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Australian maritime trade: 2000–01 to 2004–05

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Foreword

Australian maritime trade: 2000–01 to 2004–05 extends data available through the BTRE's *Australian Sea Freight* publications by including information on markets, shipping lanes, key trade routes, traded commodities and passenger services associated with Australia's maritime trade.

This paper, written by Mark Cregan, is the result of a project from the recently created BTRE's Maritime and Land Transport Statistics Section which collects and analyses time series data on various aspects of these sectors.

Stephen Wheatstone commenced this project prior to his retirement from BTRE in July 2006. We would like to thank the Sea Power Centre, Royal Australian Navy, for giving BTRE permission to use their map of shipping lanes (reproduced in Figure 3.2). The comments of Rob Bolin, Adam Malarz and Godfrey Lubulwa on earlier drafts of the paper are gratefully acknowledged.

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Executive summary

Between 2000–01 and 2004–05, Australia’s maritime trade (by weight) has grown by 22 per cent. This growth (by weight) consists of:

- 3 per cent growth in domestic coastal freight
- 23 per cent growth in international exports
- 27 per cent growth in international imports.

In 2004–05, 733.9 million tonnes of sea cargo was carried. Of this it is estimated that:

- 53.4 million tonnes was domestic coastal freight
- 610.6 million tonnes was international exports
- 69.9 million tonnes was international imports.

Of the 53.4 million tonnes of cargo carried around the Australian coast by sea in 2004–05:

- Over 60 per cent was dry bulk cargo, primarily alumina/bauxite and iron ore
- 23 per cent or 12.4 million tonnes was crude oil and petroleum products.

In 2004–05, the maritime transport sector’s share of Australia’s international trade was 680.5 million tonnes valued at \$215.2 billion (Table 1.4). In Australia’s total trade this represented:

- 75.4 per cent by value
- 99.9 per cent by weight and tonne kilometres.

In 2004–05, the major Australian export markets were Japan, China, USA, South Korea and New Zealand. The major Australian import markets were Japan, China, USA, Germany and New Zealand.

In 2004–05, the most important shipping routes to/from Australia were the Indonesian Archipelagic Sea Lanes (ASL). Freight carried via the ASL constituted 39 per cent of Australia’s exports by value (50 per cent by weight) and 32 per cent of imports by value (41 per cent by weight).

The passenger cruise market in Australia is relatively small and is dominated by shipping services between Australia and islands in the South Pacific. In 2004–05, Australian Customs cleared 221 187 international sea passengers.

At a glance

- Chapter 1 is a summary of the Australian maritime task including coastal freight, international shipments and passenger movements.
- Chapter 2 discusses Australia's maritime markets, the commodities traded and regions of trade.
- Chapter 3 presents information on the shipping lanes utilised in Australia's trade, illustrating the relative importance of specific shipping lanes. The degree of transshipment of cargo into Australia is also discussed.
- Chapter 4 provides information on passenger movements into and out of Australia by sea.

Chapter I Australia's maritime trade: overview

In 2004–05, vessels serving Australia¹ carried 733.9 million tonnes of cargo. Of this, it is estimated that 53.4 million tonnes was domestic coastal freight, 610.6 million tonnes was international exports and 69.9 million tonnes was international imports (Table 1.1).

Table 1.1 Australia's maritime task, 2000–01 to 2004–05

Year	Coastal Loaded	International Imports	International Exports	Total International Australia	Total Australia (Loaded)	Total World Maritime Trade ^a	Australia (Loaded) as % of world
<i>Trade – million tonnes</i>							
2000–01	52.0	55.0	495.0	550.0	602.0	5470.5	11.0%
2001–02	52.4	57.8	501.0	558.7	611.1	5554.0	11.0%
2002–03	52.8	62.2	529.4	591.6	644.4	5717.5	11.3%
2003–04	53.2	64.2	558.3	622.5	675.7	5995.2	11.3%
2004–05	53.4	69.9	610.6	680.5	733.9	6268.7	11.7%
<i>Trade Task – billion tonne kilometres</i>							
2000–01	104.5	522.7	4665.0	5186.8	5291.3	42840.0	12.4%
2001–02	110.4	550.5	4711.7	5262.2	5372.6	43043.5	12.5%
2002–03	114.8	597.9	4915.2	5513.1	5627.9	44292.0	12.7%
2003–04	117.5	612.3	5036.0	5648.3	5765.8	47141.8	12.2%
2004–05	114.0	660.4	5345.9	6006.3	6120.3	49963.5	12.2%

a. BTRE estimates based on calendar year data supplied in UNCTAD (2006).

Sources: ABS (2006, unpublished); BTRE (2007, 2005a, 2005b, 2003a, 2003b, 2001), UNCTAD (2006).

Coastal freight has remained relatively stable over the five year period, as shown in Table 1.1. International imports have grown per annum by 6.2 per cent since 2000–01 while international exports have grown by 5.4 per cent over the same period.

In 2004–05, a total of 221 187 international sea passengers cleared Australian Customs, which is almost 2.5 times the 88 854 passengers who cleared Australian Customs in 1997–98, the earliest period for which data is available. This increase represents a 13.9 per cent annual growth over seven years, and 17.7 per cent growth over the previous year (Table 1.2). Domestic interstate passenger movements on the Bass Strait ferries were 451 915 passengers in 2004–05.

¹ Includes both international and domestic shipping services, servicing Australia's domestic and international freight needs.

Table 1.2 International sea passenger movements, 2000–01 to 2004–05*(Passengers clearing customs)*

<i>Year</i>	<i>Inwards</i>	<i>Outwards</i>	<i>Total</i>
2000–01	77 811	74 894	152 705
2001–02	74 520	73 852	148 372
2002–03	88 114	90 144	178 258
2003–04	94 543	93 420	187 963
2004–05	109 240	111 947	221 187

Source: Australian Customs Service — personal communications between 2000 and 2005.

Coastal freight

Table 1.3 shows that in 2004–05 approximately 53.4 million tonnes of domestic cargo was carried around Australia’s coast by sea. This represented 13.6 per cent of the 787.6 million tonnes of cargo moved across Australian wharves (i.e. 6.8 per cent loaded and 6.8 per cent discharged).

Of this coastal freight, over 60 per cent was dry bulk cargo, primarily alumina/bauxite and iron ore. Bauxite is transported from Weipa to Gladstone for processing, while alumina is transported from Gladstone, Fremantle and Bunbury to Newcastle, Launceston, Portland and Geelong. Iron ore is transported from Port Hedland, Whyalla and Port Latta to Port Kembla for processing.

Twelve million tonnes (23 per cent of coastal freight) of crude oil and petroleum products were moved around the coast by sea. The crude oil is shipped from terminals off the Western Australian coast, and from Port Bonython (Queensland), and Westernport (Victoria) to the major oil refineries at Fremantle, Melbourne, Geelong, Sydney/Port Botany and Brisbane. Petroleum products are shipped from these refinery ports to coastal distribution ports. There are also several dedicated chemical tankers that move about 0.5 million tonnes of chemicals around the coast each year.

The remaining 17 per cent of domestic cargo was containerised and non-bulk cargo.

The port authority statistics provided to BTRE are the best, most recent data available on coastal freight. However, they have some data quality issues. The main issue is that, in some cases, the total tonnes loaded do not equal the total tonnes discharged. There are three common reasons for this inconsistency. First, there may be variations in loaded/discharged totals due to cargo being in transit during the financial year cut-off period. Cargo in transit during the survey period but discharged in the following year causes an imbalance in the totals for the year and in those for the following year. Second, the ship’s agent may only provide summary information or simply record the last or next port of call rather than the true origin or destination. Third, the commodity recorded by the agent may not be classified in the same way at the ports of loading and discharge.

The BTRE has endeavoured to reconcile some of the above data issues as far as possible for the larger ports, but no reconciliation was undertaken for many of the smaller shipments and ports.

Table 1.3 Coastal freight cargo loaded and discharged, 2004–05

<i>Commodity group</i>	<i>(tonnes)</i>				
	<i>Dry bulk</i>	<i>Liquid bulk</i>	<i>Container</i>	<i>Non bulk</i>	<i>Total</i>
<i>Loaded</i>					
Alumina/bauxite	13 552 908				13 552 908
Bulk–dry	10 114 039	19 427	247 915	253 279	10 634 661
Bulk–liquid		87 323	2 914		90 237
Coal	1 588 611	8 468	1 174		1 598 252
Crude oil		6 645 014	21		6 645 035
General cargo	212 560	42 822	3 474 392	2 082 937	5 812 711
Hazardous and noxious	700 497	426 304	272 771	86 442	1 486 014
Iron ore	6 890 234				6 890 234
Liquefied petroleum gas	13 269	96 917	19 437	162	129 785
Live animals			1 340	65 763	67 103
Petroleum products	391 398	5 353 259	13 736	14 214	5 772 607
Reefer		1 306	649 641	55 860	706 807
Total loaded	33 463 516	12 680 840	4 683 341	2 558 657	53 386 354
<i>Discharged</i>					
Alumina/bauxite	13 622 353				13 622 353
Bulk–dry	10 202 885		329 244	193 537	10 725 666
Bulk–liquid		100 948	18 909	2 118	121 975
Coal	1 393 213	2 500	22 125	57 008	1 474 846
Crude oil		6 434 874	130		6 435 004
General cargo	282 491	16 293	3 390 635	2 711 582	6 401 002
Hazardous and noxious	995 976	167 604	276 562	101 034	1 541 175
Iron ore	6 870 867		76		6 870 943
Liquefied petroleum gas		126 778	9 947	6 411	143 136
Live animals			21	52 181	52 202
Petroleum products		5 714 322	13 619	35 048	5 762 989
Reefer			516 621	4 057	520 678
Total discharged	33 367 785	12 563 320	4 577 889	3 162 976	53 671 970

Source: BTRE, Coastal Freight database, unpublished

Australia's international maritime trade share

In 2004–05, the maritime transport sector's share of Australia's international trade was 680.5 million tonnes valued at \$215.2 billion (Table 1.4). This represented 75.4 per cent by value and 99.9 per cent by weight and tonne kilometres of Australia's total trade. Maritime's share of international trade by value and weight has been increasing marginally in recent years.

Table 1.4 Australia's international trade, 2000–01 to 2004–05

<i>Financial year</i>	<i>Sea</i>			<i>Total—all modes</i>		
	<i>Imports</i>	<i>Exports</i>	<i>Total</i>	<i>Imports</i>	<i>Exports</i>	<i>Total</i>
<i>Trade (\$billion)</i>						
2000–01	83.0	99.4	182.4	124.1	124.3	248.3
2001–02	85.2	99.5	184.7	124.9	126.3	251.2
2002–03	94.9	93.4	188.4	136.3	119.9	256.2
2003–04	93.5	89.3	182.8	135.0	113.5	248.5
2004–05	108.9	106.3	215.2	154.1	131.5	285.6
Compound growth % p.a.	7.0	1.7	4.2	5.6	1.4	3.6
<i>Trade (million tonnes)</i>						
2000–01	55.0	495.0	550.0	55.4	496.1	551.5
2001–02	57.8	501.0	558.7	58.1	501.9	560.0
2002–03	62.2	529.4	591.6	62.6	530.8	593.4
2003–04	64.2	558.3	622.5	64.5	558.6	623.1
2004–05	69.9	610.6	680.5	70.3	610.9	681.2
Compound growth % p.a.	6.2	5.4	5.5	6.1	5.3	5.4
<i>Trade task (billion tonne kilometres)</i>						
2000–01	522.7	4 665.0	5 186.8	525.0	4 667.0	5 192.0
2001–02	550.5	4 711.7	5 262.2	553.3	4 714.3	5 267.6
2002–03	597.9	4 915.2	5 513.1	601.1	4 917.8	5 518.9
2003–04	612.3	5 036.0	5 648.3	615.8	5 038.0	5 653.8
2004–05	660.4	5 345.9	6 006.3	664.3	5 347.9	6 012.3
Compound growth % p.a.	6.0	3.5	3.7	6.1	3.5	3.7

Sources: ABS (2006, unpublished); BTRE (2007, 2005a, 2005b, 2003a, 2003b, 2001).

Chapter 2 Maritime markets

Australia's main maritime imports are crude oil, general cargo and hazardous and noxious materials. The main commodity groups under general cargo are machinery, motor vehicles—including agricultural machinery—household goods, electrical equipment, textiles and apparel, motor vehicle parts and tyres.

Australia's main maritime exports by weight are coal and iron ore, while by value the major items are general cargo, coal, other dry bulk² and refrigerated foodstuffs. The main commodity groups under general cargo are wool, wine, aluminium, motor vehicles, cotton and dried milk. This commodity mix has not changed in recent years.

Although Australia's maritime exports (\$103 billion) and imports (\$108 billion) are almost equal when measured by value (Table 2.1), exports are almost nine times the size of imports when measured by weight.

Table 2.2 and Figure 2.1 summarise the major Australian export markets³ in 2004–05, which were:

- Japan—main commodity exports, valued at approximately \$23.6 billion, were coal, iron ore, aluminum products, cereals, gas, pulpwood and meat.
- China—main commodity exports, valued at approximately \$11.3 billion, were iron ore, coal, wool, cereals, metallic products, aluminium products, scrap metal and oil.
- South Korea—main commodity exports, valued at approximately \$9.1 billion, were oil, coal, iron ore, lead and zinc ores and concentrates, cereals, aluminium products, beef and logs.
- USA—main commodity exports, valued at approximately \$6.8 billion, were oil, beef, beverages, motor vehicles and parts, machinery, wine, iron ore and iron products, meat, and coal.
- New Zealand—main commodity exports, valued at approximately \$6.8 billion, were motor vehicles, refined petroleum products, oil, paper, cereals, chemicals, iron and steel products, paper and paper board, resins and plastics, manufactured items and food preparations.

² 'Other dry bulk' refers to any bulk commodity which can be either poured or dropped as a solid into a ship's hull, excluding alumina/bauxite, iron ore and coal which are treated separately. 'Other dry bulk' includes grains, minerals, sands, ores, raw sugar. Refer to Appendix A for a full listing of dry bulk cargoes.

³ Markets described throughout this report are defined in Appendix B.

Table 2.1 Australia's maritime trade, by commodity, 2004–05

Commodity group	Value (\$'000s)		Weight (tonnes)	
	Imports	Exports	Imports	Exports
<i>Hazardous and Noxious</i>	9 883 634	3 317 591	11 058 050	2 041 921
<i>Dry bulk</i>				
Alumina/bauxite	10 813	4 406 822	17 424	19 189 720
Iron ore	145 014	8 080 313	4 647 386	242 997 009
Coal	18 102	17 238 436	115 994	232 975 116
Other dry bulk	829 058	12 317 003	4 376 319	59 188 307
Sub-total	1 002 986	42 042 574	9 157 123	554 350 152
<i>Liquid bulk</i>				
Liquefied natural gas (LNG) ^a		3 225 156		0
Liquefied petroleum gas (LPG)	144 719	807 585	276 890	1 586 925
Crude oil	10 024 286	5 693 760	21 575 631	11 035 738
Petroleum products	4 915 132	1 429 016	9 464 178	2 706 317
Other liquid bulk	371 539	355 984	282 821	965 076
Sub-total	15 455 677	8 286 346	31 599 520	16 294 056
<i>General cargo (including containers)</i>				
Reefer	3 445 170	9 892 554	1 188 688	3 361 746
Live animals	1 020	671 555	353	376 187
Other general cargo	78 953 377	33 421 403	16 834 227	15 978 874
Sub-total	82 399 567	43 985 512	18 023 268	19 716 807
<i>Confidential^b</i>	181 344	5 483 718	94 682	18 237 064
Total	108 923 207	103 115 741	69 932 643	610 640 000

a LNG weight is included in confidential.

b Confidential includes all cargo declared as confidential by ABS. This data group varies in size depending on the breakdown required. Some items are confidential only at the detailed level and not in aggregate such as alumina and bauxite, while others, such as grain, may be only confidential for value and not weight. Refer to Appendix A.

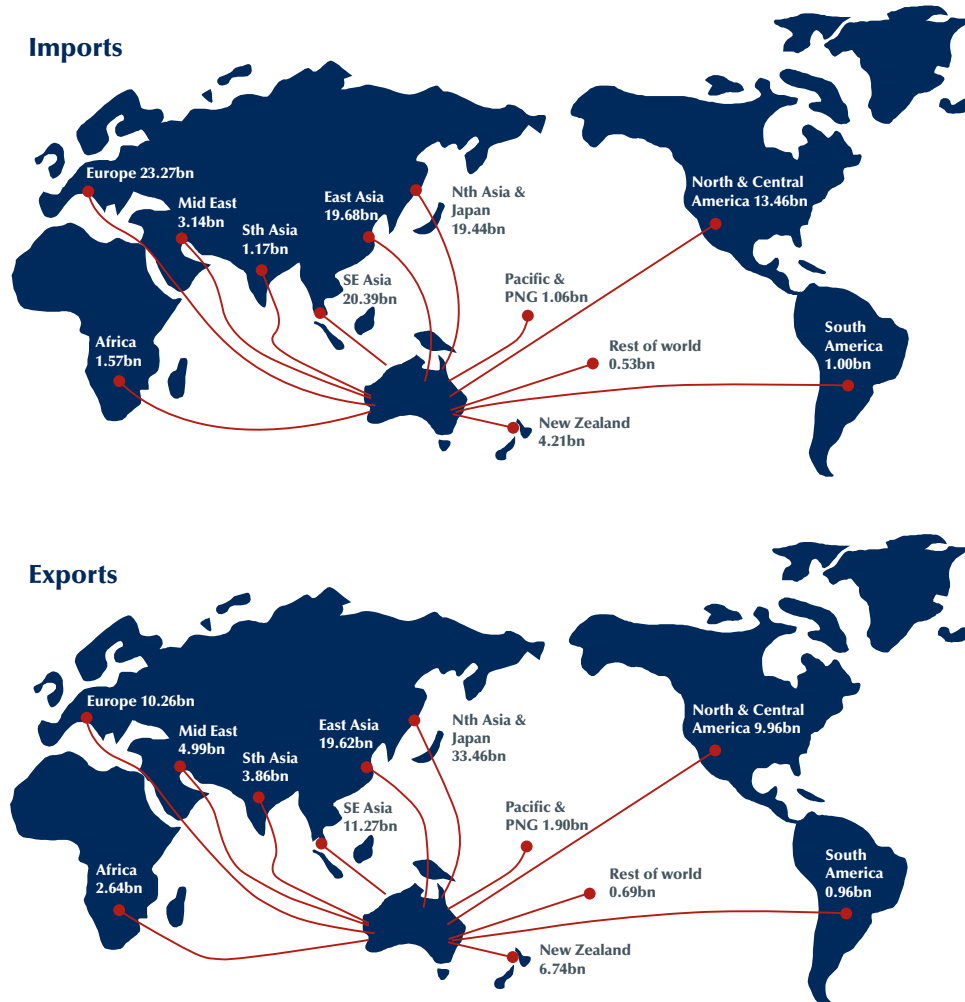
Source: ABS, International Cargo Statistics, unpublished

Table 2.2 International maritime freight, by region of origin/final destination, 2004–05

Region of origin/final destination	Value (\$'000s)		Tonnes	
	Imports	Exports	Imports	Exports
Africa	1 568 924	2 644 608	1 597 859	7 392 358
East Asia	19 676 202	19 623 550	8 364 269	166 800 671
Europe	23 269 581	10 264 890	4 476 881	52 789 522
Japan and North Asia	19 440 821	33 456 555	6 516 732	295 804 978
Middle East	3 137 791	4 985 985	7 694 711	10 960 493
New Zealand	4 208 842	6 737 647	2 521 861	6 098 558
North and Central America	13 461 403	9 955 192	6 766 188	12 913 498
Pacific Islands and PNG	1 059 826	1 898 283	3 561 277	1 985 287
South America	1 004 653	957 253	1 024 534	8 470 863
South East Asia	20 387 397	11 274 680	26 605 026	21 963 894
South Asia	1 173 085	3 856 886	539 424	23 764 812
Rest of world	534 681	685 368	263 879	1 695 067
Total	108 923 207	106 340 897	69 932 643	610 640 000

Source: ABS, International Cargo Statistics, unpublished.

Figure 2.1 International freight (\$billions), by region of origin/final destination, 2004–05



Source: ABS, International Cargo Statistics, unpublished.

The major Australian import markets in 2004–05, were:

- Japan – main commodity imports, valued at approximately \$15.0 billion, were motor vehicles and parts, industrial machinery, rubber manufacturers, power generating machinery, flat rolled steel products, limestone and cement.
- USA – main commodity imports, valued at approximately \$11.9 billion, were industrial machinery, motor vehicles and parts, manufactured fertilizers, petroleum products, agricultural machinery, organic chemicals, paper and animal food preparations.
- China – main commodity imports, valued at approximately \$10.6 billion, were apparel, fabric and yarn, footwear, refined petroleum products, toys and games, metal manufacturers, telecommunications and sound equipment, computer equipment, crude fertilizers, furniture and parts.

- Germany—main commodity imports, valued at approximately \$5.9 billion, were motor vehicles, manufactured fertilizers, paper, industrial machinery, power generating machinery, electrical machinery and organic chemicals.
- New Zealand—main commodity imports, valued at approximately \$4.5 billion, were oil, paper, sawn timber, food preparations, dairy, cork and wood manufacturers and pulp.

Chapter 3 Maritime lanes

Shipping routes

Being an island continent, there are many routes to and from Australia via the Indian, Pacific and Southern Oceans or the Timor, Arafura and Coral Seas. The majority of shipping routes also incorporate one or more of the major international straits or canals (Figure 3.1). The most important shipping routes to and from Australia pass through the Indonesian Archipelagic Sea Lanes, through which passed 39 per cent of Australia's exports by value (50 per cent by weight) and 32 per cent of imports by value (41 per cent by weight) in 2004–05.

The international sea lanes commonly transited by ships carrying Australia's sea freight are, in clockwise direction:

1. Cape of Good Hope – between Australia and Europe/West Africa
2. Red Sea – Gulf of Aden – Suez Canal
3. Persian Gulf – Gulf of Oman – Straits of Hormuz
4. Arabian Sea, via Cape Comorin, India and Sri Lanka
5. Malacca and Singapore Straits
6. Indonesian Archipelagic Sea Lanes (ASL) (see Figure 3.2)
7. Torres Strait
8. East of Papua New Guinea
9. New Caledonia east–west route (including Panama Canal)
10. New Zealand—including Cook Strait and Cape Horn between Australia and North/Central/ South America.

Indonesian Archipelagic Sea Lanes (ASL)

Figure 3.2 shows the three Indonesian Archipelagic Sea Lanes all heading south–north through Indonesia. These are known as:

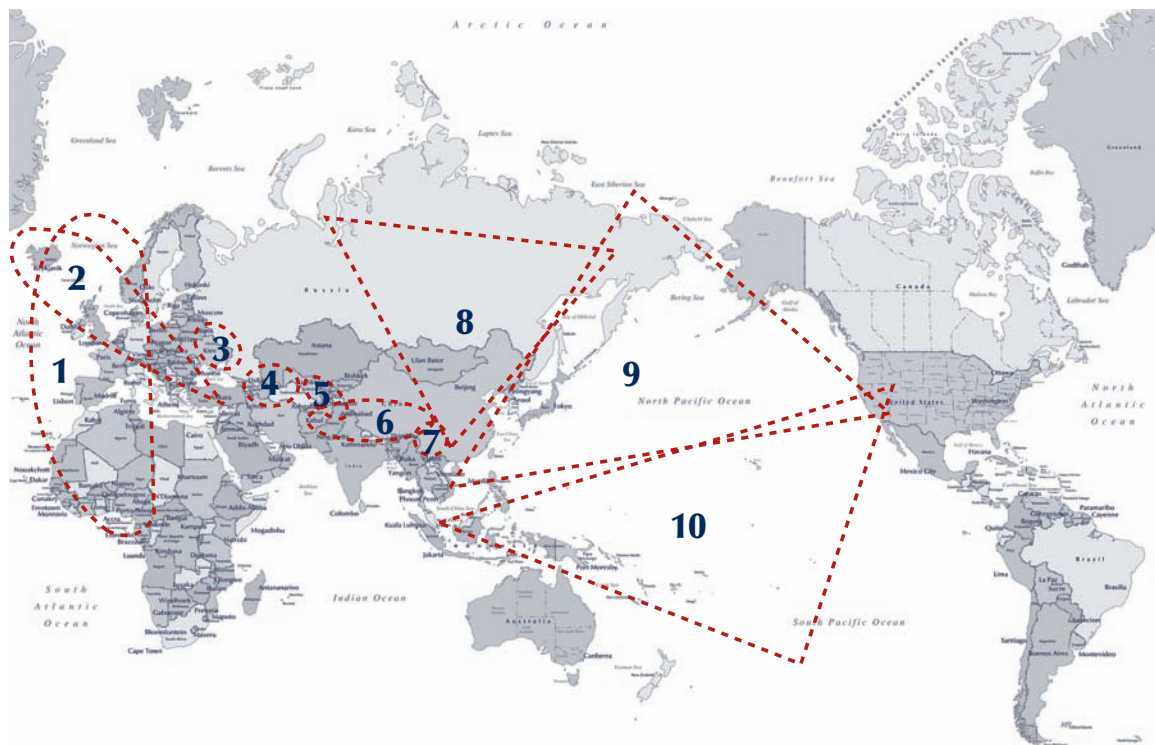
- ASL I (Sunda Straits starts at Selat Sunda)
- ASL II (Lombok Straits starts at Selat Lombok)
- ASL III (passes west of Timor and has several alternate beginning and end points—see Figure 3.2)

Alternative ASL routes to the above are given a letter suffix. Ships servicing Australian routes in ASL III are: A, B, D, E and F. In this paper:

- ships starting on routes A and D are referred to as ASL III A&D,
- while ships on route B are referred to as ASL III B
- ships using routes J and C are referred to as West of Irian Jaya.

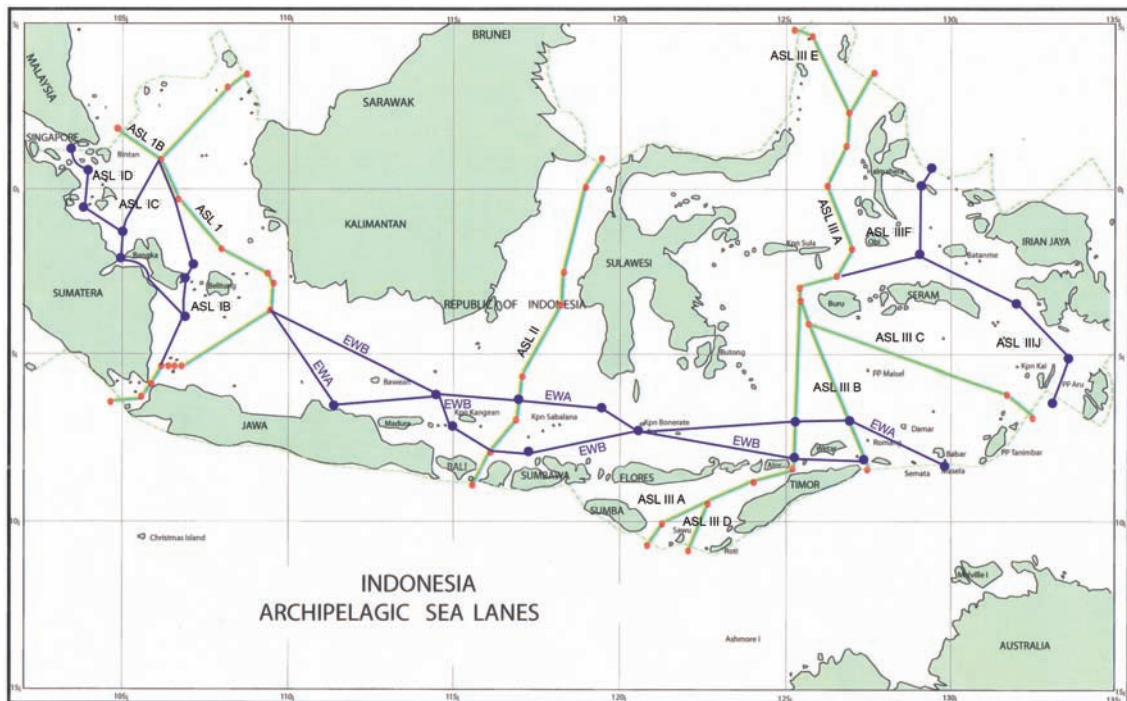
There are also several alternative east–west routes shown on the map that are used by ships servicing Australia. These are labelled EWA and EWB (Figure 3.2) and they eventually join ASL I. These east–west routes combined are labelled Indonesia (east–west) in this paper. The routes that are coloured green and labelled ASLI, ASLII and ASLIII on Figure 3.2 are known as Indonesian Archipelagic Sea Lanes and are considered international sea lanes under international law.

Figure 3.1 Shipping Lanes used by ships carrying Australia’s sea freight



- | | |
|-----------------------------------|---|
| 1. Cape of Good Hope and onwards | 6. Indonesian Archipelagic Sea Lanes |
| 2. Red Sea/Suez Canal and onwards | 7. Torres Strait |
| 3. Persian Gulf | 8. East of Papua New Guinea and onwards |
| 4. Arabian Sea via Cape Comorin | 9. New Caledonia and onwards |
| 5. Straits of Malacca | 10. New Zealand and onwards |

Figure 3.2 Indonesian Archipelagic Sea Lanes (ASL)–Australia’s requirement designated ASL and other normal routes



Courtesy Sea Power Centre (RAN).

From Table 3.1, Australia’s sea freight is highly dependant on the right of passage through and around the Indonesian archipelago and Papua New Guinea (PNG). Although the Straits of Malacca are very important to world trade, they are not as significant to Australia. As East Asia, Japan and North Asia are Australia’s major trading partners, the north–south routes through Indonesia and the route east of Papua New Guinea are far more significant.

The estimates of freight carried, by shipping lane, are based on the assumption that the most direct route has been used between port of unloading/loading in Australia and port of unloading/loading overseas. This study does not take into account ship draught limitations of some channels. For example, a large proportion of the cargo shown to move through the Red Sea may actually travel via the Cape of Good Hope because some vessels may not physically fit through the Red Sea.

Table 3.1 Estimate of ship movements passing through world shipping lanes relating to Australia's trade, 2004–05

<i>International sea lane</i>	<i>Number of ship movements^a</i>	
	<i>Inwards</i>	<i>Outwards</i>
Cape of Good Hope	31	88
Red Sea	98	264
Persian Gulf	110	113
Arabian Sea	141	202
Straits of Malacca	175	236
Sunda Straits (ASL I)	814	764
Lombok Straits (ASL II)	933	904
Indonesia (east–west)	628	714
West of Timor		
ASL III A&Db	481	507
ASL III B	25	23
West of Irian Jaya	1 328	664
Torres Strait	1 864	1 416
East of Papua New Guinea	1 403	1 213
New Caledonia onwards	406	322
New Zealand direction	627	754

a. Includes ships in ballast and redeploying.

b. Many of these ships are large bulk carriers, in the outward movements, that are carrying iron and therefore because of draught limitations may transit the Lombok Straits instead. The Lombok Straits are also the deepwater alternative for large ships which can not transit the Straits of Malacca in the world east–west trade.

Note Routes determined on direct route between first/last port in Australia and last/first port of call overseas. It does not take into account ship draught limitations of some channels.

Sources: BTRE estimates based on ship port to port movements Lloyd's Marine Information Unit (LMIU), unpublished.

Tables 3.2 and 3.3 give a more detailed account of ship movements by route. Note the high use of ASL III A&D by dry bulk carriers, driven by the Australian iron ore trade to South East Asia (Sunda), East Asia (Lombok), Japan and Korea (East of Timor). Similarly the large number of bulk vessels using the east–west route, west of Irian Jaya and East around Papua New Guinea, relates to the coal industry servicing different trade areas.

It is difficult to estimate actual cargo flows from ship movements because, in the liner and general cargo trades, ships tend to service a number of ports in Australia and in Australia's trading regions. Also not all cargo travels directly to its final destination country. Some of these cargo flows are by transshipment of cargoes. For example, Singapore, Hong Kong and European ports provide a large number of routing options for vessels into and out of Australia. In 2004–05, three per cent by weight and 16 per cent by value of all imports and exports were transhipped between countries either on the way to Australia, or after leaving Australia.

The estimates contained in Table 3.4 on actual cargo shipments assume the most direct route has been used. The table provides a guide as to how cargo was moved. The importance of the flows through Indonesia and Papua New Guinea is clearly demonstrated by the volume of cargo movements.

The major ports for transshipment of cargo to and from Australia are Singapore, Hong Kong, Rotterdam, Antwerp and Hamburg. Each of these ports usually tranship over a million tonnes of Australia's freight annually, although in 2004–05 Hamburg only transhipped half a million tonnes (Table 3.6). Tables 3.5 and 3.6 show international ports where more than \$80 million of Australian freight is transhipped as either imports or exports.

Table 3.2 Ship movements through international sea lanes to Australia, by ship type, 2004–05 (inwards)

<i>International sea lane</i>	<i>Tanker</i>	<i>Gas</i>	<i>Passenger</i>	<i>Livestock</i>	<i>Dry bulk</i>	<i>Liner</i>	<i>General</i>	<i>DBO^b</i>	<i>Other</i>
Cape of Good Hope	np	np	0	0	25	np	3	0	0
Red Sea	6	5	np	8	21	41	11	np	4
Persian Gulf	34	5	np	21	30	0	9	10	0
Arabian Sea	36	8	np	21	45	3	16	10	0
Straits of Malacca	19	0	np	7	91	41	9	6	np
Sunda Straits (ASL I)	168	14	7	46	329	159	64	7	20
Lombok Straits (ASL II)	56	15	6	40	749	np	40	18	7
Indonesia (east–west)	128	4	np	4	197	162	110	7	15
Timor Sea / Philippines									
ASL III A&D ^a	9	73	np	np	377	0	15	np	3
ASL III B	0	5	np	10	3	np	4	0	0
West of Irian Jaya	68	np	np	5	815	387	38	11	np
Torres Strait	217	5	3	9	890	582	138	14	6
East of Papua New Guinea	44	4	4	6	1121	11	209	np	np
New Caledonia onwards	37	11	36	np	143	86	85	0	7
New Zealand direction	86	15	19	0	125	269	99	np	13

np: Refers to a cell with a count of less than 3 ships which are not published for confidentiality reasons.

a. Many of these ships are large bulk carriers, in the outward movements, that are carrying iron and therefore, because of draught limitations, probably transit Selat Lombok instead. Selat Lombok is also the deepwater alternative for large ships which can not transit Malacca Straits in the world east–west trade.

b. Combination dry bulk/oil

Note: Routes determined on direct route between first/last port in Australia and last/first port of call overseas. It does not take into account ship draught limitations of some channels.

Sources: LMIU, unpublished.

Table 3.3 Ship movements through international sea lanes from Australia, by ship type, 2004–05 (outward)

<i>International sea lane</i>	<i>Tanker</i>	<i>Gas</i>	<i>Passenger</i>	<i>Livestock</i>	<i>Dry bulk</i>	<i>Liner</i>	<i>General</i>	<i>DBO^b</i>	<i>Other</i>
Cape of Good Hope	3	np	0	0	80	0	np	0	np
Red Sea	np	np	0	11	232	4	7	5	np
Persian Gulf	15	3	0	21	65	np	0	7	np
Arabian Sea	19	4	0	21	146	np	np	9	np
Straits of Malacca	6	np	np	6	119	99	3	np	0
Sunda Straits (ASL I)	165	7	4	42	158	292	75	4	17
Lombok Straits (ASL II)	58	12	5	41	670	3	90	12	13
Indonesia (east–west)	128	8	0	np	432	69	60	4	12
Timor Sea / Philippines									
ASL III A&Da	13	80	0	0	381	np	26	np	4
ASL III B	np	8	np	3	0	np	8	0	0
West of Irian Jaya	46	np	0	7	357	207	41	4	0
Torres Strait	203	8	np	6	765	304	117	7	5
East of Papua New Guinea	19	4	np	6	896	163	120	np	np
New Caledonia onwards	18	12	36	0	124	22	103	5	np
New Zealand direction	80	7	10	4	195	336	108	0	14

np: Refers to a cell with a count of less than 3 ships which are not published for confidentiality reasons.

a. Many of these ships are large bulk carriers, in the outward movements, that are carrying iron and therefore, because of draught limitations, probably transit Selat Lombok instead. Selat Lombok is also the deepwater alternative for large ships which can not transit Straits of Malacca in the world east–west trade.

b. Combination dry bulk/oil.

Note: Routes determined on direct route between first/last port in Australia and last/first port of call overseas. It does not take into account ship draught limitations of some channels.

Source: LMIU, unpublished.

Table 3.4 Estimate of Australia's trade passing through world shipping lanes, 2004–05

<i>International sea lane</i>	<i>Value (\$'000s)</i>		<i>Weight (tonnes)</i>	
	<i>Imports</i>	<i>Exports</i>	<i>Imports</i>	<i>Exports</i>
Cape of Good Hope	4 841 019	40 464 761	19 037 561	8 811 092
Red Sea	1 856 084	23 020 504	5 415 540	4 152 268
Persian Gulf	7 241 652	6 153 063	2 809 448	2 106 395
Bay of Bengal	378 787	20 646 718	615 544	2 646 397
Arabian Sea	168 454	5 422 813	498 308	904 798
Straits of Malacca	5 416 899	26 744 894	4 136 613	5 485 083
Sunda Straits (ASL I)	12 835 813	28 546 337	10 854 864	12 424 674
Lombok Straits (ASL II)	3 735 223	132 975 463	5 027 633	9 834 899
Indonesia (east–west)	10 852 061	43 751 252	9 356 116	8 141 049
Timor Sea / Philippines				
ASL III A&D ^a	947 441	136 263 521	1 422 672	10 270 287
ASL III B	409 751	1 670 381	275 229	486 951
NW/SE West of Irian Jaya	13 233 832	41 461 711	19 434 403	10 890 628
Torres Strait	24 041 697	78 563 223	28 988 231	18 625 397
East of Papua New Guinea	5 073 058	153 289 484	17 083 147	22 240 856
New Caledonia onwards	8 506 509	18 498 891	13 024 931	9 452 985
New Zealand direction	2 731 405	8 024 464	4 768 024	7 093 954
Total ^b	102 269 686	765 497 481	142 748 266	133 567 714

a. Much of this cargo in the export trade is iron ore on large bulk carriers which because of draught limitations may have to transit the Lombok Straits. The Lombok Straits are also the deepwater alternative for large ships which can not transit the Straits of Malacca in the world east–west trade.

b. Values do not add to total due to cargoes using more than one sea lane.

Note: Routes determined on direct route between port of unloading/loading in Australia and port of loading/unloading overseas. It does not take into account the ship draught limitations of some channels.

Sources: BTRE estimates based on cargo port to port movements as reported in ABS, International Cargo Statistics, unpublished.

Table 3.5 Major transshipment ports of Australia's maritime trade, by value, 2004–05

		Value (\$000s)						
Country	Port	Imports			Exports			Total Transhipped
		Direct	Transhipped	Total	Direct	Transhipped	Total	
Singapore	All ports	5 631 187	1 917 010	7 548 197	2 453 078	6 404 641	8 857 718	8 321 650
Hong Kong (SAR ^a of China)	All ports	580 328	4 284 416	4 864 745	1 551 386	613 794	2 165 180	4 898 210
Belgium-Luxembourg	Antwerp	529 599	1 431 898	1 961 497	320 265	826 557	1 146 822	2 258 455
	Zeebrugge	84 603	1 118 054	1 202 657	28 496	14 870	43 366	1 132 924
Netherlands	Rotterdam	639 211	2 803 997	3 443 208	969 805	316 291	1 286 096	3 120 288
Germany	Hamburg	2 188 362	1 460 960	3 649 322	256 698	179 374	436 071	1 640 334
	Bremerhaven	1 410 266	412 120	1 822 385	39 490	49 169	88 660	461 289
	Bremen	175 088	88 130	263 217	3 369	0	3 369	88 130
Malaysia	Port Kelang	1 060 642	163 116	1 223 757	1 294 216	586 289	1 880 504	749 404
	Malacca	71 394	184 454	255 847	0	0	0	184 454
	All other ports	1 831 838	132 882	1 964 719	193 722	815 862	1 009 584	948 744
United States of America	Los Angeles	3 720 199	534 769	4 254 969	1 665 215	45 638	1 710 854	580 407
	Philadelphia	301 853	75 705	377 558	1 367 448	134 739	1 502 187	210 443
	New York	497 166	162 405	659 571	44 714	336	45 050	162 741
	Seattle	223 926	66 255	290 181	211 643	31 603	243 246	97 858
	Baltimore	742 716	89 879	832 595	94 037	16	94 053	89 895
	Other ports	918 715	45 433	964 148	1 340 749	70 609	1 411 358	116 042
Taiwan	Kaohsiung	1 272 345	84 689	1 357 034	2 810 122	341 024	3 151 146	425 714
	All other ports	284 140	1 033 833	1 317 973	568 362	8 119	576 481	1 041 952
United Arab Emirates	Jebel Dhanna	457 062	358 376	815 438	8	451	459	358 827
	Other ports	247 751	317 465	565 215	530 938	5 252	536 190	322 717
Republic of Korea	Pusan	2 383 003	153 746	2 536 749	2 229 731	430 657	2 660 388	584 403
China	Shanghai	4 441 741	177 213	4 618 954	2 955 325	112 638	3 067 962	289 850
	Yantian	575 183	45 878	621 061	55 901	35 367	91 267	81 245
New Zealand	Auckland	1 596 159	170 758	1 766 916	3 473 543	53 503	3 527 045	224 261
	Tauranga	852 512	20 791	873 302	808 013	59 887	867 900	80 677
Panama	All ports	227	0	227	11 609	281 274	292 883	281 274
Mexico	Manzanillo	93 762	162 280	256 041	29 742	80 883	110 626	243 163
South Africa	Durban	780 817	83 885	864 702	547 545	155 223	702 768	239 108
France	Le Havre	607 668	71 262	678 930	99 996	164 107	264 102	235 369
Brunei	All ports	634 067	208 626	842 692	12 781	8 292	21 072	216 917
Italy	La Spezia	2 031 559	90 690	2 122 249	781 997	100 150	882 147	190 840
Japan	Yokohama	4 524 973	83 946	4 608 919	3 657 196	38 251	3 695 447	122 197
Saudi Arabia	Jeddah	20 124	213	20 336	639 299	103 841	743 141	104 054
United Kingdom	London	1 189 310	91 758	1 281 068	1 352 977	7 236	1 360 212	98 994
Egypt	Damietta	6 785	19 882	26 668	39 836	69 558	109 394	89 440

a. Special Administrative Region.

Source: ABS International Cargo Statistics, unpublished.

Table 3.6 Major transshipment ports of Australia's maritime trade, by weight, 2004–05

		<i>Weight (tonnes)</i>						
<i>Country</i>	<i>Port</i>	<i>Imports</i>			<i>Exports</i>			<i>Total Transhipped</i>
		<i>Direct</i>	<i>Transhipped</i>	<i>Total</i>	<i>Direct</i>	<i>Transhipped</i>	<i>Total</i>	
Singapore	All ports	7 468 731	735 598	8 204 329	3 265 254	2 902 324	6 167 577	3 637 921
Hong Kong (SAR ^a of China)	All ports	89 402	504 041	593 442	1 392 541	475 796	1 868 337	979 836
Belgium- Luxembourg	Antwerp	137 400	368 233	505 633	1 067 428	807 638	1 875 067	1 175 871
	Zeebrugge	9 856	79 353	89 209	4 144	2 138	6 283	81 492
Netherlands	Rotterdam	158 670	420 331	579 000	7 105 136	1 727 050	8 832 186	2 147 381
Germany	Hamburg	329 400	365 925	695 324	754 416	45 560	799 976	411 485
	Bremerhaven	82 641	78 058	160 699	7 548	11 906	19 453	89 963
	Bremen	26 819	37 769	64 589	340	0	340	37 769
Malaysia	Port Kelang	617 774	56 336	674 110	3 004 057	316 795	3 320 852	373 131
	Malacca	209 040	315 946	524 986	0	0	0	315 946
	All other ports	3 582 630	195 193	3 777 823	1 544 338	211 180	1 755 518	406 372
United States of America	Los Angeles	534 359	49 487	583 846	429 286	7 851	437 137	57 339
	Philadelphia	52 256	28 015	80 272	346 999	42 696	389 696	70 712
	New York	80 573	40 608	121 181	9 099	259	9 359	40 868
	Other ports	822 513	25 738	848 251	1 691 665	1 163 269	2 854 934	1 189 007
	Seattle	74 049	14 193	88 242	54 676	8 451	63 127	22 645
	Baltimore	73 355	5 601	78 956	54 263	4	54 266	5 605
Taiwan	Kaohsiung	628 041	51 296	679 338	21 163 172	702 366	21 865 538	753 662
	All other ports	562 935	315 895	878 830	10 116 763	19 131	10 135 893	335 026
United Arab Emirates	Jebel Dhanna	1 110 778	743 532	1 854 311	39	41	80	743 573
	Other ports	523 055	680 229	1 203 284	1 727 108	30 263	1 757 371	710 491
Republic of Korea	Pusan	707 028	51 862	758 891	2 033 720	302 462	2 336 182	354 324
China	Shanghai	1 233 531	99 362	1 332 893	25 589 311	49 489	25 638 800	148 851
	Yantian	130 576	6 866	137 442	51 143	49 314	100 457	56 180
New Zealand	Auckland	631 235	26 190	657 425	1 932 569	19 631	1 952 200	45 822
	Tauranga	758 851	5 728	764 578	700 954	13 965	714 919	19 693
Panama	All ports	98	0	98	4 027	84 842	88 869	84 842
Mexico	Manzanillo	45 033	13 824	58 857	40 510	22 935	63 445	36 759
South Africa	Durban	416 958	12 145	429 103	1 022 731	36 281	1 059 012	48 426
France	Le Havre	79 790	17 117	96 907	157 092	32 488	189 580	49 605
Brunei	All ports	1 568 068	304 544	1 872 612	6 300	148 928	155 228	453 472
Italy	La Spezia	358 345	10 444	368 789	214 465	31 769	246 234	42 212
Japan	Yokohama	426 189	11 491	437 680	3 190 817	25 604	3 216 420	37 095
Saudi Arabia	Jeddah	26 864	82	26 946	2 076 280	64 059	2 140 339	64 141
United Kingdom	London	133 451	10 115	143 566	511 885	1 632	513 516	11 746
Egypt	Damietta	2 792	4 239	7 031	48 002	19 036	67 038	23 275

a. Special Administrative Region.

Source: ABS International Cargo Statistics, unpublished.

Chapter 4 Passenger cruises

Passenger cruise market

The passenger cruise market in Australia is relatively small and is dominated by cruise shipping services between Australia and islands in the South Pacific. A small percentage of tourists combine air and sea travel by taking passage on a cargo vessel for part of the journey. Many cargo ships are equipped to take up to eight passengers without having to meet passenger ship regulations.

The regions of origin of passenger ships arriving in Australia are shown in Table 4.1. Ships coming to Brisbane and Sydney from the Pacific Islands and Papua New Guinea comprise the dominant sailing pattern of mostly South Pacific island cruises. Cruise ships calling at Hobart tend to be larger super cruise ships on round-the-world or northern–southern hemisphere cruises. Passenger ships leaving Australia (last port of call in Australia) show similar patterns (Table 4.2). Ship size varies across all regions, the largest being in the 70 000–110 000 gross tons and the smallest being slightly greater than 5000 gross tons.

Table 4.1 Number of vessels arriving in Australia, by first port of call in Australia and region of last port of call overseas, 2004–05

<i>First Australian port of call</i>	<i>Pacific Islands and Papua New Guinea</i>	<i>New Zealand</i>	<i>Africa</i>	<i>Japan and North Asia</i>	<i>South East Asia</i>	<i>East Asia</i>	<i>Europe</i>	<i>North and Central America</i>
Brisbane	15	22		np				4
Cairns	np			np				
Darwin	np		np	np	5			
Fremantle		np	5	np	9			
Hay Point							np	
Hobart	np	7				np		
Macquarie Is.		np						
Melbourne	np	np		np		np		3
Port Alma			np					
Sydney	26	9						
Thursday Is.		np						
Townsville	6			n				

np: refers to a cell with a count of less than three ships, which are not published for confidentiality reasons. Blanks mean there is no data.

Source: LMIU, unpublished.

Table 4.2 Number of vessels departing Australia, by last port of call in Australia and region of next port of call overseas, 2004–05

<i>Last Australian ports of call</i>	<i>Pacific Islands and Papua New Guinea</i>	<i>New Zealand</i>	<i>Africa</i>	<i>Japan and North Asia</i>	<i>South East Asia</i>	<i>East Asia</i>	<i>Middle East</i>
Adelaide				np			
Brisbane	13			3	np		np
Cairns	np						
Darwin				np	5		
Fremantle			3	3	22		
Geraldton			np		np		
Hobart	np	5					
Melbourne		8	np		4		
Newcastle				np			
Sydney	25	np		np			
Thursday Island					np		
Townsville	4			np	np	3	

np: Refers to a cell with a count of less than three ships, which are not published for confidentiality reasons.

Source: LMIU, unpublished

Customs cleared 221 187 international sea passengers in 2004–05. This was up from 88 854 passengers in 1997–98 representing annual growth of 13.9 per cent over seven years, and 17.7 per cent growth over the 2003–04 figures, as shown in Table 4.3.

Table 4.3 International sea passenger movements, 1998–99 to 2004–05

(Passengers clearing customs)

<i>Year</i>	<i>Inwards</i>	<i>Outwards</i>	<i>Total</i>
1997–98	46 107	42 747	88 854
1998–99	67 490	66 075	133 565
1999–00	70 927	69 372	140 299
2000–01	77 811	74 894	152 705
2001–02	74 520	73 852	148 372
2002–03	88 114	90 144	178 258
2003–04	94 543	93 420	187 963
2004–05	109 240	111 947	221 187

Source: Australian Customs Service—personal communication.

Appendix A Commodity split

The commodity groups used in this paper are:

Alumina and bauxite

Alumina and bauxite consists of alumina, bauxite and other aluminium ores and concentrates.

Coal

Coal consists of black coal, both coking and non-coking, coke including charcoal, brown coal and coal briquettes.

Crude oil

Crude oil consists of crude oil and petroleum oil part-refined.

Iron ore

Iron ore consists of roasted iron pyrites, iron ore and concentrates not agglomerated, iron ore pellets and other iron ores agglomerated.

Live animals

Live animals consists of sheep and lambs, pigs, poultry, horses, asses, mules and hinnies, cattle and calves, and other live animals not elsewhere specified.

Liquid natural gas (LNG)

Liquid natural gas is mainly methane. It is held in a liquid state by pressure and refrigeration. In ships, it is carried in special tanks whose upper sections often protrude above deck height in domed or cylindrical form.

Liquid petroleum gas (LPG)

Liquid petroleum gas is refined gas, such as butane or propane. These gases are carried in special tanks under pressure and very low temperatures.

Petroleum products

Petroleum products consist of motor spirit and light oils (refined), petrol (gasoline), aviation gasoline (aviation spirit), other petroleum spirits and light oils, aviation kerosene, aviation turbine fuel, kerosene, other heating and other medium oils, distillate (all—light to heavy), residual oils, lubricating oils and preparations, fuel oils, bitumen and bituminous materials, naphtha and other petroleum solvents, petroleum jelly and mineral waxes, and other residual petroleum products.

Hazardous and noxious

The hazardous and noxious group consists of:

- Natural rubber
- Synthetic and reclaimed rubber
- Asbestos
- Organic chemicals
- Inorganic chemicals
 - Carbon
 - Sulphuric acid
 - Ammonia
 - Caustic soda
 - Titanium oxide
 - Soda ash
 - Radioactive and associated materials
 - Potassium carbonate
 - Other inorganic chemicals not mentioned above
- Pigments, paints, enamels and varnishes
- Dyeing, tanning and colour materials
- Medicinal and pharmaceutical products
- Essential oils, resin oils and perfume materials
- Fertilisers, manufactured
 - Superphosphate
 - Sulphate of ammonia
 - Other manufactured fertilisers
- Plastics in primary forms
 - Plastic materials, artificial resins, etc.
 - Polymers of ethylene
 - Polymers of styrene
 - Polymers of vinyl chloride
 - Other plastic in primary form
- Waste, parings and scraps of plastics
- Plastics in non-primary forms
- Chemical materials and products
- Explosives
- Pyrotechnic products
- Disinfectants, insecticides, fungicides

- Casein and derivatives
 - Starches, inulin, wheat gluten, etc.
 - Other chemical materials and related products
- Uranium, unwrought or worked
- Arms and ammunition
 - Military arms and ammunition
 - Non-military arms and ammunition.

Reefer

Reefer consists of non-hazardous materials requiring a controlled environment, including refrigeration. Reefer in this classification includes food items only. The group includes:

- Meat and meat preparations including beef, veal or buffalo meat, sheep or goat meat, pig meat, poultry, meat and offal
- Dairy products such as milk or cream (fresh or chilled), and processed dairy products (including powdered milk, butter, cheese, etc.)
- Eggs and processed eggs
- Fish, salted, smoked, frozen, fresh (live or dead), chilled fillets, frozen (including fillets, dried, salt or in brine, preparations or preservatives)
- Crustaceans, mollusks (including preparations and preservatives)
- Fruit (including fresh, chilled, preparations or preservatives)
- Vegetables, roots, tubers, legumes, (including fresh, chilled, preparations or preservatives)
- Sugar cane and beet
- Margarine and shortening
- Ice cream, ice cream mix
- Chocolate confectionery
- Other food preparations
- Ale, beer and stout, cider (alcoholic)
- Oil seeds and oleaginous fruits
- Nuts.

Dry bulk

Dry bulk in this report excludes coal, alumina and bauxite, iron ore, hazardous and noxious materials treated as separate groups. It includes:

- Grains including wheat, rice, barley, oats, sorghum, corn (maize)
- Raw sugar

- Pulpwood
- Woodchips
- Waste paper and pulp
- Phosphate
- Limestone and other building stone
- Sand, natural
- Other stone and gravel
- Limestone for steel, lime or cement
- Sulphur, including unroasted iron pyrites
- Clays
- Fly ash
- Slag, dross, scaling and similar waste
- Dolomite
- Gypsum
- Salt, common
- Other crude minerals and concentrates
- Lead and zinc ores and concentrate
- Lead ores and concentrates
- Zinc ores and concentrates
- Copper ores and concentrate
- Ilmenite ores and concentrates
- Rutile ores and concentrates
- Zircon ores and concentrates
- Mineral sands and concentrates
- Nickel ores and concentrates
- Other non-ferrous metal ores and concentrate
- Waste and scrap of iron and steel
- Waste and scrap of non-ferrous metals
- Crude animal materials
- Crude vegetables materials
- Cement
- Cement clinker
- Lime.

Liquid bulk

Liquid bulk in this report excludes crude oil, petroleum products and hazardous and noxious materials included elsewhere. It includes molasses, tallow, other animal oils and fats, cotton seed oil, linseed oil, peanut oil, sunflower seed oil, other fixed vegetable oils and fats (including processed), and water.

General cargo

General cargo includes all cargoes not included above except confidential.

Confidential

The confidential group includes all cargo declared as confidential by ABS. This data group varies in size depending on the breakdown required. Some items are confidential only at a detailed level and not in aggregate, such as alumina and bauxite, while other commodities such as grains, may be confidential for value and not weight.

Appendix B Countries included in maritime markets/regions

Below is the breakdown of countries included in each region of this report.

Table B.1 Countries, by maritime market/region

<i>Markets/regions</i>	<i>Countries</i>			
Africa	Algeria	Ghana	Rwanda	
	Angola	Guinea	Sao Tome and Principe	
	Benin	Guinea-Bissau	Senegal	
	Botswana	Kenya	Seychelles	
	British Indian Ocean Territory	Lesotho	Sierra Leone	
	Burkina Faso (Upper Volta)	Liberia	Somalia	
	Burundi	Libya	South Africa	
	Cameroon	Madagascar	St. Helena	
	Cape Verde	Malawi	Swaziland	
	Central African Republic	Mali	Tanzania	
	Chad	Mauritania	Togo	
	Comoros, Republic of	Mauritius	Tunisia	
	Congo	Morocco	Uganda	
	Ivory Coast	Mozambique	Western Sahara	
	Egypt (Mediterranean ports)	Namibia	Zaire, Democratic	
	Equatorial Guinea	Niger	Republic of Congo	
	Gabon	Nigeria	Zambia	
	Gambia	Reunion	Zimbabwe	
	Australia	Aust fishing zone	Christmas Island	Cocos (Keeling) Islands
	Europe	Albania	Germany	Portugal
		Austria	Gibraltar	Romania
		Belarus	Greece	Russian Federation (excluding Pacific coast)
		Belgium-Luxembourg	Hungary	Slovak Republic
		Bosnia and Herzegovina	Iceland	Slovenia
		Bulgaria	Ireland	Sweden
Spain		Italy	Latvia	
Czech Republic		Croatia	Turkey	
Switzerland		Lithuania	Ukraine	
Cyprus		Malta	United Kingdom	
Denmark		Moldova	Yugoslavia	
Estonia		Netherlands		
Finland		Norway		
Former Yugoslavia		Poland		
Republic of Macedonia		France		
East Asia		China	Macau	Philippines
	Hong Kong	Mongolia	Taiwan	
South Asia	Afghanistan	Kyrgyztan	Pakistan	
	Bangladesh	Maldives	Sri Lanka	
	Bhutan	Myanmar	Tajikistan	
	India	Nepal		
Japan and North Asia	Japan	Korea, Republic of	Russian Federation (Pacific coast)	
		Korea, Democratic Peoples Republic		

Table B.1 Countries, by maritime market/region (continued)

<i>Markets/regions</i>	<i>Countries</i>		
South East Asia	Brunei Cambodia Indonesia	Laos Malaysia Singapore	Thailand Viet Nam Zone of Cooperation— Timor Gap
Middle East	Armenia Azerbaijan Bahrain Country not avail Persian Gulf Country not avail Red Sea Djibouti Egypt (Red sea Ports) Eritrea Ethiopia Georgia	Iran Iraq Israel Jordan Kazakhstan Kuwait Lebanon Oman Palestine, Territory administered Qatar	Saudi Arabia Sudan Syria Turkmenistan United Arab Emirates Uzbekistan Yemen
New Zealand	New Zealand		
No trade area	Country not available	International waters	Ships and aircraft stores
North and Central America	Anguilla Antigua and Barbuda Bahamas Barbados Belize Bermuda Canada Cayman Islands Costa Rica Cuba Dominica Dominican Republic El Salvador French Antilles French Guiana	Grenada Guatemala Guyana Haiti Honduras Jamaica Johnston and Sand Island Mexico Midway Islands Montserrat Netherlands Antilles Nicaragua Panama Panama Canal Zone Puerto Rico	St. Chris Nevi Anguilla St. Christopher and Nevis St. Lucia St. Pierre and Miquelon St. Vincent and Grenadines Suriname Trinidad and Tobago Turks and Caicos Islands United States of America United States Virgin Islands Venezuela Virgin Islands (British)
Pacific Islands and Papua New Guinea	Australian Antarctic Territory Cook Islands Fiji French Polynesia Pacific Island French South Antarctic Territory Guam Kiribati Marianas Northern Marshall Islands Micronesia, Fed States of Samoa (American)	Nauru New Caledonia Niue Norfolk Island Palau Papua New Guinea Pitcairn Island Ross Dependency Samoa	Solomon Islands Tokelau Tonga Trust Territory Tuvalu U.S. Misc Pacific Islands Vanuatu Wake Island Wallis and Futuna Islands
South America	Argentina Bolivia Brazil Chile	Colombia Ecuador Falkland Islands Paraguay	Peru Uruguay

Abbreviations

ABS	Australian Bureau of Statistics
ACS	Australian Customs Service
ASL	Archipelagic Sea Lanes
BTRE	Bureau of Transport and Regional Economics
ICS	International Cargo Statistics
LMIU	Lloyd's Marine Information Unit
PNG	Papua New Guinea
UNCTAD	United Nations Conference on Trade and Development

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