



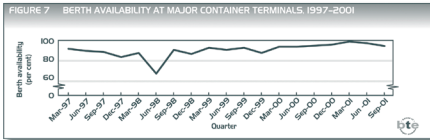
## in brief

- The five-port average crane rate declined to 25.8 containers per hour for the September quarter 2001.
- The five-port elapsed labour rate increased to 29.5 containers per hour.
- The five-port ship rate increased to 41.4 containers per hour.
- In 2000/2001, the overall tonnage of cargo moved under coastal permits increased by 51 per cent compared with 1999/2000.
- Berth availability was 95 per cent in the September quarter.

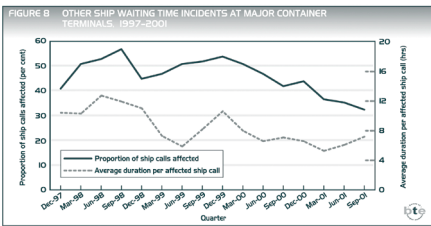
## at a glance

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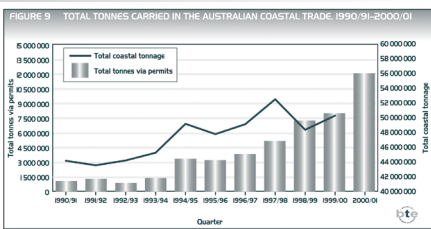
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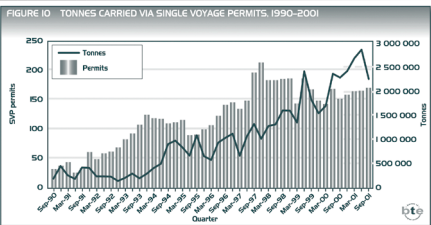
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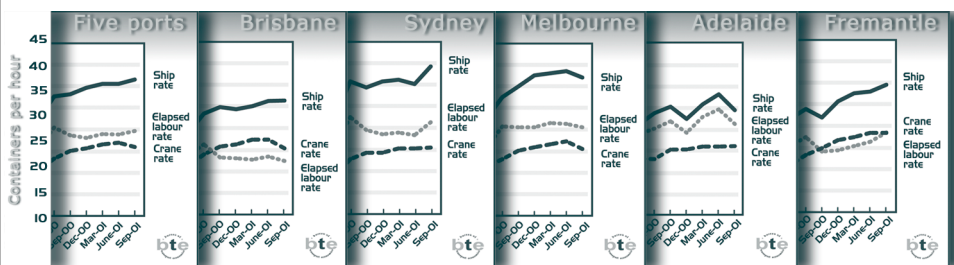
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## Container terminals' productivity—pages 4 & 5



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### STEVEDORING PRODUCTIVITY

Table 1 presents the September quarter 1999 to September quarter 2001 indicators of stevedoring productivity at the five major Australian container ports, expressed in *container moves per hour*. Figures 1 to 6 present these data from the December quarter 1995 to the September quarter 2001. The data for Sydney, Melbourne and Fremantle are weighted averages for the container terminals operated by P&O Ports and Patrick. The Adelaide data are for the CSX World Terminals container terminal. The Brisbane data between December quarter 1999 and June quarter 2001 are the weighted averages for the container terminals operated by CSX World Terminals, P&O Ports and Patrick. The data for September quarter 2001 are the weighted averages for the container terminals operated by P&O Ports and Patrick only, following the closing of CSX World Terminals in Brisbane.

The national crane rate productivity, as measured by the five-port average, has decreased for the September quarter 2001. The elapsed labour rate and the ship rate have both increased compared with the June quarter 2001.

In summary:

- the five-port average *crane rate* (productivity *per crane* while the ship is worked) was 25.8 containers per hour for the September quarter 2001 compared with 26.8 in the June quarter 2001;
- the five-port average *elapsed labour rate* (productivity *per ship* based on the time labour is aboard the ship) was 29.5 containers per hour for the September quarter 2001 compared with 28.7 in the June quarter 2001; and
- the five-port average *ship rate* (productivity *per ship* while the ship is worked) was 41.4 containers per hour for the September quarter 2001 compared with 40.4 in the June quarter 2001.

The *Brisbane* (P&O Ports, Patrick) average crane rate was 25.4 containers per hour in the September quarter, down from 27.4 in the June quarter. The elapsed labour rate of 22.5 containers per hour was down, and the ship rate of 36.4 containers per hour was up, compared with the previous quarter's figures.

The *Sydney* (P&O Ports, Patrick) average crane rate was 25.5 containers per hour in the September quarter, up from 25.3 in the June quarter. The elapsed labour rate of 31.4 containers per hour and the ship rate of 44.4 containers per hour were both up compared with the previous quarter's figures.

The *Melbourne* (P&O Ports, Patrick) average crane rate was 25.4 containers per hour in the September quarter, down from 27.2 in the June quarter. The elapsed labour rate of 30.5 containers per hour and the ship rate of 42.2 containers per hour were both down compared with the previous quarter's figures.

The *Adelaide* (CSX World Terminals) average crane rate was 26.1 containers per hour in the September quarter, up from 26.0 in the June quarter. The elapsed labour rate of 31.4 containers per hour and the ship rate of 34.7 containers per hour were both down compared with the previous quarter's figures.

The *Fremantle* (P&O Ports, Patrick) average crane rate of 28.5 containers per hour remained unchanged in the September quarter. The elapsed labour rate of 28.6 containers per hour and the ship rate of 39.8 containers per hour were both up compared with the previous quarter's figures.

### Teus per hour

Table 9 presents the stevedoring productivity indicators in terms of *teus per hour*. These data are retained in *Waterline* for the purpose of long-term historical comparison. They are not directly comparable with the data in table 1 because indicators based on teus per hour may be affected by changes in the mix of 20-foot and 40-foot containers from one period to the next.




**TABLE I CONTAINER TERMINAL PERFORMANCE INDICATORS—PRODUCTIVITY  
IN CONTAINERS PER HOUR**

Port / Indicator	Quarter							
	Sep-99	Mar-00	Jun-00	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01
<b>Five ports</b>								
Ships handled	979	875	808	840	814	787	813	825
Total containers	506 696	517 533	505 802	531 700	545 075	472 797	502 037	575 130
Crane rate	19.6	20.4	23.1	24.9	25.5	26.4	26.8	25.8
Elapsed labour rate	23.1	25.4	30.3	28.5	27.9	28.8	28.7	29.5
Ship rate	28.9	31.8	37.5	38.0	39.5	40.4	40.4	41.4
Elapsed time not worked (per cent)	20	20	19	25	29	29	29	29
40-foot containers (per cent)	30	31	32	33	34	34	32	33
<b>Brisbane</b>								
Ships handled	224	219	178	187	179	167	188	175
Total containers	77 914	77 992	71 679	80 366	83 082	63 177	84 854	81 935
Crane rate	18.6	21.2	24.0	25.8	26.3	27.4	27.4	25.4
Elapsed labour rate	19.5	23.8	26.3	23.3	23.1	22.8	23.5	22.5
Ship rate	24.7	28.9	33.4	34.9	34.4	35.1	36.3	36.4
Elapsed time not worked (per cent)	21	18	21	33	33	35	35	38
40-foot containers (per cent)	27	25	27	29	30	30	28	29
<b>Sydney</b>								
Ships handled	259	221	218	223	211	201	202	208
Total containers	170 684	171 164	166 212	173 988	176 106	148 316	152 650	179 506
Crane rate	18.0	18.6	22.8	24.3	24.3	25.3	25.3	25.5
Elapsed labour rate	23.1	25.4	32.6	29.6	28.6	29.0	28.4	31.4
Ship rate	29.4	32.2	40.9	39.5	40.9	41.3	40.3	44.4
Elapsed time not worked (per cent)	21	21	20	25	30	30	29	29
40-foot containers (per cent)	33	34	35	37	37	37	34	35
<b>Melbourne</b>								
Ships handled	278	247	217	227	218	214	215	243
Total containers	183 058	184 710	178 156	189 306	189 580	170 250	174 149	214 752
Crane rate	20.8	21.2	23.0	25.0	25.8	26.5	27.2	25.4
Elapsed labour rate	24.5	25.7	30.7	30.5	30.5	31.5	31.3	30.5
Ship rate	30.2	32.6	37.6	40.1	42.7	43.2	43.7	42.2
Elapsed time not worked (per cent)	19	21	18	24	29	27	28	28
40-foot containers (per cent)	32	32	33	34	35	33	31	33
<b>Adelaide</b>								
Ships handled	62	56	56	62	63	57	57	57
Total containers	23 969	21 803	25 245	26 836	27 800	25 051	25 928	28 369
Crane rate	23.0	23.1	23.0	25.3	25.3	26.0	26.0	26.1
Elapsed labour rate	29.4	28.9	30.3	32.1	29.3	33.1	34.9	31.4
Ship rate	31.5	31.2	34.0	35.5	32.6	36.1	38.5	34.7
Elapsed time not worked (per cent)	7	7	11	10	10	8	9	10
40-foot containers (per cent)	18	27	21	15	27	29	28	23
<b>Fremantle</b>								
Ships handled	156	132	139	141	143	148	151	142
Total containers	51 071	61 864	64 510	61 204	68 507	66 003	64 456	70 568
Crane rate	20.7	20.9	23.3	24.9	26.8	27.5	28.5	28.5
Elapsed labour rate	20.4	25.3	27.5	24.1	24.4	25.4	26.4	28.6
Ship rate	28.0	31.8	34.1	32.1	35.9	37.8	38.2	39.8
Elapsed time not worked (per cent)	27	21	19	25	32	33	31	28
40-foot containers (per cent)	27	30	31	35	36	36	33	32

na not available

- Notes 1. The definitions used in compiling the stevedoring productivity data are detailed in Waterline 26, pages 2–3.  
 2. Data from CSX World Terminals in Brisbane are incorporated from the December quarter 1999 until June quarter 2001.  
 3. 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 6.  
 4. Elapsed time not worked is the difference between the ship rate and elapsed rate as a percentage of the net rate.

Sources Patrick, P&O Ports and CSX World Terminals.





## CONTAINER TERMINAL PRODUCTIVITY

FIGURE 1 FIVE MAJOR PORTS

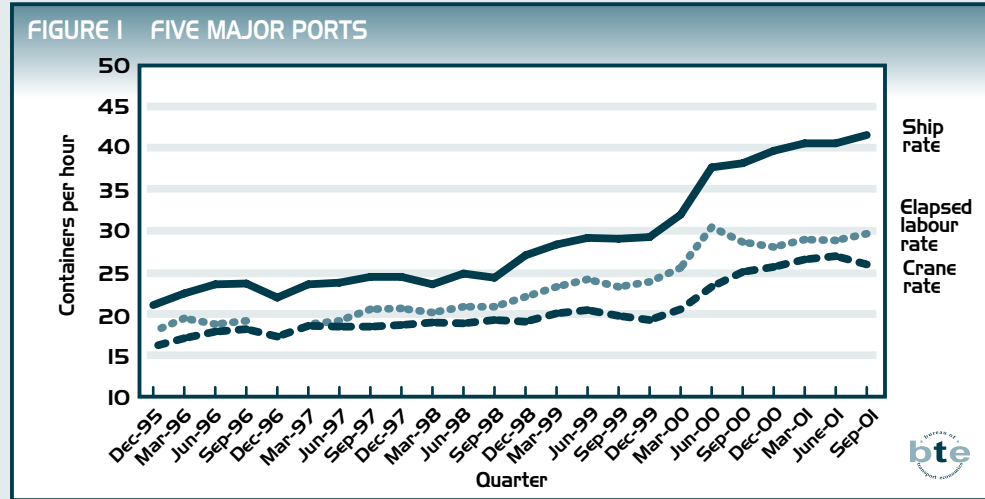


FIGURE 2 BRISBANE

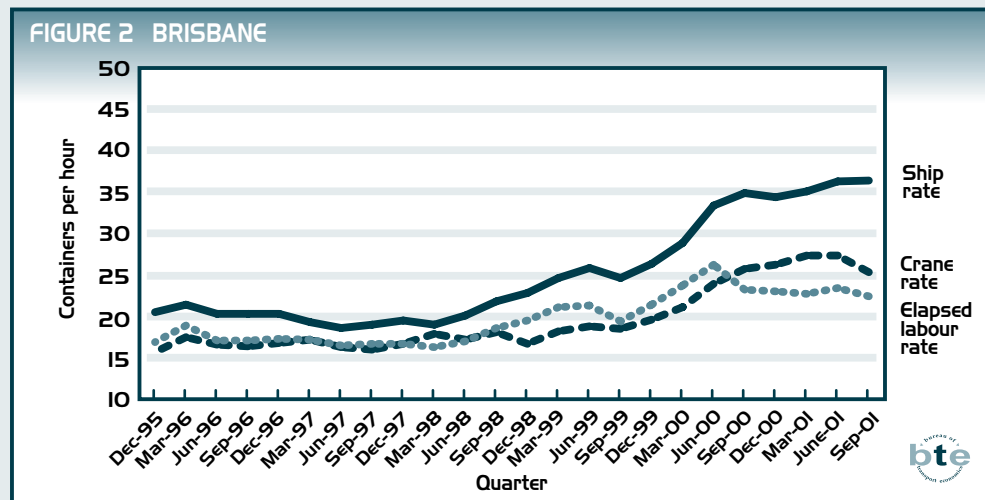
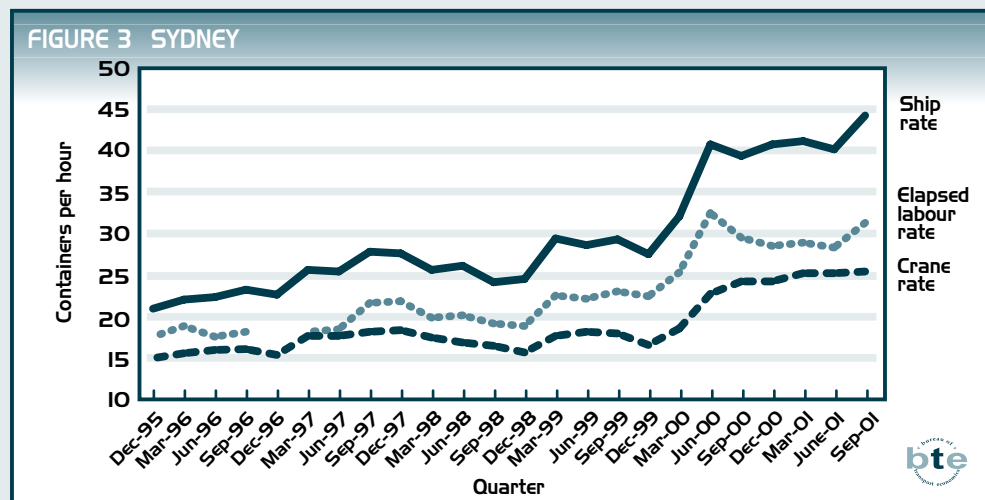


FIGURE 3 SYDNEY



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

Sources Patrick, P&O Ports and CSX World Terminals.



## CONTAINER TERMINAL PRODUCTIVITY

FIGURE 4 MELBOURNE

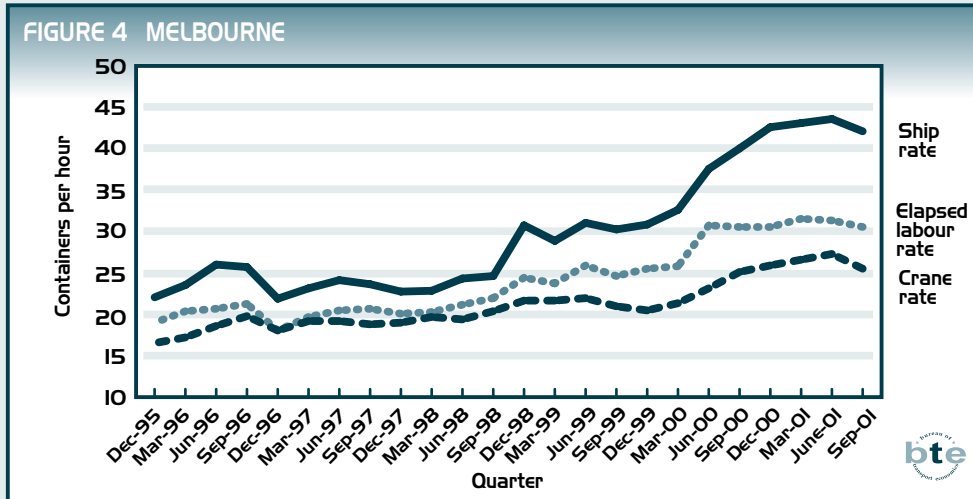


FIGURE 5 ADELAIDE

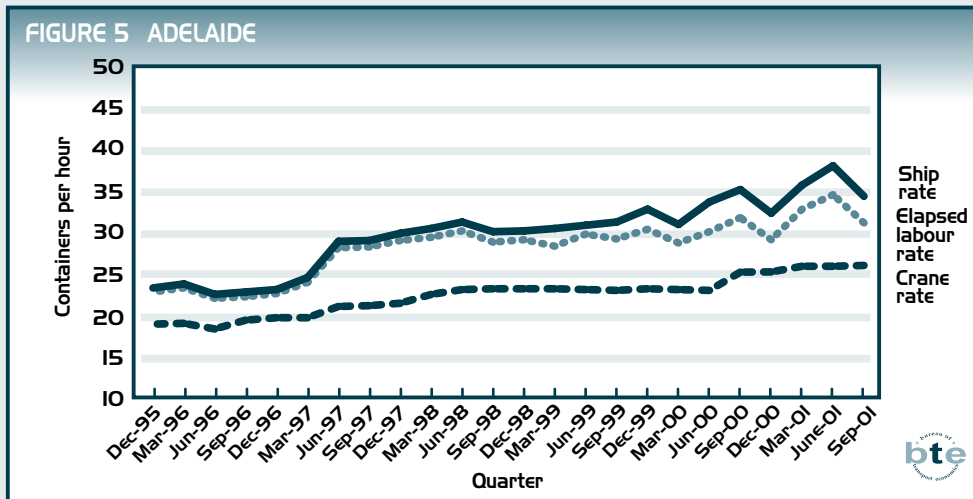
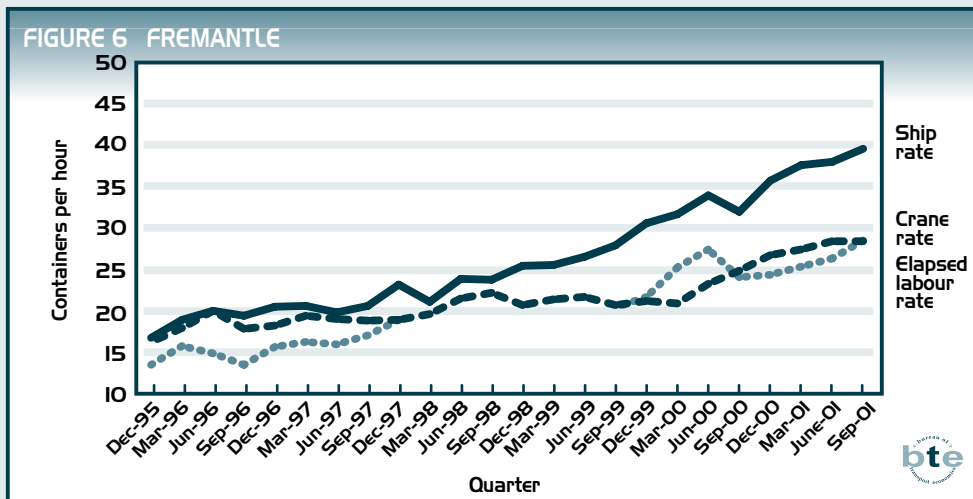


FIGURE 6 FREMANTLE



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

Sources Patrick, P&O Ports and CSX World Terminals.





**WATERFRONT RELIABILITY**

The *Waterline* reliability indicators provide partial measures of the variability of waterfront performance for container traffic at major Australian ports. They cover the timeliness of selected port services, sources of other ship waiting time, aspects of stevedoring performance and the accuracy of ship arrival advice.

**Berth availability, pilotage, towage**

Table 2 presents information on berth availability, pilotage and towage for a sample of ship calls in the September quarter 2001. It indicates the extent to which selected port services were available at the scheduled or confirmed time.

The sample for the September quarter 2001 covers 243 ship calls, equivalent to around 29 per cent of total ship calls at the major container terminals during the period. The proportion of ship calls covered at individual ports ranges from 14 per cent at Brisbane to 46 per cent at Adelaide. The sample includes 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 four hours of the scheduled berthing time. Figure 7 shows that berth availability for the sample of ship calls was 95 per cent in the September quarter 2001. This was lower than in the previous quarter, and represents a return to the levels of 2000. 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.

Average waiting time for ships unable to obtain a berth within four hours of the scheduled berthing time was 13.2 hours in the September quarter 2001, up from 11.4 hours in the previous quarter.

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 was 99.6 per cent for the pilotage indicator in the September quarter 2001. This is the first time this indicator has dropped below 100 per cent since 1999. The proportion was 100 per cent for the towage indicator in the September quarter 2001, a very slight improvement on the June quarter 2001. Performance has been at similar levels since the first data (covering the March quarter 1997) were published in *Waterline*.

**Other waiting time**

The five shipping lines that supplied information for table 2 also 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 2 AVAILABILITY OF BERTH, PILOTAGE AND TOWAGE SERVICES AT THE SCHEDULED/CONFIRMED TIME, SEPTEMBER QUARTER 2001**

Port/operation	(Number of ship calls)							Total no. of ship calls	Availability indicator (per cent)	
	Delay (hrs)									
	0	1	2	3	4	5-10	11-20			>20
<b>Brisbane</b>										
Berth availability	21	0	0	0	0	2	1	1	25	
Pilotage	25	0	0	0	0	0	0	0	25	
Towage	25	0	0	0	0	0	0	0	25	
<b>Sydney</b>										
Berth availability	66	0	0	0	0	0	1	1	68	
Pilotage	68	0	0	0	0	0	0	0	68	
Towage	68	0	0	0	0	0	0	0	68	
<b>Melbourne</b>										
Berth availability	74	1	0	0	2	2	3	0	82	
Pilotage	82	0	0	0	0	0	0	0	82	
Towage	82	0	0	0	0	0	0	0	82	
<b>Adelaide</b>										
Berth availability	25	0	0	0	0	0	1	0	26	
Pilotage	25	0	1	0	0	0	0	0	26	
Towage	26	0	0	0	0	0	0	0	26	
<b>Fremantle</b>										
Berth availability	41	0	0	0	0	1	0	0	42	
Pilotage	42	0	0	0	0	0	0	0	42	
Towage	42	0	0	0	0	0	0	0	42	
<b>Five ports</b>										
Berth availability	227	1	0	0	2	5	6	2	243	94.7
Pilotage	242	0	1	0	0	0	0	0	243	99.6
Towage	243	0	0	0	0	0	0	0	243	100.0

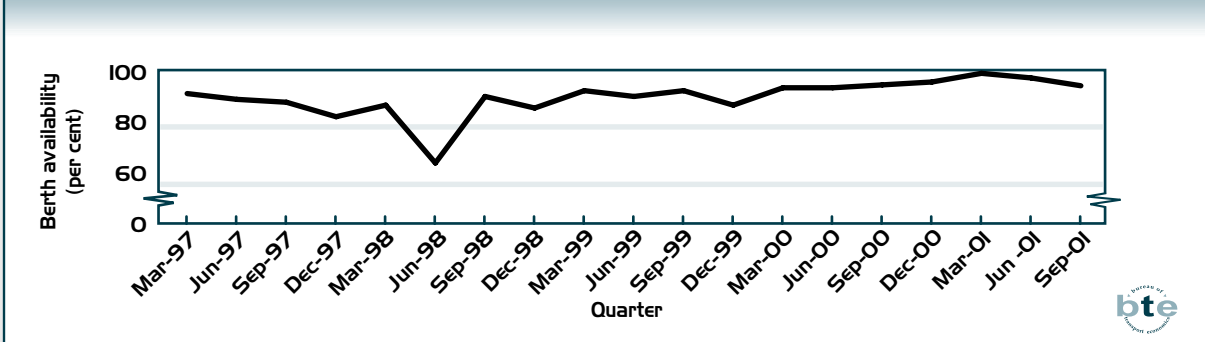
Note Inter-port comparisons should be interpreted with caution as there is significant variation between ports in factors such as sample sizes and ship call patterns.

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





FIGURE 7 BERTH AVAILABILITY AT MAJOR CONTAINER TERMINALS, 1997-2001



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

Table 3 summarises the data on other waiting time incidents, which had a duration of at least one hour, in the September quarter 2001. The shipping lines identified a total of 109 incidents (affecting 79 ship calls) for the sample of ship calls over this period. These incidents involved both ship-related and waterfront factors. In the September quarter 2001, 11 of the ship calls lacked sufficient data to allow them to be included in the other delays shown in table 2. Consequently, table 3 refers to only 232 out of the 243 ship calls recorded in the September quarter, 2001.

TABLE 3 OTHER SHIP WAITING TIME INCIDENTS AT THE FIVE MAINLAND CAPITAL CITY PORTS, SEPTEMBER QUARTER 2001

Incident type	(Number of incidents)							Total no. of incidents
	Ship waiting time (hrs)							
	1	2	3	4	5-10	11-20	>20	
Awaiting labour	4	5	7	4	8	2	0	30
Early ship arrival	5	3	2	2	2	3	3	20
Stevedoring finished early	5	2	3	0	2	0	0	12
Pilot/tug booking not at preferred time	3	4	2	0	1	0	0	10
Other	6	1	0	0	1	0	0	8
Weather or tides	2	1	2	0	3	0	0	8
Stevedoring finished late	0	0	0	0	5	1	0	6
Ship repairs or maintenance	0	0	0	1	3	0	1	5
Late ship arrival	0	0	0	0	5	0	0	5
Crane breakdown	2	0	1	0	0	0	0	3
Industrial action	0	0	0	1	1	0	0	2
<b>Total incidents</b>	<b>27</b>	<b>16</b>	<b>17</b>	<b>8</b>	<b>31</b>	<b>6</b>	<b>4</b>	<b>109<sup>a</sup></b>

a. These incidents affected 79 of 232 ship calls (not all calls covered in table 2 had satisfactory other waiting time data for the September quarter).

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

The total waiting time attributable to particular incident types reflects the number of incidents and the waiting time associated with individual incidents. The largest single source of other ship waiting time in the September quarter 2001 was the category of early ship arrival, which accounted for 31 per cent of total waiting time. Awaiting labour accounted for 24 per cent of total waiting time, and ship repairs or maintenance contributed a further 10 per cent of total waiting time.

In the September quarter 2001, 33 per cent of ship calls in the sample were affected by other waiting time incidents that had a duration of at least one hour, down from 35 per cent in the June quarter 2001. The average duration of other waiting time incidents was 7.2 hours per affected ship call in the September quarter 2001, up from 6.1 hours per affected ship call in the previous quarter.

Figure 8 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.

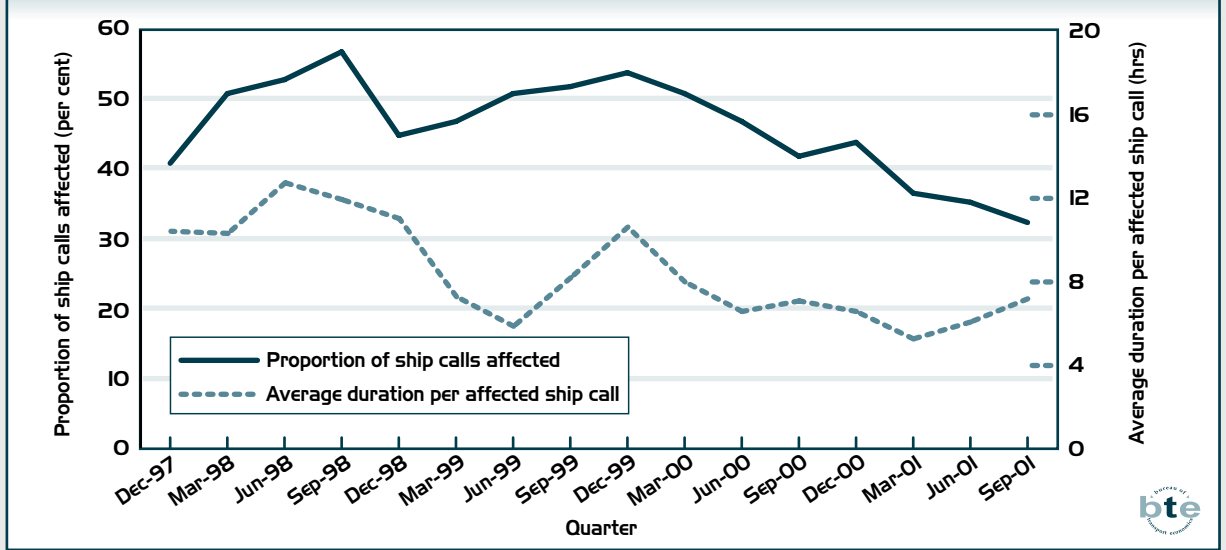
**Stevedoring**

Table 4 presents the available information on two aspects of stevedoring reliability at major container terminals—stevedoring rate and cargo receipt. Data were not available for Adelaide, and only stevedoring rate was available for Brisbane.

Stevedoring rate provides a partial indicator of the variability of stevedoring productivity at each port. It measures how consistently each port achieved its average crane rate for the quarter. Stevedoring rate is defined as the proportion of ship visits where the average crane rate for the ship is within two containers



FIGURE 8 OTHER SHIP WAITING TIME INCIDENTS AT MAJOR CONTAINER TERMINALS, 1997-2001



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

per hour (plus or minus) of the quarterly average crane rate for the terminal. The stevedoring rate in the September quarter 2001 improved substantially at Brisbane, and moderately at Sydney, compared with that for the June quarter 2001, while there was little change at Melbourne, and a decrease at Fremantle.

Cargo receipt is the proportion of receipts (exports) completed by the stevedore's cut-off time. It provides a partial measure of one factor that can affect container terminal performance. Cargo receipt in the September quarter 2001 changed little at the three ports providing data.

### Ship arrival

Table 4 provides data for two indicators of ship arrival advice. Data were not available for Melbourne for the September and June quarters, 2001.

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 improved slightly for Adelaide, fell slightly for Fremantle and fell substantially for Sydney and Brisbane, in the September quarter 2001.

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 2001, this indicator fell at Brisbane, while remaining almost constant at all other ports providing data.

TABLE 4 STEVEDORING AND SHIP ARRIVAL RELIABILITY INDICATORS, JUNE QUARTER 2001 AND SEPTEMBER QUARTER 2001.

Indicator	(per cent)									
	Brisbane		Sydney		Melbourne		Adelaide		Fremantle	
	Apr-Jun	Jul-Sep	Apr-Jun	Jul-Sep	Apr-Jun	Jul-Sep	Apr-Jun	Jul-Sep	Apr-Jun	Jul-Sep
<b>Stevedoring</b>										
Stevedoring rate	51	68	48	53	59	57	na	na	38	22
Cargo receipt	na	na	84	85	96	94	na	na	97	96
<b>Ship arrival</b>										
Advice at 24 hrs	68	60	57	49	na	na	60	63	58	54
Advice inside 24 hrs	97	94	98	98	na	na	93	93	83	82

na not available

Sources AAPMA, Patrick and P&O Ports.

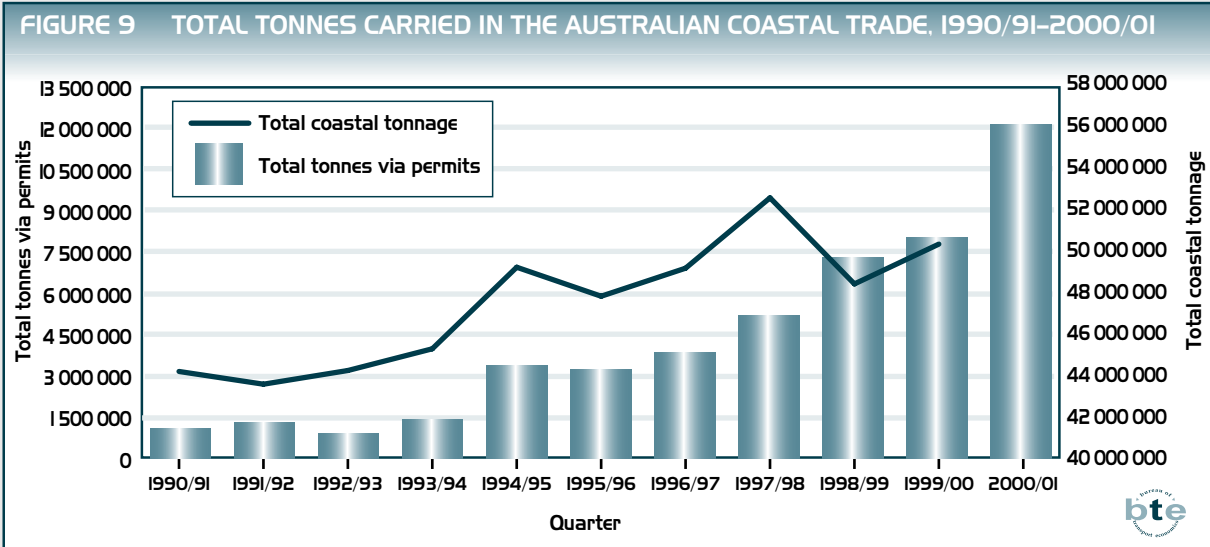






### COASTAL SHIPPING PERMITS

Total cargo moved under single voyage permits (SVPs) and continuing voyage permits (CVPs) rose from 8 million tonnes in 1999/2000 to 12 million tonnes in 2000/01 (an increase of 51 per cent).

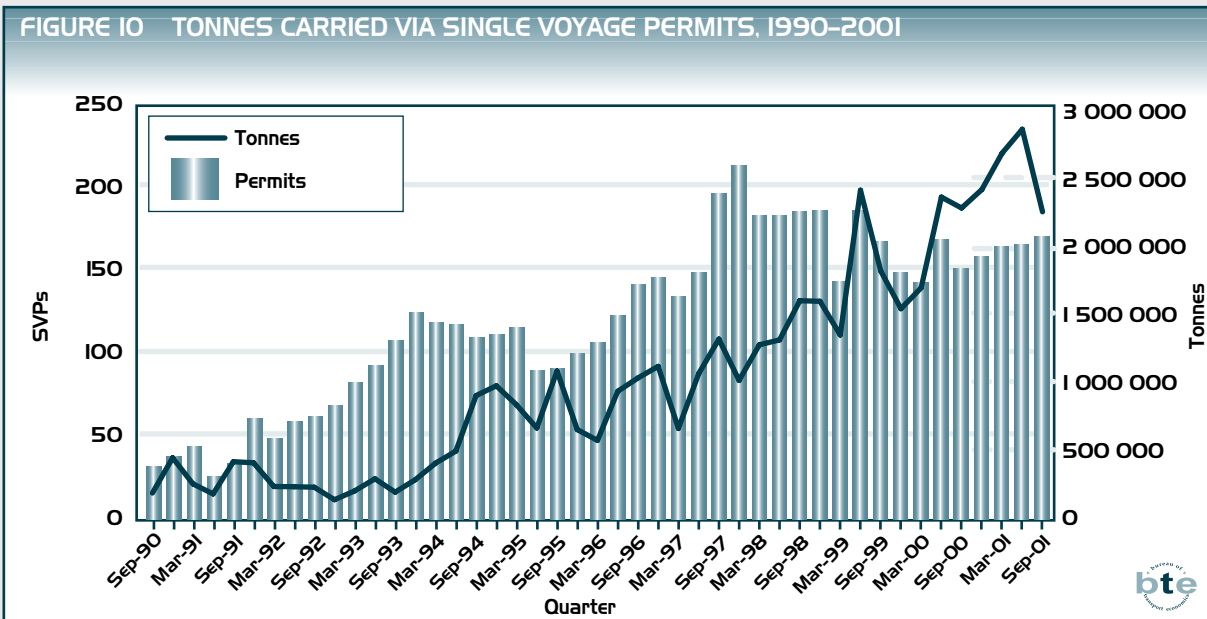


Sources: Bureau of Transport Economics and Cross-Modal & Maritime Transport Division, Department of Transport & Regional Services.

### Single voyage permits

Figure 10 illustrates the number of SVPs issued, and tonnes of cargo carried, between September quarter 1990 and September quarter 2001. The number of SVPs issued in the September quarter 2001 increased by 3 per cent compared with the June quarter 2001, and by 13 per cent compared with the September quarter 2000. The associated tonnes of cargo carried decreased by 21 per cent compared with the June quarter 2001, and by 1 per cent compared with the September quarter 2000.

The total number of SVPs issued in 2000/01 was 642, compared with 629 in 1999/2000, representing an increase of 2 per cent. Over the same period, SVP cargo rose from 7.3 million tonnes to 10.3 million tonnes, an increase of 38 per cent.



Source: Cross-Modal and Maritime Transport Division, Department of Transport and Regional Services.



Table 5 gives a breakdown of SVPs by cargo types for the six months between 1 April 2001 and 31 September 2001. General cargo (including containerised cargo) permits continue to lead the tally for SVPs issued. However, bulk cargo accounts for over 93 per cent of the total tonnage moved under SVPs.

**Continuing voyage permits**

Although CVPs were available, they were rarely requested or issued prior to 1998. However, as shown in figure 11, since 1998 there have been significant quarterly fluctuations in both the number of permits issued and the tonnage carried. During 2000/01 there were 116 CVPs issued, compared with 73 in 1999/2000. Approximately 2 million tonnes of coastal trade were moved using CVPs in 2000/01, representing an increase of 193 per cent compared with 1999/2000. Each CVP covers a six-month period, which is equivalent to approximately six voyages that may otherwise have been undertaken under SVPs.

**General information**

Part VI of the *Navigation Act 1912* provides for licensed vessels to carry passengers and cargo in the coasting trade. The Act does not restrict the class of vessels that may obtain a coasting trade licence. Any ship, regardless of registry, is able to obtain a licence provided the crew is paid Australian wage rates while it is engaged in the coasting trade, and the ship is not in receipt of foreign government subsidies and has not received such a subsidy in the previous twelve months.

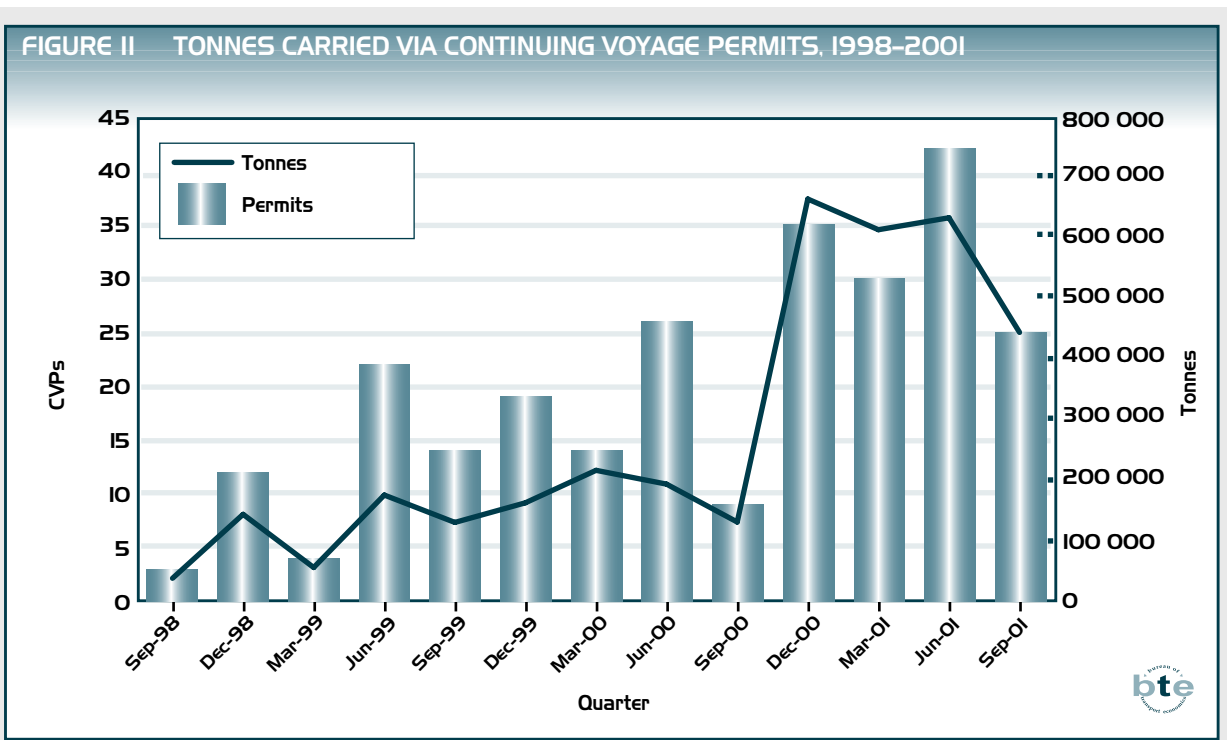
Ships that obtain a licence must also conform to the requirements of the Navigation Act, including specified safety, manning, and crew qualifications, and rehabilitation and compensation provisions. Where suitable licensed vessels are not available, the Act also provides for the issue of single or continuing voyage permits to unlicensed vessels, where this is considered to be in the public interest. The application fee is \$200 for a cargo SVP, \$400 for an urgent cargo SVP, and \$400 for a CVP. A fee of \$22 applies for obtaining a coasting trade licence.

More information on coastal permits can be found on the Department of Transport and Regional Services' internet site at <http://www.dotrs.gov.au/xmt/permits.htm>.

**TABLE 5 SUMMARY OF SINGLE VOYAGE PERMITS ISSUED, 1 APRIL 2001 TO 31 SEPTEMBER 2001**

Cargo category	Permits issued	Tonnes carried
<b>Bulk cargo</b>		
Petroleum products	31	552 250
Crude oil & feedstocks	23	829 887
Liquefied gas	17	26 350
Other bulk liquids	40	185 360
Dry bulk	101	3 110 012
<b>General Cargo</b>	125	344 204
<b>Total</b>	<b>337</b>	<b>5 048 063</b>

Source Cross-Modal and Maritime Transport Division, Department of Transport and Regional Services.



Source Cross-Modal and Maritime Transport Division, Department of Transport and Regional Services.



**TABLE 6 CONTAINER TERMINAL PERFORMANCE INDICATORS, SELECTED AUSTRALIAN PORTS—  
PRODUCTIVITY IN TEUS PER HOUR**

	Sep-97	Dec-97	Mar-98	Jun-98	Sep-98	Dec-98	Mar-99	Jun-99	Sep-99	Dec-99	Mar-00	Jun-00	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01
<b>Five Ports</b>																	
Ships handled	907	963	909	845	1020	942	942	942	958	979	933	875	808	814	787	813	825
Total teus	549 247	585 474	527 881	514 409	633 107	612 019	573 444	602 501	660 593	726 590	678 046	666 967	708 433	731 936	634 003	661 326	762 202
Crane rate	23.2	23.3	23.5	23.6	24.4	24.2	25.5	25.9	25.4	24.8	26.6	30.4	33.2	34.2	35.2	35.2	34.2
Elapsed rate	26.0	25.8	na	na	na	na	na	na	30.1	30.8	33.3	40.0	38.0	37.6	38.6	37.8	39.2
Ship rate	31.0	30.8	29.6	31.3	31.3	34.7	36.2	37.3	37.7	37.8	41.7	49.5	50.8	53.2	54.3	53.3	55.0
<b>Brisbane</b>																	
Ships handled	162	177	170	168	192	180	176	193	224	232	219	178	187	179	167	188	175
Total teus	73 184	71 043	58 857	74 023	87 373	84 200	75 444	88 311	98 944	106 096	97 431	90 932	103 654	107 812	81 864	108 810	105 746
Crane rate	20.2	20.5	21.6	21.6	22.5	20.9	22.6	23.4	23.3	24.6	26.4	30.5	33.4	34.0	35.5	35.1	32.7
Elapsed rate	21.2	20.8	19.9	21.5	23.6	24.7	26.3	26.7	24.7	27.0	29.8	33.4	30.0	29.7	29.6	30.2	28.7
Ship rate	24.0	24.2	23.0	25.4	27.5	28.7	30.6	32.2	31.2	33.1	36.1	42.3	45.1	44.5	46.1	46.5	46.8
<b>Sydney</b>																	
Ships handled	243	266	238	219	267	230	221	243	259	244	221	218	223	211	201	202	208
Total teus	183 978	201 535	176 496	168 234	208 619	203 042	187 287	203 536	226 784	260 927	229 014	224 445	237 843	240 720	203 217	205 126	242 823
Crane rate	23.5	23.5	22.5	21.8	21.6	20.4	23.2	24.0	23.7	22.1	24.8	30.9	33.1	33.2	34.7	34.0	34.4
Elapsed rate	28.0	28.2	25.6	26.1	28.4	24.8	29.6	29.3	30.6	30.1	34.0	44.1	40.5	39.0	39.7	38.2	42.5
Ship rate	36.1	35.5	33.1	33.9	32.0	32.3	38.8	38.0	38.9	36.8	43.0	55.4	53.9	55.8	56.6	54.1	60.1
<b>Melbourne</b>																	
Ships handled	268	281	276	234	309	274	271	282	278	266	247	217	227	218	214	215	243
Total teus	208 200	223 465	207 346	185 803	242 456	219 549	206 727	215 379	241 775	257 147	243 277	236 306	253 568	255 022	226 612	228 400	285 947
Crane rate	23.6	23.6	24.3	24.3	26.1	27.7	27.5	28.1	27.4	26.5	27.9	30.3	33.5	34.7	35.3	35.7	33.9
Elapsed rate	26.0	25.2	25.3	26.8	28.4	31.7	30.2	33.1	32.4	33.4	33.8	40.5	40.9	41.1	41.9	41.0	40.7
Ship rate	29.9	28.7	28.6	30.7	31.9	39.7	36.9	39.7	39.9	40.4	43.0	49.4	53.8	57.6	57.5	57.3	56.2
<b>Adelaide</b>																	
Ships handled	68	66	60	66	63	74	73	66	62	62	56	56	62	63	57	57	57
Total teus	25 982	25 188	22 260	27 975	25 493	32 556	31 326	29 569	28 271	30 597	27 736	30 551	30 945	35 339	32 251	33 308	34 867
Crane rate	26.1	26.0	27.5	27.7	27.6	28.7	30.0	27.9	27.2	27.2	29.4	27.8	29.1	32.2	33.5	33.4	32.1
Elapsed rate	35.2	35.4	36.3	36.5	34.5	36.2	36.8	36.3	34.7	35.9	36.8	36.7	37.0	37.2	42.6	44.9	38.6
Ship rate	36.2	36.5	37.6	37.8	36.0	37.6	39.7	37.6	37.2	38.8	39.7	41.1	41.0	41.5	46.5	49.5	42.7
<b>Fremantle</b>																	
Ships handled	166	173	165	158	189	184	201	174	156	129	132	139	141	143	148	151	142
Total teus	57 903	64 243	62 922	58 374	68 166	72 672	72 660	65 706	64 819	71 823	80 588	84 733	82 423	93 043	90 059	85 682	92 819
Crane rate	23.1	23.6	24.5	26.7	27.9	25.7	26.6	27.3	26.1	27.2	27.4	30.5	33.5	36.5	37.7	37.9	37.4
Elapsed rate	21.0	22.2	na	na	na	na	na	na	na	25.8	27.9	33.0	32.4	33.6	34.5	35.0	37.8
Ship rate	25.5	28.8	26.4	29.8	30.2	31.7	32.0	33.4	35.3	36.8	41.6	44.7	43.2	48.7	51.3	50.8	52.3

na not available

Notes 1. Data from CSX World Terminals at Brisbane are incorporated from the December quarter 1999 until June quarter 2001.

2. For data back to the December quarter 1989, refer to Waterline 15.

Sources Patrick, P&O Ports and CSX World Terminals.





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## Merry Christmas

### and a happy new year

*The staff of the BTE would like to extend to you and your family a merry Christmas and happy new year.*

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