IMPLICATIONS OF REGULATORY CHANGE IN INTRASTATE AVIATION

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ABSTRACT:

While the current Commonwealth economic regulation of interstate aviation will be terminated in October 1990, the authority to regulate intrastate aviation lies with State Governments Various approaches have been adopted by the States ranging from stringent controls on route access to one of complete economic deregulation

This Paper begins by briefly reviewing State regulatory approaches and the implications of Commonwealth legislation and policy for intrastate aviation and its operators. Structural developments in selected States that encompass a range of economic regulatory approaches are then considered. The analysis reveals that consumer benefits of competition have emerged on the denser routes in each of the States which have deregulated some or all intrastate services. However, this has also been accompanied by the replacement of aircraft operated to full airline standard such as the Fokker F27 by commuter aircraft in the 18-36 seat range in some intrastate markets.

Finally, the implications of the 1990 termination of the two-airline policy for intrastate operators and their markets are canvassed. Structural developments in intrastate aviation, together with aspects of State economic and Commonwealth operational regulation, suggest that the major independent intrastate carriers are a most unlikely source of future competition over major interstate routes in the post-1990 environment.

The views expressed in this Paper do not necessarily reflect the opinions of the Bureau of Transport and Communications Economics

INTRODUCTION

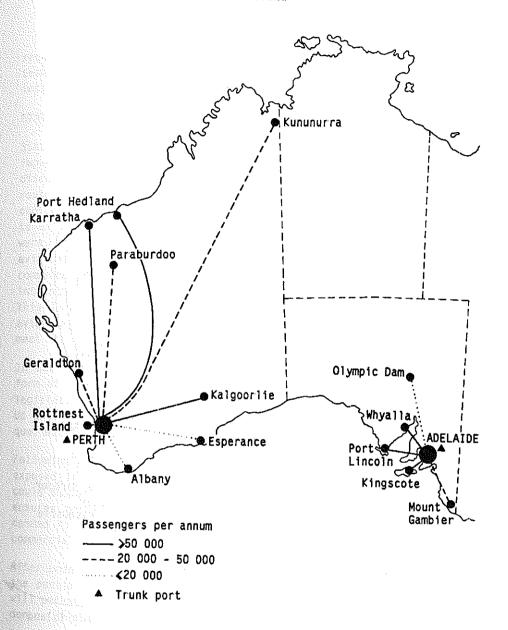
The Australian States (and the Northern Territory) have the Constitutional authority to impose economic controls on intrastate aviation. This is in direct contrast to the Commonwealth, where the current economic regulation of interstate aviation is not derived from explicit Constitutional powers.

Intrastate scheduled air services are provided by trunk, regional and commuter carriers. While the operations of the two trunk airlines, Ansett Airlines and Australian Airlines, are primarily based on interstate services, both currently provide services over a number of intrastate trunk routes, particularly in Queensland. Regional airlines have traditionally provided intrastate services linking major regional centres with the State or Territory capital. Recent years have seen some operators, particularly East-West Airlines, expand their interstate operations. Commuter carriers, which operate under different operational standards to trunk and regional airlines, typically provide services over short-haul, lower-density intrastate routes linking smaller regional centres with the State or Territory capital. Figures 1 and 2 illustrate the major routes in each of the four largest intrastate markets, together with a number of other routes considered in this Paper.

The 1980s have seen pronounced regulatory and consequent structural change in South Australia, Western Australia and Queensland intrastate aviation. Consumer benefits of competition have been evident on the denser intrastate routes in all three States. Developments in Queensland and South Australia have seen the replacement of aircraft operated to full airline standard such as the F27 by commuter aircraft in the 18-36 seat range. Whether there has been a cost in these two States is necessarily somewhat subjective, dependent on the trade-off between these benefits and factors such as comfort, in-flight service and travel time.

The Paper begins by reviewing developments in State regulatory approaches since 1979 before considering the influence of Commonwealth legislation and policy. The Paper then examines structural developments in selected States encompassing a range of economic

Trunk routes include any direct routes linking State and Territory capitals plus 10 other major regional centres.

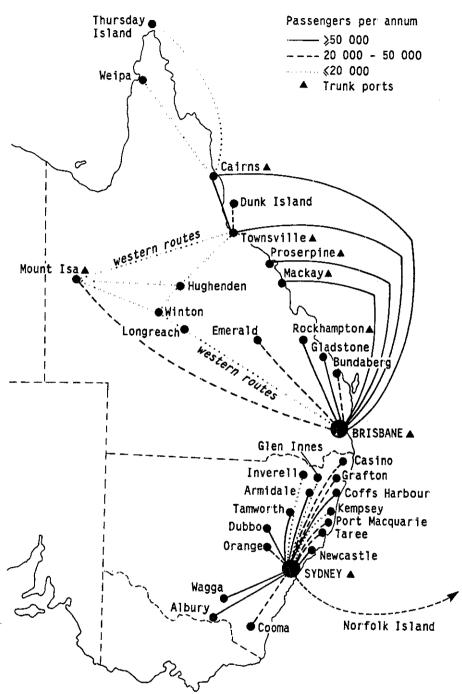


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Figure 1 Major intrastate routes, Western Australia and South Australia

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Figure 2 Major intrastate routes, New South Wales and Queensland

regulatory approaches. Finally, the implications of the October 1990 termination of the two-airline agreement are considered in relation to intrastate operators and their markets.

STATE REGULATORY APPROACHES

State regulatory powers over intrastate aviation assumed much greater importance from 1979 when the Commonwealth adopted a policy of not discouraging commuter operation over intrastate regional airline routes. The 1979 Domestic Air Transport Policy Review had earlier confirmed the Commonwealth's role in intrastate aviation be restricted to safety, regularity and efficiency where regularity and efficiency were translated as pertaining to operational aspects of domestic aviation only. Until the 1979 change in Commonwealth policy, commuter services had largely complemented trunk and regional airline intrastate services or provided an alternative via one or more ports. This Commonwealth policy change effectively deregulated intrastate aviation in South Australia and Victoria, provided operators could meet the operational requirements of the Commonwealth.

In each of the other States, intrastate aviation is subject to some form of economic control, with specific aviation or general transport legislation providing for the licensing of intrastate air services. Up until 1984, each of these States essentially maintained the status quo, with operators generally retaining exclusive route monopolies.

Following a policy review in Western Australia, specific routes were exposed to competition in 1984 where it was decided that the route could support more than one operator. The Western Australian approach ensures operator route monopolies on the thinner routes which are deemed to be able to support only one operator, commercial and non-commercial (directly subsidised) routes alike.

After undertaking a review in 1986, New South Wales is moving towards the partial deregulation approach adopted in Western Australia, which will potentially enable the licensing of more than one operator on the denser intrastate routes. After calling for expressions of interest

^{2.} Operational aspects refer to such matters as air traffic control, aircraft airworthiness and flight crew licensing. Economic factors relate to all aspects of price and quantitative control over scheduled passenger aircraft operation.

to operate intrastate services in mid-1987, the New South Wales Government had allocated licences for around one-third of the network by March 1988 but had yet to announce licensees on all other routes. Factors taken into consideration before licence applications are approved include the proposed level of operational capacity, aircraft comfort and the scope for same-day return travel. Although not formally part of the licensing criteria, movements of small aircraft (that is, less than nine seats) will be discouraged at Sydney's Kingsford Smith Airport.

Queensland deregulated almost all intrastate routes in May 1987, with the exception of the non-commercial western routes radiating from Brisbane and Townsville and the routes linking Cairns with Weipa and Thursday Island.

The Northern Territory and Tasmania have both maintained a policy of exclusive route monopolies throughout the 1980s. This would appear to be based on the premise of maintaining stable air services over relatively thin routes.

COMMONWEALTH LEGISLATION AND POLICY

Although the Commonwealth two-airline policy has primarily been directed at interstate aviation, the policy does have implications for intrastate aviation and/or its operators:

The Commonwealth instrumentality, the Independent Air Fares Committee (IAFC), is responsible for the determination and approval of all regional airline and incorporated commuter operator fares. While the IAFC Act provides for the modification of fare determinations where a State chooses to involve itself, only the Western Australian Government has chosen to do so in a significant fashion.

The two-airline policy largely precludes direct operation over trunk routes by carriers other than Ansett Airlines and Australian Airlines.

 As part of the two-airline policy, the importation of larger aircraft³ by regional and commuter operators is subject to

Restrictions apply to turbo-jet aircraft of over 30-seat capacity or 3500 kilograms payload and propeller driven aircraft of over 38 seats or 4200 kilograms payload.

particular undertakings regarding aircraft use and disposal. In particular, this precludes commuter carriers from operating larger aircraft over a mix of intrastate and interstate (trunk) routes.

Other important aspects of Commonwealth legislation relevant to the discussion in this Paper include:

- A number of remote area subsidies are provided for the operation of intrastate commuter services in the Northern Territory, Western Australia, South Australia and Queensland.
- Supplementary (commuter) airline licences place limitations on the size and type of aircraft that can be operated by commuter operators.⁴

Aspects of this and other Commonwealth legislation and policy are considered further in Bureau of Transport and Communications Economics (1988).

INTRASTATE MARKET STRUCTURE

The pre-1979 Commonwealth policy towards intrastate aviation had fostered a market structure whereby trunk or regional airlines generally served the denser intrastate routes on a exclusive basis. Commuter operations were typically limited to the thinner routes, providing a direct service to the State capital. In some cases, commuter services provided an alternative to the trunk or regional carrier via one or more ports. The 1980s have seen the market structure change dramatically at the intrastate level. Ansett Airlines and Australian Airlines direct involvement in intrastate aviation is now limited to services over trunk routes only. Furthermore, commuter services have replaced regional airline operations in South Australia and previous Australian Airlines and Air Queensland services in Queensland.

Despite the direct withdrawal of the two trunk airlines from non-trunk intrastate routes, these carriers exert a significant influence on intrastate markets. Subsidiaries of the Ansett Airlines parent, TNT-News, own all but one regional airline and have ownership and/or close commercial links with several major commuter operators. Australian Airlines own the remaining regional airline and have an

Applies to aircraft identified in footnote 3.

interest in one major commuter carrier, together with strong commercial ties with a number of other third-level airlines.

Regional airline operations

Intrastate regional airline services are currently provided in New South Wales (East-West Airlines and Air NSW), Western Australia (Ansett WA and East-West Airlines), Queensland (Air Queensland) and the Northern Territory (Ansett NT). The South Australian regional airline, Airlines of South Australia, terminated services in June 1986 while Air Queensland services have been significantly rationalised in recent years. It should be noted that Air Queensland, a subsidiary of Australian Airlines, also operate commuter air services.

Air NSW, Ansett WA and Ansett NT (as was Airlines of South Australia) are all operating divisions of Ansett Transport Industries (Operations) Pty Ltd, a subsidiary of Ansett Transport Industries (ATI). ATI is in turn controlled by Thomas Nationwide Transport Ltd and News Ltd (TNT-News). East-West Airlines was acquired by a subsidiary of the TNT-News group, in June 1987. However, following the subsequent Trade Practices Commission investigation of the East-West takeover, the Trade Practices Commission and TNT-News interests agreed in November 1987 that TNT-News interests:

- vacate all but two of the nine East-West intrastate routes in New South Wales;
- divest the Western Australian scheduled operations of both East-West and Skywest;
- divest a 37.5 per cent holding in the New South Wales commuter operator, Eastern Australia (Eastern) Airlines; and
- relinquish control of Lloyd Aviation by way of a reduction in shareholdings (Trade Practices Commission 1987).

To date, action to be completed includes the sale of the Eastern Airlines shareholding to Australian Airlines and the approval of Eastern Airlines as the replacement carrier on five of the seven New South Wales routes to be vacated by East-West. In addition, as a buyer could not be found for East-West's Western Australian operations, these services were terminated in May 1988.

Passengers carried by each of the regional airlines in 1986-87 are presented in Table 1. The Table reveals that just over 2 million passengers were carried by regional airlines in 1986-87. By way of comparison, the two trunk airlines carried 10.4 million passengers in

TABLE 1 PASSENGERS CARRIED BY REGIONAL AIRLINES, 1986-87

Airline	Passengers ('000)		
	Intrastate	Interstate	Total
East-West	465 ^a	444	909
Air NSW	439	72	511
Ansett WA	391	41	432
Ansett NT	101	5	106
Air Queensland ^D	121	5	126
Total	1 517	567	2 084

a. Consists of 405 000 passengers in New South Wales and 60 000 passengers in Western Australia.

Includes regional airline passengers only.

Sources Department of Transport and Communications (1987). Bureau of Transport and Communications Economics estimates.

the same year. Apart from East-West, intrastate operations account for the vast majority of total patronage for each of the regional airlines. Each of the three Ansett associates, Air NSW, Ansett WA and Ansett NT predominantly focus on servicing intrastate ports, thus complementing Ansett Airlines' interstate services. Similarly, Air Queensland services have been almost exclusively intrastate. Intrastate traffic accounted for about 85 per cent of Air NSW patronage, 90 per cent of Ansett WA passenger numbers and over 95 per cent of Ansett NT and Air Queensland passengers. While East-West carried the largest number of intrastate passengers in 1986-87, the intrastate component only represented just over half of total patronage. Moreover, given the changes to the East-West operation during the first half of 1988, East-West's importance as an intrastate carrier will be greatly diminished.

Australian regional airlines currently operate aircraft in the 44-75 seat range. These include the turbo-prop Fokker F27 and F50 and the turbo-jet Fokker F28 and BAe 146. As at March 1988, East-West operated a fleet of seven 44-48 seat F27 and six 72-seat F28 aircraft and plans announced in March 1988 are to double the F28 fleet to 12 (Financial Review 1988a). Air NSW operations currently use one 52-seat F27, three 50-seat F28 and four of the recently introduced 50-seat F50 aircraft; the F50s having replaced older F27 equipment.

In addition, Air NSW have part use of an additional F50 which is shared with Ansett Airlines. Ansett WA operate a fleet of three 55-seat F28 and two 75-seat BAe 146 aircraft, while Ansett NT have one dedicated 55-seat F28. However, some Ansett NT services are also provided using an Ansett WA BAe 146 and 9-seat Cessnas operated by the Northern Territory commuter operator, Tillair (Reid 1987a). It should be noted that specific fleet details of the Ansett associates are somewhat 'nominal' in the sense that some flexibility exists to relocate aircraft to meet short-term fluctuations in market demand. After the rationalisation of its services in recent years, Air Queensland airline operations currently use two 36-seat F27 aircraft.

Commuter operations

As at March 1988, 47 active third-level (commuter) airlines were providing services in Australia. This sector is comprised of 12 operators in Queensland, 10 in New South Wales, 9 in South Australia, 6 in Victoria, 5 in Western Australia, 4 in the Northern Territory and 1 in Tasmania.

While there are in excess of 40 commuter operators, Table 2 shows that 8 operators carried 70 per cent of the commuter passengers in 1986-87. Moreover, Kendell Airlines carried almost twice as many passengers as the next largest operator, Eastern Airlines. Kendell Airlines, which operate a network of interstate and intrastate services across south eastern Australia and Lloyd Aviation, with services in South Australia and south east Queensland, were the only two operators providing extensive services to two or more States in mid-1987. Eastern, Aeropelican and Hazelton provided services almost exclusively in New South Wales, while the Queensland based operators Sunstate and Air Queensland, together with the Western Australian operator, Skywest provided services within their own State.

An examination of individual commuter operations revealed that generally those commuter operators with the most extensive networks carry the largest number of passengers. This provides an indication of the 'thinness' of most commuter routes. The one notable exception is the Aeropelican Sydney-Belmont (Newcastle) route where around 90 000 passengers are carried annually.

Reid (1987b) identified 221 aircraft operated by third-level (commuter) airlines in late-1987. Of the total commuter fleet, 130 aircraft, or about 60 per cent, fall into the nine seats or under

TABLE 2 MAJOR COMMUTER OPERATORS, 1986-87

Oper ator	Passengers ('000)	Proportion of total commmuter patronage (per cent)
Kendell ^a	227	
Eastern ^b Sunstate ^a Air Queensland ^a Aeropelican ^b Skywest ^c Hazelton ^b		19
	121	10
	114	10
	104	9
	91	8
	79	7
nazercon	58	
Lloyd ^b	55	5
Other ^d	349	5
		29
Total	1 198	100
(보기) :		

- a. Year ending June.
- b. Year ending May.c. Year ending March.
- d. Since figures are not available on a consistent basis, the passengers carried by 'other' operators is necessarily
- Notes 1. Air Queensland traffic excludes regional airline passengers.
 - 2. Figures may not add to totals due to rounding.

Sources Reid (1987b). Bureau of Transport Economics (1987).

category where only one pilot is required. The most common aircraft types in this category include the Piper PA-31 (44 in service) and the Cessna 402 (20 in service). Together, these two aircraft constitute Just under 30 per cent of the total third-level airline fleet. In the Over nine seat category, the most common aircraft types are the 20-seat Twin Otter (12 in service) and the 18-seat Bandierante (10 in

Apart from those commuter ownership links with the trunk airlines previously mentioned, TNT-News subsidiaries hold interests in two major commuter operators, Aeropelican Air Services (100 per cent) and Kendell Airlines (70 per cent). Ownership is not however the only form of connection between commuter operators and the two trunk airlines. Given the predominantly feeder role of commuter operators. they are generally dependent on substantial infrastructure provided by Ansett and Australian Airlines. Arrangements relate to on-carriage. services at capital city airports and connection to a trunk carrier's computer reservations system. Each of the major commuter operators contained in Table 2 have links with either Ansett or Australian Kendell, Aeropelican and Hazelton all have ties with Ansett, although Hazelton's arrangement with Ansett is expected to be terminated in favour of Australian Airlines (Trade Practices Commission 1988). Similarly, Air Queensland, Eastern Australia. Sunstate and Skywest are all linked with Australian Airlines. Lloyd Aviation is linked to Australian Airlines in South Australia and Ansett Airlines in Queensland. It is interesting to note that Lloyd competes against an Ansett feeder in South Australia (Kendell) and an Australian Airlines feeder in Queensland (Sunstate). This arrangement has served to demonstrate that third-level airlines need not necessarily be limited to support from one trunk carrier, if their operations expand into unrelated markets.

RECENT DEVELOPMENTS IN MAJOR INTRASTATE MARKETS

The following section considers key developments in intrastate aviation and their implications in the four largest intrastate markets, namely, New South Wales, Queensland, South Australia and Western Australia. The deregulation of intrastate routes in South Australia, Western Australia and Queensland is shown to have generated improvements in service levels and a greater mix of fare types on the denser competitive routes of these intrastate networks. This has however been accompanied by the replacement of full airline services in South Australia and to a large extent in Queensland by commuter aircraft in the 18-36 seat range. In New South Wales, the continuation of sole-operator route monopolies has achieved a high degree of service stability and probably assisted the maintenance of regional airline services on some thinner intrastate routes.

South Australia

The South Australian intrastate network consists of 19 ports, which in terms of passengers, is largely based on the four routes linking Adelaide with Port Lincoln, Kingscote, Whyalla and Mount Gambier. In 1986-87, estimated passenger numbers on these routes ranged from 26 000 (Mount Gambier) to 77 000 (Port Lincoln). Together these four routes account for around 75 per cent of the 250 000 passenger South Australian market.

As previously mentioned, the South Australian market effectively became deregulated in 1979. Competition in the post-1979 environment has been based largely on the denser intrastate routes operated on a virtual monopoly basis by Airlines of South Australia prior to 1979, particularly Port Lincoln, Kingscote, and Whyalla.

An examination of developments in the South Australian market from 1979 to mid-1983 undertaken by Starrs and Starkie (1985) found improvements in service levels and the mix of fare types on competitive routes. In addition, after some initial instability, both service levels and operators remained virtually unchanged. The same study also observed that service levels on non-competitive routes had not been subject to any significant change. Two centres were observed to have lost all services, while another was served by fewer flights. It interesting to note that while 10 routes had competing services in mid-1983, only one operator, Commodore Air, had developed a substantial network enabling it to compete against Airlines of South Australia on more than one route.

It was not until late-1985 that further significant change occurred in the South Australian market. In November 1985, Lloyd Aviation began services over the three largest routes (Kingscote, Whyalla and Port Lincoln) together with services over the growing Olympic Dam (Roxby Downs) route. In the same month, Kendell Airlines began flying over the Adelaide-Mount Gambier route.

In June 1986, Airlines of South Australia became the first major casualty of deregulation; services having been progressively withdrawn from November 1985 in favour of Kendell Airlines. It is apparent that while Airlines of South Australia 36-seat F27 operation may have been viable in the tightly regulated pre-1979 environment, the aircraft was not well suited to the deregulated environment. In particular, Airlines of South Australia's operation had been geared around

essentially captive traffic levels, which were only subject to variations with movements in the overall level of demand for air travel. The 25 per cent of the market held by commuter operators on the major routes in 1985-86 was achieved largely at the expense of Airlines of South Australia, given the minimal growth experienced in the market. Without the support of lucrative charter operations, which had offset sustained losses on scheduled services since 1979, it could be argued that Airlines of South Australia would have withdrawn services a good deal earlier.

The termination of all Airlines of South Australia services in June 1986 effectively released 140 000 passengers (or around 55 per cent of the entire intrastate market) to the third-level operators. In their efforts to capture this traffic and increase their market share, Kendell, Lloyd and the long-established Commodore Air entered a competitive phase which saw directly competing schedules (parallel scheduling) become a feature of the market and the consequent emergence of excess capacity. The Adelaide-Kingscote route provides an example of these developments. In October 1986, Tuesday timetables for the route revealed that only 1 out of 10 Adelaide departures was unapposed⁵, while average operator load factors for 1986 show that capacity increases were not matched by increased patronage. For the 1986 year, capacity increased by around 40 per cent while patronage declined by over 10 per cent compared to 1984-85. This resulted in the average operator load factor for the route declining to 36 per cent in 1986. By way of comparison, the average operator load factor had been stable at about 65 per cent before declining to 58 per cent in 1984-85.

The increased competitive pressures in the South Australian market resulted in two long established carriers terminating services in late 1986 due to financial difficulties. Opal Air, which had experienced competition from Lloyd Aviation since November 1985 on its Olympic Dam route, terminated services in August 1986. The collapse of State Air (formerly Commodore Air) in December provided a graphic example of the importance of trunk airline on-carriage and reservations arrangements to third-level airlines. State Air had been connected to Australian Airlines' computer reservations system on a exclusive basis between

Flights were deemed to be unapposed if another departure was not scheduled within the same hour.

1979 and late 1985. However, in November 1985 Australian Airlines introduced Lloyd into their reservations system in competition with State Air. In order to begin an exclusive arrangement with Lloyd, Australian Airlines intended to cut its ties with State Air in May 1986. However, legal action was initiated by State Air to remain in the trunk carriers reservation system. Following an out of court settlement, State Air was removed from the Australian Airlines reservations system in September 1986 (Financial Review 1986). The loss of access to the reservations system and consequent traffic losses was cited as the prime reason for the collapse of State Air in December 1986. State Air subsequently resumed services on one route (Port Lincoln) in October 1987, albeit at a greatly reduced frequency.

Further capacity reductions in South Australian market occurred in 1987. In August Lloyd reduced service frequency on the Olympic Dam, Port Lincoln and Whyalla routes, all of which are served by Lloyd's major competitor Kendell Airlines. It has been reported that Lloyd losses on their South Australian operations were around \$1 million in 1986-87 (Aviation News, 1987). The collapse of State Air, together with the rationalisation of Lloyd services, would appear to have largely eliminated the excess capacity and consequent reduced operator returns that prevailed in the mid-1980s.

It was recently reported that Kendell holds around 70 per cent of the South Australian intrastate passenger market, Lloyd 25 per cent and the remaining 7 operators, 5 per cent (Adelaide Advertiser 1987). The smaller carriers are almost without exception, long established operators serving particular market niches or operating the thinner routes in their own right. Given the strong Kendell-Ansett link, market forces can be said to have resulted in a current market structure which is not unlike that prevailing in the early 1980s. However the one major difference lies in the equipment used on the denser competitive routes. In the earlier period, 36-seat F27 services, operated to full-airline standard, were largely complemented by commuter operators using small 9-seat and under aircraft such as the Cessna 402. The market is now characterised by commuter aircraft in the 18-36 seat range favoured by the major operators, Kendell and Kendell use a fleet of 18-seat Metroliner aircraft and a single 34-seat Saab SF340 in South Australia, while Lloyd primarily operate 18-seat Bandierante aircraft. Furthermore, Lloyd could possibly introduce the 26-seat Mohawk 298 to their South Australian routes at a future date. The smaller 9-seat aircraft have retained their role in the market, operating over market niches on the denser

competitive routes and providing services on the thinnest routes in their own right.

Western Australia

The Western Australian intrastate network consists of 56 ports primarily hubbing around the State capital, Perth. Several smaller third-level airline routes do however feed into the regional airline jet network in the north of the State.

In 1986-87, an estimated 500 000 passengers were carried on Western Australian intrastate services. Five routes providing direct links with Perth accounted for around 80 per cent of all passengers. These include the two long-haul routes to the Pilbara region, Karratha (123 000 passengers) and Port Hedland (67 000), together with the Kalgoorlie (92 000), Geraldton (42 000) and Rottnest Island⁶ (93 000) routes. Apart from these five routes, the next largest route is the Perth-Esperance link. In 1986-87 the estimated 19 000 passengers carried on this route was less than half the number moved on any of the 'big five' routes.

From early 1984, each of the five largest intrastate routes were exposed to competition from an additional operator.

East-West commenced operation over the Karratha and Port Hedland routes in February 1984 using a slightly earlier version of the F28, compared to the Ansett WA F28 and BAe 146 operation. Initially, as a condition of their licence, East-West schedules provided a direct contrast to those of Ansett WA. For example, Ansett WA's early morning Monday departures ex-Perth were matched by East-West departures from the Pilbara. Given that Ansett WA schedules are largely geared to the travelling requirements of the mining and oil companies in the north of the State, East-West's initial results were not satisfactory. As a consequence, the State subsequently allowed East-West timetable flexibility which saw their timetable become closely aligned to that of Ansett WA. As at March 1988, timetables for Ansett WA and East-West revealed that around 85 per cent of

^{6.} Perth-Rottnest Island traffic was greatly inflated in the 1986-87 year due to the influence of increased tourism to Western Australia during the America's Cup.

flight departures from Perth are scheduled within the same hour. The pilbara routes, with their almost total reliance on business travel, have demonstrated that similarities in scheduling (parallel scheduling) are often simply related to business travelling requirements and not any form of collusive behaviour between competing operators.

Taplin (1985) observed that East-West's presence in the Pilbara had led both airlines to offer a better range of discount fares and improved service levels, while East-West maintained a lower-price, lower-quality approach to economy fares than Ansett WA. Developments during 1986 and 1987 saw East-West's fares become more closely aligned with those of Ansett WA. While East-West obtained some major corporate contracts and reportedly captured a market share of around 25 per cent, this was largely accommodated by market growth, particularly on the Karratha route. East-West's ability to greatly increase their share of the Pilbara market further was limited due to the operation of only one aircraft.

The competitive environment under which services to the Pilbara have operated has temporarily, at least, been affected by the East-West takeover by TNT-News interests and the subsequent closure of East-West operations in Western Australia. However, a new development on these Perth-Pilbara links may be the upgrading of the Karratha runway, which would potentially enable Australian Airlines to operate the larger B737 aircraft on these routes (*The Western Australian*, 1988).

The Geraldton and Kalgoorlie routes have seen third-level airline services largely complement the F28 jet services offered by Ansett WA. Skywest commenced services on both routes in 1984 using an 18-seat Jetstream 31 aircraft. Skywest have achieved good results on these routes aided by innovative fare discounts and the overall growth on both routes. In contrast to the Pilbara, only around 40 per cent of Skywest's departure times (ex-Perth) are scheduled within an hour of Ansett WA departures. This has underpinned the Skywest strategy of not engaging in head-to-head competition with the established operator. 7

^{7.} Midstate Airlines (as did its predecessors) also provide a limited number of services to both Geraldton and Kalgoorlie.

A unique set of circumstances have contributed to developments on the short-haul Rottnest Island route. The pre-deregulation incumbent, Skywest, had operated this route, together with the Bunbury route, using a single 18-seat Bandierante. However, in light of falling passenger loadings on both routes, together with the competition of Rottnest Airbus (formerly Rottnest Airlines) using smaller 9-seat and under aircraft, Skywest withdrew from both routes in April 1986. Skywest, unlike Rottnest, was also affected by the July 1984 reduction in the threshold for two pilot operation from 19 to 10 seats.

Some industry sources have suggested that the larger aircraft used by Skywest was not well suited for the short-haul, high frequency service appropriate for the Rottnest Island route (Aviation News 1985). In this context, the Rottnest route may well provide an example of the post-1984 competitive environment dictating that the aircraft best suited to meet consumer price-service requirements is used. Rottnest have since faced direct competition from Barrack Helicopters over a limited period using a 25-seat Sikorsky helicopter which proved to be unviable.

It is interesting to note that only the Rottnest Island route has failed to sustain direct competition. This is in part due to the increasing level of indirect competition provided by sea transport. Conversely, each of the other four routes have experienced significant growth, which can be attributed to both the effect of competition and general growth in the size of the air passenger market.

Since Western Australia has not exposed all routes to competition it is of interest to consider whether a complete deregulation would bring about entry to current sole-operator routes. In this context, industry sources suggest that Skywest's Perth-Esperance route may effectively cross-subsidise others like the Perth-Albany link. This suggestion had previous support in the 1982 Western Australian Review of Internal Air Services. Based on 1979-80 data, the Perth-Albany service was found to cover direct operating costs but not allocated overhead expenses. Conversely, the Perth-Esperance service was found to provide a return to the operator in excess of direct operating costs and allocated overheads.

On the basis of this somewhat superficial evidence, it could be argued that the 19 000 passengers per annum Esperance route may be perhaps the only current sole-operator route attractive to entry in a

completely deregulated market. Nonetheless, the potential consumer benefits of further deregulation must be weighed against the potential instability that may occur on this and perhaps other routes in Western Australia.

Oueens land

The Queensland intrastate network consists of 82 ports, characterised by a profitable coastal strip and a number of unprofitable and marginal inland routes. In 1985-86, excluding patronage carried between trunk ports, around 350 000 intrastate passengers were carried in Queensland. Together, Ansett Airlines, Australian Airlines and East-West carry around 700 000 passengers per annum over Queensland intrastate trunk routes.

As previously mentioned, almost the entire intrastate network was deregulated in May 1987. At this time, a direct subsidy was reintroduced for the operation of the State's unprofitable western routes extending from Brisbane and Townsville. Prior to this date, the State had pursued a policy of generally maintaining operator route monopolies over the non-trunk intrastate network.

The January 1986 State Government decision to allow a third carrier (East-West) onto the State's coastal trunk routes in competition with Ansett Airlines and Australian Airlines provided the initial movement towards deregulation of the entire commercial network. This decision held particular significance for the western Queensland routes operated by Australian Airlines at that time. Following the termination of a joint Commonwealth-State subsidy in 1985, the Queensland Commissioner for Transport noted that 'an operator has some protection on the profitable coastal routes to enable him to sustain services on the unprofitable western routes (Bureau of Transport Economics 1985, 345). Although the Australian Airlines decision to withdraw from western Queensland in May 1987 provided the catalyst to the deregulation of the commercial network in the same month, Australian's decision can only be in part attributed to the licensing of East-West on the coastal strip. Although Australian Airlines had

^{8.} A joint Commonwealth-State subsidy had previously been provided 9. East-West 2015

^{9.} East-West subsequently commenced Brisbane-Cairns services in July 1986. Operation over further routes was planned as operational

replaced F27 equipment with smaller 15-seat Jetstreams, falling passenger loadings saw Australian Airlines' losses on these routes reach \$8.55 million in 1986-87 (Financial Review 1988c).

Financial problems have not only afflicted Australian Airlines in Queensland. The Australian Airlines' regional airline subsidiary, Air Queensland, has significantly scaled down operations after incurring substantial losses in recent years, culminating in a 1986-87 loss of \$17.07 million (*Financial Review* 1988c). In addition, the five years to 1986-87 saw nine Queensland third-level airlines terminate commuter operations, predominantly due to financial difficulties.

Since the adoption of an 'open skies' policy in Queensland, direct competition has been limited to routes linking Brisbane with a number of centres in the south-east corner of the State. These routes and 1985-86 passenger numbers include Brisbane-Gladstone (58 000), Brisbane-Bundaberg (41 000) and routes in the Brisbane-Emerald corridor (25 000). Lloyd Air commenced services on all these routes in competition with Sunstate Airlines in June 1987; however, poor results saw Lloyd discontinue services over the Emerald corridor in February 1988. Lloyd have since been replaced by another Ansett Airlines feeder, Sungold Airlines.

Developments over the first six months on these routes reveal that, not surprisingly, a broader range of fare types is available on the competitive routes in comparison to Queensland's non-competitive routes. For example, advance purchase and group discounts are not generally available on the non-competitive Queensland routes. On the denser Bundaberg and Gladstone links, the former F27 Air Queensland operation has been replaced by 26-seat Mohawk aircraft (Lloyd Air) and the 30/36-seat Shorts 330/360 operated by Sunstate Airlines. This would seem to parallel the South Australian experience of increased service frequency and somewhat smaller aircraft.

New South Wales

New South Wales intrastate services currently represent somewhat of an enigma in Australian intrastate aviation. In 1984-85, 20 000 or more passengers were carried on 30 Australian intrastate non-trunk routes, with 10 of these routes being served by two or more operators. Significantly, of those 20 routes served by a single operator, 18 were in New South Wales. The 1986 Review of New South Wales Air Services suggested that no fewer than 12 of these routes should be able to support limited direct competition (*Flying Towards 2000* 1986, 164).

The New South Wales regulatory approach, which has seen even the largest routes maintained as sole operator monopolies, has produced a very stable industry structure throughout the 1980s. This has seen denser routes each using F27 and F28 equipment before Air NSW began to the routes have been operated by third-level airlines, typically with aircraft in the 9-18 seat range.

The recent East-West takeover will bring about significant change in the market, which will see Eastern Airlines pick up at least five of the seven routes to be vacated by East-West from June 1988. Eastern will use three Australian Airlines Jetstream 31 aircraft, which were formerly used on the western Queensland routes. These will be reconfigured from 15 to 18 seats and their introduction to the routes Tinking Sydney with Glen Innes, Grafton, Inverell, Kempsey and Taree will lift service frequency on these routes by almost 70 per cent compared to the East-West F27 operation (Financial Review 1988d). Hazelton Airlines have been granted a number of licences which will result in Dubbo being established as a major regional hub. This will see traffic from a number of outlying ports aggregated at Dubbo for transfer to and from Sydney. In addition, Hazelton has also picked up some routes to be vacated by Eastern and are providing services on an interim basis to three ports dropped from the Air NSW network. While the State Government is yet to announce the successful licensees for remaining New South Wales routes, Eastern are also proposing to operate the other two routes to be vacated by East-West, Port Macquarie and Armidale, using larger 30-36 seat equipment.

The replacement of the majority of East-West's regional airline operations in New South Wales will provide an interesting contrast in the State. Around one half of the State's denser routes will be operated using F28 and F50 aircraft, while others will probably the higher frequency, lower service quality combination provided by a third-level operator using 18-36 seat aircraft.

Further structural change in the New South Wales market is difficult to predict with any certainty. However, given the similarities that sist between the smaller South Australian market and New South Wales a terms of the size and mix of routes, any significant 'freeing up' the market may signal the beginning of a period of structural hange in New South Wales. In particular, entry by third-level

airlines to the thinner routes of the Air NSW network may undermine the viability of 50-seat F50 operation.

CONCLUDING REMARKS

The full or partial economic deregulation of intrastate aviation in South Australia, Western Australia and Queensland has brought about significant structural change and consumer benefits of competition on denser intrastate routes. This has also been accompanied by the loss of some intrastate services provided to full airline standard in South Australia and Queensland. Reflecting their tight regulatory approaches, little structural change has occurred in New South Wales, Tasmania or the Northern Territory in recent years. Events following the East-West takeover, together with the review of all New South Wales intrastate licences may well result in significant changes in that State.

The 1990 termination of the two-airline agreement potentially provides intrastate operators with the opportunity to expand onto the interstate trunk route network. However, the current structure of intrastate aviation markets suggests that these operators will not evolve into large scale competitors for the main interstate incumbents, Ansett Airlines and Australian Airlines.

As previously mentioned, each of the major intrastate carriers has either trunk airline ownership ties or is dependent on substantial infrastructure and on-carriage provided by either Ansett Airlines or Australian Airlines. The collapse of State Air in South Australia provided a graphic example of the importance of these links. Although a new entrant to the interstate trunk network could possibly provide similar levels of infrastructure and perhaps financial support, the important on-carriage provided to intrastate carriers would only be in proportion with the market share of the interstate carrier on the trunk network. This factor suggests that intrastate operators will be limited to a 'choice of two' for some time to come.

The 1986 Independent Review of the Economic Regulation of Domestic Aviation (1986, vol. 2, 134) noted that East-West's expansion onto the trunk network (from its New South Wales intrastate network) provided an example of an operator effectively overcoming the operational and financial dependence on either of the two trunk carriers. However, East-West had the benefit of a intrastate route monopoly in New South Wales, which provided the 'springboard' to interstate operations. Regulatory change in each of the four largest States would seem to have ensured that this cannot be repeated.

Any significant entry onto the trunk route network would almost certainly require aircraft outside the 38-seat range, which Commonwealth operational regulations do not permit commuter operators to use. Developments in intrastate markets suggest that opportunities for profitable use of larger aircraft to full airline standard in intrastate non-trunk markets, as a forerunner to interstate operation, are virtually non-existent. The one possible exception may be the long-haul Western Australian routes to the Pilbara. However, these routes are remote from the majority of the trunk network. Any decision to relax Commonwealth regulations to allow operation of supplementary airline (commuter) standards may alleviate this problem to a certain degree.

Together, the factors outlined above suggest that the independent third-level airlines (in terms of ownership) do not possess any significant advantage over other potential trunk route entrants outlined outside the industry. Opportunities for commuter operators on the trunk network would seem to be largely restricted to those thinner routes, which Ansett and/or Australian choose not to operate in their own right in the post-1990 era.

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REFERENCES

Abbreviations

AGPS Australian Government Publishing Service

Adelaide Advertiser (1987), Lloyds' bumpy landing in the SA air industry, 4 August.

 $Aviation\ News\ (1985)$, Skywest quits two routes, two-pilot rule blamed for unprofitability, May.

 $_$ (1987), TNT offshoot bidding for Lloyd Aviation, September.

Bureau of Transport Economics (1987), Transport Indicators Bulletin 18, June Quarter 1987, AGPS, Canberra.

Bureau of Transport and Communications Economics (1988), *Intrastate Aviation: Performance and Prospects*, Occasional Paper (forthcoming), AGPS, Canberra.

Department of Aviation and Bureau of Transport Economics (1985), Economic Regulation of Aviation in Australia, Seminar Papers and Proceedings, AGPS, Canberra.

Department of Transport (1979), *Domestic Air Transport Policy Review*, Vol. 1: Report, AGPS, Canberra.

Department of Transport and Communications (1987), *Provisional Statistics of Domestic Scheduled Airline Performance*, June Quarter 1987, Canberra.

Financial Review (1986), State Air blames lack of regulation in SA, 17 pecember.

- ___(1988a), East-West offloads no frills image, takes on best value, 4
- (1988b), Kendell buys \$9m plane, 28 January.
- (1988c), Air Queensland lost \$17.07m in last year, 10 February.
- (1988d), Eastern bid likely, 4 February.

Flying Towards 2000 (Report of the Review of New South Wales, I. G. Riley, Chairman) (1986), Government Printer, Sydney.

Independent Review of Economic Regulation of Domestic Aviation (Report, T. E. May, Chairman) (1986), AGPS, Canberra.

Reid G. (1987a), *Major Airline Directory*, Australian Aviation, May 1987, 91-109.

Reid (1987b), Regional Airline Directory, November 1987, 88-100.

Starrs and Starkie (1985), Contestability and Sustainability in Regional Airline Markets, The Economic Record, September.

Taplin J. (1985), Perspectives on Intrastate Aviation, Economic Regulation of Aviation in Australia, Seminar Papers and Proceedings, Bureau of Transport Economics and Department of Aviation, AGPS, Canberra.

Trade Practices Commission (1987), East-West Airlines Limited, Media Release, No 87/19.

__ (1988), East-West Airlines, Media Release, No 88/1.

Western Australian, The (1988), Runway holds key to flights, 10 March.