## **CHAPTER 13**

## TRANSPORT, COMMUNICATION AND TRAVEL

The statistics in this chapter relate in the main to the year 1965-66, 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. 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, the Monthly Bulletin of Motor Vehicle Registrations and two preliminary monthly statements on Registrations of New Motor Vehicles, Road Traffic Accidents involving Casualties (quarterly), and Overseas Arrivals and Departures (monthly and quarterly)—see page 486. 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 Teleconmunications 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

The Australian Transport Advisory Council, established April 1946, comprises the Commonwealth Minister for Shipping and Transport as Chairman, the Commonwealth Ministers for the Interior and Territories, and each State Minister for Transport. The administration of the Council and the standing committees it has established is the responsibility of the Commonwealth Department of Shipping and Transport. The general practice is that the Council convenes at least once a year, the annual meetings moving successively from one capital city to another.

The Council primarily considers policy matters relating to transport operation, co-ordination and development. Its functions are:

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

The regulation of, and the executive responsibility for, transport is shared concurrently between the Commonwealth and State Governments. The Australian Transport Advisory Council is the meeting ground of Commonwealth and States at a ministerial level and provides an effective means for 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 for reviewing and discussing proposals for the national solution of pressing transport problems and the rectification of transport deficiencies generally. The Council has been active in:

- the establishment of special committees and conferences to examine and report on specific problems such as road safety, motor vehicle standards, transport economic research, highway planning, level crossing accidents, blood tests for road users, pedestrian behaviour, etc.:
- the exchange of views and formulation of common policies on a wide range of transport matters:
- achieving general agreement for adoption by Governments of uniform legislation in transport matters:
- effecting at ministerial level Commonwealth-State and interstate co-operation on such matters as construction and operation of interstate railway links, collection of fines and fees interstate, policing of regulations, etc.; and
- the publication of comprehensive surveys of Australian transport.

The following are typical of matters the Australian Transport Advisory Council has examined from time to time:

the effect of standardisation of railways on other modes of transport;

advanced national policies of road development and research;

transport in relation to interstate tourist traffic;

standardisation of traffic signs and road signs;

standard and improved statistical data relating to transport of passengers and goods;

uniform road traffic laws and standards for motor vehicle design and equipment;

pipelines as a transport medium;

containerisation and the need for uniform legislation, particularly in relation to maximum weights of road vehicles.

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. Most of these committees meet at regular intervals and report annually on their progress to the Australian Transport Advisory Council. These committees are: The Australian Motor Vehicle Standards Committee, The Australian Road Safety Council, The Australian Road Traffic Code Committee, The Committee of Transport Economic Research, The Australian Dangerous Goods Transport Committee, and The Australian Motor Vehicle Design Advisory Panel. A short description of their functions and operations follows.

#### Australian Motor Vehicle Standards Committee

The Committee was established in January 1947 and consists of representatives of motor vehicle administering authorities in all States and Commonwealth Territories and non-governmental organisations associated with the manufacture and operation of commercial and private motor vehicles.

The main function of the Committee is to advise on standards for motor vehicle construction, equipment and performance, particularly relating to dimensions, weights, and braking and lighting efficiencies, with a view to improving road safety and obtaining uniformity of traffic legis: ation.

In 1954 the Department of Shipping and Transport published *Draft Regulations Defining Vehicle Construction, Equipment and Performance Standards for Road Vehicles*, endorsed by the Australian Transport Advisory Council, and in 1964 published a revised edition. The Committee is responsible for maintaining these Draft Regulations up to date, particularly in the light of changing ideas and conditions. The Draft Regulations detail minimum standards for most aspects of vehicle construction. They are being progressively implemented in legislation by the States and Territories, and have done much towards ensuring that motor vehicles are safer, thus contributing towards road safety, while reducing the complexities caused by conflicting legal requirements in the various States and Territories.

#### Australian Road Safety Council

The Australian Road Safety Council was established in May 1947, originally to conduct nation-wide educational and public relations campaigns, but it now examines all aspects of road accident problems. The Council consists of the Chairman, three Commonwealth representatives, eight State and Territorial representatives, four representatives of the national non-governmental organisations associated with road transport and the motor industry, and six members who are specialists in the various fields associated with accidents and road safety, such as road and traffic engineering and research, law enforcement, medical research, and statistics.

The Councils' main functions are:

- to advise the Australian Transport Advisory Council and other organisations concerned with the road users, the vehicle, and the environment, regarding all aspects of road accident problems, so that appropriate action can be taken which could lead to a reduction in the incidence of road accidents, fatalities and injuries;
- to recommend programmes of public education, aimed at improving the knowledge, skills, attitudes and practices of all road users, and assist other organisations concerned in this field:
- to investigate and report to the Australian Transport Advisory Council on specific road safety problems, and where necessary establish its own sub-committees to investigate and report on aspects not being undertaken by others, or to augment the work being done by other organisations;
- to act as a focal point for the collection, analysis, evaluation and dissemination of statistical data on road accidents—through their analysis and evaluation the Council should emphasise those areas or aspects which are susceptible to improvement and take action if possible, or bring the facts to the attention of the appropriate body; and
- to initiate or recomend research on road safety, including the evaluation in economic or other terms of possible steps to reduce road accidents.

At the present time a sub-committee is looking into the question of more comprehensive and purposeful road accident statistics.

#### Australian Road Traffic Code Committee

The Australian Road Traffic Code Committee, established in 1947, comprises one representative from each State and Territory and representatives from the Australian Automobile Association, the Australian Road Transport Federation, the Associated Chambers of Commerce, the Federal Chamber of Automotive Industries, and the Transport Workers' Union of Australia, with a representative of the Commonwealth Department of Shipping and Transport. The Committee is charged with responsibility for drafting recommendations for uniform road traffic laws throughout the Commonwealth, in keeping with modern traffic requirements and road safety.

Since its formation the Committee has prepared numerous recomendations, most of which are now embodied in the traffic laws and regulations of the States and Territories. In addition to traffic laws proper, the Committee has dealt with allied subjects such as driver licensing, medical fitness standards, the uniform number-plates scheme, the scheme for visiting motorists, the 1949 United Nations Convention on Road Traffic (acceded to by Australia in 1955), and uniform accident reporting.

In 1962 the Committee completed the preparation of a comprehensive code of traffic laws known as the National Road Traffic Code, which was approved by the Australian Transport Advisory Council in June 1962. This code is in conformity with the provisions of the United Nations Convention on Road Traffic in 1949, and was printed and distributed as a companion volume to the *Draft Regulations defining Vehicle Construction*, Equipment and Performance Standards for Road Vehicles.

#### Committee of Transport Economic Research

The Chairman of the Committee is a Commonwealth representative, one member represents the Commonwealth Department of Territories, and the other six members represent their respective States. The executive work of the Committee is undertaken by the Department of Shipping and Transport. The Committee undertakes continuous and comprehensive research into transport economics and development in Australia and abroad for the benefit of Australian transport authorities and agencies.

The Committee was originally set up in June 1955 to report on the economics and the costs of operation of road and rail transport, with particular emphasis on the influence of the costs of road construction and maintenance on vehicle operating costs. The Committee's report on these terms of reference was submitted in two parts, the first in September 1956, entitled Road Transport Costs and Road Construction and Maintenance, and the second in February 1958, entitled Railway Costs and Co-ordinating Summary.

The Committee has also prepared a report entitled Report on Pattern and Trends of Transport in Australia, 1955-56 to 1963-64. The purpose of the report is to provide a basic reference on trends and developments in transport for all relevant Commonwealth and State Departments, public authorities and enterprises interested in transport. It has been accepted by the Australian Transport Advisory Council and it is expected that it will be published shortly.

## Australian Dangerous Goods Transport Committee

The Australian Dangerous Goods Transport Committee, established in 1960, consists of eight Commonwealth and eight State representatives, one representative from the National Health and Medical Research Council and one from the Standards Association of Australia. The Chairman is the Assistant Secretary of the Transport Branch of the Department of Shipping and Transport.

The functions of the Committee are as follows:

- to examine and report to the Australian Transport Advisory Council on various aspects of the transport of dangerous goods having an international or Australia-wide application;
- to examine and report on United Nations Committee of Experts proposals for a uniform system of classification and labelling of dangerous goods and reports by any other international agencies;
- to report on safety aspects of the transport of dangerous goods and collect and circulate information on this and other aspects of its functions.

The Committee has submitted a number of recommendations, many of which have been adopted by the United Nations Committee of Experts on the Transport of Dangerous Goods. It has also commenced the preparation of a model code relating to the classification, labelling and transport of dangerous goods within Australia.

## Australian Motor Vehicle Design Advisory Panel

The Australian Transport Advisory Council in July 1965 agreed to the formation of an Australian Motor Vehicle Design Advisory Panel, to operate in collaboration with the Australian Motor Vehicle Standards Committee. The Panel comprises the Chairman of the Australian Motor Vehicle Standards Committee and the Australian Road Safety Council or their nominees; a statistical officer nominated by the Commonwealth Statistician; a medical practitioner nominated by the National Health and Medical Research Council; a person experienced in aircraft accident investigation and with engineering experience in human engineering, nominated by the Australian Road Research Board; and three engineers, one engaged in vehicle research nominated by the Melbourne University, a traffic engineer nominated by the Conference of State Traffic Control Engineers, and one suitably qualified and experienced in the mechanical design of vehicles and currently engaged in motor vehicle design, nominated by the Federal Chamber of Automotive Industries. The Chairman of the Panel is nominated by the Minister for Shipping and Transport from either within or outside the Panel.

The terms of reference of the Panel agreed to by Council are as follows:

initiate investigations on its own behalf and accept assignments from the Australian Motor Vehicle Standards Committee for the investigation of motor vehicles and their component parts and accessories with a view to reducing road deaths and minimising the extent and severity of road accident injuries to occupants or other road users and pedestrians by the production of a safer road vehicle;

consult with and co-opt, where necessary, such persons or organisations able to assist with the 'Panel' investigations;

report to the Australian Motor Vehicle Standards Committee the conclusions arising from its investigations and recommend appropriate action.

Initial investigation has commenced on seven specific items referred to the Panel by the Australian Transport Advisory Council. When its report on these items is complete the Panel will examine other safety features required overseas to determine their applicability to Australian conditions, and features for which Australian experience indicates a requirement.

#### SHIPPING

## Control of shipping

#### Commonwealth navigation and shipping legislation

By section 51 (i) of the Commonwealth Constitution the Parliament of the Commonwealth is empowered to make laws in respect of 'Trade and commerce with other countries, and among the States'. By section 98 this power is further defined as extending to navigation and shipping. Section 51 (vii) empowers the Commonwealth Parliament to legislate in respect of 'Lighthouses, lightships, beacons and buoys' and section 51 (ix) in respect of 'Quarantine'.

A review of the introduction and development of the Navigation Act 1912-1950 is given in Year Book No. 40, pp. 110-12. Amendments to the principal Act were made by the Navigation Acts of 1952, 1953, 1956, 1958, 1961, and 1965. A further amendment was made in 1966 by the Decimal Currency Act 1966. Other shipping Acts under the powers of the Commonwealth are the Sea-Carriage of Goods Act 1924-1961, the Seamen's Compensation Act 1911-1964, the Seamen's War Pensions and Allowances Act 1940-1966, the Pollution of the Sea by Oil Act 1960-1965, the Australian Coastal Shipping Commission Act 1956-1966, the Australian Coastal Shipping Agreement Act 1956, the Stevedoring Industry Act 1956-1966, the Beaches, Fishing Grounds and Sea Routes Protection Act 1932-1966 (except Section 3), the Submarine Cables and Pipelines Protection Act 1963-1966, and the Lighthouses Act 1911-1966.

The control of shipping during, and immediately after, the 1939-45 War and the establishment of the Maritime Industry Commission (abolished in 1952), the Australian Stevedoring Industry Board (replaced in 1956 by the Australian Stevedoring Industry Authority), and the Australian Shipping Board (replaced in 1956 by the Australian Coastal Shipping Commission) are described in Year Books No. 36, pages 121-30, and No. 39, pages 147-8.

#### Australian Coastal Shipping Commission

This Commission was established in 1956 for the purpose of maintaining and operating interstate, overseas and territorial shipping services, and replaced the Australian Shipping Board. It operates the Australian National Line, a Commonwealth-owned merchant shipping service, which at 30 June 1966 comprised thirty-eight vessels totalling 228,342 gross tons. These vessels included ten with a gross tonnage of 500 to 3,000, twelve with a gross tonnage of 3,000 to 5,000, and eleven with a gross tonnage of 5,000 to 8,000; the passenger/vehicular vessel *Empress of* 

Australia, 12,037 gross tons: the bulk ore carriers Mount Keira, 10,229 gross tons. Mount Kemhla, 10,112 gross tons, Musgrave Range, 14,467 gross tons; and the new 49,375 tons deadweight bulk carrier Darling River.

At 30 June 1966 vessels on order at Australian shippards for the Commission included two 4,000 tons deadweight vehicle deck cargo vessels and a 54,000 tons deadweight bulk carrier. These vessels are to be completed in 1968.

During 1965-66 the *Princess of Tasmania* carried 88,274 passengers, 21,270 accompanied vehicles, 8,131 commercial vehicles, and 2,955 trade cars. The *Empress of Australia* carried 22,041 passengers, 3,925 accompanied vehicles, 14,490 commercial vehicles, and 506 trade cars over the same period. These vessels operate in the mainland-Tasmania trade.

#### Australian Shinbuilding 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 now operates under the control of the Minister for Shipping and Transport. In November 1963 the Commonwealth Public Service Board approved its permanent establishment as a branch of the Department of Shipping and Transport. The membership of the Board consists of a Chairman, a Finance Member and three other members, one of whom is also a member of the Naval Board.

The functions of the Board are set out in detail in Regulation 22 (4) of the Supply and Development Regulations and in the exercise of those functions the Board is responsible for, briefly:

- (a) recommending to the Minister for Shipping and Transport the price at which vessels may be purchased and disposed of by him on behalf of the Commonwealth;
- (b) the design and inspection of construction of merchant ships:
- (c) research into all matters connected with or incidental to shipbuilding;
- (d) advice to the Minister on developments in the shipbuilding industry;
- (e) rendering assistance to all sections of the industry.

Up to 31 January 1967 the Board had arranged for the construction of 108 merchant vessels and a naval survey vessel, totalling approximately 680,000 deadweight tons, at a cost of about \$234,000,000, and thirty smaller vessels to which the Commonwealth shipbuilding subsidy was not applied.

Up to 31 January 1967 the Board had current orders for the construction of eighteen vessels totalling about 175,000 deadweight tons. These vessels comprise two 50,000 ton bulk carriers, three tankers, one oil drilling rig, one coral carrier, one passenger/cargo vessel, three roll-on/roll-off vessels, one hopper dredge, one floating crane, and five tugs. There are also smaller craft,

There are five major Australian shipyards building merchant vessels, two in Queensland (Evans Deakin and Co. Pty. Ltd., Brisbane, and Walkers Ltd., Maryborough), two in South Australia (Adelaide Ship Construction Pty. Ltd., Port Adelaide, and Whyalla Shipbuilding and Engineering Works, Whyalla), and one in New South Wales (State Dockyard, Newcastle), and two shipyards engaged principally in naval shipbuilding, one in New South Wales (Cockatoo Docks and Engineering Co. Pty. Ltd., Sydney) and one in Victoria (H.M. Naval Dockyard, Williamstown). There are also numerous smaller yards, situated in every State, building smaller steel and wooden working and pleasure craft.

## 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 solely responsible for the recruitment of waterside workers. The statutory provisions regulating the industry are now contained in the Stevedoring Industry Act 1956–1966, the Stevedoring Industry Act 1963, and Division 4 of Part III of the Conciliation and Arbitration Act 1904–1966.

## System of record of shipping

In the system of recording statistics of overseas shipping, Australia is considered as a unit, and therefore only one entry and one clearance are counted for each voyage, without regard to the number of States visited (see also pages 428-9). For the purpose of these statistics all external territories are treated as overseas countries.

On arrival at, or departure from, a port in Australia, whether from or for an overseas country or from or for another port in Australia, the master or agent must 'enter' the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to the Bureau of Census and Statistics. This information relates, in the main, to vessels engaged in the carriage of passengers and/or cargo between Australian States or between Australia and overseas countries.

The size of a vessel may be expressed in a number of ways. A vessel's gross tonnage, expressed in tons of 100 cubic feet, represents the total volume of the enclosed space, i.e. a ship of 25,000 tons has a total enclosed capacity of 2,500,000 cubic feet. Its net tonnage, expressed in tons of 100 cubic feet, represents the volume of enclosed space that can be used for cargo or passengers. Its displacement is its total weight and is expressed in tons of 2,240 lb. Its deadweight tonnage is the difference between the displacement of the vessel loaded to its summer loadline and the displacement light, i.e. it is the weight the vessel can carry, including the weight of bunkers and stores. Net tonnage is the concept generally used in the tables in this chapter, but since it can give a misleading impression of the size of ships which have a function other than carrying passengers and cargo (e.g. a tug has no net tonnage), some figures are given for deadweight tons and tons gross also.

Most cargo is recorded in terms of tons of 2,240 lb. However, some is shipped and recorded on the basis of forty cubic feet representing one ton measurement.

Except in Shipping at principal ports (pages 431-2) intra-State (coastal) movements, including those of vessels engaged solely in trade within State limits, are excluded from the statistics in the following pages.

## Overseas shipping

#### Total movement

The following table shows the number of entrances and clearances combined of overseas vessels at Australian ports, and the aggregate net tonnage, during each of the years 1961-62 to 1965-66.

## OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA 1961-62 TO 1965-66

	1961–62	1962–63	1963-64	1964–65	1965–66
Number of vessels .	7,210	6,762	7,477	7,601	7,958
Net tonnage '000 tons	37,662	37,584	41,640	43,295	46,382

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, and those for each year from 1921-22 to 1950-51 in Year Book No. 40, page 97.

## 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 1965-66.

# OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT STATES AND NORTHERN TERRITORY, 1965-66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	. number	1,168	482	872	324	903	123	57	3,929
	'000 net tons	7,495	3,006	3,922	2,622	5,491	330	176	23,042
Clearances	. number	1,067	538	1,059	260	962	101	42	4,029
	'000 net tons	7,336	4,415	4,721	1,061	5,381	296	130	23,340

#### Shipping communication with various countries

A vessel arriving in Australia from overseas is recorded as coming from the country where the voyage commenced, irrespective of the number of intermediate ports of call. Similarly, a vessel leaving Australia is recorded as going to the country where the voyage is scheduled to terminate. The following table shows statistics of the net tonnage entered and cleared, with cargo and in ballast, according to the principal countries where vessels commenced or terminated their voyages to or from Australia during each of the years 1963-64 to 1966.

# OVERSEAS SHIPPING: COUNTRIES FROM WHICH ENTERED OR FOR WHICH CLEARED, AUSTRALIA, 1963-64 TO 1965-66

('000 net tons)

Country from	which	ente	red		With cargo		Entered			Cleared	
or for whi					or in ballast	1963-64	1964-65	1965-66	1963-64	1964–65	1965–66
Arabian States .					Cargo	3,183	3,664	3,764	266	214	267
Canada					Ballast Cargo	53 499	18 657	669	2,976 274	3,074 301	3,815 157
China (mainland)					Ballast Cargo	60	48	44	1,134	1,021	769
France					Ballast Cargo	275 98	211 127	293 123	93	117	57 148
Germany, Federal R	.epubli	c of			Ballast Cargo	353	10 269	332	429	386	567
Hong Kong .					Ballast Cargo	256	11 120	18 167	239	299	306
iran					Ballast Cargo	84 1,102	80 692	80 811	48 107	132	34 202
Italy					Ballast Cargo	25 282	315	37 266	876 270	660 337	586 333
Japan					Ballast Cargo	1,197	1,294	1,251	3,220	4,005	4,654
Malaysia(a) .					Ballast Cargo	3,321 335	3,487 732	3,936 488	34 140	100 507	183 316
Nauru					Ballast Cargo	6 561	103 468	26 376	88 322	332 205	238 208
Netherlands .					Ballast Cargo	94	100	91	43 247	79 156	86 98
New Caledonia .					Ballast Cargo	186	15 158	6 174	265	22 272	56 323
New Zealand .					Ballast Cargo	33 740	65 602	121 686	29 1,267	30 859	56 816
Papua and New Gui	nea				Ballast Cargo	752 123	529 177	737 186	100 137	225 193	525 261
Philippines .					Ballast Cargo	6 86	14 194	134	14 133	11 81	121
Singapore .					Ballast Cargo	46 291	(b) 23	(c) 310	380	(b)	(c) 176
South Africa .					Ballast Cargo	93 107	(b) 56	(c) 97 67	286 83	(b) 77	(c) 112 77
United Kingdom					Ballast Cargo	1.562	27 1.748	1.705	2.309	2,217	2,142
United States of Am	erica	•	•		Ballast Cargo	46 1,024	1.074	43 1,283	23 816	18 725	215 844
U.S.S.R		•	•	•	Ballast Cargo	40	31 18	11	30 719	45 394	14 227
Other countries	•	•	•		Ballast	162	221	139	1.926	39	25
Other countries	•	•	٠	٠	Cargo Ballast	3,263 372	3,842 460	4,012 428	1,570	2,200 2,226	2,357 1,893
Total .	•	•	•	•	Cargo Ballast	15,442 5,281	16,355 5,334	16,952 6,090	14.776 6,141	14,698 6,908	15,369 7,971
Grand total	•		•	•		20,723	21,689	23,042	20,917	21,606	23,340

<sup>(</sup>a) For years prior to 1964-65 figures for Malaysia exclude Sarawak, included in Other countries.

(b) Included in Malaysia.

(c) Included with Malaysia prior to 1 October 1966.

#### Country of registration of overseas shipping

Particulars of overseas shipping which entered Australian ports during each of the years 1963-64 to 1965-66 are given in the following table according to country of registration of vessels.

# OVERSEAS SHIPPING: ENTRANCES DIRECT, BY COUNTRY OF REGISTRATION OF VESSELS, AUSTRALIA, 1963-64 TO 1965-66

('000 net tons)

Vessels registered at ports in-	1963–64	1964-65	1965-66	Vessels registered at ports in-	1963-64	1964-65	1965-66
Australia	95 680 289 419 1,410 393 43 669 1,216 1,400 974 379 2,942	119 387 403 710 1,264 373 86 752 1,850 1,833 1,122 378 3,185	141 262 540 590 1,384 289 244 712 2,628 2,643 1,020 375 3,291	Panama Sweden United Kingdom United States of America Other countries  All countries— In cargo Proportion of total Proportion of total Grand total	605 867 7,535 311 496 15,442 74 5 5,281 25 5 20,723	551 769 6,936 260 711 16,355 75 4 5,334 24 6 21,689	423 686 7,109 296 409 16,952 73 6 6,090 26 4 23,042

(a) Includes New Caledonia (40 during 1964-65, 27 during 1965-66).

Australian registered tonnage which entered Australian ports from overseas during the year 1965-66 represented 0 6 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Islands trade.

#### Interstate shipping

#### System of record

Interstate shipping comprises two elements: (a) vessels engaged solely in interstate trade: and (b) vessels trading between Australia and overseas countries and in the course of their voyages proceeding from one State to another. (Overseas vessels may obtain Single Voyage Permits under section 286 of the Navigation Act to perform certain tasks on the Australian coast in cases where no 'licensed' vessel is available. Examples are the numerous tankers that obtain permits to carry petroleum products between interstate ports and, since the withdrawal of most of the interstate passenger liners, the overseas vessels which are given permits to carry passengers and frozen cargoes on the interstate run. At the present time orders in Council exist exempting certain trades from the provisions of the Navigation Act and it is not necessary for 'unlicensed' vessels to obtain a permit to engage in those trades.\*) No complexity enters into the record of those in category (a). but with regard to the method of recording the movements of the overseas vessels (b), some explanation is necessary. Each State desires that its shipping statistics should show in full its shipping communications with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics of Australia as a whole. In order to meet these dual requirements. a vessel arriving in any State from an overseas country—say the United Kingdom—via another State, is recorded in the second State as from the United Kingdom 'Overseas via States', thus distinguishing the movement from a direct overseas entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from the United Kingdom 'Overseas via States'. On an inward voyage, the clearance from the first State to the second State is a clearance Interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as 'Overseas via States' or 'Interstate' according to the direction of the movement. The significance of the record of these movements will be seen more clearly from the following tabular presentation of the inward and outward voyages to and from Australia of an overseas vessel which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage-Sydney (New South Wales)-via South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, in this case retracing its inward track.

Australian Shipping and Shipbuilding Statistics published by the Department of Shipping and Transport.

#### ITINERARY OF AN OVERSEAS VESSEL ON THE AUSTRALIAN COAST

		Recorded as-		
	For the State and for Australia	For the States		
	1.	2.	3.	
Inward voyage— Enters Fremantle from United Kingdom Clears Fremantle for Adelaide Enters Adelaide from United Kingdom via	Overseas direct	Interstate direct		
Fremantle Clears Adelaide for Melbourne Enters Melbourne from United Kingdom via		Interstate direct	Overseas via States	
Adelaide Clears Melbourne for Sydney Enters Sydney from United Kingdom via		Interstate direct	Overseas via States	
Melbourne			Overseas via States	
Outward voyage— Clears Sydney for United Kingdom via Mel-		1		
bourne		Interstate direct	Overseas via States	
Adelaide		Interstate direct	Overseas via States	
Clears Adelaide for United Kingdom via Fremantle Enters Fremantle from Adelaide		Interstate direct	Overseas via States	
Clears Fremantle for United Kingdom	Overseas direct			

From the method outlined above the requirements for Australia and for the individual States are ascertained as follows. (a) The aggregate of all ships recorded for each State as 'Overseas direct' gives the overseas shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as 'Overseas direct' plus those recorded as 'Overseas via States' gives the total oversea shipping for that State: and (c) the aggregate for all ships recorded as 'Overseas via States' may also be used, together with those recorded as 'Interstate direct' (including those engaged solely in interstate movement) to furnish figures showing the total interstate movement of shipping.

## Interstate movement

Interstate direct. The following table shows the number of entrances and the net tonnage of vessels recorded into each State and the Northern Territory from any other State (including overseas vessels on interstate direct voyages as in column 2 above) during each of the years 1963-64 to 1965-66.

INTERSTATE MOVEMENT: ENTRANCES OF VESSELS INTERSTATE DIRECT STATES AND NORTHERN TERRITORY, 1963-64 TO 1965-66

State or Territory				Number		Net tons (*000)			
State or Territ		1963-64	1964–65	1965–66	1963–64	1964–65	1965–66		
New South Wales			1,974	2,154	1,976	6,656	7,388	7,889	
Victoria	·		1,763	1,777	1.861	5,355	5,606	5,489	
Oueensland .			789	879	806	2,213	2.656	2,670	
South Australia .			1,228	1,222	1,163	4,397	4,595	4,381	
Western Australia	•		667	700	735	3,176	3,413	3,827	
Tasmania			1,131	1,151	1,258	1,719	2,136	2,464	
Northern Territory			78	82	81	177	159	147	
Australia .			7,630	7,965	7,880	23,693	25,953	26,867	

Overseas via States. The figures in the following table show the number of entrances and clearances of vessels to and from overseas countries via other Australian States as in column 3 in the table at the top of the page, and their aggregate net tonnage.

INTERSTATE MOVEMENT: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES AND NORTHERN TERRITORY 1965-66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	. number	862 4,316	1,075 6,623	434 1,921	522 2,514	69 <b>2</b> 76	264 1,092	7 35	3,233 16,777
Clearances	number '000 net tons	892 4,080	913 4,606	320 1,383	518 2,508	43 289	311 1,252	13 55	3,010 14,173

Total interstate movement. To ascertain the aggregate movement of interstate shipping, including the interstate movement of overseas vessels, figures in the two preceding tables must be combined. 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 (including the interstate movement of overseas vessels) during the year 1965-66, together with the aggregate net tonnage.

# INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES STATES AND NORTHERN TERRITORY, 1965-66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	. number	2,838	2,936	1,240	1,685	804	1,522	88	11,113
	'000 net tons	12,205	12,112	4,591	6,895	4,103	3,556	182	43,644
Clearances	. number	2,987	2,897	1,041	1,754	749	1,574	95	11,097
	'000 net tons	12,523	10,758	3,667	8,468	4,147	3,822	224	43,609

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for Australia for each of the years 1961-62 to 1965-66.

# INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES AUSTRALIA, 1961-62 TO 1965-66

				1961-62	1962-63	1963-64	1964-65	1965-66
Entrances.			. number	10,551 36,974	10,552 37,428	11,040 40,747	11,172 42,569	11,113 43,644
Clearances	•	•	. number '000 net tons	10,608 36,923	10,746 37,862	10,985 40,400	11,229 42,532	11,097 43,609

## Shipping engaged solely in interstate trade

The following table shows, for each State and the Northern Territory, the number of entrances direct from other States of vessels engaged solely in interstate trade (i.e. excluding overseas vessels in continuation of their overseas voyages) during the year 1965-66, together with the net tonnage.

# SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE: ENTRANCES, STATES AND NORTHERN TERRITORY, 1965-66

			N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances Net tons	:	number	1,260 4,528	1,341 2,888	401 1,038		355 1,538	1,186 2,155	67 124	5,480 15,105

#### 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 coastal (intrastate) services at 31 December 1966.

# AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE 31 DECEMBER 1966

(Source: Department of Shipping and Transport)

Vessels	Number	Dead- weight tons	Gross tons
Interstate vessels—	1		
Australian-owned, Australian-registered	89	632,800	483,827
Overseas-owned, Australian-registered, engaged in Aus-			
tralian coastal trade—New Zealand-owned	9	25,981	22,898
Other	10	169,578	115,227
Overscas-owned, overseas-registered, on charter, engaged in Australian coastal trade	2	70,791	47,605
Total interstate vessels	110	899,150	669,557
Intrastate vessels	19	29,601	24,417
Total coastal trading vessels	129	928,751	693,974
Overseas trading vessels— Australian-owned, Australian-registered operated mainly			
on overseas services	8	55,069	43,527
Australian-owned, overseas-registered operated wholly		33,005	10,027
on overseas services	8	75,103	56,768
Total overseas trading vessels	16	130,172	100,295
Total Australian trading vessels	145	1,058,923	794,269

## Shipping at principal ports

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

#### Total shipping

The following table shows the total volume of shipping—overseas, interstate and coastal—which entered the principal ports of Australia during the years 1964-65 and 1965-66. The movements of warships and of other non-commercial vessels are excluded from the table.

TOTAL SHIPPING:	<b>ENTRANCES</b>	AT PRINCIPAL	PORTS,	AUSTRALIA
	1964-65	AND 1965-66		

	196	4–65	196	5–66				1964	<b>1</b> –65	196	5-66
Port of entry	Num- ber	Net tons	Num- ber	Net tons	Port of er	itry		Num- ber	Net tons	Num- ber	Net tons
New South Wales-		<b>'000</b>		'000					'000		.000
Sydney(a)	4,357	16.890	4 1 5 5	16 760	Western Austra	1:-		1 1			
	1.899				Fremantle(c)	1118		1.411	7,715	1,562	8,383
Port Kembla	1.153					•	•	157	763		800
ton Kemola	1,133	الروبة ا	1,005	4,023	Bunbury	•	•	139	660		727
Victoria-	1	1			Carnaryon	:	•	81	99	41	43
Melbourne	2,938	12,550	3,008	12,257		:	:	95	372		566
Geelong	649	3,627		3,614		:		177	788	208	1,190
Oueensland-					Tasmania—						
Brisbane	1,543	5,812	1,585	6,405	Hobart .			535	1,325		1,449
Bowen	29	119		101				402	1,054		1,294
Cairns	255	641	283					402	700		
Gladstone	125		138					532	1,009	548	1,194
Mackay	153		167	675							
Rockhampton .	100		76		Northern Terri	tory-	-	ا ا		ا ـ ـ ـ ا	
Townsville	318	1,062	349	1,103	Darwin	•	٠	142	362	147	358
South Australia-								1 1			
Adelaide(b)	2,471	6,169	2,460	7,539				1 1		1	
Port Lincoln	330	545		335	1					1	
Port Pirie	440	1.014		916	l			1 1			
Rapid Bay	89	269	90	283				1			
Wallaroo	47	228						1 1			
Whyalla .	525	2,110	479	1,988	l .						

<sup>(</sup>a) Includes Botany Bay.

The following table shows the total shipping tonnage which entered the principal ports of Australia, New Zealand and the United Kingdom during 1965-66.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM, 1965-66

('000 net tons)

Port	Net tonnage entered	Port	Net tonnage entered	Port	Net tonnage entered	
Australia—		NEW ZEALAND-		ENGLAND AND WALES—		
Sydney (N.S.W.)(a) .	16,760	Wellington .	4,672	continued		
Melbourne (Vic.)	12,267	Auckland .	4.666	Manchester (includ-		
Fremantle (W.A.)(b)	8,383	Lyttleton	3,205	ing Runcorn) .	7,695	
Adelaide (S.A.)(c)	7.539	Whangarei	2 373	Tyne Ports	6,705	
Brisbane (Old)	6.405	Otago	1,292	Hull	6.606	
Newcastle (N.S.W.)	5,845	Napier	1.260	Bristol	6.030	
Port Kembla	1	Bluff	868	Middlesbrough .	5,228	
(N.S.W.) , ,	4,623	Taranaki	829	Swansea	3,705	
Geelong (Vic.)	3,614			Cardiff	3,271	
Whyalia (S.A.).	1,988	ENGLAND AND WALES-				
Hobart (Tas.) .	1,449	London	44.327	SCOTLAND-		
Burnie (Tas.)	1,294	Southampton .	25,153	Glasgow	8,274	
Launceston (Tas.) .	1,194	Liverpool (including			,	
Yampi (W.A.)	1,190	Rirkenhead) .	21,775	NORTHERN IRELAND-		
Townsville (Qld) .	1,103	Dover	8,865	Belfast	8,297	

<sup>(</sup>a) Includes Botany Bay.

## Shipping cargo

#### Overseas and interstate cargo

The tables following show the aggregate tonnage of overseas and interstate cargo discharged and shipped at Australian ports. Most cargo is recorded in terms of tons of 2,240 lb; the remainder, mainly bulky commodities, is shipped and recorded on the basis of forty cubic feet representing one ton measurement.

<sup>(</sup>b) Includes Port Stanvac.

<sup>(</sup>c) Includes Kwinana.

<sup>(</sup>b) Includes Kwinana.

<sup>(</sup>c) Includes Port Stanvac.

## SHIPPING CARGO

# CARGO DISCHARGED AND SHIPPED: AUSTRALIA, 1961-62 TO 1965-66 ('000 tons)

			Oversea	is cargo		Interstate cargo						
Year		Disch	arged	Ship	ped	Disch	arged	Ship	ped			
1041 42		Weight	Meas.	Weight	Meas. 1.547	Weight 13,318	Meas. 1,427	Weight	Meas.			
1961–62 . 1962–63 .	:	17,508 19,497	2,763 3,397	15,405	1,547	13,882	1,306	14,340	1,186 1,100			
1963-64 . 1964-65 .	•	20,788	3,942 4,443	19,744 20,424	1,861 1,980	15,321 15,447	1,453 1,722	15,632 16,360	1,208 1,402			
1965–66 .	:	24,156	4,119	21,749	2,043	15,349	1,942	16,172	1,484			

# CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1965-66 ('000 tons)

		Disch	arged		}	Ship	ped	
Port	Over	rseas	Inter	state	Ove	seas	Interstate	
	Wt	Meas.	Wt	Meas.	Wi	Meas.	Wt	Meas.
New South Wales-								
Sydney	2.520	1,614	985 63	186	3,209 45	627	384	145
Botany Bay	4,058 647	::	3,263	::	3.053	• • •	525 1.523	•••
Port Kembla	659	l ::	4,239	l ::	2,038	1	1.064	::
Other		· · ·	23		14	7	2	
Total, New South Wales	7,884	1,614	8,573	186	8,359	635	3,498	145
Victoria—								
Melbourne	3,220	1,550	1,718	830	1.017	676	440	702
Geelong	3,867	27	558	1	1,461	2	758	2
Portland	23	•••	79	• •	69	••	1	••
Total, Victoria	7,110	1,577	2,355	831	2,547	678	1,199	704
Queensland—				٠			i	
Brisbane	1,650	322	531	51	820 280	124	238	44
Cairns	45 35	·'	60	"	1.742		29	,
Mackay	41		32		539		60	
Townsville	64	7	108	12	454	••-	89	1
Other	10	1	41	• • •	997	3	627	1
Total, Queensland	1,845	337	830	69	4,832	128	1,043	49
South Australia-								
Port Adelaide	450	395	966	35	488 137	242	171	14
Ardrossan	66	l ::	'is	l ··	274	••	298 40	••
Port Pirie	l	::	153	l ::	524	• • •	211	::
Port Stanvac	1,723				5		451	
Rapid Bay	ا من	• •	489	••	1 ::.	••	453	•••
Whyalia	59 57	••	489	• • •	150 405	••	4,008 320	
	2,355	395	1,629	35	1,983	242	ſ	٠:,,
Total, South Australia	2,333	رود	1,029	3	1,903	242	5,952	14
Western Australia— Fremantle	616	160	683	111	1.647	62	184	37
Bunbury	117	100	2	1	555	23	184	'
Geraldton	99			::	518	44	50	::
Kwinana	3,317	· · ·	37		401	••	1.182	
Yampi	325	· · · · · · · · · · · · · · · · · · ·	54		99 584	is	2,368	5
Total, Western Australia	4,474	161	777	112	3,804	144	,,,,	42
•	7,77	1	'''	<i>***</i>	3,004	477	3,831	72
Tasmania— Hobart	149	25	243	228	122	163	181	115
Burnie	55	i	325	18	39	21	184	47
Launceston	128	9	384	150	37	14	129	90
Other	4	• • • • • • • • • • • • • • • • • • • •	145	313	5	18	143	278
Total, Tasmania	336	35	1,097	709	203	216	637	530
Northern Territory— Darwin, Northern Territory	152		88		21		12	
Australia	24,156	4,119	15,349	1,942	21,749	2.043	16,172	1,484
Australia	-4,.50	, ,,,,	,,	1,772	-1,, -,	2,043	1.0,1,2	1,404

## 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 1963-64 to 1965-66.

OVERSEAS CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION OF VESSELS: AUSTRALIA, 1963-64 TO 1965-66

('000 tons)

Vessels registe	ered	at port	s in-	-	1963	i-64	1964	<b>1–65</b>	1965	i–6 <b>6</b>
					Weight	Meas.	Weight	Meas.	Weight	Meas.
Australia .					156	107	156	128	231	125
Denmark .					1,706	88	872	82	519	66
France and New	Ca	ledonia			415	107	748	110	1,089	97
Germany, Feder	al R	epublic	of		765	350	1,542	352	1,393	316
Greece .					2,818	131	2,647	88	2,700	85
Hong Kong					898	69	807	101	621	139
India					52	25	202	39	479	42
Italy					623	46	779	55	560	60
Japan					2,589	271	3,852	450	5,803	434
Liberia .					3,172	32	4,407	57	6,045	85
Netherlands.					1,757	339	2,278	445	2,003	385
New Zealand					641	396	548	529	675	464
Norway .				•	7,541	263	8,279	425	8,129	364
Panama .					1,151	51	1,047	18	908	48
Sweden .		•			2,049	373	1,886	361	1,632	351
United Kingdom	١.	•			13,076	2,925	12,099	2,916	12,090	2,937
United States of	Am	erica			210	111	206	114	204	94
Other					913	119	1,280	153	824	70
Grand total		٠	•		40,532	5,803	43,635	6,423	45,905	6,162

#### World shipping tonnage

At 1 July 1966 the total steamships and motorships 100 gross tons and upwards throughout the world was 43,014, with a gross tonnage of 171,129,833. Of those totals, steamships numbered 10,407 for 75,468,776 gross tons, and motorships 32,607 for 95,661,057 gross tons. This includes 5,453 oil tankers of 100 gross tons and upwards, with a gross tonnage of 60,199,965. Australian steamships and motorships, 295 for 744,356 gross tons, constituted 0.69 per cent and 0.43 per cent respectively of the total number and tonnage. This information has been derived from Lloyd's Register of Shipping.

#### Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 30 June 1966, classified according to: (i) year of construction, 1962 to 1965 and 1961 and earlier years. (ii) type of trade in which the vessels were engaged, and (iii) vessels built in Australian or in overseas shippards.

## AUSTRALIAN-REGISTERED TRADING VESSELS, 31 DECEMBER 1965(a)

(Source: Department of Shipping and Transport)

Yes	rofo	onstri	action	in	rseas and terstate ressels	Intrastate Ausi		built in Istralian yards	1	Built overseas		Γotal	
• • •				No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross
1961	and o	earlier		105	556,502	18	22,176	60	319,261	63	259,417	123	578,678
1962				2	12,932	1	· .	2	12,932			2	12,932
1963				5	32,555			5	32,555			5	32,555
1964				3	29,716	1 !		3	29,716		١	3	29,716
1965	•		•	1	33,774	1	2,241	2	36,015	1		2	36,015
-	<b></b> Total	regi	stered									l	
	in A	Austra	ılia .	116	665,479	19	24,417	72	430,479	63	259,417	135	689,896

<sup>(</sup>a) 200 gross tons and over.

#### Miscellaneous

#### Shipping freight rates

The Quarterly Summary of Australian Statistics shows a list of the current freight rates for general merchandise in respect of both overseas and interstate shipments. The following table shows the freight rates from Australia to various countries for certain important commodities at 31 December 1966.

# OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966(a)

(1 ton measurement = 40 cubic feet)

	Co	untry a	nd a	rtick	e				Unit for which freight rate is quoted	Freight ra	
CANADA—EAST MONTREAL—	Coast	AND	ST	La	WRENC	CB	Ports	то		Rates—Canadollars	
Canned Dried	•	: :		:	:	:	:	:	40 cu ft 40 cu ft	39.10 36.50	)
Preserved Wine . Wool—grea	· · sy		•	:		:	:	:	40 cu ft Weight measurement 100 lb	42.20 47.60 5.25	)
General car	go	•	•	•	•		•	÷	Weight measurement	47.60	
CEYLON— Flour, wheater Milk and crea									Ton weight	Rates—Ster £8.250	
Condensed Frozen	•								Ton measurement	£14.100 £24.325	
General cargo	•	: :		:	:	:	:	:	Ton measurement Ton weight or measurement		
CHINA— Flour in bags Wheat in bags Wool—	::	•		:		:	:	•	2,000 lb Ton	Rates—Aust shillings and 165 165	pence 0
Greasy Scoured, etc									16	0	
Scoured, etc General cargo						:		:	lb Ton weight or measurement		3.49 0
CONTINENTAL EL	TROPE—	-See U	NITE	o Kı	NGDO	м, і	etc.				
Hong Kong-										]	
Sugar, refined, Wheat, in bag Wool—	, in bag s	<b>.</b> .	•	:	:	:	:	:	20 cwt 20 cwt (net)	245 165	0
Greasy . Scoured, etc	:. :			:		:		:	lb lb		3 3.49
General cargo	•	•	•	•	•		•		Ton weight or measurement	275	0

<sup>(</sup>a) Rates for commodities shipped in chartered vessels and bulkships not included.

# OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966(a)—continued

	VA:	RIO	US	cou	NIK	IES	, 31	DE	CEMBER 1966(a)—contin	ued
	Cou	ntry	and a	ırticle					Unit for which freight rate is quoted	Freight rate quoted
India-										Rates-Sterling
Milk products in Wheat in bags .		s, car	tons,	etc.	:	:	:	•	Ton measurement Ton weight	Rates—Sterling £10.750 £8.100
Wool→ Greasy .									1b	3.45d.
Scoured, etc			•	•	•	•	•	•	lb Ton weight	4.42d.
Zinc bars . General cargo .			:	:	:	:	:		Ton weight or measurement	£6 500 £12.625
INDONESIA-										Rates—Australian
Flour-				_					0.000 11.	shillings and pence
From eastern . From western					•	•	•	•	2,000 lb 2,000 lb	170 0 160 0
General cargo—			•		•	•	•	•	,	
From eastern From western					•	•	•	:	Ton weight or measurement Ton weight or measurement	262 <b>6</b> 242 <b>6</b>
JAPAN-	Austr	anan	port		•	•	•	•	Ton weight of incastrement	242
Cattle hides .									20 cwt	275 0
Coal, in bags .	•	٠		-i\	•		•	•	20 cwt	235 0
Concentrates (co Parcels(b)	opper,	ieaa	and :	zinc)–					20 cwt	180 0
Bulk(c)				•	•			•	20 cwt	130 0 F.I.T.(e)
Iron and steel so	:гар—	•			_	_			20 cwt	240 0
4-cwt drums .		:	:	:	:	:	:	•	20 cwt	210 0
Over 4-cwt dr Ore, copper ex h		A		.i_p	iL	٠	•	•	20 cwt 20 cwt	185 0 115 0 F.I.O.T.(/)
Sugar, refined, in	n bags	Quee	:IISIAI	,u	·	:	:		20 cwt (net)	245 0
Wheat, in bags		•	•		•		•		20 cwt (net)	165 0
Wool— Greasy			_	_		_			1b	0 3.32
Scoured, etc					•				lb	0 3.86
General cargo	•	•	•	•	•	•	•	•	Ton weight or measurement	275 0
MALAYSIA— Milk products—										
Condensed— From easter	rn An	strali	an no	rtq					Ton measurement	245 0
From wester					:	:	:		Ton measurement	225 0
Powdered in b		!:							T	305 0
From easter From wester					:	:	:	:	Ton weight Ton weight	305 0 285 0
Powdered in c	ases c	or car	tons-	-						<b>,</b>
From easter From weste					:	:	:	:	Ton weight or measurement Ton weight or measurement	250 0 230 0
Flour—			-				-	-		
From eastern From western	Austr	anan ralian	ports	S S	•	•	•	:	2,000 lb 2,000 lb	165 0 155 0
General cargo—					•	•	•	•		
From eastern From western					•	•	•	•	Ton weight or measurement Ton weight or measurement	262 6 242 6
NEW ZEALAND(d)-			por	-	•	•	•	•	Ton weight of measurement	Rates—New
Fruit—										Zealand currency
Dried Fresh—Orang			:	÷ :	٠.	•	•	•	40 cu ft	177 6
Textiles, yarns—	es (pe	i cas	C 1 11	7 1113	,	•	•	•	Per case	8 3
Piecegoods .		•			•	•	•	•	40 cu ft/20 cwt	177 6
Iron and steel— Bars, rods, and	gles, t	ees (	un to	30 ft	long)				20 cwt	170 0
Pipes and tube	es (up	to 2	Oft lo	ong)	,	•			20 cwt	148 0
Plate (up to 20 Sheet (bundles		ng)	•	•	•	•	•	•	20 cwt 20 cwt	170 0 137 6
Wire, lattice .		:	:	:	:	:	:	:	40 cu ft	177 6
Lead oxide .		•		•		•	•		20 cwt	170 0 170 0
Zinc oxide . Copper—	•	•	•	•	•	•	•	•	20 cwt	170 0
Bars and rods			ft Ion	g)					20 cwt	170 0
Sheets in bund Pipes and tube	uies es (un	to 2	o ម ក	ong)	•	:	•	•	20 cwt 20 cwt	137 6 148 0
Plates (up to 2	20 քե հ	ong)			:	:	:	:	20 cwt	170 0
Motor vehicles— Assembled	-								40 cu ft	103 0
Unassembled	•	•	:	:	:	:	:	:	40 cu ft	177 6
Parts	inc.	•	•	•	•		•	•	40 cu ft	177 6
Household mach Timber (up to 20		ng)	:	:	:	:	•	:	40 cu ft/20 cwt 100 super ft	177 6 45 6
Books and perio	dicals	;					:	÷	40 cu ft/20 cwt	177 6
Drugs and medic Sodium pentach	cinal (	prepa	ratio	ns	•	•	•	٠	40 cu ft/20 cwt 40 cu ft/20 cwt	177 6 187 0
Fertilisers-	.o.pu	Luce		•	•	•	•	•	· ·	
Manure Plastic foam	•	•	•	•			•	•	20 cwt	173 0
General cargo.			:	:	:	:	:	:	40 cu ft 40 cu ft/20 cwt	155 0 191 0
									<u> </u>	<u> </u>

<sup>(</sup>a) Rates for commodities shipped in chartered vessels and bulkships not included. (b) Loaded and trimmed at no cost to shipping company. (c) Loaded, trimmed and unloaded at no cost to shipping company. (d) Rates quoted are from Melbourne, Sydney, Newcastle, and Port Kembla to New Zealand main ports, except Bluff which is an additional N.Z.5s. per ton. (e) Free in and trimmed. (f) Free in and out and trimmed.

# OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966—continued

	Co	untr <b>y</b>	and a	rticle	•				Unit for which freight rate is quoted	Freight rate quoted
								<u>_</u>   		Date destable
OUTH AFRICA— Wool dumped—	_									Rates—Australia dollurs and cents
Greasy	_	_							16	3 73 cents
Scoured, etc.	:	•	•	•	•	•	•	٠,	ib	4 81 cents
General cargo		:	:	:	:	÷	:	- :	Ton weight or measurement	\$30.25
								l		
JNITED KINGDOM	AND	CONT	INFNT	ı Fı	ID O PI	-			:	Rates—Sterling
Butter .						-		- 1	Box 56 lb	Rates—Sterling £0 67
Cheese .	•	•	•	•	•	•	•	٠ ا	Ton weight	£27 70
Eggs in shell	:	:	:	:	:	:	•	: 1	Ton measurement	£19.00
Meats, preserve	d by o	old p	rocess	_	•	•		· 1		
Beef, refriger	ated, e	exclud	ling co	rton				٠. ا	lb	4 11d.
Lamb, exclud	ling ca	irton		•				٠ ا	lb	5 08d.
Mutton, excl	uding	carto	n					. [	lb	4 11d.
Beef, carton		•	•				•		ľЬ	2 97d.
Lamb, cartor		•	•	•	•		•	•	ÏР	2 97d.
Mutton, cart	on			•	•	•	•	•	_ lb	2 97d.
Rabbits	•	1		٠		•	•	٠,	Ton measurement	£15 70 £20.70
Sausage casings	in ca	SKS (F	eiriger	area	,	•	•		Ton measurement	£12 45
Sausage casings		i e i i igi	crateu	,	•	•	•	•	Ton measurement	£12 45
Meats, not froz Milk and crean		dense	i i	•	•	•	•	•	Ton weight Ton measurement	£12.45
Fruit—	. Com	uciist(	•	•	•	•	•	•	Ton measurement	212.75
Canned									Ton measurement	£9 487
Dried .	•	•	•	•	•	•	•	•	Ton measurement	£9.487
Fresh—	•	•	•	•	•	•	•	•	1 on measurement	
Apples							_	_	Standard bushel case	£0 680
Citrus	:			:	:	-		·	Standard bushel case	£0 680 £0 720
Pears				•	•				Standard bushel case	£0 680
Pears									∮ bushel case	£0 622
Grapes, gr	apeſru	iit, or	anges,	lem	ons a	nd pl	បភាន		Standard bushel case	£0 792 £0 738
									bushel case	£0 738
									bushel case	£0 528
									1 bushel carton	£0.494
Grain and puls Barley, in ba	e, unp	repar	ed—						Ton weight	£6.875
Wheat, parce		•	•	•	•	•	•	•	Ton weight	20.073
Bagged									Ton weight	£6 750
Bulk	:		:	:	·	·	•	·	Ton weight	£5 750
Maize									Ton weight	£5 750 £8 750
Oats, in bags	, -								Ton weight	£7 375
Rice, paddy,	unhu	sked							Ton weight	£10 000
Grain and puls	e, pre	pared	_							
Bran	•		•		•	•	•	•	Ton weight	£9 900
Pollard	•	•	•	•	•	•	•	•	Ton weight	£9 900
Flour, wheat			•	•	•	•	•	•	Ton weight	£9 100
Rice, clean, l	nusked	3	•	•	•	•	•	•	Ton weight	£9 350 £9 850
Jams .	•	•	•	•	•	•	•	•	Ton measurement	
Wine . Hides and skin	••-	•	•	•	•	•	٠	٠	Ton measurement	£11.850
Calf .	<del>,</del>								Ton weight	£18.032
Cattle .	•	•	•	•	•	•	•	•	Ton weight	۱۲ - 218.032
Fox .	•	:	•	:	•	•	•	•	Ton weight	11
Kangaroo	-	-		:		:	:	:	Ton weight	£56.60
Opossum			•			:	-		Ton weight	17
Rabbit and I	are			:					Ton weight	<b>   </b>
Wallaby									Ton weight	l í
Sheep, dump	ed								lb lb	2 98d.
Other									Ton weight	£56 60
Pearlshell			• .						Ton measurement	£12 45
Trochus and gr	een si	nail st	hell, ba	igs c	r cas	cs .			Ton weight	£18.70
Wool—										١
Greasy, dum	ped .	٠.	·	•	•	•	•	•	]b	4 15d.
Scoured and	wash	ea, du	ımped	•	•	•	•	•	ip.	5 20d. 4 96d.
Tops .	•	•	•	•	•	•	•	•	lb Top weight	
Bark, tanning	. <b>.</b>	•	•	•	•	•	•	•	Ton weight	£12 45 £12 45
Sandalwood in	Dags	dan.	•	•	•	•	•	•	Ton measurement	
Apparel and at	ure, c	HECUS	•	•	•	•	•	•	Ton weight or measurement	£19.50
Oils—									Ton measurement	£12 45
Eucalyptus Coconut	•	•	•	•	•	•	•	٠	Ton weight	£14 10
Whale .	•	•	•	•	•	•	•	٠	Ton weight	£14.10
Other .	•	•	•	•	•	•	•	•	Ton measurement	£14.10
Stearine .	•	•	•	•	•	•	•	•	Ton weight	£14 10
5	ed in	drun	ns.	:	•	•	•	:	Ton weight	£14.10
Tallow unrest				:	•	•	•	•	Ton weight	1 22 66
Tallow, unrefir Ore in casks, b	BUE CE	drug	ns. n.e	. 1.					Ton weight	£7.55

<sup>(</sup>a) Rates for commodities shipped in chartered vessels and bulkships not included.

# OVERSEAS SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1966(a)—continued

Country	and arti	cle				Unit for which freight rate is quoted	Freight rate quoted
United Kingdom and Con	TINENTAL	Europ	E—co	ntinue	ed		Rates—Sterling
Zinc—							_
Ex Risdon Other than above .					· 1	Ton weight	£5.150
Other than above.					. \	Ton weight	£6.175
Dust in tins, sealed case	s or new	lined o	drums		. 1	Ton weight	£17.70
Copper					. [	Ton weight	£5 85
Copper Lead						Ton weight	£5.85
						-	
Up to 20 feet Over 20 feet and up to Tin clippings, hydraulical Leather						Ton weight	£7.75
Over 20 feet and up to	30 feet					Ton weight	£8 30
Tin clippings, hydraulical	v pressed	١.			. 1	Ton weight	£6.75
Leather						Ton weight	£27.40
Timber—					1		
Logs—							1
Up to 40 feet Over 40 feet and up to						100 super feet	£4.35
Over 40 feet and up t	o 50 feet		•		1	100 super feet	£4.65
Over 50 feet and up	o 60 feet	•	•	•	٠١	100 super feet	£5.00
Sawn undressed up to	30 feet	chinme	nt of	less	than	roo super reet	25.00
SO tope	JO 1001	3mpme	OI	1000		100 super feet	£2.30
50 tons Toilet paper	• •	•	•	•	. 1	Ton measurement	£13.30
Stationery—		•	•	•		Ton measurement	213.30
Note paper and/or envi	lones					Ton measurement	£20 50
Other than above	ropes .	•	•	•	٠ ١	Ton measurement	£21.30
Other than above . Casein Fertilisers		•	•	•	٠ (	Ton weight	£16 30
Caselli	• •	•	•	•	٠ (	Ton measurement	£15 30
Coop		•	•	•	• 1	Ton measurement	£12.45
Soap		•	•	•	• 1	Ad vulorem	
Gold and shver specie		•	•	•	•	Aa vulorem	£0.750%
UNITED STATES OF AMERICA	A			- Da-			Rates-U.S.
Beef, preserved by cold p	-AILANI	IC ANI	OOL	FFOR	(13		dollars
Deer, preserved by cold p	ocess				1	100 15	
Quarters, etc. Cartons Casein		•	•	•	• 1	100 lb gross weight	4.65
Cartons			•	•	• 1	100 lb net weight	4.15
Casein Fish, preserved by cold p	: •	•	•	•		20 cwt	47.00
Fish, preserved by cold p	ocess—					••	
Loose Cartons		•	:	•		20 cwt	90.00
Cartons		•	•	•		100 lb net weight	4.50
Lead—					1	••	1
Ores and concentrates Mutton, preserved by col		•	•			20 cwt	30.00
Mutton, preserved by col-	i process-	_					1
Carcases						100 16	5.00
Cuts in cartons .						100 lb net weight	4.15
Cuts in cartons . Pipes and tubes of iron as Wool—	ıd steel				- 1	20 cwt or 40 cu ft	33.00
					ı		
Greasy					. !	100 lb	5.25
Greasy					. 1	100 lb	6.30
						20 cwt or 40 cu ft	47.60

<sup>(</sup>a) Rates for commodities shipped in chartered vessels and bulkships not included.

Interstate rates per ton weight or measurement for general cargo at 31 December 1966 (expressed in Australian dollars) were: Sydney-Melbourne, \$16.20; Sydney-Brisbane, \$15.20; Sydney-Adelaide, \$21.10; Sydney-Fremantle, \$26.20; Sydney-Hobart, \$16.35; Sydney-Darwin, \$25.85.

#### 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 1961-62 to 1965-66 are shown in the table below.

# SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(a): AUSTRALIA, 1961-62 TO 1965-66

		Shi	pping los	ses	Other s	hipping ca	sualties	Total shipping casualties			
Year		Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	
1961-62				<b></b>	147	569,644	1	147	569,644	,	
1962-63	·				122	468,326		122	468,326		
1963-64					109	362,798		109	362,798		
1964-65		1 1			87	315,762		87	315,762		
1965–66		1 1	287	13	87	375,161		88	375,448	13	

(a) Vessels over 50 net tons.

#### Lighthouses; distances by sea; depths of water and tides at main ports; ferry passenger services

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 so far as particulars are available, will be found in *Transport and Communication*, Bulletin No. 46.

The distances by sea between principal ports of Australia and some important ports in other countries which trade with Australia were published in Year Book No. 48, page 525.

A table showing the depths of water available and tides at principal ports of Australia is published in the annual bulletin, *Transport and Communication*. For some major ports information is given in the chapter Local Government.

#### **GOVERNMENT RAILWAYS**

Six independent State Government railway authorities and one Commonwealth Government railway authority operate the major intrastate and interstate railway systems in Australia. Each system is managed by a Commissioner, or Commissioners, responsible to the Minister in charge of transport for the respective Governments. The various Government railway systems are as follows.

#### New South Wales Railways

An extensive 4 ft 81 in gauge system is based on Sydney and extends throughout the State.

#### Victorian Railways

A 5 ft 3 in gauge system centred on Melbourne radiates throughout Victoria and into southern New South Wales. This is supplemented by a 4 ft 8½ in gauge line from Melbourne to the New South Wales border, and by a short length of 2 ft 6 in gauge line near Melbourne, used mainly for tourist purposes.

#### Queensland Railways

A 3 ft 6 in gauge line extends along the coast from Brisbane to Cairns, with branch lines inland from Brisbane, Rockhampton and Townsville. In addition, a 4 ft 8½ in gauge line extends from Brisbane to the New South Wales border, and a short length of 2 ft gauge line (used mainly for cane haulage) operates in the Innisfail area.

#### South Australian Railways

The main system, in the south-east of the State, is of 5 ft 3 in gauge. The railway system in Eyre Peninsula, as well as the line from Port Pirie to the New South Wales border, is of 3 ft 6 in gauge. The conversion of the latter line to 4 ft 8½ in gauge is in progress.

#### Western Australian Railways

In the southwest of the State there is an extensive 3 ft 6 in gauge system which extends as far as Meekatharra in the north and Kalgoorlie and Esperance in the east. A new 4 ft 8½ in gauge line between Perth and Kalgoorlie is being constructed.

#### Commonwealth Railways

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

A graph showing the route-mileage and traffic of all Government railways from 1870 to 1966 appears on plate 32, opposite.

In addition to these Government railways there are a number of short but significant private railways in Australia. The majority were constructed for the haulage of coal, iron ore and other minerals to processing plants, ports or government railheads, but some handle general traffic and passengers also. The more important of the private railways operate from Whyalla to Iron Knob and Iron Baron (South Australia), from Maitland to Cessnock (New South Wales), from Broken Hill (New South Wales) to the South Australian border, and from Burnie to Zechan (Tasmania). In the north-west of Western Australia private railways were brought into service during 1966 to haul iron ore from Mt Tom Price to King Bay, a distance of 180 miles and from Mt Goldsworthy to Finicane Island (Port Hedland), a distance of 70 miles.

## Standardisation of railway gauges\*

Government railways in Australia use a variety of track gauges ranging from 2 ft to 5 ft 3 in, but only in the case of the 3 ft 6 in, the 4 ft 8½ in and the 5 ft 3 in gauges are the route mileages extensive. The importance of the present measures to bring about railway standardisation largely derives from the many economic and political difficulties occasioned by these differences in track gauges.

Programmes for the standardisation of railways in Australia have been arranged on the basis of mutual agreement and collaboration between the Commonwealth and State Governments with the ratification of the Parliaments concerned. There is no national co-ordinating railway authority in Australia, but the Railway Commissioners discuss mutual problems and make inter-system working arrangements through the Australian and New Zealand Railways Conference.

Under various Commonwealth-State Standardisation Agreements approximately 420 route miles of standard (4 ft 8½ in) gauge track have been completed since 1956, and a further 680 route miles are expected to be completed by the end of 1968. Melbourne is now linked to Sydney and Brisbane by a standard gauge railway, and by 1968 it is expected that a direct standard gauge link will be available between Sydney and Perth. Bogie exchange facilities have been installed at Melbourne and Port Pirie (South Australia) to eliminate the physical transfer of goods between the rolling-stock of the standard gauge and that of the broad gauge systems serving Victoria and a large part of South Australia.

#### Early history of standardisation in Australia

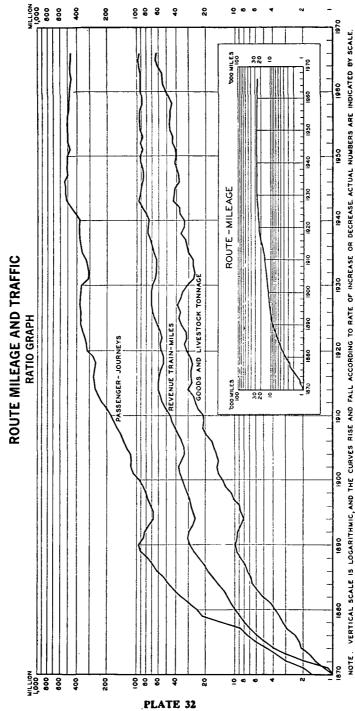
The history of standardisation of railway track gauges in Australia goes back to before the construction of the first steam railway. During the 1840's the diversity of gauges in Great Britain was causing concern to railway administrators, and in 1846 the British Secretary for State for Colonies recommended a uniform gauge of 4 ft 8\frac{1}{2} in for railway construction in the Colonies. At that time there were no steam powered railways in any Australian Colony.

In 1850, however, a private company submitted a proposal to construct the Sydney-Parramatta railway using a track gauge of 5 ft 3 in. This proposal was approved by the Governor-General and the Colonial Secretary, and in 1853 an Act was passed making it compulsory for all railways in New South Wales to be of 5 ft 3 in track gauge. The Governors of Victoria and South Australia accepted this as the standard gauge for Australia.

The following year the Company revised the proposed gauge and succeeded in having the 1852 Act repealed and a new Act passed setting the gauge for New South Wales at 4 ft 8\frac{1}{2} in. This step was taken without reference to either South Australia or Victoria, where private companies had

The following article on standardisation of railway gauges was specially prepared for this issue of the Year Book by the Commonwealth Department of Shipping and Transport.

# GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1966



placed large orders for 5 ft 3 in gauge rolling stock. Both these Colonies decided to adhere to the 5 ft 3 in gauge. On appeal to England it was decided that this was a local dispute and 'as the forests were so dense it was improbable that the lines would meet in any case'. This was the end of early attempts at standardisation.

The adoption of a 3 ft 6 in track gauge by Queensland, Western Australia and Tasmania, and the subsequent use of this gauge for certain lines in South Australia, appears to have been based on geographical, financial and economic factors. However, it is also likely that the possibility of links between States was still considered remote. The first interstate railway link was established in 1883 when the New South Wales and Victorian systems met at Albury. This was followed by a link between New South Wales and Queensland in 1888 and the Victorian-South Australian broad gauge link in 1889. (It was 1917 before Western Australia was linked with the railway systems of the other mainland States.)

Following the establishment of these early links the disadvantages of a break of gauge at State borders soon became evident, and in 1897 the Premiers of New South Wales, Victoria and South Australia agreed that a standard gauge was desirable. The Railway Commissioners met and recommended conversion of South Australia and Victoria to 4 ft 8½ in gauge, but no further action was taken.

The question was debated at a number of conferences between 1900 and 1920. The urgent necessity of the work was confirmed many times, but nothing was done. In 1920 the Premiers Conference considered a report and resolved that an expert committee be set up to consider the unification of gauges. This took the form of a Royal Commission. In 1921 the Royal Commission reported strongly in favour of a standard track gauge of 4 ft 8½ in and set out plans, costs and the order of conversion of two proposals; first the conversion of the main trunk lines between capital cities and secondly the conversion of all lines. Included in the plans were new standard gauge lines between Brisbane and Kyogle (New South Wales) and between Port Augusta and Lochiel (South Australia). Both lines reduced the distance between capitals and provided a lower maximum elevation on the route, which, in the case of the Sydney-Brisbane line, was reduced from 4.450 ft to 800 ft.

Commonwealth-State discussions followed the 1921 Royal Commission's report, but a general agreement was not reached. In 1924 the Commonwealth, New South Wales and Queensland Governments agreed to the extension of the Sydney-Kyogle standard gauge line to South Brisbane. This line was brought into service in 1930. In 1935 an agreement was reached between the Commonwealth and South Australian Governments whereby the Commonwealth was to extend the Trans-Australian standard gauge line, completed in 1917, from Port Augusta to Port Pirie and South Australia to provide a broad gauge line from Port Pirie to link with the broad gauge network at Red Hill. The work was completed and opened to traffic in 1937.

During the 1939-45 War considerable difficulty was experienced in Australia in the movement of military equipment and troops by rail, mainly because of the existence of break-of-gauge points, the lack of interchangeability of locomotives and rolling-stock between the major railway systems and the lack of uniformity in the technical standards of tracks. Consequently, in March 1944, the Commonwealth Government requested Sir Harold Clapp, Director-General of Land Transport, Commonwealth Department of Transport, and formerly Chairman of Commissioners, Victorian Railways, to submit a report and recommendations regarding the standardisation of Australia's railway gauges on the basis of a 4 ft 8½ in gauge.

#### Report of Sir Harold Clapp and subsequent investigation

The report, which also covered the construction of certain strategic and developmental railways, was submitted in March 1945, and the projects recommended to be carried out in stages and estimated to cost \$153,502,000 overall, were as follows.

- (a) Construction of an independent standard gauge line from Fremantle-Perth to Kalgoorlie (419 miles).
- (b) Conversion to standard gauge of the entire South Australian 5 ft 3 in gauge system and the 3 ft 6 in gauge lines of the South Eastern Division (1,760 miles).
- (c) Conversion to standard gauge of the entire Victorian 5 ft 3 in gauge system, and the Upper Ferntree Gully-Emerald section of the Gembrook 2 ft 6 in gauge line (4,980 miles).
- (d) Acquisition of the Silverton Tramway Company's line (36 miles) between Cockburn (South Australia) and Broken Hill (New South Wales) and the conversion to standard gauge of this line, as well as the 3 ft 6 in gauge lines of the Peterborough Division of the South Australian Railways (366 miles) to provide a standard gauge line between Port Pirie and Broken Hill.
- (e) Provision of a standard gauge strategic and developmental railway linking Bourke (New South Wales) with Townsville and Dajarra (Queensland) by the construction of a new standard gauge line between Bourke and Longreach, via Cunnamulla, Charleville and Blackall, and the conversion of the Longreach-Hughenden, Townsville-Dajarra and tributary lines.

(f) Construction of a standard gauge strategic and developmental railway between Dajarra (Queensland) and Birdum (Northern Territory) and the conversion to standard gauge of the Birdum-Darwin line (961 miles).

Other recommendations were that, on agreement being reached between the Commonwealth and the States concerning the carrying out of the foregoing projects, arrangements were to be made for complete surveys, plans and estimates to be prepared for the standardisation of the Queensland and Western Australian Railways not covered by the proposals mentioned. For a detailed description of the report see Year Book No. 37, pages 146-8.

The conversion to standard gauge of the 3 ft 6 in gauge Central Australia Railway (Port Augusta to Alice Springs) and extension beyond the existing terminal at Alice Springs was not recommended, nor was the introduction of standard gauge in Tasmania.

As a further step towards standardisation, a Committee consisting of members of the Commonwealth Parliament, was formed in March 1956 to consider the practicability and desirability of standardising the main railway trunk lines on the Australian mainland. The Committee was invited to examine whether a more limited scheme than that envisaged in the Clapp Report could be devised without incurring the costs of complete conversion and without inhibiting the efficiency of operation of the various Government systems. The Committee recommended to the Commonwealth Government that standardisation of the major inter-capital routes was warranted. It was recommended that surveys should be carried out and plans prepared without delay, and that the Commonwealth should bear the cost of this detailed work. The Committee also examined questions of the method of construction, finance and timing, and the administration of the proposals, but did not make detailed recommendations on these matters.

#### Nature and scope of railway standardisation agreements

Arising out of Commonwealth-State discussions, which followed the report by Sir Harold Clapp, a Railway Standardisation Agreement was drawn up and signed by representatives of the Commonwealth, New South Wales, Victorian, and South Australian Governments. However, this agreement was not ratified by all Governments concerned and, therefore, was never implemented.

In October 1949 the Railway Standardisation (South Australia) Agreement was assented to by the Commonwealth Parliament. This Act authorised the execution by the Commonwealth Government of an agreement between the Commonwealth and South Australian Governments whereby a major part of the broad and narrow gauge railways owned and operated by the South Australian Railways would be converted to standard gauge. The agreement did not stipulate any period of time within which the works were to be undertaken or completed. The Act provided that the Commonwealth Government should undertake the conversion of other railways owned and operated by the Commonwealth Railways in South Australia and the Northern Territory, and that the acquisition and conversion of the Silverton Tramway should be carried out. The preamble to the agreement indicated that a uniform track gauge throughout Australia was desirable to assist in the defence and development of Australia, to facilitate interstate trade and commerce, and to secure maximum efficiency and economy in railway operation.

The agreement provided that the parties to the Agreement should set standards of design and construction essential to the establishment of standard gauge railways and to the safe and efficient operation of interchange traffic, including locomotives and all classes of rolling-stock over the unified railways of Australia. It was agreed that 70 per cent of the cost of standardisation should be borne by the Commonwealth and 30 per cent by the State. The Agreement also provided that the Commonwealth should meet the initial cost of the works specified and that the State should repay the Commonwealth 30 per cent of the expenditure over a period of fifty years together with interest. The agreement included stipulations regarding the cost of betterments and replacements, annual budgets of expenditure, audit, accounts, and records. The Agreement, with modifications, has been the basis on which subsequent agreements between the Commonwealth and the States of Victoria, New South Wales and Western Australia have been formulated.

The major Agreements which have been made and implemented since 1950 include:

- (1) The Brachina to Leigh Creek North Coalfield Railways 1950;
- (2) The Stirling North to Brachina Railway 1952;
- (3) The Leigh Creek North Coalfield to Marree (Conversion to Standard Gauge) Railway 1954;
- (4) The Railway Standardisation (New South Wales and Victoria) Agreement 1958;
- (5) The Railway Agreement (Western Australia) 1961.

The first three agreements refer to the construction of the Port Augusta to Marree standard gauge railway, which was completed in 1956 at a cost of approximately \$24,000,000. The main purpose of these Agreements was to provide standard gauge access to the Leigh Creek brown coal deposits and was, therefore, in a different category to other standardisation works. This railway is operated by the Commonwealth Railways.

#### The New South Wales and Victoria Standardisation Agreement

The New South Wales and Victoria Standardisation Agreement followed the general format of the 1949 South Australian Agreement, but differed from it in substance in several important respects:

- (a) the Commonwealth Government agreed to provide all funds to meet expenditure on the standardisation works as and when required by the States:
- (b) the Commonwealth was not obliged to meet expenditure on any of the standardisation work incurred at any time subsequent to twelve calendar months after the commencement of a regular service on the standard gauge railway;
- (c) provision was made to authorise variations of cost due to unforeseeable circumstances;
- (d) the Agreement was appended by Schedules indicating:
  - (i) the route of the standard gauge railway:
  - (ii) the estimated cost of major items in the standardisation work;
  - (iii) the standards to be adopted;
- (e) the standardisation works were limited to the construction of a standard gauge railway on the main intercapital (Melbourne-Sydney) route.

The standardisation work comprised the construction of a main line permanent way and crossing loops between Albury Railway Station and Melbourne (Spencer Street), the construction of bridges and culverts, alterations to station yards, grade separation and level crossing protection, the provision of rolling-stock maintenance and freight handling facilities at Dynon Road in Melbourne, alterations to signalling, the installation of automatic power signalling with centralised traffic control, and the construction and conversion of rolling-stock.

Under the Agreement the States of New South Wales and Victoria were responsible for the execution of the standardisation works, and, with the approval of the Commonwealth Minister for Shipping and Transport, called public tenders for the execution of the works where desirable. There was a provision that expenditure was not to be incurred without the concurrence of the Commonwealth Minister. The States prepared detailed plans, specifications and estimates of costs for all works under the Agreement in collaboration with the Commonwealth.

#### The Western Australia Railway Agreement

The Railway Agreement (Western Australia) 1961 is an agreement ratified by the Commonwealth and Western Australian Governments to undertake certain standard gauge railway works, including the provision of rolling-stock, in Western Australia at an estimated cost of \$82.4 million. The proposal is linked with the establishment of an integrated iron and steel industry at Kwinana, south of Perth. The new railway facilities will be used to transport iron ore from the Koolyanobbing deposits some thirty-three miles beyond Southern Cross. These railway facilities will also link Kalgoorlie with East Perth and Fremantle by a standard gauge line which will be open to passenger and general freight traffic.

It has been agreed that the project has standardisation and developmental components in approximately equal parts, and initially the Commonwealth will, in effect, provide finance for all the standardisation portion of the works and 70 per cent of the developmental portion. The State will repay with interest 30 per cent of the standardisation costs over fifty years and all the advance for developmental works over twenty years. Work on the project commenced in 1962 and is planned to be completed by December 1968.

The Agreement covers decisions in cases of disputes between the parties, the completion date, the definition of the nature of the work required for standardisation purposes, the preparation of programmes, plans and estimates, the authorisation of expenditure, expenditure after the completion date, the submission of annual estimates, and collaboration between the parties concerned regarding the standards of design, construction and operation of rolling-stock (including locomotives) for the facilitation of efficient inter-system traffic and co-ordinated services. The Schedules to the Agreement may be varied with the approval of the Commonwealth Minister for Shipping and Transport. There is provision also for the review of rolling-stock for conversion to standard gauge and other factors.

The estimated cost of \$83,220,000 is based solely on the cost of materials and labour and on operational requirements prevailing at the end of 1960, and is specified in the Agreement as an indication of the extent of the works and the relative amounts to be expended on the various components and does not impose any limitation on the amount to be expended by the State Government.

#### The South Australian Standardisation Agreement

The conversion of the South Eastern Division of the South Australian Railways from 3 ft 6 in to 5 ft 3 in track gauge, completed in 1959, was carried out under the 1949 Railways Standardisation (South Australia) Agreement as a preliminary step toward eventual standardisation. The conversion to standard gauge of the narrow gauge line between Port Pirie and Cockburn, as part of the East-West standard gauge link, is also being carried out under this agreement. The South Australian Government has submitted to the Commonwealth Government a proposal

in outline for the standardisation of the existing railway line between Port Pirie and Adelaide. The Commonwealth Government has made available \$30,000 to South Australia for the surveying of this line without committing the Commonwealth to any further action.

#### Standards adopted

The basic standard adopted for standardisation works is a track gauge of 4 ft 8½ in with appropriate minimum structure and maximum rolling-stock outlines. Both in the conversion of tracks of other gauges to 4 ft 8½ in and the construction of new standard gauge railways, it is essential to ensure the efficient and economic interchange of rolling-stock, the facilitation of inter-system traffic, the co-ordination of designs and specifications of rolling-stock, and the co-ordination of services.

The standards of tracks, including weight of rail, sleepers, ballast, dogspikes, sleeper plates, and rail anchors, have varied slightly from project to project, depending on the nature of the traffic and other factors. Australian standard 94 lb rail, welded into lengths of up to 360 feet, and hardwood sleepers have been generally used. Earthworks, bridges and culverts also have varied from project to project according to the nature of the traffic, geological and topographical conditions, and nature of existing structures.

Grading has frequently been determined by the alignment of the existing track. On the major part of the Kalgoorlie-Perth standard gauge track currently under construction the ruling gradient will be 1 in 150. For curvature, a minimum radius of not less than forty chains is standard but has been reduced to ten chains where circumstances justify such a reduction.

Signalling and communications equipment standards have been determined mainly according to the nature of traffic requirements, terminal and intermediate marshalling facilities, the density and speed of traffic, and the peak line capacity. Centralised traffic control of one form or another has been a feature on trunk routes. Signalling and communications standards and techniques have been improved particularly to achieve higher average speeds made possible by the use of diesel locomotives and bogie rolling-stock.

In general, where railway authorities have undertaken works or provided for capacity or equipment in excess of standards established under the Agreements, such betterments have been undertaken at the expense of the State concerned. Works carried out under the Agreements have generally included the acquisition of land, the purchase, construction, alteration and conversion of railway lines, bridges, buildings, structures, workshops, plant, locomotives and rolling-stock, and other factors essential for standardisation. Work regarded as being outside the scope of the standardisation agreements includes the operation and maintenance of the standard gauge railway, betterments, and any rehabilitation programme which would be necessary independently of standardisation works.

The adoption of relatively uniform technical dimensions of track and equipment for standardisation projects has had the effect of encouraging the co-operation and simplification of other features of railway operations, including inter-system tariffs, documentation, maintenance and repair practices, and accounting procedures.

#### Operations of Government railways

#### Route-miles open for traffic

The following table shows the route-mileage of each Government railway system, according to gauge, at 30 June 1966.

# GOVERNMENT RAILWAYS: ROUTE-MILEAGE(a) OPEN, SYSTEMS, 30 JUNE 1966 (Miles)

			Gauge											
System		5 ft 3 in	4 ft 8½ in	3 ft 6 in	2 ft 6 in	2 ft 0 in	Total							
New South Wales Victoria Queensland . South Australia Western Australia Tasmania . Commonwealth	•	(c) 3,977 1,650	(b) 6.055 202 69  (d) 1,330	5,686 828 3,747 500 (e) 922	9   	30	6,055 4,188 5,785 2,478 3,747 500 2,252							
Australia		5,627	7.656	11,683	9	30	25,005							

<sup>(</sup>a) Mileage of railway irrespective of whether it consists of single or multiple track. Excludes sidings and crossovers. (b) Includes 234 route-miles which are electrified. (c) Excludes 202 miles of 5 ft 3 in gauge line which almost parallels the uniform gauge (4 ft 84 in) line between Melbourne and the New South Wales border. Includes 263 route-miles which are electrified. (d) Trans-Australian Railway, Australian Capital Territory Railway and portion of Central Australia Railway. (e) North Australia Railway and portion of Central Australia Railway.

As the Commonwealth systems include mileages in South and Western Australia, and the Victorian system extends into New South Wales, the system route-mileages shown in the previous table do not represent mileages within each State and Territory. The mileages within each State and Territory at 30 June 1966 are shown in the next table.

# GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES, 30 JUNE 1966

(Miles)

	Ga	uge		=	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5 ft. 3 in. 4 ft. 8½ in. 3 ft. 6 in. 2 ft. 6 in. 2 ft. 0 in.	:	:		•	(a) 204 6,055 	(b)3,773 202  9	 69 5,686	1,650 (c) 871 (f)1,260	(d) 454	 .500	 (g) 490 	(e) ·· 5 ·· ··	5,627 7,656 11,683 9
Tota Per 1,000 o Per 1,000 se	f po	pulatio e mile	on		6,259 1.49 20.23	3,984 1.25 45.33	5,785 3 51 8.67	1	1	500 1.35 18.95	13.53	5 0.05 5.32	25,005 2.18 8.43

<sup>(</sup>a) Portion of Victorian system. (b) Excludes 202 miles of 5 ft 3 in gauge line which almost parallels the uniform gauge (4 ft 8½ in) line between Melbourne and the New South Wales border. (c) Includes 654 miles of Trans-Australian and 217 miles of the Central Australia Railway systems. (d) Portion of Trans-Australian Railway system. (e) Australian Capital Territory Railway system. (f) Includes 432 miles of the Central Australia Railway systems. (g) Includes 173 miles of the Central Australia and 317 miles of the North Australia Railway systems.

The following table sets out route-mileages of Government railways in each State and Territory at various dates since the inauguration of railways in Australia in 1854.

# GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES, 1855 TO 1966

(Miles)

30 Ju	ıne	•	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a)			14	2	••	7					2
1861(a)			73	114	••	56					24
1871(a)			358	276	218	133		45		}	1,03
1881(a)			996	1,247	800	832	92	45		i	4,01
1891			2,182	2,763	2,195	1,666	198	351	145	1	9,50
1901			2,846	3,237	2,801	1,736	1,355	457	145		12,57
1911			3,762	3,523	3,868	1,935	2,376	470	145		16,07
1921			5,043	4,267	5,752	3,408	3,992	630	199	5	23,29
1931			6,247	4,514	6,529	3,725	4,634	665	317	5	26,63
1941			6,368	4,518	6,567	3,809	4,835	642	490	5	27,23
1951			6,354	4,445	6,560	3,805	4,682	613	490	5	26,95
1961			6,303	4,050	6,324	3,836	4,577	517	490	5	26,10
965			6,259	4.007	5,785	3,800	4,187	500	490	5	25,0
1966			6,259	3,984	5,785	3,781	4,201	500	490	5	25,00

(a) At 31 December.

#### Summary of operations

The following table shows a summary of the operations of the Australian Government railway systems during 1965-66.

#### **GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1965-66**

				Revenue	Passenger	Passenger-	Goods and livestock			
Syster	m			train- miles (a)	journeys (b)	miles (c)	Tons carried(b)	Net ton- miles(d)		
				'000	'000	³000	'000	million		
New South Wales				37,694	257,568	n.a.	26,917	4,255.2		
Victoria .				20,145	149,125	1,273,380	12,156	1,989.5		
Oueensland .				17,640	25,979	n.a.	10,049	2,002.0		
South Australia				6,492	15,511	122,720	4,789	749.3		
Western Australia				8,043	10,168	67,826	6,384	1,020.8		
Tasmania .				1,283	1,304	7,062	1,072	113.4		
Commonwealth	•	•		2,955	342	121,351	2,976	881.4		
Australia(b)			•	94,252	459,997	n.a.	64,343	11,011.6		

<sup>(</sup>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) Inter-system traffic is included in the total for each system (including each Commonwealth Railway) over which it passes. (c) One passenger travelling one mile. (d) One ton carried one mile.

#### Gross earnings, working expenses, net earnings

Gross earnings are composed of earnings from (a) coaching traffic, including the carriage of passengers, mails, horses, parcels, etc., by passenger trains; (b) carriage of goods and livestock; and (c) rents and miscellaneous items. In this section particulars of State Government grants are excluded. Details of these grants made during 1965-66 are shown on page 449.

The following table shows gross earnings for the year 1965-66 classified according to the three main sources of earnings together with the percentage of the total derived from each source.

GOVERNMENT RAILWAYS: DISTRIBUTION OF GROSS EARNINGS SYSTEMS, 1965-66

		Gros	s earnings (\$	(000)	Proportion of total (per cent)					
System	į	Coaching	Goods (including livestock)	Miscel- laneous	Coaching	Goods (including livestock)	Miscel- laneous			
New South Wales		48,147	136,921	10,268	24.65	70.09	5.26			
Victoria		31,554	61,442	6,524	31.71	61.74	6.55			
Queensland .		9,052	72,535	2,590	10.75	86.17	3.08			
South Australia		4,349	22,218	2,380	15 02	76.76	8.22			
Western Australia		3,694	37,296	1,582	8.68	87.61	3.71			
Tasmania .		366	5,419	201	6.11	90.53	3.36			
Commonwealth		2,773	14,070	1,248	15.33	77.77	6.90			
Australia .		99,935	349,901	24,793	21.06	73.72	5.22			

Working expenses. In comparing the working expenses of the various railway systems, allowances should be made for the variation in gauges, terrain, traffic handled, and method of operation. In addition to variations between systems there are also variations on different portions of the same system. Working expenses, wherever presented in the Railways section of this chapter,

include reserves for depreciation in the South Australian, Western Australian, Tasmanian and Commonwealth systems, but exclude interest, sinking fund, exchange and certain other payments (see page 449).

The following table shows the total working expenses for the year 1965-66 classified according to the four main expenditure headings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES SYSTEMS, 1965-66 (\$'000)

System			Mainten- ance of way and works	Motive power(a)	Traffic	Other charges	Total working expenses
New South Wales Victoria Queensland South Australia Western Australia Tasmania(b) Commonwealth.	:	•	30,640 19,633 22,735 (b) 7,317 (b) 8,855 1,936 5,545	61,324 28,997 35,336 (b) 11,954 (b) 16,785 2,637 4,700	43,767 28,415 21,116 (b) 8,886 9,519 2,034 2,782	44,062 23,960 4,939 4,232 4,570 940 (b) 4,289	179,792 101,006 84,126 (b) 32,388 (b) 39,730 7,547 17,316
Australia .	•	•	96,661	161,733	116,519	86,992	461,905

<sup>(</sup>a) Includes maintenance of rolling stock.

In the following table gross earnings, working expenses and net earnings are shown for the years 1961-62 to 1965-66.

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, NET EARNINGS, SYSTEMS, 1961-62 TO 1965-66

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwith	Aust.
Gross earnings (\$ 000)— 1961-62	176,702 182,482 202,488 213,258 195,336 159,190 158,652 177,416 187,240 179,792 17,512 23,830 25,072 26,018 15,544	85 114 86,878 92,778 100,225 99,519 85,812 87,000 91,512 99,240 101,006 - 698 - 122 1,266 888 - 1,488	72,318 75,244 84,260 81,321 84,178 76,170 75,436 78,288 80,513 84,126 - 3,852 - 192 5,972 808 52	27,848 27,672 29,496 29,764 28,947 (a) 31,206 30,984 30,910 31,713 32,388 - 3,388 - 3,312 - 1,414 - 1,949	35 098 32,920 34,602 35,715 42,571 (a) 34,908 34,606 35,802 36,529 39,730 - 1,686 - 1,200 - 814 2,841	5,406 5,581 5,668 5,581 5,985 (a) 6,878 6,679 7,219 7,547 - 1,472 - 1,072 - 1,226 - 1,638 - 1,538	12,482 13,958 15,194 17,419 18,091 (a) 510,330 13,286 14,218 15,967 17,316 (b)2,152 976 1,452	414,968 424,752 464,486 483,283 474,627 404,494 406,634 435,040 458,518 461,905 10,474 18,118 29,446 24,763 12,723

<sup>(</sup>a) Includes provision for depreciation. (b) Excludes provision for depreciation. (c) Excess of gross earnings over working expenses as shown in this table.

Minus sign (-) denotes loss.

## Net earnings, grants to railways, interest, sinking fund, surplus or deficit

The following table shows, for each railway system for the year 1965-66, (i) net earnings, (ii) State grants and other items credited to railways accounts, (iii) loan interest, exchange, sinking fund, etc., payments charged against the accounts, and (iv) the net surplus or deficit after these items have been taken into account. Particulars of items (ii) to (iv) are not included in the preceding tables in this section.

The figures shown in this table accord with those published in the Annual Reports of the Railways Commissioners of the several systems. Because of the differences in governmental practice concerning costs other than operative charged against railway accounts, compensation for non-paying and developmental lines, etc., and the inclusion in some railways finances of the operations of ancillary transport services, direct comparison cannot be made between the results

<sup>(</sup>b) Includes provision for depreciation.

shown in the table. For further information on railways finance, particularly expenditure from loan and other funds, see the chapter Public Finance of this Year Book. See also the Reports of the several Railways Commissioners.

# GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT OF EACH SYSTEM AT 30 JUNE 1966

(8)

	Net earnings— excess of		s and othe	er earnings ways	Less	lways	Surplus (+)			
System	gross earnings over working expenses	State Govern- ment grants	Road motor earnings	Total	Interest and exchange	Sinking fund	Road motor expenses (a)	Other	Total	or deficit (-)
							1	1 ,		
N.S.W.		<i>b</i> 3,200,000			24,941,090				30,995,140	
Vic Old .	- 1,486,360 51,717		,	99,508	3,854,207 e15967279				4,176,066	-5,562,918 h-16,574,131
S.A	-3,441,083	i 8,000,000	190,830		5,302,082		201,289	257,128	5,760,499	-1,010,752
W.A	2,841,476		1,097,831	1,097,831			959,895	(1)16,000	7,930,360	
Tas	- 1,561,197	• • •	٠٠.	• • •	953,688			(k)16,088	969,776	-2,530,973
Total	11,948,638	11,230,583	1,357,586	12,588,169	57,988,811	5,677,743	1,307,336	1,483,799	66,457,689	-41,920,882
Cwlth	774,787								٠.	774,787
Aust.	12,723,425	11,230,583	1,357,586	12,588,169	57,988,811	5,677,743	1,307,336	1,483,799	66,457,689	-41,146,095
	1				1	ı	1	1	1	1

<sup>(</sup>a) Includes interest and exchange. (b) Grants to meet losses on country developmental lines and to subsidise payments due from superannuation account.

(c) Loan management and loan floation expenses. (d) Kerang-Koondrook tramway recoup from Treasury. (e) Interest on opened and unopened lines, interest and redemption—

Mt Isa project fund, and interest on Queensland 4 ft 8½ in gauge system. (f) Charges on the Queensland 4 ft 8½ in gauge system. (g) Demolished assets written off.

(g) Grants towards working expenses and debt charges. (j) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (k) Obsolete assets written off.

#### Traffic summary

#### GOVERNMENT RAILWAYS: TRAFFIC, SYSTEMS, 1961-62 TO 1965-66

Y	ear			N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Passenger-jour	neys (	a) (b)									
(*000)				(c)	1	j				]	(c)
1961–62				252,719	152,768	26,700	15,176	11,906	1,816	315	461,400
1962-63				257,756	152,727	26,081	14,922	11,537	1,558	334	464,915
1963-64				263,796	153,396	25,903	15,227°	10,814	1,426	338	470,900
1964–65				261,681	149,753	25.215	15,196	10,395	1,340	347	463,927
1965–66				257,568	149,125	25,979	15,511	10,168	1,304	342	459,997
Passenger-jour	neys p	er avo	rage	l '							
route-mile wo	rked (	numb	er)—	(c)	ĺ		i i	1			(c)
1961-62				41,682	35,602	4.369	5,994	3,092	3,519	140	18,012
1962-63				42,569	35,809	4,292	5,893	3,038	3,018	148	18,237
1963-64				43,567	36,161	4,276	6,057	2,941	2,828	150	18,611
1964-65				43,217	35,562	4,359	6,066	2,785	2,680	154	18,527
1965–66				42,538	35,599	4,491	6,244	2,714	2,608	152	18,391
Goods and live	stock	carrie	d(b)	} '	1 1	,	· ' }	· }			ł i
('000 tons)			` ,								
1961-62				24.050	10,350	8,153	4,616	5,342	1,096	1,958	55,565
1962-63				23,641	10.841	8,736	4,503	4,793	1,165	2,230	55,909
1963-64				25,814	12,132	9,796	5,179	5,187	1,155	2,478	61,741
1964-65				27,889	12,596	10.031	5.089	5.229	1.091	2.919	64.844
1965-66		- :		26,917	12,156	10.049	4.789	6.384	1,072	2,976	64,343
Goods and liv	estoc	k car	ried	},	,,	,	.,	-,		-•	'
per average ro				1	i I		1	ł			
worked (tons)				j				1			
1961-62	_			3,967	2,412	1,334	1,823	1,387	2,124	869	2,169
1962-63	•		·	3,904	2.542	1,438	1,778	1,262	2.257	990	2,193
1963-64	•	•	÷	4,263	2,860	1,617	2,060	1,411	2,291	1,100	2,440
1964-65	•	•	•	4.606	2,991	1.734	2.032	1,401	2,181	1.296	2.589
1965-66	•	•	•	4,445	2,902	1,737	1,928	1,704	2,143	1,321	2,572

<sup>(</sup>a) Suburban and country—based on ticket sales, making allowances 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. (c) Figures for New South Wales, and consequently for Australia, for the years 1961-62 to 1964-65 have been revised to include unremunerative passenger-journeys in that State, but it has not been possible to distribute the revisions between suburban and country. The figures for these components shown in the tables on pages 450 and 451 therefore do not add to these totals.

#### Passenger traffic

With the exception of the Commonwealth railway systems, which operate only country services, all systems provide both suburban and country passenger services. Traffic classed as 'suburban' moves between stations within a classified suburban area around each capital city, while traffic classified as 'country' originates or terminates at stations outside this suburban area. Suburban and country passenger traffic are shown separately in the two tables following.

Suburban passenger traffic. Most of the suburban services in New South Wales and Victoria are operated within electrified areas.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY, SYSTEMS 1961-62 TO 1965-66

				Subur-	١. ا		Average	Average	Subur	ban pass	senger ea	rnings
3	'ear			ban passen- ger- journeys (a)	Subur- ban passen- ger train- miles	Subur- ban passen- ger- miles	number of pas- sengers per train- mile	mileage per passen- ger- journey	Gross	Per pas- senger- journey	Per pas- senger- mile	Per pas- senger train- mile
				(,000)	(000)	(.000)		(miles)	(\$'000)	(cents)	(cents)	(cents)
New South V	Vales	syster	n—	(b)								
1961–62				221.861	11,250	ן)		١١	25,490		n.a.	227
1962–63				221,960	10,915	11	1	1	25,672		n.a.	235
1963-64				227,319	10,939	} n.a.	n.a.	n.a.≺	26,346		n.a.	241
1964-65				225,420	10,888	11	1		26,163	11.61	n.a.	240
1965-66	•		•	c242,216	10,788	J		Ĺ	25,838	10.67	n.a.	240
Victorian sys	tem-	-										
1961-62	•		•	147,977		1,299,379	157	8.78	18,012		1.38	217
196263	•			147,587		1,302,094		8.82	17,978		1.38	217
1963-64			•	148,314	8,369	1,315,105	157	8.87	18,056		1.37	216
196465				144,846		1,279,320		8.83	19,837		1.55	234
196566	٠	•	•	144,332	<b>8,45</b> 8	1,273,380	151	8.82	20,254	14.03	1.59	239
Queensland:	syste	n					ļ					
1961-62				22,890	1,850		1	[]	1,954		n.a.	106
1962 -63				22,413	1,706		1		1.932	8.62	n.a.	113
1963-64				22,512		≻ n.a.	n.a.	n.a. <	1,924		n.a.	111
1964-65				22,254		1 1	1	1 1	1,896		n.a.	107
1965-66	•	•		23,227	1,820	ر	1	(	1,970	8.48	n.a.	108
South Austra	lian	systen	<b>1</b> —	[							_	
1961–62				14,211	1,962		59	8.08	1,562		1.36	80
1962-63				13,978	1,941		59	8.24	1,578		1.37	82
1963-64				14.332		120,110	61	8.38	1,634		1.36	83
1964-65				14,326				8.32	1,711		1.43	88
1965-66			•	14,671	1,950	122,720	63	8.36	1,781	12.14	1.45	91
Western Aus	tralia	n syste	:m		1		1					
1961–62				11,308				6.94	938		1.19	69
1962-63				10,937	1,334			6.98	924		1.21	69
1963-64				10,298				6.94	954		1.33	70
1964-65				9.911	1,375			7.05	977		1.40	71
1965-66				9,748	1,328	67,826	51	6.96	1,018	10.44	1.50	77
Tasmanian s	ysten	ı										
1961-62				1,585	188		52	6.17	112		1.13	59
1962-63				1.347	135	8,385		6.23	98		1.17	1 72
1963-64				1,229	137			6.24	90		1.17	66
1964-65				1,135	136			6.35	84	7.38	1.16	61
196566				1,097	135	7,062	52	6.44	82	7.45	1.16	60

<sup>(</sup>a) See footnote (a) to table on page 449. (b) See footnote (c) to table on page 449. (c) Includes unremunerative passenger-journeys, previously excluded.

#### Country passenger traffic

# GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY, SYSTEMS 1961-62 TO 1965-66

				,							
				_		Average	Average	Cour	itry pass	enger ear	nings
,	Year		Country passen- ger- journeys (a)	Country passen- ger train- miles (b)	Country passen- ger- miles		mileage per passen- ger- journey	Gross	Per pas- senger- journey	Per pas- senger- mile	Per pas- senger train- mile (d)
			(000)	('000)	('000)	(1)	(miles)	(\$,000)	(cents)	(cents)	(cents)
New South V	Wales	system	(e)						(e)		
1961-62			12,777					13,896		n.a.	13.
1962-63			13,209	10,475	11	l		14,832	112.27	n.a.	14
1963-64			13,358	10,576	} n.a.	n.a.	n.a. ⟨	15,298	114.53	n.a.	14:
1964-65			13,312		! }	İ		15,571		n.a.	149
1965-66	•		(f) 15,352	10,409	J		l	15,314	99.75	n.a.	14
Victorian sys	stem-	-	4,791	4 726	412 425	87	86.31	6,946	145.01	1.68	14
1961-62	•		5,140	4,726 4,829	413,435 418 887			7,062	137.41	1.68	14
	•			4,829		87		7,062	137.41		
1963-64	•		5,082	4,835	410,830			7,082		1.72	14
1964-65	•		4,907				82.26	7,553	153.91	1.87	150
1965–66	•		4,793	4,738	396,226	84	82.68	7,509	156.68	1.90	158
Queensland	system	1—	1	!							
1961-62		·	3,810	4,714	1	1	ا را	4,756	124.79	n.a.	10
1962-63	•	: :	3,668		}		1 1	4,698	128.09	n.a.	iŏ
1963-64	•		3,391		n.a.	n.a.	n.a. ∤	4,450		n.a.	'وَ
1964-65	•		2,961	4.092	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	11.4.	1	4,140		n.a.	10
1965-66	:	: :	2,752		J		[]	3,988		n.a.	198
South Austra	alian s	vstem					ļ				
1961-62			965	2.043	100,591	49	104.24	1,676	173.75	1.67	82
1962-63			944	2.014	99,761	50	105.69	1,692		1.70	84
1963-64			895	1,954	96,877	50	108.20	1,658	185.11	1.71	8:
1964-65			870	1.944	96,835	50	111.32	1,665	191.44	1.72	86
1965-66		: :	840		95,410	50		1,655	196.98	1.74	86
Western Aus	traliar	system									
1961-62			598	1,184	74,230	63	124.12	1,342	224.25	1.81	113
1962-63			600	1,121	75,684	67	126.19	1,338	223.09	1.77	119
1963-64			516	982	66.753	68	129.39	1,342	260.31	2.01	137
1964-65		: :	484	984	68,064	69	140.64	1,469	303 44	2.16	149
1965-66			419	966	66,968	69	159.68	1,454	346.65	2.17	151
Tasmanian s	ystem						j			l	
1961-62			231	324	12,745	39	55.10	160	68.90	1.25 1.27	49
1962-63			211	318	12,255	39	58.19	156	74.27	1.27	49
1963-64			197	314	11,380	36	57.98	144	73.16	1.26	46
1964-65			205	307	12,355	47	60.27	140	68.52	1.14	54
1965-66			207	314	11,132	35	53.68	139	66.89	1.25	44
Commonwea	alth sy	stem—		!				İ			
196162			315	923	100,604	109	319.15	1,808	573.81	1.80	196
1962-63			334	939	107,991	115	322.99	1.914	572 16	1.77	203
1963-64			338	898	107,005	119	316.20	1,916	565.96	1.79	213
1964-65	:	: :	347	907	120,977	133	348.89	2.172	626 37	1.80	240
1965-66			342	886	121,351	137	354.99	2,246	657.06	1.85	253
		•	_ ~~	550	,			-,- ,0		)	

<sup>(</sup>a) See footnote (a) to table on page 449. (b) Includes a passenger portion of mixed train-miles. (c) Passenger-miles divided by passenger train-miles inclusive of a passenger portion of mixed train-miles. (d) Passenger earnings divided by passenger train-miles inclusive of a passenger portion of mixed train-miles. (e) See footnote (c) to table on page 449. (f) Includes unremunerative passenger journeys previously excluded.

## Freight traffic

The following two tables show the quantities of commodities carried on the various systems, the earnings derived, and other related statistics.

# GOVERNMENT RAILWAYS: COMMODITIES CARRIED AND EARNINGS SYSTEMS. 1965-66

		s	YSTEMS	, 1965-66	<u> </u>			
System		Coal, coke and briquettes	Other minerals (a)	Agri- cultural produce (b)	Wool	Live- stock	All other commodities	Total
		QUA		CARRIE	D(c)			
		 	('000	tons)				
New South Wales Victoria Queensland South Australia Western Australia Tasmania Commonwealth Australia		12,148 2,129 3,317 6 678 75 1,989 20,342	2,638 138 716 1,367 1,102 24 50 6,035	2,629 3,193 3,094 1,043 2,406 42 33	192 133 37 29 100 4 4 4	436 239 746 118 107 20 83	8,874 6,324 2,139 2,226 1,991 907 817 23,278	26 917 12,156 10,049 4,789 6,384 1,072 2,976 64,343
		FR	EIGHT I	EARNING	GS			
New South Wales Victoria. Queensland South Australia Western Australia Tasmania Commonwealth Australia	:	 n.a. 6,745 11,114 21 2,289 322 2,276	n.a. 387 5,979 7,126 2,396 2,396 351 n.a.	n.a. 17,431 14,829 3,773 12,674 253 331 n.a.	n.a. 1,227 1,394 245 1,465 37 61	4.946 1,478 9,458 851 842 123 553	n.a. 34,174 29,761 10,202 17,630 4,627 10,498 n.a.	136,921 61,442 72,535 22,218 37,296 5,419 14,070 349,901

<sup>(</sup>a) Includes sand and gravel. (b) Includes wheat and fruit. (c) Inter-system traffic is included in the total for each system (including each Commonwealth Railway) over which it passes.

## GOVERNMENT RAILWAYS: FREIGHT SUMMARY, SYSTEMS, 1961-62 TO 1965-66

					Go	ods and li	vestock ea	rnings	
Year	Revenue goods train- miles (a)	Revenue net ton- miles	Average train load (paying traffic) (b)	Average haul per ton (c)	Gross	Per average route- mile worked	Per revenue net ton-mile	Per revenue goods train-mile (d)	Density of traffic (e)
	(.000)	(million)	(tons)	(miles)	(\$'000)	(\$)	(cents)	(cents)	(1000)
New South Wales									
system— 1961–62 1962–63 1963–64 1964–65 1965–66	15,786 15,971 17,563 18,845 16,498	3,576 3,743 4,282 4,706 4,255	227 234 244 250 258	149 158 166 169 158	122,848 126,646 144,646 154,543 136,921	20,262 20,916 23,888 25,523 22,613	3.43 3.38 3.37 3.28 3.22	778 793 823 820 830	590 618 707 777 703
Victorian system— 1961–62 1962–63 1963–64 1964–65 1965–66	5,880 6,345 6,909 7,172 6,949	1,581 1,693 1,906 2,028 1,990	269 267 276 283 286	153 156 157 161 164	51,466 53,016 58,730 63,361 61,442	11,994 12,430 13,846 15,047 14,667	3.26 3.13 3.08 3.12 3.09	875 836 850 883 884	368 397 449 482 475
Queensland system (f)— 1961-62 1962-63 1963-64 1964-65 1965-66	11,000 11,557 12,811 11,735 11,767	1,497 1,600 1,887 1,801 2,002	136 138 147 153 170	184 183 193 180 199	60,353 63,462 72,371 69,696 72,535	9,876 10,443 11,946 12,048 12,539	4 03 3 97 3 83 3 87 3 62	549 549 565 594 616	245 263 312 311 346

For footnotes see next page.

# GOVERNMENT RAILWAYS: FREIGHT SUMMARY, SYSTEMS, 1961-62 TO 1965-66 —continued

					Goo	ods and liv	estock ea	rnings	
Year	Revenue goods train- miles (a)	Revenue net ton- miles	Average train load (paying traffic) (b)	Average haul per ton (c)	Gross	Per average route- mile worked	Per revenue net ton-mile	Per revenue goods train-mile (d)	Density of traffic (e)
	(,000)	(million)	(tons)	(miles)	(\$'000)	(\$)	(cents)	(cents)	(,000)
South Australian									
system— 1961–62 1962–63 1963–64 1964–65 1965–66	2,733 2,771 2,745 2,687 2,619	650 679 754 765 749	238 245 275 285 286	141 151 146 150 156	21,760 21,494 23,170 23,096 22,218	8,594 8,488 9,216 9,220 8,945	3.35 3.17 3.07 3.02 2.97	797 776 844 860 848	257 268 300 306 302
Western Australian system— 1961-62 1962-63 1963-64 1964-65 1965-66	5,526 5,095 5,156 5,203 5,749	831 762 813 842 1,021	150 150 158 162 178	156 159 157 161 160	30,228 28,126 29,788 30,688 37,296	7,850 7,408 8,100 8,221 9,954	3.63 3 69 3 66 3 64 3.65	547 552 577 590 649	216 201 221 226 272
Tasmanian system— 1961-62 1962-63 1963-64 1964-65	903 869 871 873 834	107 112 114 117 113	119 129 131 133 136	98 96 99 107 106	4,822 5,044 5,138 5,019 5,419	9,346 9,774 10,192 10,039 10,838	4.51 4.51 4.51 4.31 4.78	534 580 590 575 650	207 217 226 233 227
Commonwealth system— 1961-62 1962-63 1963-64 1964-65	1,530 1,610 1,770 2,007 2,069	581 664 744 886 881	380 412 421 441 426	297 298 300 303 296	9,342 10,662 11,832 13,593 14,070	4,148 4,734 5,254 6,036 6,248	1.61 1.61 1.59 1.53 1.60	611 662 668 677 680	258 295 331 393 391

<sup>(</sup>a) Includes a proportion of mixed train-miles. (b) Net ton-miles per goods (including a portion of mixed) train-mile. (c) Net ton-miles per ton carried. (d) Goods and livestock earnings divided by goods train-miles, inclusive of a proportion of mixed train-miles. (e) Total net ton-miles per average route-mile worked. (f) Series revised to include Queensland portion of uniform gauge railway.

## Rolling stock

## GOVERNMENT RAILWAYS: ROLLING STOCK(a), SYSTEMS, 30 JUNE 1966

System			I						
		Steam	Diesel- electric	Electric	Other (b)	Total	Coaching stock(c)	Goods stock	Service stock
New South Wales	.	431	269	41	23	764	(d) 3,453	(d)20,228	(e) 2,307
Victoria . Queensland .	٠	181 576	185 170	35	68 11	469 757	(d) 2,427 1,373	(d)21,097 23,060	(d) 1,663 1,968
South Australia	:	144	109	1		253	(a) 584	7,760	(d) 512
Western Australia	-	238	98		20	356	514	12,001	889
	٠ ا	20	37		20	77	133	2,352	172
Commonwealth	•	1	57	••	8	66	151	1,638	479
Australia	.	1,591	925	76	150	2,742	(/) 8,748	(/)88,205	(/) 7,987

<sup>(</sup>a) Included in capital account. (b) Includes non-passenger-carrying diesel power vans. (c) Includes all brake vans. (d) Excludes stock jointly owned with other systems. (e) Includes vehicles not having a capital value. (f) Includes jointly owned stock.

## GOVERNMENT RAILWAYS: ROLLING STOCK(a), AUSTRALIA, 1962 TO 1966

				, L	ocomotiv	Coach-	Canda	Service			
30	June-	-	Steam	Diesel- electric	Electric	Electric Other(b)		ing stock(c)	Goods stock	stock	
1962			2,456	541	76	123	3,196	9,177	91,094	7,976	
1963	•		2,215	608	76	132	3,031	8,969	90,020	7,960	
1964			1,981	694	76	140	2,891	8,829	88,929	7,944	
1965			1,782	821	76	147	2,826	8,777	88,781	8,144	
1966	•	•	1,591	925	76	150	2,742	8,748	88,205	7,987	
				l	l					ļ	

<sup>(</sup>a) Included in capital account. all brake vans.

#### Accidents

The following table shows particulars of the number of persons killed or injured through train accidents and the movement of rolling stock on the Government railways of Australia during 1965-66.

#### GOVERNMENT RAILWAYS: ACCIDENTS(a), SYSTEMS, 1965-66

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwith	Aust.
Persons killed Persons injured		51 473	49 722	9 125	9 45	13 66	3 9	24	134 1,464

<sup>(</sup>a) Excludes accidents to railway employees.

#### Consumption of coal, oil and petrol

## GOVERNMENT RAILWAYS: VALUE OF COAL, OIL AND PETROL CONSUMED, 1965-66 (\$'000)

	N.S.W.	Vic.	Qld (a)	S.A.	W.A.	Tas.	Total States	Cwith	Aust.
Coal used—								1	
In locomotives	n.a.	578	1,587	160	938	5	n.a.	1	n.a.
For other purposes	n.a.	44	46	32	17	1	n.a.	1	n.a.
Oil used—	!				!	1	1	1	l
In diesel engines of locomo-				:					٠
tives and rail cars	3,202	986	1,764	760	652	172	7,536	659	8,195
In furnaces of steam loco-						į .			l
motives	65	410		38			513		513
For lubrication	398	240	73	n.a.	305	36	n.a.	84	n.a.
For other purposes	315	189	219	n.a.	221	12	n.a.	66	n.a.
Petrol used in rail cars					9		9	1	10

<sup>(</sup>a) Queensland portion of uniform gauge railway included with New South Wales.

<sup>(</sup>b) Includes non-passenger-carrying diesel power vans.

<sup>(</sup>c) Includes

#### Staff employed and salaries and wages paid

# GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES, AND SALARIES AND WAGES PAID, SYSTEMS, 1965-66

System	C	perating st	aff	Cons	truction st	Total salaries and	Average earnings per em-	
	Salaried	Wages	Total	Salaried	Wages	Total	paid (\$'000)	ployee (\$)
New South Wales Victoria Queensland(c) South Australia Western Australia Tasmania Commonwealth	 9,231 (a) 5,461 4,310 1,806 2,029 379 494	36,916 (a)22,750 21,310 6,246 9,316 1,781 2,458	46,147 (a)28,211 25,620 8,052 11,345 2,160 2,952	(b) 3 28 30	6 (b) 78 1,049 143	9 (b) 78 1,077 	125,783 77,882 67,300 24,755 30,103 5,651 8,995	2,725 2,761 2,619 2,712 2,653 2,422 3,047
Australia	23,710	100,777	124,487	61	1,276	1,337	340,469	2,706

 <sup>(</sup>a) Includes construction staff.
 of uniform gauge railway.

#### TRAMWAY, TROLLEY-BUS, OMNIBUS, AND FERRY SERVICES

#### Systems in operation

Tramway and irolley-bus. Since 1 April 1947 all systems have been operated by government or municipal authorities. During the year 1965-66, tramway systems were in operation in the following cities: Melbourne, Bendigo, and Ballarat, Victoria; Brisbane, Queensland; and Adelaide, South Australia. Trolley-bus services operated in Brisbane, Queensland; Perth, Western Australia; and Hobart and Launceston. Tasmania. All systems were electric.

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 for the conveyance of passengers, which are dealt with in the present section.

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; Maryborough and 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 and the Tasmanian Transport Commission. In Sydney the Government tramway system has been replaced by omnibus services, and in Perth the Metropolitan (Perth) Passenger Transport Trust has replaced privately owned services in the metropolitan area. In Hobart the Government trolleybus and omnibus services have replaced the Government tramway service. Particulars of motor omnibus services under the control of private operators for the States of New South Wales, Victoria, Queensland, South Australia, and Western Australia are given in previous issues of this Year Book and 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.

<sup>(</sup>b) Included with operating staff.

<sup>(</sup>c) Excludes Queensland portion

## 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 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, 1965-66

	N.S.W.	Vic.	Qıd	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-miles at 30 June-									
Tram(a) miles	١	156	59	7					222
Trolley-bus , ,,			20	٠ ا	17	_28			65
Omnibus ,,	593	123	310	142	4,342	923	32	68	6,533
Vehicle miles—	1	47.400	- 0-2	40.0					*****
Tram	1	17,439	5,953	486			• • •		23,878
Trolley-bus ,, Omnibus	44,759	6762	1,126	10,849	645	1,120		3007	2,891
Rolling stock at 30 June—	44,739	6,763	6,813	10,649	19,479	5,175	625	1,967	96,430
Tram number	1	782	261	28					1,071
Trolley bus	••	702	36		50	66	• • •		1,071
Oib	1,756	319	341	350		245	18	99	3.776
Passenger-journeys-	1,,,,,,	",	2	200	0.0	-15	10		5,
Tram	1	144.889	56.011	2,279				l	203,179
Trolley-bus ,,	1	, .	5,979	,	(b)	<b>(b)</b>			3 450.015
Omnibus	255,211	25,120	30,456	50,833	53,179	22,750	926	5,561	430,013
Gross revenue(c)—	1 ' i		, I	· ·		,		· ·	-
Tram, trolley-bus and omnibus									1
\$1000	25,130	17,846	8,030	6,049	6,585	2,387	136	537	66,700
Working expenses(d)—			1					ļ	
Tram, trolley-bus and omnibus	i		[						
\$,000	29,012	19,019	8,332	5,806	7,398	3,008	137	732	73,444
Net revenue—	1				ļ i			i	1
Tram, trolley-bus and omnibus	2 000		202	242	010	رم.			
\$'000	-3,882	-1,173	-302	243	-813	-621	-1	-195	-6,744
Employees at 30 June—	1								
Tram, trolley-bus and omnibus	7 260	4.801	2,475	1,482	2017	704	29	131	10.007
Accidents—	7,368	4,801	2,4/3	1,402	2,017	704	29	131	19,007
Tram, trolley-bus and omni-	1		i					i	l
bus(e)—	I							l	I
Persons killed number	1	20	2	1	2	1	ľ	١.	28
Domono iniured	1,251	621	56	211	280	40	1	14	
reisons injured ",	1 .,231	"2"	50	~	_30	ı ~~		1	] -,*//*

<sup>(</sup>a) Gauge 4 feet 8½ inches throughout. (b) Included with omnibus services, grants. (d) Includes provision of reserves for depreciation, etc., where possible employees.

Minus sign (-) denotes deficit.

<sup>(</sup>c) Excludes government (e) Excludes accidents to

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, AUSTRALIA, 1961–62 TO 1965–66

	1961-62	1962–63	1963-64	1964–65	1965–66
Route-miles at 30 June—		i			
Tram miles	229	223	227	222	222
Trolley-bus ,,	88	88	65	65	65
Omnibus ,,	5,777	5,735	5,921	6,460	6,533
Vehicle miles—					<u>.</u>
Tram	28,034	26,363	25,689	24,552	23,878
Trolley-bus ,,	3,647	94,883	96,272	98,201	2,891
Omnibus ,,	55,041	24,003	50,272	70,201	96,430
Rolling stock at 30 June-					}
Tram number	1,190	1,124	1,101	1,099	1,071
Trolley-bus "	240	208	152	152	152
Omnibus ,	3,450	3,474	3,540	3,680	3,776
Passenger-journeys-					
Tram	248,396	237,929	231,348	218,086	203,179
Trolley-bus and omnibus . "	469,549	474,194	471,085	466,524	450,015
Gross revenue(a)—					
Tram, trolley-bus and omnibus		'			1
\$1000	63,514	63,394	63,688	65,110	66,700
Working expenses(b)—					
Tram, trolley-bus and omnibus					
\$'000	68,412	67,344	67,890	70,519	73,444
Net revenue—		·	·		
Tram, trolley-bus and omnibus	4 000	2000	4.000	<b>.</b>	
\$.000	-4,898	-3,950	-4,202	-5,409	-6,744
	1				}
Employees at 30 June—					
Tram, trolley-bus and omnibus		40.004			
number	20,607	19,986	19,346	18,841	19,007
Accidents-					
Tram, trolley-bus and	ļ				ļ
omnibus(c)— Persons killed . number	42	32	38	44	28
Danaman takanad	3,076	2,915	2,839	2,606	2,474
Persons injured . ,,	3,576	-,/.5	2,037	2,000	2,7/4

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

Minus sign (-) denotes deficit.

#### MOTOR VEHICLES

The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 30 June 1960 were given in Year Book No. 47, pages 553-6, and at 30 June 1963 in Transport and Communication, Bulletin No. 54, 1962-63.

#### Motor vehicles on register; licences

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).

#### Census of Motor Vehicles, 1962

A census of motor vehicles on register at 31 December 1962 was conducted by the Commonwealth Statistician in co-operation with the Deputy Commonwealth Statisticians and the motor vehicle registration authorities. The census covered items shown on the motor vehicle registration certificate such as make of vehicle, year of model, type of vehicle, horsepower, motive power, location (i.e. address on registration certificate), ownership (private, government, etc.), and for specific types of vehicles such items as unladen weight, carrying capacity, passenger capacity, and in some States gross vehicle weight. Details were published in printed bulletins for each State and Territory and for Australia, and in issue No. 54, 1962-63 of the annual bulletin Transport and Communication. Year Book No. 50, 1964, contains summarised particulars of the census (pages 591-4). Reference is made to the publication of results of previous enumerations of this nature in Year Book No. 51 (page 571).

The following table contains a summary for each State and Territory of the number of motor vehicles of each type on the register at 31 December 1962. The total number of each type recorded for Australia at the previous motor vehicle census (31 December 1955) is included for purposes of comparison.

# CENSUS OF MOTOR VEHICLES, 31 DECEMBER 1962: TYPES OF VEHICLE STATES AND TERRITORIES

State or Territory	Motor cars	Station wagons	Utilities	Panel vans	Trucks	Other truck- types	Omni- buses	Motor cycles	Total motor vehicles (b)
New South Wales Victoria Queensland South Australia Western Australia Tasmania Northern Territory Australian Capital Territory	742,947 611,497 255,513 220,010 149,799 69,020 4,321 15,591	69,528 31,086 18,895 15,838	94,470	49,479 31,328 13,184 9,678 8,585 6,364 471 808	84,670 76,591 39,932 31,684 27,256 8,487 1,326	2,822 2,890 448 982 541 301 73	5,004 3,409 1,815 1,580 1,365 940 91	20,398 15,802 13,963 16,717 12,257 2,101 325	446,37: 338,08: 253,42: 105,07: 10,67:
Australia, 31 Dec. 1962 no. per cent  Australia, 31 Dec. 1955 no. per cent	2,068,698 64.5 1,356,682 62.2		12.9	119,897 3.7 c53,808 2.5	270,881 8.4 250,630 11.5	8,091 0.3 5.884 0.3	14,319 0.4 10,142 0.4	2.6	2,182,193

<sup>(</sup>a) Includes ambulances and hearses. (b) Excludes tractors, trailers, plant and equipment, etc. (c) Queensland panel vans are included with utilities.

#### Motor vehicles on register, etc.

The following table shows particulars of the number of motor vehicles on register and the number per 1,000 of population at 31 December 1966.

# MOTOR VEHICLES(a) ON REGISTER: STATES AND TERRITORIES 31 DECEMBER 1966

State or Tei	rritor	у		Motor cars, station wagons, ambu- lances, hearses	Utilities, panel vans, trucks(b), omnibuses	Motor cycles	Total(c)	Per 1,000 of population
New South Wales				1,087,490	295,448	21,026	1,403,964	329
Victoria				877,679	220,327	11,811	1,109,817	342
Queensland .				410,583	156,838	12,637	580,058	346
South Australia				307,630	84,989	11,808	404,427	368
Western Australia				231,916	86,554	8,857	327,327	385
Tasmania				99,947	31,184	1,562	132,693	355
Northern Territory				9,722	6,023	466	16,211	421
Australian Capital T	errito	огу	•	32,272	5,311	547	38,130	381
Australia .	•			3,057,239	886,674	68,714	4,012,627	344

<sup>(</sup>a) On a basis comparable with the Census of Motor Vehicles, 1962. All figures are subject to revision.
(b) Includes other truck-types. (c) Excludes tractors, trailers, plant and equipment, etc.

The table following shows a summary for Australia of the number of motor vehicles on register and the number per 1,000 of population at 31 December each year 1961 to 1966.

#### MOTOR VEHICLES ON REGISTER: AUSTRALIA, 1961 TO 1966

31 Г	ecem	ber—	Motor cars, station wagons, ambulances, hearses	Utilities, panel vans, trucks(a), omnibuses	Motor cycles	Total(b)	Per 1,000 of population
1961(c)			2,126,339	803,551	88,855	3,018,745	285
1962(d)			2,300,134	827,344	81,859	3,209,337	297
1963(e)			2,498,925	844,481	74,719	3,418,125	311
1964( <i>e</i> )			2,707,018	862,397	69,517	3,638,932	324
1965(e)			2,893,146	872,185	67,417	3,832,748	335
1966( <i>e</i> )			3,057,239	886,674	68,714	4,012,627	344

<sup>(</sup>a) Includes other truck-types. (b) Excludes tractors, trailers, plant and equipment, etc. (c) Estimates on a basis comparable with the Censuses of 1955 and 1962. (d) Census figures. (e) Subject to revision.

The table following shows the number of motor vehicles on register per 1,000 of population in each State and Territory at 31 December for each of the years 1962 to 1966.

## MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION STATES AND TERRITORIES, 1962 TO 1966

		Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
281	301	287	340	331	293	373	316	297
294	314	303	349	343.	308	392	342	311
309	325	322	359	352	324	405	354	324
320	334	336	362	366	339	408	367	335
329	342	346	368	385	355	421	381	344
	294 309 320	294 314 309 325 320 334	294 314 303 309 325 322 320 334 336	294 314 303 349 309 325 322 359 320 334 336 362	294 314 303 349 343. 309 325 322 359 352 320 334 336 362 366	294 314 303 349 343 308 309 325 322 359 352 324 320 334 336 362 366 339	294 314 303 349 343 308 392 309 325 322 359 352 324 405 320 334 336 362 366 339 408	294 314 303 349 343 308 392 342 309 325 322 359 352 324 405 354 320 334 336 362 366 339 408 367

<sup>(</sup>a) Excludes tractors, trailers, plant and equipment, etc. (b) Census figures. (c) Subject to revision.

#### Drivers' and riders' licences

At 30 June 1966 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 1,622,189; Victoria, 1,259,477; South Australia, 457,374; Western Australia, 345,412; Tasmania, 142,100: Australian Capital Territory, 52,038. Particulars are not available for Oueensland and the Northern Territory.

# Registrations of new motor vehicles REGISTRATIONS OF NEW MOTOR VEHICLES: STATES AND TERRITORIES, 1966

State or Territory	Motor cars and station wagons	Utilities, panel vans, trucks and omnibuses (a)	Motor cycles	Total
New South Wales	109,675	24,053	4,079	137,807
Victoria	85.073	16,528	1,413	103,014
Oueensland	41,159	12.063	1,653	54,875
South Australia	28,744	6,110	1,097	35,951
Western Australia	26,427	8,925	893	36,245
Tasmania	10,304	2,706	272	13.282
Northern Territory	1,172	850	176	2,198
Australian Capital Territory	3,925	656	122	4,703
Australia	306,479	71,891	9,705	388,075

(a) Includes other truck-types, ambulances and hearses.

# REGISTRATIONS OF NEW MOTOR VEHICLES AUSTRALIA, 1962 TO 1966

	Year	Motor cars and station wagons	Utilities, panel vans, trucks and omnibuses	Motor cycles	Total
1962		266,789	56,457	5,414	328,660
1963		307,380	66,783	5,272	379,435
1964		333,063	75,492	6,482	415,037
1965		331,751	75,190	8,062	415,003
1966		306,479	71,891	9,705	388,075

(a) Includes other truck-types, ambulances and hearses.

#### ROAD TRAFFIC ACCIDENTS

#### Accidents reported

Accidents involving casualties, persons killed, persons injured

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

		P	ersons kille	d	Pe	ersons injured			
State or Ferritory	Accidents involving casual- ties	Number	Per 100,000 of mean popu- lation	Per 10,000 motor vehicles regis- tered	Number	Per 100,000 of mean popu- lation	Per 10,000 motor vehicles regis- tered		
New South Wales	21,052	1,151	28	9	29,157	699	222		
Victoria	14,336	929	29	9	20,446	647	195		
Queensland .	7,134	467	29	9	10,078	617	187		
South Australia(b)	7,267	243	23	6	9,491	888	247		
Western Australia	4,170	252	31	9	5,638	694	194		
Tasmania	1,206	93	25	8	1,815	491	148		
Northern Territory Australian Capital	232	14	43	10	329	1,002	232		
Territory	535	15	17	5	769	870	238		
Total	55,932	3,164	28	8	77,723	685	207		

<sup>(</sup>a) Accidents (reported to the police) which occurred in public thoroughfares and which resulted in the death of any person within a period of thirty days after the accident, or injury to an extent requiring surgical or medical treatment. (b) Includes all accidents resulting in bodily injury to any person whether or not requiring medical or surgical treatment.

#### ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED STATES AND TERRITORIES, 1961 TO 1965

									То	tal
Year	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Num- ber	Per 10,000 motor vehicl:s regis- tered
Accidents										
involving			i							
casualties	1.5000			E 0.0	3.530	055		200	44.014	1
1961	16,380	11,719 12,026	5,371 6,310	5,865 6,491	3,528 3,685	855 833	n.a. n.a.	296 348	44,014 45,769	148 147
1962 1963	16,076 18,101	12,026	6,724	6,299	4,057	1,051	218	425	49,465	147
1964	19.399	13,991	7,220	6,998	4.062	1,184	224	476	53,554	152
1965	21,052	14,336	7,134	7,267	4,170	1,206	232	535	55,932	149
Persons killed-	21,052	1 .,550	.,	.,	.,	.,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1961	918	794	337	178	172	73	n.a.	7	2,479	8
1962	876	808	403	194	177	61	n.a.	8	2,527	8 8 8
1963	900	780	398	223	198	75	16	8	2,598	8
1964	1.010	904	461	238	222	89	25	17	2,966	8
1965	1,151	929	467	243	252	93	14	15	3,164	8
Persons								1 1		
injured	24 020		7,467	7,297	4,779	1,173	۱	451	59,121	100
1961 1962	21,839	16,115 16,781	8,703	8,321	5,077	1,173	n.a. n.a.	498	62,006	199
1063	21,468 24,652	17,577	9,445	8,271	5,399	1,595	313	628	67,880	199
1064	26,631	19.836	10.383	9.222	5,450	1,709	297	730	74.258	210
1965	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723	207

<sup>(</sup>a) See footnote (a) to previous table. (b) See footnote (b) to previous table.

#### Types of road user killed or injured

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

#### ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED, BY TYPE OF ROAD USER INVOLVED, STATES AND TERRITORIES, 1965

Type of road user	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Total
	_	PERS	SONS K	ILLED	)				
Drivers of motor vehicles Motor cyclists Pedal cyclists Passengers (all types)(c) Pedestrians Other classes(d)	. 411 28 28 28 378 301	353 14 49 268 236 9	183 18 19 146 101	89 8 17 70 59	97 12 13 79 51	36 2 3 31 21	10   3 1	6 1 	1,185 83 129 982 771 14
Total	. 1,151	929	467	243	252	93	14	15	3,164
		PERS	ONS IN	JURE	D				
Drivers of motor vehicles Motor cyclists Pedal cyclists Passengers (all types)(c) Pedestrians Other classes(d)	. 11,225 901 924 11,827 4,254 . 26	7,838 392 1,086 8,404 2,634 92	3,950 505 545 4,169 900 9	3,714 708 718 3,426 925	2,092 371 357 2,064 751 3	702 25 55 813 219	149 16 7 138 19	338 36 44 282 67 2	30,008 2,954 3,736 31,123 9,769 133
Total	. 29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723

<sup>(</sup>a) See footnote (a) to table on page 461. (b) See footnote (b) to table on page 461. (ion riders. (d) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles. (c) Includes pillion riders.

#### Age groups of persons killed or injured

#### ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED, BY AGE GROUP, STATES AND TERRITORIES, 1965

Age group (years)	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Aust.
			PERSO	NS KIL	LED				
Under 5	13 80 197 198 126 124 140 229 6	30 13 76 159 142 103 105 100 201	15 8 36 87 72 46 59 51 93	10 1 25 32 37 34 19 32 40 13	17 5 13 35 41 31 24 32 54	5 1 14 9 14 8 10 12 15 5	  1 4 4 4 1	  3 7 3  1	115 41 244 523 515 355 345 369 632 25
Total	1,151	929	467	243	252	93	14	15	3,164
			PERSO	JLNI 2N	JRED				
Under 5 5 and under 7 7 " " 17 17 " " 21 21 " " 30 30 " " 40 40 " " 50 50 " " 60 60 and over Not stated	3,443 6,173 6,061 3,689 3,190 2,442 2,277 375	775 406 2,473 4,067 4,420 2,563 2,149 1,636 1,623 334	312 189 1,301 2,340 2,100 1,189 1,026 693 709 219	285 206 1,388 1,932 1,476 990 922 657 567 1,068	248 119 751 1,182 1,016 612 486 415 389 420	75 39 238 415 346 148 164 105 96 189	15 7 29 33 110 73 34 20 7	31 28 122 143 199 85 94 34 13 20	2,696 1,546 9,745 16,285 15,728 9,349 8,065 6,002 5,681 2,626
Total	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723

<sup>(</sup>a) See footnote (a) to table on page 461. (b) See footnote (b) to tables on page 461.

ROADS 463

Types of accident

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

						· · · · · · · · · · · · · · · · · · ·			
Type of accident	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Aust
	NU	JMBER	R OF A	CCIDE	NTS				
Collisions between vehicles .	10,687	7,785	3,181	4,276	2,109	599	67	365	29,069
Vehicle overturning or leaving road	3,556	2,088	2,611	1,069	1,094	320	128	65	10,931
Vehicle colliding with pedes- trian  Vehicle colliding with fixed	4,259	2,711	963	963	741	227	19	64	9,94
venicle conding with fixed object(c).  Passenger accidents  Vehicle colliding with animal.  Other.	2,283 149 118	1,494 120 58 80	194 68 94 23	875 47 34 3	135 57 18 16	45 10 5	5 2 8 3	33	5,031 45: 33: 15:
Total	21,052	14,336	7,134	7,267	4,170	1,206	232	535	55,932
	· · · · · · · · · · · · · · · · · · ·	PERS	ons k	ILLED	)	·		<del></del>	<u> </u>
Collisions between vehicles .	458	394	188	109	107	39	2	6	1,303
ehicle colliding with pedes- trian ehicle colliding with fixed	264	193	161	47	84	32	11	2	794
	298	232	103	58	50	21	1	1	764
object(c) Passenger accidents Vehicle colliding with animal Other	122 7 2	93 10 3 4	8 6 1	27 2 	6 4  i	  		2  4	259 29
Total	1,151	929	467	243	252	93	14	15	3,164
	<u></u>	PERS	ONS IN	IJUREI	) D			<u>'                                    </u>	<u></u>
Collisions between vehicles .	16,558	12,313	4,954	5,877	3,082	1,000	117	549	44,450
Vehicle overturning or leaving road Vehicle colliding with pedes-	4,930	3,199	3,688	1,486	1,512	515	171	98	15,599
trian	4,206	2,634	944	972	744	219	20	64	9,803
object(c)	3,148 159 156	2,028 118 71 83	257 71 137 27	1,058 53 40 5	195 56 28 21	58 15 8	5 2 10 4	5 6 	6,754 480 450 187
Total	29.157	20,446	10.078	9,491	5,638	1,815	329	769	77.723

<sup>(</sup>a) See footnote (a) to table on page 461. (b) See footnote (b) to table on page 461. (c) 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 1966. 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 1966

(Miles)

Class of road	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
State highways Trunk roads Ordinary main roads .	6,530 4,159 11,661	4,465 9,094	6,331 5,176 {	8,193	3,465	1,205 } 662	60,941
Total main roads.	22,350	13,559	11,507	8,193	3,465	1,867	60,941
Secondary roads Developmental roads Other roads	(a) 144 2,889 206	  (d) 498	(b) 8,554 4,377	  	7,958 (c) 43,330 (e) 74	  (f) 136	16,852 50,596 698 708
Total other roads	3,239	943	12,931		51,362	379	68,854
Grand total .	25,589	14,502	24,438	8,193	54,827	2,246	129,795

<sup>(</sup>a) Metropolitan only. (b) Includes mining access roads, farmers' roads and tourist tracks. (b) Maintenance of these roads is the responsibility of the several local authorities. (c) Gazetted as controlled access roadway but not constructed. (f) Subsidised 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.

'Total' figures and 'cleared only' figures for South Australia in the table show considerable reductions compared with those for previous years. This is due to the results of a recent investigation of road mileages by the Commissioner of Highways.

ALL ROADS OPEN FOR GENERAL TRAFFIC; LENGTHS STATES AND TERRITORIES, 30 JUNE 1966

(Miles)

Surface of roads	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
Bitumen or concrete Gravel, crushed	28,575	27,007	15,555	7,940	12,977	2,893	1,527	440	96,914
stone or other improved surface. Formed only	44,594 26,911 30,963	29,621 20,921 21,934	19,854 42,803 43,340	15,950 10,538 40,553	22,917 44,860 27,843	8,664 } 1,270	1,118 { 1,735 7,210	231 90	142,949 } 320971
Total	131,043	99,483	121,552	74,981	108,597	12,827	11,590	761	560,834

Further information on roads, including financial particulars, are included in Chapter 21, 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, memorandums 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. 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 departments of universities in Adelaide, Brisbane, Melbourne, Perth, and Sydney. The Board has endeavoured to provide or sustain the additional staff required for these external projects, but university staff members furnish willing and generous 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.

#### CIVIL AVIATION

#### Department of Civil Aviation

Control of civil aviation in Australia is exercised by the Department of CivilAviation, 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 Book 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.

#### 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 111 nations in June 1966. Australia has continued its position as a member of the Council, which it had 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 services agreements with twenty countries by 30 June 1966. They were Britain, Canada, Ceylon, France, Federal Republic of Germany, India, Iran, Ireland, Italy, Japan, Lebanon, Malaysia, Netherlands, New Zealand. Pakistan, 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 to and through the countries in question. These rights are exercised by Australia's international airline Qantas. The designated airline of the signatory country is also granted reciprocal rights. Australia also had air services arrangements with thirteen other countries at 30 June 1966. These were Austria, Burma, the Republic of China. Greece, Indonesia, Iraq, Laos, Mexico, the Philippines, Portugal, Saudi Arabia, Turkey, and the Republic of Vietnam. Qantas also operates services to and through most of these countries under these arrangements.

International air services. In November 1966 thirteen overseas international airlines were operating regular scheduled services to Australia. These included: Air-India (India), Air New Zealand (New Zealand), Alitalia (Italy), British Overseas Airways Corporation (United Kingdom), Canadian Pacific Air Lines (Canada), Deutsche Lufthansa (Federal Republic of Germany), Koninklijke Luchtvaart Maatschappij (K.L.M.) (Netherlands), Pan-American World Airways (United States of America), Philippine Air Lines (Philippines), South African Airways (South Africa), and Union de Transports Aeriens (France). The Indonesian airline, P.N. Merparti Nusantara, operates services between Sukarnapura in West Irian and Lae in New Guinea, and Trans-Australia Airlines between Darwin and Portuguese Timor under charter to Transportes Aereos de Timor. By November 1966 Qantas, Australia's international airline, was operating thirteen Boeing 707-138B jet aircraft, six larger Boeing 707-338C jet aircraft, and three Lockheed Electra aircraft. Qantas intends buying another fifteen Boeing 707-338C aircraft for delivery in

1967 through to 1969, and disposing of its thirteen smaller Boeing 707-138B's, giving it a fleet of twenty-one Boeing 707-338C's. All the shares in Qantas Empire Airways are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1965-66 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), 1965-66

Type of traffic		Aircraft move- ments	Passengers	Freight	Mail
Traffic to Australia—				short tons	short tons
Oantas Empire Airways		2,366	136,162	4,482	1,250
Other airlines		2,858	146,022	3,043	1,089
All airlines		5,224	282,184	7,525	2,339
Traffic from Australia-					
Oantas Empire Airways		2,385	126,894	3,062	978
Other airlines	•	2,852	120,933	2,441	571
All airlines		5,237	247,827	5,503	1,549

<sup>(</sup>a) Australian mainland and adjacent Territories (Papua-New Guinea and Norfolk Island).

Particulars of revenue operations of Australian regular overseas services are shown in the following table. These operations include all stages of Qantas Empire Airways 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 (see footnote (a) to table following for years prior to 1965-66).

CIVIL AVIATION: OPERATIONS OF AUSTRALIAN REGULAR OVERSEAS SERVICES 1961-62 TO 1965-66

		1961-62 (a)	1962-63 (a)	1963–64 (a)	1964–65 (a)	1965–66
Hours flown .	number	51,066	48,669	53,792	68,028	68,405
Miles flown .	. '000	19,240	20,343	22,357	28,126	29,635
Passengers—					, ,	,
Embarkations	number	247,517	294,908	352,442	443,665	448,623
Passenger-miles	. '000	836,570	1,014,867	1,185,981	1,527,039	1,569,513
Freight-		•	, ,			, , , , , , , , , , , , , , , , , , , ,
Tons uplifted.	short tons	6,432	6,756	8,071	10,293	11,451
Ton-miles $(b)$ .	. '000	30,429	33,135	38,633	51,826	61,836
Mail-		•			,	
Tons uplifted.	short tons	2,015	2,468	2,654	3,124	3,252
Ton-miles $(b)$ .	. '000	11,622	15,191	16,057	19,891	20,914

<sup>(</sup>a) Includes, for flights between Papua-New Guinea, operations over stages located within the Commonwealth and within Papua-New Guinea. (b) In terms of short tons.

#### 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-A.N.A. (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-A.N.A., 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-A.N.A. and Trans-Australia Airlines operate routes to New Guinea and non-competitive intra-state routes in Australia. The Ansett-A.N.A. non-competitive routes radiate mainly from Melbourne, while those of Trans-Australia Airlines are located mainly within Queensland and Tasmania. In addition, Trans-Australia Airlines operate services within Papua-New Guinea in competition with another Ansett subsidiary, Ansett-M.A.L., and the independent Papuan Airlines.

At 30 October 1966 the Ansett-A.N.A. fleet included four Boeing 727's, three Electras, eight Viscounts, four DC6B's, five Friendships, two Carvairs, a number of DC4's and DC3's, eight helicopters, and smaller aircraft. At the same date Trans-Australia Airlines operated a fleet of four Boeing 727's, three Electras, fourteen Viscounts, nine Friendships, a number of DC4's and DC3's, three helicopters, and smaller aircraft.

Intra-state services. In addition to the intra-state services operated by Ansett-A.N.A. and Trans-Australia Airlines there are a number of smaller regional airlines operating from Sydney (Airlines of New South Wales and East-West Airlines), Brisbane (Queensland 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 the remainder 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 largest aircraft used by these regional airlines are DC4's, Convair Metropolitans, and Friendships, supported by DC3's. Connellan Airways uses smaller aircraft types.

Internal operations. Particulars of the revenue operations of all regular internal air services during each of the years 1961-62 to 1965-66 are set out in the next table. A graph showing paying passengers and freight carried appears on plate 33 over the page.

CIVIL AVIATION:	<b>OPERATIONS</b>	OF REGULAR	INTERNAL	SERVICES
	AUSTRALIA(a),	1961-62 TO 19	65-66	

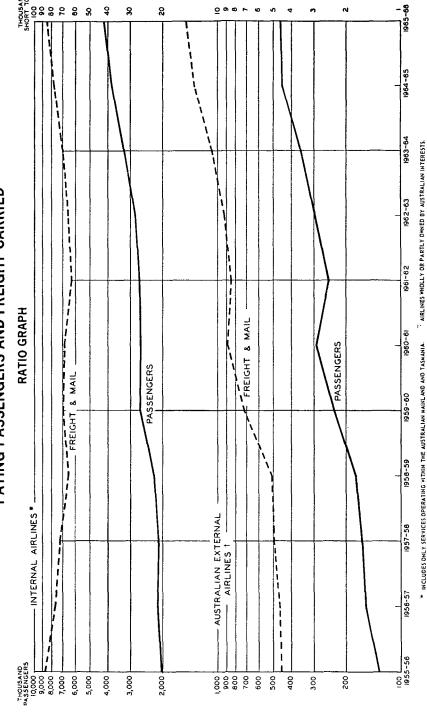
		1961-62 (b)	1962-63 (b)	1963–64 (b)	1964–65 (b)	1965-66
Hours flown . Miles flown .	. numbe		217,897 43,700	244,517 48,971	256,231 52,323	261,535 55,020
Passengers— Embarkations Passenger-miles	. numbe		2,832,934 1,221,178	3,256,937 1,408,317	3,763,936 1,639,087	4,157,873 1,831,360
Freight— Tons uplifted . Ton-miles(c) .	. short ton		59,373 28,270	63,161 30,491	69,959 33,891	76,079 37,577
Mail— Tons uplifted . Ton-miles(c) .	. short ton		6,467 3,324	7,082 3,741	7,736 4,074	8,633 4,587

<sup>(</sup>a) Includes flights of all Australian-owned airlines with the exception of those of Qantas Empire Airways between airports located within the Commonwealth. (b) Excludes, for flights between Papua-New Guinea, operations between airports located within the Commonwealth. (c) 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 1965, hours flown totalled 714,058 compared with 354,000 hours flown by Australian airline aircraft. At 30 June 1966, aircraft employed in general aviation numbered 2,382.

# **CIVIL AVIATION: AUSTRALIA, 1955-56 TO 1965-66** PAYING PASSENGERS AND FREIGHT CARRIED



HOTE. VERTICAL SCALE IS LOGARITHAIG, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY THE SCALES.

PLATE 33

#### Government aid to flying training

The Commonwealth Government has subsidised flying training in Australia since 1926. The aid is distributed through the aero clubs and, in more recent years, the commercial flying training schools. In 1966 the Government reviewed the level of its assistance to the Australian flying training movement and decided to:

continue the highly successful Australian Flying Scholarship Scheme for another five years with a subsidy of \$100,000 a year;

propose a partnership with commercial airlines in subsidising additional scholarships on a dollar for dollar basis up to \$75,000 a year;

grant another \$150,000 in subsidies to the aero clubs and commercial flying schools;

establish a special 'revolving fund' to help country aero clubs to buy new training aircraft; make secretariat grants of \$18,000 and \$3,000 respectively to the Aero Club Federation and the Association of Commercial Flying Organisations; and

make an annual grant of \$15,000 to the Gliding Federation for each of the next five years.

The Australian Flying Scholarship Scheme is designed to help young Australians train as career pilots for Australia's rapidly expanding commercial aviation industry. The scholarships provide financial aid in much the same way as Commonwealth scholarships provide for students undertaking other professions. They enable scholarship winners to train as commercial pilots, instructors and agricultural pilots. Since the scheme started in 1962, 846 scholarships have been awarded.

During 1965-66 pupils of the Australian flying training organisations (aero clubs and commercial flying schools) received 439 private licences, 261 commercial licences and 82 instructor ratings. Subsidised hours flown by aero clubs and flying schools totalled 173,114 hours out of a total of 230,496 hours flown, and their subsidy earnings totalled \$270,923. A limit placed on the subsidy restricted the total payment to \$150,000. During the year clubs were also assisted with the purchase of twenty-two aircraft. The value of this assistance under the Aircraft Replacement Fund was \$20,000. The permanent secretariats of the Royal Federation of Aero Clubs and the Commercial Flying Schools also received \$16,000 and \$2,000 respectively during 1965-66 as additional financial assistance.

Forty-five clubs were affiliated with the Gliding Federation of Australia in 1965-66 and there were more than 1,600 members. During 1965-66 the Commonwealth assisted gliding clubs to the extent of \$12,000. The total of all subsidy payments and financial assistance to flying training organisations and the gliding movement during 1965-66 was \$350,000.

#### Aerodromes

The number of aerodromes throughout Australia and its Territories at 30 June 1966 was 646. One hundred and twenty-five were owned by the Commonwealth Government and 521 by local authorities and private interests. Capital expenditure on aerodrome construction increased from \$9.10 million in 1964–65 to \$14.7 million in 1965–66 and is expected to reach an estimated \$22 million during 1966–67. Maintenance expenditure on Commonwealth-owned aerodromes during 1965–66 was \$6.5 million, and development grants to licensed aerodromes participating in the Local Ownership Plan totalled \$0.9 million. The two major projects at Melbourne and Sydney included in the current five-year airports programme, which ends in 1967–68, are proceeding satisfactorily. The work at Sydney, which involves a major runway extension and a new international terminal, is estimated to cost \$43 million. The new Melbourne airport is to cost \$40 million. The projects as a whole are expected to be completed in 1969, but progressive use will be made of the facilities as they become available. Total estimated cost of the Commonwealth's current airport expansion programme is \$120 million.

#### Airways facilities

Concurrently with the five-year aerodrome development programme, the Commonwealth Government has approved major extensions and improvements to Australia's air navigation and communications system. New long-range radar units have been installed at Sydney, Meltourne, Brisbane, and Adelaide to assist air traffic control, and other units are being established at Perth, Canberra and in northern New South Wales. Total cost of this radar programme is approximately \$8 million.

Further progress has been made with the programme, started in 1961, of increasing the number of laterally spaced air routes in heavy traffic areas throughout Australia and improving the network of radio navigational aids defining them. A further thirteen navigational aids were put into operation during 1965-66. The number of navigational aids operating throughout the Commonwealth at 30 June 1966 totalled 297. These included 86 distance measuring equipment (DMF) beacons, 32 visual aural ranges (VAR), 156 non-directional beacons (NDB), 10 VHF omni radio ranges (VOR), and 13 instrument landing systems (ILS).

#### Aircraft on the Australian register

CIVIL AVIATION: AIRCRAFT ON AUSTRALIAN REGISTER 30 JUNE 1966

m	] 1	Total					
Type of aircraft	One Two Three Four				aircraft		
Fixed-wing powered aircraft—					<u> </u>		
Turbo-jet	١	3	6	19	28		
Turbo-prop	2	31	l · l	32	65		
Piston-engined 20,000 lb and over all-up weight		83		22	105		
Piston-engined under 20,000 lb all-up weight .	2,131	<b>2</b> 06	8	3	2,348		
Helicopters	58	1		••	59		
Total powered aircraft	2,191	324	14	76	2,605		
Gliders				••	187		

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. 57, 1965-66.

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

CIVIL AVIATION: REGISTRATIONS, LICENCES, ETC., AUSTRALIA(a) 1962 TO 1966

			30 June		
	1962	1963	1964	1965	1966
Registered aircraft owners	938	1,006	1.167	1,293	1,481
Registered aircraft(b)	1,600	1,787	1,936	2,207	2,605
Pilots' licences—	.,	-,	-,	_,	
Private	3,627	4,066	4,720	5,382	6,365
Private helicopter	2	3	6	6	7
Commercial	1,090	1,159	1,263	1,411	1,616
Senior commercial	154	176	189	192	192
Commercial helicopter	33	42	53	59	83
Senior commercial helicopter				5	6
Student	4,433	4,845	5,676	6,907	8,109
Student helicopter	12	15	41	66	96
1st class airline transport	690	684	670	750	807
2nd class airline transport	432	464	603	725	822
Flight navigators' licences	141	135	137	154	252
1st class flight radio-telegraph				İ	
operators' licences	37	20	19	18	19
Flight radio-telephone operators' licences	5,370	6,552	7,956	9,102	10,831
Flight engineers' licences	175	168	215	429	495
Aircraft maintenance engineers' licences	2,485	2,521	2,553	2,779	2,879
Aerodromes, Australia—		1			
Government(c)	129	122	113	110	110
Licensed $(d)$	359	380	381	386	385
Flying-boat bases(e)	13	13	13	13	13

<sup>(</sup>a) Except for aerodromes and flying-boat bases, includes the Territory of Papua-New Guinea. (b) Excludes gliders. At 30 June 1966 there were 187 gliders registered. (c) Under the control and management of the Department of Civil Aviation. (a) Under the control and management of a municipality, shire, station owner, private individual, etc. Includes emergency aerodromes. (e) Includes alighting areas.

#### Accidents and casualties

Particulars of accidents in which persons were killed or injured, involving aircraft on the Australian register, are shown in the following table for the years 1961-62 to 1965-66.

# CIVIL AVIATION: AUSTRALIAN AIRCRAFT(a), ACCIDENTS INVOLVING CASUALTIES(b), 1961-62 TO 1965-66

	1961–62	1962–63	1963–64	1964-65	1965–66
Number	46 52 38	32 16 26	33 24 26	r 21 21 7	41 32 28

<sup>(</sup>a) Aircraft on Australian register and gliders irrespective of location of accident. (b) Includes parachutists killed.

# 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* 1901-1966 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 required for broadcasting and television services by the Australian Broadcasting Commission (see pages 481-4), and, in conjunction with the Overseas Telecommunications Commission (see pages 479-81), 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 payment of pensions, child endowment and military allotments, the provision of banking facilities on behalf of the Commonwealth Savings Bank, the sale of tax and duty stamps, and the collection of land tax.

#### 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 1966.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, STATES 30 JUNE 1966

					N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Post offices— Official . Non-official					521 1,883	329 1,765	233 966	173 751	151 484	54 433	1,461 6,282
Total					2,404	2,094	1,199	924	635	487	7,743
Square miles of territory per office Inhabitants per office . Inhabitants per 100 square miles .				129 1,800 1,394	42 1,537 3,661	556 1,386 249	974 1,221 125	1,537 1,316 86	54 762 1,407	383 1,490 389	

#### **Employees**

The number of employees and mail contractors in the Central Office and in each of the States at 30 June 1966 is given in the following table.

POSTAL EMPLOYEES: CENTRAL OFFICE AND STATES, 30 JUNE 1966

Eniployees	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Full-time(a)— Permanent officers Temporary and exempt officers	1,594 247	23,471 11,475	16,160 9,555	10,094 2,769	7,026 2,347	5.065 1,428	2,601 847	66,011 28,668
Total, full-time	7,841	34,946	25,715	12,863	9,373	6,493	3,448	94,679
Other(b)— Non-official and semi-official post- masters Persons exclusive of postmasters at		1,884	1,749	958	751	485	431	6,258
non-official offices Telephone office-keepers Mail contractors (including persons	::	441 271	638 111	258 407	194 104	57 242	36 17	1,624 1,152
employed to drive vehicles)		2,054	942	1,164	339	292	204	4,995
Total, other	••	4,650	3,440	2,787	1,388	1.076	688	14,029

<sup>(</sup>a) Persons directly under the control of the Department. Excludes 3.020 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.

#### Cash revenue, branches-Postmaster-General's Department

The cash revenue (actual collections during each year as recorded for Treasury purposes) in respect of each branch of the Department is shown in the following tables. The earnings of the Department, which include revenue earned but not actually received, are shown in the profit and loss statement on page 474.

POSTMASTER-GENERAL'S DEPARTMENT: CASH REVENUE, BY SOURCE CENTRAL OFFICE AND STATES, 1965-66 (\$'000)

Source	 Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Postal .	7,485	44,619	31,146	13,589	9,670	6,993	2,685	116,137
Telephone	1,424	104,040	75,800	34,054	24,757	17,276	7,209	264,560
Telegraph	2,158	6,433	4,292	3,086	2,398	1,591	471	20,429
Miscellaneous	••	34	123	41	89	26	9	320
Total	11,067	155,125	111,361	50,769	36,914	25,886	10,374	401,496

#### POSTMASTER-GENERAL'S DEPARTMENT: CASH REVENUE BY SOURCE, AUSTRALIA, 1961-62 TO 1965-66 (\$'000)

Source		1961–62	1962–63	1963–64	1964–65	1965–66
Postal . Telephone Telegraph Miscellaneous	:	94,208 170,332 14,896 192	98,854 184,630 15,838 350	105,954 205,564 17,254 506	112,182 240,641 19,352 473	116,187 264,560 20,429 320
Total .		279,628	299,672	329,278	372,648	401,496

#### Cash expenditure, Postmaster-General's Department

The following tables show, as far as possible, the distribution of cash expenditure (actual payments during each year as recorded for Treasury purposes) in each State and Central Office. The tables must not be regarded as statements of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

## POSTMASTER-GENERAL'S DEPARTMENT: CASH EXPENDITURE CENTRAL OFFICE AND STATES, 1965-66

(\$'000)

		10 000	,					
	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Ausi.
Expenditure from ordinary services								
votes—	1							
Salaries and payments in the nature of salary	2.156	47 701	24 720	10 420	12 124	0 170	4,181	127,57
Administrative	2,156 1,231		34,720 5,543		12,124 1,740		578	
Stores and material	174		1,341		407	1,177	158	
Mail services	17,504				1,018	603	271	28,40
Engineering services (other than	17,504	1,50.	2,555	_,000	.,			
new works)	3,382	33,018	24,857	11,933	9,155	7,046	3,303	92,69
Other services(a)	328		i.					32
Total, ordinary services votes .	24,775	93,467	68,996	35,158	24,444	17,292	8,491	272,62.
Rent, repairs, maintenance	56	1,716	2,166	778	555	372	131	5,77
Other(b)		279	194		48	48	16	69
Capital works and services—								
Plant and equipment(c)	2,095				15,770		7,032	
New buildings, etc.(d)		5,178	3,760	2,700	1,089	1,147	597	14,47
Grand total	26,926	165,546	119,011	57,678	41,906	30,912	16,267	458,248
	1	l		l l		l i		l

<sup>(</sup>a) Excludes contributions towards the cost of coastal wireless stations. (b) Expenditure on furnishings and fittings. Previously included in capital works. (c) Includes expenditure on motor vehicles, postal plant and certain non-engineering plant previously included in ordinary services votes. (d) Expenditure on furniture and fittings, previously included with building expenditure, is now included with ordinary services votes.

# POSTMASTER-GENERAL'S DEPARTMENT: CASH EXPENDITURE AUSTRALIA, 1961-62 TO 1965-66

(\$'000)

	- (*	0007			
	1961-62	1962–63	1963–64	1964–65	1965–66
Expenditure from ordinary service votes—	s				
Salaries and payments in the	.	1			
nature of salary	100,860	102,256	107,964	118,490	127,579
Administrative		12,302	14,588		
	12,230			16,380	18,986
Stores and material	4,746	3,594	3,308	3,455	4,629
Mail services	21,770	23,036	24,152	25,226	28,407
Engineering services (other	1				ł
than new works)	(a) 86,370	68,812	77,350	85,553	92,693
Other services $(b)$ .	250	280	280	319	328
Total, ordinary services vote	226,226	210,280	227,642	249,423	272,623
Rent, repairs, maintenance.	3,318	3,526	4,206	4,900	5,775
Other			1	ł	(c) 697
Capital works and services—	1			1	(*)
Plant and equipment	81,022	(d)111,594	(d)122,406	(a)144,802	(d) 164,682
New buildings, etc	10,856	11,886	14,716	15,086	(e) 14,471
riew outlands, etc	10,030	11,000	14,710	13,000	(6) 14,4/1
Grand total	321,422	337,286	368,970	414,211	458,248

<sup>(</sup>a) Includes expenditure on motor vehicles, postal plant and certain non-engineering plant. After 1961-62 this expenditure is included in capital works expenditure. (b) Excludes contributions towards the cost of coastal wireless stations. (c) Expenditure on furniture and fittings. Previously included in capital works. (d) Includes expenditure on motor vehicles, postal plant and certain non-engineering plant previously included in ordinary services votes. (e) Expenditure on furniture and fittings, previously included with building expenditure, is now included with ordinary services votes.

#### Profit or loss, Postmaster-General's Department

The foregoing tables of cash revenue and expenditure represent actual collections and payments made, and cannot be taken to represent the actual results of the working of the Department for the year. The net results after providing for working expenses (including superannuation, pensions and depreciation) and interest charges (including exchange) are shown in the following table for the year 1965-66 together with summarised particulars for the year 1964-65.

# POSTMASTER-GENERAL'S DEPARTMENT: CONSOLIDATED STATEMENT OF PROFIT AND LOSS, 1964-65 AND 1965-66 (\$'000)

		1965–66		1964-65
	Postal service	Telecom- munications service	All services	All services
Earnings	116,746	284,528	401,274	370,045
Working expenses—				
Operating and general cost	83,736	74,451	158,187	144,707
Maintenance of plant and equipment .	1,132	66,489	67,621	61,187
Carriage of mails	31,143		31,143	28,710
Depreciation	2,483	66,521	69,004	61,738
Superannuation and furlough liability.	5,785	9,341	15,126	16,584
Total working expenses	124,279	216,803	341,082	312,926
Profit or loss before interest	-7,533	67,725	60,192	57,119
Interest	2,809	57,507	60,316	52,907
Profit or loss after interest	-10,341	10,217	-124	4,212

Minus sign (-) denotes loss.

#### Fixed assets, Postmaster-General's Department

#### POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS, 1965-66 (\$'000)

Class of plant	Value at 1 July 1965	Adjust- ments to values	Additions during year	Instal- ments of plant written out	Value at 30 June 1966
Telecommunications plant	1,387,259	-5,428	174.231	11,898	a1,544,163
Postal plant	9,854	••	2,336	56	12,134
Engineers' moveable plant	32 489		3,433	1,483	34,438
Motor vehicles	24,136	-633	6,169	4,331	25,342
Other plant and equipment .	29,142		4,903	748	33,296
Buildings	159,585		15,910		(b) 175,495
Land	18,975		468		19,443
Total	1,661,440	-6,062	207,449	18,517	1,844,311

<sup>(</sup>a) Includes plant under construction valued at \$78,272,000. (b) Includes buildings under construction valued at \$4,913,000.

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

#### Postal services

#### Mail delivery points

#### MAIL DELIVERY POINTS: STATES, 30 JUNE 1966

State				Postmen's delivery	Roadside delivery	Private boxes	Private mail bag services	
New South Wales			.	1,236,299	50,564	66,858	6,491	
Victoria			.	812,326	31,655	41,335	6,427	
Queensland .				406,208	27,989	33,530	4,769	
South Australia				321,303	1,031	24,526	2,907	
Western Australia			. !	194,647	17,766	18,483	742	
Tasmania .	•			74,665	1,297	7,441	1,707	
Australia .				3,045,448	130,302	192,173	23,043	

#### Postal articles handled

The following two tables show the number of postal articles handled by the Australian Post Office. Mail matter posted in Australia for delivery therein is necessarily handled at least twice, but only the number of distinct articles handled is included in the following tables.

POSTAL ARTICLES HANDLED(a): STATES, 1965-66 ('000)

				•					
State	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)	
	Posted	for deliver	y within A	ustralia	Po	Posted for delivery overseas			
New South Wales .	697,755	152,328	6,287	3,782	49,651	11,822	304	898	
Victoria		99,611	4,943	2,414	28,603	4,700	221	536	
Queensland South Australia .		31,895	2,434	1,437 782	10,836	1,332	36 51	47 62	
Western Australia	177,760 143,192	17,067 13,540	1,337 1,045	659	7,979 6,437	1,507 869	31	53	
Tasmania	49,358	8,013	263	368	614	105	12	3	
Australia .	1,893,727	322,455	16,309	9,443	104,120	20,336	655	1,599	
	1	Received fro	om oversea	s	Tot	al postal m	atter dealt	with	
New South Wales	57,534	28,329	646	1,200	804,940	192,479	7,236	5,880	
Victoria	47,790	11,402	404	525	653,773	115,714	5,568	3,476	
Queensland	8,136	4,846	120	35	267,255	38,074	2,590	1,518	
South Australia ,		5,321	100	31	192,071	23,895	1,489	875	
Western Australia .	3,961	6,698	79	49	153,590	21,108	1,156	761	
Tasmania	1,738	2,191	13	4	51,710	10,309	288	376	
Australia	125,491	58,788	1,362	1,843	2,123,338	401,578	18,327	12,886	
		,		ſ	*				

<sup>(</sup>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,	1961-62	TO	1965-66
	('00	0)			

Ye	Year		Letters(b)			Newspapers and packets(c)	Parcels(d)	Registered articles(e)	Total postal articles handled	
1961-62			1,748,054	324,694	15,854	12,357	2,100,959			
1962-63			1,835,869	337,644	16,545	12,339	2,202,397			
1963-64			1,952,029	360,510	17,010	12,315	2,341,864			
1964-65			2,032,287	380,178	18,156	12,190	2,442,811			
1965-66			2,123,338	401,578	18,327	12,886	2,556,128			

For footnotes see previous table.

During 1965-66 the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows: road, \$9,479,251, railway, \$3,569,734; sea, \$635,623; air—internal, \$3,567,049, overseas, \$13,891,585; grand total, \$31,143,242.

#### Money orders and postal orders

The issue of money orders and postal orders is regulated by sections 74-79 of the *Post and Telegraph Act* 1901-1966. 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 \$20 a week. A postal order is not available for a sum larger than four dollars. The following table shows the number and value of money orders and postal orders issued in Australia in each of the years 1961-62 to 1965-66 and the income therefrom which has accrued to the Post Office.

MONEY ORDERS AND POSTAL ORDERS(a): TRANSACTIONS, AUSTRALIA 1961-62 TO 1965-66

			Мо	oney orders(i	5)	Po	stal orders(a	)
Year		Issued	I(c)	Total	Issu	F		
			Number Value		commission received	Number Value		Fee
			'000	\$.000	\$.000	.000	\$'000	\$.000
1961-62		.	10,176	264,992	1,752	15,514	16,192	614
1962-63		.	11,076	306,866	1,858	16,330	17,240	642
1963-64		.	11,838	338,674	2,004	15,987	17,234	634
1964-65		. 1	12,176	376,356	2,103	15,338	16,737	618
1965-66		.	12,634	407,275	2,200	15,010	16,184	604

<sup>(</sup>a) Postal orders replaced postal notes on 1 June 1966. (b) Money orders issued for payment in Australia and Papua and New Guinea. (c) Includes official money orders used in bringing to account telephone accounts and collections on War Service Homes repayments.

Of the total money orders issued in Australia during 1965-66, 12,185,004 valued at \$404,341,291 were payable in Australia, and 449,245 valued at \$2,934,070 were payable overseas. Of the total money orders paid in Australia during 1965-66, 12,097,599 (\$404,124,469) were issued in Australia, and 192,528 (\$2,968,286) were issued overseas.

Of the total postal orders paid in Australia during 1965-66 (14,958.584 valued at \$16,481,630), 10,175,422 (\$11,678,204) were paid in the State in which issued, and 4,793,162 (\$4,803,426) 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 1966 there were 15,288,000 single wire miles of cable and 1,285,000 miles of aerial wire used for telecommunication purposes in Australia. The aerial wires were mounted on 119,183 miles of pole routes, and joint use is made of these poles for both power and telecommunication reticulation.

#### Telephone services in operation

The following table shows the number of services in operation in each State at 30 June 1966 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 1966

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Type of service—							
Ordinary exchange			i	ı	i		ł .
services	684,682	588,212	234,765	169,381	112,461	55,933	1,845,437
Duplex services	23,672	4,998	124	1,132	252	584	30,762
Party line services	4,992	2,732	2,912	1,459	1,372	304	13,771
Private branch ex-	.,	-,	_,,	-,	-,		,
change services .	89,407	57,740	20,692	18.331	11,939	4.035	202,144
Public telephones .	10.919	7,292	4.317	2,619	1,996	1,121	28,264
Connected to-	10,717	,,_,_	1,517	2,017	1,,,,,	1,121	
Automatic exchanges	691,994	577,236	199,817	161,122	103,886	50,245	1.784.300
Manual exchanges .	121,678	83,738	62,993	31.800	24,137	11,732	336,078
Located in—	121,076	05,750	02,555	31,600	27,137	11,732	330,070
Metropolitan areas .	515,232	438,735	127,468	125.349	86,787	22,885	1,316,456
Country areas	298,440	222,239	135,342	67,573	41,236	39,092	803,922
Total	813,672	660,974	262,810	192,922	128,023	61,977	2.120.378

#### TELEPHONE SERVICES IN OPERATION: AUSTRALIA, 1962 TO 1966

<b>C</b> andan					30 June—							
Services c	onne	ctea	10		1962	1963	1964	1965	1966			
Metropolitan ex	chai	nges-	-									
Automatic					1,065,326	1,123,391	1,188,264	1,244,926	1,316,456			
Manual					551							
Country exchan	ges-	_			ĺ		1	ł	!			
Automatic					288,021	322,187	361,368	414,636	467,844			
Manual					364,671	366,603	369,248	350,562	336,078			
All exchanges-												
Automatic					1,353,347	1,445,578	1,549,632	1,659,562	1,784,300			
Manual				•	365,222	366,603	369,248	350,562	336,078			
Total service	es				1,718,569	1,812,181	1,918,880	2,010,124	2,120,378			

#### Telephone instruments connected

TELEPHONE INSTRUMENTS IN SERVICE: STATES, 1962 TO 1966 ('000)

30 1	unc—	 N.S.W. Vic. Qld S.A. W.A.		W.A.	Tas.	Aust.		
1962 . 1963 . 1964 . 1965 .	•	949 999 1,053 1,107 1,182	729 773 819 861 905	289 306 324 341 357	211 225 241 256 272	134 145 155 164 176	71 75 78 82 86	2,383 2,523 2,670 2,811 2,978
Number 1966 popul	per 10	27.3	28.1	21.5	24.1	21.1	23.2	25.8

#### Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA, 1961-62 TO 1965-66

	V	_		Effective pa	id local calls	Trunk	line calls	Total
	Yea	ır		Total	Per service	Total	Per service	calls
				'000	number	'000	number	'000
1961-62				1,650,000	960	76,500	45	1,726,500
1962-63			. [	1,809,000	998	84,500	47	1,893,500
1963-64			. 1	1,958,000	1,020	95,700	50	2,053,700
1964-65			. [	2,043,000	1,016	106,500	53	2,149,500
1965-66			!	2,103,000	992	116,600	55	2,219,600

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 1966 subscriber trunk dialling was in operation at 119 exchanges, serving approximately 285,862 subscribers.

#### Internal telegraphs

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 1961-62 to 1965-66 is set out hereunder.

INTERNAL TELEGRAPH TRAFFIC: AUSTRALIA, 1961-62 TO 1965-66 ('000)

Ye	ar	Ordinary (a)	Urgent	Press	Letter- grams	Meteoro- logical service	Service	Total telegrams
1961–62		16,429	558	147	89	914	602	18,739
1962-63	:	16,663	492	148	91	948	582	18,924
1963-64		17,783	545	130	86	920	621	20,085
196465		18,302	532	96	65	912	643	20,550
1965-66		18,605	550	100	59	1,005	717	21,036

#### Teleprinter exchange service (telex)

1962-63

1963-64

1964-65

1965--66

Particulars of the operations of the teleprinter exchange network, which are additional to the telegraph traffic shown above, are given hereunder.

AUST	RALIA, 1961-62	2 TO 1965-66	
Year	Subscribers at end of year	Local calls	Trunk calls
1961–62	1,215	36,210	696,482

68,769

101,315

143,631

176,243

931,783

1,311,023

1,634,359

1,875,237

1,439

1,815

2,179

2,444

TELEPRINTER EXCHANGE NETWORK (TELEX)

#### Overseas telecommunication services

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance, operation and development of Australia's overseas public telegraph, phototelegraph and telex services by cable and by radio, and the provision, maintenance, and development of cable and radio facilities for the conduct of Australia's overseas telephone services and of the facilities for services with ships at sea.

The Commission was established under the Overseas Telecommunications Act 1946-1966. This Act implemented, in Australia, a recommendation of the 1945 Commonwealth Telecommunications Conference for national ownership of the external telecommunication services of the British Commonwealth countries concerned and for the establishment of a representative advisory board, the Commonwealth Telecommunications Board, to co-ordinate their development.

The Commission provides telegraph, telex, phototelegraph, and, in conjunction with the Postmaster-General's Department, telephone services with overseas countries and Australian Territories. Leased one- and two-way circuits are also provided for large commercial users. In addition, it operates the Australian coastal radio services for communication with ships at sea in Australian waters and high frequency radio services for communication with ships in any part of the world. The Commission's coastal radio stations also provide certain services to a number of remote stations within Australia and its Territories.

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

To meet Australia's increasing demand for overseas communication channels, and because of limitations to performance and capacity inherent in current forms of 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. Work was commenced in August 1960, and the cable (COMPAC) was opened in December 1963. This cable forms part of a British Commonwealth large capacity cable scheme, in which a complementary cable between Britain and Canada (CANTAT) was officially opened in December 1961. The two cable connections are linked across Canada by a microwave system. The Commonwealth cable system feeds into the United States of America network at Hawaii and into the European network at London.

The next stage of the system, the south-east Asia cable project (SEACOM), will extend the large capacity telephone cable from Sydney to Singapore and Kuala Lumpur via Cairns, Madang, Guam, Hong Kong, and Jesselton. The Singapore-Jesselton section was opened for service on 15 January 1965 and the Jesselton-Hong Kong section on 31 March 1965. The whole project is scheduled for opening early in March 1967.

Separate management committees, comprising representatives of the overseas telecommunication authorities and the partner Governments, Britain, Canada, Australia, and New Zealand, with the addition, for SEACOM, of Malaysia and Singapore, administered COMPAC and SEACOM projects up to November 1965, when these committees were amalgamated into the Commonwealth Cable Management Committee.

Two years of international discussion and negotiations were climaxed by the signing in August 1964 by a number of countries, including Australia, of agreements to establish the first global commercial communications satellite system, of which the 'space segment' is estimated to cost \$US 200 million. 'Space segment' is a broad description of the communications satellites and the tracking, control, command, and related facilities required to support operation of the satellites. An earth station, owned and operated by the Commission, has been built at Carnarvon, Western Australia, at a cost of almost \$3 million to operate into communications satellite INTELSAT II launched in January 1967 and positioned in geo-stationary orbit 22,300 miles above the equator at longitude 175°E. A contract for the erection of a second earth station to be completed by December 1967 has been let. This station which also will work into INTELSAT II is being established in Moree, New South Wales, with necessary staff residences, at a cost estimated at \$4 million.

#### International telecommunication traffic

Particulars of the volume of international telegram business, originating and terminating in Australia, transacted over the cable and radio services during 1965-66 are shown in the following table.

INTERNATIONAL TELEGRAPHIC TRAFFIC: AUSTRALIA, 1965-66(a) ('000 words)

			Word	s transmitte	d to—	Words received from-			
Class of traffic		Common- wealth countries	Foreign countries	Total	Common- wealth countries	Foreign countries	Total		
Letter .			10,106	10,488	20,594	9,028	9,188	18,216	
Ordinary .	:	:	9,655	7,727	17,382	9,106	6,062	15,168	
Press .		:	5,798	436	6,234	6,025	516	6,541	
Greetings			1,404		1,404	1,657		1,657	
Government			399	622	1,021	580	1,397	1,977	
Urgent .			573	161	734	423	95	518	
Other .			13		13	50	1	51	
Total			27,948	19,434	(b) 47,382	26,870	17,259	(c) 44,129	

<sup>(</sup>a) Year ended 31 March. (b) Excludes 3,836,000 words to Australian External Territories. (c) Excludes 5,537,000 words from Australian External Territories.

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the year ended 31 March 1966.

# INTERNATIONAL TELECOMMUNICATION TRAFFIC OTHER THAN TELEGRAPHIC AUSTRALIA, 1965–66(a)

	Trai	nsmissions	to—	Transmissions from—			
Service	Common- wealth countries	Foreign countries	Total (b)	Common- wealth countries	Foreign countries	Total (c)	
Telephone . paid minutes Telex . paid minutes Phototelegrams . pictures	934,612 311,175 1,584	503,462 453,752 128	1,438,074 764,927 1,712	1,113,576 361,961 7,482	468,075 511,863 49	1,581,651 873,824 7.531	

<sup>(</sup>a) Year ended 31 March. (b) Excludes 68,615 paid telephone minutes and 12,485 paid telex minutes transmitted to Australian External Territories. (c) Excludes 98,770 paid telephone minutes and 4,291 paid telex minutes transmitted from Australian External Territories.

#### Coast stations

The Overseas Telecommunications Commission operates fifteen coastal radio stations at points around the Austra.ian coast, three around the Papua-New Guinea coast, and one at Norfolk Island. During the year ended 31 March 1966 the coastal radio service handled 4,601,150 paid words to ships and 2,903,583 words from ships. Ship calls over the radiotelephone service extended over 45,911 paid minutes.

#### Radiocommunication stations authorised

The following table shows particulars of the different classes of radiocommunication stations authorised in Australia at 30 June 1966. Figures relate to radiocommunication (radio telegraph and radiotelephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are shown on pages 483 and 485 respectively.

RADIOCOMMUNICATION STATIONS AUTHORISED, STATES AND TERRITORIES
30 JUNE 1966

Class of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Transmitting and receiving-									
Fixed(a)— Aeronautical	11	4	13	5	17	8	8	1	67
Services with other coun-	11	*	13	3	17	۰	۰	'	/ام
tries—Overseas Telecom-	1 .		I		1 .		ļ	] .	İ
munications Commission	59	13	2		10			i	84
Outposi(b)	253	11	570	178	420	16	203	l	1,641
Other	324	240	218	72	149	42	59	5	1,109
Land(c)—	324	240		,,	1 17/	72	37	-	1,105
Aeronautical	66	23	33	10	26	7	24	2	191
Base—				10	_~	•		_	1,71
Land mobile	1.932	1.279	940	534	449	266	27	98	5,525
Harbour mobile	31	22	24	9	29	13	l		128
Coast(d)	28	15	24	21	23	22	'4		137
Special experimental .	164	150	52	56	58	14	4	]	498
Mobile(e)—							· ·		
Aeronautical	626	362	339	153	261	24	38		1,803
Land mobile	21,083	14,655	8,416	6,349	4,155	1,945	365	493	57,461
Harbour mobile	219	150	61	47	117	59			653
Outpost	252		371	269	429	58	705		2,084
Ship	1,645	473	967	405	439	303	27		(f)4,441
Amateur	1,618	1,567	583	678	408	174	16	68	5,112
Total, transmitting and					i			1	
receiving	28,311	18,954	12,613	8,786	6,990	2,951	1,480	667	f 80,934
Receiving only—									
Fixed(a)	151	198	88		51				488
Total contitue of					٠.				400
Total, receiving only .	151	198	88	• •	51	• •	• •		488
Grand total	28,462	19,152	12,701	8,786	7,041	2,951	1.480	667	f 81,422

<sup>(</sup>a) Stations established at fixed locations for communication with other stations similarly established.
(b) Stations established in out-back areas for communication with control stations such as those of the Royal Flying Doctor Service.
(c) Stations established at fixed locations for communication with mobile stations.
(d) Land stations for communication with ocean-going vessels.
(e) Equipment installed in aircraft (aeronautical), motor vehicles (land mobile services), harbour vessels (harbour mobile services) and ocean-going vessels (ships), and mobile equipment of organisations such as the Royal Flying Doctor Service.
(f) Includes 182 stations which cannot be classified according to State or Territory.

#### BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the Broadcasting and Television Act 1942-1966 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.

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#### 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 Jacilities. At 30 June 1966 the National Broadcasting Service comprised seventy-five transmitting stations, of which sixty-seven were medium frequency and eight 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 1966 fifty-five of the Australian medium-frequency stations were situated outside the six State capital cities. Additional country stations are to be established, and, when these additions are complete, the medium-frequency and high-frequency stations together will provide for clear reception of the programmes of the National Broadcasting Service in practically every part of Australia.

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 1965-66 was as follows: classical music, 25.5 per cent; light entertainment, 12.3 per cent; news, 8.4 per cent; sporting, 4.5 per cent; light music, 3.1 per cent; talks, 6.7 per cent; drama and features, 3.6 per cent; education, 3.6 per cent; Parliament, 4.3 per cent; religious, 2.9 per cent; children's programmes, 2.5 per cent; rural, 1.7 per cent; and non-departmental and special programmes, 20.9 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 one at Lyndhurst, Victoria, 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**

The following table shows the number of broadcasting stations in operation at 30 June 1966.

BROADCASTING	CTATIONS.	CTATES AND	TEDDITABLES	20 TTINDE 1066

Type of station		N.S.W.	Vic.	Q1d	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
National— Medium frequency High frequency Overseas (high frequency)	:	18 1	5 3 8	16 2	 	10 2	<b>4</b> ::	4	2	67 8 8
Commercial (medium frequency)		37	20	22	8	14	8	1	1	111
Total		56	36	40	16	26	12	5	3	194

Tables showing the call sign, location, frequency, and aerial power of national and commercial broadcasting stations in operation at 30 June 1966 are shown in *Transport and Communication*, Bulletin No. 57.

#### 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 transmissions on 5 November 1956. At 30 June 1966 thirty-four stations were operating, excluding two translator stations. Five additional national television stations had been authorised but had not commenced to operate by that date. It is planned that all services will be in operation by the end of 1967.

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 1966 was as follows: drama, 25.9 per cent; talks, 12.1 per cent; sporting, 11.2 per cent; children's session, 8.1 per cent; news, 6.5 per cent; light entertainment, 9.5 per cent; education, 15.0 per cent; music, 2.2 per cent; religious, 2.6 per cent; rural services, 1.9 per cent; non-departmental, 5.0 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. Transmission time for the year ended 30 June 1966 totalled 101,090 hours.

#### 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 1966 thirty-nine 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 1966 the following national television stations commenced regular transmissions: New South Wales—ABLN Channel 2, Broken Hill area; ABSN Channel 8, Bega-Cooma area; ABTN Channel 1, Manning River area; ABUN Channel 7, Upper Namoi area; Victoria—ABMV Channel 4, Mildura area; ABSV Channel 2, Murray Valley area; Queensland—ABWQ Channel 6, Wide Bay area; South Australia—ABGS Channel 1, South East area; Western Australia—ABAW Channel 2, Southern Agricultural area; ABCW Channel 4, Central Agricultural area. The following commercial television stations also commenced regular transmissions during the year ended 30 June 1966. New South Wales—CWN Channel 6, Central Western Slopes area; ECN Channel 8, Manning River area; MTN Channel 9, Murrumbidgee Irrigation area; Victoria—STV Channel 8, Mildura area; Queensland—TVQ Channel 0, Brisbane; SDQ Channel 4, Southern Downs area; South Australia—SAS Channel 10, Adelaide; SES Channel 8, South East area. Particulars of all television stations in operation at 31 December 1964 are shown in Year Book No. 51, pages 598-9. The following table shows the number of television stations in operation at 30 June 1966.

TELEVISION	STATIONS:	<b>STATES</b>	AND	<b>AUSTRALIAN</b>	<b>CAPITAL</b>	<b>TERRITORY</b>
		30	JUNI	F. 1966		

Type of station and location	New South Wales	Victoria	Queens- land	South Australia	Western Australia	Tas- mania	Aus- tralian Capital Territory	Total
National—								
Metropolitan .	1	1	1	1	1	1	1 1	7
Country	10	7	4	2	3	1		27
Tetal, National	11	8	5	3	4	2	1	34
Commercial—								
Metropolitan .	3	3	3	3	2	i	1	16
Country	10	6	5	1		1		23
Total, Commercial	13	9	8	4	2	2	1	39
All stations .	24	17	13	7	6	4	2	73

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 1966 are shown in *Transport and Communication*, Bulletin No. 57.

#### 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* 1942–1966, 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 is required to 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 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 areas 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 are as follows.

#### BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES: RATES

Licence	Ordinary rate	Pensioner rate
	\$	<u> </u>
Broadcast listener's licence and hirer's licence for a broadcast		]
receiver Zone I	5.50	1.00
Zone 2	2.80	0.70
Lodging house licence for a broadcast receiver . Zone 1	5.50	
Zone 2		::
Television viewer's licence and hirer's licence for a television		''
receiver	12.00	3.00
Lodging house licence for a television receiver	12.00	<b>.</b>
Combined receiving licence	17.00	4.00

#### Numbers of broadcast listeners' and television viewers' licences

#### BROADCAST LISTENERS' LICENCES IN FORCE(a): STATES, 1925 TO 1966

30 J	ıne—	N.S.W. (b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1925 .		34,857	20,290	1,267	3,331	3,562	567	63,874
1930 .		111,253	140.072	23,335	25,729	5,755	6,048	312,192
1935 .		 279,166	237,247	67,546	76,515	41,257	20,121	721,852
1940 .		 458,256	348,264	151,152	124,928	87,790	42,191	1,212,581
1945(d)		548,074	394,315	180,089	146,611	98,210	47,930	1,415,229
1950(d)		683,271	505,078	260,033	195,261	133,199	64,369	1,841,211
1955 .		746,050	549,690	293,542	223,593	150,199	71,602	2,034,676
1960 .		832,659	606,587	344,198	249,148	171,693	78,900	2,283,185
1965(e)		849,291	644,618	343,401	269,040	175,443	75,849	2,357,642
1966(e)		929,119	716,594	340,687	281,747	169,709	88,095	2,525,951

<sup>(</sup>a) Includes short-term hirers' licences. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) Excludes licences for receivers in excess of one. These licences were introduced in July 1942 and were abolished on 31 December 1951. (e) Includes combined broadcast listeners' and television viewers' licences.

#### TELEVISION VIEWERS' LICENCES IN FORCE(a): STATES, 1957 TO 1966

30 J	une—	N.S.W. (b)	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1957 .		28,912	44,986				(c) 11	73,909
1960 .		409,334	353,091	67,337	84,967	35,604	4,662	954,995
1961 .		488,516	401,395	113,954	124,808	69,628	18,985	1,217,286
1962 .		564,707	460,558	142,422	143,794	83,951	29,003	1,424,435
1963 .	-	637,766	530,256	178,391	167,502	95,907	45,503	1,655,325
1964 .		721,043	581,286	214,763	194,430	115,272	55,305	1,882,099
1965(d)		787,507	620,996	243,660	208,642	123,741	60,079	2,044,625
1966(d)		843,103	662,595	277,182	233,726	142,881	66,187	2,225,674

<sup>(</sup>a) Includes short-term hirers' licences. (b) Includes Australian Capital Territory. (c) These licences were for television sets in the north coast area of Tasmania which were able to receive programmes from Victoria. (d) Includes combined broadcast listeners' and television viewers' licences.

The numbers of combined receiving licences included in both of the foregoing tables as at 30 June 1966 are: New South Wales, 694,910; Victoria, 574,955; Queensland, 217,924; South Australia, 188,695; Western Australia, 114,593; Tasmania, 55,778; Australia, 1,846,855.

Of 2,225,674 television viewers' including combined licences in force at 30 June 1966, 144,736 were held by short-term hirers, and could not be separated into metropolitan licences or country licences. Persons living in the metropolitan area held 1,347,497 or 65 per cent of the remainder. Short-term hirers' licences (included above) at 30 June 1966 were: New South Wales, 53,120; Victoria, 21,887; Queensland, 23,852; South Australia, 26,581; Western Australia, 15,375; and Tasmania, 3,921.

#### Revenue received from broadcast and television licence fees

The following table shows the revenue received from broadcast listeners' licence fees and television viewers' licence fees during the years 1961-62 to 1965-66. Figures for 1964-65 and 1965-66 include revenue from fees for combined licences which took effect on 1 April 1965.

# REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES STATES, 1961-62 TO 1965-66

•	o	**	$\Delta \Delta$	•
•	ъ		00	п

1	1
645	24,077
784	26,425
865	28,395
	33,157
1,047	35,445
	1,006

<sup>(</sup>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 the majority of the tables of the original article which it has been possible to bring up-to-date (others appear in other parts of this chapter or Year Book) advanced to the year 1966, together with some revised descriptive matter.

#### Overseas movement

Overseas arrivals in, and departures from, Australia are classified into three categories, namely: permanent movement (i.e. settlers arriving and Australian residents departing permanently); long-term movement (i.e. Australian residents returning to Australia after a stay in a country abroad for one year or longer, or departing from Australia with the intention of staying in a country abroad for one year or more, and overseas visitors arriving with the intention of staying in Australia for a year or more or departing after a stay in Australia of a year or more); and short-term movement (i.e. all other movements). Statistics relating to long-term and permanent movement are included in Chapter 8, Population. The statistics which follow relate to short-term movement. Short-term movement refers basically to travellers, Australian residents and visitors from overseas, who intend to, or actually do, spend a period of less than twelve months in a country abroad or in Australia. This definition includes the movement of Australian troops, regardless of length of their stay abroad, and persons who come to Australia or go abroad for paid work or to study (as long as their intended or actual length of stay is less than one year). It excludes visitors to Australia and residents on visits abroad if their stay in Australia or in a country abroad is one year or more, all crew, and persons who arrive in and depart from Australia on the same ship's voyage or on the same flight; but includes persons who, on arrival, declare their purpose of visiting Australia to be 'in transit', as long as a change of

ship or flight takes place. Australian residents visiting abroad may be away from Australia for more than a year but still be included in the short-term movement as long as their stay in any one country abroad is not for a year or more.

#### Short-term movement-visitors and residents

The following table shows short-term visitor arrivals from, and returns to, overseas countries.

OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT VISITORS, AUSTRALIA, 1957 TO 1966

	.,				Arriving			Departing	
	Yea	ır		By sea	By air	Total	By sea	By air	Total
1957				20,464	38,152	58,616	23,097	36,988	60,085
1958				19,834	41,508	61,342	21,580	39,452	61,032
1959				18,907	49,213	68,120	21,792	50,238	72,030
1960			.	19,581	65,042	84,623	21,804	62,866	84,670
1961			. !	19,899	79,397	99,296	25,410	77,130	102,540
1962			.	19,165	92,259	111,424	23,253	90,330	113,583
1963				18,066	107,311	125,377	22,358	106,973	129,331
1964			.	18,916	128,962	147,878	22,147	128,494	150,641
1965			.	20,291	153,037	173,328	24,491	154,442	178,933
1966				19,547	167,715	187,262	25,541	169,335	194,876

Over the period covered by this table departures exceeded arrivals substantially. The reason lies broadly in the difference between the period of intended stay, as stated on the arrival of the visitor, and the period actually spent in Australia, as stated on his departure, resulting in a different classification on arrival from that on departure.

The following table shows corresponding figures in respect of the short-term movement of Australian residents.

OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT AUSTRALIAN RESIDENTS, 1957 TO 1966

	<b>V</b>				Departing			Returning	
	Yea	r		By sea	By air	Total	By sea	By air	Total
1957			j	28,189	25,249	53,438	29,897	26,120	56,017
1958			1	28,933	29,955	58,888	28,165	30,900	59,065
1959			.	33,715	30,916	64,631	28,070	33,684	61,754
1960				37,160	40,601	77,761	31,945	43,222	75,167
1961			. 1	41,870	48,010	89,880	34,818	51,390	86,208
1962			.	39,230	56,642	95,872	34,531	61,384	95,915
1963				41,053	71,374	112,427	34,205	76,977	111,182
1964			. !	43,785	89,463	133,248	36,430	94,924	131,354
1965				51,138	110,554	161,692	43,382	117,162	160,544
1966				54,348	128,813	183,161	46,024	135,746	181,770

Information is also available as to the country of embarkation on the ship or aircraft which brought visitors to Australia and the country of disembarkation from the ship or aircraft which took residents abroad. The shipping and flight routes available to intending passengers must be taken into account when considering these figures. They do not necessarily indicate the country of origin of visitors, nor the country of destination of residents going abroad.

# OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT COUNTRY OF EMBARKATION OF VISITORS ARRIVING AND COUNTRY OF DISEMBARKATION OF RESIDENTS DEPARTING AUSTRALIA 1966

Country of embarkation	Vis	itors arrivi	ng	Resi	dents depai	rting
or disembarkation	By sea	By air	Total	By sea	By air	Total
Africa	348	2,266	2,614	416	943	1,359
America— United States of America Other	1,797	12,160	13,957	1,680	12,263	13,943
	714	817	1,531	1,488	1,115	2,603
Asia— Hong Kong Malaysia and Singapore . Other	771	8,976	9,747	1,304	7,587	8,891
	755	14,164	14,919	3,847	11,648	15,495
	1,286	12,091	13,377	7,797	12,779	20,576
Europe— United Kingdom and Ireland Other	4,847	7,295	12,142	13,414	4,478	17,892
	2,245	4,970	7,215	14,145	8,865	23,010
Oceania— New Zealand Papua and New Guinea . Other	4,924	76,626	81,550	7,464	41,858	49,322
	740	18,915	19,655	1,094	14,526	15,620
	1,120	9,435	10,555	1,699	12,751	14,450
Total	19,547	167,715	187,262	54,348	128,813	183,161

For visitors arriving information is also available of their country of last stay (i.e. in which they last stayed for one year or more). No information is available regarding the country in which Australian residents going abroad in the short-term movement intend to spend most time.

# OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT COUNTRY OF RESIDENCE(a), AUSTRALIA, 1966

Country of residence(a)		By sea	By air	Total
Africa—				
Commonwealth countries .		206	1,343	1,549
South Africa		196	1,167	1,363
Other		31	412	443
America—				
Canada		913	3,042	3,955
Other Commonwealth countries		16	156	172
United States of America .		2,207	25,032	27,239
Other		37	804	841
Asia				
Ceylon, India and Pakistan		213	1.786	1,999
Hong Kong		467	2,513	2,980
Malaysia and Singapore .	·	591	5.312	5,903
Other Commonwealth countries		24	85	109
Japan		196	3,727	3,923
Other	Ċ	145	5.180	5,325

<sup>(</sup>n) Country in which the visitor was last resident for a period of one year or more.

# OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT COUNTRY OF RESIDENCE(a), AUSTRALIA, 1966—continued

Co	ount	ry of	reside	nce(a)			By sca	By air	Total
Europe—									
United Ki	ingdo	om ar	nd Ire	land			4,685	18,439	23,124
Other Cor	nmo	nwea	lth co	untries	3.		46	139	185
France							114	1,415	1,529
Germany							380	2,209	2,589
Greece							77	319	396
Italy							185	1,098	1,283
Netherlan	ds						997	1,826	2,823
Switzerlan	ıd						83	912	995
Other	•			•	٠	•	292	2,781	3,073
Oceania—									
Fiji .							203	2,130	2,333
New Zeals	and						5,342	63,446	68,788
Papua and	i Ne	w Gu	inea				944	18,013	18,957
Other Cor	nmo	nwea	ith co	untries	١.		667	1,305	1,972
Other	•	•		•	•		290	3,124	3,414
Total					•	•	19,547	167,715	187,262

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

The intended length of stay by visitors to Australia and by residents going abroad is related to the purpose of the journey in the following tables.

# OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT LENGTH OF STAY, BY STATED PURPOSE OF JOURNEY, 1966

Intended length of stay	Business	Holiday	Education	Other and not stated	In transit(a)	Total
Under I week	7,159	8,447	234	1,366	21,362	38,568
1 week and under 2 weeks .	8,470	14,797	504	1,423	2,226	27,420
2 weeks and under 3 weeks .	6,744	17,670	444	1,441	921	27,220
3 weeks and under 1 month.	2,323	13,189	224	661	327	16,724
1 month and under 2 months	4,450	16,215	312	1,755	529	23,261
2 months and under 3 months	1,768	8,947	327	1,075		12,117
3 months and under 4 months	1,356	8,186	1,218	956		11,716
4 months and under 6 months	575	3,372	324	331	ł I	4,602
6 months and under 12 months	1,161	6,245	4,038	1,144		12,588
Indefinite, not stated, etc	725	3,019	552	1,622	7,128	13,046
Total	34,731	100,087	8,177	11,774	32,493	187,262

<sup>(</sup>a) Includes those visitors who stated 'in transit' as the purpose of their journey to Australia and whose intended length of stay did not exceed one month, but excludes passengers passing through Australia without change of ship or aircraft.

# AUSTRALIAN RESIDENTS DEPARTING—SHORT-TERM MOVEMENT LENGTH OF STAY, BY STATED PURPOSE OF JOURNEY, 1966

Intended length of stay		Business	Holiday	Education	Other and not stated	Total
Under 1 week		4,445	1,928	107	499	6,979
1 week and under 2 weeks .	. [	5,540	7,744	322	606	14,212
2 weeks and under 3 weeks		4,175	17,791	386	714	23,066
3 weeks and under 1 month		2,357	14,611	298	447	17,713
1 month and under 2 months	.	6,364	20,561	562	1,184	28,671
2 months and under 3 months	.	4,403	12,684	308	827	18,222
3 months and under 4 months	.	3,004	9,176	312	887	13,379
4 months and under 6 months	.	1,350	8,146	149	465	10,110
6 months and under 12 months	.	2,499	22,875	574	2,587	28,535
Indefinite, not stated, etc	$\cdot \mid$	2,065	8,379	266	11,564	22,274
Total	.	36,202	123,895	3,284	19,780	183,161

The variation in the length of stay of visitors from different countries is indicated in the next table.

#### OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT COUNTRY OF RESIDENCE(a) AND INTENDED LENGTH OF STAY AUSTRALIA, 1966(b)

					Intende	d length	of stay				
Country of residence (a)	Under 1 week	1 and under 2 weeks	2 and under 3 weeks	3 weeks and under 1 month	1 and under 2 months	2 and under 3 months		under 6 under ni	Indefi- nite, not stated, etc.	Total (b)	
Africa	181	268	249	122	379	345	261	173	233	109	2,320
U.S.A Other	5,052 516	6,029 647	4,337 576	1,683 325	3,471 786	1,426 478	857 265	412 190	1,062 299	602 266	24,931 4,348
Asia— Hong Kong . Malaysia and	227	256	237	121	302	169	199	64	409	193	2,177
Singapore Other	273 1,120	467 1,669	492 1,483	251 392	703 1,472	391 746	346 627	186 227	1,299 626	318 273	4,726 8,635
Burope— United Kingdom											
and Ireland . Other	1,331 1,154	1,962 1,263	2,340 1,247	1,371 359	3,454 1,185	2,105 693	1,990 1,096	1,024 519	2,034 1,793	852 492	18,463 9,801
Oceania— New Zealand Papua and New	5,551	10,874	13,810	10,843	6,663	2,339	1,667	698	2,138	1,979	56,562
Guinea Other	1,403 398	1,209 550	972 556	617 313	3,007 1,310	2,548 877	3,587 821	876 233	2,201 494	492 342	16,912 5,894
Total	17,206	25,194	26,299	16,397	22,732	12,117	11,716	4,602	12,588	5,918	154,769

<sup>(</sup>a) The country in which the visitor was last resident for a period of one year or more. (b) Excludes 32,493 passengers who stated 'in transit' as the purpose of their journey to Australia and whose intended length of stay did not exceed one month.

The seasonal pattern of overseas short-term travel to and from Australia is shown in the next table which provides monthly figures or arrivals and departures during 1966.

# OVERSEAS ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT MONTH OF ARRIVAL OR DEPARTURE, AUSTRALIA, 1966

		_	Visi	tors		Residents						
Month	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 .	1,239	13,982	15,221	2,457	18,563	21.020	4,240	9,956	14.196	2,955	17,965	20.920
February .	2,114				13,554	15,772	4,328	7,507	11,835	3,512		13,751
March .	1,795	13,863	15,658	2,613	14,659	17,272	5,807	9,796	15,603	2,528	9,331	11,859
April	1,419	12,975		2,670		16,757	6,740	11,708	18,448	3,294		12,176
May	1,974			2,239	14,626	16,865	5,774	13,493	19,267	3,343		13,554
June	723	10,229		1,964	10,741	12,705	5,723	9,829	15,552	2,810		13,478
July .	867	11,777	12,644	989	11,242	12,231	1,970	9,012	10,982		9,723	11,844
August .	1,270			2,359	14,029	16,388	4,138	11,125	15,263		11,377	14.954
September .	816		14,388	1,418	14,259	15,677	2,253	9,114	11,367	2,865		16,991
October .	1,840		17,861	1,879	14,400	16,279	4,978	9,465	14,443	7,133	12,356	19,489
November .	2,307	13,841	16,148	2,434	15,900	18,334	4,060	8,476	12,536			16,893
December .	3,183	18,783	21,966	2,301	13,275	15,576	4,337	19,332	23,669	5,898	9,963	15,861
Totał .	19,547	167,715	187,262	25,541	169,335	194,876	54,348	128,813	183,161	46,024	135,746	181,770

The sex, marital status and age of travellers in the short-term movement to and from Australia are shown in the next table.

# OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING SHORT-TERM MOVEMENT: MARITAL STATUS AND AGE, AUSTRALIA, 1966

		Vi	sitors arriv	ing	Residents departing			
Characteristics		Males	Females	Persons	Males	Females	Persons	
Marital status-	·							
Never married .		37,214	27,750	64,964	37,353	29,115	66,468	
Married		68,968	40,326	109,294	63,762	40,287	104,049	
Widowed or divorced	•	4,049	8,955	13,004	3,418	9,226	12,644	
Total		110,231	77,031	187,262	104,533	78,628	183,161	
Age (years)								
9 and under		5,989	5,748	11,737	5,030	4,770	9,800	
10 to 19		7,870	8,049	15,919	7,420	8,010	15,430	
20 to 49		66,246	35,517	101,763	64,397	38,397	102,794	
50 and over		30,126	27,717	57,843	27,686	27,451	55,137	
Total		110,231	77,031	187,262	104,533	78,628	183,161	

#### Direct transit travellers

As stated on page 486, 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 all 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. In 1966, 34,366 persons were reported as direct transit passengers on ships calling at Australian ports, accounting for approximately 218,000 passenger-days between arrival at first port and departure from last port in Australia.

OVERSEAS SHIPPING PASSENGERS IN DIRECT TRANSIT(a)
AUSTRALIA, 1966

Approxim from first to l port		Passengers	Passenger-days		
	 1	per cent	per cent		
2 or less	 	13.9	3.0 9.1		
3-4	 	17.4			
5-6	 !	16.3	14.6		
7-8	 	23.6	27.8		
9-10	 	22.9	32.9		
11-21	 	5.5	10.6		
22 and over	 	0.4	2.0		
Total	 ]	100.0	100.0		

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

#### Interstate and other internal movement

Information about the volume and pattern of travel within Australia is limited. Figures are available on passengers transported in Australia by sea, air and rail, but the last two do not distinguish different types of travellers, nor provide detail of their origins and destinations. The following tables show particulars of passengers carried interstate by sea and on internal air services. Statistics of rail passengers are shown on pages 449-51.

INTERSTATE PASSENGERS BY SEA, BY STATE OR TERRITORY OF EMBARKATION AND OF DISEMBARKATION, 1966(a)

State or Territory	State or Territory of disembarkation									
of embarkation	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Total		
New South Wales Victoria Queensland South Australia Western Australia Tasmania Northern Territory	1,287 5,161 467 694 1,899 11,217	4,377 2,038 370 177 1,293 45,045 43	1,112 926 35 13 193 36 6	1,773 411 88 34 227 52	3,349 1,943 203 683 106 16 741	11,703 46,541 35 1	34  .999	23,63: 57,020 1,19: 1,60: 4,71: 56,36: 79:		
Total	20,729	53,343	2,321	2,585	7,041	58,280	1,033	145,33		

<sup>(</sup>a) Excludes crew and persons carried as supernumerary crew.

The table above includes passengers on interstate journeys beginning and ending in the same State or Territory. It excludes, however, passengers on cruises from Australia to the southwestern Pacific area and back except when they disembarked in a State or Territory other than the State or Territory of embarkation. It is estimated that about 18,770 travellers embarked on such cruises in 1966. All these, and about one in four of the interstate passengers included above, were carried on overseas vessels. Most of the passengers carried interstate by Australian-licensed vessels travelled between the mainland and Tasmania.

The movement figures in the following table represent total embarkations on, and disembarkations from, each airline flight at the airports specified. Movements to and from Papua and New Guinea and Norfolk Island are included.

CIVIL AVIATION: INTERNAL PASSENGER MOVEMENT AT PRINCIPAL AUSTRALIAN AIRPORTS, 1961-62 TO 1965-66

Airpo	rt		1961–62	1962–63	1963–64	1964–65	1965–66	
Sydney			1,493,820	1,566,778	1,802,618	2,086,571	2,244,218	
Melbourne .			1,133,534	1,210,093	1,393,227	1,587,833	1,748,478	
Brisbane		.	506,642	548,044	635,468	754,296	814,097	
Adelaide		.	400.372	468,576	526,764	618,101	738,402	
Canberra		.	199,507	221,810	263,331	318,882	331,203	
Perth .		.	129,181	158,606	175,351	209,972	257,406	
Hobart .		.	120,274	128,412	143,066	158,287	167,077	
Launceston .		.	126,296	131,021	142,490	152,175	155,057	
Townsville		. 1	87,038	95,227	111,207	137,079	152,384	
Coolangatta .			54.381	54,387	61,949	76,720	88,456	
Cairns .		. [	55,829	62,720	69,914	83,503	83,996	
Mackay	,		38,502	38,270	45,310	61,071	72,411	
Rockhampton .		. !	37,981	41,623	46,524	55,809	63,250	
Darwin .		. !	25,803	29,721	34,159	38,804	49,131	
Devonport		.	34,329	35,971	39,377	45,401	48,089	
Wagga .			39,868	36,836	41,135	43,404	46,179	
Cooma .			39,156	40,733	46,864	50,757	44,098	
Kingscote			29,008	30,792	32,821	40,591	42,197	
Dubbo .		. !	37,238	36,423	40,791	34,904	41,903	
Port Lincoln		. !	30,342	32,057	33,859	38,858	41,024	
Wynyard			27,907	29,715	32,020	34,966	40,617	
Tamworth .			30,522	31,592	36,869	40,253	37,589	

#### 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 Commission comprises a Chairman appointed by the Commonwealth Government; a representative of each of two Commonwealth Departments; two appointees to represent private industry, selected by the Commonwealth Government from a panel of names put forward by the Australian National Travel Association; and two non-voting representatives nominated by the State Governments.

For 1967-68 the Commonwealth Government provided \$1,550,000 to the Commission, to be spent on advertising campaigns and in associated promotional activities in overseas countries, particularly in New Zealand, North America, the United Kingdom, and Western Europe. 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. It has its Head Office in Melbourne and branch offices in London, New York, San Francisco, Auckland, 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.

Following the creation of the Australian Tourist Commission, it now concentrates on the encouragement of the growth and development of travel and tourism within Australia, particularly by improving the standard and variety of facilities provided by private enterprise for the use of overseas visitors. It acts as a co-ordinating body for its members, provides a clearing house for information, and conducts surveys into aspects of tourist activity. The Association is governed by a Board representative of industries and services such as transport, accommodation, travel agents, Chambers of Commerce, the Australian Automobile Association, and retail traders. An Executive Committee guides the Association's activities between Board meetings.

