Information Paper 50

Australian Sea Freight: 2001–2002

Bureau of Transport and Regional Economics

INFORMATION PAPER 50

AUSTRALIAN SEA FREIGHT, 2001–2002

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FOREWORD

This is the latest in a series of papers that provide information on Australian sea freight movements between, to and from Australian ports. This year the paper covers all sea freight activity around Australia during 2001–2002. Previous series papers are available at http://www.dotars.gov.au/btre/publist4.htm, listed under Maritime Information Papers.

The data and tables in this publication were compiled by Mark Cregan, Diana Rankin and Stephen Wheatstone.

As the BTRE intends to continue to produce annual updates of this publication to meet the needs of users, comments would be greatly appreciated.

Should you wish to know more about these statistics, or related publications, please phone (02) 6274 6751, e-mail data.team@dotars.gov.au or write to:

Manager
Information Services
Bureau of Transport and Regional Economics
GPO Box 501
Canberra ACT 2601

Bureau of Transport and Regional Economics
Canberra
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SCOPE AND COVERAGE

This edition of *Australian Sea Freight, 2001–2002* is an update of *Australian Sea Freight, 2000–2001* (Information paper 48). The paper is set out in six chapters.

- Chapter 1 is a summary chapter.
- Chapter 2 contains details of interstate and intra–state cargo loaded and discharged at Australian ports for the financial year *2001–2002*. It excludes some 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.
- Chapter 3 covers single and continuous voyage permits.
- Chapter 4 covers international sea freight into and out of Australia.
- Chapter 5 covers details of the Australian trading fleet as at 30 June 2002.
- Chapter 6 covers information about ship and cargo movement through Australian ports.

CHAPTER 1   OVERVIEW

In 2001–2002, 669.9 million tonnes of cargo moved across Australian wharves. This represented a 2.5 per cent increase over 2000-2001. 75.6 percent of this cargo was international exports, 8.7 per cent international imports, 7.8 per cent coastal cargo loaded and 7.9 per cent coastal cargo discharged.

INTERNATIONAL FREIGHT

In 2001–2002, 564.6 million tonnes of international cargo moved across Australian wharves (Table 1.1). This represented a 2.2 per cent increase in exports and a 6.6 per cent increase in imports by weight. However, in terms of value there was 0.1 per cent increase in exports, while there was a 2.7 per cent increase in imports.

TABLE 1.1   INTERNATIONAL SEA FREIGHT, 1994–1995 TO 2001–2002

Year	Weight (m tonnes)			Value ($b)		
	Exports	Imports	Total	Exports	Imports	Total
1994–1995	362.4	45.9	408.3	53.0	54.5	107.6
1995–1996	372.9	47.1	420.0	60.0	55.8	115.8
1996–1997	404.0	49.8	453.8	63.4	56.9	120.4
1997–1998	427.1	51.7	478.8	69.6	64.1	133.7
1998–1999	432.1	56.3	488.4	68.2	68.5	136.7
1999–2000	462.2	56.6	518.8	78.2	76.5	154.6
2000–2001	495.7	54.4	550.1	99.4	83.0	182.3
2001–2002	506.6	58.0	564.6	99.5	85.2	184.7

Source: ABS, International Cargo Statistics, unpublished

COASTAL FREIGHT

In 2001–2002, 105.3 million tonnes of coastal cargo were handled through Australian ports. This made up 15.7 per cent of all cargo moved across Australian wharves. Of this 52.4 million tonnes of coastal cargo was loaded and 52.8 million tonnes was discharged as illustrated in Table 1.2.

Coastal cargo tonnages are up by nearly 1.7 per cent overall or 0.8 per cent for loaded cargo and 2.6 percent for discharged cargo. In terms of task performed, based on cargo

loaded, the Australian coastal fleet performed 110.4 billion tonne kilometres, which is up 5.7 per cent on the previous year.

TABLE 1.2   AUSTRALIAN COASTAL FREIGHT SUMMARY, 1994–95 TO 2001–2002

Year	Loaded (kilotonnes)			Discharged (kilotonnes)		
	Interstate	*Intra–state*	*Total*	*Interstate*	*Intra–state*	*Total*
1994-95	33 692	15 498	49 190	34 180	16 286	50 466
1995-96	31 982	15 815	47 797	31 808	16 229	48 037
1996-97	32 581	16 562	49 143	32 505	17 530	50 035
1997-98	34 322	18 200	52 522	34 741	18 968	53 709
1998-99	31 934	16 454	48 388	31 047	17 053	48 100
1999-00	32 743	18 582	51 325	32 359	18 369	50 728
2000-01	33 216	18 786	52 003	32 783	18 692	51 475
2001-02	32 484	19 949	52 432	33 183	19 652	52 835

Note: Reasons for discrepancies between loaded and discharged tonnages in this and other tables are listed in the
   section 'Statistical Issues' on page 51.
Source: Australian port authorities—personal communications.

In 2001–2002, 997 voyages carried coastal cargo, using single voyage permits (SVPs) and continuous voyage permits (CVPs). A total 10.3 million tonnes of freight was estimated to have moved around the Australian coast (Table 1.3) using SVPs and CVPs, up from 6.9 million tonnes in 2000–2001. This represents 19.7 per cent of the loaded coastal task.

Note information provided in this paper on voyage permits is different to that appearing in the BTRE's *Waterline* series. Figures in *Waterline* report tonnes and TEUs (Twenty foot equivalent unit containers) as specified on the permits when issued, while in this paper the figures reported are the actual tonnes and TEUs carried, as notified by the permit holders after they have used the permit. Also, *Waterline* reports on numbers of permits issued within a given period, whereas this paper reports on cargo carried subject to a CVP's or SVP's sail date where it falls within that period.

TABLE 1.3   SUMMARY OF VOYAGE PERMITS USED 2001–2002

Permit type	No of Voyages	Tonnes carried	TEUs Carried
SVP	647	8 974 727	24 754
CVP	350	1 359 132	28 496
Total	997	10 333 859	53 250

Source: DOTARS, SVP and CVP Registers, unpublished

AUSTRALIAN FLEET

The Australian merchant fleet decreased in size, both in deadweight and gross tonnage terms (Table 1.4). In terms of ship numbers, the number of ships in the Australian trading fleet decreased slightly to 77 vessels.

TABLE 1.4   AUSTRALIAN TRADING SUMMARY 1994 TO 2002

Year as at 30 June	Number of ships	Deadweight (tonnes)	Gross Tonnage (tons)
1994	90	3 499 527	2 414 844
1995	85	3 203 623	2 298 894
1996	82	3 303 294	2 267 719
1997	76	3 164 568	2 238 141
1999	77	2 505 369	1 864 976
2000	77	2 283 336	1 729 770
2001	81	2 323 983	1 764 298
2002	77	2 028 637	1 587 743

Note: Data for 1998 was not collected.

Sources: Department of Transport and Regional Services — personal communications; Lloyd's Maritime Information Services, unpublished; Fairplay, World Shipping Directory 2001-2002, 20020; Baird Publications, Australasian Shipping Directory 2001, 2001; Lloyd's List, Lloyd's Maritime Directory 2001, 2001; Shipping companies (various) — personal communications; Department of Workplace Relations and Small Business; Australian Shipping, 1994, 1995, 1996 and 1997.

AUSTRALIAN PORT ACTIVITY

In 2001-2002 there was a decrease in the number of international trading ships entering Australia, the number of international voyages trading ships made to Australia and the number of ports they visited (Table 1.5).

TABLE 1.5   SUMMARY OF AUSTRALIAN PORT VISITS[a] 1996–1997 TO 2001–2002

Year	Number of ships entering Australia from overseas[b]	Number of voyages into Australia from overseas[b]	Number of ship calls at Australian ports (includes coastal)[c]
1996–1997	2 870	8 138	18 643
1997–1998	3 239	9 706	20 322
1998–1999	3 187	9 744	20 899
1999–2000	3 165	9 893	21 683
2000–2001	3 162	9 738	21 542
2001–2002	3 103	8 779	21 358

a.   Standard visits, as defined by Lloyd's Maritime Information.

b.   Excludes ships that do not leave the Australian coast.

c.   Ship calls includes ships coasting around Australia.

Note: A ship which sails to Australia 3 times and makes a total of 15 port calls in Australia in a year, counts as 1 ship, 3 voyages and 15 ship calls or visits.

Source: Lloyd's Maritime Information Services, Lloyd's Voyage Record, unpublished.

In 2001–2002 the number of international voyages decreased by 9.8 per cent, while ship calls decreased by 0.9 per cent. Although ship activity declined, the amount of cargo that moved across Australia's wharves increased by 2.5 per cent making 2001–2002 the busiest period yet recorded.

CHAPTER 2   COASTAL FREIGHT

In 2001–2002, 105.3 million tonnes of coastal cargo were handled through Australian ports. Of this, 52.4 million tonnes of coastal cargo was loaded and 52.8 million tonnes was discharged.

In terms of task performed, based on cargo loaded, the Australian coastal fleet performed 110.4 billion tonne kilometres. This is up on the previous year, with increases in *crude oil* and *other cargo*; slight decreases in *iron ore* and *bauxite/alumina;* and *petroleum products* remaining steady.

MAJOR COMMODITIES.

In 2001–2002 in terms of tonnage loaded, there were increases in *petroleum products* and *other cargo*, which was partially offset by decreases in *crude oil* and *iron* (Table 2.1). *Bauxite/Alumina* shipments remained stable.

TABLE 2.1   COASTAL FREIGHT LOADED BY MAJOR COMMODITY, 1996–97 TO 2001–2002

ATFCC Code	Commodity	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02
		Tonnes (millions)					
281	Iron ore	8.3	8.2	8.6[b]	6.8	6.7	6.5
282	Bauxite/alumina	10.1	10.3	9.9	12.1	11.6	11.6
331	Crude oil	8.3	8.9	6	6.6	7.5	7.0
33	Petroleum products[a]	6.9	7.2	6.9	6.5	5.8	6.5
	Other cargo	15.6	18	17	19.2	20.3	20.9
	Total	49.1	52.5	48.4	51.3	52.0	52.4
		Tonne-Kilometres (billions)					
281	Iron ore	38.1	40.9	40.3[b]	29.7	28.3	26.3
282	Bauxite/alumina	22.2	22.4	21.8	27.9	25.7	25.6
331	Crude oil	18.8	21.7	15.1	17.1	15.2	20.3
33	Petroleum products[a]	12.9	10.7	10.7	9.6	9.4	9.4
	Other cargo	20.7	21.2	20.9	24.6	25.9	28.8
	Total	112.7	116.6	108.8	108.9	104.5	110.4

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

b.   Adjusted to more closely balance with discharged input/output tables for all the iron ore ports.

Source: Australian port authorities—personal communications.

CARGO FLOWS.

Coastal freight flows between the States are detailed in Table 2.2. Queensland and Western Australia are ranked 1st and 2nd in terms of state of origin, while Queensland and New South Wales are ranked 1st and 2nd in terms of state of destination. Queensland's top ranking as state of origin is due to the large tonnages of bauxite intra–state bauxite trade. Overall Western Australia's and Victoria's ranking have strengthened, while New South Wales' position has declined slightly.

TABLE 2.2 TOTAL COASTAL FREIGHT FLOWS, 2001–2002

State of origin	*State of Destination (kilotonnes)*							
	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*Total*
NSW	1 201	1 249	618	1 046	201	253	6	4 575
Vic	2 578	131	727	368	273	1 990	0	6 067
Qld	1 962	654	12 455	282	77	320	89	15 839
SA	2 283	1 474	704	1 989	149	272	3	6 875
WA	5 385	1 466	878	642	2 887	358	304	11 921
Tas	1 942	2 762	21	237	448	1 122	0	6 532
NT	47	0	3	0	6	444	123	623
Total	15 398	7 736	15 407	4 565	4 041	4 759	526	52 432

Source: Australian port authorities—personal communications.

The changes in state shipping activity are more clearly seen in Figures 2.1 and 2.2, which show the freight flows over the last 7 years. Trends include:
- increasing tonnages loaded in South Australia and especially Western Australia and Tasmania, with a corresponding decline in New South Wales, Victoria and Queensland.
- irelative stability in the discharge of cargo for all States, with slight declines in Victoria, New South Wales and Western Australia balanced by increases in Queensland, South Australia and Tasmania.

FIGURE 2.1   COASTAL FREIGHT LOADED BY STATE, 1995–96 TO 2001–2002.
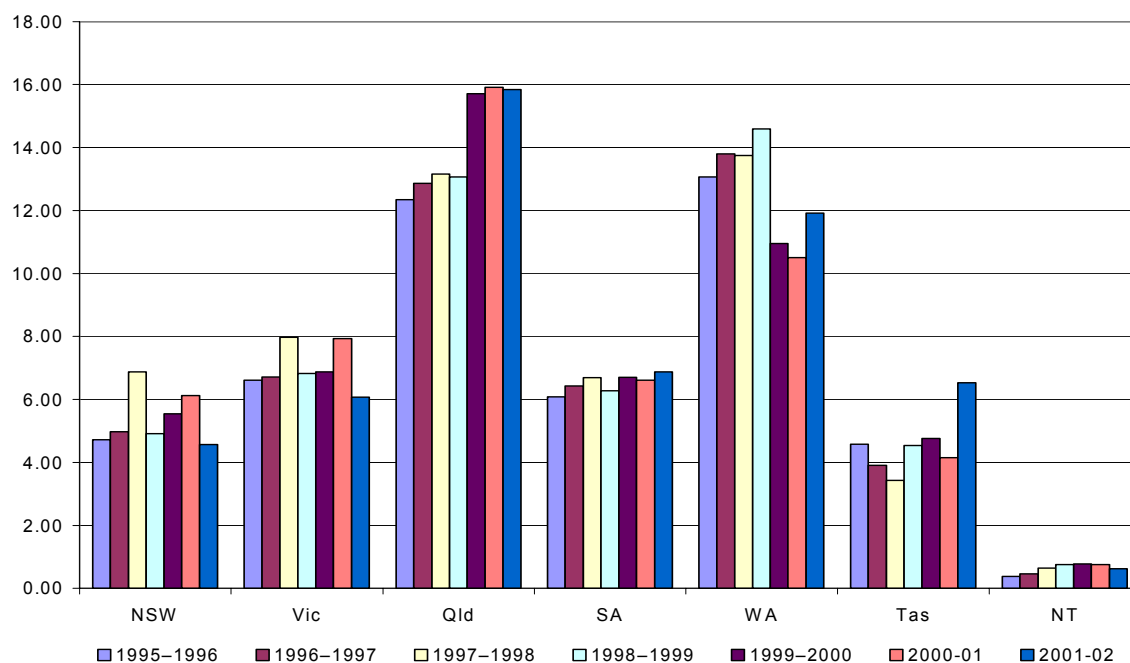
Source: BTRE Coastal Freight Database, unpublished.

FIGURE 2.2   COASTAL FREIGHT DISCHARGED BY STATE, 1995–96 TO 2001–2002.
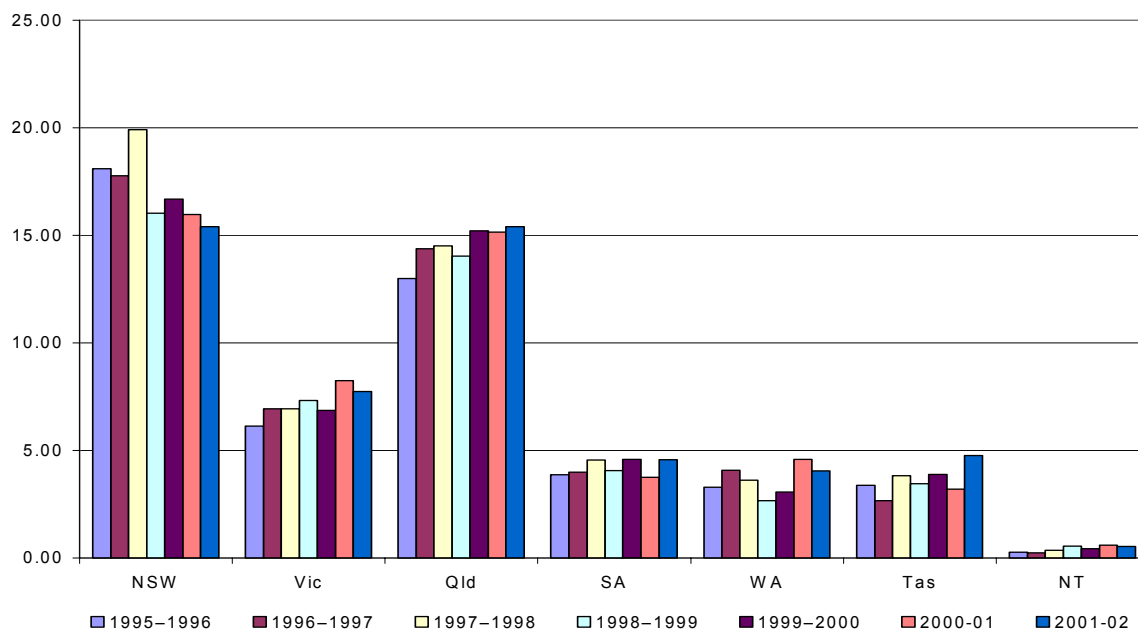
Source: BTRE Coastal Freight Database, unpublished.

TABLE 2.3   COASTAL FREIGHT FLOWS BETWEEN AUSTRALIAN PORTS, 2001–2002

Port of Origin	Sydney	Rest of NSW	Melbourne	Rest of Vic	Brisbane	Rest of Qld	Adelaide	Rest of SA	Fremantle	Rest of WA	Hobart	Rest of Tas	Darwin	Rest of NT	Total
						Port of Destination (kilotonnes)									
Sydney	0	5	8	76	300	70	20	0	165	0	44	47	0	0	736
Rest of NSW	334	862	169	996	78	170	0	1 026	36	0	57	105	6	0	3 839
Melbourne	146	22	0	90	84	0	188	97	265	0	1	1 428	0	0	2 322
Rest of Vic	2 371	39	36	5	406	237	64	20	8	0	453	108	0	0	3 746
Brisbane	164	6	41	25	0	1 694	14	56	36	3	0	2	27	0	2 068
Rest of Qld	316	1 476	478	110	792	9 969	84	129	27	11	5	312	62	0	13 771
Adelaide	50	78	800	16	367	4	7	0	119	0	2	0	3	0	1 446
Rest of SA	587	1 568	658	0	299	35	1 800	183	30	0	197	72	0	0	5 429
Fremantle	143	26	194	529	5	34	225	0	0	823	0	319	304	0	2 602
Rest of WA	1 014	4 202	134	608	707	133	404	12	2 051	13	39	0	0	0	9 318
Hobart	0	81	19	224	0	0	11	185	110	7	0	0	0	0	637
Rest of Tas	420	1 441	2 516	3	5	16	15	26	331	0	154	967	0	0	5 894
Darwin	0	0	0	0	0	3	0	0	3	3	0	0	0	97	106
Rest of NT	0	47	0	0	0	0	0	0	0	0	0	444	26	0	517
Total	5 546	9 853	5 053	2 682	3 043	12 364	2 831	1 734	3 181	859	954	3 805	429	97	52 432

Source: Australian port authorities—personal communications.

The changes in trading patterns can be seen in more detail in Table 2.3 which shows cargo flows between state capitals and their respective rest of state. In comparing the tonnages moved over 2001–2002 (BTRE, 2002) it can be seen that:

- there has been an increase in *Rest of WA* to Sydney and Brisbane and Fremantle; this is due to an increase in crude oil moving from WA oil fields to their respective refineries, with a corresponding decrease in movements of iron ore from WA;
- there were declines in shipments between the *Rest of Victoria* and the eastern capitals of Sydney and Brisbane, due to decreased exports of Bass strait crude; and
- a decrease in cargo from *Rest of NSW* to *Rest of Vic* (1274 to 996 kilo tonnes), occurred in 2000–2001.

PACK TYPE

Pack type is a description of the way cargo is packaged and moved. It is primarily split between bulk and non bulk. The best description of bulk cargo is cargo that can be poured or dropped, as a liquid or solid, into a ship's hold. Non bulk is effectively those types of cargo that would be damaged if dropped or poured. For example:

- wheat as a bulk cargo is loaded as loose grain, via a conveyor belt to a spout, where it is poured into a hold,
- wheat as a non bulk cargo is bagged. In this form, it has to be lifted into the ship's hold either on pallets, containerised or in nets and stacked into the hold. If it was poured into the hold, as in the bulk case, the bags would break.

Bulk cargo is then further subdivided between liquid and dry bulk, which is a quality of the cargo. Gas cargo is considered as liquid bulk for the purposes of this report since it is pumped on board like most liquid bulk cargoes.

Non bulk cargo is similarly split between containerised, and not classified and/or non-containerised.

Bulk cargo (see Tables 2.4 and 2.5) makes up the majority of coastal cargo, representing 88 per cent of all coastal cargo, up slightly from 87 per cent in 2000–2001 and down from a high of 92 per cent in 1993–94.

The increase in liquid bulk cargo occurring from 1999-2000 has fallen from the 2000-2001 levels of 16.0/15.7 million tonnes loaded/discharged to 14.1/14.3 million tonnes loaded/discharged in 2001-2002. Lower than expected movements of liquid bulk cargo from Victoria are responsible for most of the decrease.

Non bulk cargo has increased significantly from 1993–94 to 2001–2002, from 3.7/3.8 million tonnes loaded/discharge to 6.3/5.9 million tonnes loaded/discharged respectively. This is down slightly on the 2000-2001 levels of 6.7/6.4 million tonnes loaded/discharged. Most of this increase has been in containerised cargo.

Table 2.6 shows the flow of cargo between the states by pack type. Of significance is the decrease in Queensland's 2000-2001 levels of non-bulk cargo, which was partially offset by increases in non-bulk cargo in both Victoria and Tasmania in 2001-2002.

TABLE 2.4   COASTAL FREIGHT LOADED BY PORT AND PACK TYPE, 2001–2002

Port of Origin	Bulk (kilotonnes)		Non-Bulk (kilotonnes)		Total
	Dry Bulk	Liquid bulk	Container	Other	(kilotonnes
Sydney	0	507	222	6	736
Rest of NSW	2 443	204	5	1 187	3 839
Melbourne	6	627	1 177	511	2 322
Rest of Vic	66	3 624	0	55	3 746
Brisbane	113	1 877	71	7	2 068
Rest of Qld	13 441	140	1	189	13 771
Adelaide	1 007	419	12	7	1 446
Rest of SA	4 842	570	17	0	5 429
Fremantle	566	1 521	490	25	2 602
Rest of WA	5 002	4 300	1	15	9 318
Hobart	336	289	7	5	637
Rest of Tas	3 696	21	1 071	1 106	5 894
Darwin	5	0	35	66	106
Rest of NT	495	0	4	18	517
Total	32 019	14 100	3 115	3 199	52 432

Source: Australian port authorities—personal communications.

TABLE 2.5   COASTAL FREIGHT DISCHARGED BY PORT AND PACK TYPE, 2001–2002

Port of destination	Bulk (kilotonnes)		Non-Bulk (kilotonnes)		Total
	Dry Bulk	Liquid bulk	Container	Other	(kilotonnes
Sydney	1 558	3 807	48	6	5 419
Rest of NSW	9 893	132	4	49	10 078
Melbourne	2 024	1 052	1 184	593	4 853
Rest of Vic	1 337	461	0	950	2 749
Brisbane	1 474	1 788	67	2	3 331
Rest of Qld	10 028	2 083	4	146	12 261
Adelaide	1 925	565	46	22	2 558
Rest of SA	1 732	102	20	2	1 857
Fremantle	152	2 325	648	21	3 147
Rest of WA	9	725	15	26	775
Hobart	533	417	0	26	976
Rest of Tas	1 965	529	610	1 280	4 385
Darwin	54	297	22	60	432
Rest of NT	0	0	0	16	16
Total	3 2684	14 282	2 669	3 199	52 835

Source: Australian port authorities—personal communications.

TABLE 2.6   COASTAL FREIGHT LOADED BY PACK TYPE, 2001–2002

State of Origin	State of Destination (kilotonnes)							
	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*Total*
Dry Bulk								
NSW	1 137	106	96	1 002	0	102	0	2 443
Vic	8	4	17	18	0	25	0	73
Qld	1 781	588	10 538	251	26	312	57	13 554
SA	2 098	898	511	1 937	134	270	0	5 849
WA	4 228	1 092	133	61	16	39	0	5 569
Tas	1 891	699	5	221	122	1 094	0	4 032
NT	47	0	0	0	0	444	9	500
Sub Total	11 190	3 387	11 299	3 491	298	2 287	66	32 019
Liquid Bulk								
NSW	9	103	453	17	36	94	0	712
Vic	2 535	124	624	319	9	639	0	4 251
Qld	161	57	1 757	31	9	2	0	2 016
SA	169	576	189	52	4	0	0	989
WA	1 091	323	741	558	2 814	0	293	5 820
Tas	0	194	0	0	117	0	0	311
NT	0	0	0	0	0	0	0	0
Sub Total	3 965	1 376	3 764	977	2 989	736	293	14 100
Container								
NSW	1	7	19	3	165	32	1	228
Vic	3	1	73	30	217	853	0	1 177
Qld	1	5	2	0	36	0	28	72
SA	16	0	0	0	11	2	0	29
WA	66	51	4	8	39	313	10	491
Tas	1	886	0	11	175	5	0	1 078
NT	0	0	0	0	0	0	39	39
Sub Total	88	950	98	53	643	1 205	79	3 115
Non-Bulk								
NSW	54	1 033	50	24	0	25	5	1 193
Vic	31	2	13	1	47	473	0	567
Qld	19	4	159	0	6	5	4	196
SA	0	0	4	0	0	0	3	7
WA	0	0	0	14	18	6	1	40
Tas	50	983	17	5	33	22	0	1 111
NT	0	0	3	0	6	0	75	84
Sub Total	155	2 023	246	45	110	531	89	3 199
Total	15 398	7 736	15 407	4 565	4 041	4 759	526	52 432

Source: Australian port authorities—personal communications.

COMMODITY GROUPS

In terms of commodity groups moved (see Table 2.7), total tonnages for all commodity classifications changed only slightly over 2000-2001 figures. The greatest change between 2000-2001 and 2001-2002 was in the commodity grouping *Crude materials inedible except fuels* which rose approximately 700 kilo tonnes due increase loading in New South Wales (sand and blue metal), Queensland, and Tasmania (intra–state woodchips). *Chemicals and related materials nes* also increased loadings by 600 kilo tonnes mainly in Queensland and New South Wales. *Mineral fuels lubricants and related materials* loadings decreased by 600 kilo tonnes, mainly due to decreased loadings in New South Wales, (intra–state coal) and Victoria (interstate crude oil). While Western Australia loadings of crude oil increased.

TABLE 2.7   COASTAL FREIGHT LOADED BY MAJOR COMMODITY GROUPS, 2001–2002

State of origin	*State of destination (kilotonnes)*							
	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*Total*
Food and live animals								
NSW	29	1	1	0	37	30	1	98
Vic	1	0	26	5	60	195	0	286
Qld	203	333	45	36	33	0	0	649
SA	29	0	0	0	0	0	0	29
WA	4	3	1	0	10	2	3	23
Tas	0	568	0	0	84	3	0	655
NT	0	0	0	0	0	0	0	0
Sub total	266	904	72	42	223	230	4	1 742
Beverages and tobacco								
NSW	0	0	0	0	12	0	0	12
Vic	0	0	1	1	4	31	0	38
Qld	0	1	0	0	1	0	26	28
SA	0	0	0	0	0	0	0	0
WA	2	0	0	0	0	0	0	2
Tas	0	101	0	0	9	0	0	110
NT	0	0	0	0	0	0	0	0
Sub total	2	102	1	1	27	31	26	190
Crude materials inedible except fuels								
NSW	324	102	2	0	7	21	0	456
Vic	0	0	5	0	19	115	0	139
Qld	1 202	198	9 330	69	13	312	0	11 125
SA	2 007	423	200	1 937	0	254	0	4 822
WA	4 094	1 026	133	65	18	48	2	5 386
Tas	1 332	287	21	221	61	1 106	0	3 028
NT	47	0	3	0	2	444	5	501
Sub total	9 007	2 036	9 694	2 292	120	2 300	7	25 456

TABLE 2.7   COASTAL FREIGHT LOADED BY MAJOR COMMODITY GROUPS, 2001–2002

(Continued)

State of origin	*State of destination (kilotonnes)*							
	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*Total*
Mineral fuels lubricants and related materials								
NSW	787	134	470	982	3	103	0	2 480
Vic	2 534	123	623	318	11	658	0	4 268
Qld	175	28	1 925	42	3	0	0	2 172
SA	196	547	193	52	34	16	3	1 232
WA	1 221	323	741	558	2 814	0	293	5 759
Tas	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0
Sub total	4 914	1 155	3 952	1 953	2 865	776	296	15 911
Animal and vegetable oils, fats and waxes								
NSW	0	1	0	0	0	0	0	2
Vic	1	0	1	0	1	13	0	16
Qld	8	5	35	0	0	2	0	51
SA	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	0	0
Tas	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0
Sub total	10	6	36	0	1	15	0	69
Chemicals and related materials nes								
NSW	9	18	63	0	70	60	0	220
Vic	9	1	25	19	29	116	0	199
Qld	266	80	94	96	11	5	2	554
SA	72	29	0	0	1	0	0	102
WA	13	75	0	9	10	0	1	108
Tas	36	266	0	11	117	22	0	452
NT	0	0	0	0	2	0	3	5
Sub total	404	468	183	136	239	203	6	1 639
Manufactured goods classified chiefly by material								
NSW	45	989	70	26	45	33	5	1 213
Vic	31	4	25	5	104	154	0	323
Qld	93	9	956	0	11	0	55	1 124
SA	15	475	311	0	104	2	0	907
WA	37	29	2	5	23	1	3	100
Tas	579	1 149	0	0	171	0	0	1 898
NT	0	0	0	0	1	0	40	41
Sub total	800	2 655	1 363	36	458	191	102	5 606

TABLE 2.7   COASTAL FREIGHT LOADED BY MAJOR COMMODITY GROUPS, 2001–2002
(Continued)

State of origin	State of destination (kilotonnes)							
	NSW	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*Total*
Machinery and transport materials								
NSW	0	0	1	0	12	1	0	14
Vic	0	0	1	0	9	65	0	77
Qld	4	0	0	0	2	0	0	6
SA	0	0	0	0	0	0	0	0
WA	2	2	0	0	4	0	1	10
Tas	0	98	0	0	0	0	0	99
NT	0	0	0	0	1	0	0	1
Sub total	7	101	3	1	27	66	1	207
Miscellaneous manufactured articles								
NSW	1	5	6	1	15	3	0	30
Vic	1	1	6	5	31	545	0	589
Qld	0	0	41	0	2	0	3	46
SA	0	0	0	0	0	0	0	0
WA	7	5	0	1	0	0	0	13
Tas	0	7	0	0	1	0	0	7
NT	0	0	0	0	0	0	0	0
Sub total	10	16	53	6	49	547	3	685
Commodities and transactions nes								
NSW	4	0	5	0	2	2	0	13
Vic	1	0	14	14	5	100	0	133
Qld	10	0	70	0	1	0	3	84
SA	1	0	0	0	10	0	0	12
WA	4	4	1	3	7	306	1	327
Tas	0	268	0	0	5	9	0	282
NT	0	0	0	0	1	0	75	76
Sub total	20	273	90	17	31	418	79	927
Total	15 440	7 716	15 447	4 484	4 041	4 779	526	52 432

Source: Australian port authorities—personal communications.

TASMANIAN TRADE

The trade to and from Tasmania (Table 2.8) increased in 2001–2002 as follows:

- 4.0 million tonnes to 6.5 million tonnes for Tasmania to the mainland;
- 3.2 million tonnes to 5.3 million tonnes for the mainland to Tasmania.

This increase was driven by substantial increases in *metalliferous ores and metal scrap* and *cork and wood*.

TABLE 2.8 TASMANIAN FREIGHT LOADED AND DISCHARGED BY COMMODITY, 2001–2002

ATFCC code	Description	Loaded in Tasmania (kilotonnes)	Discharged in Tasmania (kilotonnes)
0	Food and live animals	19	4
1	Meat and meat preparations	22	0
2	Dairy products and birds eggs	67	0
3	Fish, crustaceans and molluscs	33	23
4	Cereals and cereal preparations	12	94
5	Vegetables and fruit	433	42
6	Sugars, sugar preparations and honey	38	18
7	Coffee, tea, cocoa, spices	9	11
8	Feeding stuff for animals	0	2
9	Miscellaneous edible products & preps	22	2
11	Beverages	110	71
21	Hides, skins and furskins, raw	6	0
22	Oil seeds and oleaginous fruits	0	2
24	Cork and wood	1 141	957
25	Pulp and waste paper	21	85
26	Textile fibres	24	0
27	Crude fertilizers and crude minerals	77	95
28	Metalliferous ores and metal scrap	1 760	1 323
32	Coal, coke and briquettes	0	82
33	Petroleum and petroleum products	0	876
34	Gases, natural and manufactured	0	29
51	Organic chemicals	0	9
52	Inorganic chemicals	296	20
56	Fertilizers, manufactured	145	24
59	Chemical materials & products, n.e.s.	11	59
63	Cork & wood manufactures (exc furniture)	18	8
64	Paper, paperboard & articles of paper	589	40
65	Textile yarn, fabrics, made-up articles	18	1
66	Non-metallic mineral manufactures,n.e.s.	1 205	70
67	Iron and steel	8	59
68	Non-ferrous metals	60	0
72	Machinery specialized particular indust.	1	3
74	General industrial machinery & equip nes	10	5
78	Road vehicles	88	118
82	Furniture and parts thereof	7	13
89	Miscellaneous manufactured articles nes	1	677
90	Commodities and transactions nes	2	2
93	Special transactions and commodities	128	74
99	Other commodities and transactions	152	461
All	Total	6 532	5 360

a. *nes*   Not elsewhere stated.

Source: Australian port authorities—personal communications.

CHAPTER 3   COASTAL VOYAGE PERMITS

Part VI of the Navigation Act, 1912 requires vessels trading interstate on the Australian coast to be licensed or have a permit. Some trades have exemptions from the Navigation Act, mostly in regards to the external territories, but there is also an exemption for cruise liners to carry passengers except between Victoria and Tasmania.

An unlicensed ship may be granted a permit to trade on the Australian coast in the carriage of either cargo or passengers, where:
- there is no suitable licensed ship available for the shipping task; or
- the service carried out by licensed ships is inadequate; and
- it is considered to be desirable in the public interest that an unlicensed ship be allowed to undertake that shipping task.

Two kinds of permits are issued:
- **Single Voyage Permit (SVP)** is issued for a single voyage between designated ports for the carriage of a specified cargo or passengers
- **Continuing Voyage Permit (CVP)** is issued for a period of up to six months (from January 2003 only up to 3 months) and enables a vessel to carry specified cargo between specified ports for that period.

In 2001–2002, there were 997 voyages sailed using voyage permits by foreign flag ships to move cargo around the Australian coast. Of these 647 voyages were sailed as SVPs and 350 voyages as CVPs. The split between commodity groups is shown in Table 3.1. Voyage permits are at present not often used in the bauxite alumina industries, however other industries such as iron ore and oil petroleum are using voyage permits more extensively.

TABLE 3.1   VOYAGE PERMITS BY COMMODITY TYPE, 2001–2002

Cargo group	Permit type	No of voyages	Tonnes carried	TEU's Carried
Bauxite Alumina	SVP	3	82 550	0
Crude oil	SVP	14	920 321	0
Iron ore	SVP	41	2 913 310	0
Petroleum products	SVP	83	1 359 132	11 035
Other	SVP	506	3 336 597	13 719
Other	CVP	350	1 359 132	28 496
Total		997	10 333 859	53 250

Source: DOTARS, SVP and CVP Registers, unpublished

Note information provided in this paper on voyage permits is different to that appearing in the BTRE's *Waterline* series. Figures in *Waterline* report tonnes and TEUs (Twenty foot equivalent unit containers) as specified on the permits when issued, while in this paper the figures reported are the actual tonnes and TEUs carried, as notified by the permit holders after they have used the permit. Also, *Waterline* reports on numbers of permits issued within a given period, whereas this paper reports on cargo carried subject to a CVP's or SVP's sail date where it falls within that period.

In terms of pack type, Table 3.2 shows that the split between different pack types is not in the same proportions as in the total coastal freight market (Table 2.6). That is, dry bulk using coastal permits only represents 18.5 per cent of total coastal dry bulk cargo loaded, liquid bulk 21.2 per cent, containerised cargo 28.5 per cent and other non bulk 1.0 per cent.

TABLE 3.2   TONNES CARRIED UNDER VOYAGE PERMITS BY PACK TYPE

Pack type	1999–2000	2000–2001	2001–2002
Dry bulk	1 864 074	4 049 276	5 924 212
Liquid bulk	1 431 537	2 380 265	3 013 168
Containerised	375 987	505 537	887 480
Other non bulk	43 666	61 531	513 172
Total	3 715 264	6 996 609	10 338 032

Source: DOTARS, SVP and CVP Registers, unpublished

The proportion of total coastal freight moved using voyage permit shippers in 2001-2002 was 19.6 per cent by weight or 21.4 per cent of tonne kilometres performed (Table 3.3). This is up significantly from 2000–2001 when it was 13.5 per cent by weight but down significantly from 28.9 per cent of tonne kilometres performed. In general the use of voyage permits is irregular, with permits being used more on longer coastal routes than on the shorter routes.

The largest group of shippers using coastal permits in terms of tonne kilometres is the iron ore industry (49.7 per cent in terms of tonne kilometres performed and 44.6 per

cent in terms of tonnes loaded). For the bauxite alumina industry, the use is only 0.8 per cent and 0.1 per cent respectively.

TABLE 3.3   IMPACT OF VOYAGE PERMITS ON COASTAL TRADE, 2001–2002

Cargo group	Tonnes (millions)			Tonne kilometres (billion)		
	Coastal	SVP and CVP	Per cent coastal	Coastal	SVP and CVP (estimate)	Per cent coastal
Iron ore	6.5	2.9	44.6%	26.3	13.1	49.7%
Bauxite Alumina	11.6	0.1	0.9%	25.6	0.2	0.8%
Crude oil	7.0	0.9	12.9%	20.3	2.3	11.3%
Petroleum products	6.5	1.7	26.4%	9.4	4.3	45.6%
Other	20.9	4.7	22.5%	28.8	3.7	12.9%
Total	52.4	10.3	19.6%	110.4	23.6	21.4%

Source: DOTARS, SVP and CVP Registers, unpublished

CHAPTER 4   INTERNATIONAL SEA FREIGHT

In 2001–2002 international sea freight to and from Australia increased by 1.3 per cent by value, and 2.6 per cent by weight. The largest exporting state was Western Australia (Table 4.1) while the largest importing state was New South Wales.

TABLE 4.1   INTERNATIONAL SEA FREIGHT BY AUSTRALIAN STATE OF ORIGIN / FINAL DESTINATION, 2001–2002.

State	Value ($'000s)		Tonnes	
	Imports	Exports	Imports	Exports
New South Wales	30 970 855	18 846 497	15 098 214	92 052 153
Victoria	29 071 470	17 485 513	13 226 130	16 395 163
Queensland	12 233 756	22 198 854	14 115 908	144 757 204
South Australia	4 770 746	8 260 845	4 338 707	11 098 101
Western Australia	6 906 546	24 693 643	8 915 039	222 188 040
Tasmania	564 597	2 046 839	820 216	7 160 615
Northern Territory	716 383	2 695 435	1 495 762	8 956 007
Australian Capital Territory	650	3 523	32	11 391
State confidential	0	534 418	0	1 639 703
Foreign Origin	0	2 718 777	0	2 377 673
Total	85 235 003	99 484 343	58 010 009	506 636 050

Source: ABS, International Cargo Statistics, unpublished

AUSTRALIAN PORTS

In terms of Australian port of loading/unloading (Table 4.2), Sydney was the largest importer by weight and value, while Melbourne was the largest exporter by value and Dampier was the largest exporter by weight.

TABLE 4.2   INTERNATIONAL SEA FREIGHT LOADED AND DISCHARGED BY AUSTRALIAN
PORTS, 2001–2002.

Australian port	Value ($'000s)		Tonnes	
	Imports	*Exports*	*Imports*	*Exports*
Abbot Point	0	654 220	0	11 137 955
Albany	27 664	337 423	107 849	1 448 668
Ardrossan	0	381	0	33 600
Ballina	0	35	0	3
Brisbane	10 583 236	7 787 725	8 399 537	10 845 064
Broome	26 194	62 145	14 749	241 602
Bunbury	179 149	2 471 141	1 051 378	8 827 948
Bundaberg	278	137 562	155	355 186
Burnie	69 178	230 110	170 886	1 687 076
Cairns	63 626	511 814	85 933	1 953 895
Cape Cuvier	0	68 787	0	2 586 144
Cape Lambert	10 759	0	26 454	0
Carnarvon	0	545	0	20 675
Coffs Harbour	775	2 248	98	782
Conf Aust Ports	0	519 418	0	1 639 703
Conf NT Ports	209 186	703 888	1 077 308	4 188 125
Dampier	193 483	9 819 997	203 750	95 033 769
Darwin	486 695	777 597	373 550	227 183
Derby	0	85 465	0	189 686
Devonport	23 072	10 350	69 644	13 019
Edithburg	0	188 749	0	741 587
Esperance	117 080	791 866	370 668	5 390 559
Fremantle	6 455 064	7 072 382	6 965 706	9 826 932
Geelong	1 779 911	1 378 062	5 328 059	4 543 418
Geraldton	39 054	831 425	170 335	2 311 531
Gladstone	335 753	4 155 063	1 235 796	40 045 599
Grafton	7	9 002	0	7 292
Hay Point	0	5 274 989	0	69 392 979
Hobart	82 677	446 373	169 676	921 081
Innisfail	0	102 466	0	327 086
Karumba	695	364 952	62	892 998
Launceston	282 175	953 934	386 967	3 570 552
Lucinda	0	232 808	0	471 453
Mackay	90 397	468 674	222 263	1 841 531
Melbourne	28 996 342	18 972 830	7 643 527	12 370 961
Newcastle	371 252	5 753 454	1 062 265	71 808 466
Other Ports NT	0	113 511	0	369 800
Point Samson	0	2	0	1
Port Adelaide	1 921 017	4 680 342	958 545	4 376 054
Port Bonython	0	251 421	0	653 340
Port Hedland	12 101	2 514 493	71 705	68 202 553
Port Kembla	286 136	1 906 710	1 892 670	12 294 929

TABLE 4.2   INTERNATIONAL SEA FREIGHT LOADED AND DISCHARGED BY AUSTRALIAN
PORTS, 2001–2002, (CONTINUED).

Australian port	Value ($'000s)		Tonnes	
	Imports	*Exports*	*Imports*	*Exports*
Port Latta	156	49 550	515	904 175
Port Lincoln	17 708	583 068	53 242	2 015 161
Port Pirie	14 780	234 452	25 130	453 267
Port Stanvac	868 341	85 274	2 696 497	203 093
Port Unknown	0	15 000	0	0
Port Walcott	16 552	549 405	503	26 952 016
Portland	86 034	1 199 491	422 826	2 760 261
Rockhampton	3 754	111 957	8 425	58 831
Spring Bay	0	3 427	0	43 089
Stanley	0	20 874	0	259 104
Sydney	30 952 473	10 705 194	12 239 975	5 754 247
Thevenard	0	30 243	0	341 949
Thursday Island	2 939	65	283	1
Townsville	452 796	2 857 822	3 938 850	3 824 897
Twofold Bay	296	61 783	492	875 589
Useless Loop	0	23 501	0	876 547
Wallaroo	3 159	295 368	15 472	1 058 455
Weipa	29 760	107 735	82 035	3 836 240
Westernport	96 322	307 535	210 622	719 190
Whyalla	4 874	37 878	194 738	321 468
Wyndham	22 105	1 551 203	60 796	4 321 683
Yampi Sound	0	9 157	0	266 000
Total	85 235 003	99 484 343	58 010 009	506 636 050

Source: ABS, International Cargo Statistics, unpublished.

INTERNATIONAL TRADING PARTNERS BY REGION

In terms of regions of origin of Australian imports, Europe was our largest supplier by value, but South East Asia dominated our imports in terms of weight (Table 4.3). In terms of exports, Japan/North Asia was Australia's preferred region of unloading by both weight and value. Figure 4.1 shows the same information for value by region of loading/unloading, but it also reflects Australia's trading patterns, which are dominated by Asia Pacific nations.

TABLE 4.3   INTERNATIONAL FREIGHT BY REGION OF LOADING / UNLOADING, 2001–2002.

Region of loading / unloading	Value ($'000s)		Tonnes	
	Imports	Exports	Imports	Exports
Africa	1 034 824	2 609 782	1 210 995	7 541 282
East Asia	13 298 379	14 618 493	4 213 729	90 960 686
Europe	18 051 028	10 578 156	3 416 997	58 970 450
Japan and North Asia	16 479 465	29 717 028	4 817 646	261 945 036
Middle East	2 597 394	5 837 813	8 193 347	14 507 614
New Zealand	4 001 375	5 474 451	2 822 512	7 551 283
North & Central America	12 741 331	10 642 763	6 461 793	15 956 808
Pacific Islands and Papua New Guinea	1 052 154	2 063 628	4 113 333	2 963 953
Rest of World	16 253	572 804	161 360	1 653 806
South America	646 217	635 005	740 671	5 813 738
South East Asia	14 406 345	13 706 860	21 257 111	21 050 861
South Asia	910 238	3 027 559	600 516	17 720 532
Total	85 235 003	99 484 343	58 010 009	506 636 050

Source: ABS, International Cargo Statistics, unpublished.

FIGURE 4.1   INTERNATIONAL FREIGHT BY REGION OF LOADING / UNLOADING,
2001–2002, ($BN).

Imports

Exports
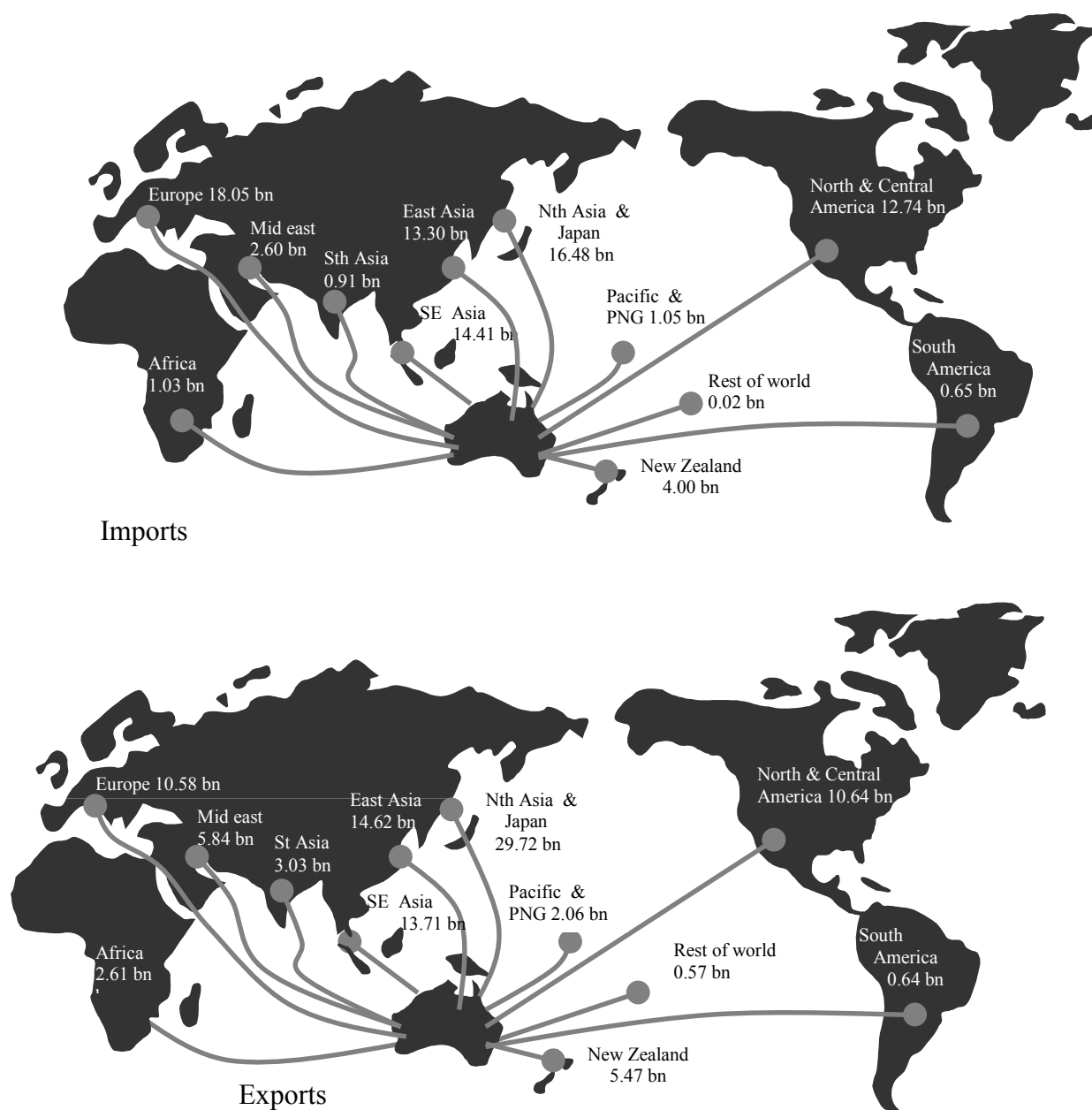
Source: ABS, International Cargo Statistics, unpublished

Not surprisingly the situation does not change when we study Australian sea trade in terms of region of origin/final destination, by weight and value. The same patterns are present, with Europe dominating as the source of Australian imports by value, South East Asia by weight (Table 4.4 and Figure 4.2) and Japan/North Asia dominating as the destination for our exports by weight and value.

TABLE 4.4   INTERNATIONAL FREIGHT BY REGION OF ORIGIN / FINAL DESTINATION, 2001–2002.

Region of origin/ final destination	Value ($'000s)		Tonnes	
	Imports	Exports	Imports	Exports
Africa	993 730	2 152 808	1 115 628	5 929 674
East Asia	13 314 111	15 011 652	4 222 011	90 952 253
Europe	18 358 044	10 910 566	3 508 109	59 989 548
Japan and North Asia	16 810 054	29 565 303	4 778 523	262 010 134
Middle East	2 617 348	7 275 056	8 246 722	16 197 801
New Zealand	3 777 235	5 467 617	2 781 283	7 546 571
North and Central America	13 106 608	11 119 890	6 492 244	15 657 169
Pacific Islands and Papua New Guinea	965 711	2 086 015	4 091 564	2 938 278
Rest of World	415 648	967 294	237 569	1 663 434
South America	768 952	696 556	788 624	5 892 254
South East Asia	13 137 405	10 866 573	21 128 635	19 555 412
South Asia	970 155	3 365 012	619 097	18 303 522
Total	85 235 003	99 484 343	58 010 009	506 636 050

Source: ABS, International Cargo Statistics, unpublished

FIGURE 4.2 INTERNATIONAL FREIGHT BY REGION OF ORIGIN / FINAL DESTINATION,
2001–2002, ($BN)

Imports
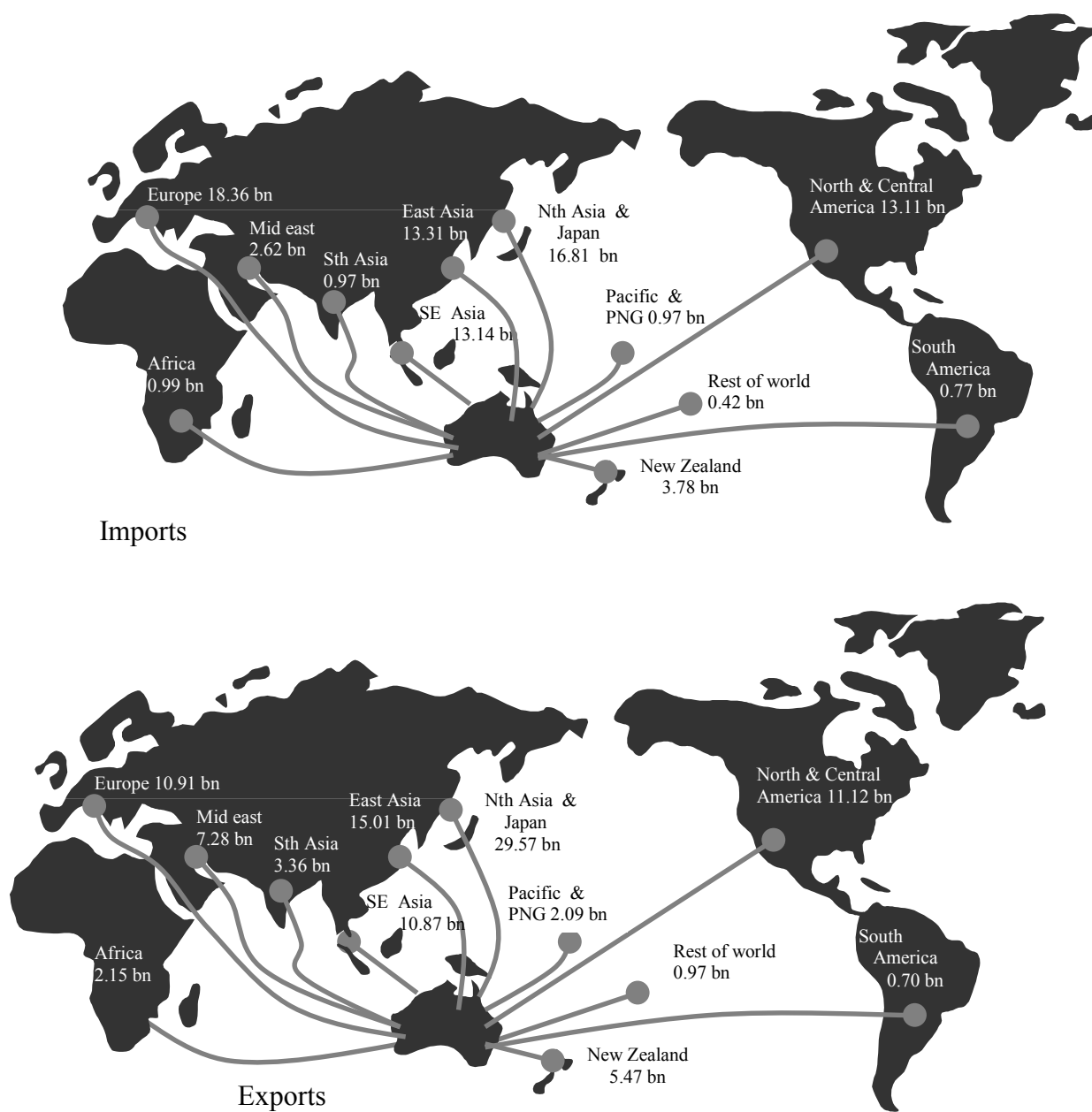
Exports

Source: ABS, International Cargo Statistics, unpublished

COMMODITIES

In terms of commodity exports, Australia's leading export by value is *coal* followed by *petroleum products*, *meat* and *cereals* (Table 4.5). By weight, of exports *coal* and *iron ore* dominate. For imports, the major import commodity by value is *machinery* followed by *road vehicles*, and by weight *petroleum products* and *chemicals*.

TABLE 4.5   INTERNATIONAL FREIGHT BY COMMODITY, 2001–2002.

Commodity	Value ($'000s)		Tonnes	
	Imports	Exports	Imports	Exports
Coal, coke & briquettes	15 890	13 425 538	111 309	199 965 711
Petroleum oil	7 734 163	6 206 268	23 879 936	18 096 630
Meat & meat preps	232 332	5 856 480	50 082	1 439 021
Cereals & cereal preps	279 997	5 464 103	173 774	18 016 139
Confidential	968 964	5 418 413	804 006	18 590 730
Iron ore & concentrates	103 895	5 159 890	3 844 867	166 114 719
Road vehicles & transport equipt	15 430 432	4 445 779	1 067 936	360 802
Aluminium & aluminium alloys	447 830	4 407 383	98 496	1 600 810
Aluminium ores & conc; alumina	12 295	4 038 163	17 528	12 809 936
Machinery	19 861 054	3 704 275	1 429 162	404 140
Wool, sheep & lambs	57 234	3 365 114	13 811	537 304
Dairy products & birds eggs	290 589	3 099 251	75 202	1 002 315
Other metallif ores & metal scrap	75 754	2 715 262	648 237	9 401 620
Liquefied natural gas	0	2 636 196	0	0
Chemicals	5 826 218	2 452 246	5 126 588	1 229 749
Beverages	664 137	2 262 967	271 038	1 243 397
Vegetables & fruit	809 151	1 607 439	487 660	2 267 505
Cotton	959	1 548 366	339	730 961
Misc manuf articles	7 748 697	1 525 096	1 144 300	283 402
Copper & copper alloys	310 966	1 513 083	216 282	499 984
Nickel & nickel alloys	24 167	1 415 519	1 645	123 883
Petroleum oils & refined prods refined	1 158 427	1 404 150	2 918 369	3 261 630
Lead & zinc ores & conc	37 996	1 071 929	114 845	2 441 925
Copper ores & conc	9 256	1 038 288	5 857	1 333 240
Live animals	1 137	961 152	390	628 325
Cork & wood	508 926	871 386	490 502	10 461 949
Fish, crustaceans & molluscs	841 450	828 101	177 225	43 005
Feeding stuff for animals	269 781	820 431	397 994	1 876 627
Zinc & zinc alloys	4 779	809 759	1 874	505 906
Iron & steel	1 701 750	780 762	1 639 817	2 315 358
Paper, paperboard & articles	2 332 162	764 284	1 472 121	3 339 759
Oil seeds & oleaginous fruits	24 525	749 602	19 136	1 952 533
Liquefied petroleum gas (LPG)	119 050	722 609	301 952	1 745 700

TABLE 4.5   INTERNATIONAL FREIGHT BY COMMODITY, 2001 –2002 (CONTINUED).

Commodity	Value ($'000s)		Tonnes	
	Imports	*Exports*	*Imports*	*Exports*
Hides, skins & furskins, raw	4 778	617 641	1 284	354 670
Manuf of metal nes	2 334 304	611 725	523 396	281 820
Misc edible products & preps	1 062 824	584 932	234 992	186 633
Crude minerals	116 519	511 755	1 432 281	14 149 957
Leather, leather manuf nes	150 419	420 323	6 179	125 510
Lead & lead alloys	9 117	409 420	10 843	390 703
Plastics	1 941 677	379 336	775 895	191 540
Textile yarn, fabrics, & articles	2 186 986	376 479	391 294	54 533
Non-metallic mineral manuf nes	1 408 625	345 740	1 522 913	1 172 783
Oils & fats	285 860	305 920	244 340	689 402
Sugars, sugar preps & honey	131 492	248 001	61 709	673 556
Mineral sands	5 438	240 729	25 568	1 068 405
Crude animal & veg mats nes	179 309	214 935	89 601	191 242
Cork & wood manuf (exc furniture)	586 120	211 590	273 181	1 451 828
Other non-ferrous metals nes	57 283	202 902	8 788	17 621
Apparel & clothing access	2 509 316	151 044	225 344	15 505
Rubber manuf nes	1 493 421	140 216	319 319	214 110
Fertilisers	877 201	95 869	4 181 116	291 177
Tobacco & tobacco manuf	189 427	65 288	15 716	5 226
Coffee, tea, cocoa, spices	490 784	63 563	140 462	13 669
Other textile fibres	95 897	62 280	49 614	98 150
Pulp & waste paper	226 321	58 431	337 379	332 121
Footwear	852 378	34 817	55 070	2 000
Crude rubber (incl synthetic)	119 393	21 997	76 384	13 568
Misc	15 989	18 847	4 990	24 801
Gases, natural & manuf nes	163	1 278	71	804
Total	85 235 003	99 484 343	58 010 009	506 636 050

b.   *Note:*   nes – not elsewhere specified.
     incl – including.
     exc – excluding.
     Confidential items may only be confidential for weight or value or both, eg Liquefied natural gas is confidential by
     weight but not value.

Source: ABS, International Cargo Statistics, unpublished.

INTERNATIONAL TRADING PARTNERS BY COUNTRY

In terms of trading partners, Japan is Australia largest market for imports and exports by value and weight followed by the United States of America and China as second and third largest source of imports, and China then the United States for exports (except on weight). Our near neighbours New Zealand (5th imports and exports), Indonesia (7th exports and 6th imports) and Papua New Guinea (included in the Rest of the World for imports and exports), remain important as trading partners for Australia.

TABLE 4.6   TOP TWENTY TRADING PARTNERS BY SEA, 2001–2002

	Imports			*Exports*		
Country of origin	*$'000s*	*Tonnes*	*Country of final destination*	*$'000s*	*Tonnes*	
Japan	13 830 179	3 490 275	Japan	21 470 726	198 002 910	1
United States of America	11 559 420	4 396 108	China (including Hong Kong)	9 450 254	56 599 982	2
China (including Hong Kong)	10 813 264	2 926 147	United States of America	8 797 792	9 307 795	3
Germany	4 991 548	679 920	Korea, Republic of	8 094 577	64 007 224	4
New Zealand	3 777 235	2 781 283	New Zealand	5 467 617	7 546 571	5
Indonesia	3 440 884	7 395 974	Taiwan	4 384 278	31 297 078	6
United Kingdom	3 126 842	421 631	Indonesia	3 209 118	6 203 138	7
Korea, Republic of	2 976 996	1 287 073	Singapore	3 041 907	5 848 021	8
Malaysia	2 684 969	3 137 904	United Kingdom	2 578 992	11 927 393	9
Thailand	2 611 510	1 702 210	Saudi Arabia	2 378 835	2 003 703	10
Italy	2 378 023	596 826	India	2 252 968	15 003 529	11
Taiwan	2 164 126	679 174	Malaysia	2 203 237	4 423 798	12
Singapore	2 153 819	2 875 753	Italy	2 118 650	7 859 663	13
Viet Nam	1 833 617	4 778 358	Thailand	1 786 580	2 227 579	14
France	1 723 428	290 962	Canada	1 603 120	3 301 310	15
Canada	1 168 528	2 000 104	Netherlands	1 312 682	11 505 651	16
Saudi Arabia	1 024 984	3 814 432	South Africa	1 205 854	3 702 798	17
Sweden	976 256	181 135	Philippines	1 150 652	3 049 471	18
South Africa	799 872	484 565	France	985 176	9 211 169	19
Netherlands	774 638	214 633	United Arab Emirates	975 542	1 638 220	20
Rest of World	10 424 867	13 875 543	Rest of World	15 015 785	51 969 046	
Total	85 235 003	58 010 009	Total	99 484 343	506 636 050	

Source: ABS, International Cargo Statistics, unpublished.

SHIP TYPES

In terms of ship types carrying Australian trade, dry bulk carriers dominated by weight of exports, tankers dominated by weight of imports, and container ships dominated by value for imports and exports (Table 4.7).

TABLE 4.7   SEA EXPORT AND IMPORTS BY SHIP TYPE, 2001–2002.

Ship type	Value ($'000s)		Tonnes	
	Imports	*Exports*	*Imports*	*Exports*
Container	57 006 562	40 193 926	16 125 143	25 916 998
Dry bulk	1 844 609	36 140 365	12 263 292	440 564 200
Gas carrier	219 739	0	529 212	0
General	2 494 052	6 700 618	1 638 189	5 130 834
Livestock	1 009	788 489	3 075	531 776
Multi-purpose	231 858	658 360	353 910	1 045 774
OBO (Dry/Liquid)	396 385	257 806	2 055 772	1 295 629
Other	11 350 297	3 611 254	1 869 250	2 262 228
Passenger	2 411	145	1 607	0
Roll-on/Roll-off	4 028 656	1 018 236	646 296	427 802
Tanker	7 206 401	9 491 924	21 463 925	27 125 694
Vehicle carriers	453 023	623 220	1 060 340	2 335 115
Total	85 235 003	99 484 343	58 010 009	506 636 050

a. Other includes ships of the other types which were carrying confidential cargoes, eg
Gas carriers in export lng trade.

Source: ABS, International Cargo Statistics, unpublished

LINER TRADE

Liner or a liner ship is defined as a cargo carrying ship that operates between scheduled, advertised ports of loading and discharge on a regular basis (Brodie, 1997). It does not include bulk cargo, or general cargo carried on charter services such as car carriers, or tramp shipping. It includes most containerised, ro-ro and general cargo freight shipping services.

The Australian liner trade in 2001–2002 was valued at 101.0 billion dollars, (Table 4.8). Europe was the largest source of imports, while Japan/North Asia, East Asia, North and Central America, South East Asia and Europe were our largest markets for liner exports, Figure 4.3.

TABLE 4.8   INTERNATIONAL LINER TRADE BY REGION, 2000–2001

Region of origin / final destination	Value ($'000s)		Tonnes	
	Imports	Exports	Imports	Exports
Africa	749 096	916 762	286 535	453 188
East Asia	12 893 406	7 618 870	2 633 708	4 546 004
Europe	16 394 769	5 662 873	3 048 469	2 729 907
Japan & North Asia	12 933 901	7 929 560	1 684 767	6 827 350
Middle East	351 627	3 002 012	203 888	771 568
New Zealand	3 043 297	3 722 765	1 519 118	3 537 532
North & Central America	10 504 456	6 827 286	1 607 670	2 055 133
Pacific Islands and PNG	188 594	1 331 769	131 710	1 247 239
Rest of world	291 568	158 527	57 530	10 142
South America	540 924	227 394	171 747	63 978
South Asia	905 367	1 289 347	311 495	1 243 461
South East Asia	6 828 486	5 957 926	2 367 547	4 146 887
Total	65 625 491	44 645 091	14 024 185	27 632 389

Source: ABS, International Cargo Statistic, unpublished.

FIGURE 4.3   INTERNATIONAL LINER FREIGHT EXPORTS AND IMPORTS BY REGION OF FINAL DESTINATION, 2001–2002. ($BN)

Imports

Exports

Source: ABS, International Cargo Statistics, unpublished

NON–LINER

Non–liner cargo consists primarily of dry and liquid bulk, but includes general cargo not shipped on regular liner services su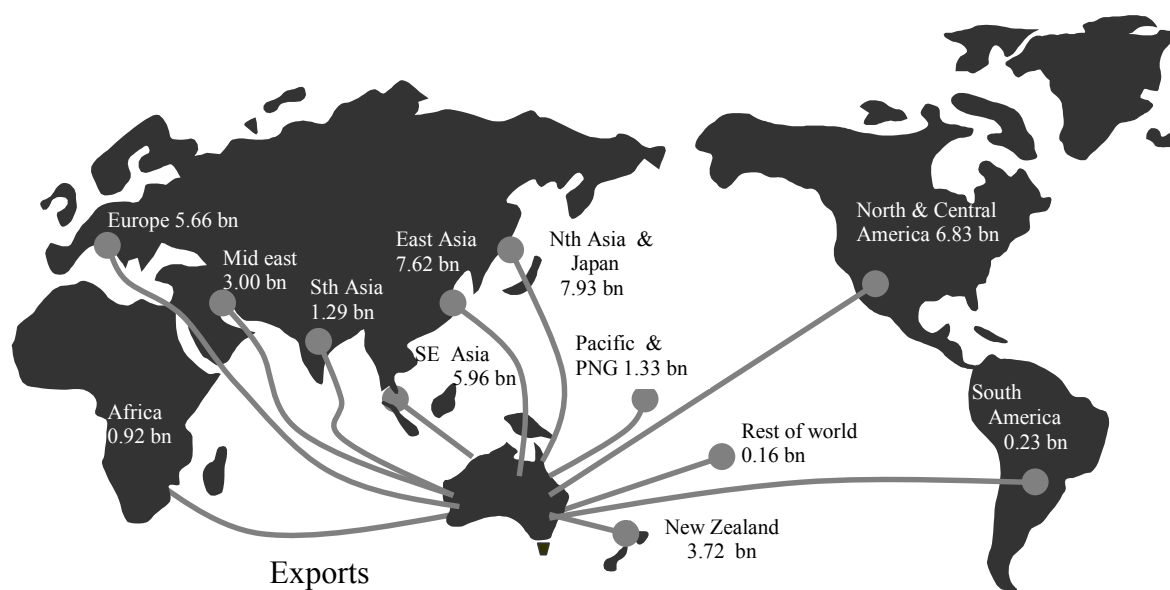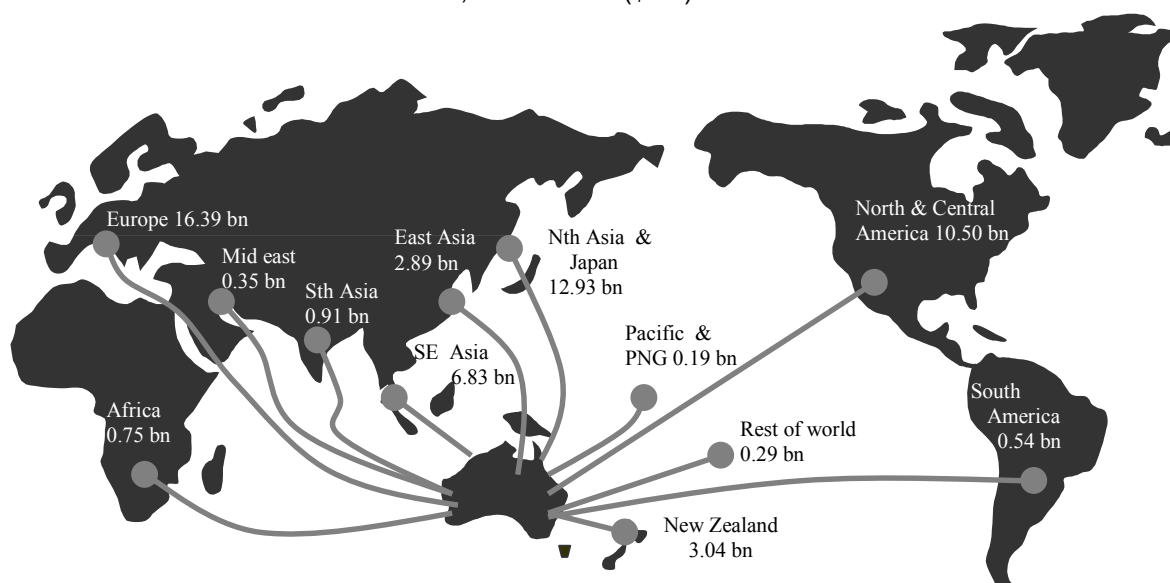ch as charters, dedicated car carriers and passenger ships. Australian non–liner trade in 2001–2002 was valued at 74.4 billion dollars (Table 4.9). South East Asia was the largest source of imports, while Japan / North Asia was our largest market for non–liner exports, Figure 4.3.

TABLE 4.9   INTERNATIONAL NON–LINER TRADE BY REGION, 2001–2002

Region of origin / final destination	Value ($'000s)		Tonnes	
	Imports	Exports	Imports	Exports
Africa	244 634	1 236 047	829 093	5 476 486
East Asia	420 705	7 392 782	1 588 303	86 406 249
Europe	1 963 275	5 247 694	459 640	57 259 641
Japan & North Asia	3 876 154	21 635 743	3 093 756	255 182 784
Middle East	2 265 721	4 273 044	8 042 834	15 426 233
New Zealand	733 938	1 744 852	1 262 164	4 009 039
North & Central America	2 602 152	4 292 604	4 884 574	13 602 036
Pacific Islands and PNG	777 117	754 246	3 959 854	1 691 038
Rest of world	124 080	808 767	180 039	1 653 291
South America	228 028	469 162	616 877	5 828 276
South Asia	64 788	2 075 665	307 602	17 060 061
South East Asia	6 308 920	4 908 648	18 761 088	15 408 526
Total	19 609 513	54 839 252	43 985 824	479 003 660

Source: ABS, International Cargo Statistics, unpublished.

FIGURE 4.4   INTERNATIONAL NON–LINER FREIGHT EXPORTS AND IMPORTS BY
REGION OF FINAL DESTINATION, 2001–2002 (TONNES MILLION)

Imports

Exports
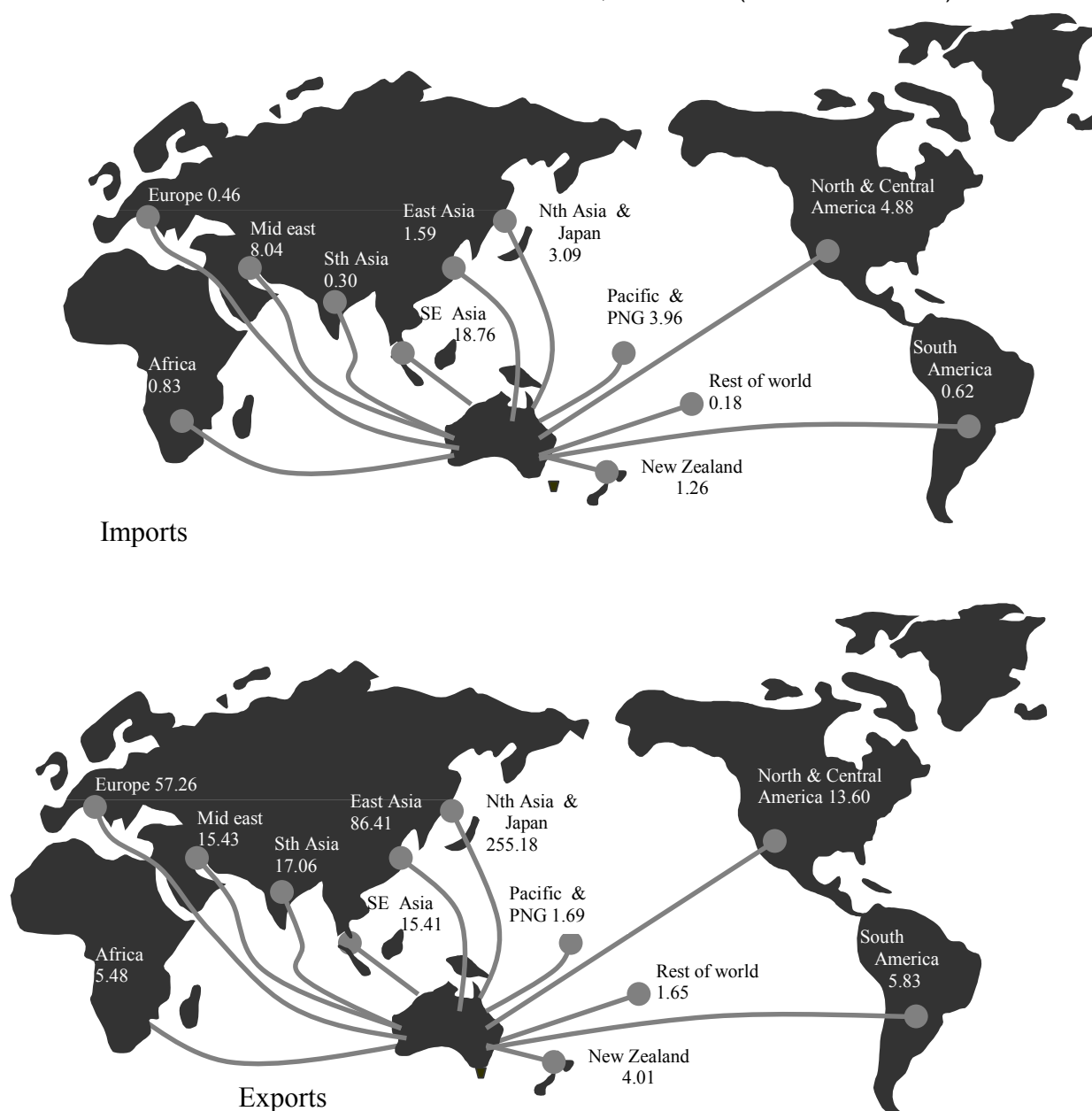
Source: ABS, International Cargo Statistics, unpublished

CHAPTER 5   AUSTRALIAN MERCHANT FLEET

The Australian merchant fleet decreased in terms of deadweight and gross tonnage, with larger ships engaged primarily in the international trade. In 2001–2002 the major trading fleet increased from 51 to 54 ships: four vessels left the Australian major trading fleet, while seven newer ships joined the fleet. There was a decrease in the minor fleet number due to six vessels leaving the trade.

TABLE 5.1   SUMMARY OF THE AUSTRALIAN TRADING FLEET, AS AT 30 JUNE 2002

Trade	No. of vessels	Deadweight tonnes	Gross tonnage (tonnes)
Major Trading Fleet (>2000 dwt)			
Coastal			
Australian registered	37	1 019 476	739 138
Overseas registered	4	118 774	71 655
Total Coastal	41	1 138 250	810 793
Overseas			
Australian registered	9	759 508	691 995
Overseas registered	4	115 953	68 589
Total Overseas	13	875 461	760 584
Total major trading fleet	54	2 013 711	1 571 377
Other (minor) Trading ships (>150grt < 2000 dwt)			
Australian registered	17	9 296	12 165
Overseas registered	6	5 630	4 201
Total other trading ships	23	14 926	16 366
Total Australian registered	63	1 788 280	1 443 298
Total Overseas registered	14	240 357	144 445
Total Australian trading fleet	77	2 028 637	1 587 743

Sources: Department of Transport and Regional Services—personal communications; Lloyd's Maritime Information Services, unpublished; Fairplay, World Shipping Directory 2001-2002, 2001; Baird Publications, Australiasian Shipping Directory 2001, 2001; Lloyd's List, Lloyd's Maritime Directory 2001, 2001; Shipping companies (various)—personal communications.

In terms of number of ships by ship type (Figure 5.1):

- the largest decrease was in ro-ro landing barges (22 to 16), and
- the only increase was in containers (3 to 5)

- overall there was a total decrease (81 to 77)

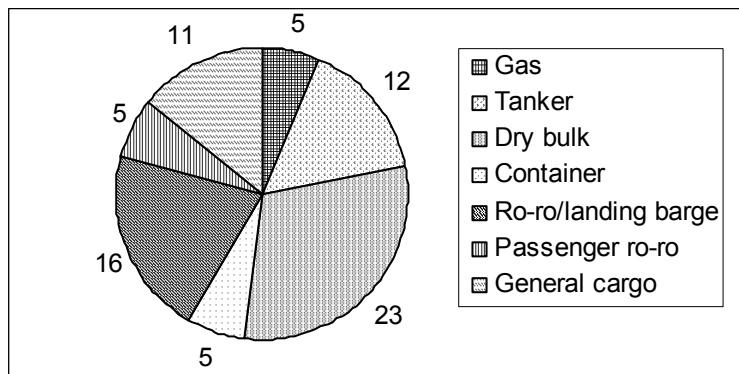FIGURE 5.1   NUMBER OF SHIPS BY SHIP TYPE, AS AT 30 JUNE 2001.

Sources: Department of Transport and Regional Services—personal communications; Lloyd's Maritime Information Services, unpublished; Fairplay, World Shipping Directory 2000-2001, 2000; Baird Publications, Australasian Shipping Directory 2001, 2001; Lloyd's List, Lloyd's Maritime Directory 2001, 2001; Shipping companies (various)—personal communications.

Tables 5.2 and 5.3 show the main trades in which the major trading vessels were engaged during 2001–2002.

TABLE 5.2   SHIPS IN THE MAJOR TRADING FLEET—OVERSEAS TRADES

Name	Trade	Products	Ports called at
Tankers			
Dampier Spirit	o	Crude oil	Tramp world wide
Nivosa	o	Crude oil	Singapore, Brunei, Oman, United Arab Emirates to Sydney, Geelong, Thailand, Vietnam, Malaysia, Singapore
Northwest Sanderling	o	LNG	Dampier, Japan
Northwest Sandpiper	o	LNG	Dampier, Japan
Northwest Snipe	o	LNG	Dampier, Japan
Northwest Stormpetrel	o	LNG	Dampier, Japan
Bulk carriers			
Iron Kembla	o (c)	Iron ore, coal	Gladstone, Hay Pt, Newcastle to South Korea (coal); Pt Hedland to Pt Kembla (iron ore)
Iron Yandi	o (c)	Iron ore, coal	Pt Hedland to Pt Kembla (iron ore); Pt Kembla, Newcastle, Gladstone to Japan, Taiwan
General Cargo			
Arafura Endeavour	o	General cargo	Darwin, Dili, Singapore
Northern Guardian	o	General cargo	Norfolk Is to NZ
OOCL Australia	o	Container	Botany Bay, Melbourne, Brisbane to Japan, Korea, Taiwan
Coral Trader	o(c)	General cargo	Brisbane, Townsville to Pt Morsby, Lae, Darwin
Norfolk Guardian	o(c)	General cargo	Yamba, Norfolk Is, Auckland

Notes: c   Coastal.
           o   Overseas
           (o)   Also undertakes occasional overseas voyages.
           (c)   Also undertakes occasional coastal voyages.

Sources: Prepared by BTRE using Lloyd's Maritime Services, unpublished; Shipping companies (various)—personal communications.

TABLE 5.3   SHIPS IN THE MAJOR TRADING FLEET—COASTAL TRADES

Name	Trade	Products	Ports called at
Tankers			
Australian Pride	c (o)	Petroleum products	Fremantle, WA ports, Darwin, Adelaide, Brisbane, Fiji, American Samoa, Whangarei (NZ) coastal
Barrington	c	Petroleum products	Botany Bay, Brisbane, Mackay, Gladstone, Townsville, Bundaberg, Cairns, Pt Kembla, Melbourne, Geelong, Launceston, Devonport, Hobart, Wellington, Dunedin
Broadwater	c (o)	Crude oil	Kumul terminal (PNG), Brisbane, Botany Bay, Dampier, Singapore, Korea, Varanus Terminal, Saldin terminals, Botany Bay, Pt Bonython, Botany Bay, Hastings, Botany Bay, Sydney
Helix	c	Petroleum products	Geelong, Hobart, Devonport, Brisbane, Townsville, Botany Bay, Sydney, Singapore, Esperance
Palmerston	c	Petroleum products	Brisbane, Botany Bay, Geelong, Townsville, Cairns, Mackay, Gladstone, Bundaberg, Pt Kembla, Wellington, Dunedin
Samar Spirit	c (o)	Crude oil, petroleum products	Hastings, Dampier, Kumul Terminal (PNG), Vietnam, Botany Bay, Brisbane, South East Asia
Seakap	c (o)	Bitumen & bituminous materials, chemicals	Newcastle, Pt Kembla, Botany Bay, Portland, Launceston, Whyalla, Gladstone, Taiwan
Stolt Australia	c (o)	Chemicals	Vic, Tas, NSW ,SA, Qld, WA, New Caledonia, and Tasmania
Tasman	c	Petroleum products	Melbourne, Geelong, Burnie, Launceston, Sydney, Botany Bay, Pt Lincoln, Pt Stanvac, Adelaide, Eden, Brisbane
Bulk Carriers			
Aburri	c	Metal concentrates	Bing Bong
Accolade II	c	Limestone	Adelaide, Klein Point
Alltrans	c(o)	Alumina	Gladstone, Launceston, Bluff, Gove, Bluff
Cementco	c(o)	Cement, alumina	Cement: Gladstone, Newcastle, Adelaide, Brisbane, Melbourne, Sydney, Devonport, Geelong, Launceston, Portland, Mackay, Darwin, Townsville; Alumina: Bunbury, New Caledonia, Geelong, Portland, Pt Kembla

TABLE 5.3   SHIPS IN THE MAJOR TRADING FLEET—COASTAL TRADES (continued)

Name	Trade	Products	Ports called at
Bulk Carriers (continued)			
Endeavour River	c	Bauxite, alumina	Bauxite: Weipa to Gladstone; Alumina: Gladstone to Newcastle
Enterprise	c	Bulk carrier	NSW, SA, Tas, Vic, Qld
Fitzroy River	c	Bauxite	Weipa, Gladstone, Newcastle
Goliath	c	Cement	Devonport, Melbourne, Sydney, Newcastle
Iron Carpentaria	c (o)	Iron ore, dolomite, alumina, coal	Pt Latta, Pt Kembla, Ardrossan, Pt Kembla, Gladstone, Newcastle, Gladstone, Pt Kembla, Launceston, Whyalla, Newcastle, Singapore
Iron Chieftain	c	Iron ore, coal	Whyalla, Pt Latta, Pt Kembla, Pt Kembla, Hay pt, Whyalla
Iron Sturt	c	Cement, metal concentrates, alumina, zinc	Adelaide, Burnie, Geelong, Hobart, Newcastle, Pt Pirie, Portland
Kowulka	c	Gypsum, salt, sugar, alumina, chemicals	Thevenard, Sydney, Melbourne, Pt Alma, Mackay, Sydney, Gladstone, Geelong
Lindesay Clark	c	Alumina, coke, fertiliser, ilmenite ores	Bunbury, Fremantle, Gladstone, Geelong, Portland, Newcastle, Portland, Adelaide, Bunbury, Whyalla, Fremantle
Ormiston	c	Gypsum, sugar, chemicals, dolomite	Thevenard, Melbourne, Sydney, Pt Kembla, Mackay, Bundaberg, Melbourne, Sydney, Devonport, Hastings, Pt Kembla, Mackay, Hay Point, Melbourne
Pioneer	c (o)	Sugar	Mackay, Sydney, Philippines, Singapore
Portland	c	Alumina, metal products, gypsum	Fremantle, Bunbury, Geelong, Portland, Ardrossan, Pt Kembla, Adelaide, Whyalla, Fremantle
River Boyne	c	Bauxite, alumina, cement	Weipa, Gladstone, Gladstone, Newcastle, Townsville
River Embley	c	Bauxite, alumina	Weipa, Gladstone
Wallarah	c	Bulk coal	Catherine Hill Bay, Newcastle
Warden Point	c	Cement	Gladstone, Townsville

TABLE 5.3   SHIPS IN THE MAJOR TRADING FLEET—COASTAL TRADES (continued)

Name	Trade	Products	Ports called at

General Cargo

Name	Trade	Products	Ports called at
ANL Bass Trader	c	General	Melbourne, Launceston, Burnie (occassional)
Claudia	c	Blue metal	Bass Point, Sydney
Frances Bay	c	General Cargo	Nth Australia
Iron Monach	c	Steel products	Pt Kembla, Westernport
Kimberley	c	General cargo	Fremantle, WA coastal, Darwin
Konowe	c	General cargo	Cairns, Qld cape, Weipa
Searoad Mersey	c	General cargo	Melbourne, Devonport, Grassy
Searoad Tamar	c	General cargo	Melbourne, Devonport, Launceston
Spirit of Tasmania	c	General cargo, passengers	Melbourne to Devonport, Burnie(1)
Tasmanian Achiever	c	General cargo	Melbourne, Burnie
Trinity Bay	c	General Cargo	Cairns, Cape York, Gulf ports
Victorian Reliance	c	General cargo	Melbourne, Burnie

Notes: c   Coastal.
 o   Overseas
 (p)   Also undertakes occasional overseas voyages.
 (c)   Also undertakes occasional coastal voyages.

Sources: Prepared by BTRE using Lloyd's Maritime Services, unpublished; Shipping companies (various)—personal communications.

CHAPTER 6   AUSTRALIAN PORT ACTIVITY

In 2001–2002, there was a 0.9 per cent decrease in the number of ship calls at Australian ports and a 0.2 per cent increase in number of ships using Australian ports. There was also a 9.8 per cent decrease in the number of international voyages made to Australia. Fremantle was the busiest port in terms of number of different ships using the port and first port of arrival (Table 6.1). However Melbourne was busier in terms of number of ship visits.

TABLE 6.1   PORT CALLS AT AUSTRALIAN PORTS 2001–2002

Port	Total		First port of arrival from overseas	
	Visits[b]	Ships[a]	Voyages	Ships[c]
Abbot Point	89	65	70	57
Adelaide	681	348	124	103
Albany(AUS)	79	69	45	40
Ardrossan(AUS)	18	16	2	2
Australia	89	83	68	65
Barrow Island Terminal	4	4	3	3
Bing Bong	12	12	5	5
Botany Bay	1 109	284	456	132
Brisbane	2 040	683	1 087	444
Broome	37	21	20	11
Bunbury	289	231	199	172
Bundaberg	28	19	11	10
Burnie	472	61	27	25
Cairns	325	87	83	50
Cape Cuvier	11	10	11	10
Cape Flattery	24	14	22	12
Challis Terminal	1	1	0	0
Cossack Pioneer Terminal	12	10	3	3
Dampier	353	241	271	198
Darwin	683	142	305	97
Derby	31	28	28	25
Devonport(AUS)	582	43	10	8
Eden	18	10	15	7
Esperance	168	147	101	90

TABLE 6.1   PORT CALLS AT AUSTRALIAN PORTS 2001–2002 (continued)

Port	Total		First port of arrival from overseas	
	Visits[b]	*Ships*[a]	*Voyages*	*Ships*[c]
Fremantle	1 651	700	907	485
Geelong	527	283	189	134
Georgetown(AUS)	40	1	0	0
Geraldton	137	115	80	72
Gladstone	998	469	455	327
Gove	121	110	108	103
Grassy	13	1	0	0
Griffin Terminal	4	4	2	2
Hastings(AUS)	82	41	10	9
Hay Point	761	474	614	416
Hayman Island	1	1	0	0
Hobart	274	109	71	47
Jabiru Terminal	2	2	1	1
Karumba	66	36	27	25
Kwinana	6	6	4	4
Laminaria-Corallina Terminal	4	3	2	2
Launceston	415	167	109	73
Legendre Terminal	3	3	1	1
Lucinda	12	12	7	7
Mackay	154	99	48	41
Melbourne	2 946	595	474	195
Milner Bay	45	43	43	42
Mourilyan	23	18	15	15
Newcastle(AUS)	1 452	617	742	431
Port Alma	46	37	10	9
Port Bonython	23	22	8	8
Port Giles	32	30	9	9
Port Hedland	628	344	570	317
Port Kembla	663	330	183	163
Port Latta	44	25	12	11
Port Lincoln	116	105	21	21
Port Pirie	103	58	13	12
Port Stanvac	110	52	30	26
Port Walcott	205	118	199	113
Portland(AUS)	178	116	54	47
Saladin Terminal	4	4	1	1
Shark Bay	4	3	4	3

Table 6.1   Port calls at Australian ports 2001–2002 (CONTINUED)

Port	Total		First port of arrival from overseas	
	Visits[b]	*Ships*[a]	*Voyages*	*Ships*[c]
Stag Terminal	7	5	3	3
Sydney	1 166	371	288	107
Tasmania	2	2	0	0
Thevenard	88	32	14	14
Thursday Island	63	3	0	0
Townsville	591	305	329	207
Varanus Island Terminal	8	8	2	2
Wallaroo	59	54	33	32
Wandoo Terminal	4	3	3	2
Weipa	205	77	69	63
Western Australia	2	2	0	0
Whyalla	60	28	11	11
Wyndham	42	24	26	12
Yamba	13	2	12	1
Total	21 358	3 250	8 779	3 107

a.   No of ships involved in coastal and international voyages.

b.   No of port calls made by ships involved in coastal and international voyages.

c.   No of ships involved in international shipping (Based on arrivals from overseas).

Note: These figures will differ from port authority figures due to vessels not appearing in the source data.

Source: Lloyd's Maritime Information Services, Lloyd's Voyage Record, unpublished.

In terms of tonnes of cargo handled in 2000–2001 the busiest ports in order, starting at the busiest, were Dampier, Newcastle, Port Hedland, Hay Point, Gladstone, Port Walcott, Port Kembla, Brisbane, Melbourne and Sydney (Table 6.2).

TABLE 6.2   CARGO LOADED AND DISCHARGED BY AUSTRALIAN PORTS, 2000–2001.

| State | Destination | Coastal | | International[a] | | | |
		Discharged	Loaded	Imports	Exports	Total	Rank
		(tonnes)					
NSW	Catherine Hill Bay	0	884 708	0	0	884 708	42
NSW	Coffs Harbour	0	0	57	1	58	82
NSW	Eden / Twofold Bay	56 618	254	0	782 315	839 187	44
NSW	Grafton	0	0	15	5 685	5 700	70
NSW	Lord Howe Island	1 248	0	0	0	1 248	73
NSW	Newcastle	2 530 402	527 375	887 719	70 106 484	74 051 980	2
NSW	Port Kembla	7 673 676	3 850 731	1 614 178	13 762 032	26 900 617	7
NSW	Sydney	5 698 195	857 980	12 143 139	5 169 923	23 869 237	8
NSW	Yamba / Ballina	293	3 355	0	2	3 650	72
VIC	Geelong	962 087	2 143 836	5 043 051	4 856 434	13 005 408	13
VIC	Melbourne	4 337 759	2 104 261	7 149 599	9 387 757	22 979 376	9
VIC	Portland	809 267	90 554	433 453	2 833 738	4 167 012	22
VIC	Welshpool	4 743	3 220	0	0	7 963	66
VIC	Westernport	2 123 893	3 585 762	222 203	706 180	6 638 038	18
QLD	Abbot Point		56 090	0	9 198 939	9 255 029	16
QLD	Bamaga	100	0	0	0	100	79
QLD	Bowen	0	0	0	209 130	209 130	58
QLD	Brisbane	3 019 283	2 547 363	8 388 145	8 912 592	22 867 383	10
QLD	Bundaberg	112 175	21 114	39	456 432	589 760	49
QLD	Cairns	476 703	164 298	109 721	1 977 743	2 728 466	28
QLD	Cape Flattery	103	0	0	0	103	78
QLD	Fishing Grounds	206	0	0	0	206	
QLD	Fitzroy Island	69	0	0	0	69	81
QLD	Gladstone	9 715 928	2 785 824	1 252 116	38 519 224	52 273 092	5
QLD	Green Island	257	0	0	0	257	75
QLD	Gulf	2 315	0	0	0	2 315	
QLD	Hay Point	0	0	0	68 594 923	68 594 923	4
QLD	Horn Island	7 664	19			7 683	67
QLD	Innisfail	0	0	0	510 635	510 635	52
QLD	Karumba	8 270	102 784	0	738 930	849 984	43
QLD	Lucinda	0	5 180	0	245 152	250 332	56
QLD	Mackay	440 089	484 352	190 119	2 502 603	3 617 163	24
QLD	Mourilyan	0	6 027	0	0	6 027	69
QLD	Palm Island	80	0	0	0	80	80
QLD	Pormpuraaw	250	0	0	0	250	76
QLD	Rockhampton	168	53 451	0	92 720	146 339	60
QLD	Thursday Island	4 124	0	363	25	4 512	71

TABLE 6.2   CARGO LOADED AND DISCHARGED BY AUSTRALIAN PORTS, (continued)

State	Destination	Coastal		International[a]		Total	Rank
		Discharged	*Loaded*	*Imports*	*Exports*		
		(tonnes)					
QLD	Torres Strait	7 034	0	0	0	7 034	68
QLD	Townsville	1 133 624	426 358	3 599 180	4 382 040	9 541 203	15
QLD	Weipa	221 270	9 258 110	83 433	3 849 660	13 412 473	12
QLD	Yorke Island	990	0	0	0	990	74
SA	Adelaide	2 305 770	796 857	903 283	3 494 366	7 500 276	17
SA	Ardrossan	0	461 648	0	209 949	671 597	47
SA	Klein	0	1 606 273	0	0	1 606 273	34
SA	Port Bonython	0	399 784	0	692 263	1 092 047	39
SA	Port Giles / Edithburg	0	0	0	526 856	526 856	51
SA	Port Lincoln	111 982	1 793	59 253	1 455 723	1 628 752	33
SA	Port Pirie	315 923	188 528	9 775	678 240	1 192 466	38
SA	Port Stanvac	59 944	866 138	2 542 342	215 127	3 683 551	23
SA	Thevenard	4 916	1 055 574	0	439 214	1 499 704	35
SA	Wallaroo	22 449	0	49 743	817 139	889 331	41
SA	Whyalla	927 011	1 161 300	123 106	264 175	2 475 592	29
WA	Albany	75 031	0	153 381	1 427 587	1 655 999	32
WA	Barrow Island	0	239 911	0	79 135	319 046	54
WA	Broome	100 636	85 246	23 906	604 386	814 174	45
WA	Bunbury	54 397	466 874	1 106 935	8 783 940	10 412 146	14
WA	Cape Cuvier	0	0	0	2 270 966	2 270 966	30
WA	Carnarvon	0	0	11	75 956	75 967	63
WA	Cossack Pioneer	0	1 298 240	0	0	1 298 240	37
WA	Dampier	0	58 547	223 589	90 340 246	90 622 382	1
WA	Derby	0	0	0	298 627	298 627	55
WA	Esperance	473 583	0	130 159	3 815 463	4 419 205	21
WA	Fremantle	3 504 087	2 280 888	5 427 263	10 130 945	21 343 183	11
WA	Geraldton	145 503	0	130 086	2 569 957	2 845 546	27
WA	Griffin Venture	0	482 417	0	0	482 417	53
WA	Jabiru	0	124 376	0	0	124 376	61
WA	Modec Venture	0	79 779	0	0	79 779	62
WA	Port Hedland	176 088	4 070 980	132 376	68 438 107	72 817 551	3
WA	Port Walcott	8 335	0	559	28 665 182	28 674 076	6
WA	Thevenard Island	0	153 459	0	0	153 459	59
WA	Useless Loop	0	0	0	744 358	744 358	46
WA	Varanus Island	0	221 728	0	0	221 728	57
WA	WA Ports – not stated	0	1 016 231	0	0	1 016 231	
WA	Wyndham	48 546	10 617	37 439	6 303 917	6 400 519	19

TABLE 6.2   CARGO LOADED AND DISCHARGED BY AUSTRALIAN PORTS, (continued)

		Coastal		International[a]			
State	*Destination*	*Discharged*	*Loaded*	*Imports*	*Exports*	*Total*	*Rank*
		(tonnes)					
WA	Yampi Sound	0	0	0	571 500	571 500	50
TAS	Burnie	713 213	1 223 110	156 700	1 455 314	3 548 337	25
TAS	Devonport	1 089 627	1 702 886	73 492	5 605	2 871 610	26
TAS	Flinders Island	35 546	13 164	0	0	48 710	64
TAS	Hobart	323 213	3 830	174 947	567 074	1 069 064	40
TAS	King Island	18 281	13 748	0	0	32 029	65
TAS	Launceston	1 021 403	175 022	317 465	3 291 144	4 805 034	20
TAS	Port Latta	0	1 023 826	0	1 075 751	2 099 577	31
TAS	Spring Bay	0		0	642 050	642 050	48
TAS	Stanley	0	149	0	0	149	77
NT	Conf NT Ports	0	0	1 067 107	4 583 068	5 650 175	
NT	Darwin	555 820	82 010	448 441	287 301	1 373 572	36
NT	Other ports NT[b]	34 807	674 708	0	361 471	1 070 986	
	Conf Aust Ports	0	0	0	1 730 559	1 730 559	
	Total	51 474 995	52 002 648	54 407 887	495 713 957	653 599 487	

a. ABS records offshore exports such as crude oil through the nearest mainland port, although the actual cargo does not pass through the actual port. For example most of the 6.3 million tonnes of exports through Wyndham are actually exported from offshore crude oil terminals.

b. Other Ports NT consists of Bing Bong, remote communities, Gove, Groote Eylandt and rigs, which are not split up easily.

Sources: BTRE Coastal Database; ABS, International Cargo Statistics, unpublished

EXPLANATORY NOTES

SOURCES

Coastal 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. The main reference for distances was *The Ports of Australia,* 13th edition, 1993, published by the Australian Chamber of Shipping.

The vessel movement details for the Australian trading fleet have been obtained from Informa, *Lloyd's Ship Movements*, unpublished, and, from data supplied by shipping companies and from BTRE's knowledge of the shipping industry.

International sea cargo data was obtained from ABS, *International Cargo Statistics*, unpublished.

DEFINITIONS AND ABBREVIATIONS

ABS Australian Bureau of Statistics.

Australian trading fleet Cargo vessels operated by Australian companies to and from Australia with Australian crews, vessels licensed to operate on the Australian coast (meaning they can trade between States and the Northern Territory) and vessels operating intra–state. The fleet includes vessels that carry cargo and passengers, but does not include vessels that carry passengers only.

Australian Transport Freight Commodity Code Classification (ATFCC)
A systematic classification of commodities transported by sea, air, road, rail and pipeline, developed jointly by the former Commonwealth Department of Transport and Regional Services and the Australian Bureau of Statistics. It has been designed to facilitate standardised classification of goods carried by these modes to, from and within

Australia. The ATFCC is aligned with the Standard International Trade Classification (SITC) at divisional (2-digit)[1] level of classification.

CVP Continual voyage permit. Allows international foreign flag vessels to trade on the Australian coast in the coasting trade over predetermined set route for a set period for a predetermined amount of cargo. May include several coastal voyages. Used primarily in the general cargo (container) trade, but also to a lesser degree in the bulk trades.

DWT (Deadweight tonnage) The measure of weight that a vessel can carry, including cargo, bunkers, water and stores. Expressed in tonnes, it is the difference between the displacement of the vessel loaded to its summer loadline and the light ship displacement, or the total weight of the vessel.

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

GRT (Gross tonnage) The measure of the internal capacity of a ship that is available within the hull and enclosed spaces above deck for cargo, stores, passengers and crew (with certain exceptions). It is expressed as the volume in cubic metres divided by 2.83.

Major trading fleet Vessels of 2000 DWT or more.

Minor trading fleet Vessels of 150 GRT or more but less than 2000 DWT.

nes not elsewhere stated.

State includes Northern Territory.

SVP Single voyage permit. Allows international foreign flag vessels to trade on the Australian coast in the coasting trade over a set route (once only per permit) for a predetermined amount of cargo.

teu twenty foot equivalent unit; measure used to count container. A 40 foot contaier counts as 2 teus.

tonne All figures are measured in mass tonnes (1000 kilograms) unless otherwise stated.

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

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[1] The ATFCC is a four-tiered classification. At the most detailed level there are about 300 commodity categories each identified by a four-digit item code. At the next level there are about 160 categories each identified by a three-digit group code. The commodity groups are assembled into 67 commodity divisions at the two-digit level of the classification, which, in turn, are aggregated to 10 sections at the broadest level of the ATFCC. Sections of the ATFCC are identified by a one-digit code.

For example, iron and steel wire (6794) at 4-digit level is a member of the iron and steel basic products subdivision (679), 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).

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

STATISTICAL ISSUES

Coastal statistics provided by port authorities on tonnages loaded and discharged do not always balance. The most common reasons for this lack of consistency are:

- Port authorities record cargo as having been discharged during the month the vessel arrives in port. Similarly, cargo loaded is recorded against the month of the vessel's departure. Consequently, variations in the loaded and discharged cargo totals will occur due to cargo being in transit at the beginning and end of the financial year.

- A port authority's record of cargo loaded and discharged is based on information provided by the ship's agents. This information could be incorrect because the agent may provide only summary statistics for different types of cargo. The agent may also not know the true origin or destination of particular consignments, and may therefore record the last or next port of call respectively. This particularly applies to liquid and dry bulk commodities, where the cargo originates from, or is destined for, several ports.

- The commodity recorded by the agent may not be classified in the same way at the ports of loading and discharge. For example, gypsum loaded in South Australia is classified as fertiliser at NSW ports, and petroleum products are classified as kerosene in Cairns.

The BTRE has endeavoured to reconcile some of these data problems as far as possible, but takes no responsibility for correctness or accuracy. Reconciliation was not attempted for many of the smaller shipments.

Figures in tables may not add to totals due to rounding.

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