



Bureau of Transport Economics

INFORMATION PAPER 42

COASTAL FREIGHT IN AUSTRALIA, 1995–96

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Bureau of Transport Economics

INFORMATION PAPER
42

COASTAL FREIGHT IN AUSTRALIA,
1995–96

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FOREWORD

This paper continues a series of papers which provide information on coastal freight movements between Australian ports. The paper covers cargoes loaded and discharged in Australian ports for 1995–96. It does not include information about international cargo movements to and from Australian ports or from and to overseas ports.

The Bureau of Transport Economics (BTE) began production of this series in October 1997; prior to this the then Maritime Policy Division of the Department of Transport and Regional Development (DoTRD) produced the series. The previous paper in this series (produced in 1995) covers coastal freight movements for the 1994–95 financial year.

The compilation, checking and reconciliation of the data and the compilation of the tables was carried out by Stephen Wheatstone.

As the BTE intends to continue to produce annual updates of this publication to meet user demands, any constructive comments would be greatly appreciated.

Should you wish to know more about these statistics, or related publications, please phone 02 6274 6751 or write to:

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Cairns Port Authority	Newcastle Ports Corporation
Coal Operations, Australia Ltd	Perkins Shipping Pty Ltd
Dampier Port Authority	Port Hedland Port Authority
Darwin Port Authority	Port Kembla Ports Corporation
Department of Marine and Harbours, Western Australia	Port of Brisbane Corporation
Department of Transport, Western Australia	Port of Devonport Authority
Derby-West Kimberley Shire Administration	Port of Launceston Pty Ltd
Esperance Port Authority	Port of Portland
Fremantle Port Authority	Ports Corporation of Stanley
Geelong Port Pty Ltd	Ports Corporation Queensland
Geraldton Port Authority	Ports Corporation South Australia
Gippsland Ports Committee of Management	Robe River Associates
Gladstone Port Authority	Rockhampton Port Authority
Hobart Ports Corporation	Sealink
	Sydney Ports Corporation
	TNT Westernport
	Townsville Port Authority
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EXPLANATORY NOTES

SCOPE/COVERAGE

This publication contains details of interstate and intrastate cargo loaded and discharged at Australian ports for the financial year 1995–96. It excludes trade from small craft at isolated locations in northern and western regions of Australia. Cargo loaded or discharged at Christmas Island, the Cocos (Keeling) Islands and Norfolk Island is also excluded.

SOURCES

Tonnage figures and pack details have been derived from data supplied by port authorities.

To obtain tonne-kilometre figures, a port-to-port distance figure (including pilotage) was applied to individual port tonnages. Where optional routes within Australia could reasonably be used, the shorter distance has been used. Our main reference for distances was *The Ports of Australia*, 13th edition, 1993, published by the Australian Chamber of Shipping.

DEFINITIONS

Freight: includes all cargo lifted, including empty containers, but excludes ship stores and bunkers.

Tonne: all figures are measured in mass tonnes.

Tonne-kilometres: the product of tonnes of freight carried between two ports and the sea route distance, including pilotage, between the two ports.

Transhipped cargo: is recorded for both inbound and outbound to the port of transshipment and assigned to Australian Transport Freight Commodity Code Classification (ATFCC), Division 93.

Australian Transport Freight Commodity Code Classification (ATFCC): was developed jointly by the former Commonwealth Department of Transport and the Australian Bureau of Statistics. It is a systematic classification of commodities transported by several transport modes including: sea, air, road, rail, and pipeline. It has been designed to facilitate standardised classification of

goods carried by these modes to and from and within Australia. The ATFCC is aligned with the Standard International Trade Classification (SITC) at divisional (2-digit)¹ level of classification.

CONSISTENCY OF STATISTICS

Often the data received from the port authorities do not balance between loaded and discharged tonnages. The most common reasons are:

- Port authorities record cargo discharged in the month of arrival of a vessel, and cargo loaded in the month of departure of a vessel. Thus cargo arriving at a port in early July might have been sent at the end of June, and hence will not be recorded by each port in the same financial year. The effect of this may be offset at the end of the year when the reverse applies.
- A port authority's record of cargo loaded and discharged is based on information provided by the ship's agents. Often this information is incorrect since the agent summarises or doesn't know the cargo's true origin or destination and therefore lists the ship's last or next port of call. This is particularly true for liquid and dry bulk commodities, where the cargo originates from, or is destined for, a large number of ports.
- Similarly the commodity given by the agent is not the same at both ports, for many different reasons. Examples of this are gypsum loaded in South Australia, and discharged as fertiliser at NSW ports. Likewise petroleum products discharged in Cairns are listed there as kerosene.

The BTE has endeavoured to reconcile these problems but takes no responsibility as to the correctness or accuracy of this reconciliation. For many of the smaller shipments no reconciliation has occurred. An example of the problem of reconciliation can be seen by comparing the total for cargo reported to be discharged in Tasmanian ports by Tasmanian ports (table 7) against the totals for cargo reported to be discharged in Tasmania by loading (origin) ports (tables 8 and 9).

SYMBOLS AND OTHER USAGE

Figures in all tables may not appear to add due to rounding.

nes not elsewhere stated.

nmfd not more finely designated.

State of origin or destination includes Northern Territory.

¹ The ATFCC code consists of a 4-digit number. The number is made up of major group at 1-digit level, which is subdivided in divisions at 2-digit level, subdivisions at 3-digit level and is finally represented as a commodity group at the 4-digit level. For example, iron and steel wire (6794) at 4-digit level is a member of the iron and steel basic products nes (679) subdivision, which is a member of iron and steel division (67), which in turn is a member of the manufactured goods classified chiefly by materials (6).

Coastal Freight in Australia, 1995-96

TABLE 1 COASTAL FREIGHT SUMMARY FOR AUSTRALIA, 1991-92 TO 1995-96

Year	Loaded (kilotonnes)			Discharged (kilotonnes)		
	Interstate	Intrastate	Total	Interstate	Intrastate	Total
1991-92	29 366	14 209	43 575	29 513	14 449	43 962
1992-93	29 342	14 890	44 232	29 072	15 853	44 925
1993-94	30 769	14 505	45 274	31 748	14 228	45 976
1994-95	33 692	15 498	49 190	34 180	16 286	50 466
1995-96	31 982	15 815	47 798	31 808	16 229	48 037

Source Australian port authorities, personal communications.

TABLE 2 COASTAL FREIGHT LOADED, AUSTRALIA, BY MAJOR COMMODITY
1991-92 TO 1995-96

ATFCC code	Commodity	1991-92	1992-93	1993-94	1994-95	1995-96
<i>Tonnes (millions)</i>						
281	Iron ore	7.4	7.0	8.1	8.4	9.0
282	Bauxite/alumina	9.1	9.9	9.6	10.2	9.6
331	Crude oil	7.7	7.1	6.1	7.2	7.6
33	Petroleum products ^a	5.9	5.7	5.8	6.3	6.5
	Other cargo	13.6	14.5	15.6	17.1	15.1
	Total	43.6	44.2	45.3	49.2	47.8
<i>Tonne-kilometres (billions)</i>						
281	Iron ore	36.3	31.5	37.3	38.7	40.4
282	Bauxite/alumina	20.3	22.3	21.5	22.5	21.1
331	Crude oil	17.5	14.6	10.7	13.2	16.3
33	Petroleum products ^a	9.2	9.1	9.2	10.3	9.7
	Other cargo	16.2	18.4	20.2	24.5	18.6
	Total	96.5	96.0	98.8	109.2	106.1

a. Excludes crude oil (AFTCC code 331 in row above)

Source Australian port authorities, personal communications.

TABLE 3 TOTAL COASTAL FREIGHT FLOWS IN AUSTRALIA, 1995-96

State of origin	State of destination (kilotonnes)							TOTAL
	NSW	Vic	Qld	SA	WA	Tas	NT	
NSW	1 512	1 323	549	891	127	305	6	4 714
Vic	2 950	191	1 433	117	436	1 440	50	6 618
Qld	1 692	607	9 749	198	52	33	12	12 343
SA	2 142	1 033	761	1 540	273	335	0	6 084
WA	7 317	1 981	62	1 056	2 436	69	153	13 073
Tas	2 075	1 922	99	83	55	349	0	4 584
NT	74	1	0	0	2	267	38	382
Total	17 762	7 057	12 652	3 885	3 383	2 798	260	47 798

Source Australian port authorities, personal communications.

TABLE 4 COASTAL FREIGHT FLOWS BETWEEN PORTS IN AUSTRALIA, 1995–96

<i>Port of origin</i>	<i>Port of destination (kilotonnes)</i>							
	<i>Sydney</i>	<i>Rest of NSW</i>	<i>Melbourne</i>	<i>Rest of Vic</i>	<i>Brisbane</i>	<i>Rest of Qld</i>	<i>Adelaide</i>	<i>Rest of SA</i>
Sydney	0	4	28	49	196	71	5	0
Rest of NSW	13	1 495	129	1 117	193	89	13	874
Melbourne	192	23	0	0	68	40	46	29
Rest of Vic	2 705	30	82	110	861	464	27	15
Brisbane	298	86	10	58	0	1 585	0	0
Rest of Qld	266	1 042	391	148	80	8 084	0	198
Adelaide	72	0	525	0	505	0	0	39
Rest of SA	488	1 582	493	14	240	16	1 406	95
Fremantle	1	9	66	288	0	0	120	65
Rest of WA	691	6 616	1 046	581	61	1	902	0
Hobart	94	47	141	125	9	7	29	23
Rest of Tas	366	1 569	1 483	173	0	83	0	31
Darwin	0	1	1	0	0	0	0	0
Rest of NT	0	73	0	0	0	0	0	0
Total	5 186	12 577	4 394	2 663	2 213	10 439	2 548	1 368

(Continued)

<i>Port of origin</i>	<i>Port of destination (kilotonnes)</i>						
	<i>Fremantle</i>	<i>Rest of WA</i>	<i>Hobart</i>	<i>Rest of Tas</i>	<i>Darwin</i>	<i>Rest of NT</i>	<i>Total</i>
Sydney	81	0	162	46	0	0	641
Rest of NSW	46	0	0	97	6	0	4 072
Melbourne	143	0	62	1 117	4	0	1 724
Rest of Vic	9	283	234	26	47	0	4 894
Brisbane	3	0	32	1	9	0	2 082
Rest of Qld	49	0	0	0	3	1	10 261
Adelaide	144	8	0	29	0	0	1 322
Rest of SA	106	15	29	276	0	0	4 761
Fremantle	0	748	2	68	151	0	1 517
Rest of WA	1 657	0	0	0	2	0	11 556
Hobart	0	0	0	61	0	0	536
Rest of Tas	26	29	25	264	0	0	4 048
Darwin	2	0	0	0	0	35	40
Rest of NT	0	0	0	267	3	0	342
Total	2 268	1 084	545	2 253	224	36	47 798

Source Australian port authorities, personal communications.

Coastal Freight in Australia, 1995-96

TABLE 5 COASTAL FREIGHT LOADED, BY PORT, AND BY PACK TYPE IN AUSTRALIA, 1995-96

<i>Port of origin</i>	<i>Bulk (kilotonnes)</i>		<i>Non bulk (kilotonnes)</i>		<i>Total (kilotonnes)</i>
	<i>Dry bulk</i>	<i>Liquid bulk</i>	<i>Container</i>	<i>Other</i>	
Sydney	0	516	109	16	641
Rest of NSW	2 851	92	9	1 121	4 072
Melbourne	0	508	751	466	1 724
Rest of Vic	151	4 601	86	56	4 894
Brisbane	44	2 024	12	2	2 082
Rest of Qld	10 105	57	4	95	10 261
Adelaide	725	592	5	0	1 322
Rest of SA	4 246	505	0	11	4 761
Fremantle	316	1 158	33	10	1 517
Rest of WA	7 204	4 348	1	3	11 556
Hobart	60	264	200	12	536
Rest of Tas	2 746	2	610	689	4 048
Darwin	1	0	35	4	40
Rest of NT	342	0	0	0	342
Total	28 791	14 668	1 855	2 484	47 798

Source Australian port authorities, personal communications.

TABLE 6 COASTAL FREIGHT DISCHARGED, BY PORT, AND BY PACK TYPE IN AUSTRALIA, 1995-96

<i>Port of destination</i>	<i>Bulk (kilotonnes)</i>		<i>Non bulk (kilotonnes)</i>		<i>Total (kilotonnes)</i>
	<i>Dry bulk</i>	<i>Liquid bulk</i>	<i>Container</i>	<i>Other</i>	
Sydney	858	4 148	23	62	5 091
Rest of NSW	11 870	216	1	928	13 015
Melbourne	1 273	1 841	774	514	4 403
Rest of Vic	1 210	298	191	32	1 731
Brisbane	904	1 255	10	0	2 169
Rest of Qld	8 342	2 382	4	101	10 829
Adelaide	1 426	1 102	1	0	2 529
Rest of SA	1 268	107	0	0	1 375
Fremantle	263	1 882	207	1	2 353
Rest of WA	5	895	0	16	916
Hobart	497	340	79	9	926
Rest of Tas	789	434	899	321	2 442
Darwin	5	199	39	15	258
Rest of NT	0	0	0	1	1
Total	28 711	15 098	2 228	2 000	48 037

Source Australian port authorities, personal communications.

TABLE 7 TASMANIAN FREIGHT LOADED AND DISCHARGED BY COMMODITY, 1995–96

<i>ATFCC code</i>	<i>Description</i>	<i>Loaded in Tasmania (kilotonnes)</i>	<i>Discharged in Tasmania (kilotonnes)</i>
00	Food and live animals, nmfd	51	4
01	Meat and meat preparations	27	5
02	Dairy products and birds' eggs	19	1
03	Fish, crustaceans and molluscs	4	0
04	Cereals and cereal preparations	6	85
05	Vegetables and fruit	271	49
06	Sugars, sugar preparations and honey	12	11
08	Feeds for animals	0	1
09	Miscellaneous edible products and preps	31	10
11	Beverages	10	12
21	Hides, skins and furskins, raw	4	0
24	Cork and wood	107	8
25	Pulp and waste paper	12	72
26	Textile fibres	17	0
27	Crude fertilisers and crude minerals	34	37
28	Metalliferous ores and metal scrap	1 814	1 035
29	Crude animal and vegetable materials, nes	6	0
32	Coal, coke and briquettes	0	83
33	Petroleum and petroleum products	2	749
34	Gases, natural and manufactured	0	45
41	Animal oils and fats	9	0
52	Inorganic chemicals	268	79
56	Fertilisers, manufactured	15	8
59	Chemical materials & products, nes	0	24
63	Cork & wood manufactures (excl furniture)	14	11
64	Paper, paperboard & articles of paper	442	26
65	Textile yarn, fabrics, made-up articles	2	1
66	Non-metallic mineral manufactures nes	923	53
67	Iron and steel	80	35
68	Non-ferrous metals	90	1
74	General industrial machinery and equipment nes	9	8
78	Road vehicles	4	7
82	Furniture and parts thereof	7	8
89	Miscellaneous manufactured articles nes	0	11
91	Mail and postal packages	0	1
93	Special transactions and commodities	223	832
99	Other commodities and transactions	70	54
Total		4 584	3 367

Nes Not elsewhere stated.

Source Australian port authorities, personal communications.

Coastal Freight in Australia, 1995-96

TABLE 8 LOADED COASTAL FREIGHT FLOWS BY MAJOR COMMODITY GROUPS, 1995-96

State of origin	State of destination (kilotonnes)							Total
	NSW	Vic	Qld	SA	WA	Tas	NT	
Food and live animals								
NSW	8	0	13	0	11	13	0	45
Vic	3	78	5	0	32	130	0	249
Qld	138	327	44	0	44	1	1	555
SA	68	0	40	0	0	29	0	138
WA	9	0	0	32	0	4	1	47
Tas	2	391	0	1	6	21	0	421
NT	0	0	0	0	0	0	0	0
Sub total	228	797	103	33	92	198	2	1 454
Beverages and tobacco								
NSW	0	0	0	0	0	0	0	0
Vic	0	0	0	0	4	12	0	16
Qld	23	0	0	0	0	0	6	30
SA	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	1	1
Tas	1	7	0	0	2	0	0	10
NT	0	0	0	0	0	0	0	0
Sub total	24	7	0	0	5	12	8	57
Crude materials, inedible, except fuels								
NSW	2	153	102	13	0	33	0	303
Vic	30	0	0	0	5	86	0	123
Qld	1 133	148	7 674	0	0	0	1	8 956
SA	1 763	308	230	1 501	1	250	0	4 053
WA	6 616	851	0	0	2	0	2	7 471
Tas	1 461	156	83	35	1	256	0	1 994
NT	73	0	0	0	0	267	4	343
Sub total	11 079	1 616	8 090	1 550	9	892	6	23 242
Mineral fuels, lubricants and related materials								
NSW	1 442	121	336	859	31	177	0	2 967
Vic	2 911	12	1 417	115	343	351	47	5 197
Qld	390	31	1 626	177	1	32	1	2 258
SA	240	725	10	39	110	44	0	1 168
WA	691	1 128	61	1 016	2 413	61	136	5 506
Tas	0	0	0	0	0	2	0	2
NT	0	0	0	0	0	0	0	0
Sub total	5 675	2 018	3 450	2 206	2 899	667	184	17 098

TABLE 8 LOADED COASTAL FREIGHT FLOWS BY MAJOR COMMODITY GROUPS,
1995-96

(Continued)

State of origin	State of destination (kilotonnes)							Total
	NSW	Vic	Qld	SA	WA	Tas	NT	
Animal and vegetable oils, fats and waxes								
NSW	0	0	0	0	0	0	0	0
Vic	0	0	0	0	0	0	0	0
Qld	3	1	21	0	0	0	0	25
SA	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	0	0
Tas	8	1	0	0	0	0	0	9
Sub total	11	3	21	0	0	0	0	35
Chemicals and related materials, nes								
NSW	22	44	18	0	4	26	5	120
Vic	2	8	1	0	13	86	0	109
Qld	0	92	5	0	0	1	2	100
SA	72	0	5	0	8	11	0	96
WA	0	0	0	3	4	0	4	11
Tas	28	146	16	31	1	61	0	284
NT	1	0	0	0	0	0	0	1
Sub total	124	290	45	35	30	185	11	720
Manufactured goods classified chiefly by material								
NSW	27	1 002	59	15	31	11	0	1 145
Vic	1	11	1	0	18	125	0	158
Qld	0	0	348	21	6	0	0	375
SA	0	0	474	0	151	0	0	625
WA	0	0	0	0	11	1	1	13
Tas	562	931	0	15	43	0	0	1 552
NT	0	0	0	0	0	0	35	35
Sub total	590	1 944	882	51	261	137	36	3 902
Machinery and transport materials								
NSW	8	0	0	0	0	2	0	11
Vic	1	0	0	1	3	39	0	43
Qld	0	0	2	0	0	0	0	2
SA	0	0	0	0	0	0	0	0
WA	0	0	1	0	0	0	1	2
Tas	1	12	0	0	0	0	0	13
NT	0	0	0	0	0	0	0	0
Sub total	10	13	3	1	4	41	1	72

Coastal Freight in Australia, 1995-96

TABLE 8 LOADED COASTAL FREIGHT FLOWS BY MAJOR COMMODITY GROUPS,
1995-96

(Continued)

State of origin	State of destination (kilotonnes)							Total
	NSW	Vic	Qld	SA	WA	Tas	NT	
Miscellaneous manufactured articles								
NSW	2	0	0	0	0	2	0	4
Vic	1	0	1	0	15	560	0	578
Qld	0	0	0	0	0	0	0	0
SA	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	0	1
Tas	0	6	0	0	0	0	0	7
NT	0	0	0	0	0	0	0	0
Sub total	3	6	1	0	16	562	0	589
Commodities and transactions nes								
NSW	0	3	19	5	49	40	1	118
Vic	1	81	7	0	3	51	4	147
Qld	5	7	28	0	1	0	1	42
SA	0	0	1	0	3	0	0	4
WA	1	0	0	4	6	3	7	20
Tas	12	270	0	0	2	9	0	293
NT	0	1	0	0	2	0	0	3
Sub total	19	362	56	9	66	103	12	628
Total	17 762	7 057	12 652	3 885	3 383	2 798	260	47 798

Source Australian port authorities, personal communications.

TABLE 9 COASTAL FREIGHT LOADED, BY PACK TYPE, 1995–96

State of origin	State of destination (kilotonnes)							Total
	NSW	Vic	Qld	SA	WA	Tas	NT	
Dry bulk								
NSW	1 459	209	199	872	15	97	0	2 851
Vic	30	78	0	0	9	33	0	151
Qld	1 276	557	8 070	198	48	0	0	10 148
SA	1 933	308	750	1 501	162	316	0	4 971
WA	6 625	851	0	34	10	0	0	7 520
Tas	1 924	499	83	46	5	249	0	2 806
NT	73	0	0	0	0	267	4	343
Sub total	13 320	2 502	9 102	2 651	250	962	4	28 791
Liquid bulk								
NSW	15	110	300	0	31	152	0	608
Vic	2 890	0	1 417	88	342	324	47	5 109
Qld	411	43	1 593	0	3	32	0	2 081
SA	209	725	10	39	96	18	0	1 097
WA	691	1 128	61	1 016	2 413	61	136	5 506
Tas	36	115	16	37	0	63	0	267
NT	0	0	0	0	0	0	0	0
Sub total	4 253	2 121	3 396	1 179	2 885	651	182	14 668
Container								
NSW	0	3	19	5	49	40	1	118
Vic	29	59	16	29	71	633	0	837
Qld	0	0	2	0	2	1	11	16
SA	0	0	1	0	4	0	0	5
WA	1	1	0	0	12	6	15	34
Tas	83	679	0	0	47	1	0	810
NT	0	0	0	0	2	0	32	35
Sub total	113	742	38	34	188	682	59	1 855
Non bulk								
NSW	38	1 002	31	15	32	15	5	1 137
Vic	0	54	1	0	13	449	4	522
Qld	5	7	84	0	0	0	1	97
SA	0	0	0	0	11	0	0	11
WA	0	0	1	5	1	2	3	13
Tas	33	628	0	1	3	36	0	701
NT	1	1	0	0	0	0	2	4
Sub total	77	1 692	117	21	60	503	15	2 484
Total	17 762	7 057	12 652	3 885	3 383	2 798	260	47 798

Source Australian port authorities, personal communications.

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