneous goods revenue from rail-ferry service traffic not carried by rail.

Employment, salaries and wages

The average number of staff employed and salaries and wages paid (\$'000) during the year 1969-70 were as follows: N.S.W. 43,845 (\$163,075), Vic. 26,429 (\$93,119), Qld 23,140 (\$76,220), S.A. 7,764 (\$30,880), W.A. 10,656 (\$37,590), Tas. 2,152 (\$7,024), Cwlth 3,620 (\$14,584), Aust. 117,606 (\$422,492).

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 900 by 1970. The construction of 517 miles of heavy duty railway for north-west Western Australia iron ore projects accounts for much of the increase.

Three private railways projects are currently under construction. Each of these will function as an integral part of a mining operation. Two of these projects involving the transportation of iron ore are located in Western Australia. These are Hamersley Iron Proprietary Limited's extension of its Dampier-Mount Tom Price line to Paraburdoo (approximately 65 miles) and a railway is being constructed between Lambert and Mount Enid (approximately 104 miles) for Cliffs Western Australia Mining Company Proprietary Limited. The former is planned for completion in late 1971, the latter in April 1972. The third project involves the construction of a railway (approximately 14 miles) at Weipa, Queensland to service the Comalco Company's bauxite mining operation. Completion is planned for 1971. Further private rail construction connected with mining projects is planned for Western Australia.

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 2ft 0in 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 1968-69

(Source: Department of Shipping and Transport)

Year	Tons carried	Private as a	Ton-miles	Private as a
		percentage of total tons carried(b)		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

(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 1968-69 tonnages of freight carried and ton-miles performed increased by 77.3 and 756 per cent respectively. 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 1968-69 these railways alone carried 35 per cent of the total tonnage carried by all private railways, and accounted for 85 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 1970 tramway services were in operation in Melbourne, Bendigo and Ballarat, 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 349.

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 governmental 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, trolley-bus and motor omnibus services with separate details shown for each form of transport where possible.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, STATES AND TERRITORIES, 1969-70

	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
Trolley-bus . . . . . "	..	..	..	..	(b)	..	..	..	..
Omnibus "	612	139	387	163	5,533	223	56	85	7,198
Vehicle-miles—									
Tram '000	..	16,074	..	419	..	..	..	..	16,492
Trolley-bus . . . . . "	..	..	..	..	(b)66	..	..	..	66
Omnibus "	44,574	6,923	14,769	10,239	23,205	5,430	680	3,120	108,940
Rolling stock at 30 June—									
Tram number	..	754	..	26	..	..	..	..	780
Trolley-bus . . . . . "	..	..	..	..	(b)	..	..	..	..
Omnibus "	1,815	277	703	344	772	278	28	128	4,345
Passenger-journeys—									
Tram '000	..	113,594	..	1,703	..	..	..	..	115,297
Trolley-bus . . . . . "	..	..	..	..	(b)276	..	..	..	276
Omnibus "	235,980	22,353	73,349	41,642	56,634	20,707	1,218	7,701	459,583
Gross revenue(c)—									
Tram, trolley-bus and omnibus \$'000	32,252	20,579	8,342	6,696	9,025	2,332	340	976	80,542
Working expenses(d)—									
Tram, trolley-bus and omnibus \$'000	36,188	20,327	8,439	6,293	9,555	3,237	448	1,443	85,929
Net revenue—									
Tram, trolley-bus and omnibus \$'000	-3,936	252	-98	403	-531	-905	-108	-466	-5,387
Employees at 30 June—									
Tram, trolley-bus and omnibus number	7,436	4,328	1,969	1,275	1,919	631	34	189	17,781
Accidents—									
Tram, trolley-bus and omnibus(e)—									
Persons killed number	8	19	2	3	1	..	..	..	33
Persons injured "	1,231	569	108	127	304	25	1	51	2,416

(a) Gauge 4ft 8½in throughout. (b) Trolley-bus services ceased on 29 August 1969. (c) Excludes government grants. (d) Includes provision of reserves for depreciation, etc., where possible. (e) Excludes accidents to employees.

Minus sign (-) denotes deficit.

**TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL
AUSTRALIA, 1965-66 TO 1969-70**

	1965-66	1966-67	1967-68	1968-69	1969-70
Route-miles at 30 June—					
Tram miles	222	222	222	163	163
Trolley-bus „	65	65	64	9	..
Omnibus „	6,533	6,329	6,794	6,362	7,198
Vehicle miles—					
Tram '000	23,878	23,310	22,813	20,038	16,492
Trolley-bus „	2,891	2,594	2,038	1,018	66
Omnibus „	96,430	98,531	99,357	102,049	108,940
Rolling stock at 30 June—					
Tram number	1,071	1,004	1,004	771	780
Trolley-bus „	152	149	138	50	..
Omnibus „	3,776	3,469	3,571	4,210	4,345
Passenger-journeys—					
Tram '000	203,179	186,346	179,280	149,055	115,297
Trolley-bus and omnibus . . „	450,015	435,054	429,819	441,036	459,859
Gross revenue(a)—					
Tram, trolley-bus and omnibus\$'000	66,700	72,362	72,847	79,288	80,542
Working expenses(b)—					
Tram, trolley-bus and omnibus\$'000	73,444	77,078	79,199	84,649	85,929
Net revenue—					
Tram, trolley-bus and omnibus\$'000	-6,744	-4,716	-6,350	-5,361	-5,387
Employees at 30 June—					
Tram, trolley-bus and omnibus number	19,007	18,843	18,735	17,840	17,781
Accidents—					
Tram, trolley-bus and omnibus(c)—					
Persons killed number	28	37	39	27	33
Persons injured „	2,474	2,303	2,246	2,328	2,416

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

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

Minus sign (-) denotes deficit.

MOTOR VEHICLES

The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 30 June 1970 are shown in *Transport and Communication*, Bulletin No. 61, 1969-70.

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.

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

State or Territory and year	Motor cars	Station wagons	Other motor vehicles					Total	Motor cycles	Total	
			Utilities	Panel vans	Trucks	Other truck-types	Omnibuses				
31 December 1970—											
New South Wales . . .	1,146,507	237,471	1,383,978	129,213	70,718	113,603	4,221	7,527	325,282	55,035	1,764,295
Victoria . . .	903,247	194,893	1,098,140	92,323	38,950	93,508	3,820	4,962	233,563	24,847	1,356,550
Queensland . . .	n.a.	n.a.	518,954	(b)101,388	(b)	(c)64,492	(c)	3,347	169,227	22,722	710,903
South Australia . . .	319,788	58,311	378,099	37,567	12,191	35,125	1,865	2,608	89,356	14,851	482,306
Western Australia . . .	n.a.	n.a.	328,300	n.a.	n.a.	n.a.	n.a.	n.a.	102,800	12,200	443,300
Tasmania . . .	105,200	17,590	122,790	14,310	7,920	10,890	340	1,293	34,753	3,281	160,824
Northern Territory	11,264	5,157	16,421	5,568	1,220	2,213	69	178	9,248	1,395	27,064
Australian Capital Territory . . .	42,626	9,180	51,806	3,120	2,058	1,665	141	285	7,269	2,129	61,204
Australia . . .	n.a.	n.a.	3,898,488	n.a.	n.a.	n.a.	n.a.	n.a.	971,498	136,460	5,006,446
31 December—											
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
1965 . . .	n.a.	n.a.	2,895,891	542,440	(b)	314,198	(c)	17,018	873,656	67,339	3,836,886
1962(d)	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) Motor vehicle census figures.

MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION STATES AND TERRITORIES, 1962 TO 1970

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
1966(c)	329	342	344	371	379	355	279	381	343
1967(c)	341	351	353	378	394	365	300	395	354
1968(c)	354	364	364	386	409	381	322	411	367
1969(c)	369	376	378	399	430	394	350	422	381
1970(c)	382	390	391	410	443	407	365	438	394

(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 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
1970—										
New South Wales . . .	137,563	19,896	161	12,342	8,919	8,847	463	806	14,476	203,473
Victoria . . .	97,917	14,609	85	6,972	3,933	7,464	520	532	5,906	137,938
Queensland . . .	39,880	7,454	90	5,979	1,841	(a)6,524	(a)11	184	5,072	67,035
South Australia . . .	34,311	4,309	45	2,912	1,248	2,227	115	280	2,994	48,441
Western Australia . . .	31,402	6,038	26	5,115	2,312	3,112	128	218	2,305	50,656
Tasmania . . .	10,364	1,250	11	1,144	532	692	28	98	804	14,923
Northern Territory . . .	1,305	496	6	951	165	347	10	28	558	3,866
Australian Capital Territory . . .	5,439	828	2	466	325	263	14	44	586	7,967
Australia . . .	358,181	54,878	426	35,881	19,275	29,476	1,289	2,190	32,701	534,297
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
1965 . . .	258,082	73,673	346	32,948	14,177	25,373	886	1,544	8,056	415,085

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

Drivers' and riders' licences

At 30 June 1970 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 2,034 309; Victoria, 1,502,074; South Australia, 523,311; Western Australia, 431,499; Tasmania, 166,215; Northern Territory, 37,108; Australian Capital Territory, 82,081. 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, 1969

State or Territory	Number of accidents	Persons killed	Persons injured	Per 100,000 of mean population			Per 10,000 motor vehicles registered(b)		
				Number of accidents	Persons killed	Persons injured	Number of accidents	Persons killed	Persons injured
New South Wales	24,164	1,188	32,752	539	27	731	149	7	202
Victoria	16,527	1,011	23,797	488	30	703	132	8	190
Queensland	7,494	556	10,406	424	31	588	114	8	159
South Australia	6,895	251	9,961	602	22	870	153	6	221
Western Australia	4,809	311	6,788	508	33	717	121	8	170
Tasmania	1,416	114	2,264	364	29	583	94	8	151
Northern Territory	500	45	727	733	66	1,066	218	20	318
Australian Capital Territory	792	26	1,169	648	21	956	155	5	229
Australia	62,597	3,502	87,864	509	28	714	136	8	191

(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 on register.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED STATES AND TERRITORIES, 1965 TO 1969

Year	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Total		
									Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered(c)
Accidents involving casualties—											
1965	21,052	14,336	7,134	7,267	4,170	1,206	232	535	55,932	491	150
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
Persons killed—											
1965	1,151	929	467	243	252	93	14	15	3,164	28	8
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
Persons injured—											
1965	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723	682	208
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

(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, 1969

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	436	403	226	108	124	43	13	8	1,361
Motor cyclists	75	22	19	6	18	3	1	4	148
Pedal cyclists	19	38	18	16	9	2	..	..	102
Passengers (all types)(b)	362	289	184	66	87	41	18	13	1,060
Pedestrians	294	255	109	55	73	25	13	1	825
Other classes(c)	2	4	..	..	..	..	..	..	6
Total	1,188	1,011	556	251	311	114	45	26	3,502
PERSONS INJURED									
Drivers of motor vehicles	12,515	9,788	4,184	3,990	2,863	983	306	538	35,167
Motor cyclists	2,562	683	715	728	325	107	64	100	5,284
Pedal cyclists	844	1,033	457	530	340	44	9	46	3,303
Passengers (all types)(b)	12,343	9,475	4,112	3,905	2,519	975	305	414	34,048
Pedestrians	4,469	2,781	930	804	715	155	43	67	9,964
Other classes(c)	19	37	8	4	26	..	..	4	98
Total	32,752	23,797	10,406	9,961	6,788	2,264	727	1,169	87,864

(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 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, 1969

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Under 5	35	34	23	12	13	6	..	..	123
5 and under 7	18	11	8	5	6	1	..	..	49
7 " " 17	82	87	51	27	27	7	5	4	290
17 " " 21	183	186	94	48	56	25	3	13	608
21 " " 30	232	202	94	38	70	19	19	2	676
30 " " 40	144	96	65	30	35	12	5	3	390
40 " " 50	126	92	61	29	27	7	5	1	348
50 " " 60	131	104	61	17	21	15	3	2	354
60 and over	235	197	99	40	56	20	3	1	651
Not stated	2	2	..	5	..	2	2	..	13
Total	1,188	1,011	556	251	311	114	45	26	3,502
PERSONS INJURED									
Under 5	1,000	853	321	268	261	54	23	40	2,820
5 and under 7	629	481	192	145	134	35	18	21	1,655
7 " " 17	3,629	2,680	1,379	1,292	867	292	45	124	10,308
17 " " 21	7,343	5,007	2,461	2,163	1,383	539	109	316	19,321
21 " " 30	7,765	5,611	2,218	1,745	1,293	488	253	282	19,655
30 " " 40	3,739	2,844	1,086	906	728	220	132	150	9,805
40 " " 50	3,314	2,535	988	898	608	201	60	93	8,697
50 " " 60	2,547	1,727	812	635	424	144	40	71	6,400
60 and over	2,397	1,675	784	562	501	158	20	65	6,162
Not stated	389	384	165	1,347	589	133	27	7	3,041
Total	32,752	23,797	10,406	9,961	6,788	2,264	727	1,169	87,864

(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, 1969

<i>Type of accident</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
NUMBER OF ACCIDENTS									
Collisions between vehicles	12,948	9,203	3,504	3,926	2,759	804	198	490	33,832
Vehicle overturning or leaving road	3,213	1,189	2,548	847	1,075	380	202	185	9,639
Vehicle colliding with pedestrian	4,381	2,807	978	791	755	170	54	68	10,004
Vehicle colliding with fixed object(b)	3,326	3,116	292	1,231	157	55	30	36	8,243
Passenger accidents	145	92	51	42	25	3	6	3	367
Vehicle colliding with animal	150	86	90	39	18	4	9	6	402
Other	1	34	31	19	20	..	1	4	110
Total	24,164	16,527	7,494	6,895	4,809	1,416	500	792	62,597

PERSONS KILLED									
Collisions between vehicles	508	403	228	107	103	40	9	8	1,406
Vehicle overturning or leaving road	180	95	212	26	121	45	22	17	718
Vehicle colliding with pedestrian	291	252	108	52	74	26	13	1	817
Vehicle colliding with fixed object(b)	197	253	4	62	7	2	1	..	526
Passenger accidents	10	6	2	3	3	..	..	..	24
Vehicle colliding with animal	2	1	1	1	2	1	..	..	8
Other . . . . .	..	1	1	..	1	..	..	..	3
Total	1,188	1,011	556	251	311	114	45	26	3,502

PERSONS INJURED									
Collisions between vehicles	19,168	14,679	5,385	6,067	4,292	1,440	322	801	52,154
Vehicle overturning or leaving road	4,344	1,754	3,509	1,267	1,501	578	299	243	13,495
Vehicle colliding with pedestrian	4,363	2,667	931	807	730	164	44	68	9,774
Vehicle colliding with fixed object(b)	4,551	4,461	387	1,708	201	67	39	43	11,457
Passenger accidents	146	90	51	46	22	3	7	3	368
Vehicle colliding with animal	179	107	106	46	20	12	13	7	490
Other	1	39	37	20	22	..	3	4	126
Total	32,752	23,797	10,406	9,961	6,788	2,264	727	1,169	87,864

(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 1970. 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 1970

(Miles)

<i>Class of road</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i> <i>(a)(b)</i>	<i>Tas.</i>	<i>Total</i>
State highways . . .	6,569	(c)4,506	6,319	8,156	6,414	1,229	63,847
Trunk roads . . .	4,245	9,066	77				
Ordinary main roads . . .	11,568		5,036				
<i>Total main roads . . .</i>	<i>22,382</i>	<i>13,572</i>	<i>11,432</i>	<i>8,156</i>	<i>6,414</i>	<i>1,891</i>	<i>63,847</i>
Secondary roads . . .	(d)176	..	(e)8,602	..	6,020	193	14,991
Developmental roads . . .	2,741	..	4,779	..	..	85	7,605
Tourist roads . . .	219	483	..	..	..	47	749
Other roads . . .	..	(f)578	..	..	..	93	671
<i>Total other roads . . .</i>	<i>3,136</i>	<i>1,061</i>	<i>13,381</i>	<i>..</i>	<i>6,020</i>	<i>418</i>	<i>24,016</i>
Grand total . . .	25,518	14,633	24,813	8,156	12,434	2,309	87,863

(a) 30 June 1969. (b) Main Roads Department revised series. (c) Includes by-pass roads. (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 1970

(Miles)

<i>Surface of roads</i>	<i>N.S.W.</i> <i>(a)</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i> <i>(a)(b)</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Total</i>
Bitumen or concrete	33,494	31,421	20,123	9,484	15,980	3,893	2,320	588	117,303
Gravel, crushed stone or other improved surface . . .	41,659	28,757	18,767	18,703	14,948	8,557	1,216	248	132,855
Formed only . . .	28,169	20,704	40,168	7,637	27,308	1,334	1,827	26	299,316
Cleared only . . .	26,423	20,170	40,167	39,467	39,110				
Total . . .	129,745	101,052	119,225	75,291	97,348	13,784	12,169	862	549,476

(a) 30 June 1969. (b) Main Roads Department revised series.

Further information on roads, including financial particulars, is included in Chapter 19, Local Government.

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 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 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 another Ansett subsidiary, Ansett Airlines of Papua and New Guinea and Papuan Airlines Pty Ltd.

At 30 June 1970 the Ansett Airlines of Australia fleet included five Boeing 727's, seven DC-9's, three Electras, one Viscount, nine Friendships, three Carvairs, a number of DC-4's and two helicopters. At the same date Trans-Australia Airlines operated a fleet of five Boeing 727's, seven DC-9's, three Electras, two Viscounts, twelve Friendships and smaller aircraft.

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 (Connellan Airways). With the exception of Connellan Airways, 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 Connellan Airways, all regional airlines are subsidiaries of Ansett Transport Industries. The larger aircraft used by these regional airlines are Fellowships, Friendships and Convairs. Connellan Airways 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 1970 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 1965-66 to 1969-70 are set out in the next table.

**CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES
AUSTRALIA(a), 1965-66 TO 1969-70**

	1965-66	1966-67	1967-68	1968-69	1969-70
Hours flown number	261,535	255,510	240,801	244,606	251,582
Miles flown '000	55,020	56,759	56,724	60,348	66,241
Passengers—					
Embarkations number	4,157,873	4,424,652	4,668,153	5,184,828	5,911,002
Passenger-miles '000	1,831,360	1,972,469	2,125,314	2,401,783	2,802,717
Freight—					
Tons uplifted short tons	76,079	82,056	85,063	89,947	100,100
Ton-miles(b) '000	37,577	40,148	42,320	45,521	51,021
Mail—					
Tons uplifted short tons	8,633	9,587	9,417	9,876	10,625
Ton-miles(b) '000	4,587	5,144	5,174	5,498	5,950

(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
1965-66 TO 1969-70**

<i>Airport</i>	<i>1965-66</i>	<i>1966-67</i>	<i>1967-68</i>	<i>1968-69</i>	<i>1969-70</i>
Sydney	2,244,218	2,435,284	2,641,147	2,933,795	3,390,322
Melbourne	1,748,478	1,880,860	2,043,542	2,278,032	2,603,320
Brisbane	814,097	854,370	937,660	1,009,060	1,184,846
Adelaide	738,402	770,408	863,652	930,207	1,016,689
Canberra	331,203	341,058	410,701	461,888	541,791
Perth	257,406	278,662	315,744	357,236	420,603
Hobart	167,077	178,314	182,459	196,335	200,638
Townsville	152,384	145,161	188,761	168,247	197,107
Launceston	155,057	159,402	156,443	171,612	179,614
Coolangatta	88,456	97,343	85,543	102,764	132,102
Cairns	83,996	86,598	92,048	101,031	127,252
Darwin	49,131	57,557	65,535	78,165	98,523
Mackay	72,411	72,407	78,179	87,313	95,841
Rockhampton	63,250	65,777	68,150	74,760	83,883
Devonport	48,089	55,213	61,250	68,125	68,257
Wynyard	40,617	51,932	54,888	57,132	63,041
Dubbo	41,903	44,852	49,856	51,775	56,014
Wagga	46,179	53,273	46,314	49,519	54,378
Alice Springs	24,544	28,419	34,953	39,549	52,522
Mount Isa	31,373	33,507	34,013	37,423	52,272
Tamworth	37,589	38,141	41,960	46,558	51,640
Kingscote	42,197	44,764	44,316	45,993	50,878

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 119 nations in June 1970. 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-one countries at 31 December 1970. They were Austria, Britain, Canada, Ceylon, France, Federal Republic of Germany, India, Indonesia, Ireland, Italy, Japan, Lebanon, Malaysia, Nauru, Netherlands, New Zealand, Singapore, South Africa, Thailand, United Arab Republic, and the United States of America. Under these agreements Australia is granted rights to operate services between Australia 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 sixteen other countries at 31 December 1970. These were Bulgaria, Burma, Republic of Khmer (formerly Cambodia), Republic of China (Taiwan), Greece, 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. In October 1970 eighteen 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 (South Africa), 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-seven aircraft of which twenty-one are Boeing 707-338C jet aircraft. Qantas has also ordered four Boeing 747B superjet aircraft for delivery between August and September 1971. 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 1969-70 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), 1969-70**

<i>Type of traffic</i>	<i>Aircraft movements</i>	<i>Passengers</i>	<i>Freight</i>	<i>Mail</i>
Traffic to Australia—			short tons	short tons
Qantas Airways Limited	3,066	238,056	9,059	797
Other airlines	4,214	291,577	9,475	2,203
<i>All airlines</i>	<i>7,280</i>	<i>529,633</i>	<i>18,535</i>	<i>2,999</i>
Traffic from Australia—				
Qantas Airways Limited	3,017	228,899	5,594	1,086
Other airlines	4,208	260,256	5,505	720
<i>All airlines</i>	<i>7,225</i>	<i>489,155</i>	<i>11,100</i>	<i>1,806</i>

(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
1965-66 TO 1969-70**

	1965-66	1966-67	1967-68	1968-69	1969-70
Hours flown number	68,405	66,840	70,611	74,757	84,684
Miles flown '000	29,635	29,201	31,914	33,591	37,537
Passengers—					
Embarkations number	448,623	466,849	562,855	642,524	751,315
Passenger-miles '000	1,569,513	1,608,868	1,970,008	2,247,241	2,498,180
Freight—					
Tons uplifted short tons	11,451	12,259	13,733	18,537	21,165
Ton-miles(a) '000	61,836	62,939	67,733	92,488	103,717
Mail—					
Tons uplifted short tons	3,252	2,697	3,170	2,862	2,925
Ton-miles(a) '000	20,914	16,500	19,209	15,680	15,143

(a) In terms of short tons.

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 1970, hours flown totalled 1,138,000 compared with 431,000 hours flown by Australian airline aircraft. At 30 June 1970, aircraft employed in general aviation numbered 3,542.

Aerodromes

The number of aerodromes throughout Australia and its External Territories at 30 June 1970 was 688. One hundred and seventeen were owned by the Commonwealth Government and 571 by local authorities and private interests. Capital expenditure on aerodrome and building construction was \$32.7 million in 1969-70. Maintenance expenditure on Commonwealth-owned aerodromes during 1969-70 was \$2.16 million, and development grants to licensed aerodromes participating in the Local Ownership Plan totalled \$699,000.

Airways facilities

A total of 365 navigational aids were in service at 30 June 1970. The total includes 214 non-directional beacons (NDB), 95 distance measuring equipment (DME), 21 visual-aural ranges (VAR), 25 VHF Omni-directional ranges (VOR), 15 instrument landing systems (ILS) and 2 twin locator approach systems.

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

Five long range surveillance radars are in operation.

Aircraft on the Australian register

CIVIL AVIATION: AIRCRAFT ON AUSTRALIAN REGISTER, 30 JUNE 1970

Type of aircraft	Number of engines				Total aircraft
	One	Two	Three	Four	
Fixed-wing powered aircraft—					
Turbo-jet . . . . .	..	20	10	21	51
Turbo-prop	5	74	..	12	91
Piston-engined 20,000 lb and over maximum take-off weight . . . . .	..	56	..	11	67
Piston-engined under 20,000 lb maximum take-off weight	2,965	448	5	3	3,421
Helicopters	97	2	..	..	99
<i>Total powered aircraft</i>	<i>3,067</i>	<i>600</i>	<i>15</i>	<i>47</i>	<i>3,729</i>
Gliders . . . . .	..	..	..	..	264

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. 61, 1969-70.

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

At 30 June 1970 there were 3,729 aircraft registered in Australia (including 264 gliders) and 2,177 registered aircraft owners. There were also, at 30 June 1970, 26,405 pilots' licences in force of which 11,225 were private pilots' licences, 3,599 commercial pilots' licences, and 9,844 student pilots' licences. Flight radio-telephone operators' licences numbered 17,611. The number of aerodromes in Australia at 30 June 1970 totalled 489 of which 104 were government and 385 licensed, i.e. under the control of a municipality, shire, station owner, etc. There were also 10 flying boat bases in operation.

Accidents and casualties

CIVIL AVIATION: ACCIDENTS INVOLVING CASUALTIES(a)
AUSTRALIA(b), 1965-66 TO 1969-70

	1965-66	1966-67	1967-68	1968-69	1969-70
Number	37	38	36	17	47
Persons killed	29	66	47	47	49
Persons seriously injured	28	24	29	20	41

(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 372-4), and, in conjunction with the Overseas Telecommunications Commission (*see* pages 370-2), 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 1970 of 423 including 135 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 1970.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, STATES
30 JUNE 1970

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Post offices—							
Official	526	334	230	177	161	52	1,480
Non-official	1,759	1,493	943	711	445	322	5,673
<i>Total post offices</i>	2,285	1,827	1,173	888	606	374	7,153
Square miles of territory per office	136	48	569	1,014	1,610	71	415
Inhabitants per office	1,999	1,885	1,534	1,312	1,617	1,049	1,755
Inhabitants per 100 square miles	1,471	3,919	270	129	100	1,488	423

Employment

PERSONS PROVIDING POST OFFICE SERVICES: CENTRAL OFFICE AND STATES
30 JUNE 1970

	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Official full-time staff(a)—								
Permanent officers	2,342	25,820	18,346	11,472	8,326	6,001	2,695	75,002
Temporary and exempt employees	280	14,360	9,429	3,244	1,849	2,678	678	32,518
<i>Total</i>	<i>2,622</i>	<i>40,180</i>	<i>27,775</i>	<i>14,716</i>	<i>10,175</i>	<i>8,679</i>	<i>3,373</i>	<i>107,520</i>
Other(b)—								
Non-official postmasters and post- mistresses . . . . .	..	1,806	1,493	963	709	444	329	5,744
Other staff at non-official offices . . . . .	..	495	543	295	205	68	36	1,642
Telephone office-keepers . . . . .	..	152	56	254	83	161	12	718
Mail contractors (including persons employed to drive vehicles) . . . . .	..	1,817	984	1,215	309	305	161	4,791
<i>Total</i>	<i>..</i>	<i>4,270</i>	<i>3,076</i>	<i>2,727</i>	<i>1,306</i>	<i>978</i>	<i>538</i>	<i>12,895</i>

(a) Persons directly under the control of the Department. Excludes 3,215 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, 1960-61 TO 1969-70
(\$'000)

Year	Postal service			Telecommunications service					Other earnings (a)	Total
	Postages	Money order and postal order fees	Commission on agency services	Other earnings	Telephone rentals	Telephone calls	Telegrams	Leased telegraph services		
1960-61	85,611	2,348	2,482	2,407	52,341	105,453	9,536	4,057	8,059	272,295
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

(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, 1960-61 TO 1969-70
 (\$'000)

Year	Postal service			Telecommunications service			Total
	Operating maintenance and general	Carriage of mail	Depreciation, super-annuation, long service leave and interest	Operating and general	Maintenance of plant	Depreciation, super-annuation, long service leave and interest	
1960-61 . . .	59,907	23,669	7,282	53,662	55,457	66,791	266,768
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

Profit or Loss

The following table shows the net results of the Department's operations for the year 1969-70 together with summarised particulars for the year 1968-69.

POSTMASTER-GENERAL'S DEPARTMENT:
CONSOLIDATED STATEMENT OF PROFIT AND LOSS, AUSTRALIA, 1968-69 AND 1969-70
 (\$'000)

	1968-69	1969-70		All services
	All services	Postal service	Telecommunications service	
Earnings	567,208	161,866	463,378	625,244
Expenses—				
Operating, maintenance and general	339,243	158,526	222,631	381,157
Depreciation	103,692	3,793	109,777	113,569
Superannuation	20,372	7,755	13,875	21,631
Long service leave	7,116	2,874	5,110	7,984
Total expenses	470,422	172,948	351,393	524,341
Profit or loss before interest	96,786	- 11,082	111,985	100,903
Interest	88,749	8,786	90,135	98,921
Profit or loss after interest	8,037	- 19,868	21,850	1,982

Minus sign (-) denotes loss.

Fixed assets, Postmaster-General's Department

POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS
1969-70
(\$'000)

<i>Class of plant</i>	<i>Value at 1 July 1969</i>	<i>Adjustments to values</i>	<i>Additions during year</i>	<i>Instalments of plant written out</i>	<i>Value at 30 June 1970</i>
Telecommunications plant	2,157,887	..	290,642	20,192	(a)2,428,337
Postal plant	17,568	..	1,419	103	18,884
Engineers' moveable plant	44,349	..	6,430	2,887	47,892
Motor vehicles	31,556	..	7,143	5,408	33,291
Other plant and equipment	41,117	-108	5,030	1,522	44,517
Buildings	245,650	..	34,471	..	(b)280,121
Land	24,201	..	4,699	123	28,778
Total	2,562,329	-108	349,835	30,236	2,881,821

(a) Includes plant under construction valued at \$119,230,625. (b) Includes buildings under construction valued at \$18,631,431.

Minus sign (-) denotes reduction in values of assets.

Postal services

Mail delivery points

MAIL DELIVERY POINTS: STATES, 30 JUNE 1970

<i>State</i>	<i>Postmen's delivery</i>	<i>Roadside delivery</i>	<i>Private boxes</i>	<i>Private mail bag services</i>
New South Wales	1,405,395	58,924	89,058	5,876
Victoria	932,105	39,425	51,837	5,522
Queensland	447,711	41,405	42,166	4,701
South Australia	343,309	1,171	31,491	2,840
Western Australia	240,858	13,437	24,595	807
Tasmania	84,725	2,279	9,605	1,663
Australia	3,454,103	156,641	248,752	21,409

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, 1969-70
(^{'000})

State	News-papers and Registered articles				News-papers and Registered articles			
	Letters (b)	packets (c)	Parcels (d)	articles (e)	Letters (b)	packets (c)	Parcels (d)	articles (e)
	Posted for delivery within Australia				Posted for delivery overseas			
New South Wales . . .	758,173	173,283	9,429	3,492	51,592	13,617	408	1,093
Victoria . . .	559,138	94,188	5,652	2,262	32,949	3,878	271	584
Queensland . . .	286,960	34,356	2,761	1,352	12,666	1,040	48	71
South Australia . . .	187,570	17,422	1,540	746	9,408	1,079	64	68
Western Australia . . .	159,151	14,104	1,381	751	9,165	1,009	53	96
Tasmania . . .	56,483	8,314	263	304	482	87	6	4
Australia . . .	2,007,474	341,668	21,027	8,906	116,262	20,710	851	1,916
	Received from overseas				Total postal matter dealt with			
New South Wales . . .	80,262	33,667	820	1,474	890,027	220,567	10,657	6,060
Victoria . . .	44,193	9,982	521	666	636,280	108,048	6,444	3,511
Queensland . . .	8,042	4,890	174	37	307,668	40,286	2,983	1,460
South Australia . . .	7,165	2,255	126	35	204,143	20,756	1,731	849
Western Australia . . .	5,679	3,344	133	67	173,995	18,457	1,567	914
Tasmania . . .	1,859	552	31	4	58,824	8,953	300	312
Australia . . .	147,200	54,690	1,805	2,282	2,270,936	417,068	23,682	13,104

(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, 1965-66 TO 1969-70
(^{'000})

Year	Letters (b)	Newspapers and packets (c)	Parcels (d)	Registered articles (e)	Total postal articles handled
1965-66 . . .	2,123,338	401,578	18,327	12,886	2,556,128
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 . . .	2,181,133	407,922	22,092	12,748	2,623,895
1969-70 . . .	2,270,936	417,068	23,682	13,104	2,724,790

(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.

During 1969-70 the cost of the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Service, was as follows: road, \$12,381,261; railway, \$4,552,770; sea, \$657,779; air—internal, \$4,938,542, overseas, \$12,380,837; total, \$34,911,189.

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 \$80, 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 eight dollars. The following table shows the number and value of money orders and postal orders issued in Australia in each of the years 1965-66 to 1969-70 and the income therefrom which has accrued to the Post Office.

**MONEY ORDERS AND POSTAL ORDERS(a): TRANSACTIONS, AUSTRALIA
1965-66 TO 1969-70**

Year	Money orders(b)			Postal orders(a)		
	Issued		Total commission received	Issued		Fee
	Number	Value		Number	Value	
	'000	\$'000	\$'000	'000	\$'000	\$'000
1965-66 . .	(c)12,634	407,275	2,200	15,010	16,184	604
1966-67 . .	(c)12,594	434,942	2,332	13,499	18,454	629
1967-68 . .	(c)11,373	438,668	2,544	(d)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

(a) Postal orders replaced postal notes on 1 June 1966. (b) Money orders issued for payment in Australia and overseas. (c) Includes official money orders used in bringing to account telephone accounts and collections on War Service Homes repayments. (d) Postal orders for \$5, \$6, \$7 and \$8 were introduced in October 1967. Until then the highest denomination was \$4.

Of the total money orders issued in Australia during 1969-70, 8,681,502 valued at \$171,143,264 were payable in Australia, and 471,720 valued at \$4,303,107 were payable overseas. Of the total money orders paid in Australia during 1969-70, 8,730,876 (\$170,792,860) were issued in Australia, and 205,577 (\$3,865,491) were issued overseas.

Of the total postal orders paid in Australia during 1969-70 (14,809,880 valued at \$30,971,774), 10,908,306 (\$23,983,414) were paid in the State in which issued, and 3,901,574 (\$6,988,360) 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 1970 there were 22,804,493 single wire miles of cable and 1,084,904 miles of aerial wire used for telecommunication purposes in Australia. The aerial wires are mounted on 104,494 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 1970 there were 14,119 tube miles of coaxial cable and 39,897 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 1970 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 1970

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
Type of service—							
Ordinary exchange services	925,495	739,501	291,174	211,906	161,028	68,362	2,397,466
Duplex services	976	..	22	2	208	108	1,316
Party line services	4,240	1,689	2,854	1,249	1,128	152	11,312
Private branch exchange services	108,202	75,532	29,954	23,350	21,317	4,988	263,343
Public telephones	11,564	7,505	4,768	2,945	2,375	1,074	30,231
Connected to—							
Automatic exchanges	955,012	762,872	275,272	213,565	169,347	66,432	2,442,500
Manual exchanges	95,465	61,355	53,500	25,887	16,709	8,252	261,168
Located in—							
Metropolitan areas	653,290	544,844	157,184	153,967	127,199	27,365	1,663,849
Country areas	397,187	279,383	171,588	85,485	58,857	47,319	1,039,819
Total	1,050,477	824,227	328,772	239,452	186,056	74,684	2,703,668

TELEPHONE SERVICES IN OPERATION: AUSTRALIA, 1966 TO 1970

<i>Services connected to—</i>	<i>30 June—</i>				
	<i>1966</i>	<i>1967</i>	<i>1968</i>	<i>1969</i>	<i>1970</i>
Metropolitan exchanges—					
Automatic	1,316,456	1,383,475	1,456,179	1,548,479	1,663,849
Country exchanges—					
Automatic	467,844	523,697	594,977	681,668	778,651
Manual	336,078	327,531	307,681	281,084	261,168
All exchanges—					
Automatic	1,784,300	1,907,172	2,051,156	2,230,147	2,442,500
Manual	336,078	327,531	307,681	281,084	261,168
Total services	2,120,378	2,234,703	2,358,837	2,511,231	2,703,668

Telephone instruments

TELEPHONE INSTRUMENTS IN SERVICE: STATES, 1966 TO 1970
(‘000)

<i>30 June—</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
1966	1,182	905	357	272	176	86	2,978
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
Number at 30 June 1970 per 100 population	33.5	34.3	25.1	27.8	26.2	26.5	31.2

Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA
1965-66 TO 1969-70

Year	Effective paid local calls		Trunk line calls		Total calls '000
	Total '000	Per service number	Total '000	Per service number	
1965-66	2,081,000	1,008	116,600	56	2,197,600
1966-67	2,179,000	1,001	134,200	62	2,313,200
1967-68	2,295,000	999	151,600	66	2,446,600
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

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 1970 subscriber trunk dialling was in operation at 943 exchanges, connected to approximately 1,992,525 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 1965-66 to 1969-70 is set out below.

INTERNAL TELEGRAPH TRAFFIC: AUSTRALIA, 1965-66 TO 1969-70
(^{'000})

Year	Ordinary (a)	Urgent	Press	Letter- grams	Meteoro- logical service	Service	Total telegrams
1965-66	18,605	550	100	59	1,005	717	21,036
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	18,171	453	63	32	1,037	752	20,508

(a) Includes radiograms.

Teleprinter exchange service (telex)

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

TELEPRINTER EXCHANGE NETWORK (TELEX)
SERVICES AND INTERNAL CALLS, AUSTRALIA
1964-65 TO 1969-70

Year	Services at end of year	Internal calls during year
1964-65	2,179	1,867,701
1965-66	2,444	2,161,353
1966-67	3,154	3,592,610
1967-68	4,054	5,435,413
1968-69	5,067	7,362,084
1969-70	6,430	9,273,921

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 communications facilities with countries operating earth stations, while, as at September 1970, a switched data service was available to the United Kingdom.

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 (CANATAT) was officially opened in December 1961. The two cable connections are linked across Canada by a microwave system. The Commonwealth cable system feeds into the United States of America network at Hawaii and into the European network at London.

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

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

In 1964 a number of countries, including Australia, agreed to establish a global commercial communications satellite system at an estimated cost, for the space segment, of \$US200m. Broadly the term 'space segment' describes the orbiting satellites and the tracking, control, command, and related facilities required to support their operation. Australia, represented by the Commission, is one of the eighteen representatives on the Interim Communications Satellite Committee (ICSC) which is the management body of the seventy-six nation International Telecommunications Satellite Consortium (INTELSAT).

In December 1968, the Interim Communications Satellite Committee completed its report to INTELSAT member Governments on permanent arrangements to supersede those which had been provided for in the 1964 Interim Agreement. As prescribed in that Agreement, an intergovernmental Conference, to consider the Committee's report and to define the permanent arrangements for the International Telecommunications Satellite Consortium (INTELSAT), was held in Washington

during February/March 1969. The Conference did not reach agreement on the new arrangements and resumed in Washington in February 1970. The resumed Conference did not reach agreement on the permanent arrangements and will meet again early in 1971.

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 transmissions/receptions, through an INTELSAT II satellite launched in January 1967 and positioned in stationary orbit 22,300 miles above the equator. This station 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. Since 15 February 1969 these services have been provided through a Pacific Ocean INTELSAT III satellite. 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 III satellite, provides a link for the National Aeronautics and Space Administration (NASA) between its Carnarvon space tracking station 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 and Indonesia. Services between Ceduna and other countries in the eastern hemisphere will be established as additional earth stations are brought into operation in this area.

International telecommunication traffic

Particulars of the volume of international telegraph services, originating and terminating in Australia, during the years ended 31 March 1969 and 1970 are shown in the following table.

INTERNATIONAL TELEGRAPH SERVICES: AUSTRALIA
YEARS ENDED 31 MARCH 1969 AND 1970
(^{'000} words)

Class of traffic	Words transmitted—					
	From Australia		To Australia		Total	
	1968-69	1969-70	1968-69	1969-70	1968-69	1969-70
Letter . . .	28,367	30,137	24,537	26,492	52,905	56,629
Ordinary . . .	24,718	27,433	23,927	25,541	48,645	52,973
Press . . .	4,411	3,149	2,867	3,630	7,278	6,779
Greetings . . .	1,454	1,749	1,940	1,884	3,393	3,632
Urgent . . .	1,506	1,718	1,364	1,399	2,870	3,117
Other . . .	925	729	2,674	2,153	3,599	2,882
Total . . .	61,381	64,914	57,308	61,099	118,690	126,013

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the years ended 31 March 1969 and 1970.

**INTERNATIONAL TELECOMMUNICATION TRAFFIC OTHER THAN TELEGRAPHIC
AUSTRALIA, YEARS ENDED 31 MARCH 1969 AND 1970**

Service	Transmissions					
	From Australia		To Australia		Total	
	1968-69	1969-70	1968-69	1969-70	1968-69	1969-70
Telephone paid minutes	3,316,074	4,310,962	3,883,813	4,900,644	7,199,887	9,211,606
Telex paid minutes	1,757,719	2,476,404	1,725,280	2,371,303	3,482,999	4,847,707
Phototelegrams pictures	1,477	1,260	5,819	4,521	7,296	5,781

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. The station at Cairns (Queensland) is operated by the Department of Civil Aviation as agent for the Commission. During the year ended 31 March 1970 the coastal radio service handled 5,909,087 paid words to ships and 3,748,824 words from ships. Ship calls over the radiotelephone service extended over 95,545 paid minutes.

Radiocommunication stations authorised

At 30 June 1970 there were 135,868 civil radiocommunication stations authorised for operation in the Commonwealth and its Territories. Of these, 5,601 were stations established at fixed locations, 10,845 were land stations which were established at fixed locations for communication with mobile stations, 113,084 were mobile stations and 6,338 amateur stations. Particulars of broadcasting stations and broadcast listeners' licences are shown on pages 373 and 375 respectively.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act 1942-1969* 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 1942-1969*, 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 1970 the National Broadcasting Service comprised seventy-eight transmitting stations, of which seventy-two were medium frequency and six high frequency.

The medium-frequency transmitters operate in the broadcast band 525 to 1,605 kilocycles a second. The high-frequency stations, using frequencies within the band three to thirty megacycles a second, 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 1970 sixty 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 1969-70 was as follows: classical music, 25.0 per cent; entertainment, 29.9 per cent; news, 9.2 per cent; sporting, 4.7 per cent; light music, 2.3 per cent; spoken word, 7.5 per cent; drama and features, 4.1 per cent; education, 3.4 per cent; Parliament, 3.4 per cent; religious, 2.9 per cent; children's programmes, 1.9 per cent; rural, 2.4 per cent; and presentation, 3.3 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 1970

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	8	14	4	4	2	72
High frequency	1	2	2	..	1	..	..	..	6
Overseas (high frequency) . . . .	..	9	..	..	..	..	3	..	12
Commercial (medium frequency)	37	20	25	8	14	8	1	1	114
Total	57	36	43	16	29	12	8	3	204

Tables showing the call sign, location, frequency, and aerial power of national and commercial broadcasting stations in operation at 30 June 1970 are shown in *Transport and Communication*, Bulletin No. 61.

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 1970 forty-one stations were operating, excluding thirty-three translator stations. Three additional national television stations and twenty-seven low powered stations (in remote localities) had been authorised but had not commenced to operate by that date.

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 1970 was as follows: drama, 28.6 per cent; public interest, 15.9 per cent; sporting, 9.3 per cent; news, 6.5 per cent; variety and acts, 7.2 per cent; education, 18.3 per cent; musical performances, 0.9 per cent; religious, 1.4 per cent; rural, 1.0 per cent; special arts and aesthetics, 6.0 per cent; presentation, 4.9 per cent. Further particulars of the operation of the National Television Service in respect of talks, drama and features, music, rural services, education, news and other activities are shown in Year Book No. 51, pages 598-9. The average weekly transmission time for the forty-one national television transmitters was eighty-one hours during the year ended 30 June 1970.

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 1970 forty-five 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.

Television stations

During the year ended 30 June 1970 two new national television stations commenced regular transmissions in Western Australia, ABGW Channel 6, Geraldton; and ABKW Channel 6, Kalgoorlie. No new commercial television stations commenced regular transmissions during the year. The following table shows the number of television stations in operation at 30 June 1970.

TELEVISION STATIONS: STATES AND AUSTRALIAN CAPITAL TERRITORY
30 JUNE 1970

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	7	2	5	1	..	34
<i>Total, National</i> . . .	13	8	8	3	6	2	1	41
Commercial—								
Metropolitan . . .	3	3	3	3	2	1	1	16
Country	11	6	7	2	2	1	..	29
<i>Total, Commercial</i> . .	14	9	10	5	4	2	1	45
All stations	27	17	18	8	10	4	2	86

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 1970 are shown in *Transport and Communication*, Bulletin No. 61.

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 1942-1969*, 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 the 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 rate 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 30 June 1970 were as follows:

BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES RATES

Licence		Ordinary	Pensioner
		rate	rate
		\$	\$
Broadcast listener's licence and hirer's licence for a broadcast receiver	Zone 1	6.50	1.00
	Zone 2	3.30	0.70
Lodging house licence for a broadcast receiver	Zone 1	6.50	..
	Zone 2	3.30	..
Television viewer's licence and hirer's licence for a television receiver		14.00	3.00
		14.00	..
Combined receiving licence		20.00	4.00

Numbers of broadcast listeners' and television viewers' licences

BROADCAST LISTENERS' LICENCES IN FORCE(a): STATES, 1966 TO 1970

30 June—	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1966	929,119	716,594	340,687	281,747	169,709	88,095	2,525,951
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

(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, 1966 TO 1970

30 June—	N.S.W.(b)	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1966 . . .	843,103	662,595	277,182	233,726	142,881	66,187	2,225,674
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

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

The numbers of combined receiving licences included in both of the foregoing tables as at 30 June 1970 are: New South Wales, 836,320; Victoria, 675,457; Queensland, 302,744; South Australia, 232,921; Western Australia, 158,979; Tasmania, 68,439; Australia, 2,274,860.

Short-term hirers' licences (included above) at 30 June 1970 were: New South Wales, 100,708; Victoria, 32,480; Queensland, 30,563; South Australia, 42,068; Western Australia, 23,116; Tasmania, 4,939; Australia, 233,874.

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 1965-66 to 1969-70.

REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES
STATES, 1965-66 TO 1969-70
(\$'000)

Year	N.S.W.(a)	Vic.	Qld	S.A.(b)	W.A.	Tas.	Aust.
1965-66 . . .	13,401	10,335	4,545	3,832	2,285	1,047	35,445
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

(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 analysed 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.

United States troops commenced coming to Australia on rest and recreation leave in October 1967. For statistical purposes they are classified as short-term visitors travelling by air for holiday purposes and their country of residence and country of embarkation or disembarkation are shown as 'Asia—other'. During the period October 1967 to December 1970, 233,152 United States troops arrived in Australia on rest and recreation leave.

**TRAVELLER STATISTICS—SUMMARY, AUSTRALIA
1966 TO 1970**

Year	Overseas Visitors				Australian Residents			
	Short-term		Long-term		Short-term		Long term	
	Arriving in Australia	Departing from Australia	Arriving in Australia	Departing from Australia	Departing from Australia	Returning to Australia	Departing from Australia	Returning to Australia
1966	187,262	194,876	19,234	11,999	183,161	181,770	54,321	28,292
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

In addition to the basic classification of travellers shown above, certain other characteristics are also 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 of travellers 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* and in the annual bulletin *Demography*. 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, 1970**

Characteristics	Short-term			Long-term		
	Males	Females	Persons	Males	Females	Persons

OVERSEAS VISITORS ARRIVING

Marital status						
Never married	122,585	46,609	169,194	11,912	7,627	19,539
Married	145,242	76,855	222,097	5,931	4,402	10,333
Widowed or divorced	7,355	17,482	24,837	423	899	1,322
Age (years)						
0-14	14,760	13,938	28,698	2,361	2,182	4,543
15-24	82,996	22,041	105,037	8,403	5,579	13,982
25-44	101,718	40,484	142,202	5,891	3,238	9,129
45-64	61,315	47,558	108,873	1,311	1,352	2,663
65 and over	14,393	16,925	31,318	300	577	877
Total	275,182	140,946	416,128	18,266	12,928	31,194

**OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING
TEMPORARILY BY MARITAL STATUS, AGE AND SEX: AUSTRALIA, 1970—continued**

<i>Characteristics</i>	<i>Short-term</i>			<i>Long-term</i>		
	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Marital status						
Never married	66,493	53,074	119,567	18,923	17,418	36,341
Married	127,998	82,869	210,867	13,388	12,589	25,977
Widowed or divorced	5,758	16,334	22,092	617	1,280	1,897
Age (years)						
0-14	16,480	16,108	32,588	6,867	6,727	13,594
15-24	34,760	29,568	64,328	7,968	11,108	19,076
25-44	80,632	43,654	124,286	14,447	9,992	24,439
45-64	56,979	49,657	106,636	3,019	2,686	5,705
65 and over	11,398	13,290	24,688	627	774	1,401
Total	200,249	152,277	352,526	32,928	31,287	64,215

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, 1970**

<i>Country of residence(a)</i>	<i>Short-term</i>			<i>Long-term</i>		
	<i>By sea</i>	<i>By air</i>	<i>Total</i>	<i>By sea</i>	<i>By air</i>	<i>Total</i>
Africa—						
Commonwealth countries	240	1,833	2,073	54	228	282
South Africa	1,060	4,160	5,220	204	181	385
Other	29	910	939	8	268	276
America—						
Canada	869	9,347	10,216	369	977	1,346
Other Commonwealth countries	38	540	578	12	49	61
United States of America	1,432	62,849	64,281	177	4,265	4,442
Other	43	2,022	2,065	10	279	289
Asia—						
Ceylon, India and Pakistan	33	2,932	2,965	16	490	506
Hong Kong	228	5,400	5,628	16	265	281
Malaysia and Singapore	396	10,266	10,662	61	2,339	2,400
Other Commonwealth countries	32	219	251	23	47	70
Japan	238	11,113	11,351	13	817	830
Other	110	90,931	91,041	17	2,698	2,715
Europe—						
United Kingdom and Ireland	5,684	34,136	39,820	1,254	2,151	3,405
Other Commonwealth countries	83	458	541	3	44	47
France	74	2,936	3,010	19	203	222
Germany	288	5,361	5,649	90	280	370
Greece	49	951	1,000	28	319	347
Italy	225	3,317	3,542	22	324	346
Netherlands	480	4,153	4,633	105	172	277
Other	330	8,005	8,335	117	1,537	1,654
Oceania—						
Fiji	318	4,338	4,656	7	166	173
New Zealand	4,133	92,634	96,767	2,150	7,619	9,769
Papua and New Guinea	743	28,778	29,521	3	448	451
Other Commonwealth countries	554	2,188	2,742	16	106	122
Other	144	8,498	8,642	3	125	128
Total	17,853	398,275	416,128	4,797	26,397	31,194

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

**AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY, BY COUNTRY OF
DISEMBARKATION(a) AND MODE OF TRANSPORT: AUSTRALIA, 1970**

<i>Country of disembarkation(a)</i>	<i>Short-term</i>			<i>Long-term</i>		
	<i>By sea</i>	<i>By air</i>	<i>Total</i>	<i>By sea</i>	<i>By air</i>	<i>Total</i>
Africa—						
Commonwealth countries	12	919	931	3	252	255
South Africa	817	2,830	3,647	647	560	1,207
Other	752	12	764	1,673	1	1,674
America—						
Canada	1,274	860	2,134	381	324	705
Other Commonwealth countries	24	181	205	6	6	12
United States of America (excluding Hawaii)	1,819	12,651	14,470	737	1,748	2,485
Hawaii	1,933	13,423	15,356	42	1,400	1,442
Other	255	1,030	1,285	330	167	497
Asia—						
Ceylon, India and Pakistan	40	3,090	3,130	24	440	464
Hong Kong	730	19,366	20,096	66	3,008	3,074
Malaysia and Singapore	6,094	34,435	40,529	274	6,354	6,628
Other Commonwealth countries	77	251	328	367	58	425
Japan	8,195	2,707	10,902	74	126	200
Other	731	28,824	29,555	31	1,935	1,966
Europe—						
United Kingdom and Ireland	12,329	13,305	25,634	9,876	1,620	11,496
Other Commonwealth countries	426	1,205	1,631	657	22	679
Greece	954	5,200	6,154	1,588	1,778	3,366
Italy	6,851	11,731	18,582	6,735	1,900	8,635
Netherlands	531	2,807	3,338	600	145	745
Other	1,105	6,157	7,262	1,260	899	2,159
Oceania—						
Fiji	703	22,630	23,333	42	823	865
New Zealand	3,122	77,870	80,992	1,009	3,555	4,564
Papua and New Guinea	469	25,800	26,269	63	9,670	9,733
Other Commonwealth countries	252	7,209	7,461	256	183	439
Other	529	8,009	8,538	33	467	500
Total	50,024	302,502	352,526	26,774	37,441	64,215

(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, 1970**

<i>Purpose of journey</i>	<i>Short-term</i>			<i>Long-term</i>		
	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
OVERSEAS VISITORS ARRIVING						
In transit	36,128	22,202	58,330	..	..	..
Business	57,947	5,311	63,258	4,004	1,337	5,341
Holiday	160,018	101,212	261,230	3,324	3,646	6,970
Education	7,679	3,818	11,497	3,084	1,916	5,000
Other and not stated	13,410	8,403	21,813	7,854	6,029	13,883
Total	275,182	140,946	416,128	18,266	12,928	31,194
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Business	60,084	7,424	67,508	8,478	3,879	12,357
Holiday	107,431	135,118	242,549	15,333	17,252	32,585
Education	3,893	2,146	6,039	2,132	1,466	3,598
Other and not stated	28,841	7,589	36,430	6,985	8,690	15,675
Total	200,249	152,277	352,526	32,928	31,287	64,215

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, 1970

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	546	461	454	406	206	2,073	30	107	387	335	72	931
South Africa	1,757	1,505	983	557	418	5,220	10	477	1,360	1,451	349	3,647
Other	292	230	152	119	146	939	..	5	23	499	237	764
America—												
Canada	1,497	4,439	2,128	1,564	588	10,216	3	189	1,166	615	161	2,134
Other Commonwealth countries	107	218	149	78	26	578	..	17	138	38	12	205
United States of America—excluding Hawaii	18,217	32,605	7,757	3,817	1,885	64,281	150	3,877	5,324	3,718	1,401	14,470
Hawaii													319	4,996	6,240	2,737	1,064	15,356
Other	633	769	328	208	127	2,065	2	160	493	468	162	1,285
Asia—												
Ceylon, India, Pakistan	637	880	505	555	388	2,965	40	736	1,182	927	245	3,130
Hong Kong	1,345	1,797	1,104	685	697	5,628	684	5,521	7,658	4,652	1,581	20,096
Malaysia and Singapore	2,140	2,960	1,985	2,025	1,552	10,662	1,411	12,815	13,332	8,239	4,732	40,529
Other Commonwealth countries	50	76	60	47	18	251	..	..	26	259	43	328
Japan	4,105	4,585	1,331	531	799	11,351	54	2,290	7,513	441	604	10,902
Other	81,578	3,854	2,481	1,685	1,443	91,041	648	5,087	5,562	3,662	14,596	29,555
Europe—												
United Kingdom and Ireland	6,297	10,834	10,507	8,494	3,688	39,820	53	1,712	8,079	13,304	2,486	25,634
Other Commonwealth countries	38	69	305	90	39	541	3	2	184	1,238	204	1,631
Greece	167	121	88	371	253	1,000	15	190	1,144	3,632	1,173	6,154
Italy	820	842	551	804	525	3,542	34	873	3,253	11,372	3,050	18,582
Netherlands	691	723	1,031	1,339	849	4,633	8	179	1,850	1,098	203	3,338
Other	4,436	5,095	2,708	3,032	1,723	16,994	27	479	2,426	3,671	659	7,262
Oceania—												
Fiji	1,148	1,185	1,031	865	427	4,656	2,070	17,022	2,050	1,079	1,112	23,333
New Zealand	24,184	47,503	10,026	6,614	8,440	96,767	6,745	53,114	11,772	5,453	3,908	80,992
Papua and New Guinea	3,813	6,265	10,650	7,835	958	29,521	3,103	9,756	6,346	3,982	3,082	26,269
Other Commonwealth countries	509	764	626	617	226	2,742	815	5,720	411	147	368	7,461
Other	1,723	2,223	2,953	702	1,041	8,642	687	4,793	1,540	975	543	8,538
Total	156,730	130,003	59,893	43,040	26,462	416,128	16,911	130,117	89,459	73,992	42,047	352,526

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, 1970

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	1,210	32,402	33,612	2,029	42,270	44,299	3,419	20,298	23,717	2,377	39,254	41,631
February	1,765	33,214	34,979	2,038	35,391	37,429	4,819	15,537	20,356	2,649	21,180	23,829
March	1,948	34,043	35,991	1,747	35,085	36,832	5,850	23,596	29,446	3,362	21,088	24,450
April	683	30,168	30,851	2,118	33,624	35,742	4,857	25,201	30,058	2,066	19,813	21,879
May	1,937	30,797	32,734	2,176	34,713	36,889	6,370	31,344	37,714	3,254	23,868	27,122
June	982	26,286	27,268	1,796	27,833	29,629	4,963	29,394	34,357	3,296	21,067	24,363
July	888	28,616	29,504	1,004	27,942	28,946	2,330	25,914	28,244	3,617	25,123	28,740
August	704	34,008	34,712	1,396	34,203	35,599	4,020	29,610	33,630	2,832	31,599	34,431
September	1,018	29,567	30,585	1,311	32,369	33,680	2,221	18,244	20,465	3,533	36,330	39,863
October	1,762	35,453	37,215	1,876	34,823	36,699	4,521	19,033	23,554	5,776	27,991	33,767
November	2,207	38,747	40,954	2,028	37,157	39,185	1,969	19,130	21,099	5,301	22,701	28,002
December	2,749	44,974	47,723	1,297	34,813	36,110	4,685	45,201	49,886	4,342	19,510	23,852
Total	17,853	398,275	416,128	20,816	410,223	431,039	50,024	302,502	352,526	42,405	309,524	351,929

Long-term travel

Many long-term travellers travel for business and education purposes 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 379 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, 1970

Occupation group	Overseas visitors arriving			Australian residents departing		
	Males	Females	Persons	Males	Females	Persons
Professional, technical, and related workers	2,588	1,709	4,297	4,787	5,071	9,858
Administrative, executive, and managerial workers	1,171	93	1,264	1,761	228	1,989
Clerical workers	651	2,091	2,742	2,210	5,825	8,035
Sales workers	686	231	917	1,047	587	1,634
Farmers, fishermen, hunters, timber getters, and related workers	661	21	682	593	35	628
Miners, quarrymen, and related workers	114	..	114	224	..	224
Workers in transport and communication	582	103	685	1,129	276	1,405
Craftsmen and production-process workers	3,401	276	3,677	6,897	978	7,875
Labourers	797	..	797	4,008	..	4,008
Service (protective and other), sport, and recreation workers	968	572	1,540	974	934	1,908
Occupation inadequately described or not stated	1,449	232	1,681	933	138	1,071
Persons not in the work force—						
Children and students	4,919	3,770	8,689	7,784	7,590	15,374
Other	279	3,830	4,109	581	9,625	10,206
Total	18,266	12,928	31,194	32,928	31,287	64,215

Direct transit travellers

As indicated on page 377, 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 and 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 AND 1970

Approximate period from first to last Australian port (days)	1969		1970	
	Passengers	Passenger days	Passengers	Passenger days
Less than 3	3,989	6,601	3,942	5,057
3 and less than 5	4,237	12,990	4,701	14,924
5 and less than 7	5,960	34,001	6,516	37,445
7 and less than 9	5,735	43,840	3,745	28,107
9 and less than 11	4,549	41,376	3,362	30,668
11 and less than 22	1,341	15,958	2,267	26,304
22 and over	109	3,395	161	4,506
Total	25,920	158,161	24,694	147,011

(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. During 1970 forty-eight such cruises, carrying 43,584 passengers, were completed.

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 1969-70 the Commonwealth Government provided \$2,100,000 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 Tourist Directors' 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 the six States, the Northern Territory and the Territory of Papua and 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.