

Australian Government

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



issue no. 8-June 2006

Feature

Previous issues of *Avline* have examined Australian domestic and regional aviation. The feature article in this issue focuses on the international sector of the Australian aviation industry which is currently operating at record levels—with more than 21 million passengers carried on flights to or from Australia during 2005.

The article looks at how passenger activity has grown over the past twenty years and the differences between overseas visitor and Australian resident travel. Airline market shares, seat utilisation, airports and changing markets are also discussed.

In brief

- Australia's domestic airline industry has continued to operate at high levels with more than 40.7 million passengers carried during 2005, 7.6 per cent higher than 2004 (page 10).
- The major domestic airlines carried 35.9 million passengers, an increase of 8.3 per cent over 2004, while regional airlines carried 4.8 million, an increase of 2.3 per cent over the same period (page 10).
- During the year, the domestic industry recorded 525 136 flights. Of these, 282 711 were operated by the major domestic airlines, an increase of 6.2 per cent on 2004. The remaining 242425 flights were operated by regional airlines, a decrease 0.8 per cent over the same period (page 10).
- Passenger numbers and aircraft movements continued to increase at all five major Australian airports, with particularly strong growth in international traffic at Adelaide Airport and regional traffic at Perth Airport during 2005 (page 18).

Feature

Industry snapshot

Domestic industry 10
Domestic passengers10
Domestic flights10
Domestic network utilisation11
Domestic airline on time performance11
International industry 14
International passengers14
International flights15
International network utilisation16
International air freight16
Airport activity 18
Airport activity levels
Sydney aircraft noise18
Economic indicators 19
Real domestic airfares19
Jet fuel prices20
Airline share prices
Gross Domestic Product
Airport Charges 22

page

3

TRENDS IN THE AUSTRALIAN INTERNATIONAL AVIATION INDUSTRY

Passenger activity

The international aviation industry is currently operating at record levels with a new high of 21.16 million passengers carried on flights to or from Australia during the year ending December 2005 (figure 1). This represents an average of 203 500 passengers each way each week, and was 7.2 per cent higher than the 19.74 million passengers carried during 2004.

Apart from a decline between 2001 and 2003, year-on-year growth in passenger traffic has occurred for at least the last 20 years. Average annual growth over this period was 7.0 per cent.

The industry has faced a number of challenges in recent years which have had some influence on growth, but these have not had a lasting effect. The decline in growth in 1997 and 1998 is likely to have been related to the Asian Economic Crisis. While total passenger numbers increased marginally, the number of visitors to Australia declined at this time (refer to figure 2).

The Sydney Olympics in 2000 saw a rise in traffic levels to 17.21 million passengers for the year, up 9.5 per cent on 1999. Growth in the number of overseas visitors was particularly strong at 10.8 per cent.

In 2001, passenger numbers were again affected, this time by the September 11 terrorist attacks in the United States of America and the collapse of Ansett. An absolute decline in the number of passengers was recorded in 2001 and 2002.

In 2003, there was a further decline as traffic was affected by both the Severe Acute Respiratory Syndrome (SARS) crisis and the Iraq war.

However, 2004 marked a recovery with an increase of 17.3 per cent—the strongest year-on-year growth recorded over the past twenty years. Passenger activity is currently 23.0 per cent higher than levels experienced during the 2000 Olympic year.

25 20 Millions of passengers 15 10 5 0 20 15 % change 10 5 0 -5 1995 092 1993 1981 Year

1 International Passengers

International Passengers by Type



 Note:
 Passengers carried on flights to or from Australia.

 Sources:
 ABS Catalogue 3401.0. Overseas arrivals and departures, Australia; BTRE Aviation Statistics Section.

Overseas visitors accounted for 54.0 per cent (11.43 million) of all passengers to or from Australia during 2005. The remaining 46.0 per cent (9.73 million) were Australian residents.

As shown in figure 2, the ratio of residents to visitors has changed considerably since 1985. In 1985, Australian residents made up 56.9 per cent of the total. By 1993, the situation had reversed, with visitors making up 56.7 per cent of traffic.

While visitors currently make up the majority of international passenger activity, recent growth in total numbers has been driven primarily by Australian resident travel.

With the strong performance of the Australian economy, international travel by Australian residents increased by 27.9 per cent between 2003 and 2004. Growth in the number of overseas visitors travelling to or from Australia was 9.9 per cent over the same period.

For 2005, annual growth was 9.5 per cent for Australian residents, compared to 5.3 per cent for visitors.

Airline market shares

A total of 48 airlines operated scheduled passenger flights to or from Australia during 2005. The top ten of these (shown in table 1) carried 75.6 per cent of all passengers for the year.

Qantas, Singapore Airlines and Air New Zealand have long been the top three airlines in terms of passengernumbers, and collectively they carried 9.9 million passengers (47.3 per cent of the total) to or from Australia during the year.

However, the market is now less concentrated than it was ten years ago, with new entrants (Emirates in 1996 and Australian Airlines in 2002) and strong growth experienced by several other airlines.

While Qantas passenger numbers increased from 4.7 million in 1995 to 5.8 million in 2005, the share of the international passenger market held by Qantas fell from 39.1 per cent to 28.0 per cent over the same period (figure 3).

Air New Zealand's market share also decreased from 11.1 per cent in 1995 to 8.7 per cent in 2005.

Singapore Airlines experienced strong growth over the ten years and increased its market share from 6.7 per cent in 1995 to 10.6 per cent in 2005.

Emirates' market share increased from 1.3 per cent in 2000 to 6.0 per cent in 2005.

A number of other smaller airlines have also experienced strong growth over recent years.

International Passengers Carried by Airline

Airline		Passengers carried			Growth
	1995	2000	2005	1995-05	2000-05
Qantas Airways	4 711 232	5 601 284	5 847 487	24.1%	4.4%
Singapore Airlines	809 246	1 735 694	2 212 770	173.4%	27.5%
Air New Zealand	1 344 753	1 794 714	1 806 948	34.4%	0.7%
Emirates		212 888	1 246 708		485.6%
Malaysia Airlines	429 332	979 098	1 147 450	167.3%	17.2%
Cathay Pacific Airways	493 042	611 587	936 899	90.0%	53.2%
Japan Airlines	504 381	698 526	728 905	44.5%	4.4%
Thai Airways International	224 969	543 838	652 634	190.1%	20.0%
Australian Airlines			613 914		
British Airways	410 386	588 141	578 300	40.9%	-1.7%
Others	3 135 867	3 721 904	5 099 819	40.9%	-1.7%
Total	12 063 208	16 487 674	20 871 834	73.0%	26.6%

.. Not applicable

Note: The data in this table excludes crew, non-revenue passengers and non-scheduled operations, and therefore differs slightly from previouslyquoted totals obtained from the Australian Bureau of Statistics (ABS).

Source: BTRE Aviation Statistics Section.

f3 Airline Market Shares



Source: BTRE Aviation Statistics Section.

Airline capacity

More than 118 600 flights (including freighter flights) to and from Australia were operated by international scheduled airlines during the year to December 2005. This represents an increase of 83.8 per cent on the 64 500 flights operated in 1995 and 30.1 per cent on the 91 200 flights operated in 2000.

The number of seats available in 2005 was 30.3 million, up 63.3 per cent on the 18.5 million seats in 1995 and 26.5 per cent on the 23.9 million seats in 2000 (table 2). Seats and load factors are calculated on a Country of Service basis. Country of Service refers to the origin/destination for a 'same flight number' service.

New Zealand had the largest share in 2005 with 7.3 million available seats. This represented 24.1 per cent of the total market, up 31.0 per cent on 2003 and 5.5 per cent on 2004.

With 3.9 million available seats, Singapore had the next largest share (13.0 per cent of the total). This was up 25.5 per cent on 2003 and 14.4 per cent on 2004.

The next three most important countries in terms of available seats in 2005 were Japan (with 7.9 per cent), United States (with 7.2 per cent) and Hong Kong (with 7.1 per cent) were. However, the market shares for each of these are below what they were for 1995 and 2000.

page

Seat load factors

Seat load factors are currently averaging over 70 per cent compared to 66.2 per cent in 1995 (table 2).

The highest load factors in 2005 were achieved on the Australia - United States service with an average of 80.7 per cent of all seats utilised, up slightly on 2004.

Next highest was Australia–Malaysia achieving an average load factor of 78.7 per cent for the year. Above average load factors were also achieved on the Australia - United Kingdom, Australia–Singapore, Australia - Hong Kong and Australia - Japan services.

Visitors to Australia

Short-term visitor arrivals—defined as overseas visitors who intend to stay in Australia for periods of up to 12 months—make up approximately 94 per cent of all visitor arrivals.

For the year ending December 2005, short-term visitor arrivals totalled 5.48 million (or an average of 105 460 each week), an increase of 5.4 per cent over 2004. The most popular reasons for short term visitor travel were: Holiday (53.6 per cent), Visiting friends and relatives (20.4 per cent) and Business (10.3 per cent).

Figure 4 shows the number of short-term visitor arrivals for the top six markets in 2005, along with their corresponding passenger numbers for 1995 and 2000. New Zealand was the largest source of visitors during 2005 with 1.10 million arrivals (or 21 112 each week). Its share has increased from 14.5 per cent in 1995 to 20.0 per cent in 2005.

The United Kingdom was the second largest source with 0.71 million arrivals (or 13 554 each week). This represented a 12.9 per cent market share, an increase from 9.3 per cent in 1995. Strong year-on-year growth was recorded between 1997 and 2000.

The third major source was Japan with 0.68 million arrivals, down from the 0.78 million arrivals in 1995. In 1995, Japan was the largest source (21.2 per cent) of short-term visitors. However, the share has declined steadily since then, dropping to 12.5 per cent of the market in 2005. Between 1995 and 2005, short-term visitor arrivals from Japan fell by 12.5 per cent.

The United States' share of the market has remained relatively steady at 8.1 per cent in 1995, 9.7 per cent in 2000 and 8.0 per cent in 2005. Out of the top six markets, the United States recorded the largest decrease in year-on-year traffic in 2001 as a result of the September 11 terrorist attacks. This was followed by further decreases in 2002 and 2003. However, growth of 2.7 per cent in 2004 and 3.3 per cent in 2005 indicates a gradual recovery in traffic levels.

China has emerged as a new growth market for short-term visitor arrivals, replacing Singapore as the fifth major source in 2004. Growth of 42.7 per cent was recorded for 2004 and 13.4 per cent in 2005.

t2

Seat Utilisation

Country of service	:	Seats operated		Se	ats utilised	
	1995	2000	2005	1995	2000	2005
New Zealand	3 303 795	4 835 695	7 283 807	67.4%	67.3%	66.0%
Singapore	1 790 278	2 858 442	3 931 412	71.5%	73.6%	74.0%
Japan	2 655 939	2 167 138	2 380 463	59.7%	74.8%	71.3%
USA	2 106 026	2 457 040	2 176 091	65.1%	70.4%	80.7%
Hong Kong	1 626 882	1 865 510	2 156 080	65.1%	70.5%	72.0%
UK	1 185 350	1 463 143	2 084 847	73.2%	78.8%	74.8%
Malaysia	622 101	1 344 402	1 469 227	73.9%	72.8%	78.7%
United Arab Emirates		342 411	1 296 385		67.5%	62.4%
Indonesia	1 189 505	1 273 509	1 052 194	69.6%	66.5%	63.5%
Thailand	438 485	755 539	985 622	59.6%	60.4%	60.1%
Others	3 615 622	4 568 921	5 447 846			
Total	18 533 983	23 931 750	30 263 974	66.2%	70.2%	70.2%

.. Not applicable

Notes: Seat load factors may not reflect total passenger loadings for airlines that operate via Australia as data is only available on passengers uplifted or discharged in Australia.

In July 2000 the definition of revenue passenger changed. Load factors calculated using the new definition will be slightly higher than those calculated using the previous definition.

f4 Top Markets – Short-Term Visitor Arrivals



Note: Short-term visitor arrivals to Australia by country of of residence. Sources: ABS Catalogue 3401.0, Overseas Arrivals and Departures, Australia; BTRE Aviation Statistics Section.

Other growing source markets include India, Ireland, the United Arab Emirates, Canada and France.

Table 3 shows the airport share of short-term visitor arrivals. Sydney held 42.9 per cent of the market with 2.35 million short-term visitor arrivals for 2005. Arrivals increased during the Sydney Olympics and its share of market increased from 45.4 per cent in 1995 to 48.2 per cent in 2000. Short-term visitor arrivals for 2005 are still below the numbers recorded in 2000.

Brisbane was the second most popular airport for short-term visitor arrivals, followed by Melbourne and then Perth. The Gold Coast—with 1.7 per cent of the market—has seen visitor arrivals increase seven-fold over the last five years.

Resident travel

Short-term resident departures—defined as Australian residents departing for up to twelve months—make up approximately 97 per cent of all resident departures from Australia.

During 2005, short-term resident departures totalled 4.75 million (or an average of 91 337 each week), an increase of 8.9 per cent over 2004. In this category of travel, the most popular reasons nominated by passengers were: Holiday (46.8 per cent), Visiting friends and relatives (25.4 per cent) and Business (14.7 per cent).



Short-Term Visitor Arrivals by Airport

	Visitor arrivals		Growth	
1995	2000	2005	1995-05	2000-05
1 685 777	2 363 146	2 350 023	39.4%	-0.6%
813 481	928 876	1 097 537	34.9%	18.2%
471 264	718 359	970 106	105.9%	35.1%
334 153	441 543	487 639	45.9%	10.4%
297 167	311 973	382 132	28.6%	22.5%
346	12 699	90 504		612.7%
47 584	64 903	66 632	40.0%	2.7%
44 187	58 080	33 478	-24.2%	-42.4%
18 337	4 418	5 806	-68.3%	31.4%
3 712 293	4 903 996	5 483 857	47.7%	11.8%
	1995 1 685 777 813 481 471 264 334 153 297 167 346 47 584 44 187 18 337 3 712 293	Visitor arrivals199520001 685 7772 363 146813 481928 876471 264718 359334 153441 543297 167311 97334612 69947 58464 90344 18758 08018 3374 4183 712 2934 903 996	Visitor arrivals 1995 2000 2005 1 685 777 2 363 146 2 350 023 813 481 928 876 1 097 537 471 264 718 359 970 106 334 153 441 543 487 639 297 167 311 973 382 132 346 12 699 90 504 47 584 64 903 66 632 44 187 58 080 33 478 18 337 4 418 5 806 3 712 293 4 903 996 5 483 857	Visitor arrivalsGrowth1995200020051995-051 685 7772 363 1462 350 02339.4%813 481928 8761 097 53734.9%471 264718 359970 106105.9%334 153441 543487 63945.9%297 167311 973382 13228.6%34612 69990 50447 58464 90366 63240.0%44 18758 08033 478-24.2%18 3374 4185 806-68.3%3 712 2934 903 9965 483 85747.7%

.. Not applicable

Sources: Department of Immigration and Multicultural and Indigenous Affairs; BTRE Aviation Statistics Section.

page 7 Figure 5 shows the number of short-term resident departures for the top six markets in 2005, along with their corresponding passenger numbers for 1995 and 2000.

New Zealand was the most popular destination for Australian residents during 2005 with 0.83 million departures (or 16 034 departures each week). It has remained the top destination since 1995. New Zealand's share of shortterm resident departures has increased from 14.8 per cent in 1995 to 17.6 per cent in 2005.

The United States was the second-most popular destination for Australian residents in 2005 with 0.43 million short-term resident departures (or 8 198 each week). This represented 9.0 per cent of the market, down from 12.5 per cent in 1995.

The United Kingdom, with 0.40 million departures, was in third position. This represented 8.5 per cent of the market, a decrease from 10.6 per cent of the total in 1995.

Indonesia, with 0.32 million, represented 6.7 per cent of all short-term resident departures for 2005, down from 8.8 per cent in 1995. The Bali bombing in 2002, SARS in 2003 and further bombings in 2005 are all likely to have contributed to its decreasing market share.

China had 0.24 million departures, up 59.1 per cent on 2004. China's market share has increased from 2.1 per cent in 1995 to 4.9 per cent in 2005.

Other growing destination markets include Thailand, Fiji, Vietnam, India, Japan, France and the United Arab Emirates.

Table 4 shows the airport share of short-term resident departures. Again, Sydney recorded the highest market share (45.7 per cent) with 2.17 million short-term resident departures. This was 27.4 per cent higher than 2000.

Figure 6 shows short-term visitor arrivals (by source region) and short-term resident departures (by destination region) for the year ending December 2005. Source regions reflect the country of residence of overseas visitors, while destination regions reflect the 'country of longest stay' for Australian residents.

f5 Top Markets – Short-Term Resident Departures



Note: Short-term resident departures from Australia by country of longest stay. Sources: ABS Catalogue 3401.0, Overseas Arrivals and Departures, Australia; BTRE Aviation Statistics Section.



Short-Term Resident Departures by Airport

Airport		Resident departure	S	Gro	owth
	1995	2000	2005	1995-05	2000-05
Sydney	1 238 868	1 703 348	2 169 833	75.1%	27.4%
Melbourne	577 967	796 130	1 142 078	97.6%	43.5%
Brisbane	283 552	403 751	720 028	153.9%	78.3%
Perth	266 788	394 440	507 066	90.1%	28.6%
Adelaide	56 880	73 472	96 693	70.0%	31.6%
Cairns	44 545	49 619	48 174	8.1%	-2.9%
Darwin	35 799	47 892	36 339	1.5%	-24.1%
Gold Coast	178	3 615	25 874		615.7%
Others	8 090	12 355	3 461	-57.2%	-72.0%
All	2 512 667	3 484 621	4 749 545	89.0%	36.3%

.. Not applicable

Sources: Department of Immigration and Multicultural and Indigenous Affairs; BTRE Aviation Statistics Section.



Passengers by Source/Destination Region, 2005



9

ABS Catalogue 3401.0. Overseas arrivals and departures, Australia; BTRE Aviation Statistics Section. Source:

DOMESTIC INDUSTRY

Domestic passengers

Australia's domestic airline industry operate continued has high to at levels. Passenger numbers peaked at 3.7 million in October 2005, 5.4 per cent higher than October 2004 (figure 7).

During the twelve months to December 2005, more than 40.7 million passengers were carried—representing an increase of 7.6 per cent over the twelve months to December 2004.

The major domestic airlines carried 35.9 million passengers (88.2 per cent of the total) for the year ending December 2005. This represented an increase of 8.3 per cent over the 37.8 million passengers carried in 2004. Regional airline passengers numbered 4.8 million over the same period (constituting 11.8 per cent of the total). This represented an increase of 2.3 per cent over the 4.7 million passengers carried in 2004.

Domestic Passengers

Domestic flights

Figure 8 shows the number of flights (measured in departures) operated by the domestic industry.

During the past year, monthly flights peaked at 45 257 in August 2005. This was 10.6 per cent lower than the 50 600 flights operated in August 2001 (immediately prior to the collapse of Ansett), but 13.4 per cent higher than August 2003 and 1.4 per cent higher than August 2004.

For the year ending December 2005, 525 136 flights were recorded. This represents an increase of 2.9 per cent on the year ending December 2004.

Of these, 282 711 were operated by the major domestic airlines, an increase of 6.2 per cent on the number of flights operated in 2004. The remaining 242 425 flights were operated by regional airlines, a decrease of 0.8 per cent on 2004.







Domestic network utilisation

Domestic industry capacity, measured in available seat kilometres (ASKs), achieved a record of 5.11 billion ASKs in October 2005, 27.2 per cent higher than the peak achieved before the collapse of Ansett (figure 9).

Revenue Passenger Kilometres (RPKs) also peaked in October 2005 with a record 4.14 billion performed. This was 34.1 per cent higher than July 2001 indicating the increased number of passengers being carried on longerhaul direct services over this period.

For the year ending December 2005, ASKs were 7.9 per cent higher than the same period in 2004 while RPKs were up 7.7 per cent on 2004.

Over the twelve months to December 2005, load factors were highest in October at 81.0 per cent, and averaged 78.0 per cent over the year.

Domestic airline on time performance

The reporting of on time performance data to the Bureau commenced in November 2003. The data covers all services operated by Australia's major airlines: Jetstar, Qantas, QantasLink, Regional Express, Skywest Airlines, Virgin Blue and Macair (from July 2005). These operators collectively carry over 95 per cent of Australia's airline traffic.

For the year ending December 2005, 440 890 flights were reported and, of these, 383 211 (86.9 per cent) departed on time and 378 162 (85.8 per cent) arrived on time. Cancellations averaged 0.9 per cent of all scheduled flights.

The highest level of on time performance was recorded in January, with 88.7 per cent of departures on time and 88.6 per cent of arrivals on time. The lowest percentage of cancellations was recorded in April, with 0.6 per cent of scheduled flights cancelled (figure 10).

page 11

Domestic Network Utilisation



Notes: Includes all regional operations. ASKs refers to Available Seat Kilometres. RPKs refers to Revenue Passenger Kilometres. Growth rates are calculated over the same month in the previous year. Source: BTRE Aviation Statistics Section.

page 12

f9

f10 Domestic Airline On Time Performance



Source: BTRE Aviation Statistics Section.

The lowest level of on time performance was recorded in June, when airline operations on the east coast of Australia were particularly impacted by wet weather. In June, 83.6 per cent of departures and 81.6 per cent of arrivals were on time. The highest percentage of cancellations was recorded in May, with 1.5 per cent of scheduled flights cancelled. Regional Express (90.9 per cent), Skywest (89.8 per cent) and Virgin Blue (89.4 per cent) achieved the highest levels of on time departure in 2005. The same three airlines had the best results for on time arrivals (table 5).

t5

Australian On Time Performance by Airline, Year Ending December 2005

	Jetstar	Macair	Qantas	Qantas Link	Regional Express	Skywest	Virgin Blue	All Airlines
Sectors Scheduled	46 141	8 768	120 752	96 785	57 178	11 193	104 283	445 100
Sectors Flown	45 696	8 618	119 350	95 720	57 087	11 020	103 399	440 890
On Time Departures	39 160	7 352	100 125	82 345	51 900	9 900	94 429	383 211
On Time Arrivals	39 059	7 281	100 797	80 193	49 769	9 663	91 400	378 162
Cancellations	445	150	1 402	1 065	91	173	884	4 210
OnTime Departures (%)	85.7%	85.3%	83.9%	86.0%	90.9%	89.8%	89.4%	86.9%
OnTime Arrivals (%)	85.5%	84.5%	84.5%	83.8%	87.2%	87.7%	88.4%	85.8%
Cancellations (%)	1.0%	1.7%	1.2%	1.1%	0.2%	1.5%	0.8%	0.9%

Notes: On time departures refer to flights that depart within 15 minutes of the scheduled departure time.

On time arrivals refer to flights that arrive within 15 minutes of the scheduled arrival time.

Cancellations refer to flights cancelled or rescheduled within 7 days of the scheduled departure time.

Source: BTRE Aviation Statistics Section.

page 13

INTERNATIONAL INDUSTRY

International passengers

Passenger traffic on Australian international flights has remained at high levels over the past twelve months. Traffic peaked in January 2005, with a monthly record of 2.02 million passengers. In December 2005, 1.98 million passengers were carried – an increase of 2.5 per cent on December 2004 (figure 11).

The 21.2 million international passengers carried during the year ending December 2005 comprised 11.4 million overseas visitors and 9.7 million Australian residents.

As described in the feature article in this issue, growth of international passenger traffic (7.2 per cent overall) was driven by the increase in the number of Australian residents travelling on international flights (refer to page 4).



 Note:
 Growth rates are calculated over the same month in the previous year.

 Source:
 ABS catalogue 3401.0. Overseas arrivals and departures, Australia.

International flights

International flight activity peaked in January 2005 with over 10 300 flights and has remained at high levels throughout the year (figure 12).

During the first six months of the year, double-digit growth was observed when compared to the same month in 2004. However, the month of December 2005 was 0.6 per cent down on December 2004.

More Aviation Statistics Available

- airline on time performance
- domestic airlines
- domestic air fares
- international airlines
- international air freight
- airport traffic
- fuel sales
- general aviation

www.btre.gov.au/statistics/statsindex.aspx



Note:

Source:

page 15

International network utilisation

International airline capacity (measured in available seats) peaked at 2.7 million seats in January 2005 (figure 13).

Seat utilisation (load factors) over all routes reached a high of 76.7 per cent in December 2005, but averaged 70.2 per cent over the year.

International air freight

Air freight carried on Australian international flights (in thousands of tonnes) is presented in figure 14.

Freight levels have not returned to the high reached in October 2004. However, over the past twelve months freight peaked at 62 200 tonnes in November 2005, up 1.8 per cent on November 2004. This total comprised 38 800 tonnes (57.3 per cent) inbound and 25 900 tonnes (42.7 per cent) outbound freight.

Inbound air freight has continued to exceed outbound air freight. The 414 200 tonnes of inbound freight carried over the year ending



Notes: Available seats is a total of inbound and outbound seats (in millions). Seat utilisation is an average of inbound and outbound seat utilisation (%) Growth rates are calculated over the same month in the previous year.

Source: BTRE Statistics Section.

December 2005 was 8.0 per cent higher than 2004, while the 294 500 tonnes of outbound freight for the year ending December 2005 represented an increase of 0.5 per cent. Total freight increased by 4.8 per cent over the same period.

As shown in table 6, Qantas carried the greatest share (26.6 per cent) of freight during 2005, followed by Singapore Airlines (14.5 per cent) and Cathay Pacific (8.9 per cent).

The Sydney - Auckland route had the largest share (8.7 per cent) of total freight, followed by Melbourne - Singapore (6.9 per cent) and Sydney - Hong Kong (6.0 per cent) (table 7).



f14 International Air Freight

Note: Growth rates are calculated over the same month in the previous year. Source: BTRE Aviation Statistics Section.

t6

Freight Carried by Top 5 Airlines, 2005

Airline	Tonnes carried (thousands)	Share
Qantas Airways	188.5	26.6%
Singapore Airlines	103.0	14.5%
Cathay Pacific Airways	62.8	8.9%
Emirates	57.6	8.1%
Air New Zealand	37.6	5.3%
Others	259.1	36.6%
Total	708.6	100.0%

Freight Carried by Top City Pairs, 2005

Australian port	Foreign port	Tonnes carried (thousands)	Share
Sydney	Auckland	61.4	8.7%
Melbourne	Singapore	49.1	6.9%
Sydney	Hong Kong	42.7	6.0%
Melbourne	Auckland	35.8	5.1%
Sydney	Singapore	35.0	4.9%
Others		484.8	68.4%
Total		708.6	100.0%

Source: BTRE Aviation Statistics Section.

Note: Information on domestic air freight has been discontinued due to difficulties securing data and the coverage of data.

AIRPORT ACTIVITY

Airport activity levels

Table 8 summarises passenger and aircraft movements at the five major Australian airports for the last three calendar years.

For the year ending December 2005, Adelaide Airport recorded the strongest growth in passenger movements at 9.1 per cent over the year ending December 2004, followed by Perth (7.9 per cent), Brisbane (6.2 per cent), Sydney (4.6 per cent) and Melbourne (3.6 per cent).

In terms of total scheduled aircraft movements, Brisbane Airport had the strongest growth (at 5.9 per cent) with continued strong increases in capacity by Virgin Blue and Jetstar. Growth in aircraft movements was also high at Perth Airport (5.6 per cent).

Growth was particularly strong in the international sector at Adelaide Airport where passenger traffic increased by 16.9 per cent and aircraft movements increased by 17.5 per cent over 2004.

At Perth Airport, regional passenger numbers increased by 15.8 per cent over 2004, with continued expansion of Skywest's 100-seat jet aircraft services.

Sydney aircraft noise

August 2005 was the busiest month for Sydney Airport over the past year, with 23 621 aircraft movements, an increase of 1.0 per cent on August 2004. There were 383 noise complaints for the month of August, an increase of 22.4 per cent on August 2004. Noise complaints peaked at 635 in April 2005 (figure 15).

For the twelve months ending December 2005, noise complaints totalled 5 146, an increase of 43.8 per cent over the previous twelve months. Over the same period, there were 273 144 aircraft movements, an increase of 2.0 per cent on the previous twelve months. Figure 15 (inset) focuses on the period from February 2002 to December 2005.

f8

Activity at Major Australian Airports

		Passenger movements (millions)					Aircraft movements (thousands)					
Airport	Year	Inter- national	Domestic	Regional	Total	Inter- national	Domestic	Regional	Sub total	Total*		
Sydney	2005	9.5	17.1	1.8	28.5	58.7	121.6	73.3	253.6	281.7		
	2004	9.0	16.5	1.8	27.2	56.1	117.9	75.0	249.0	276.8		
	2003	7.9	15.0	1.6	24.5	49.1	107.1	73.4	229.6	258.2		
Melbourne	2005	4.2	15.9	0.6	20.7	26.8	117.3	26.5	170.6	180.3		
	2004	3.9	15.2	0.6	19.8	26.7	112.5	25.6	164.8	175.0		
	2003	3.2	13.5	0.5	17.2	21.3	101.4	25.0	147.8	158.6		
Brisbane	2005	3.6	11.4	0.7	15.7	22.6	90.2	25.5	138.3	164.5		
	2004	3.3	10.9	0.6	14.8	21.0	85.9	23.7	130.7	155.6		
	2003	2.6	9.5	0.6	12.7	16.7	77.4	21.8	115.9	139.8		
Perth	2005	2.0	4.4	0.3	6.8	10.8	33.8	11.9	56.5	101.6		
	2004	1.8	4.1	0.3	6.3	9.5	34.0	10.1	53.6	96.5		
	2003	1.6	3.7	0.2	5.5	8.8	32.4	8.4	49.6	94.0		
Adelaide	2005	0.3	4.9	0.4	5.6	2.3	41.0	26.2	69.5	106.8		
	2004	0.3	4.5	0.4	5.1	2.0	37.3	29.1	68.4	103.2		
	2003	0.2	4.1	0.3	4.6	1.8	35.4	28.0	65.2	101.4		

Notes: International passenger data are the total passengers uplifted and discharged within a flight. This data is provisional.

Domestic and regional passenger data are the total passengers on board (POB) by flight stage. The regional component is provisional and includes BTRE estimates.

International, domestic and regional data represents Regular Public Transport operations.

* Includes military and unscheduled aircraft. Aircraft movements recorded during the hours in which Airservices Australia provides a tower service.

Sources: BTRE Aviation Statistics Section; Airservices Australia monthly aircraft movements at Australian reports (http://www.airservicesaustralia.com).

f15 Noise Complaints: Sydney Airport





Source: Airservices Australia, monthly Sydney Airport operational statistics (preliminary data).

ECONOMIC INDICATORS

Real domestic air fares

Figure 16 presents the real domestic air fares indexes for Business Class, Full Economy, Restricted Economy and Best Discount air fares, showing 13 month moving averages. The real domestic air fares indexes include those taxes and charges that are collected as part of the airfare (security, certain airport charges and GST). The indexes provide a measure of changes to air fares over time.

Prior to July 2003, the indexes were constructed using SABRE Pacific's Computer Reservations System. Indexes for July 2003 onwards are based on airfares collected from BTRE Internet air fare survey. All indexes are Consumer Price Index (CPI) adjusted and set at a base value of 100 for July 2003.

In this issue of *Avline* (and issue 7), the calculation methodology used is the Fisher Ideal Index. Prior to issue 7, the Laspeyres Index was used. For more information on price indexes see ABS Catalogue 1351.0 Working Paper no. 96/1 *Choosing a Price Index Formula*.

Restricted Economy fares were highest in February 2005 with an index of 105.3. However by July 2005, a record low of 93.8 was achieved, 8.9 per cent lower than July 2004.

Business Class fares were highest in May 2005 with an index of 107.4. By January 2006, a record low of 94.4 was achieved. This was 10.7 per cent lower than January 2005.

f16 Real Domestic Airfares



Notes: CPI Adjusted.

SABRE Pacific does not warrant the accuracy of any of the data provided by its system. Under no circumstances will SABRE Pacific be liable for the loss of profits, loss of use of contracts, or for any economic or consequential loss whatsoever, whether arising from errors in data, negligence, breach of contract or otherwise.

Sources: BTRE Aviation Statistics Section; SABRE Computer Reservation System (prior to July 2003), BTRE internet air fare survey (July 2003 onwards), Australian Bureau of Statistics (CPI data).

Best Discount fares showed considerable fluctuation. The Best Discount Fares Index achieved a low of 83.9 in April 2005, 7.6 per cent lower than April 2004. However, by October 2005 it had risen to 93.6, 10.1 per cent higher than October 2004.

Full Economy fares have risen by 2.5 per cent over the twelve months to August 2005.

Jet fuel prices

Aviation jet fuel costs have continued the upward trend. In the period up to January 2006, the Jet Fuel Price Index in Australian dollars peaked at 224 in October 2005, 32.8 per cent higher than October 2004 and 131.0 per cent higher than October 2003 (figure 17).

The Jet Fuel Price Index in US dollars peaked at 264 in September 2005, an increase of 50.1 per cent on September 2004 and 171.9 per cent on September 2003.

The trend toward higher fuel prices, as well as the corresponding introduction of fuel surcharges by Qantas, Virgin Blue and Regional Express, has been noted in recent issues of *Avline*.

Since January 2006, fuel prices have continued to increase. In response to the record prices, the Qantas Group announced further increases to its domestic and international fuel surcharges effective from 5 May 2006.

Airline share prices

Figure 18 shows the end of month closing prices for Qantas, Virgin Blue and the S&P/ASX 200 Index up to January 2006.

Virgin Blue's share price peaked at \$1.68 per share in January 2006, 20.4 per cent down on the closing price for January 2005.

The Qantas share price reached a high of \$4.13 per share in January 2006, 16.0 per cent up on January 2005.

Qantas reported a pre-tax profit of \$483.5 million for the half-year ending December 2005, representing a 3.4 per cent decrease over the same period in 2004. The \$352.6 million after-tax profit to December 2005 was 9.6 per cent lower than the six months ending December 2004

Qantas 2006, Results for the half year ended 31 December 2005.

Virgin Blue reported a pre-tax profit of \$148.0 million for the twelve months ending September 2005, down 33.9 per cent on the same period in 2004. Its after-tax profit for the twelve months ending September 2005 was \$105.2 million, down 33.1 per cent on the same period in 2004.

f17 World Average Jet Fuel Prices



Sources: BTRE analysis using ICIS-LOR fuel priced (cited in Airline Business); Reserve Bank of Australia, Bulletin Statistical Table 11, Exchange Rates.



Note: Share prices are monthly closes. Sources: Share prices: GS JB Were, ASX, Australian Financial Review.

Gross Domestic Product

Figure 19 shows indexes based on Australia's Gross Domestic Product (GDP), comparing all industries with the air and space industry component up to December 2005.

The air and space industry showed strong growth over the year, with the Air and Space Index peaking at 185.9 in the quarter ending September 2005. This was up 8.9 per cent over the previous September quarter. The Total GDP Index showed steady growth. The Index reached 151.7 for the December quarter 2005, up 2.7 per cent on the corresponding quarter in 2004.

f19 Gross Domestic Product



Notes: Chain volume measures reference year is 2003-04. Seasonally adjusted. Growth rates are calculated over the same quater in the previous year. Source: ABS Catalogue No. 5206.0, Australian National Accounts: National Income, Expenditure and Product, Table 16.

AIRPORT CHARGES

Table 9 shows the real charges incurred by aircraft operators per return passenger (assuming one arrival and one departure) at Australia's major capital city airports as at 31 January 2005, 31 July 2005 and 31 January 2006, in December 2005 quarter dollars. The charges are presented by category of aircraft type and are broken down into the airport, Airservices and security components.

Airport charges data estimates what an airline may expect to pay - based on publicly available information published by airport authorities and Airservices Australia. The data shown includes GST, but excludes:

- confidential agreements between airports and airlines, and
- terminal charges for domestic and regional services, which are often confidential and may differ by terminal and airline.

The data should be interpreted with caution as actual rates may vary for individual aircraft operators based on negotiated contracts.

International transit and transfer passengers at Sydney and Brisbane airports do not incur the international terminal charge. In order to exclude these passengers from the international terminal charge calculation at these airports, the BTRE has assumed that transit and transfer passengers comprise 10 per cent of international passengers. All five airports set security charges on a cost-recovery basis. If significant over (under) recovery occurs in a period, security charges are reduced (increased) in the subsequent period, which may result in period to period variations in total charges.

Over the six months between July 2005 and January 2006, total international airport charges increased at all airports primarily due to increases in Airservices charges. Security charges for international flights rose at all airports except Brisbane. Adelaide showed the most notable change with the introduction of a provisional Passenger Facilitation Charge.

Total charges for domestic and regional flights increased at Sydney, Melbourne and Perth. Brisbane Airport's charges increased for some categories of aircraft and decreased for others, while Adelaide showed decreases for all domestic and regional carriers. Increases for domestic and regional flights were primarily related to the security component of the total.

Over the twelve month period between January 2005 and January 2006, total charges increased for all categories of aircraft at all ports, largely due to increases in the Airservices or security components.

page

t9

Real Airport Charges (per passenger) by Aircraft Type

		Sydney		N	lelbourne)	I	Brisbane			Perth			Adelaide	
Aircraft	Jan 05	Jul 05	Jan 06												
747-438															
Airport	31.57	31.45	31.01	24.04	24.13	23.80	19.91	20.50	20.22	20.67	23.05	22.33	24.39	24.58	24.60
Airservices	7.33	9.01	10.91	6.40	8.22	10.00	8.94	10.71	12.97	12.91	16.04	18.71	16.37	20.85	28.67
Security	4.52	6.90	9.32	2.91	3.45	3.57	8.91	7.54	7.44	5.55	6.00	6.74	11.33	7.30	12.19
Total	43.43	47.45	51.24	33.35	35.81	37.37	37.76	38.75	40.62	39.13	45.09	47.78	52.09	52.73	65.46
737-800															
Airport	6.53	6.55	6.56	7.31	7.34	7.24	6.53	6.75	6.66	8.52	8.39	8.27	8.56	8.62	8.50
Airservices	3.45	4.28	4.77	3.01	3.86	4.05	4.20	5.03	4.99	6.07	7.54	6.88	7.70	9.80	8.93
Security	1.52	2.49	3.02	0.34	0.33	0.50	0.66	0.60	0.59	3.88	3.82	5.11	0.81	0.73	0.72
Total	11.50	13.32	14.35	10.66	11.54	11.79	11.39	12.39	12.25	18.46	19.74	20.27	17.06	19.14	18.15
Dash 8-300															
Airport	6.53	6.55	6.56	7.31	7.34	7.24	6.19	6.41	6.32	8.52	8.39	8.27	3.65	3.68	3.63
Airservices	3.27	4.06	4.50	2.85	3.67	3.79	3.98	4.77	4.66	5.75	7.15	6.39	7.30	9.29	8.13
Security	1.52	2.49	3.02	0.34	0.33	0.50	0.63	0.57	0.56	3.88	3.82	5.11	0.00	0.00	0.00
Total	11.32	13.10	14.08	10.51	11.34	11.53	10.80	11.75	11.54	18.15	19.36	19.77	10.95	12.97	11.76
SAAB340B															
Airport	6.53	6.55	6.56	7.31	7.34	7.24	6.44	6.66	6.57	8.52	8.39	8.27	3.80	3.83	3.77
Airservices	3.40	4.09	4.68	2.97	3.61	3.94	4.14	4.77	4.84	5.98	7.21	6.65	7.59	9.23	8.45
Security	1.52	2.49	3.02	0.34	0.33	0.50	0.65	0.00	0.59	3.88	3.82	5.11	0.00	0.00	0.00
Total	11.45	13.14	14.26	10.62	11.29	11.68	11.24	11.43	12.00	18.38	19.42	20.03	11.39	13.06	12.23
Metro 23															
Airport	8.20	8.07	7.96	7.31	7.34	7.24	6.57	6.80	6.70	8.52	8.39	8.27	3.79	3.90	3.85
Airservices	3.47	4.18	4.77	3.03	3.68	4.02	4.23	4.86	4.94	6.10	7.36	6.78	7.57	9.42	8.63
Security	1.26	2.11	2.64	0.34	0.33	0.50	0.66	0.61	0.60	3.88	3.82	5.11	0.00	0.00	0.00
Total	12.92	14.36	15.37	10.68	11.36	11.76	11.46	12.27	12.24	18.50	19.57	20.16	11.36	13.32	12.47

Notes: Presented in March 2006 guarter dollars

Calculated on a return passenger basis, that is, assuming one arrival and one departure, for price schedules as at 31 January and 31 July each year. A portion of security charges may apply to passengers going through airport-operated terminals only.

Sydney international charges (airport and security components) have been adjusted to exclude transit and transfer passengers

Sources: BTRE estimates based on airport public price schedules supplied by airport operators; Airservices Australia published price schedule; ABS Catalogue 6401.0, Consumer Price Index, Australia.

Receive Avline Electronically

To add your name to the Avline electronic distribution list (or to update your details) phone Sue Thomson on (02) 6274 7435 or write to **avline@dotars.gov.au**

Avline is published biannually. The next issue is planned for December 2006.

Real airport charges for the international, domestic and regional sectors are also shown in Figures 20, 21 and 22 respectively.

These are based on aircraft considered representative of each sector and show data by airport from January 2003 to January 2006. January 1997 is included as the base year for comparison. The parameters used by the BTRE in its airport charges calculations are summarised in Table 10. The aircraft types shown are representative of international, trunk route domestic, and large, medium and smaller regional routes.

f20 Real International Airport Charges (per return passenger)



Notes: This graph shows total airport charges for a 747-438 as representative of international flights. Charge calculations are based on BTRE assumptions and may differ from actual charges incurred by specific operators. International charge estimates include terminal charges. Data for periods from July 2000 are GST inclusive. Sydney charges exclude the noise charge. An indicative international load factor of 72.0 per cent is assumed. Sydney international charges (airport and security components) have been adjusted to exclude transit and transfer passengers.

Sources: BTRE estimates based on airport public price schedules supplied by airport operators; Airservices Australia published price schedule; ABS Catalogue 6401.0, Consumer Price Index, Australia.

f21 Real Domestic Airport Charges (per return passenger)



Notes: This graph shows total airport charges for a 737-800 as representative of domestic flights. Charge calculations are based on BTRE assumptions and may differ from actual charges incurred by specific operators. Domestic and regional charge estimates exclude terminal charges. Data for periods from July 2000 are GST inclusive. Sydney charges exclude the noise charge. An indicative domestic load factor of 76.5 per cent is assumed.

Sources: BTRE estimates based on airport public price schedules supplied by airport operators; Airservices Australia published price schedule; ABS Catalogue 6401.0, Consumer Price Index, Australia.

f22 Real Regional Airport Charges (per return passenger)



Notes: This graph shows total airport charges for a SAAB340B as representative of regional flights. Charge calculations are based on BTRE assumptions and may differ from actual charges incurred by specific operators. Domestic and regional charge estimates exclude terminal charges. Data for periods from July 2000 are GST inclusive. Sydney charges exclude the noise charge. An indicative regional load factor of 60.0 per cent is assumed.

Sources: BTRE estimates based on airport public price schedules supplied by airport operators; Airservices Australia published price schedule; ABS Catalogue 6401.0, Consumer Price Index, Australia.

Parameters Used in Airport Charge Calculations

Aircraft type	Operational sector (typical)	Aircraft maximum take-off weight (tonnes)	Number of aircraft seats (nominal)	Average passenger load factor (%)
747-438	International	394.6	394	72.0
737-800	Domestic	79.0	158	76.5
Dash 8-300	Regional	18.6	50	60.0
SAAB 340B	Regional	13.2	34	60.0
Metro 23	Regional	7.5	19	60.0

Notes: The load factor is the proportion of total aircraft seats that are filled by paying passengers.

Aircraft load factors are derived from BTRE Statistics Section data collections for the relevant operational sector and may not reflect actual load factors at specific airports.

Sources: Airline websites; Civil Aviation Safety Authority (CASA) aircraft register; BTRE aviation databases and assumptions.

Limited hard copies of the following Aviation Statistics are available from BTRE Publications:

- International Scheduled Air Transport 2005 (IAA 121)
- Australian Domestic Airline Activity 2005 (Domestic Annual 109)
- Airline On Time Performance 2005 (OTP 28)

Contact (02) 6274 7210 to order.

Definitions

ABS	Australian Bureau of Statistics.
Available seats	The number of aircraft seats available for passenger use.
Available Seat Kilometres (ASKs)	Calculated by multiplying the number of seats available on each flight stage, by the distance in kilometres between the ports. The distances used are Great Circle Distances.
BTRE	Bureau of Transport and Regional Economics.
Cancellation	A flight that is cancelled or rescheduled within seven days of its scheduled departure time.
CASA	Civil Aviation Safety Authority.
City pair	The ports shown make up the city pair route. Passenger movements shown for a city pair reflect total traffic in both directions.
Domestic airline	An airline performing regular public transport services primarily between capital cities and major tourist centres.
Flight stage	The operation of an aircraft from take-off to landing.
Great circle distance	The shortest distance between any two points on the globe as measured over the earth's surface.
Load factor	The proportion of total aircraft seats that are filled by paying passengers.
On time arrival	A flight arrival that arrives at the gate within 15 minutes of the scheduled arrival time shown in the carrier's schedule.
On time departure	A flight departure that departs the gate within 15 minutes of the scheduled departure time shown in the carrier's schedule.
On time performance	Measured as the number of flights operating on time as a percentage of the number of flights operated on any particular sector.
Regional airline	An airline performing regular public transport services primarily to regional centres.
Revenue Passengers	All passengers paying any fare. Frequent flyer redemption travellers are regarded as revenue passengers.
Revenue Passenger Kilometres (RPKs)	Calculated by multiplying the number of revenue passengers travelling on each flight stage, by the distance in kilometres between the ports. The distances used are Great Circle Distances.
Regular Public Transport (RPT)	Aircraft transport available to the public and operated to fixed schedules and between specified fixed terminals.
Short-term resident arrivals	Overseas visitors arriving in Australia for stays of up to 12 months.
Short-term visitor departures	Australian residents departing for periods of up to 12 months.

page 26

page

27



Australian Government

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

RECENT BTRE PUBLICATION RELEASES

Waterline Issue 40—May 2006 http://www.btre.gov.au/docs/ waterline/wl_40.pdf

Health Impacts of Transport Emissions in Australia: Economic Costs

Working Paper 63 http://www.btre.gov.au/docs/ workingpapers/wp63/wp63.pdf

Freight Measurement and Modelling

in Australia Report 112 http://www.btre.gov.au/docs/ reports/r112/R112.pdf

Greenhouse Gas Emissions from Australian Transport

Base Case Projections to 2020 http://www.btre.gov.au/docs/ monitoringreports/BTRE_AGO_05.pdf

Australian Sea Freight 2003–2004 Information Paper 56 http://dtcbr01cmst01:222/docs/infopapers/ip56/ Australian_Sea_Freight_%202003to2004.pdf

Demand Projections for Auslink Non-Urban Corridors: Methodology and Projections

Working Paper 66 http://www.btre.gov.au/docs/workingpapers/ wp66/AusLinkDP_FullReport.pdf

Cost of Aviation Accidents and Incidents Report 113 http://www.btre.gov.au/docs/ reports/r113/BTRE_R113.pdf

UPCOMING BTRE RELEASES

Aviation Statistics: Domestic, International, Domestic On Time Performance

Optimising Harmonisation in the Australian Railway Industry

Container and Ship Movements Through Australia's Ports: 2003–04 to 2023–24

Drivers of Economic Growth in the Greater Sydney Metropolitan Region

Australian Transport Statistics 2006

Congestion charging: lessons for Australia from international experience

PUBLICATIONS AVAILABLE FROM THE BTRE

http:www.btre.gov.au/publications.aspx

TO REQUEST A HARD COPY:

Telephone:	
Fax:	
E-mail:	

+61 2 62747210 +61 2 62746816 btre@dotars.gov.au



Australian Government

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



This issue of Avline was compiled by Sue Thomson. Special thanks to Mano Manoranjoran for providing data and assistance on international aviation. Desktop publishing by Kerry Rose.

The BTRE is particularly grateful for the assistance of Adelaide, Brisbane, Melbourne, Perth and Sydney airports.

contact

e-mail / telephone / fax / post

For further information on this publication please contact Sue Thomson at: avline@dotars.gov.au tel: (02) 6274 7435 fax: (02) 6274 6816

This publication is available free of charge from the Bureau of Transport and Regional Economics

Postal address:GPO Box 501, Canberra ACT 2601, AustraliaEmail:avline@dotars.gov.auTelephone:+61 2 6274 7210

internet

Download this issue of *Avline* and back issues: http://www.btre.gov.au/statistics/aviation/avline/avline.aspx

addresses

Bureau of Transport and Regional Economics home page: http://www.btre.gov.au

The Bureau of Transport and Regional Economics operates within the Commonwealth Department of Transport and Regional Services.

ISSN: 1324-4043

© Commonwealth of Australia 2005 This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior written permission from the Commonwealth. Requests and inquiries concerning reproduction and rights should be addressed to the Commonwealth Copyright Administration, Attorney General's Department, Robert Garran Offices, National Circuit, Barton ACT 2600 or posted at http://www.ag.gov.au/cca

INDEMNITY STATEMENT: The Bureau of Transport and Regional Economics has taken due care in preparing these analyses. However, noting that data used for the analyses have been provided by third parties, the Commonwealthgivesnowarrantyastotheaccuracy, reliability, fitnessforpurpose, or otherwise of the information.