

CHAPTER XIV.

TRANSPORT AND COMMUNICATION.

NOTE.—Most of the statistics in this chapter cover the year 1958–59. More detailed figures for this and earlier years will be found in the annual bulletin, *Transport and Communication*.

PART I.—TRANSPORT.

A. SHIPPING.

§ 1. Control of Shipping.

1. **War-time Control.**—An account of the action taken by the Commonwealth Government to control and regulate shipping throughout Australian waters during the 1939–45 War was given in Official Year Book No. 36, pages 121–30.

2. **Post-war Control and Developments.**—A brief account of the post-war control of shipping and the establishment of the Australian Stevedoring Industry Board and the Australian Shipping Board will be found in Official Year Book No. 39, pages 147–8.

The Maritime Industry Commission, established during the 1939–45 War under National Security legislation, was abolished on 19th December, 1952. Permanent legislation to cover many of the matters formerly dealt with by the Commission was enacted in 1952 in the form of amendments to the Navigation Act 1912–1950 (*see p. 528*).

As at 30th June, 1959, the Australian National Line operated 45 vessels totalling 183,420 gross tons, comprising eight "River" Class vessels of an average of 5,029 gross tons, five "B" Class vessels of an average of 3,923 gross tons, six "D" Class vessels of an average of 2,377 gross tons, two "W" Class vessels of an average of 2,407 gross tons, five "E" Class vessels of an average of 584 gross tons, two "Y" Class vessels of an average of 3,460 gross tons, eight "Lake" Class vessels of an average of 7,341 gross tons, three "I" Class vessels of an average of 4,890 gross tons, two "T" Class vessels of an average of 7,556 gross tons, two "N" Class vessels of an average of 1,467 gross tons, and two "ESK" Class vessels of an average of 1,607 gross tons, all of which were built in Australian yards, with the exception of four vessels, totalling 18,045 gross tons, which were built overseas. Of these, 19 are engaged in the heavy trades (two colliers), two are engaged in the shipment of pyrites and 19 carry general cargo. Owing to lack of interstate trade, four "River" Class vessels and one "D" Class vessel were laid up, pending sale.

In the international sphere, a convention establishing an Inter-governmental Maritime Consultative Organization within the framework of the United Nations was ratified by the last of the 21 ship-owning nations on 17th March, 1958. The major objectives of this organization are to provide machinery for co-operation among governments with shipping engaged in international trade, and to encourage the removal by governments of discriminatory action and unnecessary restrictions regarding such shipping.

§ 2. System of Record.

In the system of recording statistics of oversea 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* § 4, p. 516).

On arrival at, or departure from, a port in Australia, whether from or for an oversea 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 arrangement has been in operation since 1st July, 1924.

The volume of the vessel, as distinct from the cargo it carries, is recorded in net tons, i.e., the gross tonnage or internal cubic capacity less certain deductions on account of crew spaces, engine room, water ballast and other spaces not used for passengers or cargo. It is thus a rough measure of the capacity of the vessel for cargo or passengers. The unit of measurement is the *ton register* of 100 cubic feet.

The majority of cargo is recorded in terms of the ton weight of 2,240 lb. However, some additional cargo, mainly bulky commodities, is shipped and recorded on the basis of 40 cubic feet of space used representing 1 ton measurement.

From 1st July, 1914, trade and shipping statistics of Australia have been recorded for financial years ending 30th June.

§ 3. Oversea Shipping.

1. **Total Movement.**—The following table shows the number of entrances and clearances combined of oversea vessels at Australian ports, and the aggregate net tonnage, during each of the years 1954–55 to 1958–59:—

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA.

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of Vessels	4,505	4,882	5,290	5,254	5,463
Net Tonnage '000 tons	20,003	22,324	23,659	24,515	26,019

The average net tonnage per vessel rose from 2,919 in 1921–22 to 4,763 in 1958–59.

Particulars of the total oversea movement of shipping for each year from 1822 to 1920–21 were published in Official Year Book No. 15, page 507, and for each year from 1921–22 to 1950–51 in Official Year Book No. 40, page 97.

2. **Total Oversea Shipping, States.**—The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to oversea countries, and the aggregate net tonnage, during the year 1958–59.

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT, 1958-59.

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No. 878	424	412	202	713	51	26	2,706	
	'000 net tons 3,995	2,601	1,413	833	3,858	180	67	12,947	
Clearances	No. 782	412	587	211	712	26	27	2,757	
	'000 net tons 3,652	2,550	2,234	822	3,632	122	60	13,072	

3. 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.

OVERSEA SHIPPING: COUNTRIES FROM WHICH ENTERED OR FOR WHICH CLEARED, AUSTRALIA.

Country from which Entered or for which Cleared.	With Cargo or in Ballast.	Net Tonnage Entered ('000).			Net Tonnage Cleared ('000).		
		1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
United Kingdom	Cargo	1,568	1,654	1,656	2,120	1,954	2,079
	Ballast	17	35	51	10	4	39
New Zealand	Cargo	602	762	686	1,019	1,151	1,061
	Ballast	381	483	497	54	55	79
Other Commonwealth Countries	Cargo	2,507	2,341	2,392	1,796	1,772	1,943
	Ballast	421	157	369	791	828	835
Arabian States	Cargo	1,352	1,730	1,684	85	83	27
	Ballast	13	23	20	1,718	2,148	2,269
Indonesia	Cargo	918	1,043	1,091	183	140	112
	Ballast	203	140	120	794	792	896
Iran	Cargo	976	991	1,190	58	21	23
	Ballast	16	34	7	383	218	241
Japan	Cargo	376	494	555	716	847	893
	Ballast	453	441	390	25	6	25
United States of America	Cargo	558	627	674	473	577	590
	Ballast	3	14	4	28	36	17
Other Foreign Countries	Cargo	1,255	1,328	1,421	1,421	1,328	1,773
	Ballast	196	87	140	171	171	170
Total	Cargo	10,112	10,970	11,349	7,871	7,873	8,501
	Ballast	1,703	1,414	1,598	3,974	4,258	4,571
Total, Cargo and Ballast ..	..	11,815	12,384	12,947	11,845	12,131	13,072

4. Country of Registration of Oversea Shipping.—Vessels registered at ports in Commonwealth countries accounted for 51.3 per cent. of the net tonnage of shipping entering Australian ports in 1958-59. This proportion has varied considerably since the end of the 1939-45 War. By 1946-47, the proportion had increased from the low level of 43.4 per cent. recorded in 1943-44 to 76.2 per cent., but since then has steadily declined.

Particulars of oversea shipping which entered Australian ports during each of the years 1956-57 to 1958-59 are given in the following table according to country of registration of vessels.

**OVERSEA SHIPPING: COUNTRY OF REGISTRATION OF VESSELS
ENTERED, AUSTRALIA.
(’000 Net Tons.)**

Vessels Registered at Ports in—	1956-57.	1957-58.	1958-59.	Vessels Registered at Ports in—	1956-57.	1957-58.	1958-59.
<i>Commonwealth Countries—</i>				<i>Foreign Countries—</i>			
Australia ..	291	360	382	<i>continued—</i>			
New Zealand ..	462	503	425	Norway ..	1,397	1,459	1,626
United Kingdom ..	5,680	5,242	5,393	Panama ..	507	558	404
Other ..	377	467	438	Sweden ..	332	384	510
				U.S.A. ..	312	385	355
				Other ..	373	421	680
In Cargo ..	5,747	5,738	5,767				
In Ballast ..	1,053	834	871	In Cargo ..	4,365	5,232	5,582
				In Ballast ..	650	580	727
<i>Total Commonwealth Countries</i>	<i>6,800</i>	<i>6,572</i>	<i>6,638</i>	<i>Total Foreign Countries</i>	<i>5,015</i>	<i>5,812</i>	<i>6,309</i>
Proportion of total ..	57.6	53.1	51.3	Proportion of total ..	42.4	46.9	48.7
<i>Foreign Countries—</i>				<i>All Countries—</i>			
Denmark ..	240	325	282	In Cargo ..	10,112	10,970	11,349
France(a) ..	206	314	327	Proportion of total %	85.6	88.6	87.7
Germany(b) ..	94	140	120	In Ballast ..	1,703	1,414	1,598
Italy ..	464	553	505	Proportion of total %	14.4	11.4	12.3
Japan ..	420	661	752				
Netherlands ..	670	612	748	Grand Total ..	11,815	12,384	12,947

(a) Includes New Caledonia.

(b) Federal Republic.

The Australian tonnage which entered Australian ports from overseas during the year 1958-59 represented 3.0 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Islands trade.

The proportion of overseas shipping tonnage which entered Australia in cargo fell from 88.9 per cent. in 1938-39 to 79.4 per cent. in 1947-48. In 1958-59 it was 87.7 per cent. However, the proportion of shipping which cleared in cargo declined from 87.6 per cent. in 1938-39 to 65.0 per cent. in 1958-59, the trend over the period being generally downward.

§ 4. Interstate Shipping.

1. **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. (However, these vessels, except under special circumstances, do not engage in interstate carrying. Numerous overseas vessels obtain single voyage permits or exemptions under the Navigation Act. Such vessels include overseas tankers carrying petroleum products interstate, and, since the withdrawal of interstate passenger liners, other overseas vessels, under permit, carrying passengers and frozen cargo on the interstate run). 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 communication with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics for 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 a mail steamer 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 and retrace its inward track.

ITINERARY OF AN OVERSEA VESSEL ON THE AUSTRALIAN COAST.

Particulars.	Recorded as—		
	For the State and for Australia.	For the States.	
Inward Voyage—			
Enters Fremantle from United Kingdom	Oversea direct	Interstate direct	
Clears Fremantle for Adelaide			
Enters Adelaide from United Kingdom via Fremantle		Interstate direct	Oversea via States
Clears Adelaide for Melbourne			
Enters Melbourne from United Kingdom via Adelaide		Interstate direct	Oversea via States
Clears Melbourne for Sydney			
Enters Sydney from United Kingdom via Melbourne	Oversea direct	Oversea via States	
Outward Voyage—			
Clears Sydney for United Kingdom via Melbourne	Oversea direct	Interstate direct	
Enters Melbourne from Sydney			
Clears Melbourne for United Kingdom via Adelaide		Interstate direct	Oversea via States
Enters Adelaide from Melbourne			
Clears Adelaide for United Kingdom via Fremantle		Interstate direct	Oversea via States
Enters Fremantle from Adelaide			
Clears Fremantle for United Kingdom ..			

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 "Oversea direct" gives the oversea shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as "Oversea direct" plus those recorded as "Oversea via States" gives the total *oversea shipping* for that State; and (c) the aggregate for all ships recorded as "Oversea via States" may also be used, together with those recorded as "Interstate direct", to furnish figures showing the total *interstate movement* of shipping.

However, it should be remembered that all oversea vessels do not follow the same itinerary as the vessel in the table above.

2. *Interstate Movement.*—(i) *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 oversea vessels on interstate direct voyages) during each of the years 1956-57 to 1958-59.

INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES OF VESSELS INTERSTATE DIRECT.

State or Territory.	Number.			Net Tons ('000).		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
New South Wales	1,711	1,861	1,865	4,853	5,119	5,172
Victoria	1,594	1,673	1,729	4,128	4,231	4,639
Queensland	688	690	701	1,806	1,766	1,853
South Australia	1,088	1,079	1,066	3,876	3,767	3,575
Western Australia	526	548	525	2,590	2,604	2,509
Tasmania	1,025	1,104	1,068	1,203	1,267	1,115
Northern Territory	45	47	54	93	86	82
Australia	6,677	7,002	7,008	18,549	18,840	18,945

(ii) *Oversea via States.* To ascertain the aggregate movement of shipping between the States, including the total interstate movement of oversea vessels, the figures in the following table, which show the number of entrances and clearances of vessels to and from oversea countries via other Australian States and the aggregate tonnage, must be added to those in the preceding table.

INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS OVERSEA VIA OTHER AUSTRALIAN STATES, 1958-59.

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No.	669	746	371	471	39	138	4	2,438
	'000 net tons	3,367	3,740	1,661	2,337	206	671	5	11,987
Clearances	No.	660	684	266	439	39	184	6	2,278
	'000 net tons	3,115	3,507	1,142	2,144	196	842	15	10,961

Oversea vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyages.

(iii) *Total, Australia.* The following table shows the total interstate movement of shipping, including oversea vessels travelling oversea via States and interstate direct, for each of the years 1954-55 to 1958-59.

INTERSTATE MOVEMENT OF SHIPPING: TOTAL AUSTRALIA.

Particulars.		1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Entrances	No.	8,300	8,362	8,505	9,093	9,446
	'000 net tons	28,515	28,868	27,962	29,464	30,932
Clearances	No.	8,151	8,460	8,480	9,093	9,425
	'000 net tons	28,292	29,095	27,763	29,553	30,842

(iv) *Total, States.* The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels from and for other States (including the interstate movement of oversea vessels) during the year 1958-59, together with the aggregate net tonnage.

INTERSTATE MOVEMENT OF SHIPPING: TOTAL, 1958-59.

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No.	2,534	2,475	1,072	1,537	564	1,206	58	9,446
	'000 net tons	8,539	8,379	3,514	5,912	2,715	1,786	87	30,932
Clearances	No.	2,622	2,487	933	1,529	570	1,229	55	9,425
	'000 net tons	8,848	8,413	2,739	5,927	2,974	1,858	83	30,842

3. *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 during the year 1958-59, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE: ENTRANCES, 1958-59.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Ships entered ..	1,386	1,227	429	795	185	946	44	5,012
Net tons .. '000	3,219	2,008	691	2,207	607	742	57	9,531

4. Interstate and Coastal Shipping Services.—The following table shows particulars, so far as they are available, of all vessels engaged in the regular interstate or coastal services at the end of each of the years 1955 to 1959:—

INTERSTATE AND COASTAL SHIPPING SERVICES: AUSTRALIA.

Particulars.	1955.	1956.	1957.	1958.	1959.
Number of companies operating	41	41	41	48	49
Number of vessels	185	174	178	196	182
Tonnage { Gross	522,326	511,534	544,842	536,666	512,703
Net	283,771	275,337	292,110	282,651	272,488
Horse-power (Nominal)	50,455	48,667	51,498	56,265	53,432
Number of passengers for which licensed(a) { 1st class	1,966	1,777	1,787	1,799	1,525
2nd class and steerage	648	526	523	428	350
Complement of Crew { Masters and officers	709	682	702	713	689
Engineers	795	776	805	770	740
Other	4,853	4,563	4,552	4,375	3,980

(a) Excludes purely day-passenger accommodation.

NOTE.—This table excludes particulars of a small number of chartered vessels for which returns could not be obtained.

§ 5. Shipping at Principal Ports.

1. Total Shipping, Australia.—The following table shows the total volume of shipping—oversea, interstate and coastwise—which entered the principal ports of Australia during the years 1957-58 and 1958-59. Warships are excluded from the table.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA.

Port of Entry.	1957-58.		1958-59.		Port of Entry.	1957-58.		1958-59.	
	Num-ber.	Net Tons.	Num-ber.	Net Tons.		Num-ber.	Net Tons.	Num-ber.	Net Tons.
		'000.		'000.			'000.		'000.
<i>New South Wales—</i>					<i>South Australia—</i>				
Sydney(a) ..	4,433	11,318	4,593	12,129	Adelaide ..	2,671	5,273	2,751	5,448
Newcastle ..	2,441	4,336	2,425	4,530	Port Lincoln ..	432	401	439	452
Port Kembla ..	683	2,068	736	2,260	Port Pirie ..	430	874	420	915
					Rapid Bay ..	152	234	143	224
					Wallaroo ..	105	171	116	181
					Whyalla ..	447	1,429	427	1,382
<i>Victoria—</i>					<i>Western Australia—</i>				
Melbourne ..	2,583	9,148	2,686	9,599	Fremantle(b) ..	1,121	5,962	1,182	6,069
Geelong ..	454	1,923	486	2,389	Albany ..	124	487	118	484
					Bunbury ..	85	244	111	347
					Carnarvon ..	93	145	92	141
					Geraldton ..	118	320	106	295
					Yampi ..	152	284	130	319
<i>Queensland—</i>					<i>Tasmania—</i>				
Brisbane ..	1,217	3,755	1,358	4,289	Hobart ..	471	1,037	479	1,116
Bowen ..	59	186	63	215	Burnie ..	273	422	298	504
Cairns ..	260	563	314	631	Devonport ..	257	235	257	230
Gladstone ..	95	318	125	351	Launceston ..	523	556	519	608
Mackay ..	87	269	113	299					
Rockhampton ..	101	221	129	333	<i>Northern Territory—</i>				
Townsville ..	347	1,029	339	1,019	Darwin ..	77	127	84	153

(a) Includes Botany Bay.

(b) Includes Kwinana.

2. Total Shipping—Australia, New Zealand and the United Kingdom.—The following table shows the total shipping tonnage which entered the principal ports of Australia during 1958–59 and of New Zealand and the United Kingdom during 1958.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

(’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.) ..	12,129	Wellington ..	4,214	<i>continued.</i>	
Melbourne (Vic.) ..	9,599	Auckland ..	3,825	Tyne Ports ..	7,679
Fremantle (W.A.) ..	6,069	Lyttleton ..	2,887	Hull ..	5,797
Adelaide (S.A.) ..	5,448	Dunedin ..	1,247	Bristol ..	5,756
Newcastle (N.S.W.) ..	4,530	Napier ..	777	Dover ..	5,270
Brisbane (Qld.) ..	4,289	New Plymouth ..	610	Swansea ..	4,956
Geelong (Vic.) ..	2,389	Bluff ..	538	Middlesbrough ..	4,774
Port Kembla (N.S.W.) ..	2,260			Cardiff ..	3,478
Whyalla (S.A.) ..	1,382	ENGLAND AND WALES—			
Hobart (Tas.) ..	1,116	London ..	39,224	SCOTLAND—	
Townsville (Qld.) ..	1,019	Southampton ..	23,365	Glasgow ..	7,563
Port Pirie (S.A.) ..	915	Liverpool (including Birkenhead) ..	18,635		
Cairns (Qld.) ..	631	Manchester (including Runcorn) ..	7,938	NORTHERN IRELAND—	
Launceston (Tas.) ..	608			Belfast ..	7,251

§ 6. Shipping Cargo.

1. Oversea and Interstate Cargo.—(i) *Australia.* The table hereunder shows the aggregate tonnage of oversea and interstate cargo discharged and shipped at Australian ports for the years 1954–55 to 1958–59. Most of the cargo is recorded in terms of the ton weight of 2,240 lb., the remainder, mainly bulky commodities, being shipped and recorded on the basis of 40 cubic feet of space occupied representing 1 ton measurement.

SHIPPING CARGO MOVEMENT: AUSTRALIA.

(’000 Tons.)

Year.	Oversea Cargo.				Interstate Cargo.			
	Discharged.		Shipped.		Discharged.		Shipped.	
	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.
1954–55 ..	10,992	3,403	6,084	1,420	10,136	1,621	10,212	1,472
1955–56 ..	12,431	3,421	6,666	1,546	11,184	1,572	11,632	1,315
1956–57 ..	12,596	2,752	8,734	1,378	11,862	1,285	11,899	1,290
1957–58 ..	13,719	2,914	7,366	1,489	12,621	1,335	12,614	1,157
1958–59 ..	14,232	2,666	8,646	1,469	12,236	1,288	12,345	1,047

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at the principal ports of Australia during 1958-59.

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1958-59.

('000 Tons.)

Port.	Discharged.				Shipped.			
	Oversea.		Interstate.		Oversea.		Interstate.	
	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.
Sydney	4,492	1,069	657	236	867	345	833	217
Newcastle	258	..	2,132	..	642	..	2,482	..
Port Kembla	304	..	2,454	..	399	..	687	..
Other .. .. .	..	..	..	..	31	9	1	..
<i>Total, New South Wales</i>	<i>5,054</i>	<i>1,069</i>	<i>5,243</i>	<i>236</i>	<i>1,939</i>	<i>354</i>	<i>4,003</i>	<i>217</i>
Melbourne	2,519	923	2,281	342	723	528	436	382
Geelong	2,349	58	449	..	882	..	675	..
Portland	56	..	10	..	14	..	..	..
<i>Total, Victoria</i>	<i>4,924</i>	<i>981</i>	<i>2,740</i>	<i>342</i>	<i>1,619</i>	<i>528</i>	<i>1,111</i>	<i>382</i>
Brisbane	293	188	788	115	644	92	35	37
Cairns	53	1	68	17	242	10	64	7
Gladstone	27	..	53	..	72	3	35	2
Mackay	9	..	52	..	331	..	35	..
Townsville	39	..	115	29	290	3	59	2
Other	2	1	21	11	147	9	382	2
<i>Total, Queensland</i>	<i>423</i>	<i>190</i>	<i>1,097</i>	<i>172</i>	<i>1,726</i>	<i>117</i>	<i>610</i>	<i>50</i>
Port Adelaide	358	258	1,583	114	423	132	185	66
Adrossan .. .. .	..	..	..	..	96	..	63	3
Port Lincoln	40	2	30	1	186	..	18	..
Port Pirie	10	..	210	..	422	..	266	..
Rapid Bay .. .. .	..	..	..	..	..	..	369	..
Whyalla .. .. .	..	..	257	..	9	..	3,176	..
Other	44	2	1	..	360	9	217	..
<i>Total, South Australia</i>	<i>452</i>	<i>262</i>	<i>2,081</i>	<i>115</i>	<i>1,496</i>	<i>141</i>	<i>4,294</i>	<i>69</i>
Fremantle	2,845	129	296	170	1,179	92	1,089	34
Bunbury	74	..	2	..	165	61	21	15
Geraldton	68	..	..	..	207	5	25	..
Yampi .. .. .	..	..	2	..	..	..	571	..
Other	97	2	30	5	182	28	19	6
<i>Total, Western Australia</i>	<i>3,084</i>	<i>131</i>	<i>330</i>	<i>175</i>	<i>1,733</i>	<i>186</i>	<i>1,725</i>	<i>55</i>
Hobart	124	21	408	146	60	133	238	89
Burnie	31	1	57	37	29	..	49	136
Launceston	84	1	149	14	32	2	141	7
Other	5	10	77	48	6	4	171	41
<i>Total, Tasmania</i>	<i>244</i>	<i>33</i>	<i>691</i>	<i>245</i>	<i>127</i>	<i>139</i>	<i>599</i>	<i>273</i>
Darwin, Northern Territory	51	..	54	3	6	4	3	1
<i>Australia</i>	<i>14,232</i>	<i>2,666</i>	<i>12,236</i>	<i>1,288</i>	<i>8,646</i>	<i>1,469</i>	<i>12,345</i>	<i>1,047</i>

2. Oversea Cargo according to Country of Registration of Vessels.—The following table shows the total oversea cargo, discharged and shipped combined, according to the countries in which the vessels were registered, during each of the years 1956-57 to 1958-59:—

OVERSEA CARGO DISCHARGED AND SHIPPED: COUNTRY OF REGISTRATION OF VESSELS, AUSTRALIA.

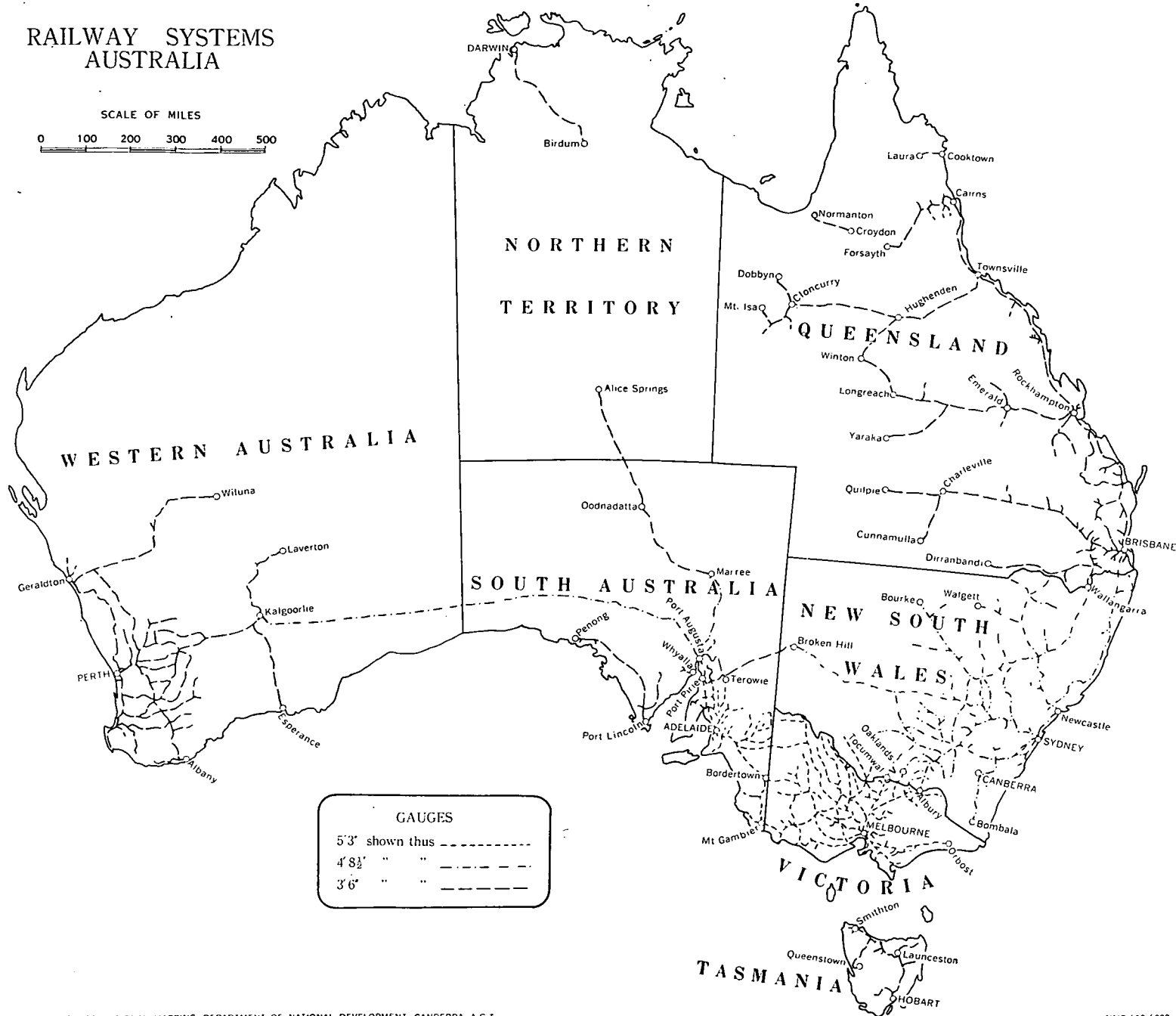
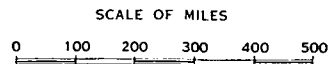
(’000 Tons.)

Vessels Registered at Ports in—	1956-57.		1957-58.		1958-59.	
	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.
Commonwealth Countries—						
Australia	366	101	387	94	363	92
Hong Kong	350	37	241	40	213	40
New Zealand	567	388	593	407	540	327
United Kingdom	9,761	2,352	7,933	2,488	8,758	2,253
Other	421	130	558	163	456	182
<i>Total, Commonwealth Countries</i>	<i>11,465</i>	<i>3,008</i>	<i>9,712</i>	<i>3,192</i>	<i>10,330</i>	<i>2,894</i>
Proportion of Total %	53.8	72.8	46.1	72.5	45.2	70.0
Foreign Countries—						
Denmark	545	34	785	30	708	38
France and New Caledonia	182	40	343	37	580	55
Germany, Federal Republic of	277	106	263	91	323	81
Italy	499	51	509	68	439	59
Japan	839	53	1,251	102	1,587	131
Netherlands	1,069	214	1,025	238	1,136	260
Norway	3,336	194	3,734	217	3,912	207
Panama	1,105	..	1,249	21	865	12
Sweden	844	174	798	164	1,218	186
United States of America	296	209	288	196	244	191
Other	873	47	1,128	47	1,536	21
<i>Total, Foreign Countries</i>	<i>9,865</i>	<i>1,122</i>	<i>11,373</i>	<i>1,211</i>	<i>12,548</i>	<i>1,241</i>
Proportion of Total %	46.2	27.2	53.9	27.5	54.8	30.0
Grand Total	21,330	4,130	21,085	4,403	22,878	4,135

§ 7. Vessels Built and Registered.

1. Vessels Built.—The following table shows the number and tonnage of vessels built and registered in Australia during each of the calendar years 1955 to 1959, so far as such information can be ascertained from the Shipping Registers of the various States. However, the Merchant Shipping Act, under which vessels are registered in Australia, does not make it compulsory to register vessels under 15 tons burden if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

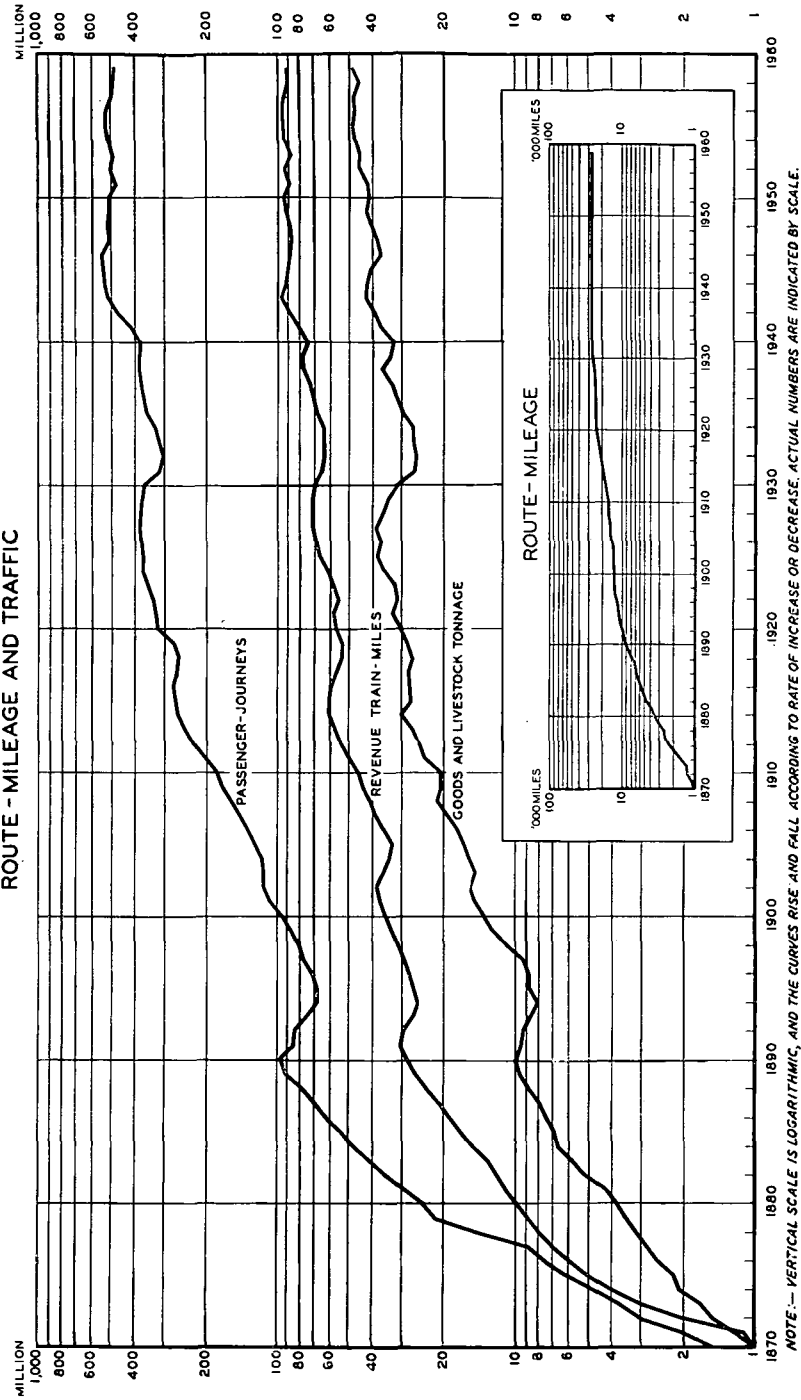
RAILWAY SYSTEMS AUSTRALIA



GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1959

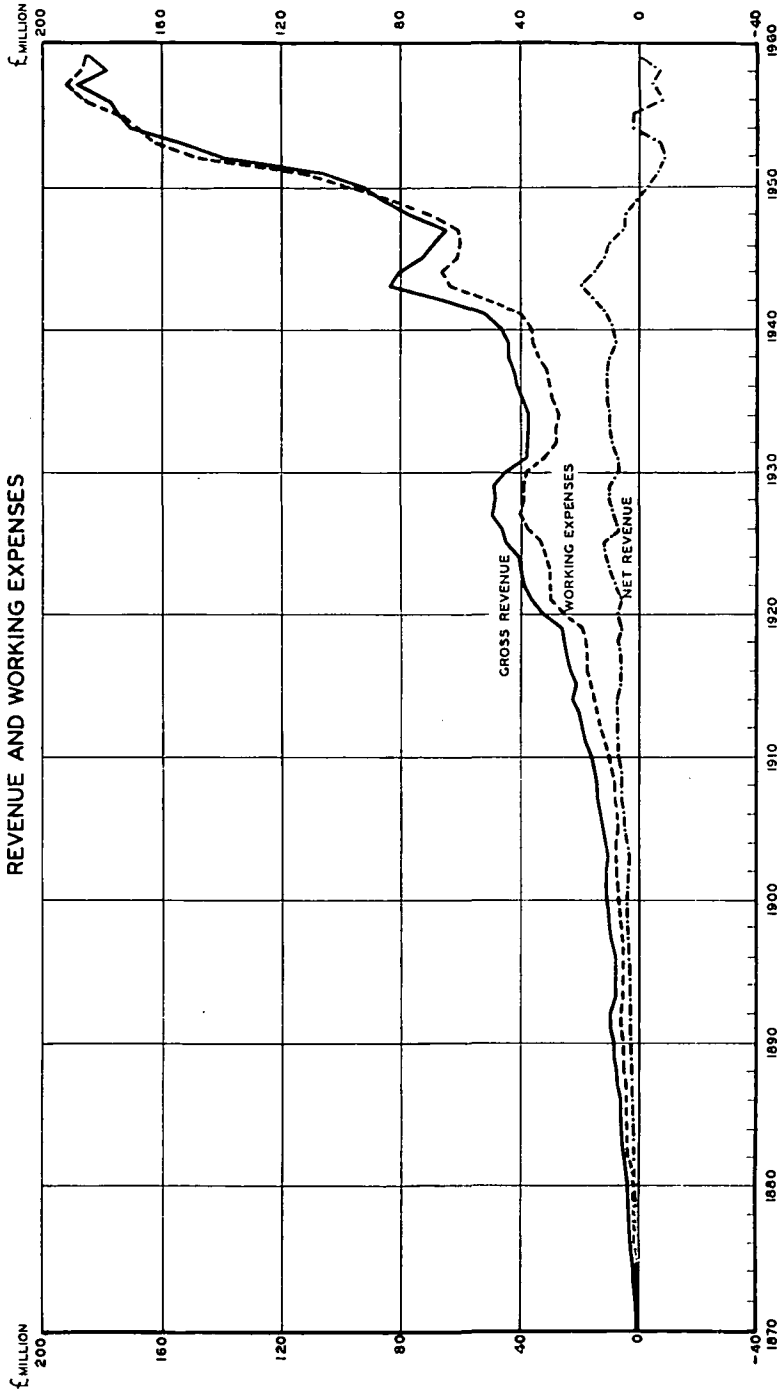
RATIO GRAPH

ROUTE - MILEAGE AND TRAFFIC



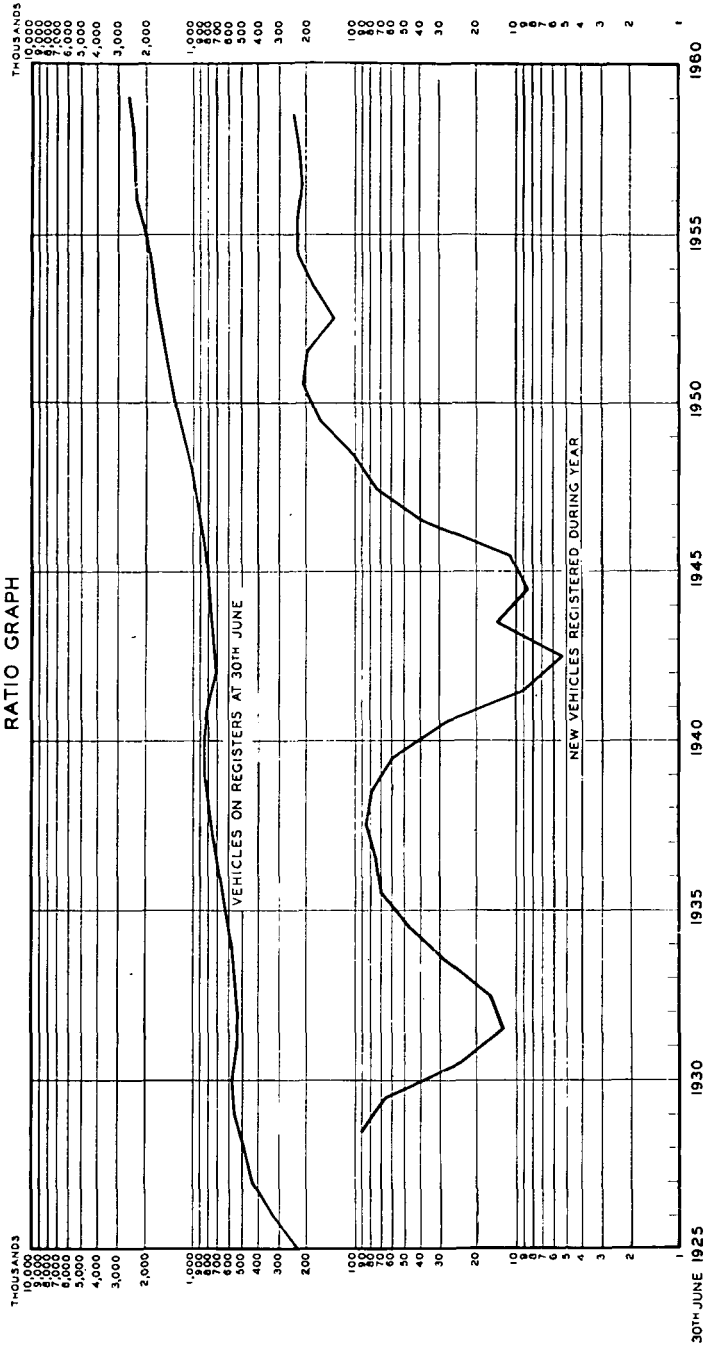
NOTE:— VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE.

GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1959



MOTOR VEHICLE REGISTRATIONS: AUSTRALIA, 1925 TO 1959

(EXCLUDING MOTOR CYCLES)



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

VESSELS BUILT AND REGISTERED IN AUSTRALIA.

Year.	Steam.		Motor.(a)			Sailing.			Total.			
	No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.	Tonnage.	
		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.
1955 ..	2	3,905	1,903	9	185	156	2	9	9	13	4,099	2,068
1956 ..	1	7,583	4,203	22	14,552	8,432	1	3	3	24	22,138	12,638
1957 ..	2	15,166	8,202	25	19,211	11,164	..	..	..	27	34,377	19,366
1958 ..	1	7,274	4,343	21	15,293	9,341	..	24	16	23	22,591	13,700
1959 ..	1	14,039	7,145	23	12,896	7,167	..	..	..	24	26,935	14,312

(a) Includes vessels with auxiliary motors.

2. Vessels Registered.—The following table shows the number and net tonnage of steam, sailing and other vessels on the register of each State and the Northern Territory at 31st December, 1959:—

VESSELS REGISTERED, 31st DECEMBER, 1959.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
			Propelled by Sail only.		Fitted with Auxiliary Power.					
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.
New South Wales ..	291	56,313	27	2,124	103	1,338	10	948	431	60,723
Victoria ..	182	177,678	48	574	61	1,581	27	9,318	318	189,151
Queensland ..	90	36,793	31	843	46	518	4	830	171	38,984
South Australia ..	77	33,650	10	192	53	2,362	30	4,263	170	40,467
Western Australia ..	97	11,885	207	3,097	81	1,885	5	478	390	17,345
Tasmania ..	49	12,554	43	718	100	2,463	3	690	195	16,425
Northern Territory	..	..	16	154	8	151	..	..	24	305
Australia ..	786	328,873	382	7,702	452	10,298	79	16,527	1,699	363,400

3. World Shipping Tonnage.—At 1st July, 1959, the total steamships, motorships and auxiliaries of 100 gross tons and upwards throughout the world amounted to 36,221, with a gross tonnage of 124,935,000. Of these totals, steamships numbered 15,496 for 73,749,000 gross tons, motorships 19,830 for 51,009,000 gross tons and auxiliaries 895 for 177,000 gross tons. Included therein were 4,341 oil tankers of 100 gross tons and upwards, with a gross tonnage of 37,890,000. Australian steamships, motorships and auxiliaries, 351 for 664,000 gross tons, constituted 0.97 per cent. and 0.53 per cent. respectively of the total number and tonnage. There was one Australian oil tanker of 12,624 gross tons registered. This information has been derived from *Lloyd's Register of Shipping*.

§ 8. Miscellaneous.

1. Lighthouses.—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.

2. Distances by Sea.—The distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia are published in the annual bulletin, *Transport and Communication*.

3. Shipping Freight Rates.—The *Quarterly Summary of Australian Statistics* shows a list of the ruling freight rates for general merchandise in respect of both oversea and interstate shipments. At 31st December, 1959, the rate for general merchandise from Australia to the United Kingdom and the Continent was 204s. per ton weight or measurement, while

the rates for wheat and wool (greasy) were respectively £5 per ton weight and 3.39d. less 7 per cent. per lb. These rates, which are expressed in sterling, are subject to an adjustment of 25½ per cent. when freight is prepaid in Australia.

4. **Depth of Water at Main Ports.**—A table showing the depth of water available and tides at principal ports of Australia is published in the annual bulletin, *Transport and Communication*.

5. **Shipping Losses and 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 1955 to 1959 are shown in the table below.

SHIPPING LOSSES AND CASUALTIES: AUSTRALIA.

Year.	Shipping Losses.			Other Shipping Casualties.			Total Shipping Casualties.		
	Vessels.	Net Tons.	Lives Lost.	Vessels.	Net Tons.	Lives Lost.	Vessels.	Net Tons.	Lives Lost.
1955 ..	1	53	..	220	694,847	..	221	694,900	..
1956 ..	2	529	18	237	771,418	..	239	771,947	18
1957 ..	1	249	..	224	709,432	..	225	709,681	..
1958 ..	1	98	5	179	525,528	..	180	525,626	5
1959 ..	2	346	1	200	623,475	9	202	623,821	10

6. **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, the power in this particular respect is further defined as extending to navigation and shipping.

A review of the introduction and development of the Navigation Act 1912–1950 was given in Official Year Book No. 40, pages 110–2. Amendments to the Principal Act were made by the Navigation Acts of 1952, 1953, 1956 and 1958.

Other shipping Acts under the trade and commerce power of the Commonwealth are the Sea-Carriage of Goods Act 1924, the Seamen's Compensation Act 1911–1954, and the Seamen's War Pensions and Allowances Act 1940–1958.

7. **Ports and Harbours.**—A report on "The Turn-round of Ships in Australian Ports" was submitted to the Commonwealth Government by Henry Basten, C.M.G., on 4th January, 1952. The report deals with all factors affecting the turn-round of ships and congestion in Australian ports and the measures that might be taken to effect improvement on both short-term and long-term bases. Further information on ports and harbours will be found in Chapter XIX.—Local Government.

B. GOVERNMENT RAILWAYS.

1. **General.**—The first steam-operated railway in Australia, between Melbourne and Port Melbourne, a distance of 2 miles, was opened on 12th September, 1854. It was owned and operated by the Melbourne and Hobson's Bay Railway Company. In the next 100 years the mileage increased greatly and at 30th June, 1954, 26,624 route-miles (excluding several hundred miles of privately-owned line) were open for traffic. However, the operation of Australia-wide services is greatly hampered by the presence of many break-of-gauge stations, necessitated by the several gauges at present in use. The policy of government ownership and control of railways has been adopted in each State and at 30th June, 1959, 24,079 route-miles were owned by the State Governments and 2,252 route-miles by the Commonwealth Government. In the following tables details of the four lines owned by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line and more detailed statistics for all lines are shown in the annual bulletin, *Transport and Communication*.

In some States, there are comparatively small privately-owned railway systems offering passenger and freight services to the public. Details of these private railways were included in Official Year Book No. 39 and previous issues, but owing to their relative unimportance and the incomplete nature of the statistics available, the series has been discontinued.

2. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 was given in Official Year Book No. 6, page 681, and in No. 22, page 259. The main ports on the mainland are connected by lines running approximately parallel to the coast and are the focal points of lines which radiate inland to the agricultural, mining and pastoral areas of the continent to a distance of up to 600 miles at some points. However, Darwin in the Northern Territory is not connected by rail to any other port. A 3 ft. 6 in. gauge railway extends southward from Darwin to Birdum, a distance of 317 miles, and from Port Augusta in South Australia a 4 ft. 8½ in. gauge railway of 217 miles extends northwards to Marree and thence as a 3 ft. 6 in. gauge of 540 miles to Alice Springs.

In recent years, besides the construction of air-conditioned passenger trains and high-capacity goods rolling stock, many new locomotives have been built and others purchased. Also there has been a significant development of diesel-electric traction, the number of diesel-electric locomotives in service having risen from two at 30th June, 1949, to 402 at 30th June, 1959.

3. **Distances between Capital Cities.**—The distances by rail between the capital cities of Australia are published in the annual bulletin, *Transport and Communication*.

4. **Government Railways Development.**—In spite of the great extensions of State railways since 1875 and the construction of various railways by the Commonwealth Government, there are still, in some States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States was to extend the existing lines inland in the form of light railways as settlement increased, and while it is true that lines which were not likely to be commercially successful in the immediate future were constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting was kept in view.

The greatest recorded route-mileage of government railways was 27,234 at 30th June, 1941. Although short lengths of line have been opened since that date, most railway construction is being confined to the duplication and electrification of existing main lines. The closure of other lines (mainly developmental branch lines whose retention would have been uneconomic), especially in Victoria and Western Australia, has resulted in a considerable decrease in route-mileage. Variations in route-mileage in each State and Territory during the ten years ended 30th June, 1959, are shown in the following table:—

GOVERNMENT RAILWAYS: VARIATIONS IN ROUTE-MILEAGE, 1949 TO 1959.

State or Territory.	Route-mileage at 30th June, 1949.	Variations during Ten Years ended 30th June, 1959 due to—		Route-mileage at 30th June, 1959.
		Route Miles Opened.	Route Miles Closed.	
New South Wales	6,354	2	12	6,344
Victoria	4,452	14	374	4,092
Queensland	6,560	..	134	6,426
South Australia	3,799	235	198	3,836
Western Australia	4,775	16	220	4,571
Tasmania	614	2	49	567
Northern Territory	490	..	..	490
Australian Capital Territory	5	..	..	5
Australia	27,049	269	987	26,331

5. **Standardization of Railway Gauges.**—A summary of the report and recommendations relating to the standardization of Australia's railway gauges on the basis of a 4 ft. 8½ in. gauge, made in March, 1945, at the request of the Commonwealth Government by the late Sir Harold Clapp, together with an outline of the agreement between the Commonwealth Government and the States of New South Wales, Victoria and South Australia regarding the standardization of railway gauges in their respective States, was published in Official Year Book No. 37, pages 146-9. The agreement, which was signed in 1946, was ratified by the Governments of the Commonwealth, of Victoria and of South Australia, but not by the New South Wales Government. After some time had elapsed and New South Wales had failed to ratify the agreement, the Commonwealth Government decided to enter into a separate agreement with South Australia, and the necessary legislation was enacted in 1949

by each Government concerned. The Commonwealth-South Australia Agreement provides for the same standardization work to be carried out in South Australia as would have been carried out had New South Wales ratified the original Commonwealth-Three States Agreement, and that over a period of years the Commonwealth should contribute 70 per cent. and South Australia be responsible for the remaining 30 per cent. of the estimated cost.

As a further step towards standardization, a Committee consisting of members of the Federal Parliament was formed in March, 1956, to ascertain whether a scheme confined to the main trunk routes would be desirable. This Committee recommended in October, 1956, that standard gauge (4 ft. 8½ in.) lines be provided from Wodonga to Melbourne, from Broken Hill to Adelaide via Port Pirie and from Kalgoorlie to Fremantle via Perth. Action to implement these recommendations has been commenced in respect of the Wodonga to Melbourne line. This project envisages the construction of a new 4 ft. 8½ in. track alongside the present 5 ft. 3 in. single track between Wodonga and Mangalore, the conversion of one of the two existing tracks between Mangalore and Albion and a combination of new track and conversion of existing track between Albion and Spencer Street station.

Preparatory work in the field on the uniform gauge between Albury and Melbourne commenced in November, 1957. The work has been concerned with the duplication of bridges, extension of culverts and the establishment of camps. Funds for this project are being advanced by the Commonwealth to enable the work to proceed. An agreement was reached between the Commonwealth and the two States, New South Wales and Victoria, whereby the Commonwealth will meet 70 per cent. of the cost of unification and the two states will share equally the remaining 30 per cent. with the Commonwealth advancing the whole of the necessary funds initially and the States' portion, plus interest, being repayable over 50 years. Legislation was enacted by the Commonwealth and the two State Governments in three separate Acts assented to towards the close of 1958. Estimated total cost is about £10.7 million, just over £2 million having been spent to 30th June, 1959.

A map showing the railway systems of Australia according to gauge appears on page 523.

6. Grafton-South Brisbane Uniform Gauge Line.—The first step towards uniform gauge railway communication between the capitals of the mainland States was effected in 1930 with the construction of the 4 ft. 8½ in. gauge line from Grafton to South Brisbane. The finance required for the construction was provided by the Commonwealth Government. For details of the agreement between the Commonwealth and New South Wales and Queensland, see Official Year Book No. 31, page 122.

This line is operated by the New South Wales Railways and details of operations in New South Wales are included with those of the New South Wales system. Details of operations on the Queensland portion are included with Queensland railway statistics unless otherwise specified.

7. Mileage Open for Traffic, all Lines.—Almost all the railways open for general traffic in Australia are owned and controlled by the State or Commonwealth Governments. Private lines have been laid down for the purpose of opening up forest lands, mining districts or sugar areas. These lines are not generally used for the conveyance of passengers or the public conveyance of goods.

The following table shows the route-mileage of Commonwealth and State lines open in each State and Territory at various periods since the inauguration of railways in Australia in 1854:—

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN.
(Miles.)

At 30th June—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a) ..	14	2	..	7	..	..	..	..	23
1861(a) ..	73	114	..	56	..	..	..	..	243
1871(a) ..	358	276	218	133	..	45	..	..	1,030
1881(a) ..	996	1,247	800	832	92	45	..	..	4,012
1891 ..	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1901 ..	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1911 ..	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1921 ..	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931 ..	6,247	4,514	6,529	3,898	4,634	665	317	5	26,809
1941 ..	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951 ..	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1959 ..	6,344	4,092	6,426	3,836	4,571	567	490	5	26,331

(a) At 31st December.

At 30th June, 1959, 256 route-miles in Victoria and 228 route-miles in New South Wales were electrified.

The next table shows for each State and Territory the length of government lines open in relation to both population and area at 30th June, 1959.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN AT 30th JUNE, 1959.
(Miles.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-mileage open ..	6,344	4,092	6,426	3,836	4,571	567	490	5	26,331
Per 1,000 of population ..	1.69	1.45	4.46	4.17	6.36	1.66	23.40	0.11	2.62
Per 1,000 square miles ..	20.50	46.56	9.63	10.09	4.68	21.63	0.94	5.32	8.86

8. Classification of Lines according to Gauge, at 30th June, 1959.—The next table shows the route-mileage of government railways open in each State and Territory at 30th June, 1959, classified according to gauge.

GOVERNMENT RAILWAYS: GAUGES, AT 30th JUNE, 1959.
(Route-miles.)

Gauge.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5 ft. 3 in. ..	(a) 241	4,058	..	1,674	..	..	..	..	5,973
4 ft. 8½ in. ..	6,103	..	(b) 69	(c) 871	(c) 454	..	..	(c) 5	7,502
3 ft. 6 in. ..	..	..	6,327	(d) 1,291	4,117	567	(c) 490	..	12,792
2 ft. 6 in. ..	..	34	..	..	..	..	..	..	34
2 ft. 0 in. ..	..	..	30	..	..	..	..	..	30
Total ..	6,344	4,092	6,426	3,836	4,571	567	490	5	26,331

(a) Portion of Victorian system. (b) Queensland section of Grafton-South Brisbane Uniform Gauge Line. (c) Portion of Commonwealth system. (d) Includes 432 miles of Commonwealth system.

9. Summary of Operations.—In the following table a summary is shown of the operations of government railways open in Australia during 1958-59:—

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, 1958-59.

Particulars.	Commonwealth Railways.	State Railways.	Total.
Route-mileage, 30th June miles	2,252	24,079	26,331
Gross earnings £'000	5,584	179,328	184,912
" " per revenue train-mile pence	664	482	486
Working expenses £'000	(a) 3,647	181,349	184,996
" " per revenue train-mile pence	434	488	486
Net earnings £'000	(a) 1,937	-2,021	-84
" " per revenue train-mile pence	230	-5	-0.22
Revenue train-miles '000	2,018	89,267	91,285
Passenger-journeys '000	259	484,759	485,018
Goods and livestock carried .. '000 tons	1,405	46,626	48,031
Average number of employees(b)	2,633	135,829	138,462
" earnings per employee £	997	981	982

(a) Excludes amounts paid for Commissioner's salary, government contributions under the Superannuation Act, Accident and Insurance Fund and proportion of salaries of Auditor-General's staff—total, £110,192. (b) Excludes construction staff except in respect of Victoria.

NOTE.—Minus sign (—) denotes loss.

A graph showing the route-mileage and traffic of government railways from 1870 to 1958-59 appears on page 524.

10. **Summary, States.**—The following table shows, for government railways in Australia, particulars of the mileage open, passengers and goods carried and revenue train-miles run during 1958–59.

GOVERNMENT RAILWAYS: SUMMARY, STATES, 1958-59.

Railway System.	Mileage Open.(a)		Passenger-journeys. (‘000.)	Goods and Livestock Carried. (‘000 tons.)	Revenue Train-miles. (‘000.)
	Route-miles.	Track-miles.			
New South Wales	6,103	8,488	254,055	19,700	35,195
Victoria	4,333	5,737	163,483	9,295	18,426
Queensland	6,426	7,474	33,457	8,373	19,509
South Australia	2,533	3,158	16,805	4,207	6,890
Western Australia	4,117	4,719	14,615	3,913	7,708
Tasmania	567	665	2,344	1,138	1,539
Commonwealth	2,252	2,452	259	1,405	2,018
Australia	26,331	32,693	485,018	48,031	91,285

(a) At 30th June.

11. **Gross Earnings.**—(i) *General.* Gross earnings are composed of earnings from (a) coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) carriage of goods and livestock; and (c) rents and miscellaneous items. State Government grants are excluded. Details of these grants made during 1958–59 are shown in para. 14, page 535.

(ii) *Coaching, Goods and Miscellaneous Earnings.* (a) *Summary.* In the following table gross earnings are shown for the years 1956–57 to 1958–59, together with earnings per average route-mile worked and per revenue train-mile:—

GOVERNMENT RAILWAYS: GROSS EARNINGS.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
GROSS EARNINGS. (£'000.)								
1956–57 ..	78,689	37,352	36,678	13,770	13,859	2,534	4,962	187,844
1957–58 ..	74,433	35,954	34,636	13,160	12,788	2,569	5,346	178,886
1958–59 ..	75,930	38,150	36,169	12,856	13,516	2,707	5,584	184,912
GROSS EARNINGS PER AVERAGE ROUTE-MILE WORKED. (£.)								
1956–57 ..	12,894	8,441	5,681	5,398	3,367	4,333	2,172	7,083
1957–58 ..	12,195	8,168	5,365	5,193	3,106	4,492	2,370	6,766
1958–59 ..	12,441	8,756	5,628	5,075	3,283	4,782	2,480	7,017
GROSS EARNINGS PER REVENUE TRAIN-MILE. (Pence.)								
1956–57 ..	509.99	483.42	438.94	459.80	401.80	328.00	557.51	474.12
1957–58 ..	510.11	470.15	436.78	446.05	418.89	393.28	671.57	475.49
1958–59 ..	517.78	496.89	444.96	447.80	420.87	421.99	663.99	486.15

(a) Excludes government grants; see para. 11 (i) above.

(b) *Distribution.* The following table shows gross earnings for the year 1958–59 classified according to the main three sources of earnings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF GROSS EARNINGS(a), 1958-59.

Railway System.	Gross Earnings. (£'000.)			Proportion of Total. (Per Cent.)		
	Coaching.	Goods and Livestock.	Miscellaneous.	Coaching.	Goods and Livestock.	Miscellaneous.
New South Wales ..	21,730	50,524	3,676	28.62	66.54	4.84
Victoria ..	13,364	22,126	2,660	35.03	58.00	6.97
Queensland ..	4,926	30,115	1,128	13.62	83.26	3.12
South Australia ..	1,952	10,054	850	15.18	78.21	6.61
Western Australia ..	1,545	11,243	728	11.43	83.18	5.39
Tasmania ..	193	2,426	88	7.11	89.65	3.24
Commonwealth ..	979	4,243	362	17.54	75.98	6.48
Australia ..	44,689	130,731	9,492	24.17	70.70	5.13

(a) Excludes government grants; see para. 11 (i) on p. 532.

12. Working Expenses.—(i) *General*. In order to make an adequate comparison of the working expenses as between the several States and Territories, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the different systems of the State and Commonwealth railways, but also on different portions of the same system. When traffic is light, the proportion of working expenses to earnings is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

Working expenses, wherever presented in the Railways section of this chapter, include reserves for depreciation in South Australia, Western Australia and Tasmania but exclude interest, sinking fund, exchange and certain other payments (see para. 14 following).

(ii) *Working Expenses*. The following table shows the total working expenses, the ratio of working expenses to gross earnings and working expenses per average route-mile worked and per revenue train-mile for the years 1956-57 to 1958-59.

GOVERNMENT RAILWAYS: WORKING EXPENSES.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. (a)	Aust.
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TOTAL WORKING EXPENSES.
(£'000.)

1956-57 ..	75,352	39,118	37,790	15,977	17,076	3,447	3,597	192,357
1957-58 ..	72,534	38,174	36,894	15,953	16,091	3,218	3,611	186,475
1958-59 ..	71,102	38,119	37,504	15,102	16,307	3,215	3,647	184,996

RATIO OF WORKING EXPENSES TO GROSS EARNINGS.
(Per Cent.)

1956-57 ..	95.76	104.73	103.03	116.03	123.21	136.01	72.50	102.40
1957-58 ..	97.45	106.17	106.52	121.23	125.83	125.24	67.55	104.24
1958-59 ..	93.64	99.92	103.69	117.47	120.65	118.79	65.31	100.05

WORKING EXPENSES PER AVERAGE ROUTE-MILE WORKED.
(£.)

1956-57 ..	12,347	8,840	5,853	6,263	4,148	5,893	1,575	7,253
1957-58 ..	11,884	8,672	5,715	6,296	3,908	5,625	1,601	7,053
1958-59 ..	11,650	8,749	5,836	5,962	3,961	5,680	1,620	7,020

WORKING EXPENSES PER REVENUE TRAIN-MILE.
(Pence.)

1956-57 ..	488.36	506.28	452.24	533.49	495.07	446.12	404.20	485.52
1957-58 ..	497.09	499.18	465.25	540.73	527.06	492.53	453.67	495.67
1958-59 ..	484.85	496.49	461.38	526.04	507.78	501.28	433.68	486.37

(a) See para. 9, note (a), p. 531.

(iii) *Distribution.* The following table shows the total working expenses for the year 1958–59 classified according to the main four expenditure headings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES, 1958-59.
(£'000.)

Railway System.	Mainten- ance of Way and Works.	Motive Power.(a)	Traffic.	Other Charges.	Total Working Expenses.
New South Wales	12,739	28,369	17,237	12,757	71,102
Victoria	7,749	11,196	10,200	8,974	38,119
Queensland	9,832	17,444	8,119	2,109	37,504
South Australia(b)	3,174	6,794	3,493	1,641	15,102
Western Australia(b)	2,665	7,086	3,319	3,237	16,307
Tasmania(b)	838	1,232	707	438	3,215
Commonwealth(c)	1,308	1,196	810	333	3,647
Australia	38,305	73,317	43,885	29,489	184,996

(a) Includes maintenance of rolling stock.
(c) See para. 9, note (a), p. 531.

(b) Includes provision of reserves for depreciation.

13. *Net Earnings.*—The following table shows, for the years 1956–57 to 1958–59, net earnings, i.e., the excess of gross earnings over working expenses and the amount of such net earnings per average route-mile worked and per revenue train-mile.

GOVERNMENT RAILWAYS: NET EARNINGS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
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TOTAL NET EARNINGS.
(£'000.)

1956–57 ..	3,337	– 1,766	– 1,112	– 2,207	– 3,217	– 913	(a)1,365	– 4,513
1957–58 ..	1,899	– 2,220	– 2,258	– 2,793	– 3,303	– 649	(a)1,735	– 7,589
1958–59 ..	4,828	31	– 1,335	– 2,246	– 2,791	– 508	(a)1,937	– 84

NET EARNINGS PER AVERAGE ROUTE-MILE WORKED.
(£.)

1956–57 ..	547	– 399	– 172	– 865	– 781	– 1,560	(a) 597	– 170
1957–58 ..	311	– 504	– 350	– 1,103	– 802	– 1,133	(a) 769	– 287
1958–59 ..	791	7	– 208	– 887	– 678	– 898	(a) 860	– 3

NET EARNINGS PER REVENUE TRAIN-MILE.
(Pence.)

1956–57 ..	21.63	–22.86	–13.30	–73.69	– 93.27	–118.12	(a)153.31	– 11.39
1957–58 ..	13.02	–29.03	–28.47	–94.68	–108.17	– 99.25	(a)217.90	–20.18
1958–59 ..	32.93	0.40	–16.42	–78.24	– 86.91	– 79.29	(a)230.31	– 0.22

(a) See para. 9, note (a), p. 531.

NOTE.—Minus sign (–) denotes loss.

A graph showing the gross and net earnings and working expenses from 1870 to 1958–59 appears on page 525.

14. *Net Earnings, Grants to Railways, Interest, Sinking Fund, Surplus or Deficit, 1958-59.*—The following table shows, for each railway system for the year 1958–59, (i) net earnings as in para. 13 above, (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.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT AT 30th JUNE, 1959.
(£'000.)

System.	Net Earnings— Excess of Gross Earnings over Working Expenses.	Plus Grants and other Earnings payable to Railways.			Less Other Expenses charged to Railways.					Surplus (+) or Deficit (-).	
		State Gov't Grants.	Other Earnings.	Total.	Loan, Interest and Ex- change.	Sinking Fund.	Loan, Man- age- ment Ex- penses.	Interest on Un- opened Lines.	Other.		Total.
State—											
N.S.W. . .	4,828	(a) 1,800	..	1,800	11,343	1,535	200	..	..	13,078	-6,450
Vic. . .	31	(b) 14	..	14	3,617	197	..	..	(c) 68	3,882	d -3,837
Q'land . .	-1,335	..	(e) 76	76	3,492	..	..	175	..	3,667	f -4,926
S. Aust. . .	-2,246	(g) 4,650	(h) 2	4,652	1,884	..	..	..	(i) 85	1,969	j + 437
W. Aust. . .	-2,791	..	..	..	2,256	..	..	..	..	2,256	k -5,047
Tas. . .	-508	..	..	..	381	..	..	..	..	381	- 889
Total States	-2,021	6,464	78	6,542	22,973	1,732	200	175	153	25,233	-20,712
C'wealth . .	1,937	..	..	..	379	198	(l)	..	(m) 111	688	+ 1,249
Aust. . .	- 84	6,464	78	6,542	23,352	1,930	200	175	264	25,921	-19,463

(a) Grants to meet losses on country development lines £1,000,000; and to subsidize payments due from superannuation account £800,000. (b) Kerang-Koondrook Tramway recoup from Treasury. (c) Net loss on railway-operated electric tramway and road motor services not included in previous pages. (d) Includes electric tramway and road motor services. (e) Net loss on Queensland portion of Uniform Gauge Railway as included in foregoing tables. (f) Excludes Queensland portion of Uniform Gauge Railway. (g) Grants towards working expenses £3,850,000 and debt charges £800,000. (h) Net profit on road motors not included in foregoing tables. (i) Interest and repayment under Railways Standardization Agreement, £59,696 interest and £25,291 repayment. (j) Includes road motor services. (k) £85 loss on road motor services. (l) £93 loan management expenses. (m) Includes salary of Railways Commissioner, Government contributions under Superannuation Act, expenditure from Railway Accident and Insurance Fund and proportion of salaries of Auditor-General's staff.

NOTE.—For further information on railways finance, in particular, expenditure from loan and other funds see Chapter XXI., Public Finance, of this Year Book. See also the reports of the various Commissioners.

15. Traffic.—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several State and Commonwealth systems, but also on different lines in the same system, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is located in a fringe of country near the coast, more especially in the eastern and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition. In recent years, competition from road and air transport has considerably increased.

The following table shows particulars of railway traffic for the years 1956-57 to 1958-59:—

GOVERNMENT RAILWAYS: TRAFFIC.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY). (^{'000.})								
1956-57 ..	263,137	167,405	34,270	17,407	13,271	2,813	213	498,516
1957-58 ..	258,651	167,662	33,665	17,564	14,106	2,444	238	494,330
1958-59 ..	254,055	163,483	33,457	16,805	14,615	2,344	259	485,018
PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY) PER AVERAGE ROUTE-MILE WORKED. (Number.)								
1956-57 ..	43,116	37,832	5,308	6,823	3,223	4,809	93	18,797
1957-58 ..	42,381	38,088	5,214	6,931	3,426	4,273	106	18,696
1958-59 ..	41,628	37,522	5,207	6,634	3,550	4,141	115	18,404

GOVERNMENT RAILWAYS: TRAFFIC—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
GOODS AND LIVESTOCK CARRIED. (^{'000} Tons.)								
1956-57 ..	a 18,791	9,381	8,453	4,498	4,223	1,061	1,069	47,476
1957-58 ..	a 18,502	8,892	7,766	4,146	3,589	1,096	1,259	45,250
1958-59 ..	19,700	9,295	8,373	4,207	3,913	1,138	1,405	48,031
GOODS AND LIVESTOCK CARRIED PER AVERAGE ROUTE-MILE WORKED. (Tons.)								
1956-57 ..	3,079	2,120	1,309	1,763	1,026	1,814	468	1,790
1957-58 ..	3,032	2,020	1,203	1,636	872	1,916	558	1,711
1958-59 ..	3,228	2,133	1,303	1,661	950	2,010	624	1,823

(a) Partly estimated.

(ii) *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, whilst traffic classed as "country" originates or terminates at stations outside of this suburban area. Particulars of suburban and country passenger traffic are shown separately in the two tables following.

(a) *Suburban Passenger Traffic.* The following table shows a summary of suburban passenger operations for the years 1956-57 to 1958-59. Most of the suburban services in New South Wales and Victoria are operated within electrified areas.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY.

Year.	Suburban Passenger-journeys.	Suburban Passenger Train-miles.	Suburban Passenger-miles.	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey.	Suburban Passenger Earnings.				
						Gross.	Per Passenger-journey.	Per Passenger-mile.	Per Passenger Train-mile.	
	(^{'000} .)	(^{'000} .)	(^{'000} .)		(Miles.)	(£ ^{'000} .)	(Pence.)	(Pence.)	(Pence.)	
NEW SOUTH WALES.										
1956-57	a 252,000	11,618	(b)	(b)	(b)	(b)	(b)	(b)	(b)	
1957-58	a 244,188	11,158				(b)	(b)	(b)		
1958-59	239,738	11,175				12,027	12.04	(b)	258	
VICTORIA.										
1956-57	162,255	8,291	1,416,115	171	8.73	7,647	11.31	1.30	221	
1957-58	162,632	8,353	1,433,794	172	8.82	7,613	11.24	1.27	219	
1958-59	158,613	8,310	1,364,884	164	8.61	8,511	12.88	1.50	246	
QUEENSLAND.										
1956-57	28,783	2,070	(b)	(b)	(b)	882	7.36	(b)	102	
1957-58	28,524	2,082				890	7.49	(b)	103	
1958-59	28,398	2,127				889	7.52	(b)	100	
SOUTH AUSTRALIA.										
1956-57	15,995	1,935	152,021	79	9.50	603	9.04	0.95	75	
1957-58	16,390	2,065	c 131,179	80	8.00	702	10.28	1.28	82	
1958-59	15,704	2,087	c 125,391	60	7.98	706	10.79	1.35	81	

NOTE.—For footnotes see next page.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY—*continued.*

Year.	Suburban Passenger-journeys. (‘000.)	Suburban Passenger Train-miles. (‘000.)	Suburban Passenger-miles. (‘000.)	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey. (Miles.)	Suburban Passenger Earnings.			
						Gross. (£’000.)	Per Passenger-journey. (Pence.)	Per Passenger-mile. (Pence.)	Per Passenger Train-mile. (Pence.)

WESTERN AUSTRALIA.

1956-57	12,497	1,303	86,102	66	6.89	391	7.52	1.09	72
1957-58	13,353	1,323	91,755	69	6.87	420	7.54	1.10	76
1958-59	13,880	1,320	93,958	71	6.77	434	7.50	1.11	79

TASMANIA.

1956-57	2,345	213	13,279	62	5.66	58	5.96	1.05	66
1957-58	2,122	204	12,895	63	6.08	54	6.14	1.01	64
1958-59	2,092	210	12,632	60	6.04	53	6.11	1.01	61

(a) Estimated. (b) Not available. (c) Revised basis.

NOTE.—Train-miles refer to revenue mileages only.

(b) *Country Passenger Traffic.* The following table shows a summary of country passenger operations for the years 1956-57 to 1958-59.

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY.

Year.	Country Passenger-journeys. (‘000.)	Country Passenger Train-miles. (a) (‘000.)	Country Passenger-miles. (‘000.)	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey. (Miles.)	Country Passenger Earnings.			
						Gross. (£’000.)	Per Passenger-journey. (Pence.)	Per Passenger-mile. (Pence.)	Per Passenger-Train-mile. (Pence.)

NEW SOUTH WALES.

1956-57	(b) 11,137	10,306	} (c)	(c)	(c)	(c)	(c)	(c)	(c)	
1957-58	14,463	9,762				(c)	(c)	(c)	(c)	(c)
1958-59	14,317	9,497				6,984	117.08	(c)	169	

VICTORIA.

1956-57	5,150	4,709	437,481	93	84.95	3,717	173.25	2.04	189
1957-58	5,030	4,682	418,012	89	83.10	3,493	166.64	2.01	179
1958-59	4,870	4,699	414,539	88	85.12	3,466	170.80	2.01	177

QUEENSLAND.

1956-57	(d) 5,487	5,183	} (c)	(c)	(c)	2,740	119.85	(c)	115
1957-58	(d) 5,141	4,935				2,560	119.53	(c)	118
1958-59	(d) 5,059	4,824				2,452	116.31	(c)	116

SOUTH AUSTRALIA.

1956-57	1,412	2,133	121,135	54	85.81	795	135.14	1.57	85
1957-58	1,174	2,112	112,781	52	96.05	803	164.18	1.71	89
1958-59	1,101	2,058	106,506	51	96.70	778	169.55	1.75	89

WESTERN AUSTRALIA.

1956-57	774	1,645	80,700	49	104.32	685	212.58	2.04	100
1957-58	753	1,565	80,171	51	106.41	670	213.51	2.01	103
1958-59	735	1,591	79,155	50	107.64	653	213.23	1.98	99

NOTE.—For footnotes see next page.

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY—*continued.*

Year.	Country Passenger-journeys. (‘000.)	Country Passenger Train-miles. (a) (‘000.)	Country Passenger-miles. (‘000.)	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey. (Miles.)	Country Passenger Earnings.			
						Gross. (£‘000.)	Per Passenger-journey. (Pence.)	Per Passenger-mile. (Pence.)	Per Passenger Train-mile. (Pence.)
TASMANIA.									
1956-57	468	560	17,476	30	37.31	106	54.07	1.45	43
1957-58	322	367	14,471	37	44.91	91	67.53	1.50	55
1958-59	252	252	13,361	41	53.03	86	81.78	1.54	63

COMMONWEALTH.(e)

1956-57	213	725	83,984	104	393.95	741	834.47	2.12	220
1957-58	238	718	81,038	113	339.63	736	740.52	2.18	247
1958-59	259	781	80,910	108	312.92	739	685.90	2.19	236

(a) Excludes mixed-train miles. (b) Estimated. (c) Not available. (d) Traffic originating on the 3 ft. 6 in. gauge system and continuing on the Uniform Gauge Railway has been counted once only. (e) Railways controlled by Commonwealth Government.

NOTE.—Train-miles refer to revenue mileages only.

(iii) *Freight Traffic.*—(a) *Commodities Carried and Earnings.* Some indication of the differing conditions of the traffic in each system may be gained from an examination of the tonnage of the various classes of commodities carried, and of the earnings derived therefrom. The following table shows the quantities of various commodities carried during 1958-59 and the earnings derived.

GOVERNMENT RAILWAYS: COMMODITIES CARRIED AND EARNINGS, 1958-59.

Railway System.	Coal, Coke and Briquettes.	Other Minerals. (a)	Agricultural Produce. (b)	Wool.	Live-stock.	All Other Commodities.	Total.
QUANTITY CARRIED. (‘000 Tons.)							
New South Wales ..	8,874	925	1,996	245	727	6,933	19,700
Victoria ..	2,256	111	2,268	150	455	4,055	9,295
Queensland(c) ..	1,623	(d) 816	3,119	59	980	(e) 1,776	8,373
South Australia ..	119	1,191	1,040	48	239	1,570	4,207
Western Australia ..	544	247	1,371	67	149	1,535	3,913
Tasmania ..	265	41	35	4	29	764	1,138
Commonwealth ..	727	148	18	7	149	356	1,405
Australia ..	14,408	3,479	9,847	580	2,728	16,989	48,031

FREIGHT EARNINGS.
(£‘000.)

New South Wales ..	(f)	(f)	(f)	(f)	3,810	(f)	50,524
Victoria ..	2,790	128	5,311	720	1,337	11,840	22,126
Queensland(c) ..	2,992	(d) 2,613	6,207	1,093	4,557	e 12,653	30,115
South Australia ..	123	3,146	1,664	270	735	4,116	10,054
Western Australia ..	1,010	529	2,795	399	424	6,086	11,243
Tasmania ..	620	60	81	17	74	1,574	2,426
Commonwealth ..	1,181	259	110	33	347	2,313	4,243
Australia ..	(f)	(f)	(f)	(f)	11,284	(f)	130,731

(a) Includes sand and gravel. (b) Includes wheat and fruit. (c) Includes Queensland portion of Uniform Gauge Railway. Tonnages carried over both systems have been counted once only. (d) Includes cement. (e) Excludes cement. (f) Not available.

(b) *Freight Summary.* A summary of freight traffic on each railway system for each of the years 1956-57 to 1958-59 is shown in the following table.

GOVERNMENT RAILWAYS: FREIGHT SUMMARY.

Year.	Revenue Goods Train-miles. (a)	Revenue Net Ton-miles.	Average Train Load (Paying Traffic).	Average Haul per Ton.	Goods and Livestock Earnings.				Density of Traffic. (b)
					Gross.	Per Average Route-mile Worked.	Per Revenue Net Ton-mile.	Per Revenue Goods Train-mile.	
	(000.)	(000.)	(Tons.)	(Miles.)	(£000.)	(£.)	(Pence.)	(Pence.)	
NEW SOUTH WALES.									
1956-57	14,317	c2,929,338	(c) 197	(c) 156	51,956	8,513	4.26	840	c 479,983
1957-58	13,290	c2,571,166	(c) 186	(c) 139	48,229	7,902	4.50	837	c 421,295
1958-59	13,710	2,735,635	194	139	50,524	8,279	4.43	859	448,244
VICTORIA.									
1956-57	5,502	1,317,393	238	140	22,110	4,997	4.25	961	297,716
1957-58	5,286	1,260,136	238	142	20,849	4,736	3.98	944	286,265
1958-59	5,394	1,352,516	250	146	22,126	5,078	3.93	982	310,424
QUEENSLAND.(d)									
1956-57	11,065	1,480,694	122	182	29,844	4,673	4.84	590	231,829
1957-58	10,304	1,326,030	114	177	27,974	4,380	5.06	578	207,614
1958-59	10,876	1,462,621	120	181	29,493	4,639	4.84	582	230,080
SOUTH AUSTRALIA.									
1956-57	2,811	648,397	215	144	10,990	4,308	4.07	874	254,174
1957-58	2,638	611,032	214	147	10,302	4,065	4.05	867	241,133
1958-59	2,501	605,377	224	144	10,054	3,969	3.99	893	238,996
WESTERN AUSTRALIA.									
1956-57	5,330	667,695	125	158	11,698	2,841	4.20	527	162,180
1957-58	4,440	572,176	129	159	10,506	2,552	4.41	568	138,979
1958-59	4,797	632,284	132	162	11,243	2,731	4.27	563	153,579
TASMANIA.									
1956-57	999	100,274	95	95	2,240	3,829	5.36	510	171,409
1957-58	919	102,164	105	93	2,290	4,004	5.38	566	178,609
1958-59	913	110,447	110	97	2,426	4,287	5.27	580	195,136
COMMONWEALTH.(e)									
1956-57	1,159	293,382	221	274	3,626	1,588	2.97	656	128,451
1957-58	918	341,721	286	272	4,006	1,776	2.81	804	151,472
1958-59	960	394,346	311	281	4,243	1,884	2.58	803	175,109

(a) Excludes mixed train-miles. (b) Total ton-miles per average route-mile worked. (c) Partly estimated. (d) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (e) Railways controlled by the Commonwealth Government.

16. **Rolling Stock.**—The following table shows the number of rolling stock of Government railways at 30th June, 1959.

GOVERNMENT RAILWAYS: ROLLING STOCK(a) AT 30th JUNE, 1959.

Railway System.	Locomotives.				Coaching Stock.(b)	Goods Stock.	Service Stock.
	Steam.	Diesel-electric.	Other.	Total.			
New South Wales ..	1,041	83	45	1,169	3,726	24,687	883
Victoria ..	388	(c) 78	52	(c) 518	(d) 2,448	20,972	(e) 1,517
Queensland ..	754	58	6	818	1,517	25,644	2,100
South Australia ..	243	41	..	284	(d) 675	8,068	(e) 473
Western Australia ..	325	66	10	401	590	11,222	971
Tasmania ..	69	32	11	112	92	(f) 2,664	183
Commonwealth ..	85	44	..	129	186	2,055	485
Australia ..	2,905	402	124	3,431	(g) 9,292	95,312	(g) 6,613

(a) Included in capital account. (b) Includes all brake vans. (c) Includes 3 locomotives on hire. (d) Excludes 58 interstate coaching stock owned jointly by Victoria and South Australia. (e) Excludes one dynamometer car owned jointly by Victoria and South Australia. (f) Includes 83 privately-owned goods stock vehicles. (g) Includes stock owned jointly by Victoria and South Australia.

17. **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 1958–59:—

GOVERNMENT RAILWAYS: ACCIDENTS(a), 1958–59.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	C'wth.	Aust.
Persons killed ..	47	55	12	15	11	1	1	142
Persons injured ..	641	581	109	86	220	2	7	1,646

(a) Excludes accidents to railway employees.

18. **Consumption of Coal, Oil and Petrol.**—The following table shows the quantities of coal, oil and petrol consumed by the various government railways during 1958–59:—

GOVERNMENT RAILWAYS: COAL, OIL AND PETROL CONSUMED, 1958–59.

Railway System.	Coal.		Oil.				Petrol for Rail Cars.
	Locomotives.	Other Purposes.	Diesel Oil.(a)	Fuel Oil.(b)	Lubrication.	Other Purposes.	
	'000 tons.	'000 tons.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
New South Wales ..	1,009	15	9,762	6,254	692	537	12
Victoria ..	112	3	8,183	9,526	387	1,801	..
Queensland ..	533	6	5,972	..	286	359	246
South Australia ..	98	6	4,772	7,726	(c) 277	(c) 1,305	113
Western Australia ..	282	8	3,152	140	36	1,305	46
Tasmania ..	17	(d)	1,274	..	84	135	..
Commonwealth ..	(e)	(f)	3,520	10	84	478	5
Australia ..	2,051	38	36,635	23,656	(g) 1,762	(g) 4,665	422

(a) Used in internal combustion engines of locomotives and rail cars. (b) Used in oil-fired furnaces of steam locomotives. (c) Not available. (d) 439 tons. (e) 174 tons. (f) 326 tons. (g) Excludes South Australia.

19. **Staff Employed and Salaries and Wages Paid.**—The following table shows details of the average staff employed and the salaries and wages paid by the government railways of Australia during 1958–59.

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES AND SALARIES AND WAGES PAID, 1958-59.

Railway System.	Operating Staff.			Construction Staff.			Total Salaries and Wages Paid (£'000.)	Average Earnings Per Employee. (£.)
	Salaried.	Wages.	Total.	Salaried.	Wages.	Total.		
New South Wales ..	9,450	42,442	51,892	2	39	41	52,096	1,003
Victoria ..	(a)5,376	a 24,589	a 29,965	(b)	(b)	(b)	29,562	987
Queensland ..	4,439	24,355	28,794	43	996	1,039	29,294	982
South Australia ..	1,824	7,821	9,645	8	970	978	10,177	958
Western Australia ..	1,981	11,135	13,116	(c)	(c)	(c)	12,036	918
Tasmania ..	351	2,066	2,417	30	153	183	2,330	896
Commonwealth ..	399	2,234	2,633	1	23	24	2,649	997
Australia ..	d 23,820	d 114,642	d 138,462	84	2,181	2,265	138,144	982

(a) Includes construction staff. (b) Included with operating staff. (c) Construction work is carried out by private contractors and the staff engaged is therefore not under the control of the Railway Commissioner. (d) Includes construction staff, Victoria.

C. TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES.

1. **Systems in Operation.**—(i) *Tramway and Trolley-bus.* Since 1st April, 1947, all systems have been operated by government or municipal authorities. Tramway systems are located in the following cities—New South Wales, Sydney; Victoria, Melbourne, Bendigo and Ballarat; Queensland, Brisbane; South Australia, Adelaide; and Tasmania, Hobart. Trolley-bus services operate in Sydney, Brisbane, Adelaide, Perth and Hobart. All systems are electric.

In many parts of Australia, private lines used for special purposes in connexion 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.

(ii) *Motor Omnibus.* Motor omnibus services are in operation in the capital cities and many other cities and towns of Australia. Government and municipal authorities operate certain services and the others are run by private operators; the former are run in conjunction with the existing electric tramway systems.

Particulars of motor omnibus services under the control of private operators are recorded in the States of New South Wales, Victoria, South Australia and Western Australia. In New South Wales particulars of private services are compiled for the Sydney Metropolitan and Newcastle transport district and the city of Greater Wollongong. In Victoria they relate to the Melbourne Metropolitan area only and in South Australia for services licensed by the Metropolitan Transport Trust and the Transport Control Board. In Western Australia particulars of all services throughout the State are included.

2. **Government and Municipal Services.**—(i) *Summary of Operations, States.* 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 no longer possible to obtain separate statistics for all phases of the activities of each form of transport, particularly as regards financial operations. In this section, therefore, statistics of public tramway, trolley-bus and motor omnibus services are now combined (with separate details shown for each form of transport where possible) in single tables, instead of, as formerly, in separate tables for tramway and trolley-bus services and for omnibus services.

Tramway and trolley-bus services are controlled by Government authorities in all States except Queensland where the control is municipal (85 route miles). For tramway services, there were, at 30th June, 1959, 281 route miles of 4 ft. 8½ in. gauge and 5 route miles of 3 ft. 6 in. gauge.

The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by Government and Municipal authorities, for 1958–59.

**TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT
AND MUNICIPAL, 1958–59.**

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.(a)	Tas.	A.C.T.	Aust.					
Route-miles at 30th June—													
Tram miles	42	166	66	7	..	5	..	286					
Trolley-bus "	6	..	19	23	29	28	..	105					
Omnibus "	527	52	430	102	3,772	728	53	5,664					
Vehicle miles—													
Tram '000	6,940	21,319	7,953	844	12	591	..	42,936					
Trolley-bus "									1,048	1,293	1,302	1,634	..
Omnibus "									39,789	5,920	5,601	9,947	13,179	3,457	988	78,881
Rolling Stock at 30th June—													
Tram No.	316	836	367	30	..	35	..	1,584					
Trolley-bus "	20	..	30	56	90	83	..	279					
Omnibus "	1,514	215	256	374	457	148	63	3,027					
Passenger journeys—													
Tram '000	69,320	191,543	81,825	4,165	104	26,988	..	777,353					
Trolley-bus "									12,088	6,379	7,253	..	
Omnibus "									223,537	32,242	29,688	49,069	39,592	3,560
Net increase in capital equipment during year—													
Tram, Trolley-bus and Omnibus £'000	789	443	179	213	60	170	26	1,880					
Gross revenue (b)—													
Tram, Trolley-bus and Omnibus £'000	12,290	8,482	3,578	2,528	2,051	1,087	146	30,162					
Working expenses (c)—													
Tram, Trolley-bus and Omnibus £'000	14,295	8,047	3,560	2,800	2,253	1,176	207	32,338					
Net revenue—													
Tram, Trolley-bus and Omnibus £'000	2,005	435	18	272	202	89	61	2,176					
Ratio of working expenses to gross revenue—													
Tram, Trolley-bus and Omnibus per cent.	116.31	94.86	99.50	110.76	109.85	108.19	141.78	107.21					
Employees—													
Tram, Trolley-bus and Omnibus No.	9,513	5,853	2,929	1,848	1,585	722	119	22,569					
Accidents—													
Tram and Trolley-bus (d)—													
Persons killed No.	3	18	3	4	..	3	..	31					
Persons injured "	226	1,009	593	392	103	76	..	2,399					

(a) Trams ceased operation in Western Australia on 19th July, 1958, and during 1958–59 the Metropolitan Passenger Transport Trust commenced operations by acquiring five services which were previously privately owned.

(b) Excludes government grants.

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

(d) Includes accidents, relating to omnibuses operated by the Adelaide Municipal Tramways Trust and the Hobart and Launceston Metropolitan Transport Trust, and excludes accidents to employees in New South Wales.

NOTE.—Minus sign (–) denotes deficit.

(ii) *Summary of Operations, Australia.* The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by government and municipal authorities, for the years 1954-55 to 1958-59.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, AUSTRALIA, 1954-55 TO 1958-59.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Route-miles at 30th June—					
Tram miles	443	427	398	344	286
Trolley-bus "	86	91	96	98	105
Omnibus "	4,492	4,571	4,869	4,803	5,664
Vehicle miles—					
Tram(a) '000	54,196	49,630	(b) 50,601	43,813	37,659
Trolley-bus "	6,081	6,273	6,053	5,803	5,277
Omnibus "	58,114	58,789	60,007	64,878	78,881
Rolling stock at 30th June—					
Tram No.	2,306	2,303	2,106	1,796	1,584
Trolley-bus "	320	316	310	305	279
Omnibus "	2,301	2,392	2,474	2,730	3,027
Passenger-journeys—					
Tram(a) '000	561,860	534,266	479,399	423,471	346,957
Trolley-bus "	34,265	34,185	32,263	28,607	25,720
Omnibus(c) "	369,867	358,593	320,605	350,652	404,676
Net increase in capital equipment during year—					
Tram, Trolley-bus and Omnibus .. £'000	1,455	1,799	2,770	2,932	1,880
Gross revenue(d)—					
Tram, Trolley-bus and Omnibus "	24,881	25,471	29,473	28,762	30,162
Working expenses(e)—					
Tram, Trolley-bus and Omnibus "	29,859	31,528	31,986	31,701	32,338
Net revenue—					
Tram, Trolley-bus and Omnibus "	-4,978	-6,057	-2,513	-2,939	-2,176
Ratio of working expenses to gross revenue—					
Tram, Trolley-bus and Omnibus per cent.	120.01	123.78	108.53	110.22	107.21
Employees—					
Tram, Trolley-bus and Omnibus No.	24,848	24,336	23,887	22,679	22,569
Accidents—					
Tram and Trolley-bus(f)—					
Persons killed .. No.	58	42	45	36	31
Persons injured .. "	3,177	3,077	3,158	2,969	2,399

(a) Includes particulars for New South Wales trolley-buses. (b) Tramway vehicle miles compiled on a revised basis for New South Wales, therefore figures from 1956-57 will not be comparable with those for previous years. (c) Includes particulars for Tasmanian trams and trolley-buses. (d) Excludes government grants. (e) Includes provision of reserves for depreciation, etc., where possible. (f) Includes accidents relating to omnibuses operated by the Adelaide Municipal Tramways Trust and the Hobart and Launceston Metropolitan Transport Trust, and excludes accidents to employees in New South Wales.

NOTE.—Minus sign (-) denotes deficit.

3. *Private Services.—Summary of Operations.* The following table shows the operations of motor omnibus services under the control of private operators in New South Wales, Victoria, South Australia and Western Australia during each of the years 1955–56 to 1958–59:—

MOTOR OMNIBUS SERVICES: PRIVATE.

—Year.	Number of Omnibuses.	Omnibus-miles. (‘000.)	Passenger-journeys. (‘000.)	Value of Plant and Equipment. (£’000.)	Gross Revenue. (£’000.)	Persons Employed.
NEW SOUTH WALES.(a)						
1955–56.. ..	808	24,335	96,759	1,384	3,216	1,583
1956–57.. ..	848	24,449	93,761	1,424	3,676	1,635
1957–58.. ..	901	25,385	96,803	1,584	3,722	1,704
1958–59.. ..	916	25,496	95,457	1,586	3,721	1,545
VICTORIA.(b)						
1955–56.. ..	467	16,064	78,698	(c) 519	1,994	(d) 735
1956–57.. ..	459	16,094	74,026	655	2,196	732
1957–58(e).. ..	472	15,701	73,020	670	2,219	714
1958–59(e).. ..	469	15,592	72,005	670	2,206	750
SOUTH AUSTRALIA.(f)						
1955–56.. ..	(b) 113	6,082	13,508	} (g)	707	} (g)
1956–57.. ..	117	6,045	13,254		712	
1957–58.. ..	113	6,096	12,713		726	
1958–59.. ..	116	6,042	12,107		732	
WESTERN AUSTRALIA.						
1955–56.. ..	372	12,172	32,607	1,125	1,581	827
1956–57.. ..	378	11,801	30,802	1,142	1,594	837
1957–58.. ..	383	11,644	29,881	1,030	1,577	800
1958–59(h).. ..	146	6,028	15,846	260	804	287

(a) Metropolitan, Newcastle and Wollongong transport districts only. (b) Metropolitan area only. (c) Vehicles only. (d) Drivers only. (e) Partly estimated. (f) Services licensed by the Metropolitan Transport Trust and the Transport Control Board. (g) Not available. (h) During 1958–59, five private services were taken over by the Metropolitan Transport Trust.

D. FERRY (PASSENGER) SERVICES.

1. *General.*—Ferry services to transport passengers are operated in the following States—New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Derwent River at Hobart, on the Mersey River at Devonport and across D’Entrecasteaux Channel to Bruny Island. Control is exercised both by governmental authorities and by private operators. In Victoria and Queensland the services operated are not extensive, and there are no ferry services in South Australia.

2. **Summary of Operations.**—The operations of ferry passenger services in New South Wales, Western Australia and Tasmania during the years 1956–57 to 1958–59 are summarized in the following table. Particulars of passengers carried on vehicular ferries are not included.

FERRY (PASSENGER) SERVICES.

Year.	Number of Vessels.	Passenger Accommodation.	Passenger-journeys. (‘000.)	Gross Revenue. (£.)	Persons Employed.
NEW SOUTH WALES—SYDNEY AND NEWCASTLE.					
1956–57	40	22,950	16,810	875,000	341
1957–58	39	22,179	16,375	846,000	318
1958–59	37	19,300	15,906	800,196	308
WESTERN AUSTRALIA—PERTH.					
1956–57	4	785	445	12,836	11
1957–58	4	785	442	13,520	11
1958–59	4	785	407	13,504	11
TASMANIA—HOBART AND DEVONPORT.					
1956–57	5	1,602	707	29,632	24
1957–58	5	1,602	493	22,399	23
1958–59	5	1,602	445	22,202	23

E. MOTOR VEHICLES.

1. **Motor Industry.**—Chapter VI.—Manufacturing Industry contains summarized information on the motor industry of Australia and includes some data on the imports of motor bodies and chassis. Chapter XIII.—Trade contains further data on imports, including those of petroleum products.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia. Particulars regarding methods of registration, licences, fees payable, etc., in each State and Territory at 30th June, 1957 were given in Official Year Book, No. 44, pages 407–10.

3. **Taxi-cabs and Other Hire Vehicles.**—In all the capital cities and in most of the provincial centres, taxi-cabs and other vehicles ply for hire under licence granted by either the Commissioner of Police or the local government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—In both urban and provincial centres, motor omnibus traffic has assumed considerable proportions during recent years and in some States, the railway and tramway systems run motor services complementary to their main services. There has been a considerable replacement also, during the last few years, of existing tramway services by trolley-bus and motor omnibus services. (See pp. 541–4.)

5. **Motor Vehicles on the Register, etc.**—(i) *Registrations and Revenue.* The following table shows particulars of the registration of motor vehicles, licences issued and revenue received for 1958–59 and a summary for Australia for each of the years 1954–55 to 1958–59. It should be noted that in Victoria registration is made on the basis of the purpose for which the vehicle is to be used; consequently, motor car registrations are overstated by the inclusion of commercial vehicles registered for private use.

A graph showing for all motor vehicles other than motor cycles the registrations in force at 30th June of each year from 1925 to 1959 will be found on page 526.

MOTOR VEHICLES: REGISTRATIONS AND REVENUE.

State or Territory, and Year.	Number of Motor Vehicles Registered at 30th June. (a)				Number of Drivers' and Riders' Licences in force at 30th June.	Gross Revenue derived from—				
	Motor Cars. (b)	Commercial Vehicles. (c)	Motor Cycles.	Total.		Per 1,000 of Population at 30th June.	Vehicle Registrations and Motor Tax. (£'000.)	Drivers' and Riders' etc., Licences. (£'000.)	Other Sources. (£'000.)	Total. (£'000.)
STATES AND TERRITORIES, 1958–59.										
N.S.W. ..	589,692	290,695	32,575	912,962	243	1,227,564	10,737	1,273	3,904	15,914
Victoria (d)	599,292	166,577	23,489	789,358	280	908,343	8,869	575	2,773	12,217
Queensland	222,189	142,332	19,258	383,779	266	(e)	5,095	212	1,342	6,649
S. Aust. ..	179,627	66,329	17,078	263,034	286	324,606	3,605	395	102	4,102
W. Aust. ..	118,112	67,830	13,411	199,353	277	239,497	2,109	157	109	2,375
Tasmania	60,109	24,939	3,606	88,654	259	102,051	1,069	92	141	1,302
Nor. Terr.	3,499	4,260	714	8,473	405	9,974	47	7	1	55
A.C.T. ..	10,332	3,319	421	14,072	305	21,005	111	10	1	122
Australia ..	d1,782,852	d766,281	110,552	2,659,685	264	f2833040	31,642	2,721	8,373	42,736

SUMMARY, AUSTRALIA.

	(d)	(d)	(d)	(d)	(f)	(f)	(f)	(f)	(f)	
1954–55 ..	1,341,996	654,674	133,029	2,129,699	231	2,295,854	22,951	1,758	3,764	28,473
1955–56 ..	1,467,252	683,396	125,600	2,276,248	241	2,457,246	24,438	1,875	3,385	29,698
1956–57 ..	1,564,335	707,107	119,963	2,391,405	248	2,575,896	27,379	2,743	4,265	34,387
1957–58 ..	1,675,638	735,171	115,883	2,526,692	257	2,703,328	30,699	2,368	5,467	38,534
1958–59 ..	1,782,852	766,281	110,552	2,659,685	264	2,833,040	31,642	2,721	8,373	42,736

(a) Excludes, at 30th June, 1959, trailers (190,735), road tractors, etc. (37,131), and dealers' plates (9,320). (b) Includes taxis and hire cars. (c) Includes utilities, panel vans, trucks, omnibuses, and station wagons. (d) See reference to Victoria above. (e) Not available. (f) Excludes Queensland.

NOTE.—All Commonwealth-owned vehicles are included except those belonging to the Defence Services. Prior to 1st January, 1956, Department of the Navy vehicles were also included.

(ii) *Relation to Population.* The table following shows the number of vehicles (excluding motor cycles) registered per 1,000 of population in each State and Territory at 30th June for each of the years 1955 to 1959.

MOTOR VEHICLES (EXCLUDING MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
30th June, 1955 ..	192	238	213	254	234	211	252	258	217
.. 1956 ..	204	250	223	257	243	223	272	277	228
.. 1957 ..	213	255	233	264	245	231	313	274	236
.. 1958 ..	224	264	243	269	251	241	360	286	245
.. 1959 ..	234	272	253	267	259	248	370	296	253

NOTE.—See NOTE to previous table.

6. **New Vehicles Registered.**—(i) *States and Territories, 1958–59.* The following table shows the number of new vehicles registered in each State and Territory during 1958–59. A graph showing the number of new motor vehicles (excluding motor cycles) registered during each of the years 1928–29 to 1958–59 will be found on page 526.

NEW MOTOR VEHICLES REGISTERED, 1958-59.

Vehicles.	N.S.W.	Vic.(a)	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Motor cars (b) ..	58,302	56,337	20,956	16,760	10,389	5,416	391	1,630	170,181
Commercial vehicles, etc.(c) ..	34,357	14,620	11,278	6,110	5,140	2,059	352	474	74,390
Motor cycles ..	2,690	2,234	1,606	1,095	2,071	176	37	83	9,992
Total ..	95,349	73,191	33,840	23,965	17,600	7,651	780	2,187	254,563

(a) See para. 5 on p. 546. (b) Includes taxis and hire cars. (c) Includes utilities, panel vans, trucks, omnibuses and station wagons.

NOTE.—See NOTE to table on p. 546.

(ii) *Australia.* Particulars of the number of new vehicles registered in Australia during each of the years 1954–55 to 1958–59 are shown in the following table:—

NEW MOTOR VEHICLES REGISTERED: AUSTRALIA.

Vehicles.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Motor cars (a)(b)	166,801	163,598	149,695	165,236	170,181
Commercial vehicles, etc.(b)(c)	67,188	69,312	58,967	67,139	74,390
Motor cycles	11,282	10,530	9,655	10,604	9,992
Total	245,271	243,440	218,317	242,979	254,563

(a) Includes taxis and hire cars. (b) See para. 5 on p. 546. (c) Includes utilities, panel vans, trucks, omnibuses and station wagons.

NOTE.—See NOTE to table on p. 546.

7. **World Motor Vehicle Statistics, 1959.**—At 1st January, 1959 there were 112,724,300 motor cars, trucks and omnibuses registered in various countries of the world. This was an increase of 5.3 per cent. on the figure for the previous year, 107,023,800. Of the 1959 registrations, 67,824,700 or 60.2 per cent. of the world total were in the United States of America, whilst Australian registrations amounted to 2.3 per cent. This information is largely derived from the *American Automobile*, May, 1959.

F. ROAD TRAFFIC ACCIDENTS.

1. **General.**—Statistics, of "Total Accidents Recorded", were collected to 31st December, 1957, on a comparable basis for all States except Tasmania, where, under legislation passed on 10th August, 1954, it became no longer obligatory to report accidents involving only damage to property. However, this series was suspended from 1st January, 1958, due to the inconsistency between States in recording "damage only" accidents and the distortion of the statistics caused by the difficulty of assessing damage to property.

Details are not available in respect of road traffic accidents which occur in the Northern Territory.

2. Accidents Involving Casualties.—(i) States, 1958–59. The following table gives a summary of accidents involving casualties in each State and the Australian Capital Territory for the year 1958–59.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): ACCIDENTS RECORDED AND CASUALTIES, 1958-59.

State or Territory.	Accidents Involving Casualties.	Persons Killed.			Persons Injured.		
		Number.	Per 100,000 of Mean Population.	Per 10,000 Motor Vehicles Registered.	Number.	Per 100,000 of Mean Population.	Per 10,000 Motor Vehicles Registered.
New South Wales ..	15,216	833	22	9	19,854	533	224
Victoria ..	12,462	661	24	9	16,784	605	218
Queensland ..	5,603	333	23	9	7,700	540	206
South Australia ..	3,984	185	20	7	5,183	571	198
W. Australia ..	3,450	178	25	9	4,506	633	232
Tasmania ..	791	68	20	8	990	290	114
Aust. Cap. Terr. ..	260	6	14	5	342	788	260
Total ..	41,766	2,264	23	9	55,359	557	214

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

(ii) Riders, Drivers, Pedestrians, etc., Killed or Injured. The following table shows the number of persons killed and the number injured during 1958–59 in each State and the Australian Capital Territory, classified into drivers, riders, pedestrians, etc.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): DRIVERS, RIDERS, PEDESTRIANS, ETC., KILLED OR INJURED, 1958-59.

Drivers, Riders, Pedestrians, etc.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Drivers of Motor Vehicles	228	200	91	46	41	13	3	622
Motor Cyclists ..	68	35	39	18	15	7	..	182
Pedal Cyclists ..	34	47	24	19	12	3	2	141
Passengers (all types)(b)	228	173	95	53	54	22	..	625
Pedestrians ..	271	203	84	49	56	23	1	687
Other Classes(c)	4	3	..	..	..	..	..	7
Total ..	833	661	333	185	178	68	6	2,264

PERSONS INJURED.

Drivers of Motor Vehicles	5,600	5,223	2,143	1,440	1,128	280	119	15,933
Motor Cyclists ..	1,831	925	994	774	730	79	42	5,375
Pedal Cyclists ..	1,183	1,464	656	576	401	71	45	4,396
Passengers (all types)(b)	7,723	6,491	3,158	1,857	1,604	343	114	21,290
Pedestrians ..	3,477	2,614	736	531	638	215	21	8,232
Other Classes(c)	40	66	13	5	5	2	1	132
Not Stated ..	..	1	..	..	..	..	..	1
Total ..	19,854	16,784	7,700	5,183	4,506	990	342	55,359

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

(iii) *Ages of Persons Killed or Injured.* The following table shows the age groups of persons killed or injured in traffic accidents in each State and the Australian Capital Territory during 1958-59:—

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): AGES OF PERSONS KILLED OR INJURED, 1958-59.

Age Group (Years).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Under 5	21	17	10	8	9	4	..	69
5 and under 7	13	8	5	5	6	2	..	39
7 " " 17	47	49	30	13	19	7	..	165
17 " " 21	94	71	55	28	17	9	1	275
21 " " 30	148	87	58	28	18	21	2	362
30 " " 40	111	81	45	32	30	2	..	301
40 " " 50	99	74	27	17	21	6	1	245
50 " " 60	89	84	28	16	18	7	2	244
60 and over	208	145	73	29	40	10	..	505
Not Stated	3	45	2	9	..	..	..	59
Total	833	661	333	185	178	68	6	2,264

PERSONS INJURED.								
Under 5	593	553	236	161	151	43	8	1,745
5 and under 7	445	371	149	116	100	24	6	1,211
7 " " 17	2,425	2,148	1,027	701	587	136	42	7,066
17 " " 21	3,320	2,397	1,563	924	851	153	63	9,271
21 " " 30	4,257	3,656	1,617	938	803	182	96	11,549
30 " " 40	2,910	2,648	1,078	654	580	116	60	8,046
40 " " 50	2,265	1,881	782	496	392	76	35	5,927
50 " " 60	1,566	1,386	542	330	357	78	18	4,277
60 and over	1,638	1,385	578	331	280	74	14	4,300
Not Stated	435	359	128	532	405	108	..	1,967
Total	19,854	16,784	7,700	5,183	4,506	990	342	55,359

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

(iv) *Accidents Recorded and Casualties, classified according to Type of Vehicle, Road User, etc., Involved.* The following table shows, for the year 1958-59, the number of accidents involving casualties in which each of several classes of vehicles, road users, etc., were involved. The persons killed and injured are similarly classified.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a), CLASSIFIED ACCORDING TO TYPE OF VEHICLE, ROAD USER, ETC., INVOLVED, AUSTRALIA, 1958-59.(b)

Particulars.	Motor Vehicle.	Motor Cycle.	Pedal Cycle.	Tram.	Animal and Animal-drawn Vehicle.	Pedestrian.	Fixed Object.	Other Vehicle.
Accidents Involving Casualties	38,520	6,461	4,613	390	499	8,423	2,738	285
Persons Killed	2,116	232	153	21	14	674	133	53
Persons Injured	51,713	7,353	4,697	437	596	8,274	3,775	348

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment. (b) It should be noted that, as accidents and casualties classified according to one type of road user, etc., may also be classified according to another, these totals cannot be added across to obtain grand totals. The figures above exclude 48 accidents involving casualties which were not classified according to type of vehicle, road user, etc., involved, from which there were 5 persons killed and 48 persons injured.

It will be seen, therefore, that in 1958-59, motor vehicles were involved in 38,520 accidents involving casualties from which there were 2,116 persons killed and 51,713 persons injured. The 38,520 accidents involving casualties in which motor vehicles were involved comprised 12,102 collisions with other motor vehicles, 4,151 with motor cycles, 3,815 with pedal cycles,

162 with trams, 266 with animals and animal-drawn vehicles, 7,621 with pedestrians, 2,389 with fixed objects, 211 with vehicles other than those mentioned, 7,262 instances of overturning or leaving the roadway, and 541 accidents to passengers only. The particulars of accidents involving casualties in which motor cycles, pedal cycles, etc., were involved with motor vehicles are also included under their respective headings in the table above. Consequently, since the figures in each column refer to the *total* accidents involving casualties in which the particular type of vehicle, etc., was involved, any aggregation across would result, through duplication, in considerable overstatement of the actual totals.

3. **Road Traffic Accidents Involving Casualties, and Persons Killed or Injured.**—The following table shows the number of road traffic accidents involving casualties and persons killed or injured in road traffic accidents in each State and the Australian Capital Territory during each of the years 1954-55 to 1958-59:—

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a) AND PERSONS
KILLED OR INJURED.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.	
								Num-ber.	Per 10,000 Motor Vehicles Registered.
ACCIDENTS INVOLVING CASUALTIES.									
1954-55 ..	12,557	10,217	6,586	3,098	3,149	864	131	36,602	172
1955-56 ..	12,917	10,606	7,116	2,886	3,211	874	156	37,766	166
1956-57 ..	13,473	10,804	7,527	3,142	3,082	852	186	39,066	167
1957-58 ..	14,646	9,536	6,565	4,372	3,338	779	237	39,473	161
1958-59 ..	15,216	12,462	5,603	3,984	3,450	791	260	41,766	162
PERSONS KILLED.									
1954-55 ..	798	528	273	173	206	57	7	2,042	10
1955-56 ..	808	582	298	167	185	72	7	2,119	10
1956-57 ..	774	589	325	185	168	65	7	2,113	9
1957-58 ..	794	571	342	200	164	70	5	2,146	9
1958-59 ..	833	661	333	185	178	68	6	2,264	9
PERSONS INJURED.									
1954-55 ..	15,959	12,833	8,421	3,926	4,036	1,111	179	46,465	226
1955-56 ..	17,047	13,483	9,170	3,709	4,098	1,046	220	48,773	221
1956-57 ..	17,321	14,120	9,800	3,944	3,921	1,107	237	50,450	216
1957-58 ..	19,378	13,035	8,739	5,492	4,249	1,000	320	52,213	213
1958-59 ..	19,854	16,784	7,700	5,183	4,506	990	342	55,359	214

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

G. CIVIL AVIATION.

1. **Historical.**—A short review of the progress of civil aviation in Australia up to the date of foundation of a Civil Aviation Administration was published in Official Year Book No. 16, pages 534-5.

2. **Foundation and Administration of Civil Aviation.**—A brief account of the foundation and objects of this Administration will be found in Official Year Book No. 19, page 299. Official Year Book No. 38 and earlier issues contain information on the control of civil

aviation by the Board (1936) and later (1939) by the Department of that name. The Acts defining the broad principles of operation of the administration of civil aviation and the Regulations amplifying them, and the principal functions of the administration are also described.

The Department of Civil Aviation is divided into eleven Divisions as follows:—Air Transport and External Relations; Administration, Personal and Establishments; Finance and Stores; Airport Engineering; Aviation Buildings and Property; Flying Operations; Airworthiness; Airways Operations; Airways Engineering; Aviation Medicine; Accident Investigation and Analysis.

3. **International Activity.**—(i) *International Organizations.* 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 Official Year Book No. 37 and particulars of subsequent activity in the international field were included in issue No. 38. The International Civil Aviation Organization had a membership of 74 nations at the end of June, 1959. Australia has continued her representation on the Council, a position which she has held since I.C.A.O. was established in 1947. The thirteenth meeting of the South Pacific Air Transport Council was held in New Zealand in December, 1959. Further details will be found in Official Year Book No. 40 and earlier issues.

(ii) *International Air Services.* Qantas Empire Airways have introduced into service seven Boeing 707 jet aircraft and four Lockheed Electra aircraft. The Boeing 707 operates to North America and on to the United Kingdom and also to the United Kingdom via the Middle East. Qantas, in October, 1959 became the first airline to operate a round-the-world pure-jet air service. Lockheed Electra aircraft are in service to Japan via Manila and Hong Kong. Super Constellation aircraft provide services to South Africa across the Indian Ocean, to Papua and New Guinea, and a cargo service to United Kingdom via the Middle East. DC4 aircraft fly to Norfolk Island and DC3 aircraft fly to the British Solomon Islands and to Netherlands New Guinea. Qantas was operating aircraft over 62,365 route-miles on international services at 30th June, 1959. A summary of the operations of oversea services wholly or partly Australian-owned appears on page 556.

Three Lockheed Electra aircraft operated by Tasman Empire Airways Ltd., which is jointly owned by the Australian and New Zealand Governments, link Sydney and Melbourne with both Auckland and Christchurch.

4. **Regular Air Services within Australia.**—Details of the Government's rationalization scheme and the 1957 amendment to the Civil Aviation Agreement Act consequent upon Ansett Transport Industries Ltd. purchasing Australian National Airways Pty. Ltd. will be found in Official Year Book No. 44, page 421.

The Airlines Equipment Act assented to in October, 1958, gave effect to financial arrangements whereby re-equipment programmes would be assisted. This re-equipment programme has been highlighted by the introduction of Fokker Friendship and Lockheed Electra aircraft into regular air services provided within Australia.

The Act also contains further rationalization provisions whereby the Minister for Civil Aviation can determine the maximum capacity to be operated by the Australian National Airlines Commission and Ansett Transport Industries Ltd. on both competitive and non-competitive routes. In this regard the Act provides for consultation between the two Airlines and the Director-General of Civil Aviation for the purpose of considering matters relevant to the making of estimates and determinations of capacity.

A summary of the operations of regular air services within Australia appears on page 556 and a map showing air routes on pages 559-560.

5. **Air Ambulance Services.**—A brief statement on the foundation and objects of the Air Ambulance Services will be found in Official Year Book No. 32, pages 145 and 146.

During the year 1958-59, the Air Ambulance and Royal Flying Doctor Services continued to provide medical aid for the outback regions of Australia. The Commonwealth Department of Health operates the Northern Territory Aerial Medical Service with two Drover and two Dove aircraft. The Royal Flying Doctor Service of Australia, operating from Broken Hill, New South Wales (two Drovers), and Port Hedland, Western Australia (three Cessna and one DH83), covers a wide area of inland Australia. The Bush Church

Aid Society for Australia and Tasmania, supported by funds from the Church of England, maintains two aircraft (one Percival Proctor III and one Lockheed 12A) at Ceduna, South Australia. The Federal Methodist Inland Mission (one DH82A) operates services from Meekatharra, Western Australia, and the Queensland Ambulance Transport Brigade operates a service from Cairns (one DH89A, one Auster J5B and one Cessna 182A).

6. Training of Air Pilots.—A brief statement of the pre-war policy of the Commonwealth Government regarding assistance to Aero Clubs was given in Official Year Book No. 32, page 146. A summary of the assistance granted during the years 1951 to 1956 will be found in Official Year Book No. 42, page 253, whilst details of the new contract, initiated on 1st January, 1957, and the assistance granted during 1956–57 will be found in Official Year Book No. 44, page 421.

During the year 1958–59, the flying training organizations (non-profit aero clubs and commercial flying schools) earned bonuses in respect of 393 private pilot licences, 106 commercial pilot licences and 41 initial instructor ratings. It should be noted that, under the new contract, commercial licence issue and instructor rating bonuses were substituted for renewal bonuses. Subsidized hours flown by aero clubs and flying schools numbered 82,165 and the total earnings of all organizations amounted to £189,985. An overall limit placed on the subsidy restricted the total payments to £145,000. There were 31 aero clubs and 6 commercial flying training schools in operation during the year, and, in addition to civil flying, some 13,724 unsubsidized civil hours and 4,953 service training hours were flown; in all, a total of 100,842 hours.

7. Gliding Clubs.—For the year 1958–59, a total subsidy of £3,000 was distributed to member clubs of the Gliding Federation of Australia, on the basis of £1,500 for membership and £1,500 for gliding certificates issued. In addition, the Federation received a grant of £1,000 towards the cost of operation of its school for instructors and engineers.

8. Airways Engineering.—In the fields of airways engineering which includes the provision of radio navigation facilities, radio communication systems and airport lighting, steady progress was made during the year 1958–59.

Both the high frequency and very high frequency communications systems have been extended. On the very high frequency side the expansion has been particularly noteworthy, the object being to increase the coverage area available for direct speech between aircraft in flight and air traffic controllers. With the completion of the Mount Barrow installation in Tasmania and the Arthur's Seat installation in Victoria there is now complete coverage over Bass Strait. The station at Kings Tableland, New South Wales, has been completed. This station is the major outlet for very high frequency transmission from the Sydney area and is one of the most important repeater stations. It provides remote control facilities from Kingsford-Smith Airport to the Sydney International Transmitting Station and is a vital station in the plan to provide voice communication with aircraft flying on the Sydney-Brisbane route.

The Sydney International Transmitting Station at Llandillo has now gone into full operation and is providing, amongst other services, five radio teletype circuits to overseas stations. This station together with the International Transmitting Station previously opened at Darwin has made possible substantial improvements to the overseas communications so vital in the control of international air traffic. Radio teletype circuits within the Commonwealth have been extended and these additional services have increased the efficiency of point to point communications. The high frequency air-ground-air communication networks have been extended to provide improved communications for commercial aircraft operations and an entirely separate network has been set up to provide exclusive channels for communications with light aircraft. Steady progress has been made towards improving communications in the Territory of Papua and New Guinea.

In the field of radio navigational aids, instrument landing systems have been installed at Adelaide, Port Moresby and Avalon. In addition 2 distance measuring beacons, 5 locators, 2 non-directional beacons and 2 visual aural ranges have been brought into service. Airport radar systems have been made operational at Melbourne and Sydney where they are being used as an aid to terminal air traffic control.

A special effort has been made in the field of air traffic control engineering and as a result the air traffic control centres and control towers at Hobart, Launceston and Darwin have been completely re-equipped. The aeradio station at Cloncurry has been rebuilt and this has become one of the Commonwealth's most important inland aeradio stations. In view of the large number of small aeradio stations in the Commonwealth that must be re-equipped, considerable attention has been given to the design and manufacture of component parts to prefabricate new installations which will be used to replace old ones. Although no installations of this nature have been made, the designs have been prepared and the materials are available and it is hoped this will result in a rapid re-equipment programme for aeradio stations.

In the field of airport lighting the most note-worthy addition to facilities has been the completion of three high intensity approach lighting installations at Sydney, Darwin and Hobart.

9. Meteorological Services.—The Department of Civil Aviation is the biggest user of meteorological services in the Australian Commonwealth and its territories, and therefore the requirements for civil aviation purposes have played a big part in determining the form of meteorological organization that exists at the present time.

The need for the dissemination of adequate and accurate meteorological information to flights has become more important in recent years with the greater demands of high performance aircraft, with their more critical fuel requirements and greater susceptibility to changes in atmospheric conditions.

The Department and the Commonwealth Bureau of Meteorology have now completed working arrangements designed to meet the very precise requirements of modern civil aviation in Australia.

The working arrangements specify the standards of service, times and places of operation and facilities required for the provision of meteorological services for civil aviation.

10. Search and Rescue.—On 1st November, 1958, the Department assumed full responsibility for co-ordination of search and rescue activity throughout the Australian flight information regions except Darwin, where by arrangement with the Royal Australian Air Force, search and rescue is co-ordinated by the Officer Commanding. The Department also arranges for the availability of search and rescue facilities.

Previously, the Royal Australian Air Force, in operational and financial agreement with the Department of Civil Aviation provided the bulk of the sea-air rescue facilities and the organization to co-ordinate those facilities.

The current search and rescue plan provides for the availability of search aircraft on a self-help basis from within the aviation industry, supplemented by special arrangements with the Department of Shipping and Transport, the Department of the Navy, launch owners, police and military forces, forestry units and so on.

In using general duty aircraft for sea-air rescue purposes, it is necessary to temporarily equip them with droppable dinghies and/or droppable storpedoes fitted with first aid gear, food and water. This, in turn, has necessitated the establishment of limited supplies of these facilities at strategic points throughout Australia and the Territory of Papua and New Guinea.

Along the coastlines of the Commonwealth, marine craft are available and serve as auxiliary sea-air rescue units. However, at selected major aerodromes near the coastline and at Cocos Islands, the Department provides marine craft on a lifeboat principle.

Due to the very high cost of long range ocean going rescue ships, oceanic rescue requirements must be satisfied by the use of naval and mercantile shipping diverted to the scene of distress. International law requires the master of a merchant ship at sea to proceed with the utmost dispatch to a distress scene and arrangements have been made for the plotting of all shipping movements upon the declaration of an emergency phase.

Land rescue units are organized in close co-operation with Air Force, Army, Forestry and Police organizations.

11. **Aircraft Parts and Materials.**—At 30th June, 1959, the number of firms and organizations approved by the Department of Civil Aviation to trade in the aircraft industry was 480.

12. **Aircraft Overhaul and Repair.**—Aircraft overhaul and repair is carried out in workshops approved by the Director-General of Civil Aviation. Components and accessories are now certified on release notes signed by approved members of the firm's inspection organization.

13. **Test and Examination of Aircraft Parts and Materials.**—This work is carried out in test houses and laboratories registered by the National Association of Testing Authorities, except when production is for the manufacturer's own use, when the testing, etc. can be done in an approved laboratory. Certificates issued under registrations by the Association are acceptable to any Commonwealth Government Department.

14. **Statistical Summaries.**—(i) *Registrations, Licences, etc.* The following table provides a summary of the civil aviation registrations and licences in force in Australia at 30th June in each of the years 1955 to 1959.

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

Particulars.	At 30th June—				
	1955.	1956.	1957.	1958.	1959.
Registered aircraft owners ..	414	437	485	570	642
Registered aircraft ..	887	934	1,054	1,180	1,246
Pilots' Licences—					
Private ..	2,245	2,453	2,592	2,628	2,801
Commercial ..	582	578	709	845	910
Senior Commercial ..	..	76	99	100	130
Helicopter (Commercial) ..	..	11	21	18	17
Student ..	3,193	3,272	3,397	3,493	3,465
1st Class Airline Transport	548	600	606	656	652
2nd „ „ „ ..	25	9	7	} (b) 389	389
3rd „ „ „ ..	390	394	414		
Navigators' Licences—					
Flight Navigator ..	161	177	187	176	177
Radio Operators' Licences—					
1st Class Flight Radio-Tele- graphy Operator ..	78	75	69	63	56
Flight Radio-Telephone Operator—					
1st Class ..	820	} (c) 1,386	1,574	1,823	2,203
2nd „ ..	309				
3rd „ ..	137				
Flight Engineers' Licences ..	98	94	116	176	189
Aircraft Maintenance Engineers' Licences ..	1,747	1,818	1,915	2,016	2,266
Aerodromes, Australia—					
Government(d) ..	185	188	169	168	168
Licensed(e) ..	303	301	313	311	304
Flying Boat Bases(f) ..	13	13	13	13	13

(a) Except for aerodromes and flying-boat bases, includes the Territory of Papua and New Guinea.
 (b) 3rd class abolished and existing licences became 2nd class. (c) Since 1956 only one category (Flight Radio-telephone Operator). (d) Under the control and management of the Department of Civil Aviation. (e) Aerodromes under the control and management of a municipality, shire, station owner, private individual, etc. Includes emergency aerodromes. (f) Includes alighting areas.

(ii) *Aircraft on the Australian Register.* A summary of aircraft on the Australian register at 31st December, 1959, classified according to the principal types of operation in which they are engaged, is shown in the following table.

AIRCRAFT ON THE AUSTRALIAN REGISTER(a), 31st DECEMBER, 1959.

Type of Aircraft.	Number.	Type of Aircraft.	Number.
(i) Aircraft Engaged in Regular Public Transport—		(iii) Aircraft used for Private Purposes—	
Avro Anson	4	Auster (All Types) ..	128
Convair 440	5	Avro Anson	11
De Havilland (All Types) ..	8	Beechcraft	9
Douglas—		Cessna	66
DC3	59	De Havilland—	
DC4 (Skymaster)	7	DH82 Tiger Moth ..	74
DC6, DC6B	6	Other	54
Fokker Friendship	11	Fairchild	10
Lockheed—		Miles (All Types) ..	17
Electra	8	Percival (All Types) ..	22
Super Constellation	11	Piper	19
Vickers Viscount	21	Ryan	10
Other Types	20	Stinson	7
		Wackett	10
Total	160	Other Types	44
		Total	481
(ii) Aircraft Available for Air Charter—		(iv) Aircraft used for other Purposes(c)—	
Auster (All Types)	60	Auster (All Types) ..	17
Avro Anson	20	Avro Anson	10
Cessna	65	Cessna (Single Engine) ..	13
De Havilland—		De Havilland—	
DH82	19	DH82	213
DH84	9	Chipmunk	56
Other	17	Other	18
Percival (All Types)	8	Piper	14
Piper (All Types)	25	Other Types	(d) 40
Other Types	(b) 49	Total	381
Total	272	Grand Total	1,294

(a) Includes those based in the Territory of Papua and New Guinea. (b) Includes 8 helicopters
(c) Flying School training, aerial top-dressing, etc. (d) Includes 3 helicopters.

(iii) *Operations of Regular Internal Services.* The next table summarizes the flying activities of regular internal services operating within Australia during each of the years 1954–1955 to 1958–59.

CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES, AUSTRALIA.

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Hours flown	257,787	251,900	251,139	237,981	229,396
Miles	'000 43,513	43,701	42,120	40,533	40,287
Paying passengers	1,918,125	2,020,380	2,125,338	2,122,794	2,235,070
Paying passenger-miles	'000 765,652	827,885	891,196	898,542	944,379
Freight—					
Tons(a)	78,711	84,446	75,092	70,003	62,755
Ton-miles(a)	'000 36,984	38,909	36,330	32,987	28,841
Mail—					
Tons(a)	2,317	2,478	2,514	2,642	2,727
Ton-miles(a)	'000 1,257	1,357	1,404	1,446	1,472

(a) In terms of short tons (2,000 lb.).

(iv) *Operations of Oversea Services wholly or partly Australian-owned.* The following table furnishes a summary of oversea services, wholly or partly owned by Australian interests, operating between Australia and oversea countries, including Pacific islands and the Territory of Papua and New Guinea, during the years 1954–55 to 1958–59. The operations of Qantas Empire Airways, Tasman Empire Airways Ltd. and British Overseas Airways Corporation are included, but those of Canadian Pacific Airlines, K.L.M., South African Airways, Air India International and Pan-American Airways are excluded.

CIVIL AVIATION: OPERATIONS OF OVERSEA SERVICES.(a)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Route miles (unduplicated) at 30th June ..	63,774	58,618	62,675	71,729	74,704
Hours flown	49,326	50,665	56,939	63,917	68,811
Miles '000	11,128	12,028	13,614	15,267	16,486
Paying passengers	114,371	131,934	155,618	164,634	176,120
Paying passenger-miles '000	317,565	383,930	476,831	501,388	534,728
Freight—					
Tons(b)	2,662	2,990	2,957	3,205	3,431
Ton-miles(b) '000	9,372	10,494	11,203	12,051	15,381
Mail—					
Tons(b)	1,442	1,491	1,622	1,749	1,647
Ton-miles(b) '000	7,927	8,458	9,450	9,789	8,834

(a) Airlines wholly or partly owned by Australian interests.

(b) In terms of short tons (2,000 lb.).

(v) *Accidents and Casualties.* The number of accidents involving aircraft on the Australian register in which persons were killed or injured is shown in the following table for the years 1954–55 to 1958–59.

CIVIL AVIATION: ACCIDENTS INVOLVING AUSTRALIAN AIRCRAFT.(a)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number(b)	22	31	37	35	39
Persons killed	27	22	24	28	21
Persons injured	19	27	36	31	30

(a) Includes accidents and casualties in the Territory of Papua and New Guinea.

(b) Includes all accidents irrespective of whether they involved death or injury.

15. **Territory of Papua and New Guinea.**—In this area there were, at 31st December, 1959, 18 aerodromes and 21 water aerodromes under the control of the Department of Civil Aviation; 93 aerodromes under the control of the Territory Administration; 2 aerodromes under joint control by the Department of Civil Aviation and the Territory Administration; and 13 aerodromes (licensed for commercial operations) under private control. One permanently maintained heliport and approximately 25 permanently maintained helicopter clearings were also in existence, as well as a number of unlicensed private aerodromes and helicopter clearings.

Four companies conduct regular services between the major aerodromes. Charter flights can be arranged to almost any locality. Further information may be found in Chapter V.—The Territories of Australia.

During the year 1958–59, one accident (one death) involving aircraft occurred in the Territory of Papua and New Guinea.

PART II.—COMMUNICATION.

A. POSTS ; TELEGRAPHS ; TELEPHONES ; CABLE AND RADIO COMMUNICATION.

NOTE.—In this Division particulars for the Australian Capital Territory are included with those for New South Wales, while the South Australian figures include particulars for the Northern Territory unless otherwise indicated.

§ 1. General.

1. **The Postmaster-General's Department.**—Under the provisions of the Post and Telegraph Act 1901, the Department was placed under the control of the Postmaster-General. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Director of Posts and Telegraphs.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The following statement 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 30th June, 1959. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office as well as the number of inhabitants per office should be taken into account.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION AT 30th JUNE, 1959.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices(a)	2,563	2,278	1,263	904	633	517	8,158
Number of square miles of territory per office	121	39	528	1,000	1,542	51	364
Number of inhabitants per office ..	1,484	1,236	1,141	1,042	1,136	662	1,233
Number of inhabitants per 100 square miles	1,225	3,203	216	104	74	1,306	339

(a) Includes "official", "semi-official", and "non-official" offices.

The foregoing table does not include "telephone" offices at which no postal business is transacted.

(ii) *Number of Offices.* The following table shows the number of post offices (exclusive of telephone offices) in each State at 30th June, 1959.

NUMBER OF POST OFFICES AT 30th JUNE, 1959.

Type of Office.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Official and Semi-official(a)	512	320	221	167	148	53	1,421
Non-official	2,051	1,958	1,042	737	485	464	6,737
Total	2,563	2,278	1,263	904	633	517	8,158

(a) There were two semi-official post offices in N.S.W. and two in Victoria.

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at 30th June, 1959 are given in the following table:—

**NUMBER OF POSTAL EMPLOYEES AND MAIL CONTRACTORS AT
30th JUNE, 1959.**

Particulars.	Central Office.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Employees	1,220	36,058	26,718	13,973	9,319	6,723	3,762	97,773
Mail Contractors(a) ..	..	2,125	1,126	1,253	374	274	250	5,402

(a) Includes persons employed to drive vehicles.

3. *Gross Revenue, Branches—Postmaster-General's Department.*—The gross revenue (actual collections) in respect of each branch of the Department during the year 1958–59 is shown in the table hereunder:—

POSTMASTER-GENERAL'S DEPARTMENT: GROSS REVENUE, 1958-59.(a)
(£'000.)

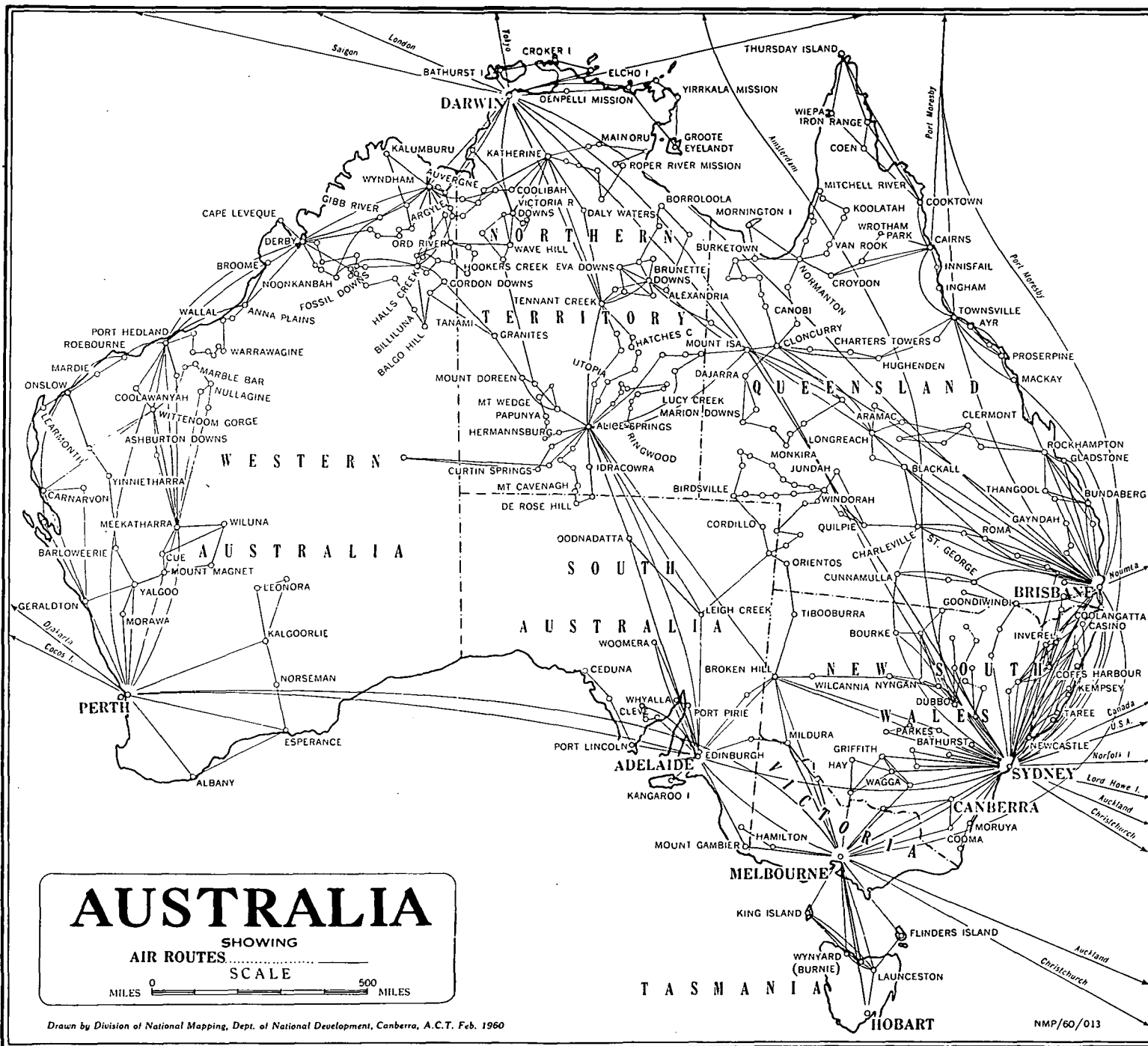
Sources.	N.S.W.	Vic.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Postage	12,808	c10,706	4,177	2,745	1,924	806	33,166
Money order commission and poundage on postal notes ..	412	255	111	99	53	26	956
Private boxes and bags ..	90	59	46	30	21	12	258
Miscellaneous	1,202	1,003	351	249	160	85	3,050
Total, Postal	14,512	12,023	4,685	3,123	2,158	929	37,430
Telegraphs	2,055	1,639	1,150	711	579	186	6,320
Telephones	23,711	17,608	8,067	5,262	3,372	1,697	59,717
Grand Total	40,278	31,270	13,902	9,096	6,109	2,812	103,467

(a) The figures in this table relate to revenue actually collected during the year as recorded for Treasury purposes. (b) Includes Central Office collections. (c) Includes Central Office revenue from airmail services.

For each of the years 1954–55 to 1957–58 the gross revenue for Australia was £72,825,000, £79,341,000, £90,074,000 and £96,776,000 respectively.

Gross revenue for the year 1958–59 increased by 6.9 per cent. compared with that for the previous year. Revenue of the Postal, Telegraph and Telephone branches increased by 6.1 per cent., 2.5 per cent. and 7.9 per cent. respectively.

4. *Expenditure, Postmaster-General's Department.*—(i) *Distribution.* The following table shows, as far as possible, the distribution of expenditure (actual payments) in each State during 1958–59, as shown by records kept for Treasury purposes. The table must not be regarded as a statement of the working expenses of the Department since items relating to new works, interest, etc., are included therein.



**POSTMASTER-GENERAL'S DEPARTMENT: DISTRIBUTION OF
EXPENDITURE, 1958-59.(a)**

(£'000.)

Particulars.	Central Office.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Expenditure from Ordinary Votes—								
Salaries and payments in the nature of salary	572	16,193	11,560	6,331	3,988	2,642	1,556	42,842
General expenses	82	1,961	1,311	510	418	291	156	4,729
Stores and material	33	902	654	360	285	186	88	2,508
Mail services	(b)4,450	1,709	875	873	457	252	125	8,741
Engineering services (other than capital works)	980	13,809	9,625	5,061	3,113	2,475	1,279	36,342
Other services	88	..	..	..	..	..	..	88
Total	6,205	34,574	24,025	13,135	8,261	5,846	3,204	95,250
Rent, repairs, maintenance .. ..	..	506	427	192	125	76	50	1,376
Proportion of audit expenses	4	19	14	8	5	3	2	55
Capital works and services—								
Telegraph and telephone	30	12,439	9,620	3,435	3,220	2,308	1,157	32,209
New buildings, etc. .. ..	..	1,241	1,102	700	595	339	167	4,144
Other expenditure, not allocated to States	(c)3,799	..	..	..	..	..	..	3,799
Grand Total	10,038	48,779	35,188	17,470	12,206	8,572	4,580	136,833

(a) The figures in this table represent actual payments made during the year as recorded for Treasury purposes. (b) Expenditure on airmail services. (c) Includes expenditure not apportioned to States, i.e., interest on loans, £798,000; sinking fund, £798,000; superannuation contributions, £2,179,000; transferred officers' pensions and allowances, £2,000; pensions and retiring allowances, £4,000 and pension supplements, £18,000.

(ii) *Totals.* Grand total expenditure for Australia for each of the years 1954-55 to 1957-58, respectively, were:—£103,586,000, £114,497,000, £121,917,000 and £131,263,000. Total expenditure increased by 4.2 per cent. during 1958-59, compared with that during 1957-58.

5. *Profit or Loss, Postmaster-General's Department.*—The foregoing statements of gross 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 for each branch, after providing for working expenses (including superannuation, pensions and depreciation) and interest charges including exchange, are shown in the following table for the years 1954-55 to 1958-59.

POSTMASTER-GENERAL'S DEPARTMENT: PROFIT OR LOSS, BRANCHES.

(£'000.)

Branch.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Postal	— 2,254	— 2,402	— 1,526	— 1,954	— 851
Telegraph	— 800	— 1,202	— 638	— 330	— 42
Telephone	2,905	3,179	5,281	6,294	6,936
All Branches	— 149	— 425	3,117	4,010	6,043

NOTE.—Minus sign (—) indicates loss.

6. Fixed Assets.—(i) *Details, 1958–59.* The following table shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1958, to 30th June, 1959:—

POSTMASTER-GENERAL'S DEPARTMENT: FIXED ASSETS.
(£'000.)

Particulars.	Net Value 1st July, 1958.	Capital Expendi- ture, 1958–59.	Gross Value, 30th June, 1959.	Assets Dis- mantled or Written Off 1958–59.	Net Value, 30th June, 1959.
Telephone and telegraph plant ..	331,365	42,595	373,960	6,154	367,806
Mail-handling plant	477	245	722	2	720
Buildings	38,124	4,035	42,159	27	42,132
Motor vehicles	8,164	1,996	10,160	935	9,225
Assets subject to direct depreciation(a)	4,739	946	5,685	380	5,305
Other fixed assets	16,568	2,080	18,648	225	18,423
Total	399,437	51,897	451,334	7,723	443,611

(a) Includes postal service plant, miscellaneous plant, furniture and office equipment.

(ii) *Net Value.* The net value of the fixed assets of the Postmaster-General's Department at 30th June in each of the years 1955 to 1958, respectively, was:—£285,205,000, £319,691,000, £357,906,000 and £399,437,000.

§ 2. Posts.

1. *Postal Matter Dealt With.*—(i) *States, 1958–59.* The following table shows a summary of the postal matter dealt with, in each State, during the year 1958–59. 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 table.

POSTAL MATTER DEALT WITH(a), 1958–59.
(‘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 delivery within Australia.				Posted for delivery Overseas.			
New South Wales ..	556,235	109,413	6,804	5,037	23,787	9,592	428	616
Victoria	442,766	79,060	5,207	3,684	11,484	4,217	154	213
Queensland	197,927	28,796	2,608	1,873	6,100	1,341	47	28
South Australia ..	130,541	11,746	1,388	966	4,354	846	47	64
Western Australia ..	99,904	9,129	1,169	678	5,688	1,381	29	54
Tasmania	44,862	7,689	222	489	338	21	19	20
Australia ..	1,472,235	245,833	17,398	12,727	51,751	17,398	724	995
	Received from Overseas.				Total postal matter dealt with.			
New South Wales ..	44,482	29,669	369	1,072	624,504	148,674	7,601	6,725
Victoria	16,149	9,438	239	222	470,399	92,715	5,600	4,119
Queensland	4,017	4,721	59	65	208,044	34,858	2,714	1,966
South Australia ..	5,929	5,698	53	28	140,824	18,290	1,488	1,058
Western Australia ..	3,296	6,582	45	44	108,888	17,092	1,243	776
Tasmania	1,541	1,843	16	3	46,741	9,553	257	512
Australia ..	75,414	57,951	781	1,434	1,599,400	321,182	18,903	15,156

(a) See explanation above. (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.

(ii) *Australia.* The next table shows the total postal matter dealt with in Australia during each of the years 1954-55 to 1958-59.

TOTAL POSTAL MATTER DEALT WITH: AUSTRALIA.

Year.	Letters, Postcards and Letter-cards.		Newspapers and Packets.		Parcels.(a)		Registered Articles other than Parcels.	
	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.
1954-55 ..	1,344,642	147,922	274,158	30,160	16,765	1,844	17,628	1,939
1955-56 ..	1,414,222	151,811	291,048	31,243	17,334	1,861	18,376	1,973
1956-57 ..	1,443,337	151,372	306,417	32,136	16,998	1,783	17,007	1,784
1957-58 ..	1,538,509	157,865	323,684	33,213	17,726	1,819	15,566	1,597
1958-59 ..	1,599,400	160,702	321,182	32,271	18,903	1,899	15,156	1,523

(a) Includes registered, cash on delivery and duty parcels.

2. **Cash on Delivery Parcels Post.**—(i) *General.* The Postmaster-General's Department undertakes, upon prepayment of a prescribed commission, to deliver registered articles sent by parcels post within Australia, or between Australia and Lord Howe Island, Norfolk Island, Nauru, the Territory of Papua and New Guinea, or Fiji, to recover from the addressee on delivery a sum of money specified by the sender, and to remit the sum to the sender. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, and of traders and others who do not wish their goods to be delivered except on payment.

(ii) *States.* The next table shows particulars regarding the cash on delivery parcels posted in each State in 1958-59.

CASH ON DELIVERY PARCELS POST, 1958-59.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Parcels posted '000	299	100	124	44	40	2	609
Value .. £'000	1,134	362	418	168	134	8	2,224
Revenue(a) £'000	96	35	36	15	11	1	194

(a) From commission and postage.

(iii) *Australia.* In the following table particulars of cash on delivery parcels posted in Australia are shown for the years 1954-55 to 1958-59.

CASH ON DELIVERY PARCELS POST: AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Parcels posted .. '000	845	762	672	624	609
Value £'000	2,804	2,526	2,289	2,222	2,224
Revenue(a) £'000	225	206	215	200	194

(a) From commission and postage.

3. **Total Cost of Carriage of Mails.**—During 1958-59, 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 (including departmental transport) £3,668,000; railway £1,405,000; sea £185,000; air—internal £717,000, oversea £3,742,000; Grand Total £9,717,000.

4. **Transactions of the Dead Letter Offices.**—During the year 1958–59, 1,491,000 letters were returned to senders or delivered, 348,000 were destroyed in accordance with the Act, and 199,000 were returned to other countries as unclaimed—a total of 2,038,000. Corresponding particulars for packets were—512,000, 265,000, 33,000 and 810,000. There were 2,848,000 articles handled in all.

5. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by sections 74–79 of the Post and Telegraph Act 1901–1950. The maximum amount for which a single money order payable within Australia may be obtained is £40, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent to any person in the dollar area is £A.5 a month and for remittances to countries outside the dollar area, £A.10 a week. A postal note cannot be issued for a sum larger than twenty shillings.

(ii) *States.* Particulars regarding the business transactions in each State for the year 1958–59 are shown hereunder:—

MONEY ORDERS AND POSTAL NOTES: TRANSACTIONS, 1958-59.
(£'000.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Money Orders—							
Issued	44,617	20,254	9,870	6,118	4,017	2,158	87,034
Paid	45,085	20,671	9,436	5,751	3,920	1,832	86,695
Net Commission							
Received	300	165	78	47	35	18	643
Postal Notes—							
Issued	3,678	2,277	901	1,236	556	197	8,845
Poundage Received..	140	91	33	53	22	8	347

(iii) *Australia.* The next table shows the number and value of money orders and postal notes issued and paid in Australia in each of the years 1954–55 to 1958–59.

MONEY ORDERS AND POSTAL NOTES: TRANSACTIONS, AUSTRALIA.

Year.	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	'000.	£'000.	'000.	£'000.	'000.	£'000.	'000.	£'000.
1954–55 ..	6,755	61,699	6,617	61,262	21,816	10,226	21,867	10,249
1955–56 ..	7,638	70,220	7,337	69,585	23,128	10,450	23,066	10,464
1956–57 ..	8,127	74,542	7,841	73,798	20,332	9,493	20,778	9,709
1957–58 ..	8,668	78,411	8,305	78,918	18,937	9,155	18,415	8,953
1958–59 ..	9,420	87,034	9,155	86,695	18,012	8,845	17,888	8,754

(iv) *Classification of Money Orders Issued and Paid.* Of the total money orders issued in Australia during 1958–59, 9,033,000 valued at £85,783,000 were payable in Australia and 387,000 valued at £1,251,000 were payable overseas. Of the total money orders paid in Australia during 1958–59, 9,018,000 (£85,906,000) were issued in Australia and 137,000 (£789,000) were issued overseas.

(v) *Postal Notes Paid.* The following table shows the number and value of postal notes paid in each State during the year 1958–59. The number and value of postal notes issued and paid in each of the years 1954–55 to 1958–59 have been given in the previous table.

POSTAL NOTES PAID: STATE OF ISSUE, 1958-59.

Issued in—	Paid in—						
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Same State	'000 5,967	4,008	1,301	828	682	241	13,027
	£'000 3,075	1,881	665	480	368	111	6,580
Other States	'000 1,413	2,125	810	84	166	263	4,861
	£'000 645	846	471	43	51	118	2,174
Total	'000 7,380	6,133	2,111	912	848	504	17,888
	£'000 3,720	2,727	1,136	523	419	229	8,754

§ 3. Telegraphs.

1. General.—A review of the development of telegraph services in Australia up to 1921 appeared in Official Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. During the past few years substantial improvements in both the speed and grade of telegraph services throughout Australia have been effected, the entire system being subjected to intensive re-organization. A new teleprinter reperforator switching system (TRESS) which eliminates the use of morse, was inaugurated in the telegraph service. The system is now operating in all mainland States and its extension to Tasmania is planned.

Telephone subscribers may telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the year 1958-59 was about 8.7 million, or approximately 39 per cent. of the total lodgments. The number of telegrams telephoned to subscribers totalled 4.6 million.

A radiogram service is provided to certain isolated places throughout Australia and a number of privately-operated wireless transceiver stations have been established at various centres throughout the Commonwealth, enabling telegrams to be exchanged with departmental telegraph offices. Stations sponsored by the Royal Flying Doctor Service of Australia can communicate by wireless with base stations.

A picturegram service is provided at the capital cities of the States and certain country centres. The equipment at these points permits the direct transmission and reception of oversea photo-telegrams. In 1958-59, 6,633 picturegrams were lodged for destinations within Australia, 1,137 photo-telegrams were transmitted to oversea destinations and 6,881 were received from other countries.

The teleprinter exchange service (Telex) was introduced in Australia in September 1954 for use by subscribers between Sydney and Melbourne. The service has expanded quickly and is now firmly established in all capital cities including Canberra and 32 provincial centres. At the end of June, 1959 there were 502 private subscribers connected to the service throughout Australia.

The telex service is, in most respects, similar to the telephone service except that communications are exchanged on a printed word basis instead of speech. Special services provided for telex subscribers include, trunk and local calls, particular person calls, fixed time calls and conference and broadcast calls.

In addition to direct subscriber-to-subscriber communication, the telex service provides facilities which enable subscribers to lodge or receive telegrams through the Printergram Section at the local Telegraph Office. Moreover, Melbourne and Sydney subscribers may lodge their oversea telegrams direct with the offices of the Overseas Telecommunications Commission (Aust.) in those cities.

During the year 1958-59, 228,861 telex trunk calls were exchanged. In the same period subscribers lodged 704,347 telegrams and had 1,021,855 telegrams transmitted direct to their premises by means of the printergram facility.

The international telex service was inaugurated in Australia in October, 1958 with initial services to the United Kingdom, United States of America, Canada and Japan. The service has expanded rapidly and is now available to 28 countries.

During the 8 months ended 30th June, 1959, a total of 21,101 international telex calls, 9,958 originating and 11,143 terminating, was exchanged with overseas countries.

As distinct from telex subscribers, there were 1,032 leased private-wire teleprinter services in operation at the close of business 1958-59. These services are exclusive teleprinter channels leased on a full-time or part-time basis for use between points in the same area or long distance. Some services comprise networks embracing points in all States.

2. Telegraph and Telephone Mileage.—At 30th June, 1959, the combined single-wire mileages for both telegraph and telephone purposes were:—aerial, underground and submarine cables—7,819,000 miles, trunk telephone and telegraph 262,000 miles; aerial wires—telephone trunk and/or telegraph purposes 577,000 miles, exchange and non-exchange service lines 754,000 miles. The mileages of conduits and pole routes were 12,500 duct miles and 121,000 miles respectively. Conduits include only ducts and conduits with an internal diameter of 2 inches or over. Those with a diameter of less than 2 inches are not recorded separately and are included with underground cables. The mileages in each State at 30th June, 1959 may be found in *Transport and Communication*, Bulletin No. 50.

Joint use is now made of poles for power and telephone reticulation; this scheme operates extensively throughout the United States of America and Canada.

3. Telegraph Offices.—(i) *States.* The numbers of telegraph offices, including railway telegraph offices, in the various States at 30th June, 1959 were:—New South Wales, 3,042; Victoria, 2,320; Queensland, 1,777; South Australia, 979; Western Australia, 967; Tasmania, 570.

(ii) *Australia.* The numbers of telegraph offices in Australia at 30th June of each of the years 1955 to 1959 respectively were:—9,907, 9,896, 9,934, 9,708 and 9,655.

4. Telegrams Dispatched within Australia.—(i) *States.* The following table shows the number of telegrams dispatched to places within the Commonwealth and to adjacent islands and to ships at sea, according to the class of message transmitted:—

TELEGRAMS DISPATCHED, 1958-59.
(’000.)

State.	Paid and Collect.							Unpaid (Service).	Total Telegrams.
	Ordinary.	Meteorological.	Urgent.	Radio-grams.	Press.	Letter-grams.	Total.		
New South Wales	6,394	206	305	74	58	22	7,059	257	7,316
Victoria ..	3,869	127	163	6	17	17	4,199	148	4,347
Queensland ..	3,390	199	117	51	35	14	3,806	157	3,963
South Australia	1,531	93	46	42	23	15	1,750	46	1,796
Western Australia	1,460	140	43	69	17	19	1,748	48	1,796
Tasmania ..	445	43	16	2	5	7	519	26	545
Australia ..	17,090	808	690	244	155	94	19,081	682	19,763

(ii) *Australia.* Telegrams dispatched to destinations within Australia and to adjacent islands and to ships at sea, during each of the years 1954-55 to 1957-58 respectively, numbered:—22,713,000, 22,600,000, 21,144,000 and 20,107,000.

§ 4. Telephones.

1. General.—Particulars of the total mileage of lines used exclusively for telephone purposes are not available, but are combined with all other line mileage. Particulars of the total single wire mileage used for telephone, trunk and/or telegraph purposes are shown in § 3, para. 2, above.

During 1958-59, 140,176 telephone subscribers' lines and 208,259 telephones were added to the system, compared with 139,107 lines and 205,861 telephones in 1957-58. As 8,139 of the subscribers' lines installed in 1958-59 were duplex services, the increase in telephone services was 148,315. With an average at 30th June, 1959, of twenty telephones to every 100 persons, Australia had a telephone density exceeded by that of only three of those countries with 2 million or more telephones. The trunk line network was increased by 98,163 channel miles and at 30th June, 1959 had reached 1,162,807 miles; 81,206 additional channel miles were obtained by the installation of carrier-wave equipment, some of which was installed on radio-telephone bearers. Carrier-wave facilities enable several speech paths to be obtained from one pair of wires or, in the case of radio-telephone systems, without wires at all, and are designed to transmit the voice with greater fidelity than the wire pairs on which they are based. An alternative aerial route between Sydney-Melbourne-Adelaide has been completed and provides a direct route for traffic from Sydney to Adelaide and Perth. Additional trunk line channels are being provided between Tasmania and the mainland. A new pair of wires has been erected between Marree and Alice Springs to be used as a bearer for a twelve-channel system between Adelaide and Alice Springs.

Eight automatic exchanges were brought into operation in metropolitan areas during the year, together with 24 country and 123 (net) rural automatic exchanges. At 30th June, 1959, there were 306 automatic exchanges in the metropolitan areas and 1,342 in country districts, to which 1,553,000 telephones were connected, representing 76 per cent. of the total number in use in Australia.

The development of transit trunk switching was advanced by the installation at a number of exchanges of through trunk switching equipment which enables calls to be routed automatically through major provincial and capital city switching points. This is part of a master plan for the long range development of the telephone system, which envisages a completely automatic network with the connexion of calls, both local and trunk, under the direct control of the subscriber and known as Subscriber Trunk Dialling. Manual trunk service would be available for special calls.

The first of several subscribers' radio-telephone networks, planned for outback areas, was brought into service in the Broken Hill district in April, 1958. The transmitter-receiver and aerial equipment are leased to subscribers and the base station operates from the post office, where the radio-telephone network connects with the Commonwealth telephone system.

An automatic weather forecast system was introduced at Melbourne in October, 1957 and similar equipment was introduced at Brisbane in February, 1959, and at Sydney, Adelaide, Perth and Hobart in March, 1959.

2. Summary.—Particulars relating to the telephone services in each State at 30th June, 1959 are shown in the following table:—

TELEPHONE SERVICES: SUMMARY, 30th JUNE, 1959.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Exchanges	2,278	1,794	1,358	725	771	400	7,326
Telephone offices (including ex- changes)	3,451	2,861	1,945	1,171	1,111	545	11,084
Lines connected '000	544	451	192	129	83	44	1,443
Instruments connected '000	795	647	256	182	116	60	2,056
(i) Subscribers' instruments '000	778	634	249	177	112	58	2,008
(ii) Public telephones '000	8.4	5.9	3.6	1.9	1.5	1.0	22.3
(iii) Other local instruments '000	8.3	7.4	3.9	3.0	2.3	1.3	26.2
Instruments per 1,000 of population	209	230	178	193	161	175	204

Of the total telephones (2,056,447) in service at 30th June, 1959, 749,624 or 36 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks.

3. **Calling Rates, Trunk Line and Local Calls.**—Short distance trunk line calls are now being recorded on subscribers meters and precise statistics distinguishing between local and trunk line calls are therefore not available. Statistics for the year 1957-58 may be found in Official Year Book No. 45, page 558.

4. **Oversea Telephone Services.**—During the year 1958-59, radio-telephone services were established between Australia and the Sudan, bringing the number of countries with which radio-telephone communication is available to 99. Arrangements were made for calls to and from Scotts Base, Antarctica, to be switched via New Zealand. A direct service was established with Japan in March, 1958 to replace the link via Hong Kong. Service is also provided to certain trans-Atlantic liners, ships off the Australian coast, H.M.A. ships, and H.M.N.Z. ships when cruising in Australian waters.

The amount of traffic handled over the radio-telephone services increased by 16 per cent. over that handled in 1957-58. During 1958-59 the number of calls connected was 91,986, comprising 46,722 originating in Australia and 45,264 incoming calls.

5. **Revenue from Telephones.**—Particulars regarding the revenue from telephone services are included in tables in § 1. (*see pp. 558 and 561*).

6. **World Telephone Statistics, 1959.**—The following table shows the number of telephones in use in various countries with 2 million or more telephones at 1st January, 1959 together with the number per 100 of population and the proportion in each country to the world total.

WORLD TELEPHONE STATISTICS(*a*) AT 1st JANUARY, 1959.

Country.	Number of Telephones. '000.	Telephones per 100 of Population.	Proportion of Total. (Per cent.)
United States of America(<i>b</i>)	66,645	38	53.4
United Kingdom(<i>c</i>)	7,525	15	6.0
Canada	5,122	30	4.1
Germany, Federal Republic of	5,090	9	4.1
Japan(<i>c</i>)	4,335	5	3.5
France	3,704	8	3.0
U.S.S.R.	3,700	2	3.0
Italy	3,182	6	2.5
Sweden	2,526	34	2.0
Australia	2,000	20	1.6
Other	20,971	(<i>d</i>)	16.8
Total	124,800	(<i>d</i>)	100.0

(*a*) Partly estimated. Information derived, in the main, from the "Worlds Telephones" compiled by the American Telephone and Telegraph Company. (*b*) Excludes Alaska and Hawaii. (*c*) At 31st March, 1959. (*d*) Not available.

§ 5. Cable and Radio Communication.

1. **General.**—Descriptions of the various cable services between Australia and other countries were given in Official Year Book No. 22, pages 335-6 and earlier issues.

Competition from beam wireless services brought about a merger between cable and wireless interests, which was not, however, completely satisfactory in combining the advantages of both systems. Details of the merger, and of subsequent developments which led eventually to the establishment, in 1946, of the Overseas Telecommunications Commission, were published in Official Year Book No. 37, pages 220-4.

2. Oversea Cable and Radio Traffic.—(i) States. The number of telegrams received from and dispatched overseas in each State during 1958-59 is shown hereunder:—

INTERNATIONAL TELEGRAMS, 1958-59.
(’000.)

Particulars.	N.S.W.	Vic.	Q’land.	S. Aust.	W. Aust.	Tas.	Australia.
Received	685	427	77	63	88	(a) 20	1,360
Dispatched	653	465	90	82	76	20	1,386
Total	1,338	892	167	145	164	40	2,746

(a) Estimated.

(ii) Australia. (a) Number of Telegrams. The following table shows the number of international telegrams received from and dispatched overseas during the years 1954-55 to 1958-59:—

INTERNATIONAL TELEGRAMS: AUSTRALIA.
(’000.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Received	1,422	1,441	1,454	1,430	1,360
Dispatched	1,376	1,374	1,367	1,347	1,386
Total	2,798	2,815	2,821	2,777	2,746

(b) Number of Words. Particulars of the international business, originating and terminating in Australia, transacted over the cable and radio services, during 1958-59 are shown in the following table:—

INTERNATIONAL TELEGRAMS: NUMBER OF WORDS, AUSTRALIA, 1958-59.
(’000 Words.)

Class of Telegram.	Words Transmitted to—			Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary	4,497	8,148	12,645	3,892	6,690	10,582
Letter	4,749	10,255	15,004	4,474	8,358	12,832
Press	4,676	1,898	6,574	8,463	2,678	11,141
Government	256	965	1,221	1,069	1,375	2,444
Greetings	792	680	1,472	630	795	1,425
Other .. ..	..	11	11	..	61	61
Total	14,970	21,957	36,927	18,528	19,957	38,485

Words transmitted to "Other places" included 3,897,594 to the United States of America and 3,896,306 to New Zealand and the Pacific Islands. Words received from "Other places" included 3,544,026 from the United States of America and 4,780,712 from New Zealand and the Pacific Islands.

3. **Coast Stations.**—At 30th June, 1959, there were 79 radio stations established at points around the Australian coast and 14 about the coast of Papua and New Guinea and other External Territories. During the year ended 31st March, 1959, these stations handled 675,582 messages (570,777 paying, 16,024 free traffic and 88,781 meteorological) with a total of 14,739,530 words.

4. **Radio-communication Stations Authorized.**—(i) *States and Territories, 30th June, 1959.* The following table shows particulars of the different classes of radio-communication stations authorized in Australia and the External Territories at 30th June, 1959. Figures relate to radio-communication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are shown on pages 572 and 577.

Owing to the use of a new classification, some of the figures in the table below are not comparable with those published in issues of the Official Year Book prior to No. 44.

RADIO-COMMUNICATION STATIONS AUTHORIZED, 30th JUNE, 1959.

Class of Station.	N.S.W.	Vic.	Old.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	Ext. Terr.	Grand Total.
TRANSMITTING AND RECEIVING.											
Fixed(a)—											
Aeronautical(a)	27	7	14	7	14	6	7	1	83	25	108
Services with other Countries	52	15	..	..	9	..	..	..	76	12	88
Outpost(b)	185	..	368	123	304	16	151	..	1,147	360	1,507
Other	257	132	128	51	56	27	19	..	670	72	742
Land(c)—											
Aeronautical	20	10	18	7	13	8	5	1	82	16	98
Base—											
Land Mobile Services	788	588	339	231	126	81	13	14	2,180	8	2,188
Harbour Mobile Services	19	10	9	5	28	..	..	..	71	..	71
Coast(d)	18	10	11	9	11	19	1	..	79	14	93
Special Experimental	53	35	9	16	17	9	..	..	139	8	147
Mobile(e)—											
Aeronautical .. ..	..	..	..	..	..	..	..	..	(f) 444	..	444
Land Mobile Services	7,975	5,109	2,655	2,094	1,246	447	73	258	19,857	56	19,913
Harbour Mobile Services	135	92	27	32	54	3	..	..	343	18	361
Outpost .. ..	..	..	..	..	..	..	..	..	(f) 825	34	859
Ship .. ..	..	..	..	..	..	..	..	..	(f) 1,994	137	2,131
Amateur	1,265	1,217	419	448	253	131	10	27	3,770	75	3,845
Total	10,794	7,225	3,997	3,023	2,131	747	279	301	(g) 31,760	835	(g) 32,595

RECEIVING ONLY.

Fixed(a)	79	189	63	7	36	1	4	..	379	..	379
Land(c) .. ..	..	..	..	..	..	..	..	..	..	..	..
Mobile(e)	1	34	20	..	..	..	..	..	55	..	55
Total	80	223	83	7	36	1	4	..	434	..	434

TOTAL STATIONS AUTHORIZED.

Grand Total	10,874	7,448	4,080	3,030	2,167	748	283	301	(g) 32,194	835	(g) 33,029
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(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 (ship) and mobile equipment of organizations such as the Royal Flying Doctor Service. (f) Stations which cannot be classified according to States, etc. (g) Includes 3,263 mobile transmitting and receiving stations, which cannot be classified according to States, etc.

(ii) *Australia and External Territories, 30th June, 1955 to 1959.* The number of radio-communication stations authorized in Australia and the External Territories at 30th June, 1955 to 1959 is shown in the following table.

RADIO-COMMUNICATION STATIONS AUTHORIZED; AUSTRALIA AND EXTERNAL TERRITORIES.

Stations in—	At 30th June—				
	1955.	1956.	1957.	1958.	1959.
Australia	15,808	19,778	23,227	27,305	32,194
External Territories	421	456	642	760	835
Total Stations	16,229	20,234	23,869	28,065	33,029

B. BROADCASTING AND TELEVISION.

§ 1. Introduction.

1. **General.**—Broadcasting and television services in Australia operate under the Broadcasting and Television Act 1942–1956 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 (*see* para. 2 below). Details of each service will be found on pages 572–8.

Licence fees for commercial broadcasting and television stations are payable under the Broadcasting and Television Stations Licence Fees Act 1956.

2. **The Australian Broadcasting Control Board.**—The Board, which was constituted on 15th March, 1949, operates under the Ministerial jurisdiction of the Postmaster-General, and its principal functions, as set out in section 16 of the Broadcasting and Television Act 1942–1956, are to ensure:—(a) that services by broadcasting stations and television stations are provided in accordance with plans prepared from time to time by the Board and approved by the Minister; (b) that the technical equipment and operation of such stations are in accordance with such standards and practices as the Board considers to be appropriate; and (c) that adequate and comprehensive programmes are provided by the stations to serve the best interests of the general public.

In addition, the Board may exercise such other functions as are prescribed in relation to broadcasting stations and television stations.

The Board is empowered to make recommendations to the Minister as to the exercise by the Minister of any power under Part IV. of the Act which relates to the Commercial Broadcasting Service.

The Board has power, subject to the direction of the Minister:—(a) to determine the situation and operating power of a broadcasting or television station; (b) to determine the frequencies of broadcasting and television stations within bands of frequencies notified to the Board by the Postmaster-General as being available; (c) to regulate the establishment and operation of networks of commercial broadcasting or television stations and the making of arrangements by licensees for the provision of programmes or the broadcasting or televising of advertisements.

The Board also has power:—(a) to determine the conditions subject to which advertisements may be broadcast or televised by licensees; (b) to determine the hours during which programmes may be broadcast or televised; and (c) to conduct examinations as to the competency of persons to operate the technical equipment of broadcasting and television stations and to charge appropriate fees.

The Board is obliged to hold public inquiries into applications, made to the Minister, for licences for commercial broadcasting and television stations in areas for which the Minister proposes to grant licences and into any other matter within its functions if the Board thinks it necessary or desirable, or the Minister so directs. The Board, in exercising its powers and functions in relation to commercial broadcasting and television stations, is obliged to consult representatives of those stations.

Subject to the approval of the Minister and of the Treasurer, the Board may provide financial and other assistance to commercial broadcasting stations for the purpose of ensuring that programmes of adequate extent, standard and variety are provided in the areas served by these stations.

Section 8 of the Act provides that the Board shall consist of five members (including two part-time members) appointed by the Governor-General, one of whom, other than a part-time member, shall be chairman. No person shall be appointed as a member of the Board who:—(a) has any financial interest whether direct or indirect, in any company which is the licensee of, or an applicant for a licence for, a commercial broadcasting or television station or manufactures or deals in equipment for the transmission or reception of broadcasting or television programmes; (b) is a member of the governing body of any company or other association of persons which is the licensee of, or an applicant for a licence for, a commercial broadcasting or television station; or (c) is the licensee of, or an applicant for a licence for, a commercial broadcasting or television station.

3. The Australian Broadcasting Commission.—The Broadcasting and Television Act 1942–1956, provides that the Australian Broadcasting Commission, which consists of seven members, one of whom shall be a woman, shall control the activities of the National Broadcasting Service and the National Television Service.

Under the provisions of the Act the Commission shall provide, and shall broadcast or televise from transmitting stations made available by the Postmaster-General, adequate and comprehensive programmes and shall take in the interests of the community all such measures as, in the opinion of the Commission, are conducive to the full development of suitable broadcasting and television programmes.

The Commission prepares estimates of its receipts and expenditure for each financial year and submits these estimates to the Minister. Appropriations are made by Parliament for the purposes of the Commission and these, together with all other moneys received by the Commission, are paid into an account in the Commonwealth Bank of Australia. From this account are defrayed all costs, charges, expenses, etc., incurred by the Commission in the exercise of its powers and functions under the Act. For particulars of the financial operations of the Commission see Chapter XXI.—Public Finance.

§ 2. Broadcasting.

1. Broadcasting Stations.—The following table shows the number of broadcasting stations in operation at 30th June, 1959:—

BROADCASTING STATIONS, 30th JUNE, 1959.

Type of Station.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Papua and New Guinea.	Total.
National—										
Medium Fre-										
quency ..	16	5	12	8	7	4	2	2	1	57
High Frequency	1	3	2	..	2	..	..	..	1	9
Commercial ..	37	20	20	8	14	8	..	1	..	108

2. The National Broadcasting Service.—(i) *General.* In sound broadcasting, the programmes of the National Broadcasting Service are provided by the Australian Broadcasting Commission and the provision and operation of transmitters and technical facilities in the studios are the responsibility of the Postmaster-General's Department.

(ii) *Technical Facilities.* At 30th June, 1959, the National Broadcasting Service comprised 66 transmitting stations, as follows:—

Medium-frequency Stations—

New South Wales—

2BL and 2FC Sydney, 2BA Bega, 2CO Albury, 2CR Orange, 2GL Glen Innes, 2KP Kempsey, 2LG Lithgow, 2ML Murwillumbah, 2NA and 2NC Newcastle, 2NB Broken Hill, 2NR Grafton, 2NU Tamworth, 2TR Taree, 2WN Wollongong

Victoria—

3AR and 3LO Melbourne, 3GI Sale, 3WL Warrnambool, 3WV Horsham.

Queensland—

4QG and 4QR Brisbane, 4AT Atherton, 4GM Gympie, 4QA Mackay, 4QB Maryborough, 4QL Longreach, 4QN Townsville, 4QS Toowoomba, 4QY Cairns, 4RK Rockhampton, 4SO Southport.

South Australia—

5AN and 5CL Adelaide, 5CK Port Pirie, 5LN Port Lincoln, 5MG Mt. Gambier, 5MV Renmark, 5PA Penola, 5WM Woomera.

Western Australia—

6WF and 6WN Perth, 6AL Albany, 6GF Kalgoorlie, 6GN Geraldton, 6NM Northam, 6WA Wagin.

Tasmania—

7ZL and 7ZR Hobart, 7NT Launceston, 7QN Queenstown.

Northern Territory—

5AL Alice Springs, 5DR Darwin.

Australian Capital Territory—

2CN and 2CY Canberra.

Papua—

9PA Port Moresby.

High-frequency Stations—

VLI Sydney, New South Wales, VLG, VLH and VLR Lyndhurst, Victoria, VLM and VLQ Brisbane, Queensland, VLW and VLX Perth, Western Australia, VLT Port Moresby, Papua.

The medium-frequency transmitters operate in the broadcast band 540 to 1,600 kilocycles per second. The high-frequency stations, using frequencies within the band 3 to 30 megacycles per second, provide service to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland and in Papua and New Guinea and adjacent islands.

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 utilized 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.

In June, 1959, 44 of the 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.

(iii) *Programme Facilities.* (a) *General.* The programmes of the Australian Broadcasting Commission cover a wide range of activities, which are indicated briefly in the following paragraphs. The proportion of broadcasting time allocated to the various types of programme during 1958–59 was as follows:—Classical Music, 23.2 per cent.; Light Music, 12.0 per cent.; Variety, 21.2 per cent.; News, 7.1 per cent.; Talks, 7.1 per cent.; Sport, 5.6 per cent.; Drama and Features, 4.1 per cent.; Youth Education, 3.7 per cent.; Religion, 3.3 per cent.; Parliament, 3.3 per cent.; Children's Session, 2.5 per cent.; Rural Broadcasts, 1.7 per cent.; Non-departmental, 5.2 per cent.

(b) *Music.* The A.B.C., in addition to its extensive activities in the field of musical broadcasting, is one of the largest concert-giving organizations in the world. During the years of the Commission's existence, there has been an immense growth of interest in fine music. Today the regular broadcasts command a large listening audience and the number of subscribers to A.B.C. public concerts exceeds 50,000. This vigorous musical life is typified in the activities of the symphony orchestras in Sydney, Melbourne, Brisbane, Adelaide, Perth

and Hobart. These have developed from the studio broadcasting orchestras set up in 1936 in the six capital cities to bodies whose present standard compares favourably with that of orchestras in oversea musical centres of similar size. Until 1946, these orchestras were maintained solely by the A.B.C., but since then they have been subsidized by State Governments and major municipal bodies.

In 1958–59, the A.B.C. organized 576 public orchestral concerts (including 182 free concerts for school children and 35 free concerts for adults) and 192 public recitals by famous artists throughout the Commonwealth. Of these concerts, 270 were given outside the State capitals, including 73 free orchestral concerts for school children.

The policy of the A.B.C. has been to foster the highest standards of musical appreciation and performance, making the utmost use of the best local talent and at the same time giving Australian audiences the opportunity of hearing leading artists from overseas.

(c) *Drama and Features.* Drama programmes are designed to give listeners opportunities, which they might not otherwise have, of hearing the world's great plays as well as adaptations of the best modern stage plays and also those written specially for broadcasting. The main regular drama programmes are broadcast on Sunday afternoons and Sunday and Monday evenings, and special series of longer plays are also given at various times.

In recent years the technique of the feature programme has also been developed. The feature is a form of entertainment which is unique to radio, consisting of specially written programmes designed to present information in an interesting way. It may deal with a very wide variety of subjects ranging from history and current events to science and the arts. A number of Australian writers have become interested in this form of entertainment and about 97 per cent. of the features broadcast are written by Australians. Local writers also contribute a large proportion of the plays broadcast and every effort is made to assist and encourage their work.

(d) *Youth Education.* The A.B.C. provides a regular series of broadcasts to schools as an addition to normal class-room education. The total number of listening schools at the end of June, 1959 was 9,500 or about 93 per cent. of all schools, State and private, throughout the Commonwealth. Many of the school broadcasts are presented in dramatized form, as this method makes the material more vivid and interesting to the young listener. For the very young children, the Commission broadcasts every week-day the "Kindergarten of the Air", a type of broadcast which originated in Australia. (See also Chapter XV.—Education, on this subject.)

(e) *Talks.* The aim of the Talks Department is to provide programmes which will keep the listener well informed on current affairs and on general topics. Many of the talks in the first category are now presented in a magazine type of session consisting of a number of short items linked by a narrator. An extension of this type of programme is the documentary, in which radio goes into the field to analyse or to describe, using the actual sounds and voices recorded on location.

Major controversial topics are covered in the "Nation's Forum of the Air" (using the debating technique) and "I Put it to You", in which a well-known speaker presents a contentious theme before an audience chosen because it will generally be critical and afterwards the speaker must stand up to questioning by the audience. Another outstanding session is "News Review", containing comments on the news of the day recorded over landline from all States of the Commonwealth and, in the case of significant world events, from overseas by radio-telephone.

(f) *Rural Broadcasts.* The Rural Broadcasts Department devotes its programmes to weather and market reports and talks, interviews, etc., designed to provide useful information for the man on the land. These programmes are presented on a regional, State and national basis, many being directed to particular districts, because of the diversity of climate and conditions. Separate rural programmes originate at 18 regional stations and are relayed to all other regionals. Other programmes are broadcast throughout each State or on a national relay, depending on whether the information they contain is of general interest or refers only to the rural industries of one State.

Material for rural programmes is obtained from many sources in Australia, including the Departments of Agriculture, numerous government and private organizations and practical farmers. Talks, interviews, etc., are also secured from many oversea sources, thus bringing to rural listeners the latest information on oversea research that is relevant to Australia's primary industries. Programme material is exchanged regularly with British Commonwealth countries and with the U.S.A. and a number of officers from the broadcasting organizations

of South-East Asia have come to Australia, under the Colombo Plan and similar projects, to study A.B.C. rural broadcasting, with the aim of developing services of this type in their own countries.

During 1958-59, 6,674 talks and interviews on rural topics were broadcast by the A.B.C., as well as 9,300 weather reports and 10,466 interstate and local market reports. In times of emergency, the regular weather reports are supplemented by special services giving flood or fire warnings—a very important service because of the speed with which radio can reach a widely scattered audience.

(g) *News.* On 1st June, 1947, the Australian Broadcasting Commission's independent news service came into full operation. Since that date the Commission has collected all its Australian (including Papua and New Guinea) news through its own staff journalists and part-time correspondents. It also maintains a news room in London for the selection and transmission of news obtained from major oversea agencies and has special representatives in South-East Asia. Regional bulletins are broadcast from country centres and also from capital cities to cover near-city districts. Radio Australia (the Overseas Service of the A.B.C.) broadcasts Australian and oversea news daily in English, French, Mandarin, Indonesian and Thai, with special attention to Asia and the Pacific. Each day the A.B.C. re-broadcasts two news bulletins from the British Broadcasting Corporation. The A.B.C. broadcasts 150 news bulletins each day, including those given over Radio Australia.

(h) *Other Activities.* The broadcasting of the proceedings of Federal Parliament commenced as a regular service in July, 1946. At present, these broadcasts are confined to one of the two national transmitters in each capital city, one in Newcastle and to one domestic short-wave station (VLR).

The National Children's Hour, presented seven days a week, is composed of over 40 programme items, including stories, music, games, art, literature, natural history and sport. There is a children's newsreel and a Brains Trust, discussing, through children, topics of wide general interest. The Argonauts' Club is an important part of the session and encourages children between the ages of 7 and 17 in self-expression and the appreciation of cultural subjects, but the provision of entertainment suitable for children is the main purpose of the session.

In co-operation with the various religious denominations, the A.B.C. broadcasts several religious sessions each week-day in addition to those given on Sundays. These religious broadcasts include relays of normal church services and a variety of special programmes of talks and sacred music. The modern trend towards the use of religious drama is also followed.

The variety and sporting programmes of the A.B.C. provide the lighter side of the service. In its variety sessions the A.B.C. does everything possible to assist local artists in order to increase the amount of first-class talent in this country, and encouragement is also given to Australian composers of light music. The A.B.C. dance bands in Sydney and Melbourne are regarded as being two of the most outstanding bands in Australia.

The coverage of sport at home and abroad by the A.B.C. is comprehensive. On Saturday afternoons the sporting panel provides listeners with progress results, scores and descriptions from half a dozen or more fields of sport. Events of international interest such as Test matches, the Davis Cup, etc., are covered by simultaneous descriptions from A.B.C. commentators. In covering events overseas, the A.B.C. is indebted to the B.B.C. for its collaboration in Great Britain, to the New Zealand Broadcasting Service for events in New Zealand and to broadcasting organizations in many other countries.

3. 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 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 £25 on the grant of the licence, and thereafter £25 a year plus one per cent. of the gross earnings of the station from the broadcasting of advertisements or other matter during the preceding financial year. Licensees of these stations rely for their income on the broadcasting of advertisements and other publicity.

At 30th June, 1959, there were 108 commercial broadcasting stations in operation. A table showing the call sign, location, frequency and aerial power of each commercial broadcasting station licensed at 30th June, 1959, may be found in *Transport and Communication*, Bulletin No. 50.

4. Overseas Broadcasting Service.—There are three high-frequency stations at Shepparton, Victoria (VLA, VLB, VLC) which provide the oversea 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. During certain periods, station VLG Lyndhurst is also used for the purpose of oversea transmission. 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 oversea audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

§ 3. Television.

1. **General.**—Television services in Australia operate under the Broadcasting and Television Act 1942–1956 and comprise the National Television Service and the Commercial Television Service.

2. **The National Television Service.**—(i) *General.* The A.B.C. provides the programmes for the National Television Service from stations provided and operated by the Postmaster-General. Three stations have been established ABN Sydney, ABV Melbourne and ABQ Brisbane, each of which operates on Channel 2. ABN commenced operation on 5th November, 1956; ABV 18th November, 1956 and ABQ 2nd November, 1959. Each station operates on a frequency of 64.25 megacycles a second for vision and 69.75 megacycles a second for sound. National stations ABS Adelaide, ABW Perth and ABT Hobart are in the course of construction.

(ii) *Programme Facilities.* (a) *General.* The television programmes provided by the A.B.C. cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30th June, 1959 was as follows:—Talks Department, 18.8 per cent.; Drama and Features, 24.6 per cent.; Sport, 12.5 per cent.; Variety, 8.4 per cent.; Children's Session 8.9 per cent.; News, 6.4 per cent.; Classical Music, 1.7 per cent.; Light Music, 0.4 per cent.; Rural Services, 2.2 per cent.; Religion, 2.1 per cent.; Youth Education, 3.4 per cent.; Non-departmental (including trade demonstration films), 10.6 per cent. A summary of the activities of the departments in the field of television is given in the following paragraphs. Transmission hours in Sydney and Melbourne, for the 12 months ended 30th June, 1959, totalled 5,618.

(b) *Talks.* In television, Talks covers a very wide field, ranging from commentaries on international affairs to panel games and outside telecasts of public events. Discussions, topical interviews, magazine programmes, women's programmes, demonstrations and film and studio documentaries are all part of the regular output.

(c) *Drama and Features.* A considerable proportion of television time is devoted to drama and features, and "live" television plays featuring Australian artists may usually be seen fortnightly both in Sydney and Melbourne.

(d) *Music.* During 1957, the A.B.C.'s musical activities extended to the field of television. A number of public concerts and studio performances were successfully telecast and there is reason to believe that the new medium will contribute to the further development of musical appreciation in Australia.

(e) *Rural Services.* The emphasis has been on providing information for consumers and on giving city viewers, by means of films, demonstrations, etc., a picture of Australia's rural industries. Regular programmes featuring many facets of Australian agriculture and livestock activities have already been given, and this work will be developed as further facilities become available. Weather reports and forecasts are also telecast on six evenings a week.

(f) *Youth Education.* The A.B.C. provides a television programme for very young children each week-day, under the title "Kindergarten Playtime". Experimental television programmes for schools are being presented.

(g) *News.* Television news bulletins and newsreels have been included in the programmes presented in both Sydney and Melbourne since the television services began in November, 1956.

(h) *Other Activities.*—Special television programmes are presented for children, including filmed material obtained on an exchange basis from oversea television organizations. Church services have been televised in Sydney, Melbourne and Bathurst and other special religious programmes have been telecast. Outside broadcast cameras have covered a number of sporting events, including the Olympic Games, Davis Cup tennis, Test and Sheffield Shield cricket and swimming championships.

3. **The Commercial Television Service.**—Commercial television stations are operated under licences granted by the Postmaster-General. Licences for commercial television stations have been granted as follows:—Sydney—ATN (Channel 7), TCN (Channel 9); Melbourne—HSV (Channel 7), GTV (Channel 9); Brisbane—BTQ (Channel 7), QTQ (Channel 9); Adelaide—ADS (Channel 7), NWS (Channel 9); Perth—TVW (Channel 7) and Hobart—TVT (Channel 6). The stations commenced operations on the following dates:—ATN, 2nd December, 1956; TCN, 16th September, 1956; HSV, 4th November, 1956; GTV, 19th January, 1957; QTQ, 16th August, 1959; N.W.S., 5th September, 1959; TVW, 17th October, 1959; ADS, 25th October, 1959; BTQ, 1st November, 1959. It is anticipated that station TVT Hobart will commence operations in May, 1960.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is £100 for the first year and thereafter £100 a year plus one per cent. of the station's gross earnings from the televising of advertisements or other matter during the preceding financial year.

4. **Extension of Television Services.**—On 30th April, 1959, the Postmaster-General announced that the Government had decided to proceed with the third stage of development of the television services. Broadly, the areas to be considered in this phase are:—

New South Wales—

Newcastle-Hunter River, Illawarra, Richmond-Tweed Heads, Central Tablelands.

Victoria—

Ballarat, Bendigo, Latrobe Valley, Goulburn Valley.

Queensland—

Darling Downs, Rockhampton, Townsville.

Tasmania—

North Eastern Tasmania.

Australian Capital Territory—

Canberra.

This further extension of Television now planned will mean that 75 per cent. of the Australian people will be able to receive a television service. Consideration of the remaining provincial and rural areas will be given when this phase is well under way. Inquiries by the Australian Broadcasting Control Board into applications for licences for commercial television stations in the abovementioned areas are now proceeding.

The Broadcasting Control Board has prepared a provisional Frequency Assignment Plan which provides for the allocation of channels for four television services in each capital city and two services to reach every town with a population in excess of 5,000.

§ 4. Licences, etc.

1. **Broadcast Listeners' and Television Viewers' Licences.**—(i) *General.* Broadcast listeners' and television viewers' licences are issued at post offices in accordance with the provisions of the Broadcasting and Television Act 1942–1956, 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 authorizes the operation of any broadcast receiver, and a television viewer's licence 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/or ordinarily kept at that address; (b) installed in a vehicle which is ordinarily in the possession of the holder, or of a member of his family, and is ordinarily kept at that address while not in use.

The fee for a broadcast listener's licence or a renewal thereof is:—Zone 1, £2 15s.; Zone 2, £1 8s. Zone 1 is the area within approximately 250 miles of specified broadcasting stations and Zone 2 is the remainder of the Commonwealth. A television viewer's licence costs £5.

A licence may be granted at reduced rates to any person who (a) is in receipt of a pension under Part III. or Part IV. of the Social Services Act 1947–1957, or a service pension, or a pension in respect of total and permanent incapacity, under the Repatriation Act 1920–1956, or the Repatriation (Far East Strategic Reserve) Act 1956; and (b) lives alone, with another pensioner, or with any person whose income does not exceed the maximum amount of income and pension allowed under Part III. or Part IV. of the Social Services Act

1947–1957, or section 87 of the Repatriation Act 1920–1956. Licence fees for pensioners are as follows:—broadcast listener's licence—Zone 1, 10s.; Zone 2, 7s.; television viewer's licence, £1 5s.

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. A tourist resident in Australia for not more than six months and an oversea diplomatic or consular representative or a member of his staff is not required to hold a licence. Inmates of a hospital or charitable institution are covered by the licence held by the institution.

(ii) *Licences in Force.* (a) *Broadcast Listeners'.* The following table shows the number of broadcast listeners' licences in force at five year intervals from 1925 to 1955, and for 1959.

BROADCAST LISTENERS' LICENCES IN FORCE.

At 30th June—	N.S.W.(a)	Vic.	Qld.	S.A.(b)	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(c)	548,074	394,315	180,089	146,611	98,210	47,930	1,415,229
1950(c)	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
1959	827,453	605,340	337,760	247,468	169,272	76,419	2,263,712

(a) Includes the Australian Capital Territory. (b) Includes the Northern Territory. (c) Excludes licences for receivers in excess of one. These licences were introduced in July, 1942, and were abolished on 31st December, 1951.

Of the 2,263,712 broadcast listeners' licences in force at 30th June, 1959, 1,323,473 or 59 per cent. were held by persons living in metropolitan areas and 940,239 or 41 per cent. by persons in country areas. Of the latter, only 13,714 were in respect of Zone 2.

(b) *Television Viewers'.* The following table shows the number of television viewers' licences in force each year at 30th June and 31st December, 1957 to 1959.

TELEVISION VIEWERS' LICENCES IN FORCE.

Date.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
30th June, 1957 ..	28,912	44,986	..	..	..	11	73,909
31st December, 1957	74,627	91,922	..	..	..	27	166,576
30th June, 1958 ..	143,422	147,721	..	..	..	43	291,186
31st December, 1958	232,473	222,172	..	..	..	51	454,696
30th June, 1959 ..	300,871	270,073	360	6,124	..	74	577,502
31st December, 1959	358,544	307,950	27,590	34,060	9,621	90	737,855

o Of the 577,502 television viewers' licences in force at 30th June, 1959, 516,440 or 89.4 per cent. were held by persons living in metropolitan areas.

2. **Radio-inductive Interference.**—In each State of the Commonwealth, the Postmaster-General's Department maintains a staff of experts with suitable equipment and transport, for the purpose of investigating complaints of radio-inductive interference to the reception of broadcast and television programmes and to defence and civil radio-communication services.

During the year 1958–59, 18,768 sources of trouble, including 5,533 affecting television reception, were eliminated as a result of Departmental efforts or by other action. More than 4,500 suppressors were fitted to offending appliances as recommended by investigating officers, who carried out 637,012 inspections in metropolitan and country areas.

3. **Prosecutions under the Broadcasting and Television Act.**—Persons convicted during the year ended 30th June, 1959, for operating unlicensed broadcast receivers numbered 6,652. Fines and costs amounting to £35,160 were imposed. During the year ended 30th June, 1959, 913 unlicensed television viewers were convicted and fined a total of £6,482, including costs.