

CHAPTER V. TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. 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 is counted for each voyage, without regard to the number of States visited (*see also* Section 5 following, paragraph 1).

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from 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 this Bureau. 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.

Cargo is recorded in *tons weight* or in *tons measurement* (40 cubic feet).

From 1st July, 1914 the Trade and Shipping of Australia have been recorded for the fiscal years ending 30th June.

Particulars of vessels exclusively engaged in transporting troops and war materials during the 1939-45 War years are excluded from the following tables of "oversea" and "interstate" shipping movement which, therefore, relate only to vessels engaged in normal trade (i.e., carrying part or full cargo for civil purposes), and are strictly comparable with pre-war and post-war figures.

§ 2. 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 1921-22 to 1950-51:—

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

Year.	Vessels.	Net Tons.	Year.	Vessels.	Net Tons.	Year.	Vessels.	Net Tons.
		'000.			'000.			'000.
1921-22	3,111	9,081	1931-32	3,057	11,396	1941-42	2,554	10,768
1922-23	2,935	9,241	1932-33	3,114	11,842	1942-43	2,025	8,113
1923-24	3,122	9,923	1933-34	2,774	10,764	1943-44	2,380	9,687
1924-25	3,449	11,201	1934-35	3,139	11,889	1944-45	2,147	9,133
1925-26	3,156	10,669	1935-36	3,260	12,545	1945-46	2,371	10,693
1926-27	3,261	11,164	1936-37	3,297	12,612	1946-47	2,489	10,406
1927-28	3,167	10,925	1937-38	3,809	14,221	1947-48	2,949	11,928
1928-29	3,175	11,097	1938-39	3,814	13,546	1948-49	3,486	15,013
1929-30	3,061	10,944	1939-40	3,362	13,076	1949-50	3,907	17,378
1930-31	3,107	11,250	1940-41	2,669	11,268	1950-51	3,903	17,307

The average tonnage per vessel has risen from 2,919 tons per vessel in 1921-22 to 4,449 tons in 1949-50 and 4,434 tons in 1950-51.

Particulars of the total oversea movement of shipping for each year from 1822 to 1920-21 will be found in Official Year Book No. 15, p. 507.

2. **Total Oversea Shipping, States.**—The following table shows, for each State, the number of entrances and clearances of vessels direct from and to oversea countries, and the aggregate net tonnage, during the year 1950-51 :—

**OVERSEA SHIPPING : ENTRANCES AND CLEARANCES OF VESSELS DIRECT,
STATES, 1950-51.**

State or Territory.	Entrances.		Clearances.	
	Number.	Net Tons.	Number.	Net Tons.
		'000.		'000.
New South Wales	498	2,087	481	1,983
Victoria	426	1,945	347	1,599
Queensland	253	840	354	1,217
South Australia	160	694	163	692
Western Australia	532	2,880	610	3,039
Tasmania	30	127	29	159
Northern Territory	12	27	8	18
Australia	1,911	8,600	1,992	8,707

3. **Shipping Communication with various Countries.**—Records of the number and tonnage of vessels arriving from and departing to particular countries, as they are invariably made, may be misleading for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel on the same voyage may carry cargo or passengers to or from Australia from or to several countries. For instance, a mail steamer on a voyage from the United Kingdom to Australia, through the Suez Canal, may call at Marseilles, Genoa, Port Said, Aden and Colombo, yet can be credited only to the United Kingdom, the country where the voyage commenced, to the exclusion of all of the others from the records. Also a number of vessels touch at New Zealand ports on their voyages to and from the United States of America and Canada, but their tonnages are not included in the records of Australian shipping trade with New Zealand. Similarly, the record of shipping engaged in trade between Australia and the United Kingdom via South African ports does not show tonnage to and from South Africa, the whole of it being included in the figures for United Kingdom. In view of this defect, statistics relating to the direction of the shipping to and from Australia are restricted to the following tables in which countries situated on the main trade

routes are grouped together. This grouping into larger geographical divisions to some extent avoids the limitations referred to, except, as already pointed out, in the case of Africa and New Zealand.

OVERSEA SHIPPING : COUNTRY GROUPS FROM WHICH ENTERED OR TO WHICH CLEARED, AUSTRALIA.

Countries.	With Cargo or in Ballast.	1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
NET TONNAGE ENTERED ('000).							
United Kingdom and European Countries ..	Cargo	1,878	943	1,130	2,060	3,252	3,393
	Ballast	121	2	6	45	77	10
New Zealand(a) ..	Cargo	767	302	303	442	565	484
	Ballast	242	224	223	128	197	204
Asiatic Countries and Pacific Islands ..	Cargo	2,206	1,984	2,288	2,778	3,250	3,402
	Ballast	256	426	933	928	429	179
Africa(a) ..	Cargo	44	370	273	236	277	308
	Ballast	123	47	88	133	33	4
North and Central America ..	Cargo	1,059	861	823	693	602	582
	Ballast	..	1	3	10	8	3
South America ..	Cargo	10	26	11	21	26	31
	Ballast	5	..	2	2	..	..
Total ..	Cargo	5,964	4,486	4,828	6,230	7,972	8,200
	Ballast	747	700	1,255	1,246	744	400
Total Cargo and Ballast	..	6,711	5,186	6,083	7,476	8,716	8,600

NET TONNAGE CLEARED ('000).							
United Kingdom and European Countries ..	Cargo	2,778	1,643	1,996	2,785	2,767	2,900
	Ballast	13	17	..	54	78	57
New Zealand(a) ..	Cargo	901	575	565	722	806	675
	Ballast	37	75	11	52	36	40
Asiatic Countries and Pacific Islands ..	Cargo	1,687	1,387	1,601	1,786	2,032	1,848
	Ballast	743	839	980	1,499	2,205	2,296
Africa(a) ..	Cargo	172	142	172	138	190	342
	Ballast	6	4	3	25	47	28
North and Central America ..	Cargo	440	409	373	392	391	375
	Ballast	46	108	144	79	83	117
South America ..	Cargo	12	9	..	5	23	29
	Ballast	..	12	..	..	4	..
Total ..	Cargo	5,990	4,165	4,707	5,828	6,209	6,169
	Ballast	845	1,055	1,138	1,709	2,453	2,538
Total Cargo and Ballast	..	6,835	5,220	5,845	7,537	8,662	8,707

(a) See explanation above.

4. Nationality of Oversea Shipping.—Owing to war conditions, the proportion of shipping of British nationality progressively declined from 72.82 per cent. of the total tonnage entered in 1938-39 to 43.40 per cent. in 1943-44. On the other hand, the proportion of United States of America shipping visiting Australia during the same period advanced from 2.61 per cent. in 1938-39 to 33.07 per cent. in 1943-44. Thereafter the trend was reversed, and in 1950-51 the proportion of British shipping entered was 70.83 per cent. and of American 2.34 per cent.

Particulars of the nationality of overseas shipping which entered Australia during the five years ended 30th June, 1951 and the year 1938-39 are given in the following table:—

OVERSEA SHIPPING : ENTRANCES ACCORDING TO NATIONALITY OF VESSELS, AUSTRALIA.

(^{'000} Net Tons.)

Nationality.	1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
BRITISH—						
Australian	331	153	86	218	250	214
Canadian	20	47	48	69	41	26
New Zealand	563	109	104	147	243	167
United Kingdom	3,744	3,537	3,988	4,956	5,344	5,452
Other British	229	107	202	123	183	232
In Cargo	4,379	3,420	3,588	4,592	5,559	5,781
In Ballast	508	533	840	921	502	310
Total British	4,887	3,953	4,428	5,513	6,061	6,091
Proportion of total %	72.82	76.22	72.79	73.74	69.54	70.83
FOREIGN—						
American (U.S.)	175	437	571	356	466	201
Danish	55	17	50	99	143	154
Dutch	291	225	244	269	286	326
French	108	63	76	80	129	115
German	141	..	..	..	..	..
Italian	68	15	9	162	161	192
Japanese	330	..	..	..	..	..
Norwegian	325	218	206	489	690	665
Swedish	124	119	..	151	147	196
Other Foreign	207	139	499	357	633	660
In Cargo	1,585	1,066	1,240	1,638	2,413	2,419
In Ballast	239	167	415	325	242	90
Total Foreign	1,824	1,233	1,655	1,963	2,655	2,509
Proportion of total %	27.18	23.78	27.21	26.26	30.46	29.17
ALL NATIONALITIES—						
In Cargo	5,964	4,486	4,828	6,230	7,972	8,200
Proportion of total %	88.87	86.50	79.37	83.33	91.46	95.35
In Ballast	747	700	1,255	1,246	744	400
Proportion of total %	11.13	13.50	20.63	16.67	8.54	4.65
Total, All Nationalities	6,711	5,186	6,083	7,476	8,716	8,600

The Australian tonnage which entered Australia from overseas during the year 1950-51 represented 2.49 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Island trade.

The proportion of overseas shipping tonnage which entered Australia in cargo ranged, in the years shown, between about 80 per cent. and 95 per cent., the lowest percentage being 79.37 in 1947-48 and the highest 95.35 in 1950-51. The proportion of shipping which cleared in cargo, however, declined from 87.64 per cent. in 1938-39 to 70.85 per cent. in 1950-51, the trend over the period being generally downward.

§ 3. 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 1947-48 to 1950-51 compared with 1938-39. Warships are excluded from the table.

TOTAL SHIPPING : ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA.

Port of Entry.	1938-39.		1947-48.		1948-49.		1949-50.		1950-51.	
	Num-ber.	Net Tons ('000).	Num-ber.	Net Tons ('000).	Num-ber.	Net Tons ('000).	Num-ber.	Net Tons ('000).	Num-ber.	Net Tons ('000).
<i>New South Wales—</i>										
Sydney ..	7,384	11,650	3,750	6,225	4,142	7,590	3,927	8,149	4,038	8,222
Newcastle ..	4,273	5,099	2,320	3,430	2,367	3,411	2,119	3,190	2,179	2,958
Port Kembla ..	850	1,225	351	928	335	757	403	971	538	1,582
<i>Victoria—</i>										
Melbourne ..	3,384	8,537	2,012	5,599	2,203	7,034	2,328	8,268	2,304	8,406
Geelong ..	486	850	184	605	144	522	318	810	342	1,036
<i>Queensland—</i>										
Brisbane ..	1,472	4,916	560	1,820	712	2,695	783	2,840	837	3,055
Bowen ..	188	336	70	147	83	189	67	139	67	172
Cairns ..	725	790	239	350	245	430	238	446	235	473
Gladstone ..	135	326	47	144	67	194	60	180	79	235
Mackay ..	219	546	49	117	69	195	70	197	63	180
Rockhampton ..	232	596	47	111	49	98	58	117	54	136
Thursday Island	158	303	85	12	66	13	74	15	74	18
Townsville ..	641	1,473	216	494	213	657	237	696	285	837
<i>South Australia—</i>										
Adelaide ..	2,988	5,524	2,595	3,319	2,939	4,129	2,686	4,843	2,735	4,872
Port Lincoln ..	438	493	440	537	428	561	353	449	292	405
Port Pirie ..	619	815	301	730	286	742	268	642	261	644
Wallaroo ..	281	220	224	193	224	238	239	210	300	229
Whyalla ..	680	1,037	476	1,137	332	837	373	1,033	408	1,144
<i>Western Australia—</i>										
Fremantle ..	846	4,012	738	3,284	946	4,592	1,010	5,207	1,044	5,400
Albany ..	125	511	49	200	37	136	35	114	59	247
Bunbury ..	107	240	62	184	68	194	56	175	62	174
Carnarvon ..	115	183	78	99	79	98	99	135	97	122
Geraldton ..	132	291	94	239	97	248	94	246	99	256
<i>Tasmania—</i>										
Hobart ..	616	1,153	293	540	303	565	279	646	318	684
Burnie ..	577	781	163	227	163	257	196	268	190	240
Devonport ..	492	476	183	223	175	215	217	211	202	211
Launceston ..	460	502	290	292	308	273	324	282	330	313
<i>Northern Territory—</i>										
Darwin ..	176	184	33	55	28	49	42	65	33	58

2. **Total Shipping—Australia, New Zealand and United Kingdom.**—The following table shows the total shipping tonnage which entered the principal ports of Australia during 1950–51. and of New Zealand and the United Kingdom during 1951.

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

Port.	Net Tonnage Entered ('000).	Port.	Net Tonnage Entered ('000).
AUSTRALIA—		ENGLAND AND WALES—	
Melbourne (Vic.)	8,406	London	28,315
Sydney (N.S.W.)	8,222	Liverpool (inc. Birkenhead)	15,986
Fremantle (W.A.)	5,400	Southampton	14,328
Adelaide (S.A.)	4,872	Tyne Ports	7,632
Brisbane (Qld.)	3,055	Hull	5,494
Newcastle (N.S.W.)	2,958	Swansea	5,037
Port Kembla (N.S.W.)	1,582	Bristol	4,659
Whyalla (S.A.)	1,144	Dover	4,068
Geelong (Vic.)	1,036	Cardiff	4,036
Townsville (Qld.)	837	Manchester (inc. Runcorn)	3,717
Hobart (Tas.)	684	Harwich	3,103
Port Pirie (S.A.)	644	Middlesbrough	3,103
Cairns (Qld.)	473		
Port Lincoln (S.A.)	405		
Launceston (Tas.)	313		
Geraldton (W.A.)	256		
Albany (W.A.)	247	SCOTLAND—	
Burnie (Tas.)	240	Glasgow	6,061
Gladstone (Qld.)	235		
Wallaroo (S.A.)	229		
Devonport (Tas.)	211		
NEW ZEALAND—		NORTHERN IRELAND—	
Wellington	3,077	Belfast	6,000
Auckland	2,000		
Lyttleton	1,824		
Dunedin	762		
Napier	350		
New Plymouth	347		
Bluff	266		

§ 4. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built in Australia during each of the calendar years 1938 and 1947 to 1951, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, 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.

VESSELS BUILT AND REGISTERED IN AUSTRALIA.

Year.	Steam.		Motor.(a)			Sailing.			Total.			
	Tonnage.		Tonnage.			Tonnage.			Tonnage.			
	No.	Gross.	Net.	No.	Gross.	Net.	No.	Gross.	Net.	No.	Gross.	Net.
1938 .. ..	..	..	..	11	721	394	..	..	..	11	721	394
1947	5	16,100	8,391	25	1,426	912	8	296	296	38	17,822	9,599
1948	3	14,583	8,604	9	1,376	741	..	..	..	12	15,959	9,345
1949	2	9,673	5,427	9	726	383	..	..	..	11	10,399	5,810
1950	2	8,005	4,141	9	1,213	648	..	..	..	11	9,218	4,789
1951	2	13,515	7,522	9	5,435	2,842	..	..	..	11	18,950	10,365

(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 on the 31st December, 1951 :—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1951.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
			Propelled by Sailing only.		Fitted with Auxiliary Power.					
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.
New South Wales	422	68,900	129	5,102	73	1,051	33	8,164	657	83,217
Victoria ..	186	167,347	47	570	47	1,519	42	17,063	322	186,499
Queensland ..	83	26,658	63	1,172	60	835	12	1,536	218	30,201
South Australia	85	32,461	15	307	36	1,872	38	5,833	174	40,473
Western Australia	68	6,460	211	3,169	50	1,298	4	351	333	11,278
Tasmania ..	39	5,076	44	1,458	74	1,983	1	382	158	8,899
Northern Territory	..	..	16	154	9	177	..	..	25	331
Australia ..	883	306,902	525	11,932	349	8,735	130	33,329	1,887	360,898

3. World Shipping Tonnage.—Issues of the Official Year Book prior to No. 39 contained tables, compiled from *Lloyd's Register of Shipping*, showing the number and gross tonnage of steam, motor and sailing vessels owned by the various maritime countries of the world. The tables are not repeated in this issue, but the following information is derived from the same source. At 1st July, 1951, the total steamers, motorships and sailing vessels of 100 gross tons and upwards throughout the world amounted to 32,112 with a gross tonnage of 87,961,000. Of these totals, steamers numbered 18,873 for 63,809,000 gross tons, motorships, 12,353 for 23,436,000 gross tons and sailing vessels and barges 886 for 716,000 gross tons. In addition, there were 2,271 oil tankers of 1,000 gross tons and upwards with a gross tonnage of 18,210,000. Australian steamers, motorships and sailing vessels, 357 for 557,000 gross tons, constituted 1.11 per cent. and 0.63 per cent. respectively of the total numbers and tonnage. There were no Australian oil tankers of 1,000 gross tons and upwards registered.

§ 5. 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 oversea countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not engage in interstate carrying.) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the oversea vessels (b) some explanation is necessary. Each State desires that its shipping statistics (which are prepared in this Bureau) should show in full its shipping communication with oversea 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 oversea country—say United Kingdom—*via* another State, is recorded in the second State as from United Kingdom *via States*, thus distinguishing the movement from a direct oversea entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from United Kingdom *via* other 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 movement, must for the individual States be recorded as “Oversea *via* other States” or “Interstate” according to the direction of the movement. The significance of the record of these movements will be more clearly seen 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 AUSTRALIAN COAST.

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

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows. (a) The aggregate of all ships recorded for each State as “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*.

It should be remembered, however, 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 from any other State (including oversea vessels on interstate direct voyages) during each of the years 1946-47 to 1950-51 compared with the year 1938-39. The shipping of the Murray River, between the States of New South Wales, Victoria and South Australia, is excluded :—

INTERSTATE MOVEMENT OF SHIPPING : ENTRANCES OF VESSELS INTERSTATE DIRECT.

State or Territory.	1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
NUMBER.						
New South Wales	2,183	1,136	1,133	1,227	1,176	1,122
Victoria	2,243	1,209	1,224	1,288	1,329	1,288
Queensland	639	340	306	360	379	395
South Australia	1,036	647	678	756	710	790
Western Australia	382	256	326	405	420	484
Tasmania	1,301	705	717	711	765	796
Northern Territory	39	14	16	15	27	20
Australia	7,823	4,308	4,400	4,822	4,806	4,895

NET TONS ('000).						
New South Wales	6,205	3,041	2,977	3,636	3,570	3,391
Victoria	4,751	2,568	2,690	3,067	3,245	3,399
Queensland	1,730	728	587	927	987	993
South Australia	3,322	1,871	1,903	2,578	2,687	2,889
Western Australia	2,019	1,165	1,395	2,164	2,167	2,472
Tasmania	1,770	739	772	668	746	759
Northern Territory	103	28	25	26	36	30
Australia	19,900	10,140	10,409	13,066	13,438	13,933

From 1938-39 the total net tonnage of interstate shipping declined steadily each year up to 1942-43, when it represented only 38 per cent. of the total for the pre-war year. It remained practically unchanged during the next three years, but increased by over 29 per cent. in 1946-47. There was little change in 1947-48, the tonnage for that year being about 52 per cent. of the 1938-39 total. By 1950-51 the total had risen to 70 per cent. of the 1938-39 total.

(ii) *Oversea via States.* To ascertain the aggregate movement of shipping between the States, including the total interstate movements 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, 1950-51.

State or Territory.	Entrances.		Clearances.		Total.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales	583	3,119	398	2,221	981	5,340
Victoria	573	3,185	423	2,387	996	5,572
Queensland	256	1,368	156	822	412	2,190
South Australia	393	1,699	232	1,323	535	3,022
Western Australia	33	155	25	136	58	291
Tasmania	79	393	82	416	161	809
Northern Territory	1	..	1	5	2	5
Australia	1,828	9,919	1,317	7,310	3,145	17,229

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 1938-39 and 1946-47 to 1950-51 :—

INTERSTATE MOVEMENT OF SHIPPING : TOTAL, AUSTRALIA.

Year.	Entrances.		Clearances.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).
1938-39	9,603	29,977	9,669	30,000
1946-47	5,122	14,181	5,173	14,258
1947-48	5,557	16,246	5,594	16,386
1948-49	6,213	20,651	6,212	20,553
1949-50	6,588	23,110	6,710	23,296
1950-51	6,723	23,852	6,754	23,946

(iv) *Total, States.* The following table shows, for each State, the number of entrances and clearances of vessels from and for other States, and the aggregate tonnage, during the year 1950-51, and includes the interstate movements of oversea vessels :—

INTERSTATE MOVEMENT OF SHIPPING : TOTAL, STATES, 1950-51.

State or Territory.	Entrances.		Clearances.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales	1,705	6,510	1,767	6,727
Victoria	1,861	6,584	1,969	7,001
Queensland	651	2,361	584	1,983
South Australia	1,093	4,588	1,073	4,571
Western Australia	517	2,627	450	2,513
Tasmania	875	1,152	891	1,121
Northern Territory	21	30	20	30
Australia	6,723	23,852	6,754	23,946

3. **Shipping Engaged Solely in Interstate Trade.**—The following table shows, for each State, the number of entrances direct from other States, of vessels engaged solely in interstate trade during the year 1950-51, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE : ENTRANCES, 1950-51.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Australia.
Ships Engaged No.	766	929	261	471	103	752	19	3,301
Net Tons '000	1,790	1,416	502	1,253	315	547	25	5,848

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 1947 to 1951 compared with the year 1939 :—

INTERSTATE AND COASTAL SHIPPING SERVICES : AUSTRALIA.

Particulars.	1939.	1947.	1948.	1949.	1950.	1951.
Number of companies operating	34	30	31	30	31	32
Number of vessels	162	177	175	175	179	173
Tonnage { Gross	361,066	519,343	496,768	509,425	490,496	492,558
{ Net	199,585	294,553	281,611	286,490	272,801	272,003
Horse-power (Nominal)	39,096	51,083	45,319	44,147	57,500	47,027
Number of 1st class	3,385	1,481	1,443	1,475	2,003	2,171
Number of 2nd class						
Number of passengers for which licensed						
(a) and steering	1,370	390	363	364	559	706
Complement of Masters and	565	644	670	670	650	629
Crew	589	709	704	710	736	738
Crew	4,365	4,801	4,725	4,733	4,985	4,907

(a) Excluding purely day passenger accommodation.

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

§ 6. Shipping Cargo.

1. **Oversea and Interstate Cargo.**—(i) *Australia.* The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped and the tonnage of interstate cargo shipped in Australian ports for the years 1946-47 to 1950-51 compared with the year 1938-39. Cargo which was stated in cubic feet has been converted to tons measurement on the basis of 40 cubic feet to the ton.

SHIPPING CARGO MOVEMENT : AUSTRALIA.
('000.)

Year.	Oversea Cargo.				Interstate Cargo.	
	Discharged.		Shipped.		Shipped.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1938-39	4,208	2,191	5,138	1,093	7,221	1,731
1946-47	4,171	1,304	3,097	1,357	7,264	1,272
1947-48	4,982	1,916	4,532	1,245	7,109	1,261
1948-49	5,849	2,572	5,423	1,366	6,230	1,173
1949-50	7,686	3,576	5,061	1,388	6,419	1,207
1950-51	9,084	3,989	5,405	1,295	6,723	1,326

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at principal ports during 1950-51.

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1950-51.

(Tons Weight and Tons Measurement Combined—'000.)

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
Sydney	3,718	880	4,598	1,315	589	1,904
Newcastle	350	1,221	1,571	157	2,090	2,247
Port Kembla	135	1,341	1,476	103	422	525
Other .. .. .	..	..	..	18	9	27
Total, New South Wales ..	4,203	3,442	7,645	1,593	3,110	4,703
Melbourne	4,069	1,947	6,016	877	685	1,562
Geelong	471	131	602	784	4	788
Portland	51	..	51	6	..	6
Total, Victoria	4,591	2,078	6,669	1,667	689	2,356
Brisbane	982	476	1,458	401	151	552
Cairns	53	28	81	87	105	192
Townsville	69	53	122	135	81	216
Other	44	54	98	230	213	443
Total, Queensland	1,148	611	1,759	853	550	1,403
Adelaide	1,308	958	2,266	522	413	935
Port Pirie	115	93	208	230	182	412
Wallaroo	39	..	39	178	17	195
Whyalla .. .. .	..	221	221	5	2,251	2,256
Other	42	19	61	186	44	230
Total, South Australia ..	1,504	1,291	2,795	1,121	2,907	4,028
Fremantle	1,188	453	1,641	799	74	873
Bunbury	34	..	34	188	38	226
Geraldton	47	..	47	257	10	267
Other	78	18	96	27	16	43
Total, Western Australia ..	1,347	471	1,818	1,271	138	1,409
Hobart	226	369	595	138	242	380
Devonport	17	47	64	10	75	85
Launceston	4	155	159	29	120	149
Other	20	98	118	18	214	232
Total, Tasmania	267	669	936	195	651	846
Darwin (Northern Territory)	13	30	43	..	4	4
Total, AUSTRALIA	13,073	8,592	21,665	6,700	8,049	14,749

2. **Oversea Cargo by Nationality of Vessels.**—The following table shows the total oversea cargo discharged and shipped combined, according to the nationality of the vessels, during the years 1946-47 to 1950-51 compared with the year 1938-39:—

**OVERSEA CARGO DISCHARGED AND SHIPPED : NATIONALITY OF VESSELS.
AUSTRALIA.**

(Tons Weight and Tons Measurement Combined—'000.)

Vessels Registered at Ports In—	1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
British Countries—						
Australia	416	267	286	306	237	262
United Kingdom	7,731	6,957	8,293	10,167	11,468	12,718
Canada	53	121	85	132	83	54
New Zealand	503	233	203	226	253	162
Other British	446	187	425	305	370	510
Total British	9,149	7,765	9,292	11,136	12,411	13,706
Proportion of Total %	72.43	77.51	73.30	73.21	70.08	69.32
Foreign Countries—						
Denmark	184	38	105	265	378	414
France	189	90	95	123	187	249
Germany	370	..	..	..	..	..
Italy	84	37	18	217	176	244
Japan	260	..	..	..	..	..
Netherlands	(a) 573	(a) 327	(a) 512	(a) 531	(a) 646	616
Norway	834	547	566	1,149	1,712	1,925
Sweden	354	314	408	453	589	675
United States of America ..	159	659	1,083	688	397	464
Other Foreign	475	241	597	649	1,215	1,480
Total Foreign	3,482	2,253	3,384	4,075	5,300	6,067
Proportion of Total %	27.57	22.49	26.70	26.79	29.92	30.68
Grand Total	12,631	10,018	12,676	15,211	17,711	19,773

(a) Includes Netherlands East Indies.

Owing to war conditions the proportion of cargo carried in British vessels decreased from 72.43 per cent. in 1938-39 to 41.37 in 1943-44, but increased to 77.51 per cent. in 1946-47. It has since declined again to 69.32 per cent. in 1950-51.

§ 7. 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 is given in Official Year Book No. 36, pp. 121-130.

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, pp. 147-8.

As at 1st November, 1952, the Australian Shipping Board operated 38 vessels totalling 156,344 gross tons, of which seven vessels totalling 47,030 gross tons were operated on time charter from private owners. The Government-owned tonnage, totalling 114,534 gross tons (of which three vessels totalling 4,203 gross tons were on charter to private companies or other shipping organizations), comprised thirteen "A" or River Class vessels of an average of 5,150 gross tons, two "B" Class vessels of an average of 3,952 gross tons, nine "D" Class vessels of an average of 2,326 gross tons, five "G" Class vessels of an average of 584 gross tons, all of which were built in Australian yards, plus five vessels, totalling approximately 16,000 gross tons, which were built overseas.

In the international sphere, ratification is still being awaited from 21 ship-owning nations of a Convention establishing an Inter-Governmental Maritime Consultative Organization within the framework of the United Nations. 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.

This Organization is designed to replace the United Maritime Consultative Council which was established on a tentative basis after the expiry of the war-time United Maritime Authority and Combined Adjustment Board.

§ 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 were available was published in *Transport and Communication Bulletin* No. 14.

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 shown in *Transport and Communication Bulletin* No. 43.

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, 1952, the rate for general merchandise from Australia to the United Kingdom and Continent was 155s. od. per ton weight or measurement while the rates for wheat (bagged) and wool (greasy) were respectively 110s. od. per ton weight and 2.57d. 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, compiled from information supplied by the Director of Navigation, showing the depth of water available and tides at principal ports of Australia at 1st January, 1953, is included in *Transport and Communication Bulletin* No. 43.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping casualties reported on or near the coast during the years 1947 to 1951 are shown in the table below. This information also was furnished by the Director of Navigation :—

TOTAL SHIPPING CASUALTIES AND LOSSES : AUSTRALIA.

Year.	Total Losses of Vessels.			Total Casualties to Vessels.		
	Number.	Net Tons.	Lives Lost.	Number.	Net Tons.	Lives Lost.
1947 ..	2	396	..	151	442,685	10
1948 ..	1	113	..	206	652,047	..
1949 ..	3	3,795	12	155	435,935	12
1950 ..	4	9,735	20	191	611,084	22
1951 ..	5	2,908	5	205	650,718	5

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.

The first essay in the way of legislation in this direction was made in March, 1904, when a Bill for a Navigation and Shipping Act was introduced in the Senate by the Attorney-General of the first Deakin Administration. This Bill was withdrawn at an early stage for further consideration and redrafting. The Deakin Ministry resigned in April, 1904, and the succeeding Watson Government, in view of the far-reaching and important character of the matters comprehended in the measure, decided to refer the Bill for consideration and report to a Royal Commission. In 1905 the Commission presented a Draft Bill, the main principles of which, insofar as they affected oversea shipping, were then, at the invitation of the Imperial Government, considered at an Imperial Shipping Conference held in London in 1907, at which representatives of Great Britain, Australia, and New Zealand were present. The Conference considered, *inter alia*, the following recommendation of the Royal Commission:—"That the coastal trade of the Commonwealth be reserved for ships on the Australian Register, or ships conforming to Australian conditions, and licensed to trade on the Australian coast": and recommended:—"That the vessels to which the conditions imposed by the law of Australia or New Zealand are applicable should be (i) vessels registered in the colony, while trading therein, and (ii) vessels wherever registered, while trading on the coast of the colony". Further modifications were made in the draft (by the Royal Commission) to conform to the resolutions of the Conference, and the resultant Bill was re-introduced in the Senate in September, 1907, by the second Deakin Administration. Owing to pressure of other business, however, it lapsed. The Bill was again introduced in the Senate in September, 1908, but again it lapsed; proceedings were resumed in 1909, but again the Bill lapsed. It was brought in again in 1910 by the second Fisher Administration, revived in 1911, lapsed again, and finally became, under the last-mentioned Government, the Navigation Act of 1912. While preparations were being made to bring it into operation, the war broke out, and it was postponed.

In 1919 another Bill was introduced by the Australian National War Government to give the power to proclaim different portions of the Act to commence at different times. This Act (No. 32 of 1919) also extended the operation of the Act to the Territories under the authority of the Commonwealth, and those governed under a Mandate. But in 1925 it was found necessary in the interest of the development of the Territories to issue an Order in Council directing that trade with and in the Territories of Papua and New Guinea should not be deemed to be engaging in the coasting trade. Another amending Act was passed by the same Government in 1920, enabling the Commonwealth to fulfil its obligations under the International Convention for the Safety of Life at Sea, and to grant permits to British ships to trade on the coast in special circumstances. A 1934 amendment brought the Act into line with a new International Convention on Safety of Life at Sea (1929) and with an International Load Line Convention (1930). Further amendments were made in 1942 and by the Statute Law Revision Act (1950). The citation of the Act is now therefore "the Navigation Act, 1912-1950". Still another International Safety of Life at Sea Convention was adopted in 1948 and legislation is being prepared to enable the Commonwealth to ratify it.

The British Merchant Shipping Act 1894 requires that any legislation by the Parliament of a British Possession, repealing wholly or in part any provisions of that Act, shall not take effect until the approval of the Sovereign has been proclaimed in that Possession. All the early Navigation Bills, therefore, had been drawn to commence on dates to be fixed by proclamation after Royal Assent thereto had been proclaimed in the Commonwealth. But as a consequence of the adoption of the Statute of Westminster in 1942, Navigation Bills will no longer be reserved in this manner.

At the conclusion of the 1914-18 War, the proclamation of the 1912 Act could no longer be delayed. In order to make the change as gradual as possible, groups of sections have (under the power granted by the 1919 Act) been brought into operation from time to time. The first group—the Coasting Trade provisions—commenced on 1st July, 1921. Others commenced on the first day of October, 1921, March, 1922, February, 1923, March, 1923, and October, 1923, and the only important sections not yet in operation are those relating to the inspection and testing of anchors, chain cables and gear, and to pilotage.

Soon after the coasting trade provisions commenced, the owners of a number of intra-state ships took steps to have tested the validity of the application to their ships of the manning and accommodation provisions of the Act. The judgment of the High Court was to the effect that those provisions did not apply to vessels engaged *solely* in the domestic trade of a State. In consequence of this judgment, the Government decided not to enforce the provisions of the Act then in force on any intra-state ship, and similarly other sections since brought into force have not been applied to these ships.

Notwithstanding the fact that a considerable amount of shipping has thereby been left to the control of the various State Governments, for all ships trading beyond one State there is uniform procedure in regard to (i) the engagement and discharge of seamen; (ii) the inspection of accommodation provided for crews; (iii) scales of medicines; (iv) the survey of hulls, machinery and gear; (v) the carriage and stowage of cargo; (vi) loadlines; (vii) the adjustment of compasses; (viii) the examination of masters, mates, and engineers for certificates of competency, etc. A system of "sectional" surveys has been introduced, by means of which a ship may have portions of the annual survey carried out at different ports, thereby minimizing interference with the regular time-table.

The Act is in many respects flexible, provision being made for granting relief from some of its most stringent provisions. The provision that the coastal trade of the Commonwealth shall be reserved to Australian ships, or ships conforming to Australian conditions, is contained in Section 288 of the Act, but by Section 286 the Minister has power to grant permits to British ships which do not conform to those conditions, in circumstances where he is satisfied that the licensed service provided is inadequate. Such power is frequently made use of, and, in addition, foreign ships have occasionally been permitted to trade under exemptions granted under Section 422A of the Act.

Another direction in which the provisions of the Act may be varied is in regard to the manning scales, which are contained in Schedules appended to the Act. These scales may be varied by regulation, and Committees of Advice may be appointed to deal with individual cases. The scales in regard to many ships have, under these provisions, been increased or reduced according to the recommendations received by the Department.

The Act is administered by the Marine Branch of the Department of Shipping and Transport, there being, under the Assistant Secretary (Marine), a Director of Navigation and a staff of technical and clerical officers attached to the head office, with a Deputy Director of Navigation and technical and clerical staffs in each State. The Department, when necessary, seeks the advice of a body called the "Marine Council", consisting of six members, representing ship-owners, underwriters, deck and engineer officers, and seamen, with the Director of Navigation, *ex officio*, as Chairman. Any question regarding administration, or the making of regulations, etc., may be referred to the Council for advice, but it is obligatory on the Minister to seek the Council's advice upon all proposed regulations with respect to the scales of officers, crew and provisions.

During the 1939-45 War, a Maritime Industry Commission was established under National Security Regulations to deal with a limited number of industrial questions, and many of its Orders extended or modified provisions of the Navigation Act in regard to officers and seamen.

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 1911-1949, and the Seamen's War Pensions and Allowances Act 1940-1952.

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, which is divided into three sections, 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.

B. GOVERNMENT RAILWAYS.

1. **General.**—The policy of Government ownership and control of railways has been adopted in each State and at 30th June, 1951, 24,753 route-miles were owned by the State Governments and 2,201 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 are shown in the *Transport and Communication Bulletin* issued by this Bureau.

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 will be found in Official Year Books No. 6, p. 681 and No. 22, p. 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 which reaches 600 miles at some points. However, Darwin in the Northern Territory is not connected by rail to any other port in Australia. A 3 ft. 6 in. railway extends southward from Darwin to Birdum, a distance of 317 miles, and from Port Augusta in South Australia northwards to Alice Springs in Central Australia, a distance of 771 miles. The report by the late Sir Harold Clapp to the Commonwealth Government, details of which appear in Official Year Book No. 37, p. 146, did not recommend the linking of the termini at Alice Springs and Birdum.* An all-weather road was built to cover the intervening distance and much goods traffic now passes along this road. The travelling times of trains on the main lines of Australia are being lessened and the haulage capacity increased by the introduction of diesel and diesel-electric locomotives, which in the near future will be the only source of power on the Trans-Australian Railway between Port Pirie and Kalgoorlie.

3. **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, then Director-General of Land Transport, Commonwealth Department of Transport, 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 is contained in Official Year Book No. 37 (Chapter V.—Transport and Communication, pp. 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. Action was also taken to invite the Victorian Government to discuss the subject of a separate agreement, but to date there has been no legislative action. 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 of £24,000,000.

4. **Government Railways: Lines under Construction and Lines Authorized, 1950–51.**—

(i) **Lines under Construction.** In spite of the great extensions of State railways since 1875 and also the construction of various railways by the Commonwealth Government, there are still, in some States, immense areas of country which are as yet practically

* This is, however, provided for in the Commonwealth–South Australia Agreement referred to in par. 3.

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 have been 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.

(a) *New South Wales.* Work continued on the eastern suburbs electric railway and steady progress was made on the St. James to Wynyard section whilst the tunnelling from Haymarket to Town Hall and Central stations was commenced. Plans were prepared for the location of tracks between Town Hall, Martin Place, King's Cross and Bondi Junction together with surveys, boring and tunnelling operations on the preparatory works in other suburbs. The duplication and deviation of the main northern line between Branxton and Muswellbrook and the quadruplication of the Lidcombe to Penrith line, various sections of which were brought into service, continued, and considerable progress was made on the new double-line bridge on the upstream side of the existing bridge over the Parramatta River at Meadowbank. On the Sydney to Newcastle line strengthening and improvement works were carried out. The new goods yard at Cook's River on the Sydney to Botany line was 80 per cent. completed.

(b) *Victoria.* The work on the duplication and electrification of sections of the Gippsland line continued throughout the year. A new section of line between Drouin and Warragul and a section of single track from Darnum to Yarragon were brought into service.

(c) *Queensland.* Duplication of small sections of suburban line were completed and placed in service whilst work continued on the quadruplicate of the Roma Street to Corinda suburban line. Work continued throughout the year on the deviation designed to eliminate the rack service between Moonmerra and Moongan on the Mount Morgan line and this undertaking was completed early in 1952. Reconditioning work was carried out between Almaden and Mount Surprise and contracts were let for the concrete and earthworks on the Callide Coalfield Railway. Drawings for the new high level bridge over the Haughton River at Giru were sufficiently advanced to enable pier construction to be commenced. Plans were made for the layout of new railway workshops at Redbank, the civil engineer's workshop at Banyo and the goods depot at Normanby.

(d) *South Australia.* Work on converting the Naracoorte to Mount Gambier line from 3 ft. 6 in. to 5 ft. 3 in. gauge was continued and by June, 1951, the 5 ft. 3 in. gauge stretched from Adelaide to a point 10 miles south of Naracoorte. Earthworks on this section were completed to within 5 miles of Mount Gambier.

(e) *Other.* At 30th June, 1951, there was no railway construction work in progress in Western Australia or Tasmania or for the Commonwealth Government.

(ii) *Lines Authorized for Construction.* In the States of New South Wales, Victoria, Queensland, South Australia and Western Australia at 30th June, 1951 there were certain lines authorized for construction but not commenced. These lines were authorized many years ago, some as early as 1910 and none later than 1933. Particulars may be found in Official Year Book No. 36, p. 133. There have been no later authorizations.

5. *Grafton-South Brisbane (Uniform Gauge) Line.*—For particulars of the construction of the Grafton-South Brisbane (Uniform Gauge) Line completed in 1930, which constituted the first step towards uniform gauge railway communication between the capitals of the mainland States, see Official Year Books No. 31, p. 122 and No. 38, p. 165.

6. *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, at different periods since the inauguration of railways in Australia in 1854 up to the year 1950-51:—

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

Year.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855 ..	14	2	..	7	..	..	..	..	23
1861 ..	73	114	..	56	..	..	..	..	243
1871 ..	358	276	..	133	..	45	..	..	1,030
1881 ..	996	1,247	800	832	92	45	..	..	4,012
1890-91 ..	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1900-01 ..	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1910-11 ..	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1920-21 ..	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1930-31 ..	6,044	4,717	6,529	3,898	4,634	665	317	5	26,809
1940-41 ..	6,127	4,759	6,567	3,809	4,835	642	490	5	27,234
1946-47 ..	6,128	4,748	6,566	3,799	4,802	641	490	5	27,179
1947-48 ..	6,128	4,725	6,560	3,799	4,802	614	490	5	27,123
1948-49 ..	6,113	4,697	6,560	3,799	4,775	614	490	5	27,053
1949-50 ..	6,113	4,687	6,560	3,805	4,706	613	490	5	26,979
1950-51 ..	6,113	4,686	6,560	3,805	4,682	613	490	5	26,954

The next table shows for each State the length of Government lines open in relation to both population and area at 30th June, 1951.

GOVERNMENT RAILWAYS : ROUTE-MILEAGE OPEN AT 30th JUNE, 1951.
(Miles.)

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Mileage open (route)	6,113	4,686	6,560	3,805	4,682	613	490	5	26,954
Per 1,000 of population ..	1.84	2.07	5.42	5.28	8.06	2.11	30.63	0.20	3.20
Per 1,000 square miles ..	19.75	53.25	9.78	10.01	4.80	23.57	0.94	5.32	9.06

7. Classification of Lines according to Gauge, 1950-51.—The next table shows the route-mileage of Government railways open in each State and Territory at 30th June, 1951, classified according to gauge.

GOVERNMENT RAILWAYS : GAUGES, AT 30th JUNE, 1951.
(Miles.)

State or Territory.	Route-mileage having a gauge of—					Total.
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	2 ft. 6 in.	2 ft. 0 in.	
New South Wales ..	2	6,111	..	..	..	6,113
Victoria ..	4,571	..	..	115	..	4,686
Queensland ..	..	69	6,461	..	30	6,560
South Australia ..	1,530	654	1,621	..	..	3,805
Western Australia ..	..	454	4,228	..	..	4,682
Tasmania ..	..	..	613	..	..	613
Northern Territory ..	..	..	490	..	..	490
Aust. Cap. Territory ..	..	5	..	..	..	5
Australia ..	6,103	7,293	13,413	115	30	26,954

NOTE.—The table above includes 2,201 miles of Commonwealth Government railways as follows:—4 ft. 8½ in. gauge—South Australia 654 miles, Western Australia 454 miles and Australian Capital Territory 5 miles; 3 ft. 6 in. gauge—South Australia 598 miles and Northern Territory 490 miles.

8. **Summary of Operations, 1950-51.**—In the following table a summary is shown of the working of Government railways open in Australia during the year ended 30th June, 1951 :—

GOVERNMENT RAILWAYS : SUMMARY OF OPERATIONS, 1950-51.

Particulars.		Common-wealth Railways.	State Railways.	Total.
Mileage open (route) 30th June, 1951	.. miles	2,201	24,753	26,954
Gross revenue	.. £'000	2,153	103,491	105,644
" " per train-mile	.. pence	280.69	286.04	285.93
Working expenses	.. £'000	(a) 2,434	110,338	112,772
" " per train-mile	.. pence	317.29	304.94	305.21
Net revenue	.. £'000	— 281	— 6,847	— 7,128
" " per train-mile	.. pence	—36.60	—18.93	—19.29
Train-miles run	.. miles '000	1,841	86,835	88,676
Passenger-journeys	.. No. '000	186	475,927	476,113
Tons of goods, etc., carried	.. tons '000	591	40,733	41,324
Average number of employees(b)	.. No.	2,472	125,387	127,859
" earnings per employee	.. £	581	595	594

(a) Excludes amounts paid for Commissioner's salary (£3,500), Government contributions under the Superannuation Act (£31,005), Accident and Insurance Fund (£11,236) and proportion of salaries of Auditor-General's staff (£1,600). (b) Excludes construction staff.

9. **Summary, States, 1950-51.**—The following table shows particulars of the mileage open, passengers and goods carried, and train-miles run, for Government railways in Australia during 1950-51. Owing to differences in the composition of the figures for the several States, the details of cost of construction and equipment which were given in previous issues of the Official Year Book have been omitted.

GOVERNMENT RAILWAYS : SUMMARY, 1950-51.

System.	Mileage Open.(a)		Passenger-journeys.	Goods and Live Stock Carried.	Train-miles Run.(b)
	Route.	Track.			
	Miles.	Miles.	'000.	'000 tons.	'000.
New South Wales	6,113	8,409	268,567	18,324	38,112
Victoria	4,686	6,072	141,313	7,539	14,575
Queensland	6,560	7,484	34,145	7,182	18,562
South Australia	2,553	3,157	17,177	3,794	6,379
Western Australia	4,228	4,789	11,543	3,033	7,136
Tasmania	613	707	3,182	861	2,071
Commonwealth	2,201	2,360	186	591	1,841
Australia	26,954	32,978	476,113	41,324	88,676

(a) At 30th June, 1951.

(b) Excludes assistant and light miles.

10. **Gross Revenue.**—(i) *General.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The following have been excluded :—State Government grants of £300,000 for the working of country developmental lines in New South Wales; £9,000 towards reduction in outer suburban fares and £1,795,000 to limit interest payments to 1 per cent. on loan liability in Victoria; £1,800,000 towards working expenses and £300,000 towards interest payments in South Australia; and £10,000 for sick leave funds in Tasmania.

(ii) *Coaching, Goods and Miscellaneous Receipts. (a) Summary.* In the following table the gross revenue is shown for the year 1950-51, classified according to the main three sources of receipts, together with the revenue per average mile worked and the revenue per train-mile run :—

GOVERNMENT RAILWAYS : GROSS REVENUE(a), 1950-51.

System.	Coaching.	Goods and Live Stock.	Miscellaneous.	Total.	Per Route-mile.	Per Train-mile.
	£'000.	£'000.	£'000.	£'000.	£	d.
New South Wales	15,089	28,351	6,008	49,448	8,089	311
Victoria ..	7,225	9,992	1,434	18,651	3,979	307
Queensland ..	3,973	15,168	631	19,772	3,014	256
South Australia..	1,406	5,305	604	7,315	2,865	275
Western Australia	1,151	5,362	456	6,969	1,648	234
Tasmania ..	201	1,108	27	1,336	2,180	155
Commonwealth ..	570	1,408	175	2,153	978	281
Australia ..	29,615	66,694	9,335	105,644	3,919	286

(a) Excludes Governmental Grants, see para. 10 (i) above.

(b) *Proportions to Total.* The following table shows for the year 1950-51 the proportion of each class of receipts to the total gross revenue :—

GOVERNMENT RAILWAYS : PROPORTION OF EACH CLASS OF RECEIPTS TO TOTAL RECEIPTS, 1950-51.
(Per Cent.)

System.	Coaching.	Goods and Live Stock.	Miscellaneous.
New South Wales	30.52	57.33	12.15
Victoria	38.74	53.57	7.69
Queensland	20.09	76.72	3.19
South Australia	19.22	72.52	8.26
Western Australia	16.52	76.94	6.54
Tasmania	15.05	82.93	2.02
Commonwealth	26.47	65.40	8.13
Australia	28.03	63.13	8.84

(iii) *Totals, 1938-39 and 1946-47 to 1950-51.* The following table shows the gross revenues for State and Commonwealth railways for the years 1946-47 to 1950-51 in comparison with the year 1938-39 :—

GOVERNMENT RAILWAYS : GROSS REVENUE.
(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
1938-39 ..	19,146	9,274	7,798	3,119	3,599	487	547	43,970
1946-47 ..	30,353	13,528	11,033	4,593	4,046	893	1,099	65,545
1947-48 ..	36,906	16,304	11,532	5,079	4,549	958	1,237	76,565
1948-49 ..	39,663	17,259	15,392	5,849	5,090	1,050	1,673	85,976
1949-50 ..	40,121	20,355	15,088	6,512	6,292	1,049	1,875	92,192
1950-51 ..	49,448	18,651	19,772	7,315	6,969	1,336	2,153	105,644

NOTE.—Details of gross revenue classified according to coaching, goods (including live stock) and miscellaneous receipts for the years 1941-42 to 1950-51 are shown in *Transport and Communication Bulletin* No. 42.

11. 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 systems. When traffic is light, the proportion of working expenses to revenue 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 represented in the Railways section of this chapter, exclude interest, sinking fund, exchange and certain other payments (*see para. 13 following*).

During the war years large amounts were set aside by the Railways as reserves, mainly to provide for depreciation and accrued leave, to be expended as circumstances permit. Particulars of these amounts, which were included in Working Expenses and which in the year 1942-43 aggregated nearly £10,000,000 and over the whole period about £30,000,000, are given in previous issues of the Official Year Book.

(ii) *Working Expenses, Summary, 1950-51*. The following table shows, for the year 1950-51, total working expenses classified according to the main four expenditure headings, together with the working expenses per route-mile and per train-mile and the proportion of working expenses to gross revenue:—

GOVERNMENT RAILWAYS : WORKING EXPENSES, 1950-51.

System.	Maintenance of Way and Works.	Rolling Stock.	Transportation and Traffic.	Other.	Total.	Per Route-mile.	Per Train-mile.	Proportion of Working Expenses to Gross Revenue.
	£'000.	£'000.	£'000.	£'000.	£'000.	£	d.	%
New South Wales	8,353	18,901	11,359	10,555	49,168	8,043	310	99.43
Victoria	3,752	7,031	5,417	4,610	20,810	4,440	343	111.58
Queensland	4,154	9,303	4,756	1,214	19,427	2,961	251	98.26
South Australia	1,530	4,915	2,479	1,068	9,992	3,914	376	136.60
Western Australia	1,430	4,306	1,846	1,350	8,932	2,112	300	128.17
Tasmania	352	879	418	360	2,009	3,278	233	150.35
Commonwealth(a)	557	1,349	379	149	2,434	1,106	317	113.04
Australia	20,128	46,684	26,654	19,306	112,772	4,184	305	106.75

(a) *See para. 8, note (a) ante.*

(iii) *Totals*. In the following table the total working expenses are shown for the years 1938-39 and 1946-47 to 1950-51:—

GOVERNMENT RAILWAYS : TOTAL WORKING EXPENSES.

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia.
1938-39 ..	14,543	8,060	6,193	2,931	2,911	678	642	35,958
1946-47 ..	25,886	12,916	10,191	5,045	4,424	1,253	1,224	60,939
1947-48 ..	31,015	15,225	10,640	5,947	5,526	1,455	1,439	71,247
1948-49 ..	35,738	17,815	14,164	7,237	6,612	1,613	1,777	84,956
1949-50 ..	39,280	19,983	15,857	8,440	7,387	1,728	1,979	94,654
1950-51 ..	49,168	20,810	19,427	9,992	8,932	2,009	2,434	112,772

(a) *See para. 8, note (a) ante.*

NOTE.—Details of working expenses under the main four headings are shown for the years 1941-42 to 1950-51 in *Transport and Communication Bulletin* No. 42.

12. **Net Revenue.**—The following table shows, for the year 1950-51, the net revenue, i.e., the excess of gross revenue over working expenses, the amount of such net revenue per route-mile open and per train-mile run, the interest on railway loan expenditure and the profit or loss after paying interest:—

GOVERNMENT RAILWAYS : NET REVENUE, INTEREST, AND PROFIT OR LOSS, 1950-51.

System.	Net Revenue.			Interest.	Profit or Loss.
	Total.	Per Route-mile.	Per Train-mile.		
	£'000.	£	d.		
New South Wales ..	280	46	1.76	5,620	-5,340
Victoria ..	-2,159	461	35.56	2,069	-4,228
Queensland ..	345	53	4.46	1,586	-1,241
South Australia ..	-2,677	-1,049	100.71	1,028	-3,705
Western Australia ..	-1,963	464	66.03	717	-2,680
Tasmania ..	673	-1,098	77.97	162	835
Commonwealth ..	(a) - 281	(a) - 128	(a) - 36.60	295	(a) - 576
Australia ..	-7,128	- 264	- 19.29	(b) 11,559	-18,687

(a) See para. 8, note (a) ante. (b) Includes Commonwealth Government share of interest on Uniform Gauge Railway 1950-51. £82,375.

In the graphs accompanying this Chapter the gross and net revenue and working expenses are shown from 1870 to 1951.

13. **Exchange.**—Exchange on interest payments abroad and certain other charges are not included in the table above. These items are not charged against the railways in Queensland and Western Australia and have been excluded for the purposes of comparison. In the remaining States the amounts paid on account of exchange were:—New South Wales, £591,000; Victoria, £157,292; South Australia, £69,612; and Tasmania, £6,070.

14. **Profit or Loss.**—The following table shows, for the years 1938-39 and 1946-47 to 1950-51, the actual profit or loss after deducting working expenses and interest, but excluding exchange, from the gross revenue:—

GOVERNMENT RAILWAYS : PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES AND INTEREST.
(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia.
1938-39 ..	43	- 636	- 37	- 886	- 313	-272	-490	- 2,718
1946-47 ..	- 659	-1,228	- 598	-1,465	-1,411	-460	-463	- 6,366
1947-48 ..	746	- 783	- 539	-1,869	-2,023	-609	-519	- 5,678
1948-49 ..	-1,113	-2,437	- 191	-2,394	-2,585	-676	-413	- 9,892
1949-50 ..	-4,509	-1,563	-1,322	-2,951	-2,188	-800	-402	-13,817
1950-51 ..	-5,340	-4,228	-1,241	-3,705	-2,680	-835	-576	-18,687

(a) See para. 8, note (a) ante.

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 confined to 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 become an important factor.

The following table shows particulars for the years 1946-47 to 1950-51 in comparison with 1938-39 :—

GOVERNMENT RAILWAYS : TRAFFIC.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
PASSENGER-JOURNEYS. (^{'000.})								
1938-39 ..	186,720	142,123	24,639	17,529	11,416	2,297	117	384,841
1946-47 ..	261,644	170,165	34,188	19,827	13,879	3,252	223	503,178
1947-48 ..	263,047	182,210	29,325	19,067	13,928	2,974	216	510,767
1948-49 ..	263,116	176,555	32,687	18,210	12,624	3,295	217	506,704
1949-50 ..	258,183	182,101	32,366	17,385	11,188	3,231	194	504,648
1950-51 ..	268,567	141,313	34,145	17,177	11,543	3,182	186	476,113
PASSENGER-JOURNEYS PER AVERAGE ROUTE-MILE WORKED. (Number.)								
1938-39 ..	30,541	29,896	3,752	6,854	2,608	3,490	53	14,134
1946-47 ..	42,697	35,839	5,207	7,784	3,192	5,074	101	18,513
1947-48 ..	42,925	38,563	4,470	7,486	3,203	4,844	98	18,832
1948-49 ..	42,986	37,469	4,983	7,150	2,921	5,366	99	18,714
1949-50 ..	42,235	38,811	4,934	6,820	2,631	5,270	89	18,705
1950-51 ..	43,934	30,150	5,205	6,728	2,730	5,191	85	17,663
GOODS AND LIVE STOCK CARRIED. (^{'000 Tons.})								
1938-39 ..	15,417	5,976	5,234	2,640	2,859	844	186	33,156
1946-47 ..	17,594	7,562	5,750	3,215	2,577	896	343	37,937
1947-48 ..	18,518	8,440	5,523	3,560	2,858	817	423	40,139
1948-49 ..	18,080	8,859	6,888	3,793	2,737	802	546	41,705
1949-50 ..	16,996	9,125	6,943	3,692	2,843	770	549	40,918
1950-51 ..	18,324	7,539	7,182	3,794	3,033	861	591	41,324
GOODS, ETC., CARRIED PER AVERAGE ROUTE-MILE WORKED. (Tons.)								
1938-39 ..	2,522	1,257	797	1,032	653	1,282	84	1,218
1946-47 ..	2,871	1,503	876	1,262	593	1,398	156	1,396
1947-48 ..	3,022	1,786	841	1,398	657	1,331	192	1,480
1948-49 ..	2,954	1,880	1,050	1,489	633	1,306	248	1,540
1949-50 ..	2,780	1,945	1,058	1,448	659	1,257	249	1,517
1950-51 ..	2,998	1,608	1,095	1,486	717	1,405	269	1,533

(ii) *Metropolitan and Country Passenger Traffic and Revenue, 1950-51.* A further indication of the difference in passenger traffic conditions is obtained from the comparison of the volume of metropolitan and suburban and country traffic during 1950-51 shown below.

GOVERNMENT RAILWAYS: METROPOLITAN AND SUBURBAN AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1950-51.

System.	Passenger-journeys. (‘000.)			Revenue. (£‘000.)		
	Metro- politan and Suburban.	Country.	Total.	Metro- politan and Suburban.	Country.	Total.
New South Wales ..	(a)	(a)	268,567	(a)	(a)	(b)13,557
Victoria ..	134,344	6,969	141,313	3,647	2,783	6,430
Queensland ..	27,602	6,543	34,145	630	2,450	3,080
South Australia ..	15,619	1,558	17,177	381	717	1,098
Western Australia ..	10,034	1,509	11,543	186	645	831
Tasmania ..	2,136	1,046	3,182	35	133	168
Commonwealth ..	..	186	186	..	411	411
Australia ..	(a)	(a)	476,113	(a)	(a)	25,575

(a) Not available. (b) Estimated.

(iii) *Goods Traffic.* (a) *Classification.* Some indication of the differing conditions of the traffic in each system may be gained by an examination of the tonnage of the various classes of commodities carried, and of the revenue derived therefrom. The following table shows the number of tons of various commodities carried during 1950-51.

GOVERNMENT RAILWAYS: CLASSIFICATION OF COMMODITIES CARRIED, 1950-51.
(‘000 Tons.)

System.	Coal, Coke and Shale.	Other Minerals.	Grain and Flour.	Wool.	Live Stock.	All other Com- modities.	Total.
New South Wales ..	(a)	(a)	(b)1,461	(c) 170	(c)1,192	15,501	18,324
Victoria ..	1,120	145	1,750	74	496	3,954	7,539
Queensland ..	1,434	573	(d)2,707	73	752	1,643	7,182
South Australia ..	722	626	851	38	232	1,325	3,794
Western Australia ..	486	259	812	41	140	1,295	3,033
Tasmania ..	153	52	(a)	3	27	626	861
Commonwealth ..	340	9	10	5	80	147	591
Australia ..	(e)	(e)	(e)	404	2,919	24,491	41,324

(a) Included with "All other Commodities". (b) Grain only. (c) Estimated.
(d) Agricultural produce. (e) Not available.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1950-51 :-

GOVERNMENT RAILWAYS: REVENUE FROM GOODS AND LIVE STOCK TRAFFIC, 1950-51.
(£‘000.)

System.	General Merchan- dise.	Wool.	Live Stock.	Minerals.		Miscel- laneous.	Total.
				Coal and Coke.	Other.		
New South Wales ..	(a)	(a)	2,371	(a)	(a)	(a)	28,351
Victoria ..	8,095	262	696	687	109	143	9,992
Queensland ..	7,293	701	1,779	1,700	980	(b)2,715	15,168
South Australia ..	2,993	137	386	250	1,067	(c) 472	5,305
Western Australia ..	4,112	151	248	480	228	143	5,362
Tasmania ..	471	9	44	172	84	328	1,108
Commonwealth ..	822	17	181	367	13	8	1,408
Australia ..	(a)	(a)	5,705	(a)	(a)	(a)	66,694

(a) Not available. (b) Includes agricultural produce, £2,600,336. (c) Includes wheat, £354,877.

(iv) *Passenger-mileage and Ton-mileage.* Particulars of passenger-mileage and ton-mileage in respect of the Government railways in Australia for the years 1938-39 and 1947-48 to 1950-51 are shown in the following tables.

(a) *Passenger-mileage.* The following table shows particulars of passenger-mileage in respect of the Government railways in Australia for the years 1938-39 and 1947-48 to 1950-51.

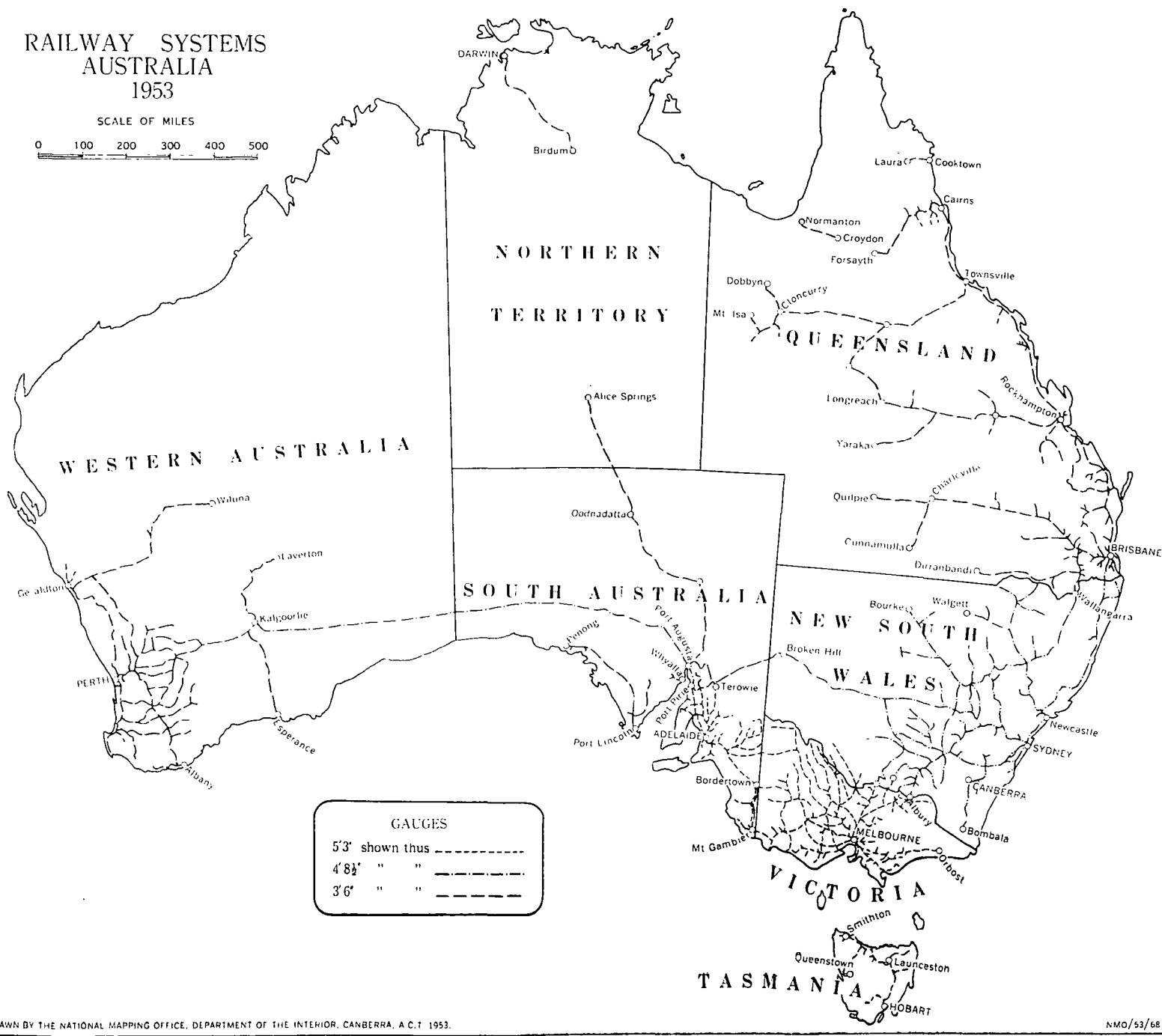
GOVERNMENT RAILWAYS : PASSENGER-MILEAGE SUMMARY.

Year ended 30th June—	Passenger Train-miles. (‘000.)	Total Passenger-miles. (‘000.)	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey. (Miles.)	Passenger Earnings.				Density of Traffic (a).
					Gross. (£‘000.)	Per Average Route-mile Worked. (£)	Per Passenger-mile. (d.)	Per Passenger Train-mile. (d.)	
NEW SOUTH WALES.									
1939	19,173	2,149,154	112	11.51	6,024	985	0.67	75.41	351,526
1948	(b)	(b)	(b)	(b)	c 11,689	1,907	(b)	(b)	(b)
1949	(b)	(b)	(b)	(b)	c 12,097	1,976	(b)	(b)	(b)
1950	(b)	(b)	(b)	(b)	c 12,114	1,982	(b)	(b)	(b)
1951	(b)	(b)	(b)	(b)	c 13,557	2,218	(b)	(b)	(b)
VICTORIA.									
1939	12,434	1,292,843	104	9.10	3,855	811	0.72	74.40	271,948
1948	10,960	1,838,932	168	10.09	6,448	1,305	0.84	141.31	389,192
1949	11,436	1,858,640	163	10.53	6,646	1,410	0.86	139.46	394,448
1950	11,597	1,857,065	160	10.20	7,251	1,547	0.94	150.07	395,794
1951	9,693	1,521,106	157	10.76	6,430	1,372	1.02	159.21	324,537
QUEENSLAND.(d)									
1939	5,750	(b)	(b)	(b)	1,523	232	(b)	63.55	(b)
1948	5,553	(b)	(b)	(b)	2,282	352	(b)	98.64	(b)
1949	6,405	(b)	(b)	(b)	2,740	418	(b)	102.67	(b)
1950	6,409	(b)	(b)	(b)	2,739	418	(b)	102.56	(b)
1951	6,753	(b)	(b)	(b)	2,971	458	(b)	105.59	(b)
SOUTH AUSTRALIA.									
1939	3,747	212,982	57	12.15	600	235	0.68	38.45	83,281
1948	3,597	312,575	87	16.39	1,039	407	0.80	69.31	122,723
1949	3,363	307,241	91	16.87	1,075	422	0.84	76.87	120,628
1950	3,617	290,848	80	16.73	1,064	417	0.88	70.83	114,102
1951	3,640	274,174	75	16.96	1,098	430	0.96	72.40	107,393
WESTERN AUSTRALIA.									
1939	2,795	(b)	(b)	(b)	514	117	(b)	44.12	(b)
1948	3,107	(b)	(b)	(b)	860	198	(b)	66.46	(b)
1949	2,935	186,488	64	14.77	872	202	1.12	71.34	43,159
1950	2,476	175,152	71	15.66	831	195	1.14	80.53	41,192
1951	2,528	173,227	69	15.01	831	197	1.15	78.89	40,971
TASMANIA.									
1939	1,027	35,193	34	15.32	129	196	0.88	30.15	53,485
1948	1,093	(b)	(b)	(b)	221	359	(b)	53.04	(b)
1949	1,087	(b)	(b)	(b)	193	314	(b)	42.72	(b)
1950	1,043	38,957	36	11.78	164	268	1.04	37.81	62,083
1951	949	38,200	40	12.00	168	274	1.05	42.49	62,316
COMMONWEALTH.(e)									
1939	388	34,085	88	290.98	146	66	1.03	90.21	15,486
1948	454	67,685	149	312.62	329	149	1.17	173.64	30,752
1949	473	63,669	135	293.53	367	167	1.38	186.18	28,927
1950	464	58,335	126	300.69	378	172	1.55	195.73	26,503
1951	533	60,700	114	326.18	411	187	1.63	185.07	27,578

(a) Total passenger-miles per average route-mile worked. (b) Not available. (c) Estimated.
(d) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (e) Railways controlled by Commonwealth Government.

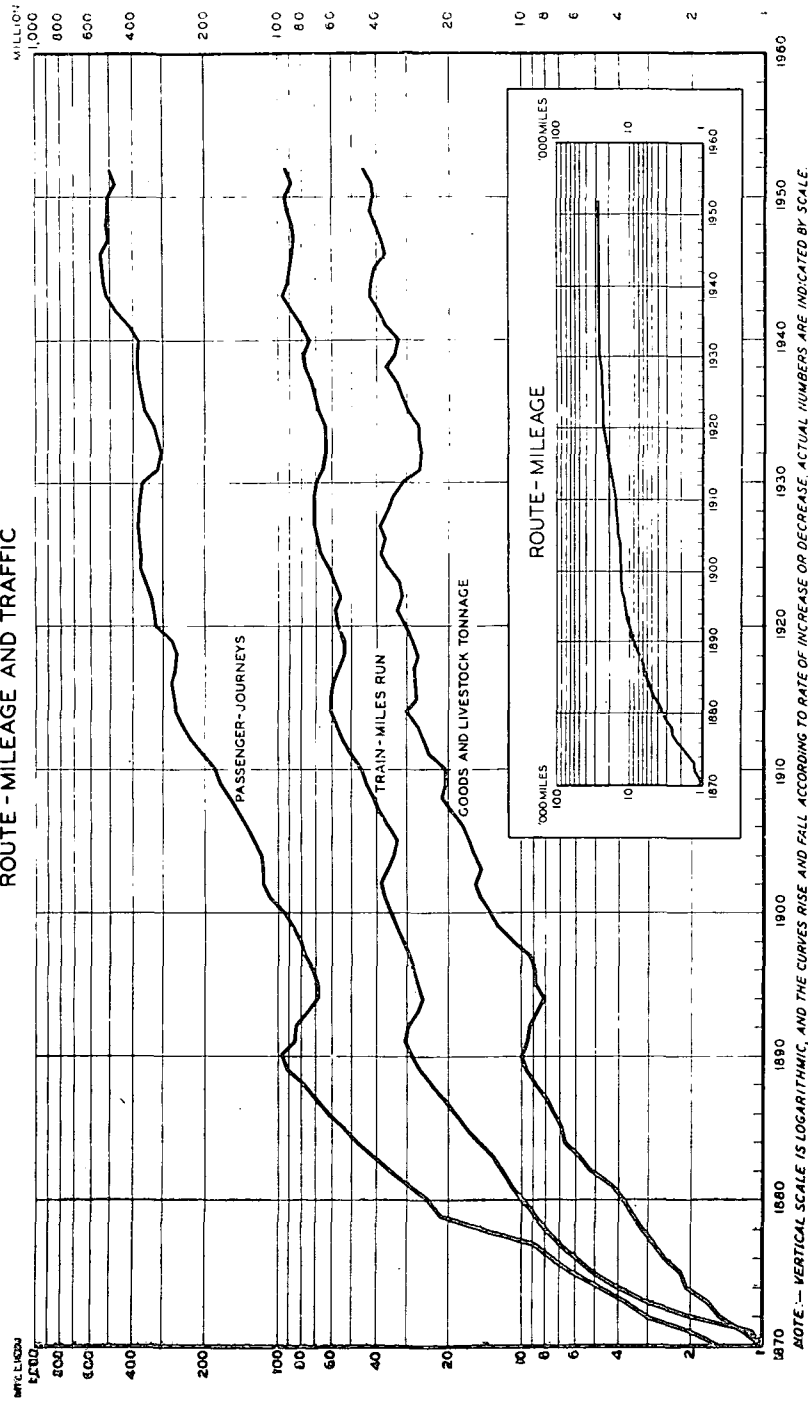
RAILWAY SYSTEMS AUSTRALIA 1953

SCALE OF MILES



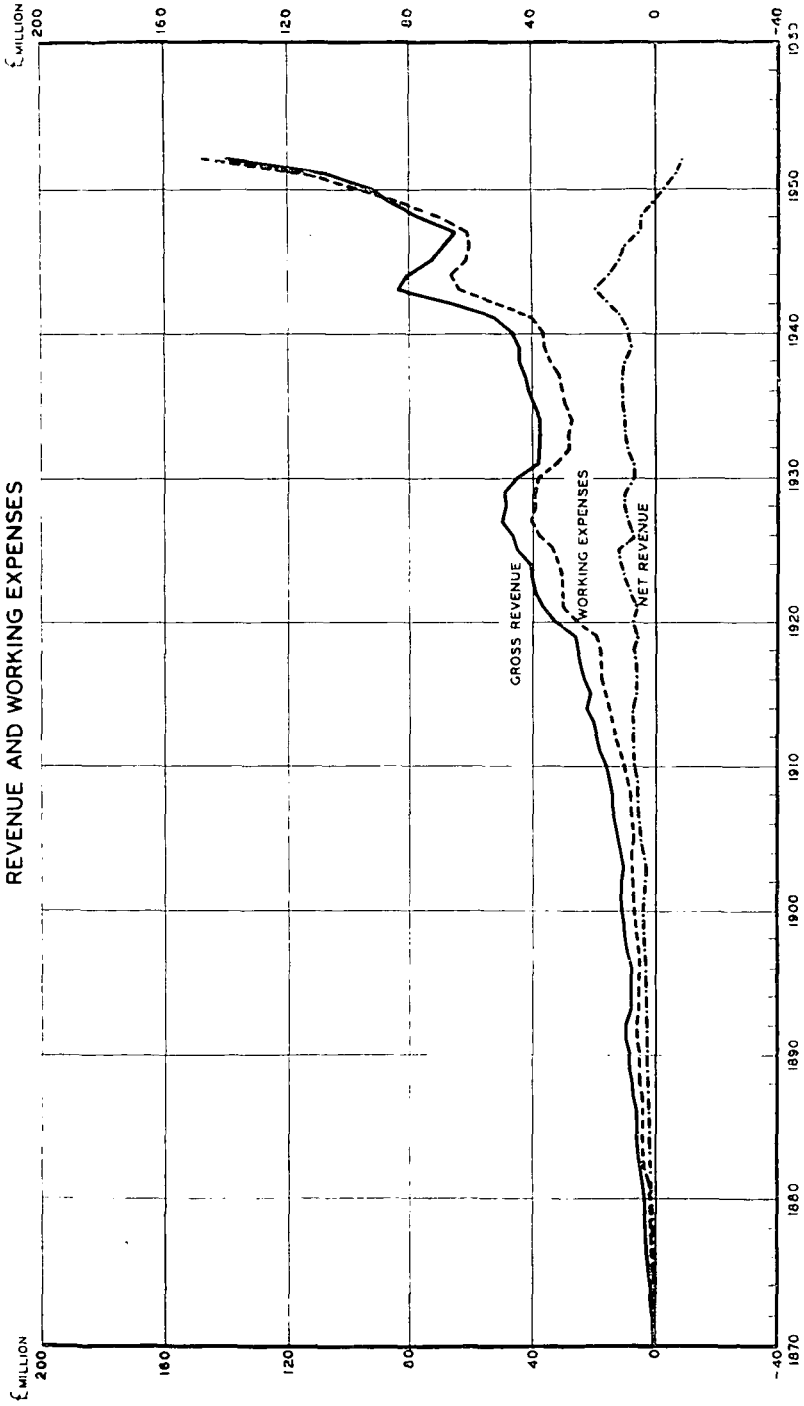
GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1952

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.

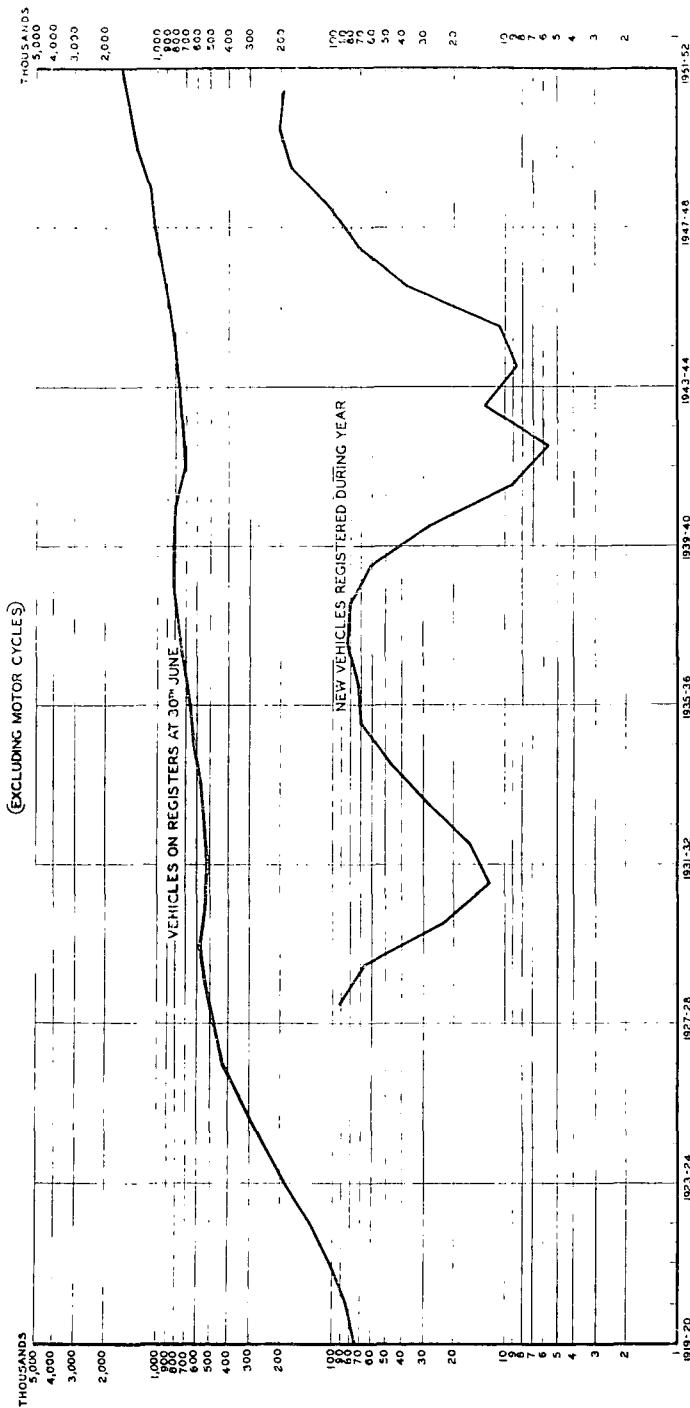
GOVERNMENT RAILWAYS : AUSTRALIA, 1870 TO 1952



NOTE—Gross Revenue excludes Government Grants.

MOTOR VEHICLE REGISTRATIONS : AUSTRALIA, 1920 to 1952

RATIO GRAPH



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

(See pages 130-40.)

(b) *Ton-mileage.* Particulars of total ton-mileages are shown in the following table for each of the years 1938-39 and 1947-48 to 1950-51.

GOVERNMENT RAILWAYS : TON-MILEAGE SUMMARY.

Year ended 30th June—	Goods Train-miles.	Total Ton-miles.	Average Freight Paying Load per Train-mile.	Average Haul per Ton.	Goods and Live Stock Earnings.				Density of Traffic. (a)
					Gross.	Per Average Route-mile Worked.	Per Ton-mile.	Per Goods Train-mile.	
	('000.)	('000.)	(Tons.)	(Miles.)	(£'000.)	(£)	(d.)	(d.)	
NEW SOUTH WALES.									
1939	10,933	1,760,534	161	115.95	10,356	1,694	1.41	227.34	287,961
1948	(b)	2,777,137	(b)	149.97	19,804	3,232	1.71	(b)	453,188
1949	(b)	2,834,875	(b)	156.80	21,597	3,528	1.83	(b)	463,139
1950	(b)	2,708,654	(b)	159.37	21,892	3,581	1.94	(b)	443,097
1951	(b)	2,783,470	(b)	151.01	28,351	4,638	2.45	(b)	455,336
VICTORIA.									
1939	5,455	760,485	139	127.26	4,276	899	1.35	188.11	159,967
1948	5,859	1,154,631	197	136.81	7,992	1,689	1.66	327.34	244,371
1949	5,915	1,167,582	197	131.80	8,506	1,824	1.77	348.77	247,789
1950	5,952	1,206,767	203	132.25	10,817	2,305	2.15	436.12	257,197
1951	4,882	1,057,051	217	140.21	9,992	2,132	2.27	491.21	225,528
QUEENSLAND.(c)									
1939	8,073	745,351	92	147.57	5,404	823	1.73	160.67	118,248
1948	9,186	966,016	105	184.63	7,871	1,213	1.96	205.63	148,824
1949	10,870	1,140,694	105	173.06	11,019	1,698	2.32	243.28	175,735
1950	11,100	1,182,102	107	177.61	11,514	1,774	2.34	248.95	182,114
1951	11,592	1,252,442	108	182.48	14,752	2,273	2.83	305.42	192,951
SOUTH AUSTRALIA.									
1939	2,430	348,553	143	132.01	2,144	838	1.48	211.72	136,293
1948	2,537	445,472	176	125.14	3,380	1,327	1.82	318.75	174,901
1949	2,696	485,241	180	127.94	3,998	1,570	1.98	355.88	190,515
1950	2,739	489,516	179	132.60	4,611	1,809	2.26	404.08	192,042
1951	2,739	510,122	186	131.77	5,305	2,078	2.50	464.76	190,813
WESTERN AUSTRALIA.									
1939	3,779	378,089	100	132.24	2,807	641	1.78	178.26	86,393
1948	4,004	415,988	104	145.57	3,160	727	1.82	189.41	95,673
1949	4,101	393,525	96	143.79	3,635	841	2.22	212.69	91,073
1950	4,257	426,359	100	149.95	4,749	1,117	2.67	267.72	100,273
1951	4,607	459,973	100	151.65	5,362	1,268	2.80	279.30	108,792
TASMANIA.									
1939	880	38,088	43	46.80	296	450	1.87	80.76	57,885
1948	1,119	65,144	58	79.68	664	1,082	2.45	142.51	106,097
1949	1,105	67,327	61	83.95	785	1,279	2.80	170.48	109,653
1950	1,037	67,738	65	87.94	816	1,332	2.89	188.94	110,502
1951	1,122	79,915	71	92.78	1,108	1,807	3.33	236.97	130,367
COMMONWEALTH.(d)									
1939	514	34,801	68	187.28	224	102	1.54	104.38	15,811
1948	1,148	109,586	95	258.91	675	307	1.48	141.07	49,789
1949	1,194	123,122	103	225.38	1,059	481	2.06	212.70	55,939
1950	1,207	121,804	101	221.81	1,193	542	2.35	237.11	55,340
1951	1,308	133,747	102	226.19	1,408	640	2.53	258.42	60,767

(a) Total ton-miles per average route-mile worked. (b) Not available. (c) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (d) Railways controlled by the Commonwealth Government.

16. **Rolling Stock.**—The following table shows the number of rolling stock of Government railways as at 30th June for each of the years 1939, 1950 and 1951. Further details may be found in the *Transport and Communication Bulletin*.

GOVERNMENT RAILWAYS : ROLLING STOCK.

System.	30th June—								
	1939.			1950.			1951.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
New South Wales ..	1,284	2,808	24,257	1,153	2,849	26,302	1,159	2,891	27,246
Victoria ..	581	2,439	20,993	597	2,439	21,267	628	2,424	21,671
Queensland ..	752	1,413	18,733	797	1,430	20,796	824	1,424	22,557
South Australia ..	335	594	7,966	335	595	8,591	344	592	8,790
Western Australia ..	427	475	11,110	421	448	11,136	439	429	11,047
Tasmania ..	95	225	2,120	92	202	2,387	101	201	2,474
Commonwealth ..	113	89	1,359	141	107	1,930	143	111	1,929
Australia ..	3,587	8,043	86,538	3,536	8,117	92,409	3,638	8,120	95,714

(a) Includes, interstate coaching stock jointly owned by Victoria and South Australia 47 in 1950 and 48 in 1951.

17. **Accidents.**—The following table shows particulars of the number of persons killed and injured through train accidents and the movement of rolling stock on the Government railways of Australia for each of the years 1938-39, 1949-50 and 1950-51:—

GOVERNMENT RAILWAYS : ACCIDENTS.

System.	1938-39.		1949-50.(a)		1950-51.(a)	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	57	625	46	369	55	463
Victoria ..	48	466	58	482	67	513
Queensland ..	23	132	17	89	19	111
South Australia ..	9	187	9	122	16	83
Western Australia ..	14	142	22	149	19	231
Tasmania ..	7	62	1	24	4	14
Commonwealth ..	1	20	..	20	1	12
Australia ..	159	1,634	153	1,255	181	1,427

(a) Excludes accidents to railway employees.

18. **Consumption of Coal and Oil.**—The following table shows the quantities and values of coal and oil consumed by the various Government Railway Departments during 1950-51:—

GOVERNMENT RAILWAYS : COAL, OIL AND PETROL CONSUMED, 1950-51.

Particulars.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	C'with.	Aust.
Coal—								
Locomotives .. '000 tons	1,427	302	702	244	364	72	72	3,183
£'000	2,959	1,201	1,177	907	653	152	347	7,396
Other purposes '000 tons	1,001	92	22	6	10	(b)	1	1,132
£'000	2,564	349	51	19	17	1	3	3,004
Oil—								
Lubrication .. '000 gals.	(a)	233	358	(a)	172	61	52	(a)
£'000	(a)	44	82	(a)	45	16	12	(a)
Diesel and Distillate								
'000 gals.	(a)	97	167	66	2,899	258	3,135	(a)
£'000	(a)	8	14	6	181	6	214	(a)
Furnace Oil .. '000 gals.	(a)	15,032	315	15,106	..	..	252	(a)
£'000	(a)	557	19	608	..	..	11	(a)
Other purposes '000 gals.	(a)	1,801	235	(a)	945	143	381	(a)
£'000	(a)	96	25	(a)	82	(a)	30	(a)
Petrol—								
Rail Cars .. '000 gals.	(a)	213	126	420	56	..	5	(a)
£'000	(a)	28	17	52	7	..	(c)	(a)

(a) Not available.

(b) 287 tons.

(c) £419.

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 1950-51:—

GOVERNMENT RAILWAYS: AVERAGE STAFF EMPLOYED, AND SALARIES AND WAGES PAID, 1950-51.

System.	Number of Operating Staff.			Number of Construction Staff.			Total Salaries and Wages Paid. (£'000.)	Average Earnings Per Employee. (£.)
	Salaried.	Wages.	Total.	Salaried.	Wages.	Total.		
New South Wales	9,118	40,770	49,888	825	8,897	9,722	37,427	628
Victoria	4,500	20,248	24,748	445	2,003	2,448	15,042	553
Queensland	4,170	22,085	26,255	15	434	449	15,661	586
South Australia	1,920	8,189	10,109	9	1,344	1,353	6,854	593
Western Australia	1,832	10,006	11,838				6,658	562
Tasmania	318	2,231	2,549	17	136	153	1,319	488
Commonwealth	296	2,176	2,472		78	78	1,483	581
Australia	22,154	105,705	127,859	1,311	12,892	14,203	84,444	594

(a) In Victoria, Queensland and Western Australia a considerable amount of construction work is carried out by private contractors and the staff engaged are therefore not under the control of the Railways Commissioners.

C. TRAMWAYS.

1. Systems in Operation.—(i) *General.* Tramway systems are in operation in all the capital cities and in a number of the larger towns of Australia.

Since 1st April, 1947, when the last private company system to operate (the Kalgoorlie-Boulder electric tramway system in Western Australia) was taken over by the Eastern Goldfields Transport Board, all systems have been operated by governmental or municipal authorities. From 1941-42 all systems have been 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.

In recent years there has been considerable replacement of tramway services by omnibus services, one of the more recent of importance affecting the Newcastle system in New South Wales where the change was made on 11th June, 1950. Information on omnibus services is contained in Division D. of this chapter.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show, for each State, the total mileage of tramway lines open for general passenger traffic at 30th June, 1951, classified (a) according to the controlling authority; (b) according to gauge:—

ELECTRIC TRAMWAYS: ROUTE-MILEAGE OPEN AT 30th JUNE, 1951.

(Miles.)

Particulars—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
ACCORDING TO CONTROLLING AUTHORITY.							
Government	134	174	..	96	40	..	348
Municipal	..	..	67	96	8	48	219
Total	134	174	67	96	48	48	567
ACCORDING TO GAUGE.							
Gauge—							
5 ft. 3 in.	..	5	..	..	..	..	5
4 ft. 8½ in.	134	169	67	96	..	..	466
3 ft. 6 in.	..	..	..	..	48	48	96
Total	134	174	67	96	48	48	567

2. **Summary of Operations, Australia.**—The following table is a summary of the working of all electric tramway systems in Australia for the years 1938-39 and 1946-47 to 1950-51 :—

ELECTRIC TRAMWAYS ; SUMMARY OF OPERATIONS, AUSTRALIA.

Particulars.	1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
Average mileage open for traffic						
Route-miles	586	614	606	589	573	567
Track-miles	1,046	1,064	1,057	1,048	1,032	1,017
Tramcars	No. 3,471	3,527	3,515	3,440	3,281	3,189
Cost of construction and equipment	£'000 26,275	27,067	(a) 27,293	(a) 25,880	(a) 26,219	(a) 30,416
Cost per route-mile	£ 44,827	44,083	(a) 45,038	(a) 44,014	(a) 45,758	(a) 53,044
Gross revenue	£'000 7,649	(a) 11,210	(a) 12,456	(a) 12,347	(a) 12,008	(a) 13,765
Working expenses	" 6,089	9,495	(a) 11,392	(a) 11,738	(a) 11,992	(a) 13,940
Net revenue	" 1,560	1,715	(a) 1,064	(a) 609	16	(a) -175
Interest	" 909	628	(a) 654	(a) 507	(a) 480	(a) 491
Proportion of working expenses to gross revenue	% 79.60	84.71	(a) 91.46	(a) 95.07	(a) 99.86	(a) 101.27
Proportion of net earnings to capital cost	% 5.94	6.33	(a) 3.90	(a) 2.35	0.06	(a) -0.05
Car-miles run	'000 miles 81,361	87,581	87,650	81,311	72,423	71,746
Gross revenue per car-mile run	pence 22.56	(a) 30.72	(a) 34.11	(a) 36.44	(a) 39.63	(a) 45.82
Working expenses per car-mile run	" 17.96	26.02	(a) 31.19	(a) 34.64	(a) 39.58	(a) 46.40
Net revenue per car-mile run	" 4.60	4.70	(a) 2.92	(a) 1.80	(a) 0.05	(a) -0.58
Passenger-journeys	'000 695,476	a 1,000,813	(a) 948,877	(a) 875,922	(a) 754,483	(a) 749,138
Passenger-journeys per car-mile run	No. 8.55	(a) 11.43	(a) 10.83	(a) 10.77	(a) 10.42	(a) 10.44
Average gross revenue per passenger-journey	pence 2.64	(a) 2.69	(a) 3.15	(a) 3.38	(a) 3.82	(a) 4.41
Persons employed at end of year	No. 17,207	(b) 21,705	(b) 22,266	(b) 19,015	(b) 17,561	(b) 16,566
Accidents—						
Persons killed	61	113	90	81	61	71
" injured	2,750	6,704	5,939	5,518	4,942	5,409

(a) Includes particulars of Hobart Municipal Council Omnibus Service. (b) Includes motor omnibus employees, South Australia, Western Australia and Hobart Municipal Council Omnibus Services.

3. **Traffic and Accidents.**—Particulars of the traffic of electric tramways and the accidents which occurred in the movement of rolling stock are shown in the following table for each State during 1950-51 :—

ELECTRIC TRAMWAYS : TRAFFIC AND ACCIDENTS, 1950-51.

State.	Average Mileage Open for Traffic.		Number of Tram-cars.	Car-miles Run.	Pas-senger-journeys.	Average Number of Pas-sengers per Car-mile.	Accidents.	
	Route-miles.	Track-miles.					Killed.	Injured.
New South Wales	134	253	1,291	(a) 24,065	253,170	10.52	17	3,509
Victoria	174	322	870	23,411	257,888	11.02	34	1,060
Queensland	67	122	425	9,350	108,359	11.59	6	348
South Australia	96	166	321	9,203	68,737	7.47	11	169
Western Australia	48	82	164	3,438	34,443	10.02	2	274
Tasmania	48	72	118	2,279	(b) 26,541	(c) 10.11	1	49
Australia	567	1,017	3,189	72,746	749,138	(c) 10.44	71	5,409

(a) Estimated. (b) Includes passengers carried by Hobart Municipal Council Omnibus Service. (c) Calculated from tramcar-miles plus Hobart Municipal Council omnibus-miles.

4. *State Details.*—(i) *General.* For details of the various systems operating in the several States see Official Year Book No. 37 and issues prior to No. 32.

(ii) *Summary of Operations.* The following table shows particulars of the working of electric tramways in each State of Australia for the years 1946-47 to 1950-51 in comparison with the year 1938-39 :—

ELECTRIC TRAMWAYS : SUMMARY OF OPERATIONS.

Year ended 30th June—	Mileage Open for Traffic at 30th June.	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Revenue.	Interest.	Pro-portion of Working Expenses to Gross Revenue.	Car-miles Run.	Passenger-journeys.	Persons employed at end of year.
	(Route-miles.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(Per cent.)	('000.)	('000.)	

NEW SOUTH WALES.

1939	182	8,944	3,449	3,080	369	310	89.30	34,941	322,238	8,062
1947	172	8,736	4,360	4,378	— 18	220	100.42	a 34,700	408,388	9,760
1948	171	8,754	5,310	5,378	— 68	239	101.28	a 34,500	373,519	9,651
1949	158	7,168	5,098	5,259	—161	159	103.15	a 29,600	317,310	(b) 6,433
1950	153	6,891	4,984	5,280	—296	155	105.94	a 26,368	278,842	(b) 5,785
1951	134	6,865	5,162	5,892	—730	140	114.14	a 24,065	253,170	(b) 5,367

VICTORIA.

1939	166	8,086	2,112	1,388	724	254	65.72	22,803	175,198	4,355
1947	172	9,120	3,427	2,324	1,103	111	67.82	24,830	285,450	5,322
1948	172	9,276	3,332	2,593	739	107	77.83	25,002	279,451	5,728
1949	172	9,522	3,470	2,970	500	74	85.60	25,563	290,081	5,631
1950	172	9,815	3,105	2,894	211	63	93.22	20,666	225,049	5,156
1951	174	10,286	4,190	3,591	599	75	85.70	23,411	257,888	4,860

QUEENSLAND.

1939	60	2,391	831	632	199	120	76.05	8,100	91,444	1,911
1947	64	2,575	1,337	1,034	303	89	77.32	10,227	135,757	2,521
1948	64	2,962	1,508	1,221	287	91	80.98	10,314	132,107	2,650
1949	66	2,699	1,531	1,246	285	94	81.40	10,085	125,587	2,654
1950	66	2,692	1,526	1,359	167	97	89.09	9,545	115,239	2,517
1951	67	4,872	1,675	1,517	158	105	90.61	9,350	108,359	2,475

SOUTH AUSTRALIA.

1939	78	4,438	711	494	217	154	69.48	8,712	52,906	(b) 1,750
1947	99	3,975	1,228	1,019	209	147	82.92	9,757	83,365	2,284
1948	96	4,013	1,417	1,244	173	151	87.77	9,674	76,819	2,310
1949	96	4,107	1,320	1,287	33	112	97.47	8,924	71,876	2,436
1950	96	4,225	1,469	1,504	— 35	113	102.36	9,420	71,390	2,343
1951	96	5,417	1,670	1,888	—218	122	113.07	9,203	68,737	2,405

See following page for footnotes.

ELECTRIC TRAMWAYS: SUMMARY OF OPERATIONS—*continued.*

Year ended 30th June—	Mileage Open for Traffic at 30th June.	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Revenue.	Interest.	Proportion of Working Expenses to Gross Revenue.	Car-miles Run.	Passenger-journeys.	Persons employed at end of year.
	(Route-miles.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(Per cent.)	('000.)	('000.)	

WESTERN AUSTRALIA.

1939	71	1,752	367	342	25	44	93.19	4,756	38,095	792
1947	69	1,869	535	526	9	48	98.32	5,361	53,016 (c)	1,196
1948	68	1,433	550	635	-85	52	115.44	5,431	53,148 (c)	1,238
1949	60	1,469	550	627	-77	53	114.09	4,555	41,389 (c)	1,209
1950	51	1,557	530	599	-69	33	112.97	4,009	38,977 (c)	1,127
1951	48	1,509	574	585	-11	24	101.89	3,438	34,443	820

TASMANIA.

1939	29	664	179	153	26	27	85.47	2,049	15,595	337
1947	38	792 (d)	323	214	109	13	66.37	2,706 (d)	34,837 (d)	622
1948	35 (d)	855 (d)	339 (d)	321 (c)	18 (d)	14 d	94.62	2,729 (d)	33,833 (d)	689
1949	36 (d)	915 (d)	378 (d)	349 (c)	29 (d)	15 d	92.19	2,584 (d)	20,679 (d)	652
1950	36 (d)	1,039 (d)	394 (d)	356 (c)	38 (d)	19 d	90.30	2,415 (d)	29,143 (d)	633
1951	48 (d)	1,407 (d)	494 (d)	467 (c)	27 (d)	25 d	94.51	2,279 (d)	26,541 (d)	639

AUSTRALIA. (e)

1939	586	26,275	7,649	6,089	1,560	909	79.60	81,361	695,476	17,207
1947	614	27,067	11,210	9,495	1,715	628	84.71	87,581	1,000,813	21,705
1948	606	27,293	12,456	11,392	1,064	654	91.46	87,650	948,877	22,266
1949	588	25,880	12,347	11,738	609	507	95.07	81,311	875,922	19,015
1950	574	26,219	12,008	11,992	16	480	99.86	72,423	754,483	17,561
1951	567	30,416	13,765	13,940	-175	491	101.27	71,746	749,138	16,566

(a) Estimated. (b) Excludes administrative staff not distributable between bus and tram services. (c) Includes motor omnibus employees. (d) Includes Hobart Municipal Council Omnibus Service. (e) See notes (a) to (d).

D. MOTOR OMNIBUS SERVICES.

1. **General.**—Motor omnibus services have been in operation for some years in the capital cities and some of the larger towns of the States of Australia, and in the Australian Capital Territory.

Governmental and municipal authorities operate certain services and the others are run by private operators; in the States the former are run in conjunction with the existing electric tramway systems.

2. Government and Municipal Services.—(i) *Summary of Operations, 1950-51.* The following table is a summary of the operations during the year ended 30th June, 1951 of omnibus systems controlled by governmental and municipal authorities.

MOTOR OMNIBUS SERVICES : GOVERNMENT AND MUNICIPAL, 1950-51.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Aust.
Length of route .. miles	435	67	333	23	2,533	592	11	3,994
Buses .. No.	1,031	317	221	93	168	84	67	1,981
Capital cost .. £'000	5,530	1,218	1,059	465	833	(a) 222	276	9,603
Gross revenue .. £'000	5,120	1,032	539	172	511	(a) 258	104	7,717
Working expenses .. £'000	(b) 5,558	1,042	487	229	480	(a) 164	139	8,099
Bus-mileage run .. '000 miles	32,217	7,626	4,342	1,516	5,305	1,941	928	53,895
Passenger-journeys .. '000	209,223	67,442	29,509	6,699	17,372	(a) 4,921	5,148	340,314
Persons employed .. No.	(c) 5,640	1,208	481	(d)	(e) 91	(f) 110	190	(g) 7,720

(a) Excludes Hobart Municipal Council Service. (b) Includes estimate of administrative and general charges. (c) Excludes administrative staff not distributable between omnibus and tram services. (d) Not available, employees interchangeable with Electric Tramways and included therein (Division C). (e) Excludes 450 Government employees. (f) Excludes employees of Hobart Municipal Council Service who are interchangeable with Electric Tramways and included therein (see Division C). (g) See notes (e) to (f).

(ii) *Summary of Operations, Australia.* The following table is a summary of the working of motor omnibus services in Australia under governmental and municipal control during the five years ended 1950-51.

MOTOR OMNIBUS SERVICES : GOVERNMENT AND MUNICIPAL, AUSTRALIA.

Particulars.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
Length of route .. miles	1,062	2,454	3,268	3,208	3,994
Buses .. No.	1,112	1,423	1,728	1,962	1,981
Capital cost .. £'000	2,842 (a)	4,745 (a)	6,867 (a)	7,945 (a)	9,603
Gross revenue .. £'000	(a) 2,725 (a)	3,862 (a)	5,409 (a)	6,394 (a)	7,717
Working expenses .. £'000	3,000 (a)	4,109 (a)	5,690 (a)	6,579 (a)	8,099
Net revenue .. £'000	-275 (a)	-247 (a)	-191 (a)	-185 (a)	-382
Proportion of working expenses to gross revenue .. per cent.	110.11 (a)	106.39 (a)	103.47 (a)	102.89 (a)	104.94
Proportion of net revenue to capital cost .. per cent.	-9.74 (a)	-5.21 (a)	-2.78 (a)	-2.32 (a)	-3.98
Bus-mileage run .. '000 miles	31,716	37,929	48,958	54,102	53,895
Gross revenue per bus-mile run .. pence	(a) 20.62 (a)	24.44 (a)	27.08 (a)	28.51 (a)	34.59
Working expenses per bus-mile run .. pence	22.70 (a)	26.00 (a)	28.02 (a)	29.33 (a)	36.30
Net revenue per bus-mile run .. pence	-2.08 (a)	-1.56 (a)	-0.94 (a)	-0.82 (a)	-1.71
Passenger-journeys .. '000	a 214,684 (a)	a 249,563 (a)	a 309,096 (a)	a 325,079 (a)	a 340,314
Passenger-journeys per bus-mile run ..	(a) 6.77 (a)	(a) 6.58 (a)	(a) 6.34 (a)	(a) 6.04 (a)	(a) 6.36
Average gross revenue per passenger-journey .. pence	(a) 3.05 (a)	(a) 3.71 (a)	(a) 4.27 (a)	(a) 4.72 (a)	(a) 5.44
Persons employed (b) .. No.	(a) 4,697 (a)	(a) 6,200 (a)	(a) 7,077 (a)	(a) 7,721 (a)	(a) 7,720

(a) Excludes Hobart Municipal Council Service. (b) See relevant notes to table above.

3. Private Services.—(i) *General.* 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 only.

In New South Wales, particulars are compiled for the Metropolitan and Newcastle Transport districts only, and in Victoria for the Metropolitan district only, but in South Australia and in Western Australia all operators throughout the State are represented.

(ii) *Summary of Operations.* The following table shows the operations of motor omnibus services under the control of private operators in New South Wales, South Australia and Western Australia during the five years ended June, 1951 and in Victoria during the years 1949, 1950 and 1950-51 :—

MOTOR OMNIBUS SERVICES : PRIVATE.

Year.	Number of Buses.	Capital Cost. (£'000.)	Gross Revenue. (£'000.)	Bus-mileage Run. (°000 miles.)	Passenger-journeys. (°000.)	Persons Employed.
NEW SOUTH WALES.(a)						
1946-47 ..	615	569	1,065	14,261	73,703	1,085
1947-48 ..	673	783	1,278	15,626	77,985	1,234
1948-49 ..	740	881	1,505	17,490	86,859	1,327
1949-50 ..	795	928	1,698	17,666	98,030	1,437
1950-51 ..	823	1,032	1,995	18,221	99,740	1,418
VICTORIA.(b)						
1949(c) ..	430	(d)	1,169	17,223	72,311	1,047
1950(c) ..	437	(d)	1,351	18,968	83,288	1,031
1950-51 ..	425	(d)	1,414	19,292	83,628	1,027
SOUTH AUSTRALIA.						
(b)						
1946-47 ..	81	(d)	399	4,929	8,465	(d)
1947-48 ..	90	(d)	457	5,362	9,774	(d)
1948-49 ..	104	(d)	515	5,645	10,836	(d)
1949-50 ..	112	(d)	530	5,900	11,496	(d)
1950-51 ..	116	(d)	573	6,031	12,470	(d)
WESTERN AUSTRALIA.						
1946-47 ..	276	309	642	9,210	27,699	758
1947-48 ..	317	455	721	10,214	28,048	865
1948-49 ..	356	591	844	11,318	30,931	937
1949-50 ..	396	736	1,002	13,027	34,998	1,011
1950-51 ..	399	767	1,106	12,645	34,346	1,050

(a) Metropolitan and Newcastle Transport districts only.
(c) Year ended 31st December.

(b) Metropolitan area only.

(d) Not available.

E. FERRY (PASSENGER) SERVICES.

1. *General.*—Ferry services to transport passengers are operated in Sydney and Newcastle, New South Wales, on the Swan River at Perth in Western Australia, and on the Derwent River at Hobart and in Devonport, Tasmania. 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 1946-47 to 1950-51 are summarized in the following table. For New South Wales and Western Australia details are also shown for the year 1938-39. Particulars of passengers carried on vehicular ferries are not included.

FERRY (PASSENGER) SERVICES.

Year.	Number of Vessels.	Passenger-accommodation. (No.)	Passenger-journeys. (‘000.)	Gross Revenue. (£.)	Persons Employed.	
NEW SOUTH WALES—SYDNEY AND NEWCASTLE.						
1938-39	54	38,971	27,864	418,500	(a) 830
1946-47	46	28,591	31,558	471,976	452
1947-48	47	28,808	28,319	502,947	437
1948-49	46	27,759	23,314	558,390	411
1949-50	44	26,477	21,914	534,853	403
1950-51	39	22,793	20,274	612,661	389
WESTERN AUSTRALIA—PERTH.						
1938-39	6	880	1,184	11,001	25
1946-47	7	1,022	1,367	13,007	25
1947-48	6	957	1,375	13,354	28
1948-49	3	727	928	11,955	21
1949-50	4	811	909	12,669	20
1950-51	4	785	712	10,311	18
TASMANIA.						
1946-47(b)	7	1,348	974	16,029	32
1947-48	7	1,362	987	17,066	31
1948-49	7	1,362	978	17,664	30
1949-50	7	1,570	980	19,782	30
1950-51	7	1,570	966	20,002	31

(a) Includes administrative staff.

(b) Particulars are not available for 1938-39.

F. MOTOR VEHICLES.

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

2. **Registration.**—(i) *General.* The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia. The following statement indicates the procedure followed at 30th June, 1952 in each of the States and Territories, and the fees for registration and licensing and the amount of motor tax payable where such tax is not incorporated in the registration fees. Complete or partial exemption from the payment of registration fees or motor tax is usually granted for certain vehicles, such as ambulances, fire-brigade vehicles, those owned by farmers and used solely for carting the produce of, or requisites for, their farms, Government-owned vehicles, etc.

Before a licence to drive a motor vehicle or ride a motor cycle is issued the applicant must, by passing the prescribed test, satisfy the competent authority that he is capable of driving or riding the vehicle concerned. All vehicles, before being registered, must be tested for road-worthiness.

(ii) *New South Wales.* The registration of vehicles, licensing of drivers, and collection of various taxes, fees and charges are functions of the Superintendent of Motor Transport. By arrangement with the Superintendent of Motor Transport, the police effect the registrations and collect the taxes and fees in certain areas. The normal term of registrations and licences and renewals thereof is a year, but quarterly registrations of motor vehicles are permitted under certain conditions.

A driver's licence costs 15s. per annum for a motor vehicle and a rider's licence 10s. per annum for a motor cycle. A learner's permit, which has a currency of two months, costs 5s.

Annual registration fees are as follows :—Motor cycles, 10s. ; motor cars, lorries, trailers and tractors, £1 5s. ; taxi-cabs and hire cars, metropolitan and Newcastle, £2, country, £1 10s. ; motor omnibuses, metropolitan area and Newcastle, £3, country, £2 ; traders' plates, motor cycles, £2, other vehicles, £8. An additional fee of 5s. per annum is payable in respect of any vehicle used in trade or business.

A motor tax is payable in addition to the registration fee. For motor cycles the tax is :—without side-car, £1 7s. ; with side-car or box, £2 7s. 6d. For vehicles other than motor cycles, the tax is payable on the unladen weight of the vehicle. The taxes payable for different classes of vehicles are as follows :—

(a) *Motor Cars (including taxi-cabs, etc.)*. The rate commences at 3s. 6d. per $\frac{1}{2}$ cwt. but decreases slightly as the weight of the vehicle increases.

(b) *Motor Lorries and Trailers*. The tax payable commences at £1 15s. for a vehicle of 5 cwt. or less, and rises by a proportionately greater amount for each increase of 5 cwt., so that the average amount payable per cwt. increases with the weight of the vehicle.

(c) *Tractors*. The rates of tax are the same as for motor lorries, subject to a maximum of £31 14s. 6d.

(d) *Motor Omnibuses*. The rate commences at 5s. per $\frac{1}{2}$ cwt., but decreases slightly as the weight of the vehicle increases.

In the case of vehicles with solid rubber tyres, the rates shown above are increased by 25 per cent. Double the ordinary rates of tax are payable in respect of vehicles powered by a diesel engine.

(iii) *Victoria*. The registration of motor vehicles and the licensing of drivers and riders is controlled by the Chief Commissioner of Police under provisions of the Motor Car Act 1951. The fees payable per annum for the registration of motor vehicles and licensing of drivers and riders are as follows :—

Motor cycles (without trailer, fore-car or side-car attached)	£1
Motor cycles (with trailer, etc.)	£1 10s.
Motor cars (private use)	3s. for each power-weight unit. (The number of power-weight units equals the sum of the horse-power and the weight in cwt. of a motor car unladen and ready for use.)
Trailers attached to motor cars	£1 to £4, according to the unladen weight and type of tyres.
Motor omnibuses (operating on specified routes in the metropolitan area)	£5 plus additional fees for each passenger seat.
Motor cars used for carrying passengers or goods for hire or in the course of trade	From 3s. 9d. to 8s. 9d. for each power-weight unit according to the unladen weight and type of tyres. Rates are 10 per cent. less where the vehicle is wholly of British or Australian manufacture or part British, part Australian.
Motor cars (constructed for the carriage of goods) owned by primary producers and used solely in connexion with their business	From 2s. to 5s. 3d. for each power-weight unit according to the number of wheels and type of tyres.
Drivers' and riders' licences	10s.

Where a vehicle is powered by a diesel engine the registration fee is double that charged for a vehicle of the same power-weight units fitted with a petrol engine.

(iv) *Queensland*. The Main Roads Department controls the registration of motor vehicles within the State. The rates operating from 8th February, 1952, are as follows :—Annual registration fees for pneumatic-tyred vehicles are determined by adding the horse-power to the weight in cwt. of the vehicle ready for use, and charging 6s. per unit. For solid-tyred vehicles the sum of the horse-power, weight of the vehicle, and maximum

permissible load (in cwt.) is charged at 5s. per unit if the capacity is not over 2 tons, and 9s. per unit if over 2 tons. Vehicles fitted with compression ignition (diesel) engines are charged at double the foregoing rates, with the exception of vehicles whose capacity does not exceed 2 tons, where the rate is 9s. 9d. per unit. Registration fees for trailers are determined at the rate of 6s. per cwt., and for caravan trailers at the rate of 9s. per cwt. Traction engines are registered at the fixed rate of £3 3s. per year. The fees payable according to these rates on motor cars range from £4 16s. to approximately £25. On pneumatic-tyred trucks and utilities, the fees are from about £12 12s. to over £15 for a truck with a capacity of 1 ton, and up to £30 for 5-ton trucks. Fees for motor cycles are £2 5s., or £3 8s. with a side-car. With the above-mentioned fees, an annual driving fee of 7s. 6d. for a private motor vehicle or motor cycle or 12s. 6d. for a commercial vehicle must be paid to the Main Roads Department.

The driver of any motor vehicle or the rider of any motor cycle must hold a licence from the Commissioner of Police. Licences are endorsed according to the types of vehicles in the operation of which the holder has shown proficiency and which he or she is permitted to operate. The period of currency of a licence varies according to the age of the applicant, viz. :—Aged under 41 years, 10 years; 41 years and under 46 years, until 51st birthday; 46 years and under 62 years, 5 years; 62 and under 66 years, until 67th birthday; 66 years and over, 1 year.

(v) *South Australia.* Under the provisions of the Road Traffic Act 1934-1951, the Registrar of Motor Vehicles controls the registration of all motor vehicles and the granting of licences. The fee prescribed for a motor vehicle propelled by a compression ignition (diesel) engine is double that for a vehicle of the same horse-power and weight propelled by a petrol engine. The power-weight unit is the basis for the calculation of registration fees. The period of registration is for six or twelve months, commencing with the date of registration. Commercial vehicles of declared British origin are registered at a discount of 10 per cent., whilst primary producers' vehicles are registered at 50 per cent. of the ordinary fee. The ordinary fees payable for yearly registration of motor vehicles, other than motor cycles and trailers, extend from a minimum of £4 for 25 power-weight units or less to £38 for 160 power-weight units. The ordinary fees for motor cycles are:—solo, up to 1 cwt., £1, over 1 cwt., £1 10s.; with side-car attached, £2. Fees for trailers vary according to the weight of the vehicle and range from £1 10s. for 1 ton or less to £3 for 2 tons or more. An extra 50 per cent. is charged for trailers with solid rubber tyres and 100 per cent. for those with metal tyres. Fees for drivers' and riders' licences are:—for any motor vehicle, 10s.; for motor cycle only, 5s.

(vi) *Western Australia.* The Traffic Act 1919-1951 provides for the registration of motor vehicles by (i) the Commissioner of Police for the Metropolitan Traffic District and (ii) individual Local Government Authorities (Municipalities and Road Boards) throughout the remainder of the State. Ministerial supervision is exercised by the Minister for Local Government.

Annual registration fees are calculated on a power-weight basis for passenger vehicles (cars, buses, etc.), and for vehicles designed for the carriage of goods, according to the power-load-weight of the vehicle. Fees in the power-weights scale range from £2 10s. not exceeding 20 power-weight units, to £13 for 70 units with each additional unit at 7s. 6d. The power-load-weight scale commences at £3 10s. not exceeding 25 units, and rises to £22 for 150 units; additional thereafter and not exceeding 200, 7s. 6d. per unit; up to 300, 10s. per unit; and every additional unit, 12s. 6d. The power-weight or power-load-weight of vehicles is the sum of the weight in cwt. of the vehicle ready for use plus rated horse-power (power-weight), plus declared maximum load in cwt. (power-load-weight). Where a fraction is contained in the result the next higher integral figure shall apply. In Western Australia the Dendy Marshall formula² for calculating horse-power is prescribed.

* Where cylinder and stroke measurements are expressed in inches:—

$$\text{Horse-power} = \frac{(\text{Diameter of cylinder})^2 \times \text{number of cylinders} \times \text{stroke}}{12}$$

and where measurements are expressed in millimetres:—

$$\text{Horse-power} = \frac{(\text{Diameter of cylinder})^2 \times \text{number of cylinders} \times \text{stroke}}{200,000}$$

The annual fee payable for the registration of a solo motor cycle is £1 and for combination outfits 10s. per wheel irrespective of the power-weight.

Vehicles used in the carriage of either passengers or goods for hire or reward are further subject to the additional licence fee of 10s. per wheel. Where dual wheels are fitted, the fee payable is, in effect, £1 per axle.

The issue of drivers', riders' and conductors' licences, at an annual fee of 5s., is the sole prerogative of the Commissioner of Police.

The maximum period of a licence is twelve months, although short-term renewals may be effected at quarterly intervals. Date-to-date licensing periods operate in the metropolitan traffic area only. The licensing year in other areas ends on 30th June.

(vii) *Tasmania.* By the Transport Act 1938 the Transport Commission assumed control of the registration and taxation of motor vehicles, the licensing of drivers and the regulation of commercial transport. Annual registration fees are as follows:—Motor vehicle, £1 10s.; motor cycle or trailer, £1. Charges for transfer of registration and duplicate certificates are 5s. and 1s. respectively. A licence to drive or ride any motor vehicle costs 10s. per annum.

Motor tax is calculated on a power-weight basis—i.e., unladen weight units and horse-power. Separate rates are provided for lorries, for trailers and for other motor vehicles. For lorries and trailers, every $\frac{1}{2}$ cwt., and for other motor vehicles every cwt., constitutes a weight unit. The rate of tax for lorries is 2s. per unit and for motor vehicles other than lorries and trailers, 3s. 3d. per unit. In the case of a trailer, if the number of weight units does not exceed ten, no tax is payable, but for every unit exceeding ten the rate is 2s. The rate on motor vehicles propelled otherwise than by any volatile spirit by means of an internal combustion engine (steam, electric, diesel, or petrol-electric engines) is 4s. 9d. per weight unit.

(viii) *Australian Capital Territory.* The registration of motor vehicles and the licensing of drivers and riders in the Australian Capital Territory is controlled by the Services Branch of the Department of the Interior under the provisions of the Motor Traffic Ordinance 1936–1951 and the Traffic Ordinance 1937.

The rates charged for the annual registration of motor vehicles, except motor cycles, are calculated at 2s. 3d. per $\frac{1}{2}$ cwt. of the tare weight of the vehicle for British vehicles and 2s. 9d. per $\frac{1}{2}$ cwt. for foreign vehicles. Motor cycle rates are:—British, £1 1s. solo, £1 18s. with side-car attached; foreign, £1 2s. 6d. solo, £2 with side-car attached. The registration fee for a motor omnibus is 8s. 6d. per cwt. Increased registration fees are not charged for diesel-powered motor vehicles.

The annual fee for a licence to drive a car, lorry or motor cycle is 10s. and for a motor omnibus, hire car or licensed goods vehicle the fee is 12s. 6d. There are no road taxes imposed for the carriage of goods.

(ix) *Northern Territory.* In the Northern Territory the Registrar of Motor Vehicles controls the licensing of drivers and the registration of motor vehicles. Annual licence fees are:—motor cycles, 5s.; motor vehicles for hire, £1; any other motor vehicle, 10s. Under the Motor Vehicles Ordinance 1930–1940 the following registration fees are payable:—motor cycle (with or without side-car), £1; motor car for private use (including utility truck), £2; motor car for hire, £10; lorry, £3; tractor, £3; trailer (four-wheeled), £3; and trader's plate, £1.

3. **Taxi-cabs and Other Hire Vehicles.**—In all the capital cities of the States and in many 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-bus services. (See Divisions C. and D. of this Chapter.)

5. Motor Vehicles on the Register, etc.--(i) States and Territories, 1950-51. Particulars of the registration of motor vehicles, licences issued and revenue received for 1950-51 are contained in the following table. A graph showing for all motor vehicles other than motor cycles the registrations in force at 30th June of each year from 1920 to 1952 may be found on p. 126.

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, 1950-51.
(Excluding Defence Service Vehicles.)

State or Territory.	Number of Motor Vehicles Registered at 30th June, 1951.(a)				Per 1,000 of Population at 30th June, 1951.	Number of Drivers' and Riders' Licences in force at 30th June, 1951.	Gross Revenue derived from—			
	Motor Cars.(b)	Commercial Vehicles (c)	Motor Cycles.	Total.			Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
						£	£	£	£	
N.S. Wales	312,453	185,041	46,851	544,345	164	748,343	4,617,402	587,218	119,185	6,396,472
Victoria	263,714	417,049	33,637	444,400	196	575,723	3,299,848	212,514	400,524	3,912,886
Q'land	115,432	103,341	22,011	240,784	199	252,366	1,947,978	95,432	568,687	2,611,198
S. Australia	102,461	48,356	22,246	173,043	240	208,707	1,862,838	126,490	92,640	1,481,318
W. Aust.	56,235	47,922	14,535	118,692	204	134,864	829,680	46,628	97,856	974,158
Tasmania	28,833	15,068	5,272	49,173	159	53,936	343,066	26,968	82,772	452,806
Nor. Terr.	1,155	2,684	552	4,391	267	4,645	7,711	2,125	..	9,896
A.C.T.	3,327	1,616	580	5,523	222	7,837	26,402	4,085	299	30,486
Australia	883,610	251,057	145,684	1,280,351	187	1,985,821	12,333,075	1,101,461	2,434,624	15,869,160

(a) Excludes Trailers (79,012), Road Tractors, etc. (11,543), and Dealers' plates (6,280). (b) Includes Taxis and Hire Cars. (c) Includes Lorries, Vans, Buses and Utility Trucks. (d) Includes vehicles registered as primary producers' vehicles (69,552). (e) Includes primary producers' vehicles, Victoria.

(ii) *Australia, 1938-39 and 1946-47 to 1950-51.* The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1946-47 to 1950-51 in comparison with 1938-39:—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, AUSTRALIA.
(Excluding Defence Service Vehicles.)

Year.	Number of Motor Vehicles Registered at 30th June.				Per 1,000 of Population at 30th June.	Number of Drivers' and Riders' Licences in force at 30th June.	Gross Revenue derived from—			
	Motor Cars.	Commercial Vehicles. (a)	Motor Cycles.	Total.			Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
						£	£	£	£	
1938-39	562,271	258,025	79,237	899,533	129	1,238,497	6,318,435	508,387	257,652	7,084,474
1946-47	550,400	375,646	86,712	1,012,758	134	1,499,765	6,562,232	633,993	476,001	7,672,226
1947-48	593,077	444,072	100,196	1,107,345	144	1,601,394	7,437,294	650,294	955,798	9,043,386
1948-49	655,497	452,147	117,133	1,224,777	155	1,700,008	8,276,780	713,509	1,442,796	10,433,085
1949-50	768,558	501,721	133,979	1,404,258	172	1,845,265	9,596,034	862,509	1,811,989	12,270,532
1950-51	883,610	251,057	145,684	1,280,351	187	1,985,821	12,333,075	1,101,461	2,434,624	15,869,160

(a) Includes primary producers' vehicles, Victoria.

(iii) *Relation to Population.* The table hereunder shows the number of vehicles (excluding motor cycles) registered per 1,000 of population in each State and Territory at 31st December, 1921, and at 30th June for each of the years 1939 and 1947 to 1951.

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

(Excluding Defence Service Vehicles.)

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
31st Dec., 1921 ..	15	16	8	24	12	13	(a)	..	15
30th June, 1939 ..	107	125	118	137	133	96	218	174	118
.. 1947 ..	106	131	133	152	129	107	259	148	122
.. 1948 ..	114	140	140	162	137	115	249	141	131
.. 1949 ..	122	149	149	174	148	127	223	149	140
.. 1950 ..	135	168	164	191	164	135	223	173	155
.. 1951 ..	150	181	181	209	179	151	234	199	170

(a) Not available.

6. **New Vehicles Registered.**—(i) *States and Territories, 1950-51.* The following table shows the number of new vehicles registered in each State and the Australian Capital Territory during 1950-51. A graph showing the number of new motor vehicles (excluding motor cycles) registered during each of the years 1929 to 1952 will be found on p. 126.

NEW MOTOR VEHICLES REGISTERED, 1950-51.

(Excludes Defence Service Vehicles.)

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	A.C.T.	Total. (a)
Motor cars ..	46,984	36,692	17,898	13,089	8,214	4,187	607	127,671
Commercial vehicles, etc. ...	29,226	(b) 19,432	12,533	7,405	6,724	2,319	294	77,933
Motor cycles ..	8,855	5,442	4,025	4,928	2,802	960	139	27,151
Total ..	85,065	61,566	34,456	25,422	17,740	7,466	1,040	232,755

(a) Excludes Northern Territory.

(b) Includes vehicles registered as primary producers' vehicles.

(ii) *Australia, 1938-39 and 1946-47 to 1950-51.* Particulars of the number of new vehicles registered in Australia during the years 1938-39 and 1946-47 to 1950-51 are shown in the following table:—

NEW MOTOR VEHICLES REGISTERED : AUSTRALIA.(a)

(Excluding Defence Service Vehicles.)

Vehicles.	1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
Motor cars ..	54,107	21,237	42,745	66,471	115,012	127,671
Commercial vehicles, etc.(b)	24,927	16,317	28,769	36,678	57,946	77,933
Motor cycles ..	7,370	8,220	14,308	22,226	26,782	27,151
Total ..	86,404	45,774	85,822	125,375	199,740	232,755

(a) Excludes Northern Territory.
Victoria.

(b) Includes vehicles registered as primary producers' vehicles.

7. **World Motor Vehicle Statistics, 1951.**—Particulars of motor vehicle registrations throughout the world were included in issues of the 'Official Year Book prior to No. 39. This information was derived from the results of the World Motor Census, conducted by the *American Automobile* magazine. Detailed information is not repeated in this issue, but the following particulars from the same source show that there were 73,148,436 motor cars, trucks and buses registered in various countries of the world at 1st January, 1952. This was an increase of 6.5 per cent. on the figure for the previous year, 68,695,200,

and was the highest figure attained to that date. Of these vehicles, 51,425,647 or 70.3 per cent. of the world total were in the United States of America, and Australian registrations amounted to 2.0 per cent.

8. Survey of Motor Vehicles, 1947-48.—A survey of motor vehicles on the roads (excluding motor cycles) during 1947-48 was carried out by the Commonwealth Statistician in collaboration with the Government Statisticians and Road Transport authorities in the States. Results were published in a series of bulletins dealing with each State separately and with the Commonwealth as a whole, and summarized particulars were included in *Transport and Communication Bulletin* No. 40—1948-49 published by this Bureau. Similar surveys, but of modified scope, have been carried out for later periods in respect of new vehicles only. The results have been published by this Bureau in the *Transport and Communication Bulletin* and, since July, 1951, in the *Monthly Bulletin of Registrations of New Motor Vehicles*. Information contained in the latter includes the make, type and horse-power of new motor vehicles registered in each State and the Australian Capital Territory.

G. TRAFFIC ACCIDENTS.

1. General.—Prior to the year 1949-50 it was not possible to make proper comparisons between States of the number of accidents recorded, because of the differences in legislation regarding the reporting of accidents and the degree to which the legislation could be enforced. However, arrangements were made, in co-operation with the Australian Road Safety Council and the various police and transport authorities concerned, to obtain the numbers of road traffic accidents on a comparable basis from all States in respect of the year ended 30th June, 1950 and subsequent years. This has been achieved by restricting the statistics so as to relate only to those accidents which result in death or bodily injury to any person, or in damage in excess of £10 to property. It should be noted, however, that the comparability of the statistics between States even on this basis still depends on the degree to which accidents so defined are in fact recorded by the police. Except in the case of Western Australia, where statistics shown relate to all accidents which occurred in the metropolitan area and to those which involved fatal or "near-fatal" injury only in the remainder of the State, it is considered that there is little difference in the recording of accidents as between States.

For further particulars of traffic accidents see *Transport and Communication Bulletins* issued by this Bureau.

2. Total Accidents Reported, 1950-51.—(i) Summary. The following table shows, for each State and the Australian Capital Territory during the year 1950-51, the total accidents reported to the police, the number of accidents involving casualties, and the number of persons killed or injured—totals and per 100,000 of mean population and per 10,000 motor vehicles registered.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : ACCIDENTS RECORDED AND CASUALTIES, 1950-51.

State or Territory.	Total Accidents Reported. (a)	Accidents Involving Casualties.	Persons Killed.			Persons Injured.(b)		
			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.
N.S. Wales ..	19,878	9,694	699	21	13	11,817	361	217
Victoria ..	14,861	9,274	581	26	13	11,364	508	256
Queensland ..	9,599	4,557	218	18	9	5,512	462	229
South Australia	6,325	2,001	197	28	11	2,332	327	135
W. Australia(c)	3,580	2,084	167	29	14	2,686	470	226
Tasmania ..	2,724	1,013	57	20	12	1,212	421	246
Aust. Cap. Ter.	294	137	7	32	13	172	782	313
Total, 1950-51	57,261	(d)28,760	1,926	23	12	(e)35,095	423	223
Total, 1949-50	46,959	(d)25,965	1,643	20	12	(e)31,447	391	224

(a) Total accidents causing death or injury to persons or damage exceeding £10 to property.
 (b) Persons injured to an extent requiring surgical or medical treatment. (c) Includes for the Metropolitan Area all accidents causing death or injury to persons or damage exceeding £10 to property, and, for the remainder of the State, only those accidents causing fatal or "near-fatal" injuries.
 (d) Accidents involving persons killed, and persons injured to an extent requiring surgical or medical treatment, except in Western Australia where only persons injured and detained in hospital are included.
 (e) As defined in note (d).

(ii) *Riders, Drivers, Pedestrians, etc., Killed or Injured.* The following table shows the number of persons killed and the number injured during 1950-51 in each State and the Australian Capital Territory, classified into riders, drivers, pedestrians, etc.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : RIDERS, DRIVERS, PEDESTRIANS, ETC., KILLED OR INJURED, 1950-51.

Riders, Drivers, Pedestrians, etc.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Drivers of Motor Vehicles	115	104	32	28	30	8	1	318
Motor Cyclists	121	107	54	58	37	21	4	402
Pedal Cyclists	33	48	17	20	9	3	1	131
Passengers (all types) (a)	208	137	61	54	48	9	1	518
Pedestrians	215	181	51	36	42	16	..	541
Other Classes (b)	7	4	3	1	1	..	..	16
Not Stated	..	..	..	..	..	..	..	..
Total	699	581	218	197	167	57	7	1,926
PERSONS INJURED.(c)								
(d)								
Drivers of Motor Vehicles	1,955	1,987	816	300	392	184	23	5,657
Motor Cyclists	2,167	1,616	1,271	699	594	293	43	6,683
Pedal Cyclists	983	1,415	772	256	322	163	25	3,936
Passengers (all types)(a)	3,925	3,813	1,674	741	961	359	63	11,536
Pedestrians	2,720	2,447	941	328	390	204	18	7,048
Other Classes (b)	67	86	38	8	26	7	..	232
Not Stated	..	..	..	..	1	2	..	3
Total	11,817	11,364	5,512	2,332	2,686	1,212	172	35,095

(a) Includes pillion riders. (b) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles. (c) Persons injured to an extent requiring surgical or medical treatment. (d) Includes all persons injured (i.e., requiring surgical or medical treatment) in the Metropolitan area but only those suffering "near-fatal" injuries in the remainder of the State.

(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 1950-51:—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : AGES OF PERSONS KILLED OR INJURED, 1950-51.

Age Group (Years).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Under 5	21	27	7	7	3	4	..	69
5 and under 7	10	6	3	2	2	..	..	23
7 " " 17	36	32	12	8	7	2	..	97
17 " " 30	244	199	85	76	58	27	6	695
30 " " 40	90	56	36	24	27	10	..	243
40 " " 50	81	69	29	26	19	3	1	219
50 " " 60	55	56	19	15	17	3	..	165
60 and over	145	136	36	33	34	7	..	391
Not Stated	17	..	..	6	..	1	..	24
Total	699	581	218	197	167	57	7	1,926
PERSONS INJURED.(a)								
(b)								
Under 5	380	394	163	60	70	39	7	1,113
5 and under 7	245	270	125	39	38	27	8	752
7 " " 17	1,210	1,202	651	222	303	120	11	3,719
17 " " 30	4,554	4,222	2,309	1,075	1,181	492	84	13,977
30 " " 40	1,750	1,845	732	365	325	146	25	5,188
40 " " 50	1,174	1,305	517	186	281	84	15	3,562
50 " " 60	889	1,089	406	178	174	64	10	2,810
60 and over	1,065	1,035	466	194	202	66	6	3,034
Not Stated	550	2	83	13	112	174	6	940
Total	11,817	11,364	5,512	2,332	2,686	1,212	172	35,095

(a) Persons injured to an extent requiring surgical or medical treatment. (b) Includes all persons injured (i.e., requiring surgical or medical treatment) in the Metropolitan area but only those suffering "near-fatal" injuries in the remainder of the State.

(iv) *Accidents Recorded and Casualties, classified according to Type of Vehicle, Road User, etc., Involved.* The following table shows, for Australia during 1950-51, the number of accidents in which each of several classes of vehicles, road users, etc., were involved. The accidents involving casualties and persons killed and injured are similarly classified.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : ACCIDENTS RECORDED AND CASUALTIES, CLASSIFIED ACCORDING TO TYPE OF VEHICLE, ROAD USER, ETC., INVOLVED, AUSTRALIA, 1950-51.(a)

Particulars.	Motor Vehicle.	Motor Cycle.	Pedal Cycle.	Tram.	Animal and Animal-drawn Vehicle.	Pedestrian.	Other Vehicle.
Total Accidents Reported(b)	50,808	10,243	4,471	1,968	1,725	7,172	360
Accidents Involving Casualties	22,861	8,378	4,278	1,023	642	7,155	217
Persons Killed	1,556	534	146	74	34	535	68
Persons Injured(c)	28,377	9,640	4,476	1,178	733	7,168	271

(a) 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 table excludes 46 accidents reported for which no cause was stated, of which 40 involved casualties—6 persons killed and 34 persons injured. (b) Total accidents causing death or injury to persons or damage exceeding £20 to property. (c) Persons injured to an extent requiring surgical or medical treatment.

It will be seen, therefore, that motor vehicles were involved in 50,808 accidents, of which 22,861 involved casualties (1,556 persons killed and 28,377 persons injured). The 50,808 accidents in which motor vehicles were involved comprised 21,040 collisions with other motor vehicles, 5,725 with motor cycles, 3,059 with pedal cycles, 1,141 with trams, 1,223 with animals and animal-drawn vehicles, 5,709 with pedestrians, 5,653 with fixed objects, 293 with vehicles other than those mentioned, 6,303 instances of overturning or leaving the roadway, and 662 accidents to passengers only. The particulars of accidents 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 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. **Persons Killed or Injured in Traffic Accidents, 1938-39 and 1946-47 to 1950-51.**—The following table shows the numbers of persons killed or injured in traffic accidents in each State and the Australian Capital Territory during the years 1938-39 and 1946-47 to 1950-51 :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED OR INJURED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.	Per 10,000 Motor Vehicles Registered.
PERSONS KILLED.									
1938-39	552	418	173	118	126	43	3	1,483	16
1946-47	508	386	188	101	101	61	1	1,346	13
1947-48	508	362	182	128	127	40	1	1,348	12
1948-49	564	426	169	119	90	53	3	1,424	12
1949-50	561	501	202	170	142	64	3	1,643	12
1950-51	699	581	218	197	167	57	7	1,926	12
PERSONS INJURED.									
1938-39	(a) 8,388	(a) 7,428	(a) 4,026	(b) 3,536	(c) 937	(a) 1,300	(a) 38	25,653	285
1946-47	8,752	7,810	3,799	2,768	780	805	45	24,759	245
1947-48	8,557	7,210	3,799	2,927	668	898	68	24,062	218
1948-49	9,253	8,225	4,017	(a)2,025	747	952	91	25,310	207
1949-50	10,408	10,538	4,771	(a)2,574	(a)1,929	1,154	136	31,447	224
1950-51	11,817	11,364	5,512	(a)2,332	(a)2,686	1,212	172	35,095	223

(a) Persons injured to an extent requiring surgical or medical treatment. (b) Figures shown for years prior to 1948-49 include all persons injured whether surgical or medical treatment was required or not. (c) Figures shown for years prior to 1949-50 include persons injured and detained in hospital only. Includes all persons injured, (i.e., requiring surgical or medical treatment), in the metropolitan area but only those suffering "near-fatal" injuries in the remainder of the State.

H. 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 appears in Official Year Book No. 16, pp. 334-5.

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, p. 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.

A recent change in the administration of the Department is its regional organization based on State boundaries, except that one region embraces Victoria and Tasmania.

The work of the Department is divided into two main sections. Administrative and Technical. The three Administrative Divisions are:—(i) the Division of Air Transport and External Relations; (ii) the Division of Administration and Personnel; and (iii) the Division of Finance and Stores. The three Technical Divisions are:—(i) the Division of Air Navigation; (ii) the Division of Airways; and (iii) the Division of Airports.

The Accident Investigation Branch is an independent section of Head Office, concerned mainly with major accidents, and directly responsible to the Director-General.

Full details of the functions of the three Administrative Divisions and the three Technical Divisions may be found in Official Year Book No. 38.

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 appears in Official Year Book No. 37 and particulars of subsequent activity in the international field were included in issue No. 38. Further ratifications of the Chicago Convention raised the membership of the International Civil Aviation Organization to 57 States as at 30th June, 1951. In accordance with the ICAO policy of broadening Council representation by enabling the views of non-Council member States to be presented, Australia and New Zealand agreed that the representative of Australia on the Council will keep the New Zealand authorities informed on all matters before the Council or Committees under its control which are of particular interest to New Zealand, and will also on request present any views which the New Zealand Government would wish to have submitted. An account of the establishment of the Air Navigation Commission will be found in Official Year Book No. 39, p. 183.

The Air Transport Committee has been established with a full membership of twelve members nominated by the Council from among its members.

Australia has been represented at various Annual Assemblies of, and meetings convened by, ICAO, and also at meetings of the South Pacific Air Transport Council. Further details will be found in Official Year Book No. 39 and earlier issues.

The 4th Session of the Communications Division, ICAO, was held in Montreal during April and May, 1951. A representative attended the conference to present the Australian viewpoint on matters relating to communications procedures, frequency planning and communications systems.

(ii) *International Air Services.* Events which have transpired in connexion with international air services since the developments referred to in Official Year Book No. 39 are outlined in the following paragraphs.

Changes have been made in the operation of the Qantas Empire Airways—British Overseas Airways Corporation freighter services. On 6th September, 1950, B.O.A.C. suspended its weekly Lancastrian freighter service which operated right through to Australia and introduced in its place a York service between London and Singapore. Q.E.A. has provided a connecting service between Singapore and Sydney with Lancastrian aircraft which were replaced in October, 1950, by DC.4's.

Changes have also occurred in the intermediate stops served by the Kangaroo services. Following arrangements made with the Indonesian authorities, Q.E.A. has included, since August, 1950, calls at Djakarta on both its Constellation service to the

United Kingdom and the Skymaster service to Singapore. Djakarta had been served by B.O.A.C. for some time before Q.E.A. introduced the stop. Both Q.E.A. and B.O.A.C. introduced Beirut in Lebanon as a stopping place at the end of January, 1952.

Q.E.A. increased the frequency of the fortnightly Sydney-Noumea-Suva service to once weekly in April, 1951, and the fortnightly Sydney-Noumea-Espiritu Santo and Vila service to once weekly in June, 1951, thus providing New Caledonia with a twice-weekly service.

Tasman Empire Airways Limited introduced a service between Sydney and Wellington with Solent aircraft on 3rd October, 1950. Another route across the Tasman was opened on 28th June, 1951, when Qantas Empire Airways, under charter to Tasman Empire Airways, commenced a weekly Melbourne-Christchurch service with DC.4 aircraft. With the opening of this service, Melbourne was used for the first time as an international airport. Altogether there are now ten frequencies a week being operated between Australia and New Zealand.

On 8th March, 1951 a twice-weekly Stratocruiser service was inaugurated between San Francisco and Sydney.

During June, 1949 Qantas Empire Airways Ltd. inaugurated a fortnightly Australia-Hong Kong service based on Sydney and operating via Darwin and Labuan (British North Borneo). With the agreement of the United Kingdom authorities and the authority of the Supreme Commander, Allied Powers, Japan, this service was extended in October, 1950, to Iwakuni (and later to Tokyo) and the frequency increased to once weekly.

4. **Regular Air Services within Australia.**—As a result of negotiations conducted between major airline operators unprofitable duplication of services on some routes has been largely eliminated without detriment to the convenience of air travellers generally.

During April, 1952, approval was given for an increase of between 10 and 20 per cent. in fares on the main trunk services.

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

During the year 1950-51 the Air Ambulance and 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 DH84 aircraft based at Darwin, and the Bush Church Aid Society for Australia and Tasmania, supported by funds from the Church of England, maintains one DH84 aircraft based at Ceduna, and one DH83 at Wudinna, South Australia.

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, p. 146.

Payment to the Clubs, under a revised scheme for financial assistance from July, 1951 to June, 1952, has been made as follows :—(i) a maintenance grant (for each aircraft-hour flown) at the following rates per hour subject to certain limitations—(a) at home base, £1 13s. 9d., (b) away from home base, £2 7s. 6d.; (ii) an issue bonus (for each pupil trained *ab initio* to "A" licence standard)—(a) at home base, £84, (b) away from home base, £107 10s.; (iii) a renewal bonus (for each licence renewed on club aircraft)—(a) at home base, £11, (b) away from home base, £15. In addition, the Commonwealth has accepted a contingent liability to contribute at the rate of 10s. per flying hour towards each club's replacement reserve. This amount is intended to supplement the club's reserve for the purchase of aircraft and spares specifically approved by the Department of Civil Aviation.

During the year 1950-51, 225 issue bonuses and 579 renewal bonuses were earned. Hours flown by subsidized Aero Clubs totalled 39,770 and a total subsidy of £93,399 was earned by the nine clubs.

7. **Gliding Clubs.**—For the year 1950-51 a total subsidy of £1,499 was distributed among the controlling gliding authorities in each State. Distribution was on an active membership basis.

8. **Airways Engineering.**—During the year 1950-51 the Airways Communications System both within Australia and with overseas countries was improved and developed. This work includes the fixed, or point-to-point communication service, and the service between the ground and aircraft.

A start was made in 1949-50 with the V.H.F. communication service, installations being completed at Williamstown and Guildford, and on 17th May, 1951 the manual radio telegraph circuit between Melbourne and Honolulu was replaced by a radio teletype circuit between Sydney and Honolulu.

New 75-megacycle marker beacon equipment has been installed at points along airways. An approach control radar system, which operates on a frequency of 3,000 megacycles, has been installed at Essendon. The Department of Civil Aviation has undertaken installation of a chain of fifteen radar stations throughout Australia for radar tracking of balloons, wind finding purposes and for detecting radio-sonde balloon flights.

The lighting of airways and airports has been closely studied by the Departmental Lighting Committee, consisting of representatives of the Department of Civil Aviation and two members from the Airline Pilots' Association.

9. **Air Traffic Control.**—The period 1950-52 has been characterized by procedural development and consolidation, and by general acceptance for the first time of the need for inter-departmental co-ordination in the use of air space. Civil aircraft movements have increased and military flying programmes have been greatly expanded. In consequence, the traffic patterns at major airports and along the lanes leading to them have reached a high degree of complexity. Efficient control has been maintained largely by continuous attention to, and modification of, procedures.

10. **Meteorological Aids to Civil Aviation.**—Professional meteorological officers of the Department of the Interior are on duty at many of Australia's aeradio stations. At the remainder, communications personnel make local weather observations and take barometer and thermometer readings for transmission to Area Meteorological Offices.

11. **Construction and Development of Airports.**—During 1950-52 the scarcity of suitable material, labour and plant slowed the rate of airport construction throughout Australia. Effort was concentrated mainly on the provision of buildings, housing and safety equipment, and facilities were provided where the need was greatest.

Kingsford-Smith Airport. Work progressed steadily on the construction of an international airport at Mascot. Cook's River was diverted to flow into Botany Bay west of the new airport, and the old river bed was filled to form the base of the first of the new runways. At the same time work was carried out on the diversion of sewer lines and a main highway (General Holmes Drive). The 64° runway was completed.

Essendon Airport. The section of taxiway "N" east of the 168° runway and portion of taxiway "M" were completed. Work continued on the erection of oil company depots on a new site in the building area and the erection of two large Igloo hangars was commenced.

Moorabbin Airport. Work continued on this secondary landing ground, which accommodates all non-radio equipment aircraft and so relieves the hazard created at Essendon.

Adelaide Airport. The 6,850 feet Class "C" runway was completed, including the concrete ends. The large drain constructed for the diversion of Keswick and Brownhill Creeks was completed downstream from Brownhill Creek, leaving only the lined section between Brownhill Creek and Keswick Creek to be constructed.

Work on other runways, taxiways, aprons and hangars proceeded favorably during 1952, some sections being completed. The complete changeover of operations from Parafield is dependent upon the construction of the combined terminal and operations building.

Hobart Airport. To replace the Cambridge Airport, which does not meet international standards and cannot be improved, plans have been developed for the construction of a Class "D" ICAO airport for Hobart at Llanherne, and during the period good progress was made in the construction of this new airport. When completed, it will provide one sealed runway 5,800 feet long and 200 feet wide, with good approaches and associated taxiways, aprons, buildings and roads. Work also continued on earth-works for associated runways.

12. **Aircraft Parts and Materials.**—The number of firms and organizations approved by the Department of Civil Aviation to trade in the aircraft industry now totals 349, and extensions of approval have been granted to 186 firms to cover the extensive increase in their operations.

13. **Aircraft Maintenance Certificates of Repair.**—Aircraft maintenance repair and overhaul is carried out under the supervision of a works inspection section or licensed ground engineer in workshops approved by the Department of Civil Aviation. Workshops are authorized to issue certificates of repair which serve as evidence to the licensed ground engineer responsible for the fitment of the part that the work so covered has been done in an authorized workshop by competent tradesmen and has been subjected to proper inspection. Such specialized work as the overhaul of instruments, electrical equipment, aeronautical pumps and carburettors is carried out by these approved workshops.

14. **Test and Examination of Aircraft Parts and Materials.**—A number of laboratories are approved by the Department of Civil Aviation and authorized to issue laboratory reports covering the physical test, chemical analysis, radiological and metallurgical examination of materials and parts used in connexion with the civil aircraft industry.

15. **Statistical Summaries.**—(i) *Registrations, Licences, Accidents, etc.* The following table provides a summary of the civil aviation registrations and licences in force in Australia at 30th June of each of the years 1939 and 1947 to 1951, and also of the numbers of persons killed and injured in civil flying accidents during the years 1938-39 and 1946-47 to 1950-51.

CIVIL AVIATION : REGISTRATIONS, LICENCES, ACCIDENTS, ETC., AUSTRALIA.

Particulars.	At 30th June—						
		1939.	1947.	1948.	1949.	1950.	1951.
Registered Aircraft Owners ..	No.	149	323	334	335	359	351
Registered Aircraft ..	"	295	643	670	748	779	838
Pilots' Licences—							
Private ..	"	1,096	(a) 600	614	756	872	1,065
Commercial ..	"	346	(a) 499	495	481	469	441
Student ..	"	"	(a) 939	1,114	1,169	1,778	1,840
1st Class Airline Transport	"	"	(a) 341	361	397	417	495
2nd " "	"	"	(a) 25	35	27	30	35
3rd " "	"	"	(a) 372	360	363	326	377
Navigators' Licences—							
Flight Navigator ..	"	59	(a) 72	84	118	126	139
Cadet ..	"		(a) 10	12	44	18	(b)
Radio Operators' Licences—							
1st Class Flight Radio Tele-	"	"	(a) 80	106	113	103	96
graphy Operator ..	"	"	"	"	"	"	"
Flight Radio Telephony	"	"	"	"	"	"	"
Operators—	"	"	"	"	"	"	"
1st Class ..	"	"	(a) 559	590	715	701	754
2nd " "	"	"	(a) 192	211	230	211	237
3rd " "	"	"	(a) 5	6	27	38	33
Flight Engineers' Licences ..	"	"	(a) 8	16	47	40	39
Ground Engineers' Licences	"	525	(a) 1,660	1,660	(c)	1,684	1,643
Aerodromes—							
Government ..	"	71	(a) 131	133	142	183	184
Public ..	"	213	(a) 243	240	222	213	239
Emergency Grounds ..	"	147	(a) 54	49	43	(d)	(d)
Flying Boat Bases ..	"	7	5	5	5	5	5
Accidents (year ended 30th June)—							
Persons Killed ..	"	38	15	13	42	61	13
" Injured ..	"	15	17	27	21	22	36

(a) At 1st April, 1948; new categories in accordance with standards of the International Civil Aviation Organization. (b) Category cancelled during 1950-51. (c) Not available. (d) Included with Public Aerodromes.

(ii) *Operations of Regular Internal Services.* The next table summarizes the flying activities of regular internal services operating within Australia during the years 1938-39 and 1946-47 to 1950-51.

CIVIL AVIATION : OPERATIONS OF REGULAR INTERNAL SERVICES, AUSTRALIA.

Particulars.	Year ended 30th June—						
		1939.	1947.	1948.	1949.	1950.	1951.
Hours flown	No.	39,312	154,772	212,233	224,853	225,841	252,333
Miles	'000	5,302	23,038	32,371	35,242	36,519	40,680
Paying Passengers	No.	41,429	849,647	1,207,839	1,409,300	1,499,816	1,685,089
Paying Passenger-miles	'000	22,423	366,150	503,494	566,038	590,429	669,087
Freight—							
Actual tons	No.	391	12,247	25,845	33,381	44,144	53,002
Ton-miles	'000	(a)	5,972	11,920	15,240	19,873	24,198
Mall—							
Actual tons	No.	(b) 64	1,120	1,248	1,580	2,594	2,887
Ton-miles	'000	(a)	621	674	789	1,250	1,333

(a) Not available. (b) Net weight.

NOTE.—Figures shown for 1939 relate to subsidized services only, and include Oversea Services of Qantas Empire Airways Ltd., but exclude operations of aircraft chartered for defence purposes.

(iii) *Operations of Australian and International Oversea Services.* The following table furnishes a summary of Australian and other oversea services operating between Australia and oversea countries, including Pacific islands, during the years 1938-39 and 1946-47 to 1950-51. Particulars are not available in respect of certain services and the figures shown are therefore incomplete.

CIVIL AVIATION : OPERATIONS OF OVERSEA SERVICES.(a)

Particulars.	Year ended 30th June—						
		1939.	1947.	1948.	1949.	1950.	1951.
Route-miles	No.	6,985	19,459	26,667	29,695	39,217	43,633
Hours flown	"	12,686	32,633	39,488	40,262	40,692	48,947
Miles	'000	1,736	5,921	7,555	7,982	8,768	10,500
Paying Passengers	No.	5,350	31,055	41,124	45,296	59,832	87,599
Paying Passenger-miles	'000	7,335	75,225	122,678	144,869	165,077	241,817
Freight—							
Actual tons	No.	6	349	660	765	1,121	1,976
Ton-miles	'000	(b)	978	2,630	2,808	4,001	6,214
Mall—							
Actual tons	No.	(b)	465	638	577	651	842
Ton-miles	'000	(b)	2,112	3,408	3,331	3,453	4,792

(a) Incomplete. (b) Not available.

16. *Papua-New Guinea Activities.*—(i) *General.* Issues of the Official Year Book up to and including No. 34, 1941 showed particulars of the development of civil aviation in New Guinea and of the companies operating at the outbreak of war with Japan, while issues Nos. 35 to 37 carried the accompanying statistical summary of operations up to the end of September, 1941. Similar statistics of post-war operations, however, are not at present available.

(ii) *Territory of Papua and New Guinea.* At 30th June, 1952 there were 100 fully operational aerodromes in the Territory of Papua and New Guinea and a further 52 in the course of development. Of these, 32 were controlled by the Department of Civil Aviation, 56 by the Civil Administration and the remainder were privately owned by missions and commercial interests. In addition, there were 30 seadromes.

Aerial activity within the Territory is intensive, and several companies conduct regular services to the major aerodromes while charter flights can be arranged to almost any locality.

During 1951 Qantas Empire Airways reduced their DC3 services between Australia and New Guinea to two services per week and introduced an additional freighter service between Sydney and Lae. Q.E.A. also operated a DC3 service between Townsville and Momele for the R.A.A.F. on a weekly basis.

At the beginning of 1951 Mount Lamington erupted and, in the subsequent action, approximately 900 tons of stores and equipment were flown to the stricken area.

The accident rate increased as compared with the previous year. There were four fatal accidents, in which 12 people lost their lives.

I. POSTS, TELEGRAPHS, TELEPHONES AND WIRELESS.

NOTE.—In all the tables in this Division returns for the Australian Capital Territory are included with those for New South Wales, while the South Australian returns include particulars for the Northern Territory.

§ 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, being a responsible Minister. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Deputy-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, 1951. 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, 1951.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices (a) ..	2,560	2,430	1,293	876	635	521	8,315
Number of square miles of territory per office	121	36	519	1,032	1,537	50	358
Number of inhabitants per office ..	1,305	934	937	841	916	558	1,014
Number of inhabitants per 100 square miles	1,077	2,582	181	81	60	1,109	283

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

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

(ii) *Number of Offices.* The following table shows the number of post offices (exclusive of telephone offices) in each State for the years 1921, 1931, 1941 and 1951.

NUMBER OF POST OFFICES AT 30th JUNE.

State.	1921.		1931.		1941.		1951.	
	Official and Semi-Official.	Non-Official.	Official and Semi-Official.	Non-Official.	Official and Semi-Official.	Non-Official.	Official and Semi-Official.	Non-Official.
New South Wales ..	462	2,147	439	2,103	453	2,086	489	2,071
Victoria ..	269	2,307	279	2,280	286	2,293	299	2,131
Queensland ..	205	1,057	199	1,000	197	1,036	207	1,086
South Australia ..	138	659	146	620	152	648	160	716
Western Australia ..	128	499	124	432	129	488	145	490
Tasmania ..	47	451	43	472	46	465	49	472
Australia ..	1,249	7,120	1,230	6,907	1,263	7,016	1,349	6,966

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States in the years 1921, 1931, 1941 and 1951 is given in the following table :—

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

State.	1921.		1931.		1941.		1951.	
	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.
Central Office ..	139	..	174	..	393	..	981	..
New South Wales ..	11,669	2,046	12,336	1,884	18,121	2,590	32,569	2,337
Victoria ..	8,117	1,091	9,574	1,129	14,659	1,605	23,905	1,241
Queensland ..	4,728	750	4,865	908	6,849	1,470	13,221	1,907
South Australia ..	2,826	439	3,340	359	4,387	474	7,744	442
Western Australia..	2,111	302	2,548	323	3,549	431	5,601	390
Tasmania ..	1,220	223	1,354	257	1,809	216	3,016	305
Australia ..	30,810	4,851	34,191	4,860	49,767	6,786	87,037	6,622

3. **Gross Revenue, Branches—Postmaster-General's Department.**—The gross revenue (actual collections) in respect of each branch of the Department during the year 1950–51 is shown in the table hereunder :—

POSTMASTER-GENERAL'S DEPARTMENT : GROSS REVENUE(a), 1950–51.

(£'000.)

Sources.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total. Aust.
Postage ..	6,375	4,661	2,140	1,325	1,064	455	16,020
Money Order Commission and Poundage on Postal Notes	189	152	56	36	26	13	472
Private Boxes and Bags ..	52	31	27	17	11	6	144
Miscellaneous ..	386	306	145	79	93	22	1,031
Total, Postal	7,002	5,150	2,368	1,457	1,194	496	17,667
Telegraphs ..	1,770	1,206	673	368	322	103	4,442
Telephones ..	9,064	6,642	3,122	2,008	1,240	592	22,668
Grand Total	17,836	12,998	6,163	3,833	2,756	1,191	44,777

(a) The figures in this table relate to revenue actually collected during the year as recorded for Treasury purposes.

The gross revenue (actual collections) from the various branches in each State for the years 1945–46 to 1949–50 are shown in comparison with the year 1938–39 in Official Year Book No. 39. For the years 1938–39, 1946–47, 1947–48, 1948–49 and 1949–50 the gross revenue for Australia was £17,350,000, £29,802,000, £31,390,000, £33,307,000 and £38,348,000 respectively.

Compared with the corresponding figures for the previous year an increase of 16.8 per cent. was shown in the gross revenue earned for the year 1950–51. Increases in the several branches were as follows :—Postal 14.5 per cent., Telephone 18.3 per cent., and Telegraph 18.3 per cent.

The gross revenue in 1950–51 was 158.1 per cent. higher than in the last complete pre-war year, 1938–39, the corresponding percentage increases for the several branches being as follows :—Postal, 138.1, Telegraph 223.8, and Telephone 181.9.

4. **Expenditure, Postmaster-General's Department.**—(i) *Distribution, 1950–51.* The following table shows, as far as possible, the distribution of expenditure (actual payments) on various items in each State during the year ended 30th June, 1951, 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.
1950-51.

(£'000.)

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Expenditure under Control of Department—								
Salaries and payments in the nature of salary ..	255	9,187	6,480	3,770	2,239	1,459	827	24,217
General expenses ..	41	898	651	237	178	125	55	2,185
Stores and material ..	12	603	451	224	186	109	62	1,647
Mail services ..	(a)2,303	946	551	558	263	176	80	4,877
Engineering services (other than New Works) ..	444	6,787	4,143	2,394	1,323	973	544	16,608
Other services ..	119	..	..	..	..	..	..	119
Total ..	3,174	18,421	12,276	7,183	4,189	2,842	1,568	49,653
Rent, repairs, maintenance, fittings, etc. ..	..	302	161	83	62	42	17	667
Other expenditure, n.e.i. ..	..	11	8	2	1	11	1	34
Capital Works and Services (b)—								
Telegraph and Telephone New Buildings, etc. ..	34	8,169	16,747	2,957	1,674	1,036	522	31,139
Other expenditure not allocated to States ..	(d)4,730	1,172	1,069	331	589	220	96	3,477
Grand Total ..	(e)7,938	28,075	30,261	10,556	6,515	4,151	2,204	89,700

(a) Expenditure on air-mail services, etc. (b) Includes expenditure from loan. (c) Includes £11,000,000 working advance for payment to credit of Post Office Stores and Transport Trust Account. (d) Particulars of apportionment to States not available. Includes superannuation contributions, £775,279; sinking fund payments, £2,150,213; interest on loans, £757,753; exchange, £696,005; Subscriptions to Share Capital—Amalgamated Wireless (Australasia) Ltd., £157,081; Public Works Staff, Salaries and General Expenses, £189,605; and Transferred Officers' Pensions and Allowances, £3,262. (e) Includes expenditure not apportioned to States.

(ii) Totals 1938-39 and 1946-47 to 1950-51. Actual payments made for each of the years 1938-39 and 1946-47 to 1950-51, respectively, were :—£18,374,000, £32,724,000, £40,391,000, £53,544,000, £64,304,000 and £89,700,000. Total expenditure increased by 39.5 per cent. during 1950-51.

5. Profit or Loss, Postmaster-General's Department.—(i) States, 1950-51. 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 in the several States, after providing for working expenses (including superannuation, pensions and depreciation) and interest charges including exchange, were as follows :—

POSTMASTER-GENERAL'S DEPARTMENT : PROFIT OR LOSS, 1950-51.

(£'000.)

Branch.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Postal ..	— 541	— 230	— 636	— 150	— 133	— 123	— 1,813
Telegraph ..	— 389	— 201	— 325	— 150	— 30	— 23	— 818
Telephone ..	— 78	661	— 143	— 118	— 103	— 245	— 26
All Branches ..	— 1,008	230	— 1,104	— 118	— 266	— 391	— 2,657

NOTE.—Minus sign (—) indicates loss.

(ii) Branches, 1938-39 and 1946-47 to 1950-51. The following statement shows particulars of the operating results of each branch for the years 1938-39 and 1946-47 to 1950-51.

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

(£'000.)

Year.	Postal.	Telegraph.	Wireless.	Telephone.	All Branches.
1938-39.. ..	2,105	52	76	1,392	3,625
1946-47.. ..	2,841	148	419	2,534	5,104
1947-48.. ..	1,623	326	697	1,250	1,850
1948-49.. ..	297	1,080	(a)	346	1,723
1949-50.. ..	1,154	722	(a)	721	1,155
1950-51.. ..	1,813	818	(a)	26	2,657

(a) Prior to 15th March, 1949, the operations of the Australian Broadcasting Commission were financed by apportionment of the fees collected from the issue of broadcast listeners' licences, part being paid to the Commission, the remainder being retained by the Postmaster-General's Department for technical services provided, and particulars thereof were included in the Department's accounts. Since that date the Commission's operations have been financed through Consolidated Revenue Fund.

NOTE.—Minus sign (-) indicates loss.

6. Fixed Assets.—(i) *Details, 1950-51.* The following statement shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1950 to 30th June, 1951 :—

POSTMASTER-GENERAL'S DEPARTMENT : FIXED ASSETS.

(£'000.)

Particulars.	Net Value, 1st July, 1950.	Capital Expendi- ture, 1950-51.	Gross Value, 30th June, 1951.	Deprecia- tion, etc., 1950-51. (a)	Net Value, 30th June, 1951.
Telephone service plant (excluding trunk lines)	89,864	20,498	110,362	1,059	109,303
Joint trunk and telegraph plant (aerial wires, conduits, and cables)	20,287	2,659	22,946	115	22,831
Telegraph service plant	1,304	185	1,489	8	1,481
Postal service plant	733	70	803	1	802
Sites, buildings, furniture and office equipment	17,752	3,685	21,437	321	21,116
Miscellaneous plant	4,993	1,936	6,929	416	6,513
Total	134,933	29,033	163,966	1,920	162,046

(a) Includes dismantled assets, depreciation written off, and assets transferred.

(ii) *Net Value, 1938-39 and 1946-47 to 1950-51.* The net value of the fixed assets of the Postmaster-General's Department at 30th June, 1939 and 1947 to 1951, respectively, was :—£65,135,000, £94,986,000, £104,281,000, £115,956,000, £134,933,000 and £162,046,000.

At 30th June, 1951 the net value of fixed assets was 148.8 per cent. greater than at 30th June, 1939.

§ 2. Posts.

1. *Postal Matter Dealt With.*—(i) *States.* The following table shows a summary of the postal matter dealt with in each State during the year 1950-51. 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) : STATES, 1950-51.
(‘000.)

State.	Letters.	Papers and Packets.	Parcels.	Registered Articles.	Letters.	Papers and Packets.	Parcels.	Registered Articles.
	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)
	Posted for delivery within Australia.				Posted for Delivery Overseas.			
New South Wales	432,503	94,055	7,397	7,696	11,943	6,517	640	684
Victoria	349,369	58,470	4,947	4,770	9,264	2,703	423	118
Queensland	147,447	29,537	3,053	2,222	3,107	916	149	68
South Australia	94,075	11,875	1,646	1,121	2,745	670	145	68
Western Australia	76,779	14,276	1,198	882	3,435	1,257	129	58
Tasmania	51,241	7,181	305	582	406	46	53	75
Australia	1,142,414	215,394	18,551	17,273	30,900	12,109	1,539	1,071
	Received from Overseas.				Total Postal matter dealt with.			
New South Wales	34,944	13,919	267	711	479,390	114,491	8,304	9,091
Victoria	9,921	5,886	198	160	359,554	67,059	5,568	5,048
Queensland	4,314	3,010	59	30	154,868	33,463	3,266	2,320
South Australia	2,863	2,975	41	36	99,683	15,520	1,832	1,225
Western Australia	2,271	2,792	45	99	82,485	18,325	1,372	1,039
Tasmania	658	1,299	14	20	52,305	8,520	372	677
Australia	54,921	29,881	624	1,056	1,228,285	257,384	20,714	19,400

(a) See explanation in para. 1. (i) 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 the five years 1946-47 to 1950-51 in comparison with the year 1938-39.

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 Population. No.	Total ('000.)	Per 1,000 of Population. No.	Total ('000.)	Per 1,000 of Population. No.	Total ('000.)	Per 1,000 of Population. No.
1938-39(b)	903,090	130,245	165,362	23,849	9,585	1,382	8,371	1,207
1946-47 ..	984,367	130,900	210,343	27,971	20,252	2,693	19,859	2,641
1947-48 ..	1,036,835	135,708	228,957	29,967	21,880	2,864	19,913	2,606
1948-49 ..	1,094,617	140,356	238,939	30,639	21,200	2,718	20,705	2,655
1949-50 ..	1,178,837	146,446	247,134	30,700	21,340	2,651	19,165	2,381
1950-51 ..	1,228,285	147,784	257,384	30,968	20,714	2,492	19,400	2,334

(a) Includes registered, c.o.d. and duty parcels. (b) Packets were included with letters.

2. **Cash on Delivery Parcels Post.**—(i) *General*. The Postal Department undertakes, upon prepayment of a prescribed commission, to deliver registered articles sent by parcel post within Australia, or between Lord Howe Island, Norfolk Island, Nauru, Territory of Papua and New Guinea, or Fiji and Australia, 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, 1950-51*. The next table shows particulars regarding the cash on delivery parcels posted in each State for the year 1950-51.

CASH ON DELIVERY PARCELS POST : STATES, 1950-51.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Parcels posted '000	585	97	295	80	95	3	1,155
Value .. £'000	1,588	248	755	173	163	6	2,933
Revenue(a) £'000	104	20	57	17	14	..	212

(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 1946-47 to 1950-51 in comparison with the year 1938-39.

CASH ON DELIVERY PARCELS POST : AUSTRALIA.

Particulars.		1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
Parcels posted ..	'000	633	906	970	1,079	1,106	1,155
Value ..	£'000	783	1,097	1,843	2,361	2,697	2,933
Revenue(a) ..	£'000	86	126	138	157	188	212

(a) From commission and postage.

3. **Total Cost of Carriage of Mails.**—During 1950-51 the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows:—Inland mails—Road £1,490,581. Railway £763,832, Air £815,576; Coastwise mails—£34,453; Oversea mails—Sea £454,445, Air £1,135,180; Grand Total—£4,694,067.

4. **Transactions of the Dead Letter Offices.**—During the year 1950-51 there were, in the several States of Australia, 1,669,849 letters, post cards, and lettercards returned to writers or delivered, 209,866 destroyed in accordance with the Act, and 137,961 returned to other States or countries as unclaimed—a total of 2,017,676. Corresponding particulars for packets and circulars were—434,382, 230,370, 31,258 and 696,010. There were 2,713,686 articles handled in all, containing money and valuables amounting to £605,899.

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. 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 sterling area is £8 per month but varying conditions apply for remittance to countries outside the sterling area. A postal note, which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States, 1950-51*. Particulars regarding the business transactions in each State for 1950-51 are shown hereunder:—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, 1950-51.

State.	Money Orders.			Postal Notes.	
	Value Issued.	Value Paid.	Net Commission Received.	Value Issued.	Poundage Received.
	£'000.	£'000.	£	£'000.	£
New South Wales ..	20,929	21,233	99,066	5,152	99,923
Victoria ..	10,471	10,694	48,654	4,552	104,564
Queensland ..	6,042	5,724	28,761	1,161	25,752
South Australia ..	2,752	2,609	13,978	979	21,618
Western Australia ..	2,502	2,444	13,738	643	13,069
Tasmania ..	1,414	1,286	6,960	259	5,925
Australia ..	44,110	43,990	211,157	12,746	270,851

(iii) *Australia, 1938-39 and 1946-47 to 1950-51*. The next table shows the number and value of money orders and postal notes issued and paid in Australia in each of the years 1946-47 to 1950-51 compared with 1938-39.

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.
1938-39 ..	3,239	18,349	3,254	18,548	21,942	7,926	21,966	7,934
1946-47 ..	3,653	27,918	3,662	28,348	24,864	9,536	24,710	9,512
1947-48 ..	3,898	29,799	3,952	30,532	26,517	10,527	26,353	10,469
1948-49 ..	4,194	33,012	4,215	33,262	28,059	11,266	27,810	11,246
1949-50 ..	4,586	37,014	4,626	37,503	30,181	12,206	29,998	12,130
1950-51 ..	5,166	44,110	5,135	43,990	29,440	12,746	29,297	12,680

(iv) *Classification of Money Orders Issued and Paid.* Of the total money orders issued in Australia during 1950-51, 5,018,496 valued at £43,513,517 were payable in Australia, 10,330 (£29,425) in New Zealand, 101,286 (£378,814) in the United Kingdom and 35,960 (£188,485) in other countries. Of the total money orders paid in Australia during 1950-51, 4,998,249 (£43,279,573) were issued in Australia, 29,383 (£83,848) in New Zealand, 69,640 (£352,062) in the United Kingdom and 37,979 (£274,546) in other countries.

Money orders payable or issued in foreign countries, which have been sent from or to Australia through the General Post Office in London, are included in those payable or issued in the United Kingdom.

(v) *Postal Notes Paid.* The following table shows the number and value of postal notes paid in each State during 1950-51. Particulars regarding the number and value of postal notes issued and paid in each of the last five years have been given in the previous table.

POSTAL NOTES PAID : STATE OF ISSUE, 1950-51.

Issued in—	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Same State No. '000	9,167	5,014	1,982	1,137	1,006	471	18,777
Value £'000	4,531	2,374	911	536	468	186	9,006
Other States No. '000	1,174	849	708	161	435	7,193	10,520
Value £'000	519	391	317	84	93	2,270	3,674
Total No. '000	10,341	5,863	2,690	1,298	1,441	7,664	29,297
Value £'000	5,050	2,765	1,228	620	561	2,456	12,680

§ 3. Telegraphs.

1. *General.*—A review of the development of telegraph services in Australia up to 1921 appears in Official Year Book No. 15, p. 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 service throughout Australia have been effected, the entire system being subjected to intensive reorganization. The external circulation system of the Australian telegraph service has been considerably modified, and direct communication has been established between cities and towns which formerly were served through intermediate repeating centres.

Telephone subscribers may telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and the system 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 ended 30th June, 1951 was 9,264,799 or 27 per cent. of the total lodgments.

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 Flying Doctor Service of Australia can communicate by wireless with base stations.

The picturegram service between Melbourne and Sydney, which was established in 1929, but which was suspended during 1942, was restored and extended to Brisbane and Adelaide in 1949, to Perth in 1950 and to Hobart and Newcastle in 1951. The equipment installed at these points also permits the direct transmission and reception of overseas photo-telegrams. Portable picture-transmitting apparatus has been provided for use at country centres in New South Wales and Victoria and was first used for the opening of the 19th Federal Parliament at Canberra on 21st February, 1950.

Teletypewriter services (i.e., typewriting over electrical circuits), affording the great advantage of direct and instantaneous communication between points within the same building or separated by distances up to thousands of miles, and printergram services, connecting any business premises with the local telegraph office for the transmission and reception of telegrams, are available.

A direct radiotelegraph service was established between Australia and Portuguese Timor on 15th August, 1950, providing for the transmission of ordinary and urgent rate telegrams, letter telegrams and press telegrams between these countries.

2. Telegraph and Telephone Mileages.—The following table shows the combined single wire mileage for both telegraph and telephone purposes in each State as at 30th June, 1951. The lengths of conduits and pole routes are also shown.

TELEGRAPHS AND TELEPHONES : MILEAGE, 30th JUNE, 1951.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Cables—							
Exchange aerial, underground and submarine .. single wire miles '000	1,513	1,215	465	307	250	78	3,828
Trunk telephone and telegraph aerial, underground and submarine .. single wire miles '000	52	58	8	15	10	3	146
Total	1,565	1,273	473	322	260	81	3,974
Conduits .. duct miles '000	8	6	2	1	2	1	20
Aerial wires—							
Telephone, trunk and/or telegraph purposes .. single wire miles '000	138	91	113	63	49	18	472
Exchange and non-exchange service lines .. single wire miles '000	201	161	87	81	41	26	597
Total	339	252	200	144	90	44	1,069
Pole routes .. total miles '000	33	22	18	15	14	4	106

3. **Telegraph Offices and Telegrams Dispatched within Australia.**—(i) *States.* The following table shows, for each State in 1950-51, the number of telegraph offices (including railway telegraph offices), and 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:—

TELEGRAPH OFFICES, AND TELEGRAMS DISPATCHED. 1950-51.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Telegraph Offices(a) No.	3,147	2,425	1,891	926	996	550	9,935
Messages ('000)— Paid and Collect—							
Ordinary	10,446	6,961	4,747	2,350	2,599	728	27,831
Urgent	924	409	272	120	98	40	1,863
Press	101	50	42	40	49	11	293
Lettergram	23	17	14	12	18	7	91
Radiogram	47	4	43	48	56	1	199
Total	11,541	7,441	5,118	2,570	2,820	787	30,277
Unpaid—							
Service	326	157	195	57	78	34	847
Meteorological	591	276	386	1,538	453	99	3,343
Total	917	433	581	1,595	531	133	4,190
Grand Total	12,458	7,874	5,699	4,165	3,351	920	34,467

(a) At 30th June.

(ii) *Australia.* The numbers of telegraph offices, and of telegrams dispatched to destinations within Australia and to adjacent islands and to ships at sea, for each of the years 1938-39 and 1946-47 to 1950-51 respectively, were:—Telegraph offices—9,389, 9,458, 9,599, 9,701, 9,863 and 9,935; Telegrams dispatched—17,252,000, 33,729,000, 34,692,000, 35,647,000, 35,486,000 and 34,467,000

During the years 1938-39 to 1949-50 the volume of telegraph business more than doubled, but in 1950-51 a decrease of 3 per cent. was recorded on the figures for the previous year.

§ 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. A table showing the total single wire mileage used for telephone, trunk and/or telegraph purposes is shown in § 3 on page 156.

During 1950-51 the total number of telephones added to the post office system was 99,422, compared with 81,850 in 1949-50. With an average at 1st January, 1951, of 139 telephones per 1,000 of population, Australia continues to hold a high place amongst the countries of the world in respect of telephone density.

Seventy carrier wave telephone systems were installed during 1950-51 on trunk line routes serving capital cities and important provincial centres. The number of carrier systems now in service totals 569, representing a channel mileage of 317,720.

Seventeen automatic exchanges were brought into operation in metropolitan areas during the year, together with 6 country and 74 rural automatic exchanges. At 30th

June, 1951 there were 191 automatic exchanges in the metropolitan area and 323 in country districts to which 764,944 telephones were connected, representing 63 per cent. of the total number in use in Australia.

2. **Summary for States.**—Particulars relating to the telephone service in each State for the year ended 30th June, 1951 compared with 1939 will be found in the following table :—

TELEPHONE SERVICES : SUMMARY.
(Number.)

Particulars.	Year (30th June).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Exchanges ..	1939	2,010	1,680	1,053	579	653	358	6,333
	1951	2,182	1,728	1,217	642	701	381	6,851
Telephone Offices (in- cluding Exchanges)	1939	3,040	2,358	1,517	829	907	509	9,160
Lines connected ..	1951	3,248	2,450	1,763	975	956	536	9,928
	1939	189,915	150,570	61,650	45,224	26,032	14,144	487,535
	1951	330,368	269,826	116,314	74,457	47,743	25,380	864,088
Instruments con- nected	1939	257,246	208,230	82,226	60,451	35,830	18,013	661,996
	1951	465,893	381,809	157,212	103,609	66,841	34,042	1,209,406
(i) Subscribers' in- struments	1939	250,511	203,668	79,293	58,512	34,380	17,098	643,462
	1951	455,190	373,205	152,282	100,455	64,549	32,730	1,178,411
(ii) Public tele- phones	1939	4,223	2,573	1,775	1,017	926	562	11,076
	1951	5,833	3,900	2,431	1,438	962	669	15,233
(iii) Other local in- struments ..	1939	2,512	1,989	1,158	922	524	353	7,458
	1951	4,870	4,704	2,499	1,716	1,330	643	15,762
Instruments per 100 of population	1939	9.32	11.09	8.08	10.03	7.62	7.59	9.50
	1951	13.94	16.83	12.98	14.07	11.49	11.70	14.34

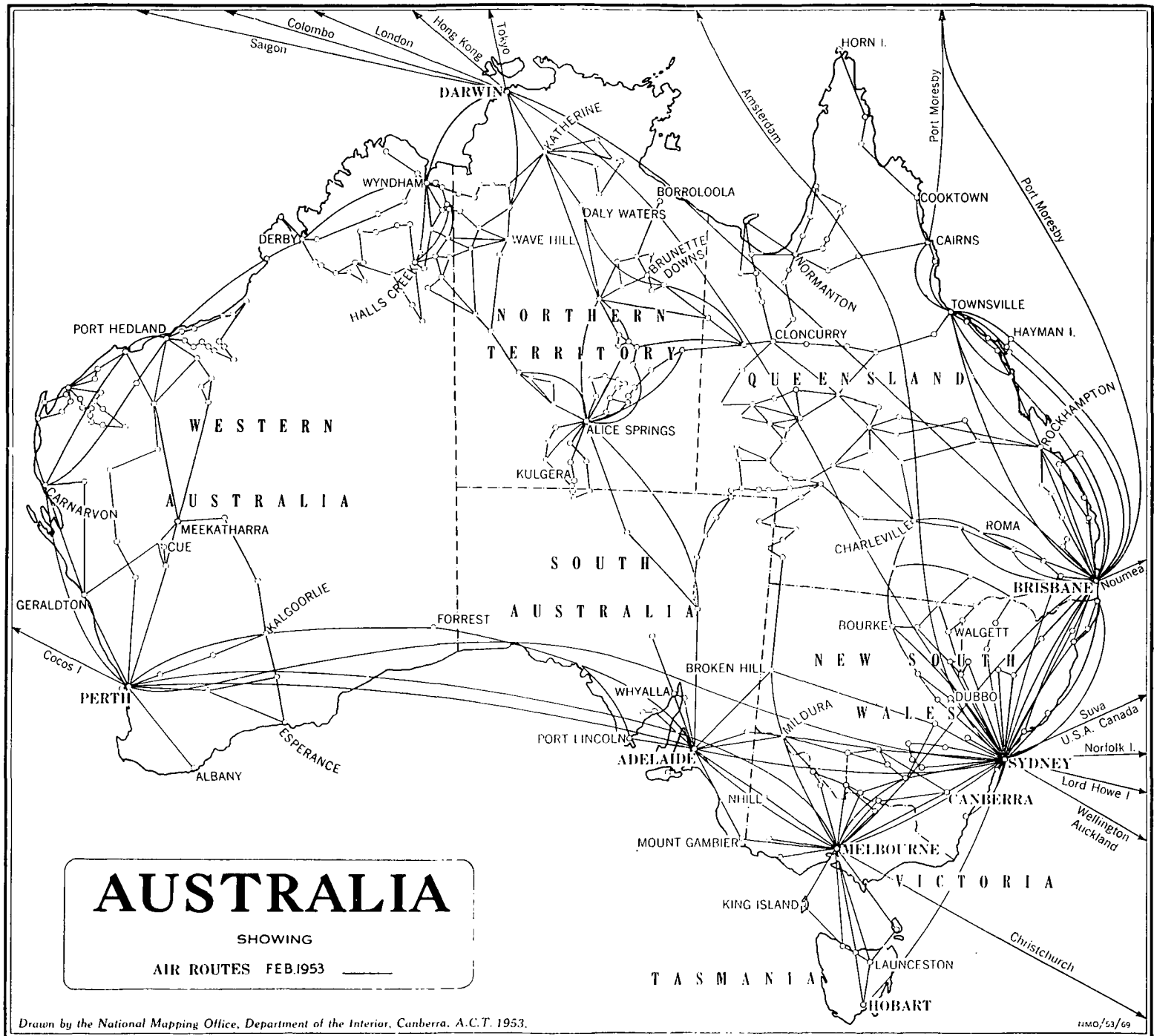
Of the total telephones (1,209,406) in service on 30th June, 1951, 448,849 or 37.11 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks.

3. **Subscribers' Lines and Calling-rates.**—The next table shows the number of subscribers' lines and the daily calling-rates at central, suburban and country telephone exchanges in the several States for 1950-51 :—

TELEPHONES : SUBSCRIBERS' LINES AND DAILY CALLING-RATES, 1950-51.

State.	Central Exchanges.		Suburban Exchanges.		Country Exchanges.	
	Sub- scribers' Lines Connected.	Average Outward Calls Daily per line.	Sub- scribers' Lines Connected.	Average Outward Calls Daily per line.	Sub- scribers' Lines Connected.	Average Outward Calls Daily per line.
New South Wales ..	29,513	11.09	186,199	3.90	119,060	1.80
Victoria ..	19,041	12.21	146,534	4.02	88,781	1.50
Queensland ..	9,420	12.67	44,430	3.27	53,713	2.21
South Australia ..	4,943	14.77	38,225	2.85	28,776	1.30
Western Australia ..	8,829	7.92	18,253	3.72	15,534	1.46
Tasmania ..	4,931	5.15	3,944	2.57	14,620	1.79

A comparison of the average daily calling-rates for each class of exchange shows that South Australia registered the greatest number of calls per line at central exchanges, Victoria at suburban exchanges and Queensland at country exchanges.



4. **Effective Paid Local Calls.**—The numbers of effective paid local calls from subscribers and public telephones in the various States during the years ended 30th June, 1950 and 1951 appear hereunder.

TELEPHONES : NUMBER OF EFFECTIVE PAID LOCAL CALLS.
(‘000.)

State.	Subscribers' Calls.		Calls from Public Telephones.		Total Calls.	
	1949-50.	1950-51.	1949-50.	1950-51.	1949-50.	1950-51.
New South Wales ..	341,967	358,669	42,464	44,493	384,431	403,072
Victoria ..	241,313	252,938	23,222	25,099	264,535	278,037
Queensland ..	97,360	102,025	8,884	9,555	106,244	111,580
South Australia ..	57,994	60,511	7,449	7,767	65,443	68,278
Western Australia ..	44,721	46,750	3,601	4,270	48,322	51,020
Tasmania ..	18,021	17,969	1,534	1,580	19,555	19,549
Australia ..	801,376	838,862	87,154	92,674	888,530	931,536

In 1938-39 subscribers' calls numbered 551,511,000, calls from public telephones 44,683,000, and total local calls 596,194,000.

5. **Trunk Line Calls and Revenue.**—In the next table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the year 1950-51 compared with 1938-39

TELEPHONES : TRUNK LINE CALLS AND REVENUE.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Total Calls ('000)—							
1938-39 ..	14,401	11,198	7,306	4,166	2,311	1,770	41,152
1950-51 ..	24,978	20,262	12,305	7,664	3,881	3,412	72,502
Total Revenue (£)—							
1938-39 ..	739,472	529,190	412,811	196,780	126,141	73,634	2,078,028
1950-51 ..	2,827,546	2,066,906	1,464,630	834,211	461,371	293,505	7,948,169
Average Revenue per Call (pence)—							
1938-39 ..	12.32	11.34	13.56	11.34	13.09	9.58	12.12
1950-51 ..	27.17	24.48	28.57	26.12	28.54	20.64	26.31

The number of trunk line calls during 1950-51 increased by more than 4 million, or 6 per cent., compared with the figures for the previous year, whilst the average revenue per call increased by 14.2 per cent.

6. **Oversea Telephone Services.**—During the year 1950-51 radio-telephone services were established or re-opened between Australia and Hong Kong, Malaya, Manus Island, the Philippine Islands and Venezuela, bringing the number of countries with which radio-telephone communication is available to 61. Service is also provided to certain trans-Atlantic liners, ships off the Australian coast, H.M.A.S. ships, and H.M.N.Z. ships when cruising in Australian waters.

The amount of traffic handled over the radio-telephone services continued to increase rapidly. During 1950-51 the number of calls connected was 39,080, comprising 20,669 originating in Australia and 18,411 incoming calls.

7. **Revenue from Telephones.**—Particulars regarding the revenue from telephone services are included in tables in § 1.

8. **World Telephone Statistics, 1952.**—Information derived, in the main, from statistics compiled by the American Telephone and Telegraph Company shows that at 1st January, 1952 there were more than 80,000,000 telephones in use throughout the world. The United States of America, with almost 46,000,000, possessed by far the greatest proportion of these (58 per cent.). The United States of America also had the highest recorded number of instruments per 100 of population (*viz.* 29). Figures for other leading countries were as follows:—Sweden 25, Canada 22, Switzerland 20, New Zealand 20, Denmark 17. By June, 1952 the number of telephones in Australia per 100 persons had risen to 15.0.

§ 5. Cable and Radio Communication.

1. **First Cable Communication with the Old World.**—In earlier issues of the Official Year Book will be found a detailed account of the connexion of Australia with the Old World by means of submarine cables. (*See* No. 6, p. 770.)

2. **General Cable Service.**—Descriptions of the various cable services between Australia and other countries are given in Official Year Book No. 22, pp. 335-6.

3. **Merging of Cable and Wireless Interests.**—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 which examined the situation that had arisen as the result of the competition of the beam wireless with the cable services, the Imperial and International Communications Limited (since renamed Cable and Wireless Ltd.) was formed and took over the operations of the Pacific Cable Board and the control of the Eastern Extension Cable Company and the Marconi Wireless Company. For further developments, leading eventually to the establishment of the Overseas Telecommunications Commission, *see* Official Year Book No. 37, pp. 220-4.

4. **Oversea Cable and Radio Traffic.**—(i) *States.* The number of telegrams received from and dispatched overseas in each State during 1950-51 is shown hereunder:—

INTERNATIONAL TELEGRAMS, 1950-51.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Number received ..	618,936	466,491	70,814	68,915	76,358	20,227	1,321,741
„ dispatched	685,555	482,224	62,553	77,818	66,314	21,110	1,395,574
Total ..	1,304,491	948,715	133,367	146,733	142,672	41,337	2,717,315

(ii) *Australia.* (a) *Number of Telegrams.* The following table shows the number of international telegrams received from and dispatched overseas during the years 1938-39 and 1940-47 to 1950-51:—

INTERNATIONAL TELEGRAMS: AUSTRALIA.

Particulars.	1938-39.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
Number received ..	716,007	944,115	1,047,076	1,123,019	1,233,102	1,321,741
„ dispatched ..	745,754	987,260	1,023,396	1,123,020	1,242,376	1,395,574
Total ..	1,461,761	1,931,375	2,070,472	2,246,039	2,475,478	2,717,315

(b) *Number of Words, 1950-51.* The following statement shows particulars of the international business, originating and terminating in Australia, transacted over the cable and wireless services during the year ended 30th June, 1951.

INTERNATIONAL TELEGRAMS, AUSTRALIA, 1950-51.
(^{'000} Words.)

Class of Traffic.	Number of Words Transmitted to—			Number of Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary(a) ..	5,222	6,564	11,786	4,632	5,491	10,123
Government(a) ..	1,065	1,765	2,830	2,144	2,365	4,509
Greetings ..	1,449	865	2,314	1,430	840	2,270
Press (including deferred press) ..	3,936	3,631	7,567	8,459	5,369	13,828
Daily letter ..	8,340	9,981	18,321	7,662	8,527	16,189
Other ..	..	28	28	..	56	56
Total ..	20,012	22,834	42,846	24,327	22,648	46,975

(a) Includes code telegrams.

Words transmitted to "Other places" included 3,542,328 to the United States of America and 6,248,162 to New Zealand and the Pacific Islands. Words received from "Other places" included 3,434,184 from the United States of America and 4,596,041 from New Zealand and the Pacific Islands.

5. **Coast Stations.**—There are 26 wireless stations established at points around the Australian coast and 7 about the coast of Papua and New Guinea. During 1950-51 these stations handled 500,188 messages (379,686 paying, 16,274 service and 104,228 weather) with a total of 7,950,511 paying words. For further information see *Transport and Communication Bulletin* No. 42, 1950-51.

6. **Radio-communication Stations Authorized.**—(i) *States and Territories, 30th June, 1951.* The following table shows particulars of the different classes of radio-communication stations authorized at 30th June, 1951 in each State and Territory of the Commonwealth. Figures relate to radio-communication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners' are shown in § 6, para. 3 and 4, following.

RADIO-COMMUNICATION STATIONS AUTHORIZED, 30th JUNE, 1951.

State or Territory for which Authorized.	Transmitting and Receiving.					Receiving Only.			Grand Total.	
	Aero-nautical.(a)	Coast.(b)	Land.(c)	Mobile (General).(d)	Miscellaneous.	Total.	Land.(c)	Mobile (General).(d)		Total.
New South Wales	11	2	371	872	26	1,282	75	36	111	1,393
Victoria ..	9	5	233	724	13	984	197	138	335	1,319
Queensland ..	11	6	309	243	8	577	64	25	89	666
South Australia ..	8	2	146	248	3	407	1	..	1	408
Western Australia	13	6	288	110	5	422	31	6	37	459
Tasmania ..	5	4	48	57	4	118	1	..	1	119
Northern Territory	5	1	142	3	..	151	2	..	2	153
Aust. Cap. Terr.	1	..	12	55	1	69	..	2	2	71
Total, Australia	63	26	1,549	2,312	60	4,010	371	207	578	4,588
Papua-New Guinea	7	7	198	49	..	261	..	..	..	261
Grand Total ..	70	33	1,747	2,361	60	4,271	371	207	578	(e)4,849

(a) Ground stations (aeradio stations) for communication with aircraft stations. (b) Ground stations for communication with ship stations. (c) Stations established at fixed locations on land for the conduct of point-to-point services and for communication with mobile stations. (d) Stations installed in motor vehicles and small harbour vessels not falling within the definition of ship stations or aircraft stations, and stations comprising small portable apparatus used for various purposes. (e) Excludes 218 aircraft stations, 656 ship stations and 146 "other" stations which cannot be classified according to States, etc.

(ii) *Australia and Papua-New Guinea 30th June, 1947 to 1951.* The following table shows the total number of radio-communication stations authorized in Australia and Papua-New Guinea at 30th June of the years 1947 (the earliest date for which the present classification is available) to 1951.

RADIO-COMMUNICATION STATIONS AUTHORIZED : AUSTRALIA AND PAPUA-NEW GUINEA.

At 30th June—	Transmitting and Receiving.					Receiving only.		Ship.	Air-craft.	Other.	Grand Total.
	Acro-nautical.	Coast.	Land.	Mobile (General).	Miscellaneous.	Land.	Mobile (General).				
1947 ..	59	20	788	827	26	326	233	219	87	..	2,585
1948 ..	59	24	1,009	1,208	68	331	239	345	168	..	3,471
1949 ..	69	28	1,325	1,717	47	330	323	520	205	..	4,504
1950 ..	68	29	1,517	2,011	49	375	311	617	226	139	5,342
1951 ..	70	33	1,747	2,361	60	371	207	656	218	146	5,869

See notes to previous table.

§ 6. Broadcasting and Television.

1. **The Australian Broadcasting Control Board.**—The Australian Broadcasting Act, 1942–1946 was amended in 1948 to provide for the establishment of the Australian Broadcasting Control Board. The amending Act was assented to on 6th December, 1948, and subsequently proclaimed to commence on 15th March, 1949.

The Board operates under the Ministerial jurisdiction of the Postmaster-General, and its principal functions, as set out in Section 6K of the Act, are to ensure:—(a) the provision of services by broadcasting stations, television stations and facsimile stations, and services of a like kind, in accordance with plans from time to time prepared 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 such stations to serve the best interests of the general public.

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

In the exercise of its functions in respect of programmes, the Board is required—(a) to consult the Australian Broadcasting Commission and representatives of licensees of commercial broadcasting stations in relation respectively to the programmes of the national and commercial broadcasting services; and (b) in particular to—(i) ensure reasonable variety of programmes; (ii) ensure that divine worship or other matter of a religious nature is broadcast for adequate periods and at appropriate times, and that no matter which is not of a religious nature is broadcast by a station during any period during which divine worship or other matter of a religious nature is broadcast by that station; (iii) ensure that facilities are provided on an equitable basis for the broadcasting of political or controversial matter; (iv) determine the extent to which advertisements may be broadcast in the programme of any commercial broadcasting station; and (v) fix the hours of service of broadcasting stations, television stations and facsimile stations.

The Board is empowered to make recommendations to the Minister as to the exercise by him of any power under Division 1 of Part III. of the Act, which prescribes the conditions under which licences are granted to commercial broadcasting stations.

Under the Television Act (assented to on 20th March, 1953) the Minister is required to take into consideration any recommendations made by the Board as to the exercise of his power to grant licences for commercial television stations.

The Board also has power, subject to the directions of the Minister—(a) to determine the situation and operating power of any broadcasting station, television station or facsimile station; (b) to determine the frequency of each broadcasting station, television station or facsimile station, within bands of frequencies notified to the Board by the Postmaster-General as being available for such stations; (c) after consultation with the Commission to determine the conditions upon which a commercial broadcasting station may broadcast a programme of the National Broadcasting Service; and (d) to regulate the establishment of networks of broadcasting stations and the making of agreements or arrangements by licensees of commercial broadcasting stations for the provision of programmes or the broadcasting of advertisements.

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.

In addition to prescribing the functions of the Board as set out in section 61 of the Act, the amending Act of 1948 also transferred to the Board certain powers which had previously been exercised by the Minister in connexion with the general control of the broadcasting service, particularly in relation to the operations and programmes of commercial stations.

Section 61 of the Act provides that the Board shall consist of three members appointed by the Governor-General, one of whom shall be chairman. The Board was constituted on 15th March, 1949.

Section 61 of the Act provides that 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 a commercial broadcasting station or manufactures or deals in equipment for the transmission or reception of broadcasting, television or facsimile programmes; (b) is a member of the governing body of any company or other association of persons which is the licensee of a commercial broadcasting station; or (c) is the licensee of a commercial broadcasting station.

2. **The Australian Broadcasting Commission.**—(i) *General.* The Australian Broadcasting Commission was established under the Australian Broadcasting Commission Act 1932 to take over control of national broadcasting with the object of raising the standards of broadcasting in Australia. Control of the Australian Broadcasting Commission is vested in seven Commissioners (originally five), one of whom is an officer of the Treasury and one an officer of the Postmaster-General's Department, and its income is derived from an annual government grant. (For information about the original method of finance see earlier issues of the Official Year Book.) Technical services are provided by the Postmaster-General's Department.

Broadcasting in Australia is a compromise between the system in operation in Great Britain and that in the United States of America. The Australian Broadcasting Commission aims to provide the best possible majority entertainment and also to cater for the needs of important minorities. 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 programmes during 1951-52 was as follows:—Music—Classical and light classical, 21.8 per cent., light music, 18.5 per cent., total music, 40.3 per cent.; Variety, 16.3 per cent.; Drama and Features, 4.4 per cent.; Children's Session, 2.0 per cent.; Youth Education, 3.2 per cent.; Talks, 6.7 per cent.; Parliament, 4.0 per cent.; Religious Broadcasts, 3.7 per cent.; News, 7.7 per cent.; Sport, 5.0 per cent.; Rural Broadcasts, 1.8 per cent.; Non-departmental, 4.9 per cent.

(ii) *Music.* The Australian Broadcasting Commission is to-day the biggest concert-giving organization in the Commonwealth, and the immense growth of interest in music in this country is illustrated by the fact that Australian listeners in increasing numbers now welcome the opportunity of hearing fine music on the air and in the concert hall, and have magnificently supported the presentation of orchestral concerts and of recitals by the best musicians from their own country and from overseas. In 1936 small regular

orchestras were formed by the Australian Broadcasting Commission in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart, and from these foundations have grown our present orchestras. Those in Sydney and Melbourne measure up to first-class orchestras overseas, whilst those in the other capital cities are showing rapid improvement and are now the equal of those in many places of comparable size in Europe or America. Until 1946 the cost of these orchestras was met solely by the Australian Broadcasting Commission, but since then State Governments and major municipal bodies in all States have agreed to contribute towards the expense.

The close co-operation between a broadcasting organization, city authorities and State Governments to establish and maintain symphony orchestras is unique in the world.

In 1952, the Australian Broadcasting Commission organized 504 public orchestral concerts (including 130 free concerts for school children and 50 free concerts for adults) and 200 public recitals by famous artists throughout the Commonwealth. Of these concerts, 136 were given outside the capital cities, including 68 free orchestral concerts for school children.

The policy of the Australian Broadcasting Commission so far as individual artists are concerned has always been to develop local talent and at the same time give its audiences the opportunity of hearing famous international musicians.

(iii) *Drama and Features.* Drama programmes are designed to give listeners opportunities, which they might not otherwise have, of hearing the great plays of all nations 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 Saturday and Monday evenings, and special series of longer plays are also given at various times during the year.

In recent years the technique of the feature programme has also been developed in this country. 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, and 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.

(iv) *Youth Education.* The Australian Broadcasting Commission 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 1952 was 7,682 or nearly 73 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 XI.—Education, on this subject.)

(v) *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. The most complete of these built-up programmes is the documentary, in which radio goes into the field to analyse or to describe, using the actual sounds and voices recorded on location.

Controversial topics are covered in two sessions—the weekly discussion broadcast, in which the main conflicting points of view on a current topic are discussed by competent authorities, and the "Nation's Forum of the Air", using the debating technique with questions in person from the studio audience and telephoned from listeners. Another outstanding session is "News Review", containing at least five 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.

(vi) *Rural Broadcasts.* The Rural Broadcasts Department was commenced in 1945 to serve the needs of country listeners. It has proved to be of great value to men and women on the land throughout Australia, by giving them the latest market reports and information on general conditions, and by keeping them informed on rural development overseas. The interstate market report is the only Australia-wide market service available to the Australian rural population. Programmes are exchanged with radio organizations in England, Canada, the United States of America and elsewhere, and several visits to Australia by well-known farm radio personalities have also been arranged. The department has encouraged the work of Junior Farmers' Clubs in Australia, and has sponsored competitions for members in connexion with the Royal Agricultural Shows in Sydney and Melbourne.

(vii) *News.* On 1st June, 1947, the Australian Broadcasting Commission's independent News Service came into full operation. Since that date the Commission has collected the news for its bulletins independently of the press and it now has, in addition to a large staff throughout Australia, a London news room for the selection and transmission of overseas news secured from the great news agencies. Nine national news bulletins are broadcast daily, and are followed by State bulletins of news of State interest. In addition, two or more regional bulletins are broadcast by local stations in country areas on most days of the week, and for remote country districts special bulletins are broadcast on shortwave. For overseas listeners 19 bulletins daily are broadcast through the Radio Australia transmitters. These bulletins, which are given in English, French and Malay, are directed to every continent, but concentrate on the Pacific and Asian areas. The Australian Broadcasting Commission also rebroadcasts for Australian listeners, by arrangement with the British Broadcasting Corporation, two British Broadcasting Corporation news bulletins each day.

(viii) *Other Activities.* The broadcasting of the proceedings of Federal Parliament commenced as a regular service in July, 1946, and Australian listeners are now able to hear debates from the House of Representatives and from the Senate. At present these broadcasts are confined to one of the two transmitters in each capital city, but it is hoped that eventually country listeners will also be able to hear them.

The National Children's Session, presented seven days a week, is composed of over 30 programme items, including stories, music, games, and items about art, literature and natural history. There is a children's newsreel and a Brain's Trust, discussing, through children, more than 100 topics each year. 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, although fun and the future are not overlooked.

In co-operation with the various religious denominations, the Australian Broadcasting Commission 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 Australian Broadcasting Commission's variety and sporting programmes provide the lighter side of the service. In its variety sessions the Australian Broadcasting Commission 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 Australian Broadcasting Commission's dance bands in Sydney and Melbourne are regarded as being two of the most outstanding bands in Australia.

The Australian Broadcasting Commission's coverage of sport at home and abroad is comprehensive. On Saturday afternoons the sporting panel provides listeners with the progress results and scores, and also 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 Australian Broadcasting Commission commentators. In covering events overseas, the Australian Broadcasting Commission is indebted to the British Broadcasting Corporation for its collaboration in Great Britain, and to the New Zealand Broadcasting Service for events in New Zealand.

(ix) *Transmission Services.* In July, 1953, the Australian Broadcasting Commission's home programmes for Australian listeners were transmitted by 44 medium-wave and 8 short-wave stations, and its overseas programmes were transmitted by 4 short-wave stations, two of which are of 100 kW. power and one of 50 kW. The 56 stations in operation at 1st July, 1953 are shown on page 169. The domestic short-wave stations are used for giving service to listeners in the sparsely populated parts of Australia, and in New Guinea and adjacent islands, while the other short-wave stations are directed to listeners overseas. Thirty of the medium-wave stations are situated outside the capital cities, and further regional stations are to be constructed. When these additions have been made, the medium-wave and short-wave stations together will provide for clear reception of the Commission's programmes in practically every part of Australia.

3. *Broadcast Licences Issued.*—(i) *States and Territories, 30th June, 1951.* The following table shows the number of broadcast licences issued in each State and Territory of the Commonwealth at 30th June, 1951.

BROADCAST LICENCES ISSUED, 30th JUNE, 1951.

State or Territory in which Issued.	Broadcasting.		Broadcast Listeners.		Experimental.
	National Stations. (a)	Commercial Stations.	One Receiver.	More than one Receiver.	
New South Wales	12	35	674,576	74,195	1,004
Victoria	7	19	522,502	63,891	931
Queensland	12	20	270,587	17,432	314
South Australia	4	8	203,473	39,546	313
Western Australia	7	12	139,669	19,767	184
Tasmania	3	8	68,149	9,594	94
Northern Territory	2	..	1,222	70	14
Australian Capital Territory	1	1	4,656	331	12
Total	(b)50	103	1,884,834	224,826	(c)2,897

(a) Includes Short-wave Stations: New South Wales 1; Victoria, 3; Queensland 2; Western Australia 2. (b) Includes 1 medium-wave and 1 short-wave station in Papua. (c) Includes 31 stations operated in Papua-New Guinea.

Of broadcast listeners' licences in respect of one receiver, 1,039,287 or 55.14 per cent. were held by persons situated in metropolitan areas and 845,547 or 44.86 per cent. by persons in country areas.

(ii) *Broadcast Listeners' Licences, 30th June, 1925 to 1951.* The following table shows the number of broadcast listeners' licences issued at 30th June, 1925, 1930, 1935, 1939, 1940 and 1946 to 1951:—

BROADCAST LISTENERS' LICENCES ISSUED.

At 30th June—	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (c)	W. Aust.	Tasmania.	Australia. (b)
1925	33,719	19,243	1,061	3,118	3,417	501	61,059
1930	111,080	139,887	23,263	25,671	5,715	6,032	311,648
1935	278,648	236,886	67,369	76,365	41,176	20,088	720,532
1939	433,029	327,579	133,217	117,307	79,262	39,392	1,129,786
1940	458,155	348,158	151,110	124,891	87,764	42,182	1,212,260
1946(d)	575,864	415,785	191,186	164,724	106,529	51,992	1,506,080
1947	679,505	499,944	228,066	180,909	121,149	61,674	1,771,247
1948	699,250	505,106	239,342	197,326	128,703	63,080	1,832,816
1949	706,452	531,722	261,054	212,416	139,290	68,088	1,919,022
1950	748,268	557,556	274,279	227,911	149,328	72,286	2,029,628
1951	753,758	586,393	288,019	244,311	159,436	77,743	2,109,660

(a) Includes Australian Capital Territory. (b) Includes Papua. (c) Includes Northern Territory. (d) Commencing in July, 1942. Licences for receivers in excess of one are included.

4. **Broadcasting.**—(i) *The National Broadcasting Service.* (a) *Transmitting Stations.* The technical services for the National Broadcasting System are provided by the Postmaster-General's Department, and the programmes by the Australian Broadcasting Commission (see page 165).

At 1st July, 1953, the National Broadcasting System of Australia comprised 53 transmitting stations as follows:—

Medium-wave Stations—

2CN and 2CY Canberra, 2BL and 2FC Sydney, 2CO Corowa, 2CR Cummoek, 2LG Lithgow, 2NA and 2NC Newcastle, 2NB Broken Hill, 2NR Grafton, 2NU Manilla, 2TR Taree, 3AR and 3LO Melbourne, 3GI Sale, 3WV Dooen, 4QG and 4QR Brisbane, 4AT Atherton, 4QB Pialba, 4QL Longreach, 4QN Townsville, 4QA Mackay, 4GM Gympie, 4QS Dalby, 4QY Cairns, 4RK Rockhampton, 4SO Southport, 5AN and 5CL Adelaide, 5CK Crystal Brook, 5LN Port Lincoln, 5AL Alice Springs, 5DR Darwin, 6WF and 6WN Perth, 6GF Kalgoorlie, 6GN Geraldton, 6WA Wagin, 7ZL and 7ZR Hobart, 7NT Kelso, 9PA Port Moresby, Papua.

Short-wave Stations—

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

With the exception of the short-wave stations, all transmitters operate in the medium frequency broadcast band 540 to 1,600 kilocycles per second. From the short-wave stations, using frequencies within the band 3 to 30 megacycles per second, service is given to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, Northern Territory, and Northern and Central Queensland.

In addition to the short-wave stations under the National Broadcasting System there are also three short-wave stations at Shepparton, Victoria (VLA, VLB, VLC) for oversea services only.

Programmes for country regional stations are normally relayed from the central studio of the nearest capital city, high quality programme transmission lines being used for the purpose. A number of programme channels is utilized to link national broadcasting stations in the capital cities of Australia, and frequently this system is extended to connect both the national and commercial broadcasting stations.

(b) *Broadcast Listeners' Licences.* (1) Consequent upon an amendment to the Broadcasting Act which was proclaimed to take effect from 1st January, 1952, the fee payable for a broadcast listener's licence or renewal thereof is:—Zone 1, £2; Zone 2, £1 8s. That portion of the Act relating to the payment of additional fees for radio receivers in excess of one was repealed, and the licence now applies to every broadcast receiver which is in possession of the holder of the licence or of a member of his family at the address specified in the licence and/or ordinarily kept at that address or installed in a vehicle which is ordinarily kept at that address while not in use.

(2) Free licences are granted to blind persons and to schools. Invalid and age pensioners who live alone or with another such pensioner are required to pay only one-quarter the ordinary fee.

Zone 1 is the area within 250 miles of a National Broadcasting Station. Zone 2 is the remainder of the Commonwealth.

(c) *Financial Operations.* Since the amendment to the Australian Broadcasting Act, assented to on 6th December, 1948, the Australian Broadcasting 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 all costs, charges, expenses, etc., incurred by the Commission in the exercise of its powers and functions under the Act are defrayed. For particulars of the financial operations of the Commission see Chapter XVII.—Public Finance.

(ii) *Commercial Broadcasting Stations.* The services of other broadcasting stations are conducted by private enterprise under licence from the Postmaster-General. Licences are granted on conditions which ensure satisfactory alternative programmes for listeners. The fee for a broadcasting station licence is £25 per annum, plus one-half of one per cent. of the gross earnings from the operations of a station which has made a profit in the year preceding. The maximum initial period of a licence is three years, and it is renewed for a period of one year at the discretion of the Postmaster-General. Licensees of these stations rely for their income on revenue received from the broadcasting of advertisements and other publicity. The number of these stations in operation at 30th June, 1952, was 103 and there are other stations in prospect.

(iii) *Radio Inductive Interference.* The Postmaster-General's Department takes active measures to suppress, so far as possible, interference with broadcast reception resulting from the radiations of energy from electrical machinery and appliances. During the year 1950-51, 7,577 instances of interfering noises were eliminated with the co-operation of the owners of the offending equipment.

(iv) *Prosecutions under the Wireless Telegraphy Act.* During the year 1950-51, 2,991 persons were convicted for using unlicensed broadcast receiving equipment. The total fines and costs amounted to £7,608.

5. **Television.**—Under the Television Act 1953, the Postmaster-General may establish television stations or may grant licences for commercial television stations. No television stations have yet been established. Further reference to television appears in para. 1 above.