

NSW Air Services Supply – Identification of Future Opportunities and Options

June 2007

Introduction

Australia's domestic airline industry has been performing well recently with a record 41.8 million passengers in 2005-06; up 5.8% on the previous year. This result is 41.3% above the level recorded in 2001-02, the year of the Ansett collapse and 49.9% above traffic levels 10 years ago.

Today's air supply in NSW broadly reflects both the historical development of airports and the influence of airline economics on service provision together with noticeable shocks such as the demise of Ansett, terrorism and the recent influx of low cost carriers.

The domestic aviation industry has transformed in a number of ways over the decade 1996-97 to 2005-06 including:

- an increase in average aircraft size (seat supply up 57%, flights down 9%)
- the introduction of low cost carriers
- increased load factors (from 72.5% to 77.7%)
- more direct flights.

Other changes are on the horizon that may represent opportunities for NSW, dependent on the mobilisation of existing aviation assets, promotion of destinations to maintain existing routes and co-operatively working with new entrant airlines.

Many aviation industry observers believe aviation industry changes may drive changes in tourism in Australia rather than the reverse, which applied in the past.

Current Situation

Table 1 lists airports in NSW plus three airports in adjacent States and Territories which also service NSW: Canberra (ACT), Gold Coast (QLD) and Mildura (VIC). Of the 50 airports listed only two have international traffic: Sydney with 9.7 million international

pax in 2005-06 and the Gold Coast with 0.2 million international pax in 2005-06.

Table 1 also shows domestic and regional passenger traffic numbers for 2005-06 (the latest available data) for airports with more than 7,000 passengers annually. The smaller airports do not have traffic recorded by Department of Transport and Regional Services (DOTARS). Where data is available the change in passenger numbers during the two years from 2003-04 is also shown.

NSW and its adjacent airports handled 28 million passengers in 2005-06; this is up 17% in the two years since 2003-04. NSW airports alone handled 22 million passengers. Excluding Sydney Airport, the total passenger numbers are 2.7 million, up 63% from 2003-04 to 2005-06. The main airports influencing this growth are Ballina with growth of 218%, Newcastle with 170%, and Armidale with 59% over the two years. Ballina and Newcastle have grown primarily due to the new services by low cost carriers Jetstar and Virgin Blue.

Airport Categories

The 50 airports in NSW have are categorised into five tiers based on current traffic numbers. These categories were developed in the NSW Domestic Aviation Framework 2005 prepared for Tourism NSW by Tourism Futures International.

Category 1 airports in Table 1, Sydney, Gold Coast and Canberra, are the major airports and have a mix of domestic and regional traffic and in the case of Sydney and to a lesser extent Gold Coast represent an international/domestic transfer point. Sydney (Kingsford Smith) also has the constraints of a jet curfew 11pm – 6am (plus a 5am shoulder period) and legislated capacity constraints of 80 movements per hour cap. Kingsford Smith also has a relatively small site compared with other airports. Table 2 shows the current season schedule (Northern summer 2007) of seats and frequency into Sydney and two previous seasons broken down by airline.



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Category 2 airports currently have domestic and regional airline services and have achieved strong growth rates. However, there have been interruptions to services in the past. These destinations will still have to work to maintain the performance of these routes with existing low cost carrier services.

Category 3 airports have passenger volumes greater than 100,000 and are not currently served by domestic airlines. These airports represent an opportunity for regional jets, outlined below.

Category 4 includes only Tamworth with passenger volumes of 75,000 to 100,000. This airport is unlikely to be served by larger aircraft but has the potential to move into category 3.

Category 5 airports have passenger volumes below 75,000 and are likely to provide only niche opportunities for tourism development. There may be sleeper airports such as Nowra or Bankstown that could quickly move into higher categories.

The table also indicates primary runway length as provided by Airservices Australia. A large number of technical factors determine an airport's capacity to bring in certain aircraft. Runway length is one, but others include geographical obstacles, ground handling facilities, terminals, security requirements, and taxiway strength and width.

The table includes a theoretical capacity to operate the Embraer E170, a new class of aircraft, with a runway length of 1,500 metres minimum for this aircraft's operations. The table also shows the estimated proportion of traffic to/from Sydney based on information from the NSW Air Transport Council.

Possible Opportunities for NSW and Areas for Further Research

New Commercial Aircraft

Virgin Blue currently has on order 20 regional jet aircraft by Embraer in Brazil. Three of these will be the 70-80 seat E170 model and the remainder 98-114 seat E190 with options on six more. These aircraft will have adaptable capacity to increase flexibility and capacity when needed.

They may offer similar growth potential for those airports below the threshold for current jet services by 737 and A320 aircraft (110 to 150 seats) (category 3 in the table). These aircraft offer considerably more passenger comfort and speed than turboprop aircraft (usually less than 50 seats) and will be able to economically service direct lower density routes.

Virgin Blue has yet to announce the routes the new regional jet aircraft will use and is surveying local councils, as the operators

and owners of regional airports, for their ability to take the new aircraft and what modifications to existing facilities are needed and/or planned. Virgin Blue announced on June 6 that it will consider Orange and Dubbo as destinations for the new regional jets as part of a regional tour. The process of regional airport evaluation is expected to be finished in July/August 2007. If the runway length is sufficient the main issues are the apron and taxiway strength. This is because the aircraft has better short field performance than a 737/A320 but its weight is considerably more than a regional turboprop.

On the domestic and international fronts, new aircraft such as the Boeing 787-800 and Airbus A350 (approx 250 seats) could also change the aviation environment in NSW from 2008 onwards. These aircraft are being developed to offer a new level of comfort, reduced operating costs (Boeing estimates the aircraft will burn 20% less fuel than a 767, with 30% lower maintenance cost), reduced noise and a longer range to carriers. The 787 will be the first aircraft built primarily from composites.

The main impact of these aircraft will be to permit profitable point-to-point services rather than traditional 'hub and spoke' services. This could mean routes could open up from Kingsford Smith as a major regional hub to smaller ports overseas, or secondary ports in Australia to major offshore hubs, or even direct non-hub services. The 787, A350 could potentially do thinner routes into Asia from secondary gateways such as Newcastle and Canberra. The A380 by Airbus with 525 seats will be aimed primarily at services between the main hubs.

The 787 will form the backbone of Qantas and Jetstar fleets from 2008. Boeing has record orders for these aircraft with 478 aircraft and 39 customers. The aircraft has a planned first flight in prototype form in late 2007.

Further research in this area could give an idea of the status and viability of airports in NSW with regard to these aircraft.

Identification of Underused Airports

Airports are public infrastructure not readily developed from scratch and in many cases also expanded with difficulty. The existing stock reflects transport planning around population centres dating back many decades. Other airports are a result of defence planning as facilities for the Air Force, Navy and to a lesser extent the Army. The runway length can be used as an indicative measure of underused capacity, particularly outside the main capital airports.

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Nowra Airport is currently a military-only airfield but the airport may have potential to offer capacity to the South Coast and Shoalhaven based on its existing infrastructure. In Sydney, Bankstown Airport and Richmond in North Western Sydney also offer airport infrastructure not used by domestic or regional carriers. Alternative airport infrastructure in Sydney is critical given the legislated capacity limits at Kingsford Smith and physical space constraints. As slots become tighter smaller regional aircraft including regional jets could be squeezed out. Further work is required to map airport supply/demand based on destination potential and population catchments.

International Medium Haul Low Cost Carrier Expansion

In a similar way that domestic low-cost carriers have transformed the industry through fare discounting and delivering direct jet access to secondary airport destinations, the same is likely to occur with international medium-haul low cost carriers.

Jetstar International has commenced international flights and its initial focus is on outbound destinations, however the company may increase its inbound traffic generation status particularly for the Japanese market which has now had Qantas and JAL services replaced by Jetstar. Qantas intends to expand the international reach of its low cost subsidiary at the expense in expansion in its mainline brand.

A number of medium-haul low cost carriers are looking at Australia for start up of operations including Air Asia X as a follow on to the commencement of Jetstar, Oasis and Viva. Tiger Air is moving toward a domestic start to build on existing international

services into Perth. Following on from Qantas's successful introduction of a low cost subsidiary, Air New Zealand is also looking at establishing a low cost domestic airline outside its existing Freedom Air subsidiary on international routes.

These carriers will minimise external costs such as airport charges whenever possible as part of their business model. Air Asia, the parent company of Air Asia X, has a 58% cost advantage over peer low cost carriers according to the Centre for Asia Pacific Aviation (CAPA), as well as airport costs six times lower than its peers. Air Asia X is now looking at secondary airports including Avalon (Melbourne), Newcastle, Adelaide and the Gold Coast for proposed A330 services from Malaysia.

Air Asia X has ordered 10 A330 Airbus aircraft with options on another five. Delivery is from late 2008 and an interim fleet is being leased. Air Asia X's initial announced plans are to launch services from Kuala Lumpur in 2007 to three destinations, one in Australia and two in China – Hangzhou and Tianjin.

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Table 1

Airport Category	Airport	2005/06 Passenger Movements regional and domestic (DOTARS >7,000)	Regional traffic % (100% regional from cat 3 down)	Change from 2003/4 to 2005/6	Primary runway length (m)	Theoretical ability to take Regional Jets based on 1,500m	Approx Proportion of traffic to Sydney %
1	Sydney	19,328,709	9%	11%	3,962	Yes	
1	Gold Coast	3,304,526	0%	40%	2,042	Yes	56%
1	Canberra	2,550,129	20%	11%	3,273	Yes	31%
2	Newcastle	816,651	17%	170%	2,438	Yes	6%
2	Coffs Harbour	322,206	42%	35%	2,080	Yes	94%
2	Ballina	269,886	23%	218%	1,900	Yes	99%
3	Albury	198,020		25%	1,900	Yes	76%
3	Wagga Wagga	171,677		32%	1,768	Yes	85%
3	Dubbo	155,805		37%	1,708	Yes	98%
3	Mildura	154,654		22%	1,830	Yes	N/A
3	Port Macquarie	108,969		37%	1,586	Yes	93%
3	Armidale	100,984		59%	1,738	Yes	97%
4	Tamworth	92,634		23%	2,200	Yes	97%
5	Lismore	64,715		15%	1,647	Yes	100%
5	Griffith	60,066		41%	1,503	Yes	100%
5	Merimbula	57,732		66%	1,602	Yes	68%
5	Orange	56,576		16%	1,676	Yes	100%
5	Broken Hill	43,631		27%	2,515	Yes	30%
5	Lord Howe Is.	30,736		15%	886		87%
5	Parkes	28,660		79%	1,684	Yes	100%
5	Bathurst	21,137		37%	1,705	Yes	100%
5	Moree	20,959		3%	1,613	Yes	100%
5	Moruya	16,759		57%	1,523	Yes	87%
5	Wollongong	16,366		100%	1,819	Yes	N/A
5	Narrandera	16,235		43%	1,616	Yes	95%
5	Cooma	13,996		41%	2,120	Yes	100%
5	Narrabri	11,949		7%	1,524	Yes	100%
5	Taree	9,056		-42%	1,504	Yes	100%
6	Coonabarabran				1,520	Yes	
6	Mudgee				1,739	Yes	
6	Grafton				1,709	Yes	
6	Cobar				1,519	Yes	
6	Inverell				2,114	Yes	
6	West Wyalong				1,585	Yes	
6	Gunnedah				1,645	Yes	

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Table 1 cont'd

Airport Category	Airport	2005/06 Passenger Movements regional and domestic (DOTARS >7,000)	Regional traffic % (100% regional from cat 3 down)	Change from 2003/4 to 2005/6	Primary runway length (m)	Theoretical ability to take Regional Jets based on 1,500m	Approx Proportion of traffic to Sydney %
6	Bourke				1,830	Yes	
6	Walgett				1,626	Yes	
6	Lightning Ridge				1,406		
6	Coonamble				1,527	Yes	
6	Nowra (Military)				2,094	Yes	
6	Bankstown				1,415		
6	Richmond (Military)				2,134	Yes	
6	Aeropelican				820		
6	Kempsey				1,650	Yes	
6	Cowra				1,630	Yes	
6	Forbes				1,228		
6	Glen Innes				1,498		
6	Nyngan				1,643	Yes	
6	Scone				1,404		
6	Young				1,220		

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Table 2 Sydney Kingsford Smith Airport – International Capacity and Frequency

Airline	Northern Summer 2006		Northern Winter 2006		Northern Summer 2007	
	Freq	Seats	Freq	Seats	Freq	Seats
Air Canada	217	46,004	147	32,792	217	46,004
Aerolineas Argentinas	80	19,760	84	20,748	93	22,971
British Airways	434	141,034	294	84,079	434	120,869
Royal Brunei Airlines	93	19,065	63	12,915	93	19,065
Air China	216	46,224	147	30,576	217	54,684
China Airlines	116	32,016	63	18,459	112	35,056
Australian Airlines	91	24,585	0	0	0	0
Cathay Pacific Airways	652	162,956	441	110,691	651	163,401
China Southern Airlines	171	45,144	147	38,220	192	50,688
Pacific Blue	469	84,384	323	58,140	462	83,160
Emirates	869	269,948	588	182,868	868	269,948
Etihad	0	0			161	38,640
Air Pacific	294	107,972	229	77,842	334	109,117
Garuda Indonesia	130	38,090	104	30,472	142	41,606
Gulf Air	217	55,585	147	36,603	217	54,033
Hawaiian Airlines	104	26,936	62	15,624	93	24,087
Japan Air Lines	436	165,638	293	111,771	217	80,941
Jetstar	287	50,799	381	88,983	933	243,639
Korean Air	217	64,232	147	56,360	217	71,044
LAN Chile	161	42,343	126	33,138	185	48,655
MAS – Malaysian Airlines System	435	144,474	294	97,608	434	155,806
Air Mauritius	32	9,408	41	12,054	32	9,423
China Eastern Airlines	214	62,527	147	38,514	217	56,854
Air Vanuatu	155	19,530	105	13,230	181	22,806
Air New Zealand	1,819	328,769	1,293	237,970	1,778	302,540
OzJet	45	4,716	74	7,844	124	13,144
Austrian Airlines	187	64,223	127	38,989	0	0
Asiana Airlines	217	67,270	147	45,570	216	66,960
Philippines – Philippine Air Lines	93	28,086	63	19,026	93	28,086
Air Niugini	62	14,537	42	9,828	62	14,508
Qantas	5,067	1,482,083	3,397	962,511	5,017	1,455,172
Air Caledonie International	121	21,541	85	16,484	124	21,979
Freedom Air (NZ)	260	40,560	178	26,700	217	32,550

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Table 2 Sydney Kingsford Smith Airport – International Capacity and Frequency cont'd

Airline	Northern Summer 2006		Northern Winter 2006		Northern Summer 2007	
	Freq	Seats	Freq	Seats	Freq	Seats
Singapore Airlines	651	244,125	441	165,375	651	244,125
Thai Airways International	431	167,183	294	108,808	539	193,410
Air Tahiti NUL	90	26,460	62	18,228	63	18,522
United Airlines	666	231,102	482	167,254	651	225,897
Vietnam Airlines	119	40,222	84	28,392	120	40,560
Virgin Atlantic	217	66,402	147	45,717	217	66,836
Total	16,135	4,505,933	11,289	3,100,383	16,574	4,546,786
Weeks		31		21		31

Source – Airports Co-ordination Australia

Growth in equivalent season to S07/S06 0.9%
Growth in consecutive season S07/W06 -0.7%