

Australian Government

Department of Transport and Regional Services Bureau of Transport and Regional Economics



ISSUE NO. 40-MAY 2006

FEATURE ARTICLES

This issue contains two articles, one on the role of the new Maritime Security Identification Card system and the other on Australian International Shipping. The first article provides information about the Maritime Security Identification Card system and contact details. The second article summarises Australia's maritime trade 2003–2004 and 2004–2005, including cargo movements, main trading partners as well as major port activity with the main focus on international trade.

In brief

- Between July and December 2005 total cargo throughput and total container traffic reached 57.8 million tonnes and 2.469 million teus respectively (page 14).
- The five-port average crane rate increased from 27.2 containers per hour in the September quarter 2005 to 27.7 containers in the December quarter 2005 (page 4).
- The five port total of container moves increased from 790 348 in the September quarter 2005 to a record 837 459 in the December quarter 2005 (page 4).
- The national port interface cost index for exporting a container has risen to \$606/ teu in 2001 constant prices for Jul–Dec 2005. This is 3.9 per cent higher than Jul–Dec 2004 when it was \$583/teu. (page 12, table 7).
- Berth availability remained steady at 95 per cent in the September quarter 2005 and 96 per cent in the December Quarter 2005 (page 18).

- The five-port average vessel working rate has increased over the period from 35.1 containers per hour in the September quarter 2005 to 35.7 in the December quarter 2005. (page 4).
- The tonnage of cargo estimated to be moved under coastal permits has remained almost static rising from 14.9 million tonnes for 2004 to 15.0 million tonnes for 2005 (page 16).
- Total ship visits increased only marginally in the year ended December 2005 with ships peaking at 1 950 visits (page 12).

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ROLL OUT OF THE MARITIME SECURITY IDENTIFICATION CARD (MSIC)

From 1 January 2007, the Australian Government will require anyone working unescorted within the secure areas (maritime security zones) of a port, ship and offshore oil and gas facility to display a Maritime security identification card (MSIC).

This new security identification card is an Australian Government initiative arising from the review of Australia's maritime security arrangements conducted in 2004. The Maritime Transport and Offshore Facilities Security Act 2003 and Maritime Transport and Offshore Facilities Regulations 2005 were amended in 2005 to establish the MSIC scheme.

The MSIC is a nationally-consistent security identification card for the maritime industry. It shows that the MSIC cardholder is cleared to enter and work in a maritime security zone.

Having an MSIC won't entitle the MSIC cardholder automatic entry to a maritime security zone. Access arrangements are determined by the port authority, ship and offshore oil and gas security staff. MSIC cardholders need a genuine work-related reason to be in a maritime security zone and must follow the facility operator's standard occupational health and safety (OH&S) procedures when entering these zones.

It is estimated that some 130,000 people that work in the maritime industry will need to apply for and obtain an MSIC. The implementation of the MSIC scheme covers 70 ports and approximately 250 maritime industry participants across Australia.

Anyone who has an operational need to work in a maritime security zone will need to apply for an MSIC. This includes:

- all waterfront workers,
- maritime contractors,
- agents and maintenance staff,
- seafarers on Australian regulated ships,
- truck and train drivers and operators,
- regular port visitors and suppliers, and
- anyone working onboard an offshore oil and gas facility.

Maritime industry participants who are under 18 will need to apply for a provisional MSIC.

The application process is straightforward and involves a series of background checks including:

• a criminal history check by the Australian Federal Police (AFP), and

• a security assessment by the Australian Security Intelligence Organisation (ASIO).

Maritime industry participants need to complete the MSIC application form, and provide proof of their identity and authority to work in Australia. Applicants who have returned completed applications to the issuing body are provided with an Australian Federal Police (AFP) criminal history consent form and consent form number. This form must be completed, signed and sent to the AFP.

The Australian Government will assess the individual applicant's record against a list of serious offences relevant to maritime security. Some of the offences that MSIC applications are checked against are:

- treason,
- espionage,
- terrorist acts,
- supplying weapons or missiles,
 - hijacking a vessel or aircraft,
- sabotage,
 - destroying or damaging Commonwealth property,
- endangering the security of an aviation or maritime transport or offshore facility,
- interfering with aviation, maritime transport infrastructure or an offshore facility including carrying dangerous goods on an aircraft or ship,
- identity offences like using false or counterfeit documents or assuming someone else's identity,
- transnational crime involving money laundering, organized crime or racketeering,
- people smuggling, and
- an offence involving the importing, exporting, supply or production of weapons, explosives, or a trafficable amount of drugs.

The full list of relevant offences is in the Maritime Transport and Offshore Facilities Security Amendment Regulations 2005

MSIC applications may be rejected if the individual has been convicted of a disqualifying offence. For lesser convictions, the Australian Government will consider the circumstances of the conviction before making a decision on the issue of an MSIC.

In most cases, minor offences such as speeding fines or parking infringements will not be cause for a person's application to be rejected. The purpose of the background checking process is to identify people who may pose a threat to the security of our maritime industry.

The Australian Government, through the Department of Transport and Regional Services, is now implementing the MSIC across Australia,

starting with the ports and stevedoring operations in Melbourne and Brisbane, with other maritime operations to follow.

The Department's Office of Transport Security (OTS) has produced a national rollout schedule and a range of general information materials to help industry to understand their obligations under these new laws. This information can be found at <www.dotars.gov.au/transsec/maritime/msic/ rollout_strategy.aspx>

Maritime industry participants can apply to be an authorised MSIC issuing body. As at 23 March 2006 there are currently 14 approved MSIC issuing bodies. Up to date details on approved MSIC Issuing bodies is available at: <www.dotars.gov.au/transsec/maritime/msic/ issuing_bodies.aspx>

MSIC awareness materials are available from the Department's website at:

<www.dotars.gov.au/transsec/maritime/msic/ index.aspx or by calling 1800 052 002>

STEVEDORING PRODUCTIVITY

National crane rate productivity, as measured by the five port average, decreased to 27.2 containers per hour in the September quarter 2005 (1.3 per cent lower than the September quarter 2004 rate of 27.5). In the December quarter 2005, the crane rate increased by 1.9 per cent to 27.7 containers per hour (compared with the December quarter 2004 rate of 27.1).

Table 1 presents the December quarter 2003 to December quarter 2005 indicators of stevedoring productivity at the five major Australian container ports, expressed in container moves per hour. Figures 1 to 6 present these data over the December quarter 1995 to December quarter 2005 period. The data for Brisbane, Sydney, Melbourne and Fremantle are weighted averages for the container terminals operated by P&O Ports and Patrick. The Adelaide data are for the DP World container terminal.

In summary:

- the five-port average *crane rate* (average productivity *per crane* while the ship is worked) was 27.2 in the March quarter 2005, 27.7 in the June quarter 2005, 27.2 in the September quarter 2005, and 27.7 containers per hour for the December quarter 2005;
- the five port total of container moves increased from 790 348 in the September quarter 2005 to a new record of 837 459 moves in the December quarter 2005, an increase of 2.2 per cent on the previous reported record for December 2004 of 819 744;
- the five-port average vessel working rate (productivity per ship based on the time labour is aboard the ship) was 34.9 in the March quarter 2005, 35.3 in the June quarter 2005, 35.1 in the September quarter 2005, and 35.7 containers per hour in the December quarter 2005, which was 8.0 per cent higher than the rate of 33.1 achieved in the December quarter 2004.

The *Brisbane* (P&O Ports, Patrick) average crane rate decreased from 27.2 in the June quarter 2005 to 26.9 in the September quarter 2005, and rose to 27.7 containers per hour in the December quarter 2005. The vessel working rate also increased from 26.7 containers per hour in the June quarter 2005 to 27.6 in the September quarter 2005, and fell to 27.0 in the December quarter 2005.

The *Sydney* (P&O Ports, Patrick) average crane rate decreased from 27.7 in the June quarter 2005 to 26.1 in the September quarter 2005, and rose again to 27.4 containers per hour in the December quarter 2005. The vessel working rate decreased from 36.9 containers per hour in the June quarter 2005 to 34.9 in the September quarter 2005, and increased to 36.0 in the December quarter 2005.

The *Melbourne* (P&O Ports, Patrick) average crane rate increased from 27.6 in the June quarter 2005 to 27.9 in the September quarter 2005, and decreased to 27.8 containers per hour in the December quarter 2005. The vessel working rate increased from 38.7 containers per hour in the June quarter 2005 to 40.0 in the September quarter 2005, and was 39.9 in the December quarter 2005.

The *Adelaide* (DP World) average crane rate increased from 30.4 in the June quarter 2005 to 30.8 in the September quarter 2005, and then decreased to 29.9 containers per hour in the December quarter 2005. The vessel working rate increased from 33.6 containers per hour in the June quarter 2005 to 36.6 in the September quarter 2005, and then decreased to 35.8 in the December quarter 2005.

The *Fremantle* (P&O Ports, Patrick) average crane rate decreased from 27.8 in the June quarter 2005 to 26.5 in the September quarter 2005, and then increased to 27.1 containers per hour in the December quarter 2005. The vessel working rate decreased from 32.2 containers per hour in the June quarter 2005 to 30.0 in the September quarter 2005, and then increased to 34.5 in the December quarter 2005.

Overall, stevedoring (or crane-rate) variability decreased from 44 per cent in the June quarter 2005 to 38 percent in the September quarter 2005 and then rose to 45 per cent in the December quarter 2005.

Teus per hour

Table 22 presents the stevedoring productivity indicators in terms of teus per hour. In *Waterline*, for long-term historical comparison purposes these data are retained. They are not directly comparable with the data in Table 1. Indicators based on teus per hour adjust for the mix of 20-foot and 40-foot containers from one period to the next.

t1

Container terminal performance indicators-productivity in containers per hour

Port / Indicator Five ports	Dec-03	Mar-04	Jun–04	Sep-04	Dec-04	Mar-05	Jun–05	Sep-05	Dec-05
Ships handled	850	801	825	905	936	890	993	1 027	1 043
Total containers	734 597	698 685	737 231	776 125	819 744	744 032	743 597	790 348	837 459
Crane rate	27.2	27.7	28.2	27.5	27.1	27.2	27.7	27.2	27.7
Vessel working rate	33.3	33.7	34.1	32.6	33.1	34.9	35.3	35.1	35.7
Crane time not worked (per cent)	28	28	28	29	28	25	24	22	24
40-foot containers (per cent)	39	38	38	41	42	40	39	40	43
Ship working rate	46.1	46.7	47.6	45.9	45.6	46.6	46.3	45.3	46.7
Throughput phm	103	90.7	103	100	115	104	104	111	117
Prisbano	105	50	105	105	115	104	104		117
Ships handled	194	179	175	210	227	205	222	244	261
Total containers	114 580	106 652	110 300	132 527	134 274	116 561	115 730	130 156	142 728
Crane rate	25.7	26.3	27.3	26.6	26.5	27.2	27.2	26.9	27.7
Vossol working rate	25.7	20.5	27.5	26.0	20.5	27.2	27.2	20.5	27.7
Crape time not worked (per cent)	20.5	27.0	2.5.7	20.0	40	20.1	20.7	27.0	27.0
40 foot containers (per cent)	38	37	37	42	40	42	37	33	20
Stovedering variability (per cent)	50	57	57	53	56	54	47	40	43
Ship working rate	40.6	42.2	14.9	41.7	41.2	41.2	40.1	27.6	40.7
Throughput phm	40.0	42.2	44.0	41.7	41.5	41.3	40.1	01	40.7
Sydney	21	00	69	02	04	/ 3	12	01	09
Spaney China handlad	220	221	221	252	262	250	202	204	207
	238	221	231	253	262	250	203	294	297
Total containers	236 567	21/419	231 556	241 539	256 898	230 741	231 959	252 971	265 / 62
Crane rate	26.2	26.7	27.5	27.1	26.7	26./	27.7	26.1	27.4
Consideration of the second se	33.1	36.2	35.9	33./	34.9	34.9	36.9	34.9	36.0
Crane time not worked (per cent)	27	25	25	25	26	25	24	23	35
40-foot containers (per cent)	42	41	42	44	45	43	43	44	45
Stevedoring variability (per cent)	49	54	51	48	53	46	50	44	50
Ship working rate	45.5	48.2	4/./	45.3	47.0	46.6	48.2	45.3	47.6
Ihroughput pbm	122	112	119	124	132	119	119	130	137
Melbourne									
Ships handled	241	223	244	266	2/2	260	299	293	300
lotal containers	259 334	254 261	273 495	279 831	301 997	281 637	278 030	287 655	302 693
Crane rate	28.6	29.3	29.4	28.5	27.5	27.5	27.6	27.9	27.8
Vessel working rate	38.1	36.5	36.3	35.9	35.6	39.3	38.7	40.0	39.9
Crane time not worked (per cent)	26	28	30	29	25	21	20	21	39
40-toot containers (per cent)	39	38	39	42	41	39	39	41	42
Stevedoring variability (per cent)	58	62	66	62	65	69	68	61	68
Ship working rate	51.6	50.5	52.0	50.6	47.7	50.0	48.6	50.4	49.7
Throughput pbm	142	139	150	153	165	154	152	158	166
Adelaide									
Ships handled	63	60	60	54	56	53	68	66	66
lotal containers	36 954	35 100	35 207	35 950	34 654	34 551	37 587	40 467	36 426
Crane rate	28.2	28.1	28.3	28.9	29.8	29.7	30.4	30.8	29.9
Vessel working rate	33.7	32.8	31.5	34.4	35.3	37.1	33.6	36.6	35.8
Crane time not worked (per cent)	13	13	13	16	10	15	14	15	37
40-foot containers (per cent)	29	25	26	24	27	26	27	30	33
Stevedoring variability (per cent)	na								
Ship working rate	38.7	37.9	36.1	40.9	39.2	43.5	39.0	43.3	41.3
Throughput pbm	79	75	75	76	74	74	80	86	78
Fremantle									
Ships handled	114	118	115	113	119	114	121	130	119
Total containers	87 162	85 253	86 673	86 278	91 921	80 542	80 291	79 099	89 850
Crane rate	27.0	27.0	27.1	26.3	27.2	26.7	27.8	26.5	27.1
Vessel working rate	28.8	28.0	28.6	28.5	31.3	31.4	32.2	30.0	34.5
Crane time not worked (per cent)	31	31	31	30	28	28	29	26	31
40-foot containers (per cent)	37	36	34	39	41	37	39	40	43
Stevedoring variability (per cent)	52	41	38	41	41	45	44	38	45
Ship working rate	41.7	40.6	41.6	40.7	43.4	43.6	45.4	40.6	46.0
Throughput pbm	67	66	67	67	71	62	62	61	70

pbm per berth metre

Notes

1. The definitions used in compiling the stevedoring productivity data are detailed in Waterline 33, pages 15–17.

2. The data in this table are expressed in container moves per hour and therefore are not directly comparable with the teus per hour data in table 22.

3. Crane time not worked is the difference between the ship and the vessel working rates as a percentage of the vessel working rate.

Sources Patrick, P&O Ports and DP World.

page

CONTAINER TERMINAL PRODUCTIVITY



Note These figures are based on data contained in Table 1. Readers should refer to the notes in the Sources Patrick, P&O Ports and DP World.

CONTAINER TERMINAL PRODUCTIVITY



 Note
 These figures are based on data contained in Table 1. Readers should refer to the notes in that table.

 Sources
 Patrick, P&O Ports and DP World.

PORT INTERFACE COST INDEX

The port interface cost index provides a measure of shore-based shipping costs (charges) for containers moved through Australian mainland capital city ports. These five ports account for approximately 90 per cent of Australia's container traffic¹. Data for January–June 2005 and July–December 2005 are presented in tables 2 to 6. The port interface cost index is based on an indicative approach; that is, the index is not an average of all costs, but is based on those costs typically charged by service providers in most instances.

Port and related charges

Table 2 provides the parameters used to determine the port and related charges in tables 3 and 4. These parameters relate to a representative port call by container ships using the Lloyd's ship classification UCC. For the 15 000 to 20 000 GT range² the representative vessel size used is 17 215 GT and 37 394 GT for the 35 000 to 40 000 GT range.

Tables 3 and 4 provide the port and related charges at the five mainland capital city ports for the 15 000 to 20 000 GT range and the 35 000 to 40 000 GT range respectively, for January–June 2005 and July–December 2005. Port and related charges comprise ship-based charges and cargo-based charges.

Ship-based charges

While overall ship-based charges changed little in July–December 2005, there were some significant changes in charges per teu, mainly reflecting the

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Paremeters used in the port interface cost index, 2005

Sydney Brisbane Melbourne Adelaide Fremantle Jan-June Jul-Dec Jan-June Jul-Dec Jan-June Jul-Dec Jan-June' Jul-Dec Jan-June Jul-Dec Vessel size GT 17 215 Average teus exchanged ^a 1 010 1 088 All Loaded Empty Loaded inwards Loaded outwards Ship call parameters a Number of port calls Elapsed berth time (hrs) Vessel size GT 37 394 Average teus exchanged ^b All 1 1 1 0 1 1 1 3 1 6 5 9 1 7 5 7 1 962 211 1 217 442 473 1 618 344 162 222 Loaded 1 439 269 Empty Loaded inwards Loaded outwards Ship call parameters b Number of port calls Elapsed berth time (hrs) . 35

na not available

r revised

a. Mean value for ships between 15 000 and 20 000 GT except for Adelaide and Fremantle where due to the small number of ships in the range, the range has been extended to include ships between 10 000 and 26 050 GT to obtain a better sample size.

b. Mean value for ships between 35 000 and 40 000 GT.

Sources BTRE estimates based on ship call data supplied by relevant port authorities/corporations and other port service providers.

1. Based on TEU numbers for Australian ports published by Australian Association of Port and Maritime Authorities (AAPMA) (http://www.aapma.org.au/tradestats/?id=5).

2 To obtain a sufficient sample size for Adelaide and Fremantle containers exchanged (average), the ship size range was increased to 10 000 GT to 26 000 GT.

variation in the average number of teus exchanged per ship call.

Compared to the previous period, the overall changes in total ship-based charges per teu in July–December 2005 for ships in the 15 000 to 20 000 GT range were:

- at *Brisbane*—a 11 per cent decrease;
- at *Sydney*—a 27 per cent decrease due a significant increase in the number of Teus;
- at *Melbourne*—a 5 per cent decrease;
- at *Adelaide*—a 32 per cent increase due to a significant decrease in the number Teus ; and
- at *Fremantle*—a 3 per cent decrease.

For ships in this range, the average number of teus exchanged increased by 13 per cent at Brisbane by 8 per cent at Melbourne, 37 per cent at Sydney and 3 per cent at Fremantle, but decreased 22 per cent at Adelaide when compared to the previous period.

Compared to the previous period, the overall changes in total ship-based charges per teu in July–December 2005 for ships in the 35 000 to 40 000 GT range were:

- at Brisbane—a 1 per cent increase;
- at Sydney—a 4 per cent decrease;
- at Melbourne—a 9 per cent decrease);
- at Adelaide—a 31 per cent increase; and
- at Fremantle—a 2 per cent decrease.

Port and related charges for ships in the 15 000-20 000 GT range, 2005

	Brisb	ane	Sydn	ey	Melbo	urne	Adela	ide	Frema	ntle
	Jan-June	Jul-Dec	Jan-June	Jul–Dec	Jan-June	Jul–Dec	Jan–June ^r	Jul-Dec	Jan-June	Jul–Dec
	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005
Ship-based charges (\$/te	eu)									
Conservancy	4.97	4.51	-	-	-	-	2.53	3.32	-	-
Tonnage	-	-	10.53	7.68	5.16	4.79	6.15	7.93	4.13	4.01
Pilotage	13.35	11.81	4.72	3.45	6.67	6.50	4.28	6.66	3.40	3.30
Towage	16.92	14.97	13.21	9.64	9.06	8.41	18.48	23.72	7.68	7.46
Mooring, unmooring	3.52	3.35	4.01	2.93	1.04	1.10	-	-	1.30	1.26
Berth hire ^a	-	-	-	-	-	-	-	-	-	-
Total ^b	38.76	34.64	32.48	23.69	20.44	20.81	31.44	41.64	16.52	16.03
Cargo-based charges (\$/	teu)									
Wharfage										
Imports	28.60	28.60	66.00	67.65	34.54	34.54	59.95	59.95	49.50	51.03
Exports	28.60	28.60	49.50	51.15	34.54	35.75	59.95	61.27	49.50	51.03
Harbour dues	46.20	46.20	-	-	-	-	-	-	-	-
Berth charge	-	-	-	-	-	-	-	-	15.29	15.29
Total port and related ch	harges (\$/teu) ^b									
Loaded imports	113.56	109.44	98.48	91.34	56.47	55.35	91.39	101.59	81.31	82.36
Loaded exports	113.56	109.44	81.98	74.84	56.47	56.56	91.39	102.91	81.31	82.36
Charges per ship visit (\$	/visit)									
Total ship-based charges	20 427	20 637	22 784	22 784	22 157	22 645	26 665	27 511	11 160	11 160
Empty teus ^c	2 535	2 380	-	-	-	-	-	-	-	-
not applicable										

revised

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a. Charged by stevedores and itemised separately from basic stevedoring charge.

b. Components may not sum to totals due to rounding.

c. Sum of wharfage, harbour dues and berth charge per empty teu, multiplied by average exchange of empty teus.

Note Port and related charges are based on the parameters described in table 2.

Sources BTRE estimates based on: ship call data supplied by relevant port authorities/corporations, and price schedules of relevant port authorities/ corporations, towage operators and pilotage service providers.

Port and related charges for ships in the 35 000–40 000 GT range, 2005

	Brisba	ane	Sydn	ey	Melbo	urne	Adela	ide	Frema	ntle
	Jan-June	Jul–Dec	Jan-June	Jul–Dec	Jan-June	Jul-Dec	Jan-June ^r	Jul-Dec	Jan-June	Jul-Dec
	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005
Ship-based charges (\$/te	u)									
Conservancy	5.12	5.24	-	-	-	-	4.42	5.04	-	-
Tonnage	-	-	9.67	9.23	6.44	5.77	7.55	9.83	7.36	7.20
Pilotage	15.10	15.06	3.39	3.46	4.87	4.58	5.13	6.86	2.79	2.73
Towage	10.15	10.12	5.94	5.67	5.57	4.99	23.52	31.45	9.34	9.14
Mooring, unmooring	1.67	1.80	2.17	2.08	0.60	0.61	-	-	1.07	1.05
Berth hire ^a	-	-	-	-	-	-	-	-	-	-
Total ^b	32.05	32.22	21.18	20.44	17.48	15.95	40.62	53.17	20.56	20.12
Cargo-based charges (\$/	teu)									
Wharfage										
Imports	28.60	28.60	66.00	67.65	34.54	34.54	59.95	59.95	49.50	51.03
Exports	28.60	28.60	49.50	51.15	34.54	35.75	59.95	61.27	49.50	51.03
Harbour dues	46.20	46.20	-	-	-	-	-	-	-	-
Berth charge	-	-	-	-	-	-	-	-	15.29	15.29
Total port and related ch	arges (\$/teu) ^b									
Loaded imports	106.85	107.02	87.18	88.09	52.02	50.49	100.57	113.12	85.35	86.45
Loaded exports	106.85	107.02	70.68	71.59	52.02	51.70	100.57	114.44	85.35	86.45
Charges per ship visit (\$/	/visit)									
Total ship-based charges	35 566	35 856	35 145	35 532	30 722	31 298	34 862	34 123	16 926	16 926
Empty teus ^c	4 306	3 289	-	-	-	-	-	-	-	-
Empty teus ^c	4 306	3 289	-	-	-	-	-	-	-	-

not applicable

r Revised

a. Charged by stevedores and itemised separately from basic stevedoring charge.

b. Components may not sum to totals due to rounding.

c. Sum of wharfage, harbour dues and berth charge per empty teu, multiplied by average exchange of empty teus.

Note Port and related charges are based on the parameters described in table 2.

Sources BTRE estimates based on: ship call data supplied by relevant port authorities/corporations, and price schedules of relevant port authorities/ corporations, towage operators and pilotage service providers. In the 35 000 to 40 000 GT range, the average number of teus exchanged rose at Brisbane, Adelaide and Fremantle in July–December 2005 when compared to the previous period. The increases were marginal at Brisbane, Melbourne 12 per cent and 2 per cent at Fremantle. Sydney increased 5 per cent and Adelaide by 25 per cent.

Fremantle continues to have the lowest ship-based charges on a per ship visit basis for representative vessel sizes for ships in the 15 000 to 20 000 GT range while Melbourne has the lowest for ships in the 35 000 to 40 000 GT range.

Cargo-based charges

Compared to the previous period, the overall changes in total cargo-based charges per teu in July–December 2005 for ships in the 15 000 to 20 000 GT range were:

- at Brisbane—a marginal increase;
- at Sydney—a 3 per cent increase;
- at Melbourne—a 2 per cent increase;
- at Adelaide a 2 per cent increase; and
- at Fremantle—a 2 per cent increase.

Compared to the previous period, the overall changes in total ship-based charges per teu in July–December 2005 for ships in the 35 000 to 40 000 GT range were:

- at Brisbane—a marginal increase;
- at Sydney—a 3 per cent increase;
- at Melbourne—a 2 per cent increase;
- at Adelaide—a 2 per cent increase; and
- at Fremantle—a 2 per cent increase.

Stevedoring charges per teu

The stevedoring charges per teu³ used in this issue of Waterline are those published in the most recently available ACCC report on stevedoring prices (2004–2005 data reported in Report No. 7 of November 2005). The stevedoring charges figure published for 2004–2005 is \$175.2 per teu.

Land-based charges per teu

Average customs brokers' fees and road transport charges for January–June 2005 and July–December 2005 are included in tables 5 and 6. These charges are based on data provided by some 30 customs brokers and 30 road transport operators.

Customs brokers' fees for import are higher than fees for export, reflecting the more complex

clearance procedures for import containers. During July–December 2005 the average customs broker fee for imports did not change at Sydney, Melbourne and Adelaide. It increased by 2 per cent at Fremantle and 1 per cent at Brisbane. For exports the average fee remained unchanged at Sydney, Adelaide and Fremantle. It increased by 1 per cent at Brisbane and 9 per cent at Melbourne.

Road transport charges decreased at Brisbane by 8 per cent and Melbourne by 3 per cent. They increased at Adelaide by1 per cent and Fremantle by 4 per cent. They did not change at Sydney. One of the parameters used to estimate road transport charges is the time taken to move containers between the wharf and the customer's warehouse. Both distance and traffic congestion impact on this parameter and, therefore, help explain the significant difference between road transport charges at Melbourne and Sydney compared with Brisbane, Adelaide and Fremantle.

Indices for individual ports

Table 5 indicates that for ships in the 15 000 to 20 000 GT range between January–June 2005 and July–December 2005, costs per teu for both import and export containers did not change at Sydney and decreased by 1 per cent and 0.3 per cent at Melbourne. At Brisbane, costs per teu for import containers decreased by 3 per cent, while at Adelaide and Fremantle, the costs per teu for imports and exports increased by 3 per cent.

Table 6 indicates that for ships in the 35 000 to 40 000 GT range, between January–June 2005 and July–December 2005 there were decreases at Brisbane both of 3 of per cent. At Sydney both import and export container costs increased by 1 per cent. At Melbourne imports decreased by 1 and exports did not change. At Adelaide imports and exports increased by 3 per cent, while Fremantle also increased by 3 per cent.

National index

Figure 7 provides the national port interface cost index for ships in the 15 000 to 20 000 GT range from 1992 onwards. In current prices, the national index for imports decreased from \$745 per teu in January–June 2005 to \$739 in July–December 2005. At the same time the index for exports decreased from \$697 per teu to \$694 per teu.

In real terms (2001 prices), the national cost index per import teu has declined by 16 per cent since 1993, and by 13 per cent per export teu.

^{3.} These results should be interpreted with caution. The use of a single stevedoring charge for all ports reflects the scope of the available information, which is not disaggregated on an individual port basis. In practice, container stevedoring charges tend to vary between ports.

Table 7 shows the national port interface cost index from Jan–June 2002 for ships in the 35 000 to 40 000 GT range. The national index for imports decreased from \$739 January–June 2005

to \$736 per teu in July–December 2005 in current prices. The index for exports increased from \$691 to \$692 per teu in current prices.

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Port interface costs for ships in the 15 000-20 000 GT range, 2005

	Brisb	ane	Sydn	iey	Melbo	urne	Adela	ide	Frema	ntle
	Jan-Jun	Jul-Dec	Jan-Jun	Jul–Dec	Jan-Jun	Jul–Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul–Dec
	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005
Import										
Ship-based charges	39	35	32	24	22	21	31	42	17	16
Cargo-based charges	75	75	66	68	35	35	60	60	65	66
Stevedoring ^p	171	175	171	175	171	175	171	175	171	175
Customs brokers' fees Road transport	132	134	135	135	131	131	129	129	158	160
charges	284	260	402	403	389	376	244	246	237	247
Import total ^a	701	679	807	805	748	737	636	652	648	665
Export										
Ship-based charges	39	35	32	24	22	21	31	42	17	16
Cargo-based charges	75	75	50	51	35	36	60	61	65	66
Stevedoring ^p	171	175	171	175	171	175	171	175	171	175
Customs brokers' fees Road transport	114	115	107	107	82	89	77	77	81	81
charges	284	260	402	403	389	376	244	246	237	247
Export total ^a	683	660	763	760	699	696	584	601	571	586

p Provisional, updated annually after the release of the ACCC stevedoring monitoring report.

a. Components may not sum to totals due to rounding.

Notes 1. Based on parameters described in table 2.

2. Waterline data on customs brokers' fees and road transport charges are collected for the purpose of monitoring trends in charges over time. They should not be used for inter-port comparisons, as sample characteristics may vary between ports.

3. The stevedoring charge used in Waterline is monitored by the ACCC and is the weighted average for Brisbane, Sydney, Melbourne, Adelaide, Fremantle and Burnie. Stevedoring charges vary between ports but detailed data for individual ports are not publicly available.

Sources BTRE estimates based on: ship call data supplied by relevant port authorities/corporations; price schedules of relevant port authorities/corporations, towage operators and pilotage service providers; surveys of customs brokers and road transport operators; and stevedoring charge data supplied by the ACCC.

Port interface costs for ships in the 35 000–40 000 GT range, 2005

	Brisba	ane	Sydn	ey	Melbo	urne	Adela	ide	Frema	ntle
	Jan–Jun 2005	Jul–Dec 2005	Jan–Juń 2005	′ Jul–Dec 2005	Jan–Jun 2005	Jul–Dec 2005	Jan–Jun 2005	Jul–Dec 2005	Jan–Jun 2005	Jul–Dec 2005
Import										
Ship-based charges	32	32	21	20	17	16	41	53	21	20
Cargo-based charges	75	75	66	68	35	35	60	60	65	66
Stevedoring ^p	171	175	171	175	171	175	171	175	171	175
Customs brokers' fees	132	134	135	135	131	131	129	129	158	160
Road transport	284	260	402	403	389	376	244	246	237	247
charges Import total ª	694	676	796	802	743	732	645	664	652	669
Export										
Ship-based charges	32	32	21	20	17	16	41	53	21	20
Cargo-based charges	75	75	50	51	35	36	60	61	65	66
Stevedoring ^p	171	175	171	175	171	175	171	175	171	175
Customs brokers' fees	114	115	107	107	82	89	77	77	81	81
Road transport	284	260	402	403	389	376	244	246	237	247
charges										
Export total ^a	676	658	751	757	694	692	593	613	575	590

p Provisional, updated annually after the release of the ACCC stevedoring monitoring report.

a. Components may not sum to totals due to rounding.

Notes 1. Based on parameters described in table 2.

2. Waterline data on customs brokers' fees and road transport charges are collected for the purpose of monitoring trends in charges over time. They should not be used for inter-port comparisons, as sample characteristics may vary between ports.

3. The stevedoring charge used in Waterline is monitored by the ACCC and is the weighted average for Brisbane, Sydney, Melbourne, Adelaide, Fremantle and Burnie. Stevedoring charges vary between ports but detailed data for individual ports are not publicly available.

Sources BTRE estimates based on: ship call data supplied by relevant port authorities/corporations; price schedules of relevant port authorities/corporations, towage operators and pilotage service providers; surveys of customs brokers and road transport operators; and stevedoring charge data supplied by the ACCC



National port interface cost index for ships in 15 000-20 000 GT range,

Sources BTRE estimates based on: ship call data supplied by port authorities/corporations; price schedules of port authorities/corporations, towage operators and pilotage service providers; surveys of customs brokers and road transport operators; stevedoring charges data supplied by the ACCC and industry sources; and ABS 5206.041 National Accounts table.

The national port interface cost index for ships in the 35 000–40 000 GT range, 2001–2005

	Jul–Dec	Jan–Jun	Jul–Dec	Jan–Jun	Jul–Dec	Jan–Jun	Jul–Dec	Jan–Jun	Jul–Dec
	2001	2002	2002	2003	2003	2004	2004	2005	2005
Imports in current prices	643	654	660	653	661	674	684	739	736
Imports in 2001 prices	645	646	641	624	622	623	627	656	645
Exports in current prices	588	603	610	608	614	623	636	691	692
Exports in 2001 prices	589	596	593	582	577	575	583	613	606

Sources BTRE estimates based on: ship call data supplied by port authorities/corporations; price schedules of port authorities/corporations, towage operators and pilotage service providers; surveys of customs brokers and road transport operators; stevedoring charges data supplied by the ACCC and industry sources; and ABS 5206.041 National Accounts table.

SHIP VISITS

Table 8 provides the five-port total number of ship visits and the average number of teus exchanged per ship visit for container vessels with sizes ranging from 5 000 to 60 000 GT. Ship visits measures the number of times a ship calls at a port or ports, for example, a ship that sails to Australia 3 times and makes a total of 15 port calls in a year counts as 1 ship, 3 voyages and 15 ship visits.

Total ship visits increased marginally in the year ended December 2005 compared to the preceding year, with ship visits peaking at 1950 for the six months to December 2005. In all ranges the number of ship visits varied in each period. The lowest variation was in the 35 - 40 GT range, while the largest was in the 15000 - 20000 and 30 - 35GT range. There were 316 visits in this category in the six month period to June 2005 and 439 in the December 2005 period. The average number of teus carried increased in most ranges except the 10 000–15 000 GT range where they fell by 9 per cent and the 50 000–55 000 GT range by 28 per cent. There were no ships in the 55 000– 60 000 GT range.

On a national level, 18 per cent of all ship visits were vessels in the 25 000–30 000 GT range, and 84 per cent of ship visits fell within the 15 000 to 45 000 GT ranges. This pattern reflects the slow but steady range 'creep' that has been occurring in recent years as the number of older smaller ships are phased out and many mid–ranged ships are modified to take more 40–foot containers.

The average number of teus exchanged has grown in recent years. The trend of decreases shown in the June 2005 quarter has turned around in the December 2005 quarter. The biggest increase has been in the 30 000 – 35 000 GT range. In the 30 000 – 35 000 GT range average teus have increased by 18 per cent and in the 45 000 - 50 000 GT range the average increase has been 9 per cent.

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t8 Five port a	werage num	ber of te	us exchar	nged and	total ship	visits p	er 6 mon	th period	for selec	ted GT r	anges, w	eighted k	y numbe	er of ship	S		
GT range	Dec 97	Jun 98	Dec 98	Jun 99	Dec 99	Jun 00	Dec 00	Jun 01	Dec 01	Jun 02	Dec 02	Jun 03	Dec 03	Jun 04	Dec 04	Jun 05	Dec 05
5 000–10 000	100	776	272	717	360	280	282	AFG	187	730	1 87	161	102	222	PUC	CUC	225
average reus excriainged total ship visits	159	130	145	143	123	00r	118	93	77	99	78	75	72	93 6	80	707	99
10 000 - 15 000																	
average teus exchanged	569	473	530	546	660 102	683	702	702	706	712	424	405	485	688	628 24	554	506
total ship visits	204	1/7	143	146	183	241	123	106	108	6/	96	50	54	40	84	89	106
15 000 – 20 000 average tells exchanged	605	539	678	656	768	776	813	875	885	763	839	839	876	971	885	693	773
total ship visits	329	361	309	349	363	255	278	330	293	285	223	181	191	153	266	316	439
20 000 - 25 000																	
average teus exchanged	518	506	598	629	290	754	833	838	830	762	818	902	066	1 014	935	818	859
total ship visits	217	200	278	280	249	270	314	276	240	233	241	182	214	199	306	321	294
25 000 - 30 000																	
average teus exchanged	559	608	545	591	740	682	636	869	777	888	1 070	1 027	1 031	959	1 071	956	975
total ship visits	105	97	125	95	129	153	132	116	129	186	252	286	323	344	185	332	377
30 000 - 35 000																	
average teus exchanged	951	754	695	696	821	912	1 041	991	1 061	1 014	1 1 4 9	1 2 6 2	1374	1 478	896	1 215	1 434
total ship visits	192	206	251	252	180	208	222	187	196	216	232	175	257	247	191	223	141
35 000 - 40 000					1												
average teus exchanged	299	793	807	831	945	1 071	1 149	1111	1 223	1 262	1 403	1 408	1 445	1 474	1 385	1 394	1 455
total ship visits	205	235	246	239	207	193	224	210	197	203	223	214	189	225	228	227	225
$40\ 000 - 45\ 000$																	1
average teus exchanged	869 76	/59 01	894 146	8/8	1 013	1 0/3	1 133	1 102	1 246	1 228	1 465	1 450	1 258	181	1 098	1061	1 645 165
45 000 - 50 000		5		ò		2			2	-	1	-	2	2	-	2	2
average teus exchanged	0	35	174	188	233	0	0	0	0	808	938	1 201	1 270	1 379	853	1 279	1 434
total ship visits	0	4	3	3	-	0	0	0	0	5	38	72	77	75	32	65	77
$50\ 000 - 55\ 000$																	
average teus exchanged	678	734	810	737	932	1 007	1 274	1 143	1 062	1 134	1 027	995	1 044	1 366	795	1 736	1 250
total ship visits	28	24	61	64	68	56	63	55	56	09	55	61	69	22	71	89	60
$55\ 000-60\ 000$																	
average teus exchanged	1 1 39	991	1 026	1 046	1 248	1 099	1 223	1 072	1 019	1 069	1 166	1 252	0	0	681	537	0
total ship visits	36	36	25	31	28	29	21	13	17	15	14	ŝ	0	0	9	8	0
Total ship visits	1 551	1 556	1 732	1 739	1 679	1 557	1 635	1 544	1 489	1 543	1 587	1 464	1 632	1 579	1 592	1 936	1 950
Source BTRE estimates ba	sed on ship call	data supplied	4 by relevant i	ort authoritiv	es/corporatio	75.											

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Table 9 shows the distribution of ship visits by size and port. The most common ship range is the 15 000 to 30 000 GT range peaking in the 15 000 – 20 000 GT range and the 25 000 – 30 000 range. These ship calls primarily focus on Brisbane, Sydney and Melbourne, with Brisbane peaking in the 15 000–20 000 GT range, Sydney 20 000–25 000 GT range, and Melbourne 15 000 – 20 000 and 25 000 – 30 000 GT ranges. These ships sizes are popular with ships servicing the shorter international liner trades to New Zealand, PNG and the South Pacific. Adelaide and Fremantle also peak in the 25 000 – 30 000 GT ranges which are popular for the liner trades servicing South East Asia.

There is also a second group of ships calling at all ports in the 30 000 to 45 000 GT peaking in the 35 000—40 000 GT range.

A third group of ships in the 50 000 – 55 000 GT range primarily calls at Sydney, Melbourne Adelaide and Fremantle. These larger ships are more popular with the longer international liner trades.

• Number of ship visits by port, 2005

GT range	Brisbane	Sydney	Melbourne	Adelaide	Fremantle	Total
5 000-10 000	87	2	47	0	0	136
10 000-15 000	32	74	80	1	8	195
15 000-20 000	258	165	241	89	2	755
20 000-25 000	167	225	149	13	61	615
25 000-30 000	88	141	208	102	170	709
30 000-35 000	79	140	98	7	40	364
35 000-40 000	89	124	110	46	83	452
40 000-45 000	67	105	100	29	60	361
45 000-50 000	47	42	53	0	0	142
50 000-55 000	3	48	27	25	46	149
above 55 000	0	8	0	0	0	8
Total	917	1 074	1113	312	470	3 886

Source BTRE estimates based on ship call data supplied by relevant port authorities/corporations.

NON-FINANCIAL PERFORMANCE

The July–December 2001 to July–December 2005 non-financial indicators for the five mainland capital city ports are presented in table 10.

Cargo throughput

Total cargo throughput at the five ports was 57.8 million tonnes for July–December 2005, compared with 57.1 million tonnes for the previous half-year and 58.6 million tonnes for July–December 2004. This represented an decrease of 1.4 per cent in total cargo throughput for the five ports compared with July–December 2004 and an increase of 1.2 per cent compared with January–June 2005.

Compared with July–December 2004, total cargo throughput in July–December 2005 increased by 4.0 per cent at Brisbane. Sydney remained steady. There were decreases of 1.0 per cent at Melbourne, 8.4 per cent at Adelaide and 5.9 per cent at Fremantle.

Non-containerised general cargo throughput at the five ports was 2.6 million tonnes for July– December 2005, compared with 2.5 million tonnes for January–June 2005 and 2.3 million tonnes for July–December 2004. This represented an increase of 2.1 per cent from the previous half-year and an increase of 10 per cent from the corresponding previous half-year.

Total container traffic throughput for the five ports was 2.5 million teus for July–December 2005, compared with 2.2 million teus for January–June 2005 and 2.4 million teus for July–December 2004. This represented an increase of 10.1 per cent from the previous half-year and an increase of 2.7 per cent over July–December 2004.

Compared with July–December 2004, loaded teus at the five ports increased by 4 per cent, with loaded imports increasing by 3 per cent and loaded exports increasing by 5 per cent.

t10 Non-financial performance indicators, selected Australian ports, 2001–2005

	Jul–Dec 2001	Jan–Jun 2002	Jul–Dec 2002	Jan–Jun 2003	Jul–Dec 2003	Jan–Jun 2004	Jul–Dec 2004	Jan–Jun 2005	Jul–Dec 2005
Five ports Total cargo throughput ('000 tonnes) Non-containerised general cargo ('000 tonnes) ^a	50 638 1 876	51 422 1 964	52 110 2 143	51 797 2 060	54 283 2 316	57 713 2 285	58 593 2 338	57 064 2 518	57 776 2 572
Containersed Cargo (teus exchanged) Full import Empty import Full export Empty export TOTAL Average total employment ^b Port turnaround time (hrs) ^c	767 239 144 929 640 288 192 083 1 744 539 759	714 041 134 785 632 229 213 298 1 694 353 795	898 549 127 665 659 965 302 462 1 988 641 803	834 191 117 616 618 896 344 846 1 915 549 816	972 737 116 179 651 772 373 294 2 113 982 865	952 302 129 114 694 261 364 000 2 139 677 914	1 104 324 125 158 721 595 455 000 2 406 077 934	978 300 135 088 719 329 411 302 2 244 019 967	1 139 342 129 224 755 826 445 509 2 469 901 1 036
Median result 95th percentile	-	-	-	-	-	-	-	-	-
Brisbane Total cargo throughput ('000 tonnes) Non-containerised general cargo ('000 tonnes) a Containerised cargo (teus exchanged	11 642 306	11 525 304	12 172 316	12 399 304	12 745 412	12 326 392	13 006 373	12 967 447	13 531 461
Full import Empty import Full export Empty export TOTAL Average total employment ^b	88 281 37 675 102 634 17 874 246 464 206	85 688 32 112 95 966 21 393 235 159 212	114 878 35 719 101 229 41 581 293 407 215	107 977 28 565 91 446 48 809 276 797 209	137 111 31 633 104 279 56 923 329 946 214	124 773 31 676 100 760 52 117 309 326 225	158 781 37 379 114 029 73 495 383 684 238	133 594 34 136 113 090 61 643 342 463 248	172 175 33 218 130 459 60 349 396 201 253
Median result 95th percentile	34 53	32 52	32 55	31 49	35 59	32 59	36 72	45 57	44 56
Sydney Total cargo throughput ('000 tonnes) Non-containerised general cargo ('000 tonnes) ^a Containerised cargo (tous oxtoppand	12 462 291	11 838 279	12 073 319	11 485 316	12 429 320	12 738 307	13 215 299	12 635 329	13 219 312
Full import Empty export TOTAL Average total employment ^b	270 691 13 341 159 494 78 535 522 061 195	236 594 8 853 147 918 94 027 487 392 199	309 070 8 071 154 314 123 810 595 265 198	277 860 6 005 139 456 141 927 565 248 199	320 061 4 503 149 314 154 189 628 067 198	323 051 7 222 154 195 157 721 642 189 198	366 037 5 262 161 310 185 558 718 167 198	320 732 7 670 158 342 170 699 657 443 200	378 451 9 929 171 320 191 297 750 997 241
Port turnaround time (hrs) ^c Median result 95th percentile	32 68	30 55	36 63	32 58	32 66	32 55	33 55	28 51	29 50
Melbourne Total cargo throughput ('000 tonnes) Non-containerised general cargo ('000 tonnes) ^a Containerised cargo (teus exchanged	11 452 753	12 138 834	12 388 896	12 283 930	12 458 984	14 222 1 032	14 115 1 015	14 211 1 126	13 978 1 060
Full import Empty import Full export Empty export TOTAL Average total employment ^b	310 034 60 384 273 910 68 761 713 089 93	295 343 58 936 279 866 73 547 707 692 96	358 818 52 600 291 272 104 266 806 956 95	337 671 52 238 277 392 119 541 786 842 102	388 339 48 478 276 401 127 967 841 185 142	386 413 57 082 315 000 118 038 876 533 170	446 960 51 113 323 454 152 055 973 582 171	406 623 59 334 329 766 141 136 936 859 184	456 345 51 035 330 003 149 346 986 729 191
Median result 95th percentile	36 68	35 63	37 68	36 62	35 57	38 65	39 78	33 60	32 54
Adelaide Total cargo throughput ('000 tonnes) Non-containerised general cargo ('000 tonnes) ^a Containerised cargo (teus exchanged	3 934 189	4 446 239	4 130 251	3 524 171	4 478 238	4 982 213	5 273 263	4 699 207	4 832 282
Full import Empty import Full export Empty export TOTAL Average total employment ^b	21 097 11 714 34 482 4 117 71 410 98	19 591 15 055 35 793 3 377 73 816 95	21 864 11 715 37 358 5 660 76 597 97	19 015 13 050 33 468 6 203 71 736 95	22 214 15 895 43 874 6 757 88 740 94	19 317 14 073 41 734 5 244 80 368 95	20 564 16 774 39 277 7 503 84 118 97	19 785 19 663 40 259 6 760 86 467 95	24 201 21 280 46 933 6 562 98 976 94
Median result 95th percentile	22 43	21 43	19 29	21 40	23 41	24 43	23 60	22 41	21 34
Fremantle Total cargo throughput ('000 tonnes) Non-containerised general cargo ('000 tonnes) ^a Containerised cargo (teus exchanged	11 147 337	11 476 309	11 348 361	12 105 338	12 173 361	13 445 341	12 984 389	12 551 409	12 217 457
Full import Full export Empty export TOTAL Average total employment ^b	77 136 21 815 69 768 22 796 191 515 167	76 825 19 829 72 686 20 954 190 294 193	93 919 19 560 75 792 27 145 216 416 199	91 668 17 758 77 134 28 366 214 926 211	105 012 15 670 77 904 27 458 226 044 217	98 748 19 061 82 572 30 880 231 261 226	111 982 14 630 83 525 36 389 246 526 230	97 566 14 285 77 872 31 064 220 787 241	108 170 13 762 77 111 37 955 236 998 258
Port turnaround time (hrs) ^c Median result 95th percentile	21 46	22 52	25 60	25 52	28 57	29 63	31 60	24 51	23 23 56
na not available									

pbm per berth metre

- not applicable

a. Excludes bulk cargoes.

b. Comparisons between ports are not appropriate because each port authority/corporation has a different structure.

c. Port turnaround times refer only to ships calling at container terminals. Comparisons between ports are not appropriate because each port has a different set of parameters to measure the turnaround time. Normally, only inter-temporal comparison at individual ports is of use.

Note: Components may not sum to totals due to rounding.

Source: AAPMA

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COASTAL SHIPPING PERMITS

Total tonnages of cargo permits issued to applicants under SVPs and CVPs increased by 0.4 per cent from 14.9 million tonnes in 2004 to 15.0 million tonnes in 2005, Figure 8. More information on coastal permits can be found on the Department of Transport and Regional Services' internet site at: <www.dotars.gov.au/transreg/str_permits.aspx> up 44 per cent of total permits issued. Bulk cargo accounts for over 94 per cent of the total tonnage moved under SVPs

Continuing voyage permits

Although CVPs were available prior to 1998, they were rarely requested or issued during this period⁴. However, as shown in figure 10, since 1998 there have been significant fluctuations in both the



Total coastal trade, 1990–2005

Note All tonnages are pre-voyage estimates.

Source BTRE; Australian Sea Freight series; Office of Transport Security and Maritime and Land Transport Division, Department of Transport and Regional Services, various years.

Single voyage permits

Figure 9 illustrates the number of SVPs issued, and the pre-voyage estimation of tonnes of cargo to be carried, between July–December 1990 and July– December 2005. The number of SVPs issued in July–December 2005 increased by 16.9 per cent compared with January–June 2005, and increased by 0.3 per cent compared with July–December 2004. The associated estimated tonnes of cargo to be carried increased by 12.1 per cent compared with January–June 2005, and increased by 2.8 per cent compared with July–December 2004.

On a calendar year basis the total number of SVPs issued in 2005 was 679, compared with 702 in 2004. This represented a decrease of 3.4 per cent. Over the same period, estimated SVP cargo increased by 1.9 per cent from 11.7 million tonnes to 11.9 million tonnes.

Table 11 gives a breakdown of SVPs by cargo types for July–December 2005. General cargo (including containerised cargo) permits now represent 6 per cent by weight, while making number of permits issued and the tonnage to be carried. In July–December 2005, a total of 1.6 million tonnes were carried under CVPs, compared with 1.8 million tonnes in January–June 2005 and 1.9 million tonnes in July–December 2004.

In 2005 there were 154 CVPs issued compared with 141 in 2004. A total of 3.4 million tonnes of coastal trade were to be moved using CVPs in 2005, representing an increase of 3.4 per cent over the previous year.

Summary of single voyage permits issued, July-December 2005

Cargo Category Bulk Cargo	Permits	Tonnes
Petroleum Products	63	1 788 379
Liquefied Gas	12	143 360
Other Bulk Liquids	11	87 753
Dry Bulk	118	3 906 800
General Cargo	162	364 253
Total	366	6 290 545

Note All tonnages are pre-voyage estimates.

Source Office of Transport Security and Maritime and Land Transport Division, Department of Transport and Regional Services.

4. CVPs issued since the start of 2005 have been for 3 months maximum duration rather than the 6 months allowed previously. Currently one CVP is estimated to be equivalent to three SVPs on average.

Tonnes to be carried via single voyage permits, 1990–2005



Sources Office of Transport Security and Maritime and Land Transport Division, Department of Transport and Regional Services, various years.





Note All tonnages are pre-voyage estimates.

Sources Office of Transport Security and Maritime and Land Transport Division, Department of Transport and Regional Services, various years.

WATERFRONT RELIABILITY

Waterline reliability indicators provide partial measures of the variability of waterfront performance for container movements at major Australian ports. They cover the timeliness of selected port services, factors contributing to ship waiting time, aspects of stevedoring performance and the accuracy of ship arrival advice

Berth availability, pilotage, towage

Table 12 presents information on berth availability⁵, pilotage and towage services for samples of ship calls⁶ in the September and December quarters 2005, and indicates the extent to which selected port services were available at the scheduled or confirmed time.

The sample for the September quarter 2005 covers 123 ship calls, equivalent to around 13 per cent of total ship calls at the five major container terminals during the period. The proportion of ship calls covered at individual ports ranges from 3 per cent at Adelaide to 33 per cent at Melbourne.

The sample for the December quarter 2005 covers 129 ship calls, also equivalent to around 13 per cent of total ship calls at the five major container

terminals during the period. The proportion of ship calls covered at individual ports ranges from 7 per cent at Fremantle to 19 per cent at Sydney. The figures for Fremantle should be treated with caution due to the low percentage of calls captured in the sample compared to the number of ship calls at the terminals.

The samples include calls by container ships operating to and from Europe, the Mediterranean, the Middle East, North America, Asia and New Zealand.

The berth availability indicator measures the proportion of ship arrivals where a berth is available within one to four hours of the scheduled berthing time. Figure 12 shows that berth availability for the sample of ship calls was 95 per cent in the September quarter 2005. This was higher than in the previous quarter. Berth availability was also 96 per cent in the December quarter 2005.

Average waiting time for ships unable to obtain a berth within four hours of the scheduled berthing time was 8 hours in the September quarter 2005, a decrease from 18 hours in the previous quarter. Average waiting time was also 8 hours in the December quarter 2005.

Availability of berth, pilotage and towage services at the scheduled/confirmed time, September and December quarter 2005

								Nu	umber o	f ship call	ls—Delay	in hou	irs						
				Se	eptembe	er Qua	rter 200)5		Total				Decen	nber Q	uarter 20	005		Total
Port/operatio	n	0	1	2	3	4	5-10	11–20	>20	calls	0	1	2	3	4	5-10	11–20	>20	calls
Five ports																			
Berth availabi	lity ^a 100	6	1	5	2	4	5	1	0	123	115	3	3	2	2	5	0	0	129
Pilotage	122	2	0	0	0	0	2	0	0	123	130	0	0	0	0	0	0	0	129
Towage Brisbane	124	4	0	0	0	0	0	0	0	123	130	0	0	0	0	0	0	0	129
Berth availabi	lity ^a 24	4	0	0	0	0	1	1	0	26	23	0	1	0	1	0	0	0	25
Pilotage	20	6	0	0	0	0	0	0	0	26	25	0	0	0	0	0	0	0	25
Towage	20	6	0	0	0	0	0	0	0	26	25	0	0	0	0	0	0	0	25
Sydney	(0									0								
Berth availabi	lity ^a 39	9	0	2	0	0	2	0	0	43	42	1	0	0	1	2	0	0	46
Pilotage	4	1	0	0	0	0	2	0	0	43	46	0	0	0	0	0	0	0	46
Towage	43	3	0	0	0	0	0	0	0	43	46	0	0	0	0	0	0	0	46
Melbourne	(0									0								
Berth availabi	lity ^a 30	0	1	2	2	4	2	0	0	41	35	2	2	2	0	3	0	0	44
Pilotage	4	1	0	0	0	0	0	0	0	41	44	0	0	0	0	0	0	0	44
Towage	4	1	0	0	0	0	0	0	0	41	44	0	0	0	0	0	0	0	44
Adelaide		0									0								
Berth availabi	lity ^a	3	0	1	0	0	0	0	0	4	6	0	0	0	0	0	0	0	6
Pilotage	4	4	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	6
Towage	4	4	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	6
Fremantle																			
Berth availabi	lity ^a 10	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	8
Pilotage	10	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	8
Towage	10	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	8
a. Al	perth is consi	dered	d availa	able wh	en the s	hip is a	able to l	berth witl	hin 4 ho	urs of the	schedule	d bertl	ning tin	ne.					
Note Int pa	er-port comp terns.	ariso	ns sho	uld be i	nterpret	ed wit	h cautic	on as ther	e is sign	ificant var	iation bet	ween	ports ir	n factor	rs such	as samp	le sizes ar	nd ship	call

Sources Data for a sample of ship calls provided by shipping lines.

5. Caution should be used in undertaking inter-port comparisons of the berth availability data, as there is significant variation between ports in sample sizes and ship call patterns.

6. The sample is based on those shipping companies who provide data.

The pilotage and towage indicators reported in Waterline measure the proportion of ship movements where the service is available to the ship within one hour of the confirmed ship arrival/ departure time. The proportion for the pilotage indicator in the September quarter 2005 was 98 per cent, the same as in the previous quarter, and 100 per cent for the towage indicator, higher than in the previous quarter. In the December quarter 2005, the proportion for both the pilotage and the towage indicator was also 100 per cent. Performance has been at similar levels since the first data (covering the March quarter 1997) were published in Waterline.

Other ship waiting time

The shipping lines that supplied information for table 13 provided data on other ship waiting time. This category incorporates waiting time that is attributable to factors other than the unavailability of a berth, pilot or towage service at the scheduled/ confirmed time. The data on other ship waiting time reported in Waterline exclude ship schedule adjustments.

Table 13 summarises the data on other waiting time incidents which had a duration of at least one hour in the September and December quarters 2005. The shipping lines identified a total of 68 incidents (affecting 123 ship calls) for the sample of ship calls over the September quarter 2005, and 54 incidents (affecting 129 ship calls) in the December quarter 2005. These incidents involved both ship-related and waterfront factors.

The total waiting time attributable to particular incident types reflects the number of incidents and the waiting time associated with individual incidents. The largest source of other ship waiting time in the September quarter 2005 was the category *Stevedoring finished early*, which accounted for 21 per cent of total waiting time. *Late ship arrival* accounted for 4 per cent of total waiting time, and *stevedoring finished late* was related to a further 21 per cent of total waiting time. The largest source of other ship waiting time in the December quarter 2005 was again the category of *Stevedoring finished early*, which accounted for 24 per cent of total waiting time. *Awaiting labour* accounted for 19 per cent and *Stevedoring finished late* accounted for 14 per cent of total waiting time.

In the September quarter 2005, 55 per cent of ship calls in the sample were affected by *other waiting time* incidents that had a duration of at least one hour, up from 38 per cent in the June quarter 2005. The average duration of *other waiting time* incidents was 5.6 hours per affected ship call in the September quarter 2005, down from 13.8 hours per affected ship call in the previous quarter.

In the December quarter 2005, 42 per cent of ship calls in the sample were affected by *other waiting time* incidents that had a duration of at least one hour. The average duration of *other waiting time* incidents was 8.2 hours per affected ship call in the December quarter 2005.

Figure 11 provides information on other ship waiting time over the period since the December quarter 1997. It indicates the proportion of ship calls affected and the average duration of other waiting time per affected ship call in each quarter.

Other ship waiting time incidents at the five mainland capital city ports, September and December quarter 2005

						Numbe	er of shij	o calls—D	elay in h	ours						
		S	eptemb	er Qua	arter 20	05				Dec	ember	Quart	er 200	5		
Port/operation	1	2	3	4	5–10	11–20	>20	Total	1	2	3	4	5–10	11–20	>20	Total
Awaiting labour	1	0	0	0	3	1	0	5	2	1	2	1	2	0	0	8
Early ship arrival	3	0	0	0	3	2	0	8	1	0	0	0	2	1	0	4
Stevedoring finished early	1	9	1	0	0	0	1	12	5	4	1	0	0	0	0	10
Crane breakdown Pilot/tug booking not at	1	0	0	0	1	1	0	3	0	0	0	0	0	0	0	0
preferred time	7	2	1	0	0	0	0	10	3	0	1	0	0	0	0	4
Stevedoring finished late	2	1	1	6	2	0	0	12	3	1	0	0	1	1	0	6
Late ship arrival	0	0	0	0	2	0	0	2	0	1	0	0	0	1	2	4
Industrial action	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Ship repairs or maintenance	0	0	0	0	0	2	0	2	0	0	0	0	1	0	2	3
Weather or tides	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Other	1	0	0	0	0	0	0	1	0	1	0	0	0	2	0	3
Total incidents	16	12	5	6	11	6	1	57ª	14	8	4	1	6	5	4	42 ^b

a. These incidents affected 68 of the 123 ship calls covered in the September quarter.

b. These incidents affected 54 of the 129 ship calls covered in the December quarter.

Sources Data for a sample of ship calls provided by shipping lines.





Sources Data for a sample of ship calls provided by shipping lines.

Stevedoring—Cargo Receival

Table 14 presents the available information on an aspect of stevedoring reliability at major container terminals—*cargo receival*. Data were not available for Adelaide.

Cargo receival is the proportion of receivals (exports) completed by the stevedore's cut-off time. It provides a partial measure of one factor that can affect container terminal performance. Cargo receival in the September quarter 2005 increased at Sydney, Melbourne and Fremantle and fell at Brisbane compared with the previous quarter. Cargo receival in the December quarter 2005 decreased at Sydney, Melbourne Brisbane and Fremantle, compared with the previous quarter.

Ship arrival

Table 14 also includes data for two indicators of *ship arrival advice*. Data were not available for Melbourne for the September and December quarters 2005.

The first indicator is the proportion of ship arrivals within one hour (plus or minus) of the most recently advised arrival time available to the port authority/corporation at 24 hours prior to actual arrival. Compared with the previous quarter, this indicator rose at Fremantle, Sydney and Brisbane in the September quarter 2005. It was not available for Melbourne and Adelaide. The indicator fell at Brisbane and Fremantle and remained the same for Sydney in the December quarter 2005.

The second indicator is the proportion of ship arrivals within one hour (plus or minus) of the last scheduled arrival time *advised inside the 24 hours prior to actual arrival*. In the September quarter 2005 this indicator increased at Sydney, Brisbane and Fremantle, compared to the previous quarter. In the December quarter 2005 this indicator fell at Brisbane and Sydney. It rose at Fremantle. Figures for the other ports were not available for comparison.

Letter Stevedoring and ship arrival reliability indicators, September and December quarters 2005

					(per c	cent)				
	Brisb	ane	Sydi	ney	Melbo	ourne	Adela	aide	Frema	antle
Indicator	Jul–Sep	Oct-Dec	Jul–Sep	Oct-Dec	Jul-Sep	Oct-Dec	Jul-Sep	Oct-Dec	Jul–Sep	Oct-Dec
Stevedoring										
Cargo receival	95	92	90	89	88	85	na	na	98	97
Ship arrival										
Advice at 24 hrs	53	46	45		na	na	na	na	53	52
Advice inside 24 hrs	98	95	96		na	na	96	97	93	95
na not available										

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f12 Berth availability at major container terminals, 1997–2005



AUSTRALIAN INTERNATIONAL SHIPPING

This article summarises Australia's maritime trade for 2003–2004 and 2004–2005, including cargo movements, main trading partners and major port activity⁷. More detailed information on 2003–2004 is available in the BTRE Australian Sea Freight publications which appear annually and are available at <www.btre.gov.au/index.aspx> under Publications, Information Papers. Information paper 56, Australian Sea Freight 2003–2004 was released in late March 2006.

Overview

Australia's international and domestic trade represented 11.2 per cent of the world maritime task in 2003 (Table 15). Australia's task was 12.6 per cent of the world task of 5 840 billion tonne kilometres. Australia's international and domestic sea trade have both been steadily increasing over the last 13 years.

In 2004, the Australian sea trade task grew by 7.8 per cent over 2003.

In terms of overall Australian maritime trade:

- 730.8 million tonnes of cargo moved across Australian wharves in 2003–2004⁸. This represented a 4.7 per cent increase over 2002–2003, making it the busiest year on record. 76.4 per cent of this cargo by weight was international exports, 8.8 per cent international imports, and 7.3 per cent coastal cargo loaded and 7.5 per cent coastal freight discharged.
- 221 258 international sea passengers cleared Australian Customs in 2004–2005. This is up from 187 963 passengers in 2003–2004 representing a 17.7 per cent growth over the period⁹.
- Domestic inter-state passenger movements on the Bass Strait ferries were 314 600 passengers in 2001–02, while intra-state passenger ferry movements, including urban ferries, are estimated 18.85 million¹⁰.
- World shipping data is only available for calendar years, the latest available data is for 2003, while most Australian data is reported in fiscal years. The latest Australian international trade data is for 2004–2005, domestic sea freight 2003–2004 while some passenger data goes back to 2001–2002.
- Although international freight data is available for 2004–2005 totalling 680.6 million tonnes, latest coastal freight data is for 2003–2004 only. It is estimated that total cargo throughput for Australian ports (including coastal cargo) for 2004-2005 was 791 million tonnes.
- 9. Australian Custom Services, Custom Figures, Australian Custom Services Quarterly Statistical Bulletins, Canberra
- 10. Apelbaum Consulting Group, 2004, Commonwealth Transport Facts, ABN 72 007 166 510, Melbourne

t15 Australia's maritime task, 2001 to 2004

		Loade	d		Discl	narged		
Item / year	Domestic coastal	Exports	Total loaded	Per cent world	Imports	Per cent world	Total world sea trade	Total per cent world trade ^b
Trade (million	tonnes)							
2001	52	495	548	9.9	56	1.0	5 513	10.9
2002	53	515	568	10.2	60	1.1	5 595	11.3
2003	53	541	593	10.2	63	1.1	5 840	11.2
2004	53	585	638	na	68	na	na	na
Trade task (bil	lion tonne km)							
2001	107	4 688	4 796	11.1	537	1.2	43 066	12.4
2002	113	4 813	4 926	11.5	574	1.3	43 021	12.8
2003	117	5 017	5 134	11.3	622	1.4	45 563	12.6
2004	121	5 190	5 311	na	640	na	na	na

Calender years—Data for 2005 calendar year not available at time of writing.

b. Total includes Australian imports and exports which from a theoretical point of view is double counting if every country did the same. The column is included since it provides an estimate of the percentage of world sea trade involving Australia.

na Not available

a.

Sources ABS, unpublished; BTRE, Australian Transport Statistics, 2002, 2003, 2004, 2005; BTRE, Australian Sea Freight, 2002–2006; Institute of shipping economics and logistics, Shipping Statistics Yearbook, 2002–2005.

t16 International sea freight, 1994–1995 to 2004–2005

	We	ight (tonnes)		Val	lue (\$billion)	
Year	Exports	Imports	Total	Exports	Imports	Balance
1994–1995	362.4	45.9	408.3	53.0	54.5	-1.5
1995–1996	372.9	47.1	420.0	60.0	55.8	4.2
1996-1997	404.0	49.8	453.8	63.4	56.9	6.5
1997–1998	427.1	51.9	479.0	69.6	64.1	5.5
1998–1999	431.8	56.3	488.1	68.2	68.5	-0.3
1999–2000	462.0	56.7	518.7	78.2	76.5	1.7
2000-2001	495.0	55.0	550.0	99.4	83.0	16.4
2001-2002	501.0	57.8	558.7	99.5	85.2	14.2
2002-2003	529.4	62.2	591.6	93.4	94.9	-1.5
2003-2004	558.3	64.2	622.5	89.3	93.5	-4.2
2004-2005	610.6	69.9	680.6	106.3	108.9	-2.6

Source ABS, International Cargo Statistics, unpublished

International Freight

Approximately 680.6 million tonnes of international cargo moved across Australian wharves in 2004–2005 (Table 16). This represents a 9.4 per cent increase in exports and a 9.0 per cent increase in imports by weight over 2003–2004. However, in terms of value, there was a 19.1 per cent increase in exports, and a 16.5 per cent increase in imports.

The largest exporting state (by weight and value) continues to be Western Australia, with Queensland as the largest importing state by weight. New South Wales remains the largest importing state by value, with Victoria in second place.

Commodity split

Australia's main imports are crude oil, general cargo, and hazardous and noxious materials (Table 17). 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 commodity exports by weight are coal and iron ore, while by value the major items are general cargo, coal, other dry bulk and reefer¹¹ (Table 18). The main commodity groups under 'general cargo' are wool, wine, aluminium, motor vehicles, cotton and dried milk. Note the increases in dry bulk exports particularly value in relation to iron ore and coal.

Although Australian maritime exports and imports are roughly equal by value, exports dominate imports when measured by weight by approximately nine to one, primarily due to the dry bulk and liquid petroleum and gas trades.

Maritime Markets

Figures 14 and 15 highlight the major regions for Australia's maritime trade.

China is Australia's largest trading partner for imports by value followed by Japan, the United

to 2004–2005	
2002-2003	
commodity,	
þ	
imports	
maritime	
Australian	
	1

			Value \$'000s)			Weight (Tonnes)		Growth	pa ª
Comme	odity imports	2002-2003	2003 - 2004	2004-2005	2002-2003	2003-2004	2004-2005	Value	Weight
Hazard	ous and Noxious	9 120 478	8 712 360	9 883 634	9 034 288	9 447 789	11 058 050	4.1%	10.6%
	Alumina/bauxite	12 190	10 024	10 813	18 689	18 260	17 424	-5.8%	-3.4%
	Iron ore	114 473	139 801	145 014	4 610 788	4 918 036	4 647 386	12.6%	0.4%
	Coal	18 709	14 079	18102	167 105	81 633	115 994	-1.6%	-16.7%
	Other dry bulk	902 928	830 983	829 058	4 063 764	4 115 014	4 376 319	-4.2%	3.8%
	Sub-total ^b	1 048 299	994 888	1 002 986	8 860 346	9 132 942	9 157 123	-2.2%	1.7%
Liquid I	oulk Liquefied natural gas (LNG) ^c		9			0			
	Liquefied petroleum gas (LPG)	78 148	166 577	144 719	153 989	399 818	276 890	36.1%	34.1%
	Crude oil	8 626 027	6 594 176	10 024 286	23 313 746	19 618 535	21 575 631	7.8%	-3.8%
	Petroleum products	1 876 019	3 321 688	4 915 132	4 964 589	9 148 152	9 464 178	61.9%	38.1%
	Other liquid bulk	365 005	364 704	371 539	304 509	305 869	282 821	0.9%	-3.6%
	Sub-total ^b	10 945 199	10 447 152	15 455 677	28 736 832	29 472 374	31 599 520	18.8%	4.9%
Genera	l cargo including containers Reefer	3 048 095	3 120 114	3 445 170	962 623	1 075 409	1 188 688	6.3%	11.1%
	Live animals	670	1 083	1 020	394	372	353	23.4%	-5.4%
	Other general cargo	70 212 089	69 960 593	78 953 377	13 792 958	14 854 233	16 834 227	6.0%	10.5%
	Sub-total ^b	73 260 854	73 081 791	82 399 567	14 755 975	15 930 014	18 023 268	6.1%	10.5%
Confid€	ential	572 646	231 049	181 344	822 345	198 876	94 682	-43.7%	-66.1%
Total		94 947 476	93 467 240	108 923 207	62 209 786	64 181 995	69 932 643	7.1%	6.0%
а.	Mean growth per annum calculated over the pe	riod 2002–2003 to 2004–2005							
Ь.	Sub totals exclude items in Hazardous and Nox	ious, and Confidential.							
U	LNG weights are confidential and thus its value	is included in confidential subgr	dno						
Source	ABS, International Cargo Statistics, unpublished								

ABS, International Cargo Statistics, unpublished

${ m tf18}$ Australian maritime exports by commodity, 2002–2003 to 2004–2005

		Val	ue \$'000s)			Weight (Tonnes)		Growth	pa ^a
Commodity exp	orts	2002-2003	2003-2004	2004-2005	2002-2003	2003-2004	2004–2005	Value	Weight
Hazardous and . Drv bulk	Noxious	3 100 545	2 974 733	3 317 591	2 039 675	1 981 548	2 041 921	3.4%	0.1%
	Alumina/bauxite	3 587 636	3 720 517	4 406 822	12 820 191	14 033 767	19 189 720	10.8%	22.3%
	Iron ore	5 329 457	5 267 323	8 080 313	193 093 693	207 903 131	242 997 009	23.1%	12.2%
	Coal	11 991 856	11 002 685	17 238 436	209 728 606	220 059 084	232 975 116	19.9%	5.4%
	Other dry bulk	9 678 233	10 946 350	12 317 003	52 733 029	59 364 000	59 188 307	12.8%	5.9%
Lizzaid built	Sub-total ^b	30 587 183	30 936 875	42 042 574	468 375 520	501 359 981	554 350 152	17.2%	8.8%
ridnia puik	Liquefied natural gas (LNG) $^{ m c}$	2 607 099	2 174 269	3 225 156	0	0	0	11.2%	%0
	Liquefied petroleum gas (LPG)	856 211	648 300	807 585	1 733 565	1 572 985	1 586 925	-2.9%	-4.3%
	Crude oil	5 875 244	4 643 180	5 693 760	15 006 160	12 548 839	11 035 738	-1.6%	-14.2%
	Petroleum products	1 692 528	1 306 338	1 429 016	3 800 898	3 086 084	2 706 317	-8.1%	-15.6%
	Other liquid bulk	339 433	373 865	355 984	714 819	833 528	965 076	2.4%	16.2%
	Sub-total ^b	11 370 514	9 145 952	11 511 502	21 255 443	18 041 435	16294056	0.6%	-12.4%
General cargo ir	ncluding containers Reefer	8 910 560	8 737 178	9 892 554	3 368 378	3 419 758	3 361 746	5.4%	-0.1%
	Live animals	1 024 818	725 477	671 555	638 981	419 683	376 187	-19.0%	-23.3%
	Other general cargo	34 441 759	31 913 429	33 421 403	17 036 893	17 900 307	15978874	-1.5%	-3.2%
	Sub-total ^b	44 377 137	41 376 085	43 985 512	21 044 251	21 739 749	19716807	-0.4%	-0.32%
Confidential		3 993 251	4 869 800	5 483 718	16 640 805	15 173 094	18 237 064	17.2%	4.7%
Total		93 428 630	89 303 445	106 340 897	529 355 694	558 295 807	610 640 000	6.7%	7.4%
a. Mear	r growth per annum calculated over the period 2002	2003 to 2004–2005							

LNG weights are confidential and thus its value is included in confidential subgroup ABS, International Cargo Statistics, unpublished b. c. Source

Sub totals exclude items in Hazardous and Noxious, and Confidential.





Source ABS, International Cargo Statistics, unpublished

States of America and Germany, (Table 19). For exports Japan is our major market by value followed by China, Korea and then the United States. While trade with China is growing, trade with the USA is decreasing.

Our near neighbours, New Zealand (7th imports and 5th exports), Indonesia (7th exports and 13th imports) and Papua New Guinea (24th on imports¹² and 19th on exports), remain important as trading partners for Australia.

Exports by region

Japan and North Asia are Australia's largest export market by both value (\$33.46 billion) and weight (295.8 million tonnes), followed by East Asia and South-East Asia (3rd in value, 4th in weight), (Figures 13 and 14). The main commodity items and their destination markets are:

- general cargo (South-East Asia, East Asia, and Japan and North Asia);
- coal (Japan and North Asia, Europe, South Asia and East Asia);

f14 International freight by region of origin / final destination, 2004–2005, (tonnes million)



Source ABS, International Cargo Statistics, unpublished

- reefer (Japan and North Asia, North and Central America, South East Asia and East Asia); and
- crude oil (Japan and North Asia, and South East Asia).

In terms of weight the main export items are

- coal (Japan and North Asia, Europe, South Asia and East Asia); and
- iron ore (East Asia and Japan and North Asia).

Imports by region

Europe maintains its place as our largest supplier by value (\$23.27 billion), followed by South East Asia, East Asia and then Japan/North Asia. South East Asia dominated our imports in terms of weight (26.61 million tonnes, Figures 13 and 14).

For imports the largest commodity groups by weight and value are:

- general cargo (Europe, Japan and North Asia, East Asia, North and Central America, and South East Asia);
- hazardous and noxious goods (Europe, and North and Central America); and
- crude oil (South East Asia, and Middle East).

t19 Top twenty trading partners by sea, 2004–2005

	Imports		Country of final	Exports		
Country of origin	\$'000s	Tonnes	destination	\$′000s	Tonnes	Rank
China (including Hong						
Kong & Macau)	16 549 070	5 810 833	Japan	24 199 042	226 162 656	1
			China (including Hong			
Japan	15 434 420	4 742 573	Kong & Macau)	14 332 080	128 593 052	2
USA	11 616 249	4 613 520	Korea, Republic of	8 998 890	69 214 836	3
Germany	6 419 797	847 816	USA	7 513 544	4 844 075	4
Singapore	5 785 799	7 553 395	New Zealand	6 737 647	6 098 558	5
Malaysia	4 270 140	5 445 166	Taiwan	4 562 003	36 555 711	6
New Zealand	4 208 842	2 521 861	Indonesia	3 413 319	7 690 189	7
Korea, Republic of	3 940 063	1 610 250	India	2 830 017	20 452 015	8
Thailand	3 593 544	1 265 544	United Kingdom	2 780 603	12 839 821	9
Italy	3 140 422	647 798	Thailand	2 490 906	3 020 785	10
Vietnam	3 068 547	5 468 761	Singapore	2 485 191	3 331 132	11
United Kingdom	3 032 319	399 561	Malaysia	2 261 916	6 982 962	12
Indonesia	3 000 134	5 293 104	Saudi Arabia	1 802 759	2 502 462	13
Taiwan	2 663 909	1 428 001	Canada	1 674 184	2 763 539	14
France	2 000 923	298 804	Netherlands	1 539 624	9 665 523	15
Saudi Arabia	1 405 309	3 628 258	South Africa	1 469 196	4 163 175	16
Canada	1 328 337	2 024 528	Italy	1 465 470	7 852 574	17
South Africa	1 201 846	667 326	United Arab Emirates	1 090 604	2 223 594	18
Sweden	1 088 541	207 494	Papua New Guinea	1 073 128	1 147 439	19
Spain	1 071 142	233 214	France	811 285	7 578 056	20
Rest of the World	14 103 855	15 224 835	Rest of the World	12 809 489	46 957 845	
Total	108 923 207	69 932 643	Total	106 340 897	610 640 000	
Source ABS, Internation	al Cargo Statistics, unp	oublished.				

Ports

In 2004–2005 there was an increase 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 20). The number of international voyages increased by 6.1 per cent compared with 2003–2004, while ship calls increased by 5.8 per cent.

In terms of the top Australian ports of loading/unloading, very little has changed since 1999–2000 (Table 21). Sydney continues to be the largest importer by weight and value, while Melbourne is the largest exporter by value and Dampier the largest exporter by weight.

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)
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
2002-2003	3 140	8 935	23 454
2003-2004	3 368	9 265	23 408
2004–2005	3 511	9 826	24 755

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

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 Marine Information Unit, Lloyd's Voyage Record, unpublished.

12() Summary of Australian port visits^a 1997–1998 to 2004–2005

$t21\,$ top 20 ports by weight and value, 2003–2004

Australian port	Total international value (\$,000s)	Australian port	Total international weight (tonnes)	Australian port	International and domestic weight (tonnes)	Rank
Melbourne	48 954 095	Dampier	100 604 849	Dampier	102 208 175	-
Sydney	41 244 587	Port Hedland	85 260 751	Port Hedland	90 045 963	2
Brisbane	20 305 562	Newcastle	80 314 044	Newcastle	82 367 968	3
Fremantle/Perth	15 620 645	Hay Point	77 962 368	Hay Point	77 962 368	4
Dampier	8 636 884	Gladstone	45 701 792	Gladstone	59 479 673	10
Adelaide	7 109 578	Port Walcott	43 897 396	Port Walcott	43 897 396	9
Newcastle	4 807 742	Fremantle	19 449 558	Melbourne	26 756 955	
Hay Point	4 511 741	Melbourne	18 602 596	Fremantle	25 747 901	8
Gladstone	3 773 720	Brisbane	18 492 326	Sydney	24 690 717	6
Townsville	3 124 536	Sydney	18 041 513	Brisbane	23 843 272	10
Port Hedland	2 676 640	Port Kembla	12 571 122	Port Kembla	22 348 317	11
Geelong	2 597 319	Abbot Point	11 791 826	Weipa	13 440 207	12
Bunbury	2 344 760	Bunbury	10 214 277	Abbot Point	11 791 826	13
Port Kembla	2 067 525	Townsville	8 501 432	Geelong	10 987 047	14
Darwin	1 517 650	Geelong	8 026 744	Bunbury	10 660 142	15
Esperance	1 227 224	Esperance	7 101 361	Townsville	9 977 394	16
Portland	1 174 057	Conf NT Ports	6 007 344	Adelaide	9 520 371	17
Geraldton	1 130 068	Adelaide	5 674 839	Esperance	7 190 480	18
Launceston	1 042 670	Geraldton	4 142 148	Launceston	7 056 339	19
Port Walcott	935 662	Weipa	3 806 990	Conf NT Ports	6 007 344	20
Conf NT Ports Confidential Northorn Torritory nort						

Conf NT Ports Contidential Northern lerritory ports. Note Data for 2004–2005 is not yet available for domestic cargo.

Source ABS, International Cargo Statistics, unpublished; BTRE, Coastal Freight database, unpublished.

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Australia's marine task in 2004–2005 was 734 million tonnes; 681 million tonnes of which was international sea trade. In 2003 Australia's maritime task represented 11.2 per cent of the world maritime task.

China is Australia's largest sea trading partner for imports by value followed by Japan, the United States of America and Germany, (Table 19). For exports Japan is our major market by value by sea followed by China, Korea and then the United States. While sea trade with China is growing, sea trade with the USA is decreasing.

In terms of the top Australian sea ports of loading/unloading, very little has changed since 1999–2000 (Table 21). Sydney continues to be the largest importer by weight and value, while Melbourne is the largest exporter by value and Dampier the largest exporter by weight.

ABBREVIATIONS AND C	THER PORT SERVICE PROVIDERS
AAPMA	Association of Australian Ports and Marine Authorities
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
BTRE	Bureau of Transport and Regional Economics
CVP	Continuing Voyage Permit
DOTARS	Department of Transport and Regional Services
DP World	DP World Adelaide
Five-port	The five mainland capital city ports (Brisbane, Sydney, Melbourne, Adelaide, Fremantle)
GT	Gross Tons, formerly GRT
MSIC	Maritime security identification card
pbm	Per berth metre
SVP	Single Voyage Permit
Teu	Twenty-foot equivalent unit
UCC	Fully cellular container vessel
STEVEDORING PRODU	CTIVITY DEFINITIONS
Containers handled	The total number of containers lifted on/off fully cellular ships.
Crane intensity	The total number allocated crane hours, divided by the elapsed time from labour first boarding the ship and labour last leaving the ship.
Crane Rate	The total containers/teus handled divided by the Elapsed Crane Time.
Elapsed crane time	The total allocated crane hours, less operational and non-operational delays.
Elapsed labour time	The elapsed time between labour first boarding the ship and labour last leaving the ship, less non-operational delays.
Ship rate	The Crane Rate multiplied by Crane Intensity (as defined above).
Ships	Only fully cellular ships are included in calculations. Fully cellular ships are defined as purpose-built container ships equipped with 40-foot cell guides below deck as a minimum, and exclude such vessels if used for mixed cargoes of containers and general cargo.
Teus handled	The total 40-foot containers lifted on/off fully cellular ships multiplied by 2, plus the total 20-foot containers lifted on/off fully cellular ships.
Vessel working rate	The total containers/teus handled divided by the Elapsed Labour Time.



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t22 Container terminal performance indicators, selected Australian ports—productivity in teus per hour

	je je	te – ,	z.	tte	ate –	ate te
ec-01 M	846 37 093 72 34.8 39.6 55.4 110.3	198 12586 32.1 28.5 45.5 70.1	206 52 521 25 35.2 42.7 60.2 130.0	249 24753 27 35.0 31.9 57.1 161.4	57 86 633 32.8 40.8 77.9	136 90 600 8 37.5 36.6 53.0 70.2
lar-02	824 24 311 35.4 39.6 55.4 101.5	202 202 00 033 34.1 28.5 46.9 62.2	196 28 723 36.8 43.9 60.7 117.8	234 234 35.1 42.0 57.9 150.1	54 54 31 815 33.0 42.2 46.5 67.7	138 39 632 35.4 32.8 46.6 69.4
Jun-02	868 788 090 35.9 41.1 56.3 110.4	211 211 920 35.2 30.0 75.9	203 235 664 37.4 46.7 62.8 121.4	251 295 284 35.6 42.4 58.5 161.7	59 41 829 30.7 43.9 89.0	144 93 393 36.6 35.7 47.4 72.3
Sep-02	858	216	204	250	55	133
	876 522	216	277 733	325 945	37 317	98 756
	35.9	34.6	36.2	36.6	30.2	36.8
	43.4	32.0	49.4	45.5	42.2	36.0
	59.9	50.2	65.5	63.6	44.7	51.2
	122.8	85.1	143.0	178.5	79.4	76.5
Dec-02	856	216	210	243	58	129
	938 913	143 882	302 267	342 684	39354	110 726
	35.6	35.6	35.2	35.7	31.3	38.4
	42.2	32.3	45.8	43.8	44.3	39.5
	59.4	53.9	61.7	61.9	49.7	56.2
	131.6	89.5	155.6	187.7	83.7	85.7
Mar-03	821 871 089 35.3 42.9 58.8 122.1	206 130 384 33.8 33.8 32.6 50.4 81.1	211 278 456 35.7 46.2 61.9 143.4	229 317711 35.3 45.7 61.8 174.0	50 37731 33.2 46.5 53.1 80.3	125 106 807 36.7 37.2 54.2 82.7
Jun-03	822	184	271 501	235	58	128
	870 861	124 854	271 501	327 822	40 012	106 672
	37.4	35.8	38.0	38.0	34.2	37.3
	44.3	36.3	49.5	45.1	44.9	38.3
	61.7	55.3	67.2	61.6	52.8	59.1
	122.0	77.7	139.8	179.5	85.1	82.6
Sep-03	841	192	228	240	62	119
	952 273	147 273	303 745	342 966	44 510	113 779
	38.5	35.0	39.4	39.7	35.4	38.7
	47.9	34.2	53.3	51.9	39.4	42.3
	67.4	53.7	73.0	72.4	47.6	62.5
	133.4	91.6	156.4	187.8	94.7	88.1
Dec-03	850 37.8 46.5 64.4 143.4	194 158 065 35.4 36.3 55.9 98.4	238 336988 37.3 47.1 64.8 173.5	241 361 225 39.8 53.0 71.8 197.8	63 47 571 36.4 43.4 49.9 101.2	114 119 375 36.7 40.0 57.6 92.4
Mar-04	801	179	221	223	60	115 962
	963 667	146 104	306 080	351 753	43 768	36.7
	38.2	36.1	37.7	40.6	35.0	38.7
	46.7	36.9	51.0	50.4	40.9	38.2
	64.6	57.7	67.8	69.9	47.3	55.4
	135.0	90.9	157.6	192.6	93.1	89.8
Jun-04	825 1 018 623 39.0 47.3 66.1 142.7	151 138 151 138 37.5 40.7 61.5 94.0	231 327 661 39.0 51.0 67.7 168.7	244 379 002 40.8 50.3 72.1 207.6	60 44 335 35.7 35.7 39.7 45.4 94.3	115 116487 36.3 38.5 56.1 90.2
Sep-04	905	219	253	266	54	113
	1 096 611	288 092	347 047	397 048	44 741	119 683
	38.9	37.7	39.0	40.5	36.0	36.4
	46.2	36.9	48.5	50.9	42.9	40.1
	65.0	59.3	65.1	71.7	50.9	57.0
	153.7	117.0	178.7	217.4	95.2	92.7
Dec-04	936	227	262	272	56	119
	1161451	191 414	371 243	425 247	43 850	129 697
	38.4	37.8	38.6	38.7	37.7	38.3
	46.6	33.1	50.4	50.1	44.7	44.6
	64.8	58.9	68.0	67.2	49.6	61.7
	162.7	119.1	191.2	232.9	93.3	100.4
Mar-05	890	205	258	260	53	114
	1 042 313	165 403	330 140	392 776	43 588	110 406
	38.2	38.5	38.3	38.4	37.4	36.5
	48.9	37.1	49.9	54.8	46.8	43.4
	65.4	58.8	66.8	69.6	54.8	60.1
	146.1	102.9	170.0	215.1	92.7	85.5
Jun-05	993 1 035 658 38.6 49.3 64.8 145.1	222 158 860 37.4 36.7 55.1 98.9	283 330 816 39.5 52.6 68.8 170.3	299 386 211 38.4 53.7 67.5 211.5	68 47 775 38.7 42.7 42.7 49.5 101.6	121 111 996 38.7 45.0 63.5 86.7
Mar-05	890	205	258	260	53	114
	1 042 313	165 403	330 140	392 776	43 588	110 406
	38.2	38.5	38.3	38.4	37.4	36.5
	48.9	37.1	49.9	54.8	46.8	43.4
	65.4	58.8	66.8	69.6	54.8	60.1
	146.1	102.9	170.0	215.1	92.7	85.5
Jun-05	993 1 035 658 38.6 49.3 64.8 145.1	222 158 860 37.4 36.7 55.1 98.9	283 330 816 39.5 52.6 68.8 170.3	299 386 211 38.4 53.7 67.5 211.5	68 47 775 38.7 38.7 42.7 49.5 101.6	121 111 996 38.7 45.0 63.5 86.7
Sep-05	1027	244	294	293	66	130
	1107 901	173 665	364 083	406 855	52 432	110 866
	38.0	35.9	37.5	39.4	39.8	37.0
	49.5	36.6	50.3	56.5	47.5	42.2
	63.8	50.0	65.1	71.3	56.1	57.0
	155.2	108.1	187.5	222.8	111.6	85.8
Dec	1 194	202	8	42	4	128

Note For data back to the December quarter 1993, refer to Waterline 34.

Sources Patrick, P&O Ports and DP World.

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acknowledgements

This issue of *Waterline* was compiled by Tony Carmody under the supervision of Stephen Wheatsone. The Trends in Australian International Sea Trade article was written by Stephen Wheatstone. Desktop publishing by Thomas Smith.

The BTRE is particularly grateful for the assistance of the Policy and Research Group and the Office of Transport Security of the Department of Transport & Regional Services; the Association of Australian Ports and Marine Authorities; individual port authorities/corporations; Queensland Transport; shipping lines; ship operators; customs brokers; road transport operators; pilot, tug and mooring operators; and the stevedoring companies Patrick, P&O Ports and DP Terminals.

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ISSN 1324-4043

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