

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 cubical 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 a ton 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 primarily to vessels engaged in normal trade (i.e., carrying part or full cargo for civil purposes), and are strictly comparable with pre-war figures.

§ 2. Oversea Shipping.

1. Total Movement.—The following table shows the number of entrances of oversea steam and motor vessels and sailing vessels (including those with auxiliary power) into Australian ports, and the aggregate net tonnage, during each of the years 1938-39 and 1941-42 to 1949-50:—

OVERSEA SHIPPING : ENTRANCES OF VESSELS DIRECT, AUSTRALIA.

Year.	Steam and Motor.		Sailing.		Total.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
1938-39	1,725	6,684	151	27	1,876	6,711
1941-42	1,248	5,166	28	8	1,276	5,174
1942-43	943	3,820	13	4	956	3,824
1943-44	1,085	4,482	9	2	1,094	4,484
1944-45	1,051	4,480	8	4	1,059	4,484
1945-46	1,140	5,260	6	3	1,146	5,263
1946-47	1,187	5,183	15	3	1,202	5,186
1947-48	1,448	6,075	22	8	1,470	6,083
1948-49	1,696	7,475	10	1	1,706	7,476
1949-50	1,931	8,715	11	1	1,942	8,716

The average tonnage per vessel entered has risen from 3,577 tons per vessel in 1938-39 to 4,488 tons in 1949-50.

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, for each year from 1921-22 to 1930-31 in Official Year Book No. 25, p. 189, and for each of the years 1931-32 to 1937-38 in Official Year Book No. 34, p. 81.

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 years 1948-49 and 1949-50 :—

OVERSEA SHIPPING : ENTRANCES AND CLEARANCES OF VESSELS, DIRECT, STATES.

State or Territory.	1948-49.				1949-50.			
	Entrances.		Clearances.		Entrances.		Clearances.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales	491	1,931	477	1,885	506	2,137	551	2,293
Victoria ..	323	1,465	268	1,214	396	1,829	349	1,641
Queensland ..	264	993	308	1,094	264	866	322	1,133
South Australia ..	139	585	125	513	194	845	141	610
Western Australia	458	2,381	572	2,713	545	2,901	573	2,868
Tasmania ..	22	105	23	106	25	114	20	95
Northern Territory	9	16	7	12	12	24	9	22
Total ..	1,706	7,476	1,780	7,537	1,942	8,716	1,965	8,662

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.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
NET TONNAGE ENTERED ('000).							
United Kingdom and European Countries	Cargo	1,878	795	943	1,130	2,060	3,252
	Ballast	121	18	2	6	45	77
New Zealand (a)	Cargo	767	317	302	303	442	565
	Ballast	242	188	224	223	128	197
Asiatic Countries and Pacific Islands	Cargo	2,206	2,071	1,984	2,288	2,778	3,250
	Ballast	256	445	426	933	928	429
Africa (a)	Cargo	44	360	370	273	236	277
	Ballast	123	3	47	88	133	33
North and Central America	Cargo	1,059	1,024	861	823	693	602
	Ballast	..	12	1	3	10	8
South America	Cargo	10	30	26	11	21	26
	Ballast	5	..	..	2	2	..
Total ..	Cargo	5,964	4,597	4,486	4,828	6,230	7,972
	Ballast	747	666	700	1,255	1,246	744
	..	6,711	5,263	5,186	6,083	7,476	8,716

NET TONNAGE CLEARED ('000).							
United Kingdom and European Countries ..	Cargo	2,778	1,205	1,643	1,996	2,785	2,767
	Ballast	13	7	17	..	54	78
New Zealand (a)	Cargo	901	502	575	565	722	806
	Ballast	37	70	75	11	52	36
Asiatic Countries and Pacific Islands	Cargo	1,687	1,548	1,387	1,601	1,786	2,032
	Ballast	743	889	839	980	1,499	2,205
Africa (a)	Cargo	172	98	142	172	138	190
	Ballast	6	..	4	3	25	47
North and Central America	Cargo	440	620	409	373	392	391
	Ballast	46	408	108	144	79	83
South America	Cargo	12	3	9	..	5	23
	Ballast	..	80	12	..	..	4
Total ..	Cargo	5,990	3,976	4,165	4,707	5,828	6,209
	Ballast	845	1,454	1,055	1,138	1,709	2,453
	..	6,835	5,430	5,220	5,845	7,537	8,662

(a) See explanation above.

4. Nationality of Oversea Shipping.—Due to war conditions, the proportion of shipping of British nationality progressively declined from 72.82 per cent. 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 1949-50 the proportion of British shipping entered was 69.54 per cent. and of American 5.35 per cent.

Particulars of the nationality of oversea shipping which entered Australia during the five years ended 30th June, 1950 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.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
BRITISH—						
Australian	331	308	153	86	218	250
Canadian	20	106	47	48	69	41
New Zealand	563	89	109	104	147	243
United Kingdom	3,744	3,024	3,537	3,988	4,956	5,344
Other British	229	57	107	202	123	183
In Cargo	4,379	3,074	3,420	3,588	4,592	5,559
In Ballast	508	510	533	840	921	502
Total British	4,887	3,584	3,953	4,428	5,513	6,061
Percentage of total	72.82	68.10	76.22	72.79	73.74	69.54
FOREIGN—						
Danish	55	3	17	50	99	143
Dutch	291	132	225	244	269	286
French	108	37	63	76	80	129
German	141	..	..	..	..	..
Italian	68	..	15	9	162	161
Japanese	330	10	..	..	..	..
Norwegian	325	213	218	206	489	690
Swedish	124	116	119	..	151	147
United States of America	175	985	437	571	356	466
Other Foreign	207	183	139	499	357	633
In Cargo	1,585	1,523	1,066	1,240	1,638	2,413
In Ballast	239	156	167	415	325	242
Total Foreign	1,824	1,679	1,233	1,655	1,963	2,655
Percentage of total	27.18	31.90	23.78	27.21	26.26	30.46
In Cargo	5,964	4,597	4,486	4,828	6,230	7,972
Percentage of total	88.87	87.35	86.50	79.37	83.33	91.46
In Ballast	747	666	700	1,255	1,246	744
Percentage of total	11.13	12.65	13.50	20.63	16.67	8.54
Grand Total	6,711	5,263	5,186	6,083	7,476	8,716

The Australian tonnage which entered Australia from overseas during the year 1949-50 represented 2.87 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Island trade.

The proportion of oversea shipping tonnage which entered Australia in cargo ranged, in the years shown, between about 80 per cent. and 90 per cent., the lowest percentage being 79.37 in 1947-48 and the highest 91.46 in 1949-50. The proportion of shipping which cleared in cargo, however, has declined from 87.64 per cent. in 1938-39 to 71.68 per cent. in 1949-50, 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 1946-47 to 1949-50 compared with 1938-39. Warships are excluded from the table.

TOTAL SHIPPING : ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA.

Port of Entry.	1938-39.		1946-47.		1947-48.		1948-49.		1949-50.	
	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	3,628	5,837	3,750	6,225	4,142	7,590	3,927	8,149
Kembla ..	850	1,225	361	932	351	928	335	757	403	971
Newcastle ..	4,273	5,099	2,399	3,293	2,320	3,430	2,367	3,411	2,119	3,190
<i>Victoria—</i>										
Melbourne ..	3,384	8,537	1,821	4,835	2,012	5,599	2,203	7,034	2,328	8,268
Geelong ..	486	850	138	402	184	605	144	522	318	810
<i>Queensland—</i>										
Brisbane ..	1,472	4,916	517	1,628	560	1,820	712	2,695	783	2,840
Bowen ..	188	336	104	181	70	147	83	189	67	139
Calms ..	725	790	227	292	239	350	245	430	238	446
Gladstone ..	155	526	57	128	47	144	67	194	60	180
Mackay ..	219	546	67	129	49	117	69	195	70	197
Rockhampton ..	252	596	55	97	47	111	49	98	58	117
Thursday Island	158	303	46	9	85	12	66	13	74	15
Townsville ..	641	1,473	291	407	216	494	213	657	237	696
<i>South Australia—</i>										
Adelaide ..	2,988	5,524	2,446	2,788	2,595	3,319	2,939	4,129	2,686	4,843
Lincoln ..	438	493	395	459	440	537	428	561	353	449
Pirie ..	619	815	303	630	301	730	286	742	268	642
Wallaroo ..	281	220	165	140	224	193	224	238	239	210
Whyalla ..	680	1,037	448	1,111	476	1,137	332	837	373	1,033
<i>Western Australia—</i>										
Fremantle ..	846	4,012	571	2,583	738	3,284	946	4,592	1,010	5,207
Albany ..	125	511	44	142	49	200	37	136	35	114
Bunbury ..	107	240	50	145	62	184	68	194	56	175
Carnarvon ..	115	183	73	96	78	99	79	98	99	135
Geraldton ..	132	291	69	177	94	239	97	248	94	246
<i>Tasmania—</i>										
Hobart ..	616	1,153	270	420	293	540	303	565	279	646
Burnie ..	577	781	165	187	163	227	163	257	196	268
Devonport ..	492	476	206	211	183	223	175	215	217	211
Launceston ..	460	502	301	281	290	292	308	273	324	282
<i>Northern Territory—</i>										
Darwin ..	176	184	26	57	33	55	28	49	42	65

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 1949–50, of New Zealand during 1949 and of the United Kingdom during 1950.

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.)	8,268	London	26,724
Sydney (N.S.W.)	8,149	Liverpool (inc. Birkenhead)	16,212
Fremantle (W.A.)	5,207	Southampton	12,169
Adelaide (S.A.)	4,843	Tyne Port	7,501
Newcastle (N.S.W.)	3,190	Hull	5,571
Brisbane (Qld.)	2,840	Swansea	4,373
Whyalla (S.A.)	1,033	Bristol	4,150
Kembla (N.S.W.)	971	Manchester (inc. Runcorn)	3,736
Geelong (Vic.)	810	Cardiff	3,724
Townsville (Qld.)	696	Plymouth	1,743
Hobart (Tas.)	646		
Pirie (S.A.)	642		
Lincoln (S.A.)	449		
Cairns (Qld.)	446		
Launceston (Tas.)	282		
Burnie (Tas.)	268		
Geraldton (W.A.)	246		
Devonport (Tas.)	211		
		SCOTLAND—	
		Glasgow	5,638
NEW ZEALAND—			
Wellington	3,268		
Lyttleton	1,969		
Auckland	1,913		
Dunedin	786		
Napier	321		
New Plymouth	303		
Bluff	299		
		NORTHERN IRELAND—	
		Belfast	5,845

§ 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 1946 to 1950, 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 IN AUSTRALIA.

Year.	Steam.		Motor.(a)			Sailing.			Total.			
	No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.	Tonnage.	
		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.
1938 .. ..	..	..	..	11	721	394	..	..	..	11	721	394
1946	4	9,448	4,571	19	981	678	5	240	160	28	10,669	5,409
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

(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, 1950 :—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1950.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, &c., not Self-propelled.		Total.	
	No.	Net Tons.	Propelled by Sail Only.		Fitted with Auxiliary Power.		No.	Net Tons.	No.	Net Tons.
			No.	Net Tons.	No.	Net Tons.				
New South Wales	488	70,752	159	5,911	101	1,447	38	9,274	786	87,384
Victoria	182	159,802	46	563	45	1,507	41	16,819	314	178,691
Queensland	77	26,729	62	1,166	57	808	12	1,536	208	30,239
South Australia	85	32,422	15	307	36	1,869	38	5,833	174	40,431
Western Australia	45	4,313	229	3,324	70	1,724	5	396	349	9,757
Tasmania	38	3,798	45	1,647	75	2,067	1	382	159	7,894
Northern Territory	..	..	16	154	3	50	..	..	19	204
Total ..	915	297,816	572	13,072	387	9,472	135	34,240	2,009	354,600

3. **World Shipping Tonnage.**—Previous issues of the Official Year Book have contained tables, compiled from *Lloyd's Register of Shipping*, showing the number and gross tonnages 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, 1950, the total steamers, motor ships and sailing vessels of 100 gross tons and upwards throughout the world amounted to 31,732 with a gross tonnage of 85,302,000. Of these totals, steamers numbered 19,254 for 63,543,000 gross tons, motorships, 11,598 for 21,040,000 gross tons and sailing vessels and barges 880 for 719,000 gross tons. In addition, there were 2,158 oil tankers of 1,000 gross tons and upwards with a gross tonnage of 16,866,000. Australian steamers, motorships and sailing vessels, 355 for 541,000 gross tons, constituted 1.12 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 <i>via</i> Fremantle .. ..	.. ..	.. .. Oversea <i>via</i> States
Clears Adelaide for Melbourne .. ..	.. ..	Interstate direct
Enters Melbourne from United Kingdom <i>via</i> Adelaide .. ..	.. ..	.. .. Oversea <i>via</i> States
Clears Melbourne for Sydney .. ..	.. ..	Interstate direct
Enters Sydney from United Kingdom <i>via</i> Melbourne .. ..	.. ..	.. .. Oversea <i>via</i> States
Outward Voyage—		
Clears Sydney for United Kingdom <i>via</i> Melbourne .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Melbourne from Sydney .. ..	.. ..	Interstate direct
Clears Melbourne for United Kingdom <i>via</i> Adelaide .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Adelaide from Melbourne .. ..	.. ..	Interstate direct
Clears Adelaide for United Kingdom <i>via</i> Fremantle .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Fremantle from Adelaide .. ..	.. ..	Interstate direct
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 tonnage of vessels recorded into each State from any other State (including *oversea* vessels on interstate direct voyages) during each of the years 1945-46 to 1949-50 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.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
NUMBER.						
New South Wales	2,183	1,112	1,136	1,133	1,227	1,176
Victoria	2,243	1,104	1,209	1,224	1,288	1,329
Queensland	639	303	340	306	360	379
South Australia	1,036	482	647	678	756	710
Western Australia	382	221	256	326	465	420
Tasmania	1,301	695	706	717	711	765
Northern Territory	39	6	14	16	15	27
Total	7,823	3,923	4,308	4,400	4,822	4,806

NET TONS ('000).

New South Wales	6,205	2,439	3,041	2,977	3,636	3,570
Victoria	4,751	1,815	2,568	2,690	3,067	3,245
Queensland	1,730	587	728	587	927	987
South Australia	3,322	1,247	1,871	1,963	2,578	2,687
Western Australia	2,019	1,045	1,165	1,395	2,164	2,167
Tasmania	1,770	674	739	772	668	746
Northern Territory	103	20	28	-25	26	36
Total	19,900	7,827	10,140	10,409	13,066	13,438

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 1949-50 the total had risen to 68 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 overseas 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.

State or Territory .	Entrances.		Clearances.		Total.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
1948-49.						
New South Wales ..	439	2,375	466	2,314	905	4,689
Victoria ..	457	2,523	410	2,095	867	4,618
Queensland ..	191	1,045	169	904	360	1,949
South Australia ..	212	1,202	237	1,201	449	2,403
Western Australia ..	20	88	27	142	47	230
Tasmania ..	72	352	72	335	144	687
Northern Territory ..	..	..	1	6	1	6
Total ..	1,391	7,585	1,382	6,997	2,773	14,582
1949-50.						
New South Wales ..	560	3,050	460	2,520	1,020	5,570
Victoria ..	590	3,232	417	2,296	1,007	5,528
Queensland ..	224	1,224	181	931	405	2,155
South Australia ..	302	1,684	269	1,460	571	3,144
Western Australia ..	34	158	8	34	42	192
Tasmania ..	72	324	87	410	159	734
Northern Territory ..	..	..	1	1	1	1
Total ..	1,782	9,672	1,423	7,652	3,205	17,324

Overseas 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 overseas voyages.

(iii) *Total, Australia.* The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for each of the years 1938-39 and 1945-46 to 1949-50 :—

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
1945-46	4,456	10,562	4,491	10,584
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

(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 years 1948-49 and 1949-50, and includes the interstate movements of oversea vessels :—

INTERSTATE MOVEMENT OF SHIPPING : TOTAL, STATES.

State or Territory.	1948-49.				1949-50.			
	Entrances.		Clearances.		Entrances.		Clearances.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales	1,666	6,012	1,689	5,937	1,736	6,620	1,750	6,567
Victoria ..	1,745	5,590	1,811	5,878	1,919	6,476	1,965	6,661
Queensland ..	551	1,971	547	1,905	603	2,211	567	1,932
South Australia ..	968	3,780	975	3,833	1,012	4,372	1,065	4,587
Western Australia	485	2,252	378	1,965	454	2,326	433	2,404
Tasmania ..	783	1,020	796	1,007	837	1,069	898	1,101
Northern Territory	15	26	16	28	27	36	32	44
Total ..	6,213	20,651	6,212	20,553	6,588	23,110	6,710	23,296

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 years 1948-49 and 1949-50, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE : ENTRANCES.

State or Territory.	1948-49.		1949-50.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales ..	756	1,530	762	1,647
Victoria ..	920	1,147	980	1,279
Queensland ..	212	404	240	427
South Australia ..	418	888	423	1,104
Western Australia ..	103	235	92	244
Tasmania ..	668	522	705	527
Northern Territory ..	14	21	26	34
Total ..	3,091	4,747	3,228	5,262

4. **Interstate and Coastal Shipping Services.**—The following table shows particulars, so far as they are available, of all vessels engaged in regular interstate or coastal services at the end of each of the years 1946 to 1950 compared with the year 1938 :—

INTERSTATE AND COASTAL SHIPPING SERVICES : AUSTRALIA.

Particulars:	1938.	1946.(b)	1947.(b)	1948.(b)	1949.(b)	1950.(b)
Number of companies operating	30	26	26	25	24	24
Number of vessels	167	158	169	163	161	164
Tonnage { Gross	366,182	480,089	502,854	478,614	490,524	471,110
{ Net	200,131	275,921	285,160	271,452	276,178	262,312
Horse-power (Nominal)	39,598	41,210	49,505	43,463	42,147	55,452
Number of passengers for which licensed (a) { 1st class	3,909	1,808	1,481	1,443	1,475	2,003
{ 2nd class						
{ and steerage	1,719	627	366	339	340	539
Complement of { Master and officers	557	585	616	634	630	606
{ Engineers	606	644	684	672	673	695
{ Crew	4,663	4,732	4,649	4,544	4,532	4,767

(a) Excluding purely day passenger accommodation.

(b) Includes vessels under the control of the Australian Shipping Board.

§ 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 1945-46 to 1949-50 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
1945-46 ..	4,600	1,649	2,462	1,470	6,216	1,213
1946-47 ..	4,171	1,394	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

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at principal ports during 1949-50. Comparable figures for the year 1948-49 appear in *Transport and Communication Bulletin* No. 40.

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1949 50.
(Tons Weight and Tons Measurement Combined—'000.)

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
Sydney	3,168	806	3,974	1,591	514	2,105
Kembla	114	999	1,113	88	325	413
Newcastle	283	1,171	1,454	289	2,247	2,536
Other .. ..	..	..	..	32	11	43
Total, New South Wales	3,565	2,976	6,541	2,000	3,097	5,097
Melbourne	3,556	1,867	5,423	1,028	680	1,708
Geelong	395	148	543	481	12	493
Portland	44	4	48	11	..	11
Total, Victoria	3,995	2,019	6,014	1,520	692	2,212
Brisbane	813	453	1,266	398	162	560
Cairns	33	26	59	113	99	212
Townsville	63	45	108	113	71	184
Other	38	59	97	217	165	382
Total, Queensland	947	583	1,530	841	497	1,338
Adelaide	1,049	954	2,003	426	398	824
Pirie	101	83	184	231	160	391
Walleroo	40	3	43	152	22	174
Whyalla .. ..	..	165	165	8	1,966	1,974
Other	69	54	123	151	32	183
Total, South Australia	1,259	1,259	2,518	968	2,578	3,546
Fremantle	1,117	392	1,509	578	73	651
Bunbury	45	..	45	144	34	178
Geraldton	47	..	47	145	8	153
Other	42	30	72	45	26	71
Total, Western Australia	1,251	422	1,673	912	141	1,053
Hobart	170	390	560	142	214	356
Devonport	13	42	55	8	76	84
Launceston .. ..	..	167	167	32	120	152
Other	15	84	99	25	205	230
Total, Tasmania	198	683	881	207	615	822
Darwin (Northern Territory)	48	24	72	..	6	6
Total, AUSTRALIA	11,263	7,966	19,229	6,448	7,626	14,074

2. Oversea Cargo by Nationality of Vessels Carrying.—The following table shows the total overseas cargo discharged and shipped combined, according to the nationality of the vessels carrying, during the years 1945-46 to 1949-50 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.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
British Countries—						
Australia	416	433	267	286	306	237
United Kingdom	7,731	4,982	6,957	8,293	10,167	11,468
Canada	53	351	121	85	132	83
New Zealand	503	243	233	203	226	253
Other British	446	167	187	425	305	370
Total British	9,149	6,176	7,765	9,292	11,136	12,411
Percentage of Total .. .	72.43	60.66	77.51	73.30	73.21	70.08
Foreign Countries—						
Denmark	184	22	38	105	265	378
France	189	47	90	95	123	187
Germany	370	..	..	..	..	..
Italy	84	..	37	18	217	176
Japan	260	..	..	..	..	..
Netherlands (a)	573	234	327	512	531	646
Norway	834	578	547	566	1,149	1,712
Sweden	354	379	314	408	453	589
United States of America .. .	159	2,286	659	1,083	688	397
Other Foreign	475	459	241	597	649	1,215
Total Foreign	3,482	4,005	2,253	3,384	4,075	5,300
Percentage of Total .. .	27.57	39.34	22.49	26.70	26.79	29.92
Grand Total	12,631	10,181	10,018	12,676	15,211	17,711

(a) Include Netherlands East Indies.

Owing to war conditions the percentage of cargo carried in British vessels decreased from 72.43 in 1938-39 to 41.37 in 1943-44, but increased to 77.51 in 1946-47. It has since declined, reaching 70.08 in 1949-50.

§ 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.—On 1st January, 1946, the Shipping Co-ordination Regulations were substantially amended to provide for a consolidation, within an Australian Shipping Board, of the war-time shipping authorities, notably the Shipping Control Board, Commonwealth Government Ships Chartering Committee, Central Cargo Control Committee and the Salvage Board. In consequence, a contraction of war emergency shipping administration was effected, with a tapering off of war-time powers and controls being achieved. The Allied Consultative Shipping Council, the

British-American-Australian Shipping Sub-Committee, and the Port Equipment and Development Committee lapsed towards the end of 1945. The Allied Materials Handling Standing Committee continued, however, developing into the Commonwealth Handling Equipment Pool.

In March, 1947, legislation established a permanent Stevedoring Industry Commission to continue in peace-time the functions performed during the war by the Commission established under National Security legislation. In June, 1949, legislation was enacted to abolish the Stevedoring Industry Commission on which employers and employees were represented, and established in its place a Stevedoring Industry Board of three members, which attends to administrative matters formerly under the control of the Commission, such as the operation of labour bureaux at ports, payment of attendance money and provision of amenities, etc. The industrial functions which previously came within the province of the Commission are being dealt with by a single Judge of the Commonwealth Court of Conciliation and Arbitration.

The Maritime Industry Commission established during the war years under National Security legislation continues to function and consideration is being given to its establishment on a permanent basis.

As the immediate post-war years were marked by a continued shortage of coastal shipping, it was necessary not only to continue requisitioning of merchant shipping up to 18th August, 1947, but to supplement Australian coastal shipping with as many as 26 oversea chartered vessels obtained through the British Ministry of Transport. During these two post-war years, however, the majority of vessels operating under Defence Services Control were returned after refitting for commercial employment, and on 18th August, 1947, all requisitioned vessels, with a few exceptions, had been returned to shipowners.

In March, 1949, the Commonwealth Parliament passed the Shipping Act 1949 which was designed to establish the Australian Shipping Board on a permanent basis, to license shipbuilding, and to operate a Commonwealth Shipping Line on the Australian coast and later in oversea trades. The Act has not been proclaimed. In the meantime, the Commonwealth-owned vessels are being operated by the Australian Shipping Board under war-time regulations continued by the Defence (Transitional Provisions) Regulations.

As at 1st November, 1951, the Australian Shipping Board operated 35 vessels totalling 148,980 gross tons of which seven vessels totalling 47,030 gross tons were operated on time charter from private owners. The Government-owned tonnage, totalling 108,485 gross tons (of which four vessels totalling approximately 6,500 gross tons were on charter to other companies), comprised thirteen "A" or "River" class vessels of an average of 5,197 gross tons, two "B" class vessels of an average of 3,952 gross tons, nine "D" class vessels of an average of 2,334 gross tons, five "E" class vessels of an average of 584 gross tons plus three other vessels—*Nyora* of 1,299 gross tons, *Ransdorp* of 469 gross tons and *Tyalla* (formerly *Kefalonia*) of 7,327 gross tons. The *Tyalla* is still registered in the United Kingdom.

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 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. 41.

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, 1950, the rate for general merchandise from Australia to United Kingdom and Continent was 135s. od. per ton weight or measurement while the rates for wheat (bagged) and wool (greasy) were respectively 97s. 6d. per ton weight and 2.238d. 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, 1950, is included in *Transport and Communication Bulletin* No. 41.

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 1946 to 1950 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.
1946 ..	..	..	..	173	394,582	..
1947 ..	2	396	..	151	442,685	10
1948 ..	1	113	..	206	652,047	..
1949 ..	3	3,705	12	155	435,935	12
1950 ..	4	9,735	20	191	611,084	22

6. **Commonwealth Navigation and Shipping Legislation.**—An account in some detail of the Commonwealth navigation and shipping legislation is contained in Official Year Book No. 17 (pp. 1053-5). Later issues contained information on amendments relating to permits to engage in the coasting trade for ships other than those licensed for that trade, to the provision for the carriage of wireless equipment, and to the giving of effect to the provisions of certain maritime conferences, notably those dealing with the safety of life at sea and load lines.

7. **Ports and Harbours.**—A report in two volumes on "Transport in Australia," with special reference to Ports and Harbours facilities, was submitted to the Commonwealth Government by Sir George Buchanan and published as two Parliamentary Papers (No. 86 printed 14th March, 1927, and No. 108 printed 9th May, 1927.)

B. RAILWAYS.

§ 1. General.

1. **Introduction.**—The policy of Government ownership and control of railways has been adopted in each State and at 30th June, 1950 only 647 route-miles of the 27,626 open for general traffic in Australia were privately owned, while 24,778 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 *Transport and Communication Bulletin* No. 41, issued by this Bureau, and also in Official Year Book No. 31, p. 125, et seq.

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 Book No. 6, p. 681. Further information regarding railway communication in Australia is given in Official Year Book No. 22, pp. 259-61.

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 Sir Harold Clapp, Director-General of Land Transport, Commonwealth Department

of Transport, is contained in Official Year Book No. 37, 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 (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, 1948-49 and 1949-50.**—(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 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.* Construction work proceeded during 1948-49 and 1949-50 on the Sandy Hollow to Maryvale line (approximately 147 miles). In April, 1950, work on this line was temporarily suspended and the employees, as well as plant and portable buildings, were transferred to work on other lines. Work had not been resumed by the end of the year. Further progress was made during 1948-49 and 1949-50 with the connecting link between St. James and Wynyard stations of the underground railway of Sydney. Surveys and boring operations were continued during 1948-49 and 1949-50 in connexion with the eastern and southern suburban electric railways, but boring operations were suspended on the south-eastern suburbs railway. Trial surveys were completed during 1948-49 on the proposed Inverell-Iluka railway line. On 3rd April, 1950 an Act authorizing the construction of a railway line from Glen Innes to Inverell was assented to by the Governor. The permanent survey of the line has been started from both terminal stations. A trial survey was made and estimates were prepared during 1949 for the proposed Thirlmere to Burragorang railway line. During 1949-50 the survey was commenced and completed for ten miles of the total length of approximately thirteen miles.

(b) *Other.* At 30th June, 1950 no construction work on new lines was in progress in Victoria, Queensland, Western Australia, Tasmania, nor for the Commonwealth Government. In South Australia construction of the Kowulka branch railway (5 miles) was authorized in 1948; it was under construction during 1948-49 and completed in 1949-50.

(ii) *Lines Authorized for Construction.* In the States of New South Wales, Victoria, Queensland, South Australia and Western Australia at the 30th June, 1950 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 Book No. 31, p. 122 and later issues.

6. **Mileage Open for Traffic, all Lines.**—(i) *General.* 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, and it should be understood that the private lines included in the tables below form only a small part of all private railways in Australia.

The following table shows the route-mileage of Commonwealth, State and private lines open for general traffic in each State at different periods since the inauguration of railways in Australia in 1854 up to the year 1949-50 :—

GOVERNMENT AND PRIVATE RAILWAYS : 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	218	133	12	45	..	..	1,042
1881 ..	1,040	1,247	800	845	92	168	..	..	4,192
1890-91 ..	2,263	2,763	2,205	1,666	656	425	145	..	10,123
1900-01 ..	2,926	3,238	2,904	1,736	1,984	618	145	..	13,551
1910-11 ..	4,027	3,574	4,390	1,993	3,208	675	145	..	18,012
1920-21 ..	5,402	4,337	7,013	3,463	4,906	877	199	5	26,202
1930-31 ..	6,160	4,742	6,795	3,932	4,911	806	317	5	27,668
1940-41 ..	6,196	4,784	6,750	3,861	5,112	758	490	5	27,956
1945-46 ..	6,182	4,761	6,702	3,850	5,112	759	490	5	27,861
1946-47 ..	6,182	4,761	6,702	3,850	5,079	758	490	5	27,827
1947-48 ..	6,182	4,738	6,696	3,850	5,079	731	490	5	27,771
1948-49 ..	6,167	4,710	6,696	3,850	5,052	731	490	5	27,701
1949-50 ..	6,167	4,700	6,695	3,856	4,983	730	490	5	27,626

(ii) *Government and Private Lines Separately.* The next table shows for each State (a) the length of lines open for traffic owned by the State Government and by the Commonwealth Government in that State and; (b) the length of private lines available for general use by the public :—

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE CLASSIFIED, AT 30th JUNE, 1950.

(Miles.)

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Commonwealth.		
New South Wales ..	6,113	..	54	6,167
Victoria ..	4,687	..	13	4,700
Queensland ..	6,560	..	135	6,695
South Australia ..	2,553	1,252	51	3,856
Western Australia ..	4,252	454	277	4,983
Tasmania ..	613	..	117	730
Northern Territory ..	..	490	..	490
Aust. Cap. Territory ..	..	5	..	5
Australia ..	24,778	2,201	647	27,626

7. *Comparative Railway Facilities.*—The mileage of lines open to the public for general traffic (including both Government and private lines) is shown in the following statement in relation to both population and area at 30th June, 1950 :—

GOVERNMENT AND PRIVATE RAILWAYS : COMPARISON OF FACILITIES, AT 30th JUNE, 1950.

(Miles.)

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Mileage of Railway—									
Per 1,000 of population ..	1.91	2.13	5.66	5.51	8.93	2.61	32.02	0.21	3.37
Per 1,000 sq. miles of Territory ..	19.93	53.48	9.99	10.15	5.11	27.85	0.94	5.32	9.29

8. Classification of Lines according to Gauge, 1949-50.—The next table shows a classification according to gauge of the route-mileage open of (a) Commonwealth railways, according to the State or Territory in which situated; (b) State railways; and (c) Private railways open to the public for general traffic. Particulars of Government railways are up to 30th June, 1950, and of private railways open for general traffic to 31st December, 1950, as nearly as possible.

GOVERNMENT AND PRIVATE RAILWAYS : GAUGES, AT 30th JUNE, 1950.

(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.	
COMMONWEALTH RAILWAYS.						
South Australia .. .. .	..	654	598	..	..	1,252
Western Australia .. .. .	..	454	..	..	..	454
Northern Territory .. .. .	..	..	490	..	..	490
Aust. Cap. Territory .. .. .	..	5	..	..	..	5
Total .. .. .	..	1,113	1,088	..	..	2,201
STATE RAILWAYS.						
New South Wales	2	6,111	..	..	..	6,113
Victoria	4,572	..	..	115	..	4,687
Queensland .. .. .	..	69	6,461	..	30	6,560
South Australia	1,529	..	1,024	..	..	2,553
Western Australia .. .. .	..	..	4,252	..	..	4,252
Tasmania .. .. .	..	..	613	..	..	613
Total	6,103	6,180	12,350	115	30	24,778
PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.						
New South Wales .. .. .	..	17	37	..	..	54
Victoria	13	..	..	..	..	13
Queensland .. .. .	..	..	49	..	86	135
South Australia .. .. .	..	..	51	..	..	51
Western Australia .. .. .	..	..	277	..	..	277
Tasmania .. .. .	..	..	110	..	7	117
Total	13	17	524	..	93	647
ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.						
New South Wales	2	6,128	37	..	..	6,167
Victoria	4,585	..	..	115	..	4,700
Queensland .. .. .	..	69	6,510	..	116	6,695
South Australia	1,529	654	1,673	..	..	3,856
Western Australia .. .. .	..	454	4,529	..	..	4,983
Tasmania .. .. .	..	..	723	..	7	730
Northern Territory .. .. .	..	..	490	..	..	490
Aust. Cap. Territory .. .. .	..	5	..	..	..	5
GRAND TOTAL	6,116	7,310	13,962	115	123	27,626

9. Summary of Operations, 1949-50.—In the following table a summary is shown of the working of all railways open for general traffic in Australia during the year ended 30th June, 1950 :—

GOVERNMENT AND PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1949-50.

Particulars.	Commonwealth Railways.	State Railways.	Private Railways.(a)	Total for Australia.	
Mileage open (route) 30th June, 1950					
miles	2,201	24,778	647	27,626	
Capital cost (e)	£'000	19,132	355,052	5,193	379,377
Gross revenue	£'000	1,875	91,129	1,213	94,217
" " per train-mile	d.	269.41	238.35	269.15	239.25
Working expenses	£'000 (b)	1,979	92,675	1,088	95,742
" " per train-mile	d.	284.30	242.39	241.42	243.12
Net revenue	£'000	— 104	—1,546	125	—1,525
" " per train-mile	d.	—14.89	— 4.04	27.73	— 3.87
Train-miles run	miles '000	1,670	91,761	1,082	94,513
Passenger-journeys	No. '000	194	504,454	999	505,647
Tons of goods, etc., carried	tons '000	549	40,369	3,251	44,169
Average number of employees	No. (c)	2,485	(c) 135,300	(d) 1,322	139,107
" earnings per employee	£	495	515	508	515

(a) Incomplete. Full particulars not available for all items. (b) Excludes amounts paid for Commissioner's salary (£3,000), Government contributions under the Superannuation Act (£27,979) and proportion of salaries of Auditor-General's staff (£1,600). (c) Excludes construction staff. (d) Employees at 31st December, 1950. (e) See § 2. para. 1 below.

Details shown above relating to capital cost do not include particulars of amounts totalling about £61.5 million written off during the period 1st July, 1927 to 1st July, 1937.

§ 2. Government Railways.

1. Summary, 1949-50.—The following table shows particulars of the mileage open, the capital cost, passengers and goods carried, and train miles run, for Government railways in Australia during 1949-50. The cost of construction, etc. shown for Australia (£374,184,000) does not represent the total expenditure on construction and equipment, as legislation was introduced in Victoria, Queensland, South Australia and Tasmania for the purpose of reducing the capital indebtedness of the railways. For this and other reasons the composition of this figure differs as between States and the matter is being reviewed for purposes of attaining a greater degree of uniformity. Figures relating to capital cost do not include charges for works in the course of construction, surveys, and discounts and flotation charges on loans allocated to the railways.

GOVERNMENT RAILWAYS : SUMMARY, 1949-50.

System.	Mileage Open.(a)		Total Cost of Construction and Equipment. (a)	Passengers Carried.	Goods and Live-stock Carried.	Train Miles Run.
	Route.	Track.				
	Miles.	Miles.				
New South Wales	6,113	8,390	181,724	258,183	16,997	41,369
Victoria .. .	4,687	6,071	58,801	182,101	9,125	17,550
Queensland .. .	6,560	7,474	43,892	32,366	6,943	17,674
South Australia .. .	2,553	3,150	33,267	17,385	3,692	6,356
Western Australia	4,252	4,718	31,524	11,188	2,843	6,733
Tasmania .. .	613	707	3,397	3,231	770	2,080
Commonwealth .. .	2,201	2,353	19,132	194	549	1,670
Australia .. .	26,979	32,863	(b)374,184	504,648	40,919	93,432

(a) At 30th June, 1950.

(b) Includes Commonwealth proportion Grafton-South Brisbane Line, £2,446,972.

The reductions made in the capital indebtedness referred to above were :—Victoria, £25,684,423; Queensland, £28,000,000; South Australia, £3,088,986; and Tasmania, £4,738,000. After adding these figures to the capital costs of the respective States and adjusting the route-mileage and capital cost for New South Wales and Queensland to exclude portions of the Grafton–South Brisbane Line, the cost per route-mile open in each State and for the Commonwealth railways is as follows :—New South Wales, £30.040; Victoria, £18.025; Queensland, £10.995; South Australia, £14.241; Western Australia, £7.414; Tasmania, £13.271; Commonwealth, £8.692; and for all Government railways in Australia, £16.191. The lowest average cost is in Western Australia, and the highest is in New South Wales. Very few engineering difficulties were encountered in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contract considerably reduced expenditure. The cost per head of population on the adjusted basis above for each State and for Australia are as follows :—New South Wales, £56.34; Victoria, £38.35; Queensland, £60.73; South Australia, £51.92; Western Australia, £56.50; Tasmania, £29.12; all Government railways in Australia, £53.23.

2. Expenditure on Construction and Equipment from Revenue and from Loans.—The following table shows particulars of the expenditure on construction and equipment from revenue and from loans :—

**GOVERNMENT RAILWAYS : CAPITAL EXPENDITURE FROM REVENUE
AND FROM LOANS.**

(£'000.)

System.	Expenditure from Revenue to 30th June, 1950.	Net Loan Expenditure.				Total to 30th June, 1950.
		1938–39.	1948–49.	1949–50.		
New South Wales ..	667	2,002	8,099	10,457	189,160	
Victoria ..	(a) 6,653	(b) 354	(b) 1,344	(b) 2,055	(b) 85,115	
Queensland ..	..	490	1,069	2,099	71,810
South Australia ..	..	261	901	703	40,558
Western Australia ..	640	(c) 195	359	2,208	28,983	
Tasmania ..	..	35	400	367	(d) 9,250
Commonwealth ..	4,310	..	Cr. 1	Cr. 1	11,315	
Australia ..	12,270	3,337	12,171	18,488	(e) 438,636	

(a) From proceeds of sale of State lands, Consolidated Revenue Fund, National Recovery Loan, etc.
 (b) Gross loan expenditure. (c) Includes expenditure on railways provided in Unemployment Relief work programmes. (d) Includes losses funded. (e) Includes £2,444,621 Commonwealth loan expenditure on Grafton–South Brisbane Line.

3. Gross Revenue.—(i) *General.* The gross revenue, the revenue per average mile worked and the revenue per train-mile run during the years 1945–46 to 1949–50 in comparison with 1938–39 are shown in the following table. In 1949–50 the gross revenue excludes Government grants of £3,000,000 to New South Wales for losses due to the coal strike in July–August, 1949; £1,683,697 to Victoria to limit interest payments to one per cent. on loan liability; and £600,000, £1,600,000 and £800,000 to South Australia for losses due to the coal strike, contribution to increased working costs, and contribution to debt charges respectively.

GOVERNMENT RAILWAYS : GROSS REVENUE.

Year.	N.S.W.(a)	Vic.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
TOTAL GROSS REVENUE. (£'000.)								
1938-39 ..	19,946	9,284	7,798	3,119	3,599	487	547	44,780
1945-46 ..	32,113	14,675	11,917	4,871	4,107	928	1,565	70,176
1946-47 ..	31,153	13,577	11,033	4,593	4,046	893	1,099	66,394
1947-48 ..	37,706	16,322	11,532	5,079	4,562	958	1,237	77,396
1948-49 ..	40,463	17,274	15,392	5,848	5,091	1,050	1,673	86,791
1949-50 ..	40,922	20,367	15,988	6,512	6,292	1,049	1,875	93,005

GROSS REVENUE PER AVERAGE ROUTE-MILE WORKED.
(£.)

1938-39 ..	3,263	1,953	1,188	1,220	822	740	248	1,645
1945-46 ..	5,241	3,091	1,815	1,912	937	1,445	711	2,579
1946-47 ..	5,084	2,859	1,680	1,803	931	1,393	499	2,443
1947-48 ..	6,153	3,454	1,758	1,994	1,049	1,500	562	2,854
1948-49 ..	6,611	3,666	2,346	2,296	1,178	1,709	760	3,206
1949-50 ..	6,694	4,341	2,437	2,555	1,480	1,711	852	3,447

GROSS REVENUE PER TRAIN-MILE RUN.
(d.)

1938-39 ..	159.01	124.54	134.38	121.19	131.38	61.30	145.42	138.70
1945-46 ..	202.81	215.49	183.25	183.99	156.33	99.84	206.70	194.35
1946-47 ..	199.38	209.69	164.01	183.42	147.26	95.44	174.41	186.27
1947-48 ..	232.29	232.90	185.96	198.73	153.99	103.95	185.33	211.76
1948-49 ..	239.77	238.92	211.78	231.65	173.63	113.23	240.91	225.71
1949-50 ..	237.40	278.53	217.10	245.92	224.28	121.03	269.41	238.90

(a) Includes £800,000 per annum contribution from consolidated revenue towards losses on working of country developmental lines. (b) Includes the following recoups by the Treasury—1938-39, £10,000 guarantee in respect of losses on certain lines; and in 1945-46, 1946-47, 1947-48, 1948-49 and 1949-50, £147,500, £49,500, £18,100, £15,000 and £12,000 respectively, being recoups of losses resulting from reduction in suburban fares, etc., and Defence Force fare concessions.

(ii) *Coaching, Goods and Miscellaneous Receipts.* (a) *Totals.* 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 table shows the gross revenue for 1938-39 and 1945-46 to 1949-50 classified according to the three chief sources of receipts. Some Government grants have been excluded from miscellaneous receipts for 1949-50. The amounts of these grants are shown in the preceding paragraph. The total of the three items specified has already been stated above.

GOVERNMENT RAILWAYS : COACHING, GOODS AND MISCELLANEOUS RECEIPTS.

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
COACHING TRAFFIC RECEIPTS.								
1938-39 ..	6,877	4,286	2,057	754	704	152	194	15,024
1945-46 ..	13,362	7,413	4,145	1,574	1,324	334	656	28,808
1946-47 ..	11,584	6,359	3,034	1,267	1,069	280	407	24,000
1947-48 ..	13,009	7,125	2,941	1,286	1,102	256	435	26,154
1948-49 ..	13,464	7,369	3,506	1,344	1,114	227	480	27,504
1949-50 ..	13,483	8,122	3,591	1,367	1,169	200	530	28,462

GOVERNMENT RAILWAYS: COACHING, GOODS AND MISCELLANEOUS RECEIPTS—continued.
(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
GOODS AND LIVE STOCK TRAFFIC RECEIPTS.								
1938-39 ..	10,356	4,276	5,474	2,144	2,807	318	224	25,599
1945-46 ..	14,739	6,058	7,226	2,889	2,674	563	803	34,952
1946-47 ..	14,326	6,109	7,526	2,947	2,810	581	580	34,879
1947-48 ..	19,804	7,992	8,119	3,380	3,160	664	675	43,794
1948-49 ..	21,597	8,596	11,325	3,998	3,634	785	1,058	50,993
1949-50 ..	21,892	10,817	11,819	4,611	4,749	816	1,193	55,897

MISCELLANEOUS RECEIPTS.								
	(a)	(b)						
1938-39 ..	2,713	722	266	222	88	17	129	4,157
1945-46 ..	4,012	1,204	546	408	109	31	106	6,416
1946-47 ..	5,243	1,109	473	379	167	32	112	7,515
1947-48 ..	4,893	1,205	472	413	300	38	127	7,448
1948-49 ..	5,403	1,308	560	507	343	38	135	8,228
1949-50 ..	5,547	1,427	578	533	374	33	153	8,645

(a) See note (a) to Gross Revenue table above.

(b) See note (b) to Gross Revenue table above.

(b) *Proportions to Total.* The following table shows for each of the years 1948-49 and 1949-50 the proportion of each class of receipts to the total gross revenue:—

GOVERNMENT RAILWAYS: PROPORTION OF EACH CLASS OF RECEIPTS TO TOTAL RECEIPTS.
(Per Cent.)

System.	1948-49.			1949-50.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
New South Wales ..	33.28	53.37	13.35	32.95	53.50	13.55
Victoria ..	42.66	49.76	7.58	39.88	53.11	7.01
Queensland ..	22.78	73.58	3.64	22.45	73.93	3.61
South Australia ..	22.98	68.35	8.67	21.00	70.81	8.19
Western Australia ..	21.87	71.39	6.74	18.57	75.48	5.95
Tasmania ..	21.03	74.79	3.58	19.06	77.81	3.13
Commonwealth ..	28.67	63.26	8.07	28.24	63.61	8.15
Australia ..	31.69	58.75	9.56	30.60	60.10	9.30

4. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, 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 division B. Railways of this chapter, excludes interest, sinking fund, exchange and certain other payments (see paras. 6 and 7 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 Year Book.

The following table shows the total working expenses, the proportion thereof to gross revenue, and the expenditure per average mile worked and per train-mile run for the years 1945-46 to 1949-50 in comparison with 1938-39 :—

GOVERNMENT RAILWAYS : WORKING EXPENSES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia
TOTAL WORKING EXPENSES.								
(£'000.)								
1938-39 ..	14,543	8,060	6,193	2,931	2,911	678	642	35,958
1945-46 ..	24,934	12,531	10,425	5,107	4,027	1,209	1,502	59,735
1946-47 ..	25,886	12,916	10,191	5,045	4,424	1,253	1,224	60,939
1947-48 ..	31,015	15,225	10,641	5,947	5,545	1,455	1,439	71,267
1948-49 ..	35,739	17,815	14,163	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

PROPORTION OF WORKING EXPENSES TO GROSS REVENUE.

(Per Cent.)								
1938-39 ..	72.91	86.82	79.42	93.97	80.90	139.18	117.43	80.30
1945-46 ..	77.64	85.39	87.49	104.86	98.05	130.34	95.96	85.12
1946-47 ..	83.09	95.13	92.37	109.85	109.34	140.37	111.35	91.78
1947-48 ..	82.85	93.28	92.27	117.09	121.54	151.87	116.33	92.08
1948-49 ..	88.32	103.14	92.02	123.74	129.89	153.62	106.17	97.88
1949-50 ..	95.99	98.12	99.18	129.61	117.40	164.73	105.53	101.77

WORKING EXPENSES PER AVERAGE ROUTE-MILE WORKED.

(£.)								
1938-39 ..	2,378	1,695	943	1,146	665	1,030	292	1,321
1945-46 ..	4,069	2,639	1,588	2,005	919	1,883	682	2,195
1946-47 ..	4,224	2,720	1,552	1,981	1,017	1,955	556	2,242
1947-48 ..	5,061	3,222	1,622	2,335	1,275	2,369	654	2,628
1948-49 ..	5,839	3,781	2,159	2,841	1,530	2,626	807	3,138
1949-50 ..	6,426	4,259	2,417	3,311	1,737	2,819	899	3,508

WORKING EXPENSES PER TRAIN-MILE RUN.

(d.)								
1938-39 ..	115.93	108.13	106.72	113.88	106.28	85.31	170.77	111.38
1945-46 ..	157.47	184.01	160.32	192.93	153.28	130.13	198.35	165.44
1946-47 ..	165.67	199.48	151.49	201.48	161.02	133.97	194.20	170.97
1947-48 ..	191.07	217.25	171.59	232.70	187.16	157.87	215.59	194.99
1948-49 ..	211.77	246.41	194.88	286.64	225.52	173.94	255.78	220.94
1949-50 ..	227.88	273.29	215.32	318.72	263.30	199.37	284.30	243.14

(a) See § 1., para. 9, note (b) ante.

(ii) *Distribution.* The following table shows the distribution of working expenses under the chief four heads of expenditure for the years 1938-39 and 1945-46 to 1949-50 :—

GOVERNMENT RAILWAYS : DISTRIBUTION OF WORKING EXPENSES.

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia
MAINTENANCE OF WAY AND WORKS.								
1938-39 ..	2,972	1,374	1,602	593	667	129	245	7,492
1945-46 ..	4,732	2,467	2,131	778	736	212	438	11,494
1946-47 ..	4,399	2,413	2,053	710	800	212	315	10,902
1947-48 ..	5,228	2,698	2,281	777	910	244	355	12,493
1948-49 ..	6,141	3,081	2,923	1,069	1,028	275	452	14,969
1949-50 ..	6,361	3,492	3,431	1,366	1,301	303	462	16,716

ROLLING STOCK.

1938-39 ..	5,622	2,801	2,695	1,389	1,321	373	251	14,452
1945-46 ..	9,478	4,533	4,974	2,519	1,932	552	800	24,788
1946-47 ..	9,862	4,242	4,764	2,447	2,047	538	651	24,551
1947-48 ..	11,734	5,298	4,840	2,934	2,625	630	771	28,832
1948-49 ..	13,379	6,432	6,575	3,483	3,381	720	938	34,908
1949-50 ..	15,427	6,882	7,469	4,075	3,573	758	1,084	39,268

(a) See § 1., para. 9, note (b) ante.

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES

—continued.

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia.
TRANSPORTATION AND TRAFFIC.								
1938-39 ..	3,502	2,254	1,533	682	779	151	101	9,002
1945-46 ..	5,926	3,044	2,504	1,217	1,008	226	193	14,118
1946-47 ..	6,276	3,255	2,550	1,272	1,205	239	177	14,974
1947-48 ..	7,620	4,105	2,706	1,553	1,383	285	216	17,868
1948-49 ..	8,683	4,734	3,651	1,847	1,443	317	281	20,956
1949-50 ..	9,225	5,192	3,911	2,097	1,584	351	315	22,675
OTHER CHARGES.								
1938-39 ..	2,448	1,630	363	357	144	24	45	5,011
1945-46 ..	4,798	2,487	816	593	351	219	71	9,335
1946-47 ..	5,349	3,006	824	616	372	264	81	10,512
1947-48 ..	6,433	3,124	814	683	627	296	97	12,074
1948-49 ..	7,536	3,568	1,015	838	760	300	105	14,122
1949-50 ..	8,267	4,417	1,046	901	930	315	118	15,994

(a) See § 1., para. 9, note (b) ante.

5. Net Revenue.—The following table shows the net revenue, i.e., the excess of gross revenue over working expenses, and the amount of such net revenue per average mile worked and per train-mile run for the years 1945-46 to 1949-50 in comparison with 1938-39:—

GOVERNMENT RAILWAYS: NET REVENUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia.
NET REVENUE. (£'000.)								
1938-39 ..	5,403	1,224	1,605	188	688	-191	-95	8,822
1945-46 ..	7,180	2,144	1,491	-237	80	-281	63	10,440
1946-47 ..	5,267	661	842	-452	-378	-360	-125	5,455
1947-48 ..	6,691	1,097	891	-868	-983	-497	-202	6,129
1948-49 ..	4,725	-542	1,228	-1,388	-1,522	-563	-103	1,835
1949-50 ..	1,641	383	131	-1,928	-1,094	-679	-104	-1,650

NET REVENUE PER AVERAGE ROUTE-MILE WORKED.

(£.)

1938-39 ..	884	257	244	74	157	-290	-43	324
1945-46 ..	1,172	452	227	-93	18	-438	29	384
1946-47 ..	860	139	128	-178	-86	-562	-57	201
1947-48 ..	1,092	232	136	-341	-226	-809	-92	226
1948-49 ..	772	-115	187	-545	-352	-917	-47	68
1949-50 ..	268	82	20	-756	-257	-1,108	-47	-61

NET REVENUE PER TRAIN-MILE RUN.

(d.)

1938-39 ..	43.08	16.42	27.66	7.31	25.10	-24.01	-25.35	27.33
1945-46 ..	45.34	31.48	22.93	-8.94	3.05	-30.29	8.35	28.91
1946-47 ..	33.71	10.21	12.52	-18.06	-13.76	-38.53	-19.79	15.30
1947-48 ..	41.22	15.65	14.37	-33.97	-33.17	-53.92	-30.26	16.77
1948-49 ..	28.00	-7.49	16.90	-54.99	-51.89	-60.71	-14.87	4.77
1949-50 ..	9.52	5.24	1.78	-72.80	-39.02	-78.34	-14.89	-4.24

(a) See § 1., para. 9, note (b) ante.

In the graphs accompanying this Chapter the gross and net revenue and working expenses are shown from 1870 to 1950.

6. Interest.—The interest payments on expenditure from loans for the construction and equipment of the Government railways in Australia during the years 1938-39 and 1945-46 to 1949-50 were as follows:—

GOVERNMENT RAILWAYS : INTEREST PAYMENTS ON RAILWAY LOAN EXPENDITURE.

(£'000.)

Year.	N.S.W.	Victoria. (a)	Q'land. (a)	S. Aust. (a)	W. Aust.	Tasmania. (a)	C'wealth.	Australia. (b)
1938-39 ..	5,360	1,860	1,642	1,075	1,001	80	395	11,540
1945-46 ..	5,240	1,902	1,480	1,054	1,040	97	341	11,265
1946-47 ..	5,126	1,840	1,440	1,013	1,033	100	338	10,972
1947-48 ..	5,145	1,862	1,431	1,001	1,046	112	317	10,996
1948-49 ..	5,038	1,881	1,419	1,006	1,063	113	310	10,913
1949-50 ..	5,350	1,935	1,453	1,023	1,093	121	298	11,355

(a) Capital indebtedness reduced by legislation in these four States. See para. 1, ante. (b) Includes Commonwealth share of interest, Uniform Gauge Railway (1949-50, £82,375).

The interest payable on the cost of construction and equipment as shown in the table in para. 1, ante, after the expenditure from Consolidated Revenue (£12,270,000 to June, 1950) for that purpose had been deducted, was at the rate of 3.1 per cent. in 1949-50.

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:—in 1948-49—New South Wales, £548,000; Victoria, £153,321; South Australia, £87,192; and Tasmania, £7,831; and in 1949-50—New South Wales, £603,000; Victoria, £157,444; South Australia, £81,646; and Tasmania, £5,804.

7. Profit or Loss.—The following table shows, for the years 1938-39 and 1945-46 to 1949-50, 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
1945-46 ..	1,939	242	11	— 1,291	— 960	— 378	— 277	— 825
1946-47 ..	141	— 1,179	— 597	— 1,465	— 1,411	— 461	— 463	—5,517
1947-48 ..	1,546	— 765	— 540	— 1,869	— 2,029	— 609	— 519	—4,867
1948-49 ..	— 313	— 2,423	— 191	— 2,395	— 2,585	— 676	— 413	—9,077
1949-50 ..	— 3,709	— 1,551	— 1,322	— 2,951	— 2,188	— 800	— 401	—13,005

(a) See § 1., para. 9, note (b) ante.

8. 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 1945-46 to 1949-50 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
1945-46 ..	267,423	196,118	38,199	23,119	17,136	3,414	347	545,756
1946-47 ..	261,644	170,165	34,188	19,827	13,879	3,252	223	503,178
1947-48 ..	203,047	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

PASSENGER-JOURNEYS PER AVERAGE ROUTE-MILE OF LINE WORKED. (Number.)

1938-39 ..	30,541	29,896	3,752	6,854	2,608	3,490	53	14,134
1945-46 ..	43,639	41,395	5,818	9,077	3,911	5,318	158	20,055
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

GOODS AND LIVE-STOCK CARRIED. ('000 Tons.)

1938-39 ..	15,417	5,976	5,234	2,640	2,859	844	186	33,156
1945-46 ..	16,885	7,229	5,758	2,970	2,728	880	276	36,726
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

GOODS, ETC., CARRIED PER AVERAGE ROUTE-MILE OF LINE WORKED. (Tons.)

1938-39 ..	2,522	1,257	797	1,032	653	1,282	84	1,218
1945-46 ..	2,755	1,523	877	1,166	623	1,375	125	1,350
1946-47 ..	2,871	1,593	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	609	1,257	249	1,517

(ii) *Metropolitan and Country Passenger Traffic and Revenue, 1949-50.* 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 1949-50 shown below.

GOVERNMENT RAILWAYS : METROPOLITAN AND SUBURBAN, AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1949-50.

System.	Passenger-Journeys. ('000.)			Revenue. (£'000.)		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
New South Wales	(a)	(a)	258,183	(a)	(a)	(b) 12,114
Victoria ..	173,869	8,232	182,101	4,214	3,037	7,251
Queensland ..	25,724	6,642	32,366	553	2,289	2,842
South Australia ..	15,653	1,732	17,385	351	713	1,064
Western Australia ..	9,596	1,592	11,188	167	664	831
Tasmania ..	2,129	1,102	3,231	(a)	(a)	164
Commonwealth ..	..	194	194	..	378	378
Australia ..	(a)	(a)	504,648	(a)	(a)	24,644

(a) Not available. (b) Estimated.

(iii) *Goods Traffic. (a) Classification.* Some indication of the differing conditions of the traffic in each system is also given 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 1949-50.

GOVERNMENT RAILWAYS : CLASSIFICATION OF COMMODITIES CARRIED, 1949-50.
('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)	(c) 1,640	(e) 157	(e) 1,106	14,093	16,996
Victoria ..	1,251	193	1,813	128	716	5,024	9,125
Queensland ..	1,323	504	(d) 2,696	71	708	1,641	6,943
South Australia ..	724	606	737	45	244	1,336	3,692
Western Australia ..	414	245	747	36	147	1,254	2,843
Tasmania ..	131	45	(a)	3	27	564	770
Commonwealth ..	315	11	(a)	4	61	158	549
Australia ..	(b)	(b)	(b)	444	3,009	24,070	40,918

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

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1949-50 :-

GOVERNMENT RAILWAYS : REVENUE FROM GOODS AND LIVE STOCK, 1949-50.
(£'000.)

System.	General Merchandise.	Wool.	Live-stock.	Minerals.		Miscellaneous.	Total.
				Coal and Coke.	Other.		
New South Wales ..	(a)	(a)	(a)	(a)	(a)	(a)	21,892
Victoria ..	8,567	401	932	643	119	155	10,817
Queensland ..	5,554	573	1,285	1,321	766	(b) 2,320	11,819
South Australia ..	2,517	146	351	232	965	(c) 400	4,611
Western Australia ..	3,539	132	256	368	189	265	4,749
Tasmania ..	(a)	(a)	(a)	(a)	(a)	(a)	816
Commonwealth ..	694	13	140	325	15	6	1,193
Australia ..	(a)	(a)	(a)	(a)	(a)	(a)	55,897

(a) Not available. (b) Includes agricultural produce, £2,235,574. (c) Includes wheat, £310,656.

(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 1946-47 to 1949-50 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 1946-47 to 1949-50.

GOVERNMENT RAILWAYS : PASSENGER-MILEAGE SUMMARY.

Year ended 30th June—	Passenger Train-Miles.	Total Passenger-Miles.	Average Passengers per Train-Mile.	Average Mileage per Passenger-Journey.	Passenger Earnings.				Density of Traffic (a).
					Gross.	Per Average Route-Mile Worked.	Per Passenger-Mile.	Per Passenger Train-Mile.	
	('000.)	('000.)	(No.)	(Miles.)	(£'000.)	(£)	(d.)	(d.)	
NEW SOUTH WALES.									
1939	19,173	2,149,154	112	11.51	6,024	985	0.67	75.41	351,526
1947	(b)	(b)	(b)	(b)	c 10,408	1,698	(b)	(b)	(b)
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)
VICTORIA.									
1939	12,434	1,292,843	104	9.10	3,855	811	0.72	74.40	271,948
1947	10,309	(b)	(b)	(b)	5,751	1,211	(b)	133.88	(b)
1948	10,960	1,838,932	168	10.09	6,448	1,365	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
QUEENSLAND. (d)									
1939	5,750	(b)	(b)	(b)	1,523	232	(b)	63.55	(b)
1947	6,136	(b)	(b)	(b)	2,378	366	(b)	93.01	(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)
SOUTH AUSTRALIA.									
1939	3,747	212,982	57	12.15	600	235	0.68	38.45	83,281
1947	3,492	320,844	92	16.18	1,044	410	0.78	71.77	125,970
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
WESTERN AUSTRALIA.									
1939	2,795	(b)	(b)	(b)	514	117	(b)	44.12	(b)
1947	2,955	(b)	(b)	(b)	864	199	(b)	70.14	(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
TASMANIA.									
1939	1,027	35,193	34	15.32	129	196	0.88	30.15	53,485
1947	1,137	(b)	(b)	(b)	247	385	(b)	52.15	(b)
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	38,057	36	11.78	164	268	1.04	37.81	62,083
COMMONWEALTH. (e)									
1939	388	34,085	88	290.98	146	66	1.03	90.21	15,486
1947	421	65,054	154	292.28	305	139	1.13	174.09	29,556
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

(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.

(b) *Ton-Mileage.* Particulars of total ton-mileages are shown in the following table for each of the years 1938-39 and 1946-47 to 1949-50.

GOVERNMENT RAILWAYS : TON-MILEAGE SUMMARY.

Year ended 30th June—	Goods-Trains-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	1,760,554	161	115.95	10,356	1,694	1.41	227.34	287,901
1947	(b)	2,706,240	(b)	153.81	14,326	2,338	1.27	(b)	441,619
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
VICTORIA.									
1939	5,455	760,485	139	127.26	4,276	899	1.35	188.11	159,967
1947	5,230	981,908	188	129.85	6,109	1,287	1.49	280.32	206,805
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	8,596	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
QUEENSLAND.(c)									
1939	8,073	745,351	92	147.57	5,404	823	1.73	160.67	118,248
1947	9,861	991,069	101	183.11	7,268	1,119	1.75	176.90	152,542
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
SOUTH AUSTRALIA.									
1939	2,430	348,553	143	132.01	2,144	838	1.48	211.72	136,293
1947	2,518	400,093	159	124.43	2,946	1,157	1.77	280.80	157,084
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
WESTERN AUSTRALIA.									
1939	3,779	378,089	100	132.24	2,807	641	1.78	178.26	86,393
1947	3,639	365,778	101	141.94	2,810	646	1.84	185.31	84,126
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
TASMANIA.									
1939	880	38,088	43	46.80	296	450	1.87	80.76	57,885
1947	1,085	63,586	59	70.95	581	906	2.19	128.47	99,198
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
COMMONWEALTH.(d)									
1939	514	34,801	68	187.28	224	102	1.54	104.38	15,811
1947	1,092	96,684	89	282.29	580	264	1.44	127.53	43,926
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

(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.

9. Rolling Stock.—The following table shows the number of rolling stock of Government railways as at 30th June for each of the years 1939, 1949 and 1950. Further details may be found in *Transport and Communication Bulletins*.

GOVERNMENT RAILWAYS : ROLLING STOCK.

System.	30th June—								
	1939.			1949.			1950.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
New South Wales ..	1,284	2,808	24,257	1,168	2,826	25,689	1,153	2,849	26,302
Victoria ..	581	2,439	20,993	599	2,452	21,076	597	2,539	21,267
Queensland ..	752	1,413	18,733	786	1,444	20,659	797	1,430	20,796
South Australia ..	335	594	7,966	335	(a) 600	8,509	335	(a) 595	8,591
Western Australia ..	427	475	11,110	424	517	11,216	421	448	11,136
Tasmania ..	95	225	2,120	96	254	2,306	92	202	2,387
Commonwealth ..	113	89	1,359	130	102	1,766	141	107	1,930
Australia ..	3,587	8,043	86,538	3,538	(a) 8,195	91,221	3,536	(a) 8,170	92,409

(a) Excludes 44 interstate coaching stock jointly owned by Victoria and South Australia.

10. 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, 1948-49 and 1949-50 :—

GOVERNMENT RAILWAYS : ACCIDENTS.

System.	1938-39.		1948-49 (a)		1949-50 (a)	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	57	625	45	499	46	369
Victoria ..	48	466	51	525	58	482
Queensland ..	23	132	25	87	17	89
South Australia ..	9	187	16	45	9	122
Western Australia ..	14	142	20	155	22	149
Tasmania ..	7	62	5	8	1	24
Commonwealth ..	1	20	..	31	..	20
Australia ..	159	1,634	162	1,350	153	1,255

(a) Excludes accidents to railway employees.

11. Consumption of Oil and Coal.—The following table shows the quantities and values of oil and coal consumed by the various Government Railway Departments during 1949-50 :—

GOVERNMENT RAILWAYS : OIL AND COAL CONSUMED, 1949-50.

System.	Oil.				Coal.			
	Lubrication.		Fuel, Light, etc.		Locomotives.		Other Purposes.	
	Gallons ('000).	£'000.	Gallons ('000).	£'000.	Tons ('000).	£'000.	Tons ('000).	£'000.
N.S.W. ..	(a)	(a)	(a)	(a)	1,319	2,198	888	1,909
Victoria ..	240	45	21,399	731	353	1,177	165	492
Q'land. ..	356	73	808	67	667	1,038	37	65
S. Aust. ..	136	30	13,238	559	263	860	7	17
W. Aust. ..	179	48	5,010	296	347	548	9	13
Tas. ..	52	12	212	16	73	142	..	1
C'wealth ..	50	10	2,345	162	77	310	1	3
Australia	(a)	(a)	(a)	(a)	3,099	6,273	1,107	2,500

(a) Not available.

12. Staff Employed and Salaries and Wages Paid.—The following tables show details of the average staff employed and the salaries and wages paid by the Government railways of Australia during 1948-49 and 1949-50:—

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

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.		
1948-49.								
New South Wales ..	9,640	49,008	58,648	41	597	638	28,509	481
Victoria ..	5,028	21,942	26,970	(a)	(a)	(a)	13,028	487
Queensland ..	3,918	20,910	24,828	(a)	(a)	(a)	12,017	484
South Australia ..	1,791	7,475	9,266	8	938	996	4,847	475
Western Australia ..	1,651	9,072	10,723	..	..	..	4,843	452
Tasmania ..	330	2,350	2,680	..	63	63	1,125	410
Commonwealth ..	212	2,428	2,640	..	56	56	1,196	444
Australia ..	22,570	113,185	135,755	49	1,704	1,753	65,565	477
1949-50.								
New South Wales ..	9,812	49,111	58,923	39	518	557	30,519	513
Victoria ..	5,002	22,266	27,268	(a)	(a)	(a)	14,321	525
Queensland ..	4,076	21,598	25,674	(a)	(a)	(a)	13,509	526
South Australia ..	1,830	7,935	9,765	10	1,293	1,303	5,568	512
Western Australia ..	1,728	9,362	11,090	..	..	..	5,479	494
Tasmania ..	321	2,259	2,580	15	125	140	1,206	444
Commonwealth ..	248	2,237	2,485	..	78	78	1,268	495
Australia ..	23,017	114,768	137,785	64	2,014	2,078	71,970	515

(a) In Victoria and Queensland railway construction work is not under the control of the Railway Commissioners.

§ 3. Private Railways.

1. **General.**—The bulk of the private railways in Australia has been laid down for the purpose of hauling timber, firewood, sugar-cane, coal and other minerals, and it is not generally used for the conveyance of passengers or for public goods traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to in this section include only lines open to the public for general passenger and goods traffic. Complete particulars of lines used for special purposes only are not available.

2. **Lines Open for General Traffic, 1949-50.**—The following statement is a summary of the operations of private railways open for general traffic during 1949-50:—

PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1949-50.

State.	Route-Miles Open.	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles Run.	Passenger-Journeys.	Goods, etc., Carried.	Em- ployees.
	Miles.	£'000.	£'000.	£'000.	'000.	'000.	'000 tons.	No.
N.S.W. ..	54	1,280	532	383	409	929	727	425
Vic. ..	13	44	10	12	13	5	21	14
Q'land ..	135	113	20	25	58	2	234	26
S.A. ..	51	454	(a)	110	92	..	1,890	117
W.A. ..	277	2,352	319	256	302	19	175	411
Tas. ..	117	949	332	302	208	44	204	329
Australia ..	647	5,192	1,213	1,088	1,082	999	3,251	1,322

(a) Not available.

The table above refers only to private railways open to the public for general passenger and goods traffic. Particulars of the railways included are not complete in many instances and the totals must therefore be regarded as approximate only. In New South Wales and Queensland several lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon, while some of the companies are not able to supply particulars of the capital cost, revenue and working expenses of the lines which they operate. In some cases the figures relating to tonnage of goods, etc., include particulars of coal, ores, timber, sugar-cane, etc., carried for private purposes, as details relating to goods carried for the general public are not recorded separately.

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 (*see above*), 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, 1950, classified (a) according to the controlling authority; (b) according to gauge :—

ELECTRIC TRAMWAYS : ROUTE-MILEAGE OPEN AT 30th JUNE, 1950.

(Miles.)

Particulars—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
ACCORDING TO CONTROLLING AUTHORITY.							
Government ..	153	172	..	..	44	..	369
Municipal ..	..	..	66	96	7	36	205
Total ..	153	172	66	96	51	36	574
ACCORDING TO GAUGE.							
Gauge—							
5 ft. 3 in. ..	..	5	..	..	..	..	5
4 ft. 8½ in. ..	153	167	66	96	..	..	482
3 ft. 6 in. ..	..	..	..	..	51	36	87
Total ..	153	172	66	96	51	36	574

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 1945–46 to 1949–50 :—

ELECTRIC TRAMWAYS : SUMMARY OF OPERATIONS, AUSTRALIA.

Particulars.	1938-39.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
Average mileage open for traffic						
Route-miles	586	606	614	606	589	573
Track-miles	1,046	1,056	1,064	1,057	1,048	1,032
Tram Cars .. No.	3,471	3,516	3,527	3,515	3,440	3,281
Cost of construction and equipment .. £'000	26,275	27,428	27,067	(b) 27,293	(b) 25,880	(b) 26,219
Cost per route-mile .. £	44,827	45,261	44,083	(b) 45,038	(b) 44,014	(b) 45,758
Gross revenue .. £'000	7,649	11,313	(b) 11,210	(b) 12,456	(b) 12,347	(b) 12,008
Working expenses .. "	6,089	8,858	9,495	(b) 11,392	(b) 11,738	(b) 11,992
Net revenue .. "	1,560	2,455	1,715	(b) 1,064	(b) 609	(b) 16
Interest .. "	909	724	625	(b) 654	(b) 507	(b) 480
Proportion of working expenses to gross revenue .. %	79.60	78.29	84.71	(b) 91.46	(b) 95.07	(b) 99.86
Proportion of net earnings to capital cost .. %	5.94	8.95	6.33	(b) 3.90	(b) 2.35	(b) 0.06
Car-miles run .. '000 miles	81,361	88,878	87,581	87,650	81,311	72,423
Gross revenue per car-mile run d.	22.56	30.55	(b) 30.72	(b) 34.11	(b) 36.44	(b) 39.63
Working expenses per car-mile run .. d.	17.96	23.92	26.02	(b) 31.19	(b) 34.64	(b) 39.58
Net revenue per car-mile run d.	4.60	6.63	4.70	(b) 2.92	(b) 1.80	(b) 0.05
Passenger-journeys .. '000	695,476	11,049,254	ab 986,550	ab 943,097	ab 871,553	ab 754,479
Passenger-journeys per car-mile run .. No.	8.55	11.81	ab 11.26	ab 10.76	ab 10.72	ab 10.38
Average gross revenue per passenger-journey .. d.	2.64	2.59	(b) 2.73	(b) 3.17	(b) 3.40	(b) 3.82
Persons employed at end of year .. No.	17,207	20,938	(c) 21,705	(c) 22,266	(c) 19,015	(c) 17,561
Accidents—						
Persons killed .. "	61	97	113	90	81	61
" injured .. "	2,750	6,297	6,704	5,939	5,518	4,942

(a) Excludes passengers crossing Sydney Harbour Bridge whose journeys did not extend beyond Bridge Section. (b) Includes particulars of Hobart Municipal Council Omnibus Service. (c) 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 1949–50 :—

ELECTRIC TRAMWAYS : TRAFFIC AND ACCIDENTS, 1949-50.

State.	Average Mileage Open for Traffic.		Number of Tram Cars.	Car-Miles Run.	Pas-senger-Journeys.	Average Number Pas-sengers per Car-mile.	Accidents.	
	Route-miles.	Track-miles.					Persons—	
							Killed.	Injured.
New South Wales ..	152	285	1,340	'000. (a) 26,368	'000. b 274,681	10.42	21	3,117
Victoria ..	172	319	870	20,666	225,049	10.89	18	929
Queensland ..	66	121	432	9,545	115,239	12.07	3	395
South Australia ..	96	166	340	9,420	71,390	7.58	10	156
Western Australia ..	51	84	173	4,009	38,977	9.72	6	279
Tasmania ..	36	57	126	2,415	(c) 29,143	10.79	3	66
Australia ..	573	1,032	3,281	72,423	754,479	10.38	61	4,942

(a) Estimated. (b) See note (a) to preceding table. (c) Includes passengers carried by Hobart Municipal Council Omnibus Service.

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.

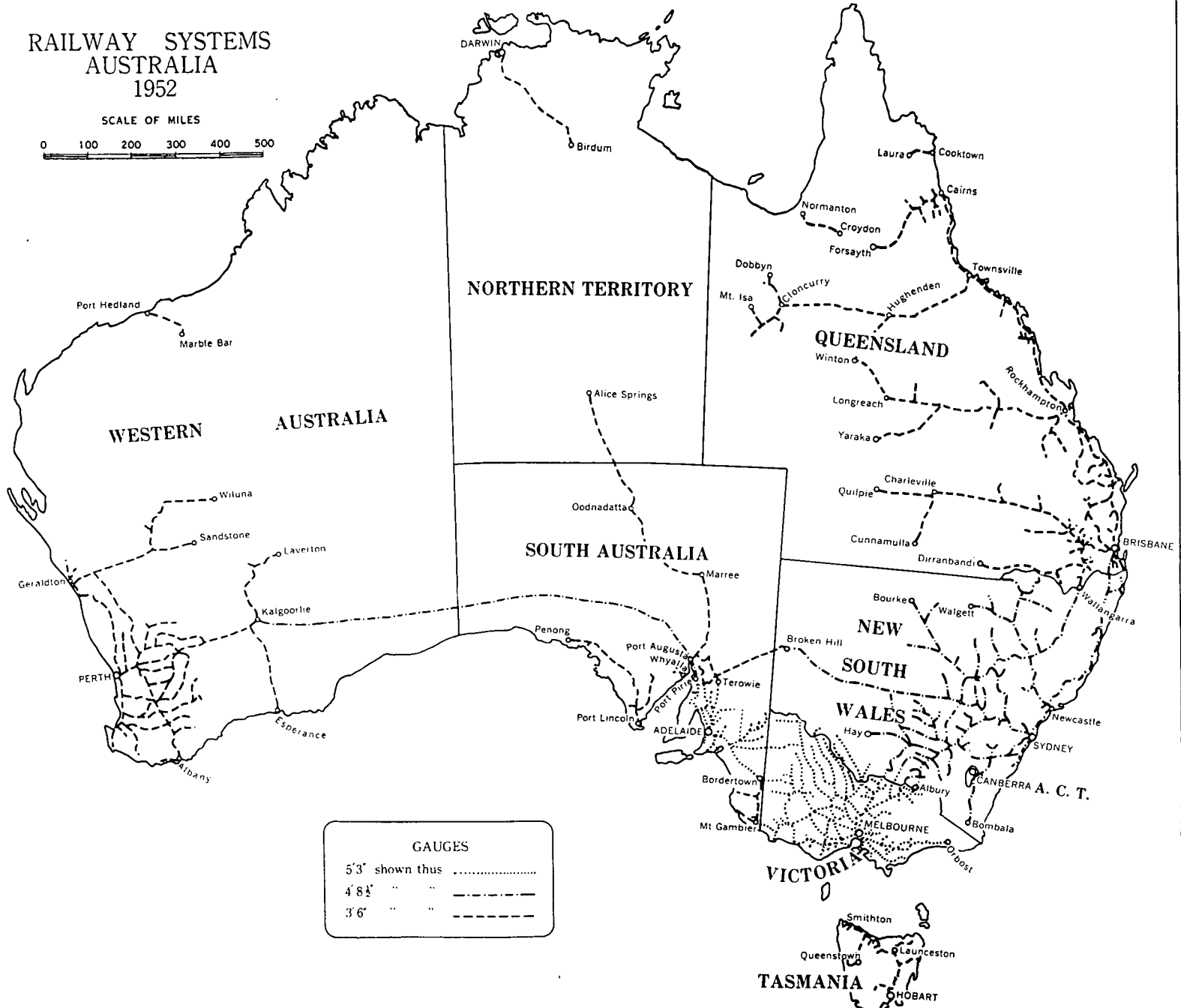
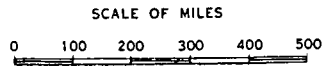
(ii) *Summary of Operations.* The following table shows particulars of the working of electric tramways in each State of Australia for the years 1945-46 to 1949-50 in comparison with the year 1938-39 :—

ELECTRIC TRAMWAYS : SUMMARY OF OPERATIONS.

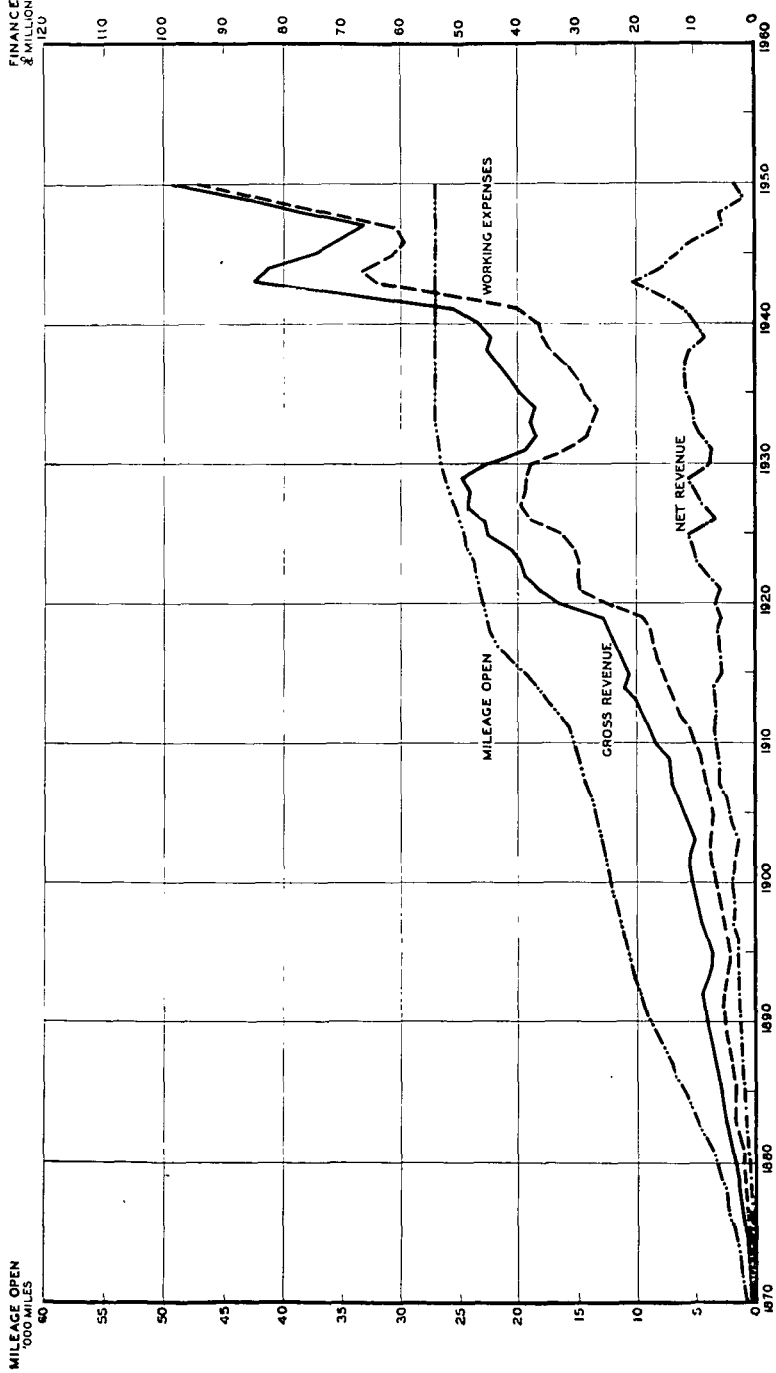
Year ended 30th June—	Mileage Open for Traffic at 30th June.	Total Cost of Construction and Equip-ment.	Gross Revenue.	Work- ing Ex- penses.	Net Revenue.	In- terest.	Pro- portion of Working Ex- penses to Gross Revenue.	Car- Miles Run.	Passenger Journeys.	Persons em- ployed at end of year.
(Route- miles.)	(£'000.)	(£'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
1946	172	8,727	4,370	4,128	242	232	94.47	a 36,200	b 417,344	9,320
1947	172	8,736	4,360	4,378	— 18	220	100.42	a 34,700	b 394,125	9,760
1948	171	8,754	5,310	5,378	— 68	239	101.28	a 34,500	b 367,739	9,651
1949	158	7,168	5,098	5,259	—161	159	103.15	a 29,600	b 312,941	6,433
1950	153	6,891	4,984	5,280	—296	155	105.94	a 26,368	b 274,681	5,785
VICTORIA.										
1939	166	8,086	2,112	1,388	724	254	65.72	22,803	175,198	4,355
1946	172	8,897	3,495	2,126	1,369	180	60.81	25,103	306,659	5,305
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
QUEENSLAND.										
1939	60	2,391	831	632	199	120	76.05	8,100	91,444	1,911
1946	63	2,358	1,356	985	371	90	72.64	10,107	147,007	2,383
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
SOUTH AUSTRALIA.										
1939	78	4,438	711	494	217	154	69.48	8,712	52,906	1,750
1946	96	4,812	1,199	934	265	158	77.87	9,518	84,970	2,331
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

See following page for footnotes.

RAILWAY SYSTEMS AUSTRALIA 1952

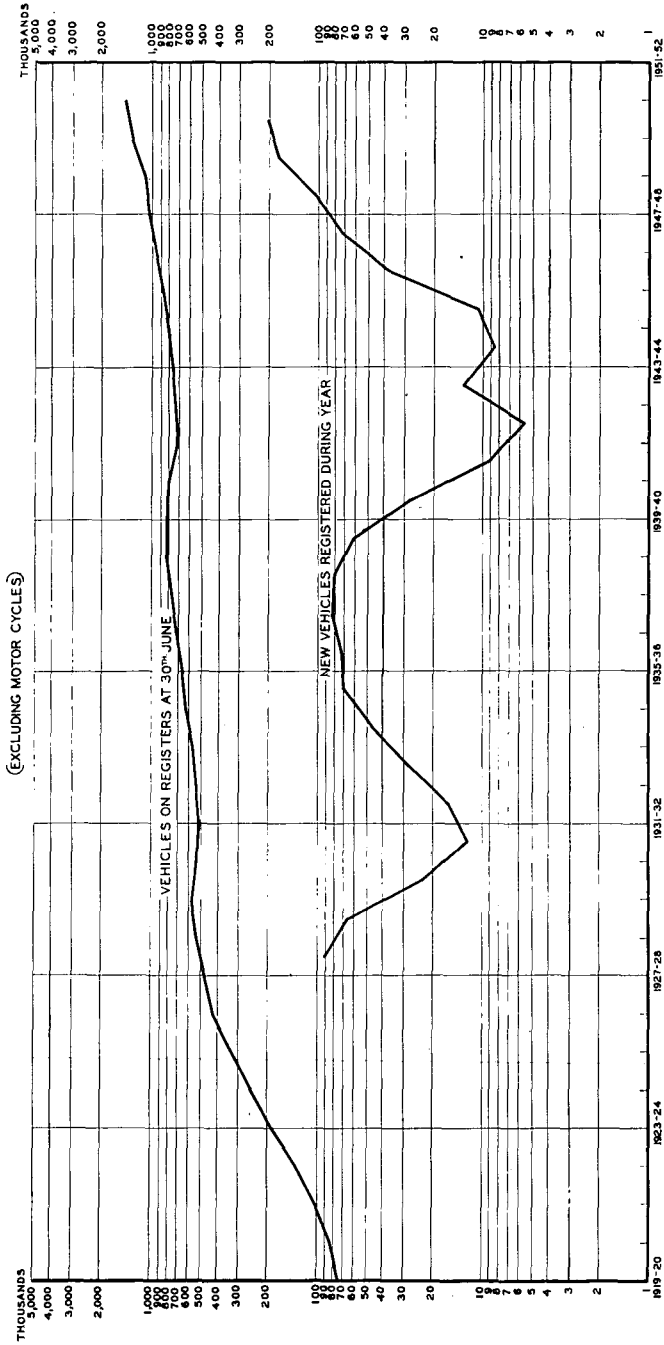


GOVERNMENT RAILWAYS : AUSTRALIA, 1870 to 1950



MOTOR VEHICLE REGISTRATIONS : AUSTRALIA, 1920 TO 1951

RATIO GRAPH



(See pages 177-9.)

ELECTRIC TRAMWAYS: SUMMARY OF OPERATIONS—*continued.*

Year ended 30th June—	Mileage Open for Traffic to 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.)	(£'000.)	(Per Cent.)	('000.)	('000.)	

WESTERN AUSTRALIA.

1939	71	1,752	367	342	25	44	93.19	4,756	38,095	792
1946	69	1,867	583	513	70	48	87.93	5,321	59,805	1,100
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

TASMANIA.

1939	29	664	179	153	26	27	85.47	2,049	15,595	337
1946	34	767	310	172	138	16	55.43	2,629	33,469	499
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 (d)	18 (d)	14 (d)	94.62	2,729 (d)	33,833 (d)	689
1949	36 (d)	915 (d)	378 (d)	349 (d)	29 (d)	15 (d)	92.19	2,584 (d)	29,679 (d)	652
1950	36 (d)	1,039 (d)	394 (d)	356 (d)	38 (d)	19 (d)	90.30	2,415 (d)	29,143 (d)	633

AUSTRALIA.(f)

1939	586	26,275	7,649	6,089	1,560	909	79.60	81,361	695,476	17,207
1946	606	27,428	11,313	8,858	2,455	724	78.29	88,878	1,049,254	20,938
1947	614	27,067	11,210	9,495	1,715	628	84.71	87,581	986,550	21,705
1948	606	27,293	12,456	11,392	1,064	654	91.46	87,650	943,097	22,266
1949	588	25,880	12,347	11,738	609	507	95.07	81,311	871,553	19,015
1950	574	26,219	12,008	11,992	16	480	99.86	72,423	754,479	17,561

(a) Estimated. (b) See note (a) to table in para. 2 above. (c) Includes motor omnibus employees. (d) Includes Hobart Municipal Council Omnibus Service. (e) Excludes administrative staff not distributable between bus and tram services. (f) See notes (a) to (e).

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, 1949-50.* The following table is a summary of the operations during the year ended 30th June, 1950 of omnibus systems controlled by governmental and municipal authorities.

MOTOR OMNIBUS SERVICES : GOVERNMENT AND MUNICIPAL, 1949-50.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Australia.
Length of route .. miles	434	67	337	22	1,795	542	11	3,208
Number of buses .. No.	1,043	330	225	81	138	81	64	1,962
Capital cost .. £'000	4,573	1,138	972	355	500 (a)	171	236	7,945
Gross revenue .. £'000 (b)	4,315	765	517	150	350 (a)	204	93	6,394
Working expenses .. £'000 (c)	4,173	844	449	187	359 (a)	147	120	6,579
Bus-mileage run .. '000 miles	34,302	6,823	4,557	1,503	4,097	1,832	988	54,102
Passenger-journeys .. '000 (d)	202,997	59,765	31,160	6,751	14,465 (a)	4,511	4,576	324,225
Persons employed .. (e)	5,617	1,245	477	(f)	(g)	88 (h)	114	180 (i)

(a) Excludes Hobart Municipal Council Services. (b) Includes £8,000 special grant from Commonwealth Government to Newcastle omnibuses towards losses occasioned by coal strike. (c) Includes estimate of administrative and general charges. (d) Excludes passengers across Sydney Harbour Bridge whose journeys did not extend beyond the Bridge section. (e) Excludes administrative staff not distributable between omnibus and tram services. (f) Not available, employees interchangeable with Electric Tramways and included therein (Section C). (g) Excludes Government Services. (h) Excludes employees of Hobart Municipal Council Service who are interchangeable with Electric Tramways and included therein (see Section C). (i) See notes (e) to (h).

(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 1949-50.

MOTOR OMNIBUS SERVICES : GOVERNMENT AND MUNICIPAL, AUSTRALIA.

Particulars.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
Length of route .. miles	552	1,062	2,454	3,268	3,208
Number of buses ..	1,003	1,112	1,423	1,728	1,962
Capital cost .. £'000	2,301	2,842 (b)	4,745 (b)	6,867 (b)	7,945
Gross revenue .. £'000	2,627 (b)	2,725 (b)	3,862 (b)	5,499 (b)	6,394
Working expenses .. £'000	2,836	3,000 (b)	4,100 (b)	5,690 (b)	6,579
Net revenue .. £'000	- 209	- 275 (b)	- 247 (b)	- 191 (b)	- 185
Proportion of working expenses to gross revenue .. Per cent.	107.95	110.11	b 106.39	b 103.47	b 102.89
Proportion of net revenue to capital cost .. Per cent.	-9.08	-9.74	b -5.21	b -2.78	b -2.32
Bus-mileage run .. '000 miles	30,685	31,716	37,000	48,958	54,102
Gross revenue per bus-mile run .. d.	20.55 (b)	20.62 (b)	(h) 24.44 (b)	(h) 27.08 (b)	(b) 28.51
Working expenses per bus-mile run .. d.	22.18	22.70 (b)	26.00 (b)	28.02 (b)	29.33
Net revenue per bus-mile run .. d.	-1.63	-2.08 (b)	-1.56 (b)	-0.94 (b)	-0.82
Passenger-journeys .. '000	220,022	b 214,202	b 249,042	b 308,374	b 324,225
Passenger-journeys per bus-mile run ..	7.17 (b)	6.75 (b)	6.57 (b)	6.33 (b)	6.02
Average gross revenue per passenger-journey .. d.	2.86 (b)	3.05 (b)	3.72 (b)	4.28 (b)	4.73
Persons employed (a) ..	4,712 (b)	4,697 (b)	5,200 (b)	7,077 (b)	7,721

(a) See relevant notes to table above.

(b) Excludes Hobart Municipal Council Service.

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 operations of motor omnibus services under the control of private operators in these States during the five years ended June, 1950 are shown in the following table.

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)						
1945-46 ..	555	466	951	12,106	66,117	991
1946-47 ..	615	569	1,065	14,261	73,793	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
VICTORIA.(b)						
1949(c) ..	430	(d)	1,169	17,223	72,311	1,047
1950(c) ..	437	(d)	1,351	18,068	83,288	1,031
SOUTH AUSTRALIA.						
1945-46 ..	(b) 68	(d)	325	3,787	8,269	(d)
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)
WESTERN AUSTRALIA.						
1945-46 ..	269	218	626	8,514	26,396	671
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	1,101	13,027	34,998	1,011

(a) Metropolitan and Newcastle Transport Districts only. (b) Metropolitan area only. (c) Year ended 31st December. (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 following statement is a summary of the operations of ferry passenger services in New South Wales, Western Australia and Tasmania during the years 1945-46 to 1949-50 compared with 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
1945-46	46	28,551	35,737	518,867	441
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

WESTERN AUSTRALIA—PERTH.

1938-39	6	880	1,184	11,001	25
1945-46	7	1,022	1,443	13,739	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

TASMANIA.

1945-46 (b)	7	1,348	953	15,910	28
1946-47	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

(a) Includes administrative staff.

(b) Particulars are not available for earlier years.

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 XII.—Trade contains further data on imports, including those of petroleum products.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State are referred to in Official Year Book No. 16, pp. 337-40, and later issues.

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 either by 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) Year 1949-50. Particulars of the registration of motor vehicles, licences issued and revenue received for 1949-50 are contained in the following table. A graph showing motor vehicle registrations since the year 1920 may be found on p. 172.

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, 1949-50.

(Excluding Defence Service Vehicles.)

State or Territory.	Number of Motor Vehicles Registered at 30th June, 1950.(a)					Number of Drivers' and Riders' Licences in force at 30th June, 1950.	Gross Revenue derived from—			
	Motor Cars.(b)	Commercial Vehicles (c)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June, 1950.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
							£	£	£	£
N.S. Wales	272,985	162,625	42,461	478,071	148.23	676,589	3,477,373	454,210	786,266	4,717,849
Victoria ..	226,513	139,143	34,231	399,887	181.53	525,709	2,783,555	131,437	360,983	3,275,975
Q'land	99,846	93,921	19,152	212,919	179.86	264,613	1,172,266	100,045	448,577	1,720,888
S. Australia	91,281	41,252	19,371	151,904	216.93	186,736	1,119,927	102,513	61,504	1,283,944
W. Aust. ..	48,485	42,010	12,800	103,385	185.31	133,954	713,440	44,959	78,666	837,065
Tasmania ..	25,175	12,679	4,930	42,784	153.14	48,745	303,456	24,373	75,807	403,636
Nor. Terr. . .	693	2,720	383	3,796	248.06	2,520	6,702	1,715	..	8,415
A.C.T. . .	2,578	1,334	448	4,360	182.69	6,379	19,315	3,259	186	22,760
Australia	767,556	495,684	133,866	1,397,106	170.68	1,845,265	9,596,034	862,509	1,811,989	12,270,532

(a) Excludes Trailers (68,803), Road Tractors, etc. (8,925), and Dealers' Plates (5,390).
 (b) Includes Taxis and Hire Cars. (c) Includes Lorries, Vans, Buses and Utility Trucks.
 (d) Includes vehicles registered as primary producers (69,350). (e) Includes primary producers' vehicles, Victoria.

(ii) Years 1938-39 and 1945-46 to 1949-50. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1945-46 to 1949-50 in comparison with 1938-39 :—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, AUSTRALIA.

(Excludes Defence Service Vehicles.)

Year.	Number of Motor Vehicles Registered 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.	Per 1,000 of Population at 30th June.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
							£	£	£	£
1938-39	562,271	258,025	79,237	899,533	129.09	1,238,497	6,318,435	508,387	257,652	7,084,474
1945-46	522,615	333,129	72,701	928,445	124.35	1,378,040	5,882,844	557,728	378,732	6,819,304
1946-47	550,400	375,646	86,712	1,012,758	133.59	1,499,765	6,562,232	633,993	476,001	7,672,226
1947-48	593,077	414,072	100,196	1,107,345	143.62	1,601,394	7,437,294	650,294	955,798	9,043,386
1948-49	655,497	452,147	117,133	1,224,777	154.80	1,700,008	8,276,780	713,509	1,442,796	10,433,085
1949-50	767,556	495,684	133,866	1,397,106	170.68	1,845,265	9,596,034	862,509	1,811,989	12,270,532

(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 1946 to 1950:—

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

(Excludes 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
.. 1946 ..	99	123	124	143	122	100	318	147	115
.. 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	166	164	189	162	135	223	164	154

(a) Not available.

(iv) *Revenue per Motor Vehicle.* The following table shows the average revenue per vehicle (excluding motor cycles) received in respect of registration and motor tax in the several States for the year 1938-39 and for each year from 1945-46 to 1949-50. In some States the revenue from motor tax on cycles is not separately recorded. In these cases an amount based on the flat rate provided for cycles in the registration acts has been deducted from the total revenue received, and the average amounts shown must therefore be regarded as approximate only. Registration fees and motor taxes were reduced, during the year 1941-42, in the States of New South Wales, Victoria and Western Australia. In South Australia the reduction was made in the last half of 1940-41 and in Queensland and in the Australian Capital Territory in July, 1942. The reduction was generally 25 per cent., except in the case of New South Wales, where it was 20 per cent. and in the Australian Capital Territory where fees were reduced by 15 per cent. For the State of Western Australia the reduction in registration fees ceased to operate with the commencement of the 1947-48 registration year, and for South Australia in August, 1948. The reduction ceased to operate for New South Wales in December, 1949, for Victoria in February, 1950, for Queensland in August, 1950, and for the Australian Capital Territory in December, 1950. In Tasmania the increase of motor registration fees is at present (June, 1951) under discussion.

AVERAGE REVENUE PER VEHICLE FROM REGISTRATION FEES AND MOTOR TAX (EXCLUDING MOTOR CYCLES).

(£ s. d.)

State or Territory.	1938-39.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
New South Wales ..	7 19 10	7 15 7	7 18 11	8 1 3	7 18 8	7 18 11
Victoria ..	7 6 0	6 13 6	7 1 0	7 3 9	7 1 2	7 10 6
Queensland..	6 15 11	5 19 1	6 1 9	6 2 6	6 1 1	5 18 0
South Australia ..	7 9 10	6 6 8	6 8 6	6 8 6	8 2 3	8 4 7
Western Australia ..	6 6 0	5 8 1	5 9 4	8 11 9	7 5 2	7 14 10
Tasmania ..	6 13 3	7 19 6	8 0 4	8 1 8	7 17 9	7 17 9
Northern Territory ..	1 11 0	1 12 9	1 9 6	1 19 2	1 18 1	1 17 1
Aust. Cap. Territory..	5 15 2	4 14 1	4 16 6	5 3 1	4 17 0	4 16 8
Australia ..	7 7 9	6 16 6	7 0 8	7 6 10	7 6 8	7 10 0

6. New Vehicles Registered.—(i) Year 1949-50. The following table shows the number of new vehicles registered in each State during 1949-50 :—

NEW MOTOR VEHICLES REGISTERED, 1949-50.
(Excludes Defence Service Vehicles.)

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.(b)	W.A.	Tas.	A.C.T.	Total. (b)
Motor cars	41,229	32,321	15,216	13,582	8,950	3,311	403	115,012
Commercial vehicles, etc. ..	20,428	17,240	8,419	5,304	4,831	1,565	159	57,946
Motor cycles	8,659	6,440	3,747	4,564	2,356	886	130	26,782
Total	70,316	56,001	27,382	23,450	16,137	5,762	692	199,740

(a) Includes vehicles registered as primary producers' vehicles. (b) Excludes Northern Territory.

(ii) Years 1938-39 and 1945-46 to 1949-50. Particulars of the number of new vehicles registered in Australia during the years 1938-39 and 1945-46 to 1949-50 are shown in the following table :—

NEW MOTOR VEHICLES REGISTERED : AUSTRALIA.(a)
(Excludes Defence Service Vehicles.)

Vehicles.	1938-39.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
Motor cars	54,107	2,123	21,237	42,745	66,471	115,012
Commercial vehicles, etc. (b)	24,927	8,686	16,317	28,769	36,678	57,946
Motor cycles	7,370	1,953	8,220	14,308	22,226	26,782
Total	86,404	12,762	45,774	85,822	125,375	199,740

(a) Excludes Northern Territory. (b) Includes vehicles registered as primary producers' vehicles, Victoria.

7. World Motor Vehicle Statistics, 1951.—In previous issues of the Year Book tables have been included to show particulars of motor vehicle registrations throughout the world. This information has been 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 68,695,200 motor cars, trucks and buses registered in various countries of the world at 1st January, 1951. This is an increase of 10.0 per cent. on the figure for the previous year, 62,463,794, and is the highest figure attained to that date. Of these vehicles, 48,057,945, or 70.0 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 each State. The survey covered such items as make, year of model, type of vehicle, horse-power and carrying capacity, etc., normally shown on motor registration forms, and also supplementary particulars such as those regarding purpose (private or business) obtained either as special addenda to the registration form of 1947-48 or on special forms collected with registration papers.

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. It is therefore not intended to repeat the information in the Year Book, but the brief mention of some of the general results may be of interest.

The survey covered about 990,000 motor vehicles throughout Australia, and of these about one-third were employed for private use and the remainder for business or part business use. There were 607,000 cars recorded (61 per cent.), 165,000 utilities (17 per cent.), 24,000 panel vans (2 per cent.), 154,000 trucks, lorries, etc. (16 per cent.) and 40,000 other and "not stated" vehicles (4 per cent.). Of vehicles whose year of model

was stated, 28 per cent. were 1929, or earlier models, 44 per cent. were 1935 or earlier, and 80 per cent. were 1940 or earlier. Motor cars comprised 338,000 sedans (60 per cent. of all the cars whose type of body was stated), 25,000 coupés and coupé-sedans (4 per cent.), 45,000 roadsters (8 per cent.), 155,000 tourers (28 per cent.), and 44,000 cars whose type of body was not stated. 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 mimeograph form and in *Transport and Communication Bulletin* No. 41—1949-50.

G. TRAFFIC ACCIDENTS.

1. **General.**—Previously it has not been 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. 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 recording of accidents as between States for 1949-50.

For further particulars of traffic accidents see *Transport and Communication Bulletin* No. 41, 1949-50.

2. **Total Accidents Reported, 1949-50.**—(i) *Summary.* The following table shows, for each State and the Australian Capital Territory during the year 1949-50, the total accidents reported to the police, the number of accidents involving casualties, and the number of persons killed or injured—totals and per 1,000 of population and per 100 motor vehicles registered.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : ACCIDENTS RECORDED AND CASUALTIES, 1949-50.

State or Territory.	Total Accidents Reported. (a)	Accidents Involving Casualties.	Persons Killed.			Persons Injured.(b)		
			Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.	Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.
N.S.W.	16,189	8,549	561	0.18	0.12	10,405	3.28	2.18
Victoria	13,289	8,618	501	0.23	0.13	10,538	4.86	2.64
Queensland	7,275	3,958	202	0.17	0.09	4,771	4.10	2.24
South Australia	5,050	2,154	170	0.25	0.11	2,514	3.66	1.66
W. Australia(c)	2,720	1,612	142	0.26	0.14	1,929	3.53	1.87
Tasmania	2,200	969	64	0.23	0.15	1,154	4.16	2.70
Aust. Cap. Terr.	236	105	3	0.13	0.07	136	6.02	3.12
Total, 1949-50	46,959	25,965	1,643	0.20	0.12	31,447	3.91	2.26
Total, 1948-49	(d)	(e) 21,035	1,424	0.18	0.12	(f) 25,310	(g) 3.25	(h) 2.07

(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) Comparable figure not available. (e) 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. (f) As defined in note (e).

(ii) *Riders, Drivers, Pedestrians, etc., Killed or Injured.* The following table shows the number of persons killed and the number injured during 1949-50 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, 1949-50.

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	73	64	27	23	25	9	..	221
Motor Cyclists	105	120	45	53	46	15	..	384
Pedal Cyclists	41	40	17	20	13	9	2	142
Passengers (all types)(a)	142	133	57	37	31	17	..	417
Pedestrians	194	138	54	35	27	13	1	462
Other Classes (b)	6	6	2	2	..	1	..	17
Not Stated	..	..	..	..	..	..	..	..
Total	561	501	202	170	142	64	3	1,643

					(c)			
PERSONS INJURED.								
Drivers of Motor Vehicles	1,571	1,585	733	312	237	169	24	4,631
Motor Cyclists	1,852	1,679	1,035	688	405	267	25	5,951
Pedal Cyclists	988	1,464	683	419	327	158	19	4,058
Passengers (all types)(a)	3,492	3,298	1,455	691	618	349	49	9,952
Pedestrians	2,420	2,422	820	394	330	197	17	6,600
Other Classes (b)	82	90	45	10	12	7	2	248
Not Stated	..	..	..	..	..	7	..	7
Total	10,405	10,538	4,771	2,514	1,929	1,154	136	31,447

(a) Includes pillion riders. (b) Includes tram-drivers, riders of horses and drivers of animal-drawn vehicles. (c) 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 1949-50.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : AGES OF PERSONS KILLED OR INJURED, 1949-50.

Age-group.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Under 5	21	16	9	6	4	3	..	59
5 and under	13	7	7	5	1	2	..	35
7 " " 17	35	32	15	8	8	9	..	107
17 " " 30	184	161	70	79	53	25	1	573
30 " " 40	84	73	25	18	26	8	..	234
40 " " 50	57	69	22	17	12	8	1	186
50 " " 60	41	40	18	12	15	1	..	127
60 and over	123	103	36	25	23	8	1	319
Not Stated	3	..	..	..	..	..	..	3
Total	561	501	202	170	142	64	3	1,643

					(a)			
PERSONS INJURED.								
Under 5	306	290	124	79	49	29	2	879
5 and under	257	259	87	56	40	32	1	732
7 " " 17	1,064	1,142	571	249	216	127	10	3,379
17 " " 30	4,051	4,036	2,105	1,102	814	446	73	12,627
30 " " 40	1,407	1,685	607	346	227	156	21	4,449
40 " " 50	1,095	1,255	435	224	198	80	7	3,294
50 " " 60	868	886	366	198	106	63	6	2,493
60 and over	980	967	412	179	158	76	6	2,789
Not Stated	368	18	64	81	121	145	8	805
Total	10,405	10,538	4,771	2,514	1,929	1,154	136	31,447

(a) 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 1949-50, 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, 1949-50.(a)

Particulars.	Motor Vehicle.	Motor Cycle.	Pedal Cycle.	Tram.	Animal and Animal-drawn Vehicle.	Pedestrian.	Other Vehicle.
Total Accidents Reported(b)	40,702	9,064	4,466	1,447	1,686	6,693	997
Accidents Involving Casualties	20,209	7,640	4,350	617	727	6,668	560
Persons Killed	1,259	505	157	39	42	470	64
Persons Injured(c)	24,884	8,870	4,566	756	820	6,801	583

(a) It should be noted that, as accidents and casualties classified according to one type of road user, they may also be classified according to another, these totals cannot be added across to obtain grand totals. The table excludes 81 accidents reported for which no cause was stated, of which 66 involved casualties—4 persons killed and 68 persons injured. (b) Total accidents causing death or injury to persons or damage exceeding £10 to property. (c) Persons injured to an extent requiring surgical or medical treatment.

It will be seen, therefore, that motor vehicles were involved in 40,702 accidents, of which 20,209 involved casualties which numbered 1,259 persons killed and 24,884 persons injured. The 40,702 accidents in which motor vehicles were involved comprised 15,952 collisions with other motor vehicles, 4,895 with motor-cycles, 2,997 with pedal cycles, 973 with trams, 1,110 with animals and animal-drawn vehicles, 5,207 with pedestrians, 4,065 with fixed objects, 235 with vehicles other than those mentioned, 4,637 instances of overturning or leaving the roadway, and 631 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 1945-46 to 1949-50.**—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 1945-46 to 1949-50 :—

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.	
								No.	Per 100 Motor Vehicles Registered.
PERSONS KILLED.									
1938-39	552	418	173	118	126	43	3	1,433	0.16
1945-46	483	336	169	97	127	58	..	1,270	0.14
1946-47	508	386	188	101	101	61	1	1,316	0.13
1947-48	508	362	182	128	127	40	1	1,348	0.12
1948-49	564	426	169	119	90	53	3	1,424	0.12
1949-50	561	501	202	170	142	64	3	1,643	0.12
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	2.85
1945-46	7,342	6,202	3,656	2,333	756	799	26	21,114	2.27
1946-47	8,752	7,810	3,799	2,768	780	805	45	24,759	2.45
1947-48	8,557	7,210	3,799	2,927	668	838	63	24,062	2.18
1948-49	9,253	8,225	4,017	(a)2,025	747	952	91	25,310	2.07
1949-50	10,405	10,538	4,771	(a)2,514	(a)1,929	1,154	136	31,447	2.26

(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. Figures for 1948-49 and subsequent years relate to persons requiring surgical or medical treatment. (c) Figures shown for years prior to 1949-50 include persons injured and detained in hospital only. Figures for 1949-50 relate to persons requiring surgical or medical treatment. 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 regions are :—New South Wales, with regional office at Mascot ; Victoria-Tasmania, based on Melbourne ; Western Australia, office at Perth ; Queensland, office at Brisbane ; South Australia, office at Mile End ; Northern Territory, office at Darwin ; Papua-New Guinea, with regional office at Port Moresby.

The work of the Department is divided into two main sections, Administrative and Technical. The three Administrative Divisions under the control of an Assistant Director-General (Administrative) are :—(i) The Division of Air Transport and External Relations whose functions relate to the promotion and economic supervision of air transport ; (ii) the Division of Administration and Personnel which is concerned with the co-ordination of all departmental personnel requirements and associated matters ; and (iii) the Division of Finance and Stores which administers the financial aspects and the stores organization of the Department. The three Technical Divisions administered by the Assistant Director-General (Technical) are :—(i) The Division of Air Navigation which attends to the preparation, amendment and enforcement of all rules and regulations, etc., pertaining to air navigation, particularly from the aspect of safety ; (ii) the Division of Airways whose functions cover the planning, specification, construction, maintenance and operation of all airway operational navigational elements, excluding such elements as come within the normal scope of architectural and civil engineering ; and (iii) the Division of Airports which is concerned with airport planning and design, specification of airport works projects, maintenance of airports, seadromes and buildings and other projects of a dominantly civil engineering or architectural character.

The Accident Investigation Branch is an independent section of Head Office, concerned mainly with major accidents. The Chief Inspector of Accidents Investigation and his team of experts are 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, 1950. 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. The Second Annual Assembly in June, 1948 resolved that the Council should establish the Air Navigation Commission as provided for in the Convention to replace the Air Navigation Committee which had functioned since the interim period. Contracting States were invited to submit nominations to this Commission. The Convention provides for a Commission of twelve members. As nominations were received from nine Contracting

States only, the Commission has been established with this limited membership. Australia did not nominate, as a suitable officer could not be spared from the heavy work programme of the Department of Civil Aviation.

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

Australia was represented at the following meetings convened by ICAO :—

Communications, 3rd Session, Montreal; Operations, 3rd Session, Montreal; Airworthiness, 3rd Session, Montreal; Notams Special Meeting, Montreal; Legal Committee, 3rd Session, Lisbon and 4th Session, Montreal; North Pacific Regional Air Navigation Meeting, Seattle; South-East Asia Regional Air Navigation Meeting, New Delhi; African-Indian Ocean Regional Air Navigation Meeting, London; Divisional meetings of the Air Navigation Commission, Legal, 5th Session, Taormina and 6th Session, Montreal; South-East Asia Frequency Assignment Planning Committee, New Delhi and I.T.U., 2nd Aeronautical Radio Conference, Geneva.

Australia was represented as an observer by the Civil Air Attaché, Washington, at the International Telecommunications Union Frequency Conference for Region II, held at Washington.

The third Annual Assembly of ICAO was held in Montreal with 36 Contracting States and observers from the United Nations present. The work of the Assembly was limited to administrative and finance matters. Australia was represented. At the fourth Assembly, 42 States were present.

The third Meeting of the South Pacific Air Transport Council was held in Wellington in December, 1948 and was attended by all partner Governments. It was the first meeting attended by Canada as a full member. The fourth Meeting was held in Melbourne during May, 1950.

(ii) *International Air Services.* Events which have transpired in connexion with international air services since the developments referred to in the previous issue of the Year Book are outlined in the following paragraphs. Special committees were formed to deal solely with matters concerned with the domestic administration of British Commonwealth Pacific Airlines Limited, and Tasman Empire Airways Limited

A delegation visited Karachi in June, 1949 to complete an Air Transport Agreement with Pakistan, authorizing the continuance of Qantas Empire Airways operations on the Australia-United Kingdom service through Pakistan, with the right to pick up and set down commercial traffic at Karachi.

The Australia-India Air Transport Agreement was signed at New Delhi in July, 1949. This followed negotiations originally begun in September, 1948.

The Australia-Ceylon Agreement was signed at Canberra in January, 1950.

The Governments of Australia, New Zealand and the United Kingdom approved the text of an agreement known as "The Inter-Governmental Agreement for the Continued Operation of the Regular Services between Australia and New Zealand by Tasman Empire Airways Ltd."

The frequency of the Constellation service to United Kingdom was increased during the years 1948-49 and 1949-50 to eight per fortnight in each direction, the Hythe service was reduced to once weekly and then discontinued, and the Lancastrian cargo service to the United Kingdom was increased to two trips per week.

Restrictions on dollar expenditure affected the volume of traffic on the services between Australia and North America. During the years 1948-49 and 1949-50 Pan-American Airways adjusted their fares and diverted some traffic to the Pacific route.

The Australian Government purchased DC6 aircraft for use by B.C.P.A. and these were used on the service between Australia and America from March, 1949. At the same time, the frequency was increased to twice weekly. One trip each fortnight terminated at San Francisco, others terminating at Vancouver.

Canadian Pacific Airlines flew a survey trip over the route from Vancouver to 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).

During November, 1948, Qantas Empire Airways operated a survey flight from Sydney to Johannesburg and return, the route being Perth, the Cocos Islands and Mauritius. This was the first flight ever made by a land plane between Australia and South Africa via the Indian Ocean.

A survey flight with a DC3 aircraft was also made by Qantas Empire Airways between Australia and Portuguese Timor.

4. **Regular Air Services within Australia.**—During May, 1949, approval was given for an increase of approximately 15 per cent. in fares on the main trunk services. Rationing of aviation spirit was continued during the year 1948-49. With the major airlines the effect of the scheme adopted was to impose a cut of 5 per cent. on their fuel requirements as at 1st July, 1948. In January, 1950, rationing of aviation fuel ceased.

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 years 1948-49 and 1949-50 the Air Ambulance and Flying Doctor Services continued to provide medical aid for the outback regions of Australia. As from July, 1949 the Western Australian Section arranged for the operations of the Meekatharra Flying Ambulance Scheme to be incorporated in its activities. 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 February, 1947 to June, 1951 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 10s., (b) away from home base, £2; (ii) an issue bonus (for each pupil trained "ab initio" to "A" Licence standard)—(a) at home base, £75, (b) away from home base, £90; (iii) a renewal bonus (for each licence renewed on club aircraft)—(a) at home base, £10, (b) away from home base, £12 10s. 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 1949-50 (1948-49) 157 (123) issue bonuses and 560 (400) renewal bonuses were earned. Hours flown by subsidized Aero Clubs totalled 34,212 (27,300), and a total subsidy of £77,134 (£44,460) was earned by the nine clubs.

7. **Gliding Clubs.**—The gliding clubs in Australia took steps to form a controlling body known as the Gliding Federation of Australia. For each of the years 1948-49 and 1949-50 a total subsidy of £1,000 was distributed among the controlling gliding authorities in each State.

8. **Airways Engineering.**—During the years 1948-49 and 1949-50 the Airways Communications System throughout Australia has been improved and developed. This work has included the fixed, or point-to-point communication service, and the service between the ground and aircraft.

A start has been made with the V.H.F. communication service and installations were completed at Williamstown and Guildford.

The comprehensive installation programme on the 30 new 112-megacycle V.A.R. radio ranges mentioned in the previous issue was set in operation.

New 75-megacycle marker beacon equipment was installed at points along airways, and also localizers and instrument landing systems were planned to enable pilots to check their positions accurately. 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 during the years 1948-49 and 1949-50 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 introduction into regular airline service of the high speed Convair and DC6 type aircraft increased the amount and complexity of air traffic control work during the years 1948-49 and 1949-50, and increased traffic commitments caused the re-organization of control services at Mascot, Essendon and Eagle Farm. The new system of control is being extended to all aerodromes at which air traffic control is situated.

To provide visual representation of traffic operating under Area Control, a semi-automatic Altitude Assignment Board was developed. Designs for a standard control tower were also drawn up and the new Flight Progress Board equipment planned.

10. Meteorological Aids to Civil Aviation.—Professional meteorological officers of the Department of the Interior are on duty at 36 of Australia's 59 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.—The scarcity of suitable material, labour and plant have slowed the rate of airport construction throughout Australia. Effort was concentrated mainly on the provision of buildings, housing, safety equipment, and facilities were provided where the need was greatest.

Kingsford-Smith Airport.—Work was well under way on Australia's largest and most important airport. Specially constructed suction dredges were used to pump sand from the floor of Botany Bay to fill the old course of Cook's River, a start was made on the main runway and houses were demolished to make way for it. A hydrographic survey of Botany Bay was made to determine where the water airport should be. Temporary international terminal buildings were also commenced.

Essendon Airport.—The only additional airport works completed during the years 1948-49 and 1949-50 were the re-sealing of the main runways. Plans were begun for the construction of airline unit buildings and a new power house constructed.

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.—Construction work has been progressing slowly. Over a million cubic yards of sand have been placed. Excavation of a channel for the diversion of two creeks crossing the area is well in hand.

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.

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 is 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 1946 to 1950, and also of the numbers of persons killed and injured in civil flying accidents during the years 1938–39 and 1945–46 to 1949–50.

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

Particulars.	1939.	1946.	1947.	1948.	1949.	1950.
At 30th June—						
Registered Aircraft Owners .. No.	149	182	323	334	335	359
Registered Aircraft ..	296	349	643	670	748	779
Pilots' Licences—						
Private	1,096	320	(a) 600	614	756	872
Commercial	346	1,019	(a) 499	495	481	469
Student .. .. .	..	..	(a) 939	1,114	1,169	1,778
1st Class Airline Transport ..	..	..	(u) 341	361	307	417
2nd .. .. .	..	..	(a) 25	35	27	30
3rd .. .. .	..	..	(a) 372	360	303	326
Navigators' Licences						
Flight Navigator	59	223	..	..	..	..
Cadet .. .. .	..	..	(a) 72	84	118	126
.. .. .	..	..	(u) 10	12	44	18
Radio Operators' Licences—						
Aircraft Radio Telegraph Operator ..	75	401	..	..	..	..
.. .. . Telephone .. .. .	..	338	..	..	..	..
1st Class Flight Radio Telegraphy Operator .. .. .	..	..	(a) 80	106	113	103
Flight Radio Telephony Operators—	..	..	..	..	..	..
1st Class .. .. .	..	..	(a) 559	590	715	701
2nd .. .. .	..	..	(a) 192	211	230	211
3rd .. .. .	..	..	(a) 5	6	27	38
Flight Engineers' Licences—						
Flight Engineer .. .. .	..	..	(a) 8	16	47	40
Cadet .. .. .	..	..	..	..	4	5
Ground Engineers' Licences	525	1,226	(a) 1,660	1,660	(b)	1,684
Aerodromes—						
Government	71	96	(a) 131	133	142	183
Public	213	230	(a) 243	240	222	213
Emergency grounds	147	73	(a) 54	49	43	(c)
Flying Boat Bases	7	5	5	5	5	5
Accidents (year ended 30th June)—						
Persons Killed	38	44	15	13	42	61
.. Injured	15	1	17	27	21	22

(a) At 1st April, 1948; new categories in accordance with standards of the International Civil Aviation Organization. (b) Not available. (c) 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 1945-46 to 1949-50.

CIVIL AVIATION : OPERATIONS OF REGULAR INTERNAL SERVICES, AUSTRALIA.

Particulars.	Year ended 30th June—					
	1939.	1946.	1947.	1948.	1949.	1950.
Hours flown	No. 39,312	127,808	154,772	212,233	224,853	225,841
Miles	'000 5,302	17,676	23,038	32,371	35,242	36,519
Paying Passengers	No. 41,429	509,190	849,647	1,207,839	1,409,300	1,499,816
Paying Passenger-miles	'000 22,423	224,909	366,150	503,494	566,038	590,429
Freight—						
Actual tons	No. 391	5,021	12,247	25,845	33,381	44,144
Ton-miles	'000 (a)	2,363	5,972	11,920	15,240	19,873
Mail—						
Actual tons	No. (b) 64	2,148	1,120	1,248	1,580	2,594
Ton-miles	'000 (a)	1,549	621	674	789	1,250

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

NOTE.—Figures shown for 1939 and 1946 include Oversea Services of Qantas Empire Airways Ltd. but exclude operations of aircraft chartered for defence purposes. Figures for 1939 relate to subsidized services only.

(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 1945-46 to 1949-50. Particulars are not available in respect of certain services and the figures shown are therefore incomplete. For details of the individual services and routes see *Transport and Communication Bulletin* No. 41, 1949-50.

CIVIL AVIATION : OPERATIONS OF OVERSEA SERVICES. (a)

Particulars.	Year ended 30th June—					
	1939.	1946.	1947.	1948.	1949.	1950.
Route-miles	No. 6,985	10,471	19,459	26,667	29,695	39,217
Hours flown	12,686	22,645	32,633	39,488	40,262	40,602
Miles flown	'000 1,736	4,265	5,921	7,555	7,982	8,768
Paying passengers	No. 5,350	15,702	31,055	41,124	45,296	59,832
Paying passenger-miles	'000 7,335	32,905	75,225	122,678	144,869	165,077
Freight—						
Actual tons	No. 6	152	349	660	765	1,121
Ton-miles	'000 (b)	406	978	2,630	2,808	4,001
Mail—						
Actual tons	No. (b)	564	465	638	577	651
Ton-miles	'000 (b)	2,032	2,112	3,408	3,331	3,453

(a) Incomplete. (b) Not available.

16. *New Guinea Activities.*—(i) *General.* Issues up to and including No. 34, 1941 show particulars of the development of civil aviation in New Guinea and of the companies operating at the outbreak of war with Japan, while subsequent issues carry 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 New Guinea.* During 1949-50 there were 75 aerodromes throughout the Territory including a number of small airstrips opened in the Central Highlands and Sepik Districts. At 30th June, 1950 the whole of the Central Highlands District and the interior of the Sepik, Madang and Morobe Districts were supplied entirely by air transport. Air mail services operated between Sydney and Lae with an extension to Rabaul via Finschhafen. Feeder services are provided by the Territories Administration from Lae to Bulolo, Kavieng, Madang, Manus, Torokina (Bougainville) and Wau.

(iii) *Territory of Papua.* In May, 1949 a regular fortnightly service was commenced between Port Moresby and Daru using Catalina flying boats, with a service to Rabaul and Buin each alternate week. A regular weekly service has been established between Port Moresby and Samarai with extensions to Losuia (Trobriand Islands) and Deboyne Lagoon (Misima).

During 1950 Qantas Empire Airways Ltd. inaugurated a weekly service between Port Moresby and Kokoda and Popondetta (8 miles from Higaturu). Increased traffic enabled a service to be maintained twice a week.

There are 22 serviceable aerodromes maintained in the Territory. Some are suitable for large aircraft but the majority are suitable for light aircraft only, while others are only small emergency landing fields. Major aerodromes are maintained by the Commonwealth Department of Civil Aviation.

Besides the regular passenger and airmail services maintained by Qantas Empire Airways Ltd. charter services by a private operator using small aircraft are available from Port Moresby to Abau, Tapini, Bereina and other small airstrips.

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 Commonwealth Postal Department.*—Under the provisions of the Commonwealth Post and Telegraph Act 1901, the Commonwealth Postal 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) in each State and in Australia at 30th June, 1950. 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, 1950.

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices (a) ..	2,538	2,455	1,285	869	637	520	8,304
Number of square miles of territory to each office in State ..	122	36	522	1,040	1,532	50	358
Number of inhabitants to each office	1,279	897	921	823	876	537	986
Number of inhabitants per 100 square miles	1,046	2,506	177	79	57	1,066	275

(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 1920, 1930, 1940 and 1950.

NUMBER OF POST OFFICES AT 30th JUNE.

State.	1920.		1930.		1940.		1950.	
	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 ..	464	2,129	445	2,231	440	2,085	477	2,061
Victoria ..	269	2,267	282	2,450	282	2,301	291	2,164
Queensland ..	199	1,073	207	1,046	196	1,037	206	1,079
South Australia ..	137	655	147	658	143	644	150	719
Western Australia ..	126	485	126	497	129	486	142	495
Tasmania ..	46	442	43	475	44	464	48	472
Australia ..	1,241	7,051	1,250	7,357	1,234	7,017	1,314	6,990

(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 1920, 1930, 1940 and 1950 is given in the following table :—

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

State.	1920.		1930.		1940.		1950.	
	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.
Central Office ..	83	..	205	..	356	..	890	..
New South Wales ..	11,334	1,912	14,383	1,952	17,281	2,577	31,506	2,333
Victoria ..	7,962	1,089	10,709	1,175	13,605	1,645	22,989	1,237
Queensland ..	4,778	723	5,179	814	6,577	1,568	12,472	1,773
South Australia ..	2,679	427	3,954	414	4,013	333	7,373	488
Western Australia ..	2,110	286	2,902	398	3,469	389	5,470	402
Tasmania ..	1,156	227	1,517	270	1,716	222	2,794	302
Australia ..	30,102	4,664	38,849	5,023	47,017	6,734	83,494	6,535

3. Gross Revenue, Branches—Postmaster-General's Department. The gross revenue (actual collections) in respect of each branch of the Department during each of the years 1945-46 to 1949-50 in comparison with 1938-39 is shown in the table hereunder :—

POSTMASTER-GENERAL'S DEPARTMENT : GROSS REVENUE.
(£'000.)

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Postal—							
1938-39 ..	3,048	2,042	1,067	552	502	211	7,422
1945-46 ..	4,454	3,425	1,935	930	790	344	11,878
1946-47 ..	5,004	3,759	1,780	984	861	410	12,798
1947-48 ..	5,363	4,001	1,815	1,075	925	395	13,574
1948-49 ..	5,533	4,146	1,884	1,162	954	389	14,068
1949-50 ..	6,110	4,523	2,063	1,257	1,038	433	15,424
Telegraph—							
1938-39 ..	502	341	234	118	139	38	1,372
1945-46 ..	1,173	901	738	216	234	59	3,321
1946-47 ..	1,114	865	411	231	224	60	2,905
1947-48 ..	1,061	833	422	224	228	66	2,834
1948-49 ..	1,210	825	443	218	225	70	2,991
1949-50 ..	1,493	1,012	569	303	288	91	3,756
Wireless—							
1938-39 ..	198	152	59	53	36	18	516
1945-46 ..	250	200	83	70	46	23	672
1946-47 ..	294	236	98	76	52	26	782
1947-48 ..	296	234	102	83	56	27	798
1948-49(a) ..	425	351	160	128	86	42	1,192
1949-50(a) ..	..	..	..	..	..	..	..
Telephone—							
1938-39 ..	3,261	2,352	1,098	696	431	202	8,040
1945-46 ..	5,003	3,703	1,838	1,052	661	327	12,584
1946-47 ..	5,410	3,870	1,830	1,136	708	363	13,317
1947-48 ..	5,666	4,166	1,992	1,220	752	388	14,184
1948-49 ..	6,034	4,365	2,121	1,319	801	416	15,056
1949-50 ..	7,742	5,494	2,637	1,715	1,043	537	19,168
All Branches—							
1938-39 ..	7,009	4,887	2,458	1,419	1,108	469	17,350
1945-46 ..	10,880	8,229	4,594	2,268	1,731	753	28,455
1946-47 ..	11,822	8,730	4,119	2,427	1,845	859	29,802
1947-48 ..	12,386	9,234	4,331	2,602	1,961	876	31,390
1948-49 ..	13,202	9,687	4,608	2,827	2,066	917	33,307
1949-50 ..	15,345	11,029	5,269	3,275	2,369	1,061	38,348
Total revenue per head of population—							
1938-39 ..	£ 2.55	£ 2.61	£ 2.44	£ 2.36	£ 2.37	£ 1.97	£ 2.50
1945-46 ..	3.69	4.08	4.24	3.54	3.53	3.01	3.83
1946-47 ..	3.97	4.28	3.75	3.73	3.71	3.37	3.96
1947-48 ..	4.10	4.46	3.89	3.92	3.85	3.35	4.11
1948-49 ..	4.28	4.58	4.06	4.17	3.96	3.42	4.27
1949-50 ..	4.81	5.08	4.53	4.67	4.28	3.83	4.76

(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. See also § 8, par. 4 (1) (b) following.

Compared with the corresponding figures for the previous year an increase of 15.1 per cent. is shown in the gross revenue earned for the year 1949-50. Increases in the several branches were as follows :—Postal 9.6 per cent., Telephone 27.3 per cent., and Telegraph 25.6 per cent.

The gross revenue in 1949-50 was 121.0 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, 107.8, Telegraph 173.8, and Telephone 138.4.

4. Expenditure, Postmaster-General's Department.—(i) *Distribution, 1949-50.* 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, 1950, 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.
1949-50.
(£'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	177	7,170	5,043	2,508	1,745	1,176	656	18,775
General expenses ..	49	649	469	173	146	77	47	1,610
Stores and material ..	12	632	(b) 3,364	278	124	116	17	4,573
Mail services ..	(a) 2,225	900	494	515	258	171	72	4,635
Engineering services (other than New Works)	360	5,242	3,334	1,825	1,044	825	433	13,063
Other services ..	150	..	..	..	..	..	..	150
Total	2,973	14,593	12,704	5,599	3,317	2,365	1,255	42,806
Rent, repairs, maintenance, fittings, etc. ..	..	233	143	73	57	45	23	574
Other expenditure n.e.i. ..	..	11	8	3	1	12	1	36
Capital Works and Services (c)—								
Telegraph and Telephone New Buildings, etc. ..	22	6,267	3,810	2,030	1,098	697	350	14,274
Other expenditure not allocated to States ..	(d) 4,321	..	..	..	..	..	..	4,321
Grand Total	(e) 7,316	21,772	17,502	7,906	4,868	3,238	1,702	64,304

(a) Expenditure on air-mail services, etc. (b) Includes £3,000,000 working advance for payment to credit of Post Office Stores and Transport Trust Account. (c) Includes expenditure from loan. (d) Particulars of apportionment to States not available. Includes superannuation contributions, £641,546; sinking fund payments, £2,048,014; interest on loans, £864,268; exchange, £417,201; and Advances—Overseas Telecommunications, £224,837; Public Works Staff, Salaries and General Expenses, £121,000; and Transferred Officers Pensions and Allowances, £3,691. (e) Includes expenditure not apportioned to States.

A similar table for the year 1948-49 is contained in the *Transport and Communication Bulletin* No. 40, p. 70.

(ii) *Total 1938-39 and 1945-46 to 1949-50.* Actual payments made for each of the years 1938-39 and 1945-46 to 1949-50, respectively, were:—£18,874,000, £29,010,000, £32,724,000, £40,391,000, £53,544,000, and £64,304,000.

The total expenditure increased by 20.1 per cent. during 1949-50 and was 240.7 per cent. higher in 1949-50 than in 1938-39.

5. Profit or Loss, Postmaster-General's Department.—(i) *States, 1949-50.* 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, 1949-50.
(£'000.)

Branch.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Postal	— 295	— 78	— 491	— 92	— 104	— 94	— 1,154
Telegraph ..	— 270	— 198	— 251	51	— 36	— 18	— 722
Telephone ..	322	727	19	— 4	— 101	— 242	721
All Branches ..	— 243	451	— 723	— 45	— 241	— 354	— 1,155

NOTE.—Minus sign (—) indicates loss.

(ii) *Branches, 1938-39 and 1945-46 to 1949-50.* The following statement shows particulars of the operating results of each branch for the years 1938-39 and 1945-46 to 1949-50 :—

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
1945-46.. .. .	2,268	996	— 144	3,058	6,178
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

(a) See Note (a) page 191.

NOTE.—Minus sign (—) indicates loss.

6. **Fixed Assets.**—(i) *Details, 1949-50.* The following statement shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1949 to 30th June, 1950 :—

POSTMASTER-GENERAL'S DEPARTMENT : FIXED ASSETS.

(£'000.)

Particulars.	Net Value, 1st July, 1949.	Capital Expendi- ture, 1949-50.	Gross Value, 30th June, 1950.	Less Deprecia- tion, etc., 1949-50. (a)	Net Value, 30th June, 1950.
Telephone service plant (excluding trunk lines)	76,052	14,872	90,924	1,063	89,861
Joint trunk and telegraph plant (aerial wires, conduits, and cables)	18,896	1,537	20,433	143	20,290
Telegraph service plant	1,188	132	1,320	16	1,304
Postal service plant	681	52	733	..	733
Sites, buildings, furniture and office equipment	15,495	2,495	17,990	238	17,752
Miscellaneous plant	3,636	1,652	5,288	295	4,993
Total	115,948	20,740	136,688	1,755	134,933

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

(ii) *Net Value, 1938-39 and 1945-46 to 1949-50.* The net value of the fixed assets of the Postmaster-General's Department at 30th June, 1939 and 1946 to 1950, respectively, was :—£65,135,000, £88,540,000, £94,986,000, £104,281,000, £115,956,000 and £134,933,000.

At 30th June, 1950 the net value of fixed assets was 107.2 per cent. greater than at 30th June, 1939.

§ 2. Posts.

1. *Postal Matter Dealt With.*—(i) *Australia.* The following table is a summary of the postal matter dealt with in Australia during the five years 1945-46 to 1949-50 in comparison with 1938-39. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the number dispatched is included in the following table, which consequently shows the number of distinct articles handled :—

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.

POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.

1938-39 (b)	..	836,243	120,605	139,635	20,138	9,056	1,306	7,474	1,078
1945-46	..	869,212	116,987	162,398	21,857	16,017	2,156	17,783	2,393
1946-47	..	918,252	122,108	180,307	23,977	16,237	2,159	18,596	2,473
1947-48	..	966,586	126,513	193,413	25,315	17,525	2,294	18,553	2,428
1948-49	..	1,017,422	130,475	201,207	25,799	17,864	2,291	19,180	2,459
1949-50	..	1,094,287	135,943	205,234	25,496	18,589	2,309	17,466	2,170

TOTAL POSTAL MATTER DEALT WITH.

1938-39 (b)	..	903,090	130,245	165,362	23,849	9,585	1,382	8,371	1,207
1945-46	..	942,402	126,838	185,598	24,980	19,345	2,604	18,800	2,530
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

(a) Includes registered, c.o.d. and duty parcels.

(b) Packets were included with letters.

(ii) *States.* The next table shows the postal matter dealt with in each State during the year 1949-50.

POSTAL MATTER DEALT WITH : STATES 1949-50.(a)

State.	Letters, Postcards, and Letter-cards.		Newspapers and Packets.		Parcels.(b)		Registered Articles other than Parcels.	
	Total ('000).	Per 1,000 of Population.	Total ('000).	Per 1,000 of Population.	Total ('000).	Per 1,000 of Population.	Total ('000).	Per 1,000 of Population.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	427,665	133,981	93,678	29,348	7,716	2,417	7,722	2,419
Victoria ..	311,927	143,726	50,277	23,166	4,429	2,041	4,689	2,161
Queensland ..	141,676	121,811	28,551	24,548	3,321	2,855	2,328	2,001
South Australia ..	90,845	129,880	11,519	16,431	1,692	2,413	1,188	1,695
Western Australia	73,116	133,964	14,106	25,845	1,138	2,085	931	1,706
Tasmania ..	49,058	176,851	7,103	25,608	293	1,057	608	2,192
Australia ..	1,094,287	135,943	205,234	25,496	18,589	2,309	17,466	2,170

POSTED FOR DELIVERY OVERSEAS.

New South Wales	11,258	3,527	5,222	1,636	866	271	543	170
Victoria ..	11,774	5,425	2,607	1,201	698	321	92	43
Queensland ..	2,428	2,087	655	563	193	166	57	49
South Australia ..	2,473	3,527	567	808	193	275	38	54
Western Australia	3,726	6,826	1,070	1,960	191	350	50	91
Tasmania ..	383	1,380	46	167	63	226	52	189
Australia ..	32,042	3,980	10,167	1,263	2,204	274	832	103

RECEIVED FROM OVERSEAS.

New South Wales	32,681	10,239	14,852	4,653	230	72	531	166
Victoria ..	10,698	4,929	6,683	3,079	167	77	164	75
Queensland ..	3,692	3,174	2,843	2,444	58	50	30	26
South Australia ..	2,835	4,044	2,765	3,944	39	56	40	57
Western Australia	2,006	3,676	3,290	6,027	41	75	89	163
Tasmania ..	597	2,151	1,290	4,650	12	44	13	48
Australia ..	52,509	6,523	31,723	3,941	547	68	867	108

(a) See explanation in para. 1.—(1).

(b) Includes registered, c.o.d. and duty parcels.

Comparable figures of the number of articles dealt with during 1948-49 may be found in the *Transport and Communication Bulletin* No. 40, pp. 71-74.

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, the Territory of Papua-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, also to meet the requirements of traders and others who do not wish their goods to be delivered except on payment.

(ii) *Summary of Business.* The next statement shows particulars regarding the cash on delivery parcels posted in each State for the years 1945-46 to 1949-50 in comparison with 1938-39 :—

CASH ON DELIVERY PARCELS POST : SUMMARY OF BUSINESS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF PARCELS POSTED.							
1938-39	332,419	36,000	175,376	20,596	67,852	849	633,092
1945-46	401,900	53,500	192,200	41,800	48,000	1,500	738,900
1946-47	483,300	54,300	245,900	49,400	59,000	1,900	893,800
1947-48	491,800	62,200	285,500	60,100	68,200	2,600	970,400
1948-49	516,400	72,500	319,700	77,500	89,800	2,700	1,078,600
1949-50	540,100	88,100	296,100	85,200	93,600	2,700	1,105,800
VALUE COLLECTED.							
(£)							
1938-39	405,844	50,224	226,409	22,962	76,323	1,143	782,905
1945-46	691,019	113,484	317,918	69,284	64,108	2,498	1,258,311
1946-47	950,395	140,533	404,268	95,928	92,502	3,194	1,686,820
1947-48	939,815	148,052	522,655	113,499	114,597	4,506	1,843,124
1948-49	1,229,553	194,505	625,234	163,178	143,617	5,051	2,361,138
1949-50	1,428,055	247,319	659,029	206,778	150,364	5,760	2,697,305
REVENUE INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.							
(£)							
1938-39	45,097	4,867	24,881	2,587	8,207	102	85,741
1945-46	54,220	8,635	25,598	6,019	5,526	177	100,175
1946-47	68,886	10,395	32,705	7,422	6,765	220	126,393
1947-48	67,287	9,611	40,964	10,780	9,272	316	138,230
1948-49	76,737	12,082	44,086	11,941	11,832	344	157,022
1949-50	88,941	15,880	51,309	16,067	15,896	388	188,481

3. **Total Cost of Carriage of Mails.**—During 1948-49 and 1949-50 the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows (1948-49 in parentheses): Inland mails—Road £1,291,684 (£1,145,092), Railway £753,363 (£621,718), Air £756,369 (£615,250); Coastwise mails—£20,029 (£16,473); Oversea mails—Sea £677,561 (£658,550), Air £1,025,714 (£740,103); Grand Total—£4,524,720 (£3,797,186).

4. **Transactions of the Dead Letter Offices.**—During the year 1949-50 there were, in the several States of Australia, 1,576,280 letters, post cards and lettercards returned to writers or delivered, 191,414 destroyed in accordance with the Act, and 109,867 returned to other States or countries as unclaimed—a total of 1,877,561. Corresponding particulars for packets and circulars were—414,997, 198,795, 22,594 and 636,386. There were 2,513,947 articles handled in all, and money and valuables amounting to £403,748 were included.

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, 1949-50.* Particulars regarding the business transactions in each State for 1949-50 are shown hereunder :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, 1949-50.

State:	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Issued.	Poundage Received on Postal Notes.
	£'000.	£'000.	£	£'000.	£
New South Wales ..	17,678	18,184	80,700	5,036	100,911
Victoria ..	8,464	8,995	37,815	4,217	98,802
Queensland ..	5,181	4,922	27,328	1,154	23,422
South Australia ..	2,362	2,220	11,224	937	21,353
Western Australia ..	2,115	2,073	11,921	605	12,323
Tasmania ..	1,214	1,109	6,040	257	5,882
Australia ..	37,014	37,503	175,028	12,206	262,693

(iii) *Australia, 1938-39 and 1945-46 to 1949-50.* The next table shows the number and value of money orders and postal notes issued and paid in Australia in each of the years 1945-46 to 1949-50 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
1945-46 ..	3,508	27,051	3,530	27,274	22,614	9,178	22,622	9,228
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

(iv) *Classification of Money Orders Issued and Paid.* Of the total money orders issued in Australia during 1949-50, 4,472,968 valued at £36,582,128 were payable in Australia, 10,699 (£27,671) in New Zealand, 72,974 (£255,267) in the United Kingdom and 30,069 (£148,493) in other countries. Of the total money orders paid in Australia during 1949-50, 4,479,473 (£36,772,695) were issued in Australia, 25,387 (£72,841) in New Zealand, 85,411 (£410,798) in the United Kingdom and 35,426 (£246,771) 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 1949-50. 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, 1949-50.

Issued in—	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Same State No. '000	9,960	5,402	2,105	1,159	1,032	483	20,141
Value £'000	4,439	2,337	899	505	455	182	8,817
Other States No. '000	1,165	883	736	158	431	6,484	9,857
Value £'000	485	393	316	77	89	1,953	3,313
Total No. '000	11,125	6,285	2,841	1,317	1,463	6,967	29,998
Value £'000	4,924	2,730	1,215	582	544	2,135	12,130

§ 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, 1950 was 8,867,476 or 25 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 and to Perth in 1950. The equipment installed at these points also permits the direct transmission and reception of overseas phototelegrams. 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.

2. **Telegraph and Telephone Mileages.**—The following table shows, for the year ended June, 1950, the combined single wire mileage for both telegraph and telephone purposes in each State. The lengths of conduits and pole routes are also shown.

TELEGRAPHS AND TELEPHONES : MILEAGES, 1949-50.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Cables—							
Exchange aerial, underground and submarine .. single wire miles '000	1,394	1,100	420	285	215	70	3,484
Trunk telephone and telegraph aerial, underground and submarine .. single wire miles '000	44	57	5	10	9	2	127
Total "	1,438	1,157	425	295	224	72	3,611
Conduits .. duct miles '000	8	5	2	1	2	1	19
Aerial wires—							
Telephone, trunk and/or telegraph purposes .. single wire miles '000	135	89	111	63	47	17	462
Exchange and non-exchange service lines .. single wire miles '000	193	150	84	79	37	23	566
Total "	328	239	195	142	84	40	1,028
Pole routes .. total miles '000	33	21	18	15	14	4	105

3. **Telegraph Offices and Telegrams Dispatched within Australia.**—(i) *States.* The following table shows, for each State in 1949-50, the number of telegraph offices (including railway telegraph offices), and 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, 1949-50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Telegraph Offices(a) No. ..	3,125	2,443	1,832	923	978	562	9,863
Messages ('000)—							
Paid and Collect—							
Ordinary ..	10,915	7,099	4,863	2,354	2,736	738	28,705
Urgent ..	1,023	391	316	111	106	42	1,989
Press ..	110	46	45	32	44	10	287
Lettergram ..	22	20	16	14	18	7	97
Radiogram ..	48	5	51	35	48	1	188
Total ..	12,118	7,561	5,291	2,546	2,952	798	31,266
Unpaid—							
Service ..	304	150	173	53	72	33	785
Meteorological	705	319	516	1,319	455	121	3,435
Total ..	1,009	469	689	1,372	527	154	4,220
Grand Total	13,127	8,030	5,980	3,918	3,479	952	35,486

(a) At 30th June.

A comparable table for the year 1948-49 may be found in the *Transport and Communication Bulletin* No. 40, p. 78.

(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 1945-46 to 1949-50 respectively, were :—Telegraph offices—9,389, 9,426, 9,458, 9,599, 9,701 and 9,863; Telegrams dispatched—17,252,000, 35,971,000, 33,729,000, 34,692,000, 35,647,000 and 35,486,000.

The volume of telegraph business has increased by over 105 per cent. since the year 1938-39.

§ 4. Oversea 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 1949-50 is shown hereunder :—

INTERNATIONAL TELEGRAMS, 1949-50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Number received ..	577,691	449,812	53,750	63,241	71,339	17,269	1,233,102
.. dispatched	598,207	424,978	62,099	69,521	68,915	18,656	1,242,376
Total ..	1,175,898	874,790	115,849	132,762	140,254	35,925	2,475,478

(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 1945-46 to 1949-50 :—

INTERNATIONAL TELEGRAMS : AUSTRALIA.

Particulars.	1938-39.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.
Number received ..	716,007	1,023,889	944,115	1,047,076	1,123,019	1,233,102
.. dispatched ..	745,754	1,045,602	987,260	1,023,396	1,123,020	1,242,376
Total ..	1,461,761	2,069,491	1,931,375	2,070,472	2,246,039	2,475,478

(b) *Number of Words, 1949-50.* 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, 1950 :—

INTERNATIONAL TELEGRAMS : AUSTRALIA, 1949-50.

('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) ..	2,510	3,269	5,779	2,082	2,861	4,943
Deferred ordinary ..	5,310	4,442	9,752	4,692	3,304	7,996
Government (a) ..	847	1,221	2,068	1,581	1,675	3,256
Press (including deferred press) ..	2,220	2,965	5,185	8,758	6,259	15,017
Daily letter ..	4,273	6,126	10,399	4,266	6,157	10,423
Other ..	1,442	848	2,290	1,417	857	2,274
Total ..	16,602	18,871	35,473	22,796	21,113	43,909

(a) Includes code telegrams.

Words transmitted to "Other places" included 2,842,420 to the United States of America and 6,115,580 to New Zealand and the Pacific Islands. Words received from "Other places" included 2,468,118 from the United States of America and 5,094,818 from New Zealand and the Pacific Islands.

§ 5. 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 199.

During 1949-50 the total number of telephones added to the post office system was 81,850, compared with 64,980 in 1948-49. With an average at 1st January, 1950 of 132 telephones per 1,000 of population, Australia continues to hold a high place amongst the countries of the world in respect of telephone density, and ranked seventh in a number of countries (more than 60) listed as at that date by the American Telephone and Telegraph Company (*see* para. 7 following).

Seventy-two carrier wave telephone systems were installed during 1949-50 (94 during 1948-49) on trunk line routes serving capital cities and important provincial centres. The number of carrier systems now in service totals 499, representing a channel mileage of 289,897.

Twenty-three automatic exchanges were established during the year (20 during 1948-49) and at 30th June, 1950 there were 174 automatic exchanges in the metropolitan area and 242 in the country districts, to which 685,315 telephones were connected, representing 62 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 years ended 30th June, 1949 and 1950 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
	1949	2,085	1,688	1,143	621	679	368	6,584
	1950	2,138	1,714	1,182	629	687	370	6,720
Telephone Offices (in- cluding Exchanges)	1939	3,040	2,358	1,517	829	907	509	9,160
	1949	3,090	2,421	1,616	908	915	512	9,462
	1950	3,185	2,435	1,643	950	928	518	9,659
Lines connected ..	1939	189,915	150,570	61,650	45,224	26,032	14,144	487,535
	1949	284,135	228,586	97,547	64,008	38,593	21,558	734,427
	1950	305,485	244,858	106,246	69,997	43,130	23,451	793,977
Instruments con- nected	1939	257,246	208,230	82,226	60,451	35,830	18,013	661,996
	1949	397,919	324,919	133,134	88,554	55,067	28,541	1,028,134
	1950	428,546	348,505	144,427	96,560	60,799	31,237	1,109,984
(i) Subscribers' in- struments	1939	250,511	203,668	79,293	58,512	34,380	17,098	643,462
	1949	388,391	317,501	128,794	85,909	53,144	27,386	1,001,125
	1950	418,423	340,524	139,793	93,653	58,596	30,004	1,080,993
(ii) Public tele- phones	1939	4,223	2,573	1,775	1,017	926	562	11,076
	1949	5,384	3,357	2,169	1,271	805	604	13,590
	1950	5,576	3,607	2,275	1,366	883	631	14,338
(iii) Other local in- struments	1939	2,512	1,989	1,158	922	524	353	7,458
	1949	4,144	4,061	2,171	1,374	1,118	551	13,419
	1950	4,547	4,374	2,359	1,541	1,230	602	14,653
Instruments per 100 of population	1939	9.32	11.09	8.08	10.03	7.62	7.59	9.50
	1949	12.70	15.19	11.57	12.89	10.34	10.60	12.99
	1950	13.20	15.82	12.20	13.49	10.88	11.18	13.56

Of the total telephones (1,109,984) in service on 30th June, 1950, 409,563 or 36.9 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 1949-50 :—

TELEPHONES : SUBSCRIBERS' LINES AND DAILY CALLING-RATE, 1949-50.

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 ..	27,207	11.08	155,855	4.11	102,762	2.27
Victoria ..	18,477	11.36	134,227	3.64	80,780	1.68
Queensland ..	9,042	10.93	38,705	3.90	49,794	2.31
South Australia ..	5,802	10.18	34,999	2.56	26,801	1.33
Western Australia ..	8,051	8.40	16,952	3.65	14,191	1.70
Tasmania ..	4,840	5.09	3,415	2.74	13,489	2.07

Similar information for the year 1948-49 may be found in the *Transport and Communication Bulletin* No. 40, p. 82.

A comparison of the average daily calling-rates for each class of exchange shows that Victoria registered the greatest number of calls per line at central exchanges, New South Wales 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, 1949 and 1950 appear hereunder :—

TELEPHONES : NUMBER OF EFFECTIVE PAID LOCAL CALLS.

(‘000.)

State.	Subscribers' Calls.		Calls from Public Telephones.		Total Calls.	
	1948-49.	1949-50.	1948-49.	1949-50.	1948-49.	1949-50.
New South Wales ..	339,259	341,967	44,092	42,464	383,351	384,431
Victoria ..	242,780	241,313	22,941	23,223	265,721	264,536
Queensland ..	96,356	97,360	10,190	8,884	106,546	106,244
South Australia ..	60,101	57,994	7,843	7,448	67,944	65,442
Western Australia ..	43,163	44,721	3,834	3,601	46,997	48,322
Tasmania ..	18,709	18,021	1,883	1,534	20,592	19,555
Australia ..	800,368	801,376	90,783	87,154	891,151	888,530

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 years 1948-49 and 1949-50 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.	'000.	'000.	'000.	'000.	'000.	'000.
1938-39 ..	14,401	11,198	7,306	4,166	2,311	1,770	41,152
1948-49 ..	22,286	18,294	10,998	6,622	3,593	3,183	64,976
1949-50 ..	23,620	19,450	11,415	6,726	3,704	3,287	68,202
Total Revenue—	£	£	£	£	£	£	£
1938-39 ..	739,472	529,190	412,811	196,780	126,141	73,634	2,078,028
1948-49 ..	1,635,525	1,132,215	862,976	498,578	262,551	171,346	4,563,191
1949-50 ..	2,328,509	1,668,877	1,209,202	710,753	375,893	252,011	6,545,245
Average Revenue per call—	d.	d.	d.	d.	d.	d.	d.
1938-39 ..	12.32	11.34	13.56	11.34	13.09	9.98	12.12
1948-49 ..	17.61	14.85	18.83	18.07	17.54	12.92	16.86
1949-50 ..	23.66	20.59	25.42	25.36	24.36	18.40	23.03

The number of trunk line calls during 1949-50 increased by more than 3 million, or 5 per cent., compared with the figures for the previous year, whilst the average revenue per call increased by 36.6 per cent.

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

7. **World Telephone Statistics, 1950.**—Information derived, in the main, from statistics compiled by the American Telephone and Telegraph Company shows that at 1st January, 1950 there were more than 70,000,000 telephones in use throughout the world. The United States of America, with almost 41,000,000, possessed by far the greatest proportion of these (58 per cent.). In density also the United States came first, with 27 instruments per 100 of population. Australia with 13.2 came seventh, following Sweden (23), Canada (20), Switzerland (18), New Zealand (18), and Denmark (16). By June, 1950 the density of telephones in Australia had risen to 13.6 per 100 persons and by June, 1951 to 14.3.

§ 6. Radio Telegraphy and Telephony.

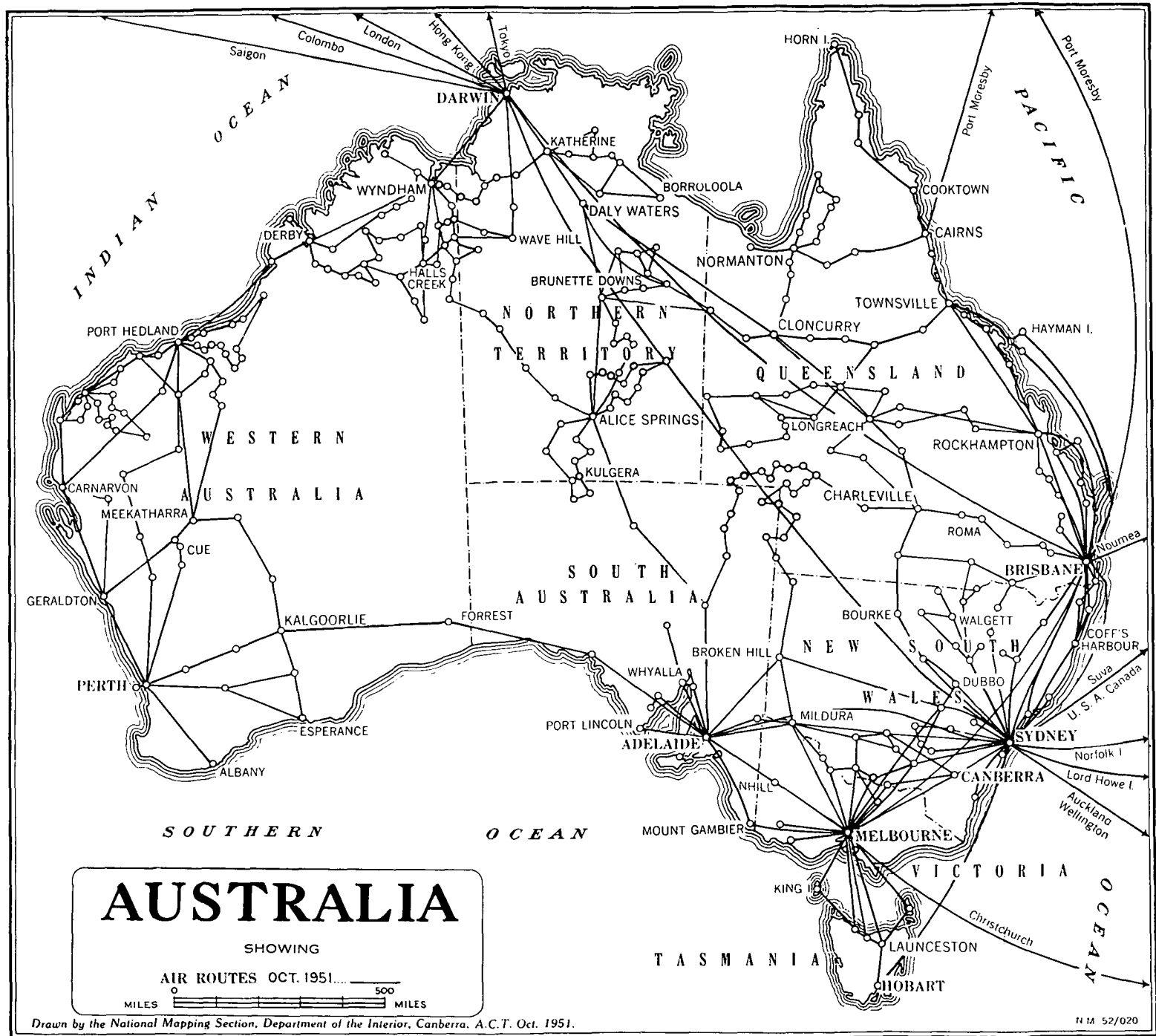
1. **General.**—A statement in regard to the initial steps taken to establish radio telegraphy in Australia appears in Official Year Book No. 18, p. 343.

2. **Radio-communication Stations Authorized.**—(i) *States and Territories, 30th June, 1950.* The following table shows particulars of the different classes of radio-communication stations authorized at 30th June, 1950 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 par. 3 following.

RADIO-COMMUNICATION STATIONS AUTHORIZED, 30th JUNE, 1950.

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.(e)	Mobile (General).(d)	Total.	
New South Wales	11	1	319	790	27	1,148	74	37	111	1,259
Victoria ..	9	4	198	662	13	886	202	149	351	1,237
Queensland ..	11	6	261	213	1	492	64	117	181	673
South Australia	8	2	130	140	3	283	1	..	1	284
Western Australia	13	6	263	80	3	367	31	6	37	404
Tasmania ..	5	3	45	45	2	100	1	..	1	101
Northern Territory	5	1	128	7	..	141	2	..	2	143
Aust. Cap. Terr.	1	..	5	26	..	32	..	2	2	34
Total, Australia	63	23	1,351	1,963	49	3,449	375	311	686	4,135
Papua-New Guinea	5	6	166	48	..	225	..	..	..	225
Grand Total ..	68	29	1,517	2,011	49	3,674	375	311	686	(e)4,360

(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 226 aircraft stations, 617 ship stations and 139 "other" stations which cannot be classified according to States, etc.



Drawn by the National Mapping Section, Department of the Interior, Canberra. A.C.T. Oct. 1951.

(ii) *Grand Totals, 30th June, 1947 to 1950.* 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 1950.

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

At 30th June—	Transmitting and Receiving.					Receiving only.		Ship.	Aircraft.	Other.	Grand Total.
	Aero-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	259	345	168	..	3,471
1949 ..	69	28	1,325	1,717	47	330	323	520	205	..	4,564
1950 ..	68	29	1,517	2,011	49	375	311	617	226	139	5,342

See notes to previous table.

3. **Broadcast Licences Issued.**—(i) *States and Territories, 30th June, 1950.* The following table shows the number of broadcast licences issued in each State and Territory of the Commonwealth at 30th June, 1950.

BROADCAST LICENCES ISSUED, 30th JUNE, 1950.

State or Territory in which Issued.	Broadcasting.		Broadcast Listeners'.		Experimental.
	National Stations.	Commercial Stations.	One Receiver.	More than one Receiver.	
New South Wales ..	(a) 12	35	678,399	64,632	978
Victoria ..	(a) 7	19	505,078	52,478	910
Queensland(b) ..	(a) 13	20	260,033	14,246	333
South Australia ..	3	8	194,113	32,610	301
Western Australia ..	(a) 7	11	133,199	16,129	185
Tasmania ..	3	8	64,369	7,917	97
Northern Territory ..	2	..	1,148	40	9
Australian Capital Territory	1	1	4,872	365	13
Total ..	48	102	1,841,211	188,417	2,826

(a) Includes Short Wave Stations : New South Wales 1 ; Victoria 3 ; Queensland 2 and Papua 1 ; Western Australia 2. (b) Includes Papua.

Of broadcast listeners' licences in respect of one receiver, 1,031,750 or 56.04 per cent. were held by persons situated in metropolitan areas and 809,461 or 43.96 per cent. by persons in country areas.

(ii) *Broadcast Listeners' Licences, 30th June, 1925 to 1950.* The following table shows the number of broadcast listeners' licences issued at 30th June, 1925, 1930, 1935, 1939, 1940 and 1945 to 1950 :—

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
1945(d) ..	570,312	412,317	184,341	160,210	102,065	50,557	1,479,802
1946 ..	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 ..	699,259	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

(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 Chapter XXIX.—Miscellaneous).

At the 30th June, 1950, the National Broadcasting System of Australia comprised 48 transmitting stations as follows :—

Medium-wave Stations—

2FC and 2BL Sydney, 2NC Newcastle, 2NA Newcastle, 2CO Corowa, 2NR Lawrence, 2CR Cummoek, 2CY Canberra, 2LG Lithgow, 2NB Broken Hill, 2NU Manila, 2TR Taree, 3LO and 3AR Melbourne, 3GI Longford, 3WV Doon, 4QG and 4QR Brisbane, 4AT Atherton, 4QB Pialba, 4QL Longreach, 4QN Clevedon, 4RK Rockhampton, 4QS Dalby, 4QY Cairns, 5CL and 5AN Adelaide, 5CK Crystal Brook, 5DR Darwin, 5AL Alice Springs, 6WF and 6WN Perth, 6WA Minding, 6GF Kalgoorlie, 6GN Geraldton, 7ZL and 7ZR Hobart, 7NT Kelson, 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 overseas 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) The general position regarding the fees payable for broadcast listeners' licences is as follows :—(a) For a single receiver possessed by a person, Zone 1, £1 ; Zone 2, 14s. ; (b) for receivers in excess of one possessed by a person, Zone 1, 10s., Zone 2, 7s.

(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 half the ordinary fees, i.e. :—(a) For a single receiver, Zone 1, 10s ; Zone 2, 7s. ; (b) for receivers in excess of one, Zone 1, 5s. ; Zone 2, 3s. 6d.

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

Under the Australian Broadcasting Act 1942-1946 the Australian Broadcasting Commission received the following amounts (in parentheses) out of the fee for each broadcast listener's licence :—20s. (11s.), 14s. (11s.), 10s. (5s. 6d.), 7s. (5s. 6d.), 5s. (3s.), 3s. 6d. (3s.). This procedure was repealed, however, by an amendment to the Australian Broadcasting Act, assented to on the 6th December, 1948, whereby the Commission prepares estimates of its receipts and expenditure for each financial year and submits these estimates to the Minister. Appropriations are made by Parliament for the purposes of the Commission and these, together with all other moneys received by the Commission, are paid into an account in the Commonwealth Bank of Australia. From this account 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 of this Year Book.

(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, 1950, was 102 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 1949-50, 7,743 instances of interfering noises were eliminated with the co-operation of the owners of the offending equipment (8,293 in 1948-49).

(iv) *Prosecutions under the Wireless Telegraphy Act.* During the year 1949-50, 2,766 persons were convicted for using unlicensed broadcast receiving equipment (2,184 in 1948-49). The total fines and costs amounted to £7,359 (£4,716 in 1948-49).

5. *Oversea Communication by Wireless.*—(i) *General.* For particulars of the inception of the beam radio service in 1927 and of the events leading up to the constitution of the Oversea Telecommunications Commission in 1946 see Official Year Book No. 37 and earlier issues.

(ii) *International Traffic.* Particulars of the international telegraphic traffic by radio are not available separately, but are included with the particulars of the oversea traffic by cable. The combined particulars are shown on pp. 200-1 of this issue.

(iii) *Coast Stations.* There are 23 wireless stations established at points around the Australian coast and 6 about the coast of Papua and New Guinea. During 1949-50 these stations handled 424,312 messages (345,233 paying, 9,693 service and 69,386 weather) with a total of 7,000,058 paying words. Corresponding figures for 1948-49 were 409,474 messages (310,199 paying, 30,696 service and 68,579 weather) with 6,205,886 paying words. For further information see *Transport and Communication Bulletin* No. 41, 1949-50 issued by this Bureau.

* For particulars of the increases in fees as from 1st January, 1952 see Appendix to this volume.