Aviation Strategy

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Privatisation vogue

All of a sudden the European privatisation process has accelerated. Air France has announced that up to 47% of the carrier's capital will be sold to investors, employees and maybe other airlines. Alitalia, Iberia and TAP are progressing along the same lines. Even the former East Bloc airlines, LOT and Balkan Bulgarian, have announced plans for equity sales. By the turn of the century all of the Euro-majors should be at least part privatised.

One wonders whether there is any limit to European investors' appetite for airline stocks, such is the number of secondary and tertiary carriers coming to various stockmarkets. Listings are planned for airlines like Air Europe in Italy, Air Europa and Air Nostrum in Spain, Portugalia in Portugal and Air GB and Gill in the UK. As the Brit Air IPO (pages 6-7) proved, there is no lower size limit to airline flotations.

Pressure for privatisation has come from various sources - directly from the EC in the case of some of the state subsidised airlines (so it won't be forced through the "rational investor" rigmarole again) but increasingly from national governments of various political complexions. The logic for retaining state ownership in a flag-carrier is rapidly undermined when it can no longer be subsidised; it will simply become a financial and political embarrassment.

The likelihood is that retaining a 50%-plus government stake in a flag-carrier will also come to be seen as a mistake. The main effect will simply be to dilute the share price.

Privatisation is also privately regarded as a means of dealing with some of the most powerful public sector unions still around. Allocating 12% of Air France's stock to the pilots' union is not only a direct way of reducing costs (salary give-ups are estimated to around the 15% mark with no snap-backs), but it is also a means of making the unions confront the financial consequences of their influence on operational matters, for example insisting on maintaining unprofitable routes or demanding new aircraft.

All Go for European low-cost subsidiaries?

Europe's major airlines are watching with interest British Airways' plans for Go, its low-cost subsidiary. Could 1998 be the year when Europe's major airlines launch their own low-cost subsidiaries en masse, or will BA's competitors decide to keep out of the low-cost market for the time being?

The phenomenon of major airlines starting a low-cost subsidiary has been around in North America for several years, with mixed results. Continental Lite failed miserably, but Delta Express and United Shuttle do seem to be succeeding (although part of their success may be to do with the non-allocation of the parent's overhead cost - something that will be scrutinised at Go). US Airways has now revealed its plans for its low-cost subsidiary,

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MetroJet, to launched in June. The low-cost airline will be based in Baltimore and initially it will serve just four destinations, using a fleet of five 737-200s.

In the US the key (and often the stumbling block) to low-cost subsidiaries is an agreement with the labour unions. In Europe the power of unions is, if anything, greater. In addition, an impediment to low-cost airlines is how to gain cheap slots at secondary airports. Although slots are plentiful, as British Midland's Austin Reid has pointed out (see page 15) it is becoming difficult to win very cheap deals at secondary airports.

Lufthansa is the latest European major to study the feasibility of a low cost subsidiary. Lufthansa Light would operate between European secondary city pairs, although initially the airline would just operate in Germany. Lufthansa needs further time before it will make a final decision on the idea, and the airline may wait until there are lessons to be learnt from Go.

The impetus behind Lufthansa's move is clear - the losses it racks up flying domestically. Without a low-cost operation of its own, there is little prospect that Lufthansa can turn a profit within Germany, particularly when it continues to reduce fares on routes where it faces competition from Deutsche BA (see *Aviation Strategy,* November 1997).

A much greater challenge may be posed by distribution. Unlike the British, Germans are not used to paying for goods and services over a telephone with a credit card. If Lufthansa is to encourage the domestic market to change its shopping habits, a re-education campaign will be needed, which will be costly. The US experience has shown than direct booking are essential to the success of a low-cost airline. Margins are tight, and if Lufthansa Light has to rely on traditional means of seat booking, the airline may not prove to be feasible economically.

Establishing a low-cost subsidiary will therefore not be easy for Lufthansa, and other European airlines may come to the same conclusion. But just because it is difficult to achieve should not mean that airlines should not attempt it. The culture at head office is all-important here.

Timeframe is another important consideration. Jan Stenberg, president of SAS, claims that the airline has seen only a marginal impact from existing low-cost airlines, such as Ryanair on London Luton-Stockholm. But an airline's strategic rationale cannot be determined just by the current market situation.

What British Airways is trying to do is establish a market position for the future. Other airlines are less far-sighted. That does not mean they have made a mistake - Go and the concept of the low-cost subsidiary may not prove successful - but that they are essentially adopting a passive market strategy.

China Airlines: a sellable proposition?

In February Taiwan suffered its worst ever air disaster when a China Airlines A300 crashed on approach to Chang Kai Shek airport at Taipei. In reaction to the tragedy senior Taiwanese politicians have been urging the privatisation or trade sale of the carrier in order to strengthen management and build a recovery strategy. Is China Airlines a sellable proposition?

China Airlines is officially a non-airline; it does not appear in IATA or ICAO publications because of the UN's official recognition of the People's Republic of China (PRC). It also has a confusing ownership structure - it is 71% owned by the China Aviation Development Foundation, a quasi-governmental body whose role is often not at all clear. For example, the airline and the government have over the past two years been in conflict over the composition of CADF, with the result than an attempted trade sale of 10-20% of the airline got nowhere.

Despite this, China Airlines has some unique selling points, and could prove to be

an intriguing target for investors able to look beyond the carrier's poor safety record and the current Asian crisis.

A changing airline

China Airlines is not a protected flag carrier. Competing with rapidly growing EVA over the past five years has steeled China Airlines, prompting essential moves which it would not have made as a monopolistic state-backed carrier: more daily direct services to Southeast Asia; setting up a joint venture with TransAsia; and addressing fundamental cost, efficiency and marketing issues. In the first half of the financial year (to September 1997) it made a pre-tax profit of Tw$2bn ($63m) on turnover of Tw$32bn ($1bn).

Against this background, China Airlines' potential can be gauged. For a US airline, China Airlines offers access to the Southeast Asian market through its hub at Taipei, supplementing or bypassing the super-congested Narita hub. It provides daily frequencies to all major Southeast Asian points, has a good brand in this region and is also very strong in local distribution.

Indeed, China Airlines operates a twin hub system as it has extensive fifth freedoms at Hong Kong (and enough unused rights to be able to double its frequency to Southeast Asia over Hong Kong), with the two cities being linked by the densest international traffic route in the world.

It was the Pacific/Southeast Asia connecting potential which attracted American Airlines into an extensive codeshare alliance last year. China Airlines is the operating arm of the alliance on the Pacific with a fleet of seven 747-400s. It also has another two on order.

In the future, China Airlines may well play a crucial role in the development of the Greater China market. Despite the general perception the Taiwan and the PRC are implacable foes, Beijing-Taipei aeropolitical relations are governed by pragmatism. Taiwan is closely connected in business and cultural terms to the Shanghai and Xiamen areas of the mainland where commercial development is most rapid. And US pressure is mounting on the Taiwanese to start formal talks with the mainland Chinese about a whole range of economic and political issues.

China Airlines has strong established traffic flows into the mainland with 40-50% of its Hong Kong traffic connecting into the mainland; the interlining procedure for this traffic works smoothly and is accepted by both sides. Moreover, an aviation agreement between Hong Kong and Taipei was signed in 1996 establishing a working framework for at least five years following the hand-over of the former British colony.

A direct boost

Should direct flights between Taiwan and the PRC be permitted at some point in the future China Airlines stands to gain substantially while Cathay Pacific is likely to lose and EVA, for political reasons, may be excluded. Although a third of Taipei-Hong Kong traffic currently connecting through to the mainland might be lost (i.e. 15% of China Airlines' traffic on the Hong Kong route), this effect will be dwarfed by new traffic generated: a rapid doubling in volumes is more than possible given the latent demand for travel both from Taiwan to the mainland and from the mainland to Taiwan. Yields are likely to be maintained at the same level as those currently achieved over Hong Kong; indeed, they could increase as competition on direct routes will be less intense than that over Hong Kong.

Whatever consolidation take place among the Greater Chinese airlines (including Cathay, EVA, TransAsia, CNAC/ Dragonair/Air Macau, Air China, China Southern and China Eastern), China Airlines will be a key player. Cathay Pacific, despite its recent traffic problems, remains the number one Chinese carrier, but is essentially Europe-orientated. The corporate culture of the Evergreen Corporation would probably preclude a strategic stake for a foreign entity in EVA.

So, despite current appearances, China Airlines may well be an key investment vehicle for the future Greater China aviation market.

Market balance and the great unanticipated adverse event

In our first issue (November 1997) we looked at the outlook for the global market balance for the aviation industry, reviewing the forecast produced by ESG (which we regard as the industry-standard forecast) but providing a more pessimistic alternative as we suspected that ESG's demand assumptions were extending the strong upturn too far. By plugging in a cyclical slowdown in 1999 and 2000, we came up with a significantly larger surplus than ESG but, nevertheless, concluded that there was probably no need to worry too much about market balance.

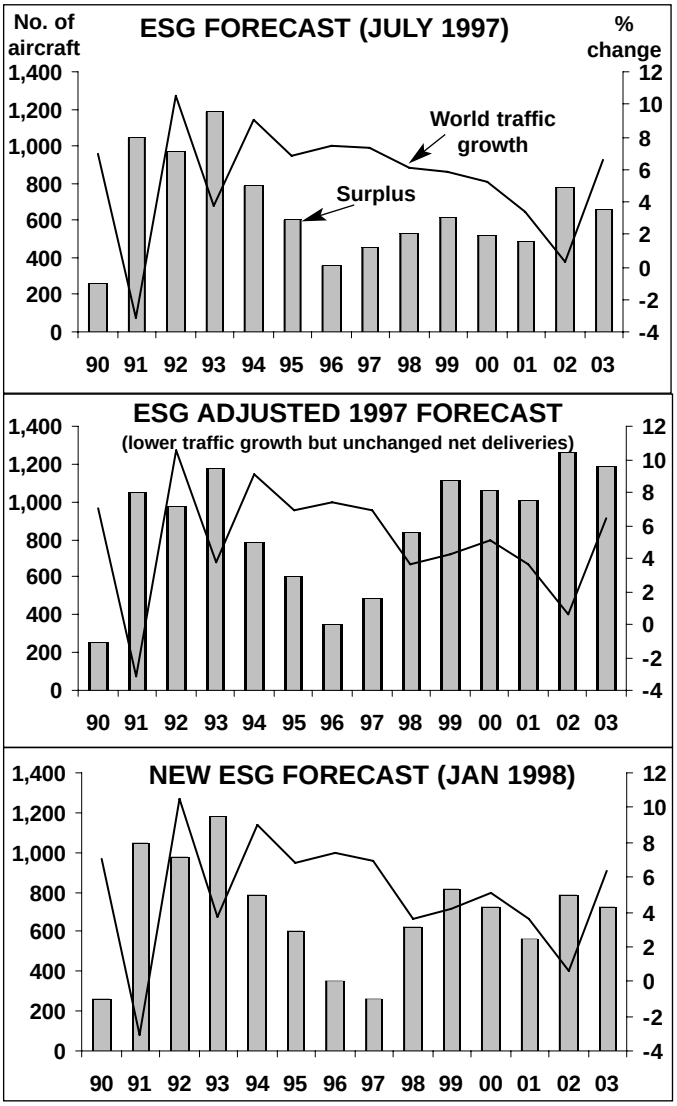
That was five months ago and since then we have had the great unanticipated adverse event - the Asian financial crisis - which has overturned many of the assumptions underlying steady growth forecasts (and also our cyclical down-turn scenario). By contrast, the build-up of military activity in the Gulf is hardly being considered as a factor shaping the future supply/demand balance despite the fact that the 1991 Iraqi war directly caused an unprecedented fall in air traffic.

ESG has now updated its market balance forecast (although the full forecast only appears in the July issues of Airline Monitor). Some remarkable changes have been made.

Previously Asia/Pacific traffic was expected to grow at 9.3% p.a. during 1997-99; now growth is cut right back to zero for this year and 3% for 1999. Thereafter traffic growth does resume but the "lost" passengers are not recovered. In terms of the global market, the Asian effect is to depress demand growth to 2.2% in 1998, 3.6% in 1999, and 4.7% in 2000. In the July forecast the growth rates were 6.1%, 5.8% and 5.2% respectively. (For comparison, IATA has just reduced its forecast of Asia/Pacific traffic growth from 7.7% p.a. for the period to 2001 to 4.4% p.a.).

If the new growth rates were to be applied mechanically to the July forecast the result would be a surplus of 8-10% for the period up to 2005 - in other words a greatly extended version of the deepest recession to hit the aviation industry. Happily, ESG's new forecast (January 1998) does not show this scenario as it has made some important adjustments.

ESG observes that the Asia/Pacific airlines will need to add only 250 jet aircraft during 1997-2000, 370 less than the 620 estimated last July. The question then becomes: who bears the pain - the airlines through overcapacity and lower yields and load factors, the second-hand market through an influx of aircraft and lower prices, or the manufacturers through cancellations and postponements?



ESG isn't explicit on this impossible query, but the numbers show a reduction in deliveries of 190 units for 1997-2000 compared with last July. Boeing and Airbus certainly haven't acknowledged this scenario yet.

Another worrying factor is the continuing stubbornness of the global retirement schedule. ESG admits that 1997 retirements may be well turn out to be 140 less than the total forecast but is persisting with its July 1997 retiral rates.

Finally, ESG assumes that the Asian crisis is self-contained and does not spread to Europe or North America. Certainly, in the early 1990s recession Asia remained insulated from the trauma in the rest of world, producing 7%-plus growth rates while traffic stagnated or declined elsewhere. But since then deregulation has removed or at least lowered the bilateral barriers which controlled capacity shares and prevented regional surpluses from spreading to other parts of the world. *Aviation Strategy* argued in the last issue that Western airlines were almost inevitably going to be tempting by the supply of relatively cheap widebodies coming onto the market directly or indirectly from Asian airlines.

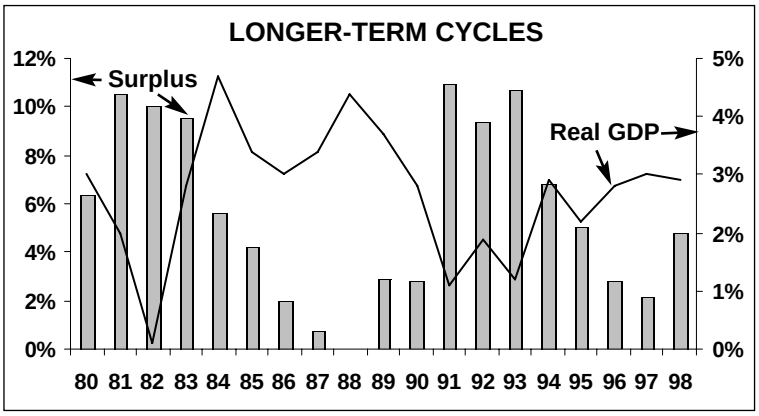
In summary, under these assumptions, ESG puts the world surplus at 5-6% over the next three years, up from 2% in 1997. In number terms the surplus is greater than that of the early 1990s.

ESG comments: “History tells us that whenever [the surplus] becomes more than 6% of the fleet we are in a problem area while above 8% is a real danger zone. Today there is a real risk that the 1999 surplus could become greater than 8% of the fleet. Our yellow caution light is starting to blink in shades of red.”

Reality check

So an objective analysis of the global supply/demand position strongly suggests that the industry is slipping into a significant surplus. Chart gazers contemplating longer-term cycles (see graph, above, sourced from ESG and the OECD) would probably conclude that a turning point had been reached and passed.

Yet it is very difficult to detect any major concern among the managements of European and American airlines. On the contrary, confidence, buoyed by a series of record profits, has rarely been higher. There may be an element of self-delusion in this, but there are also good reasons for the industry's confidence.



First, consumer confidence is generally high (despite the high levels of structural unemployment in countries like Germany and France). The OECD in its latest Economic Outlook sees real private consumption in the main economies continuing to grow at reasonably strong and sustainable levels.

Second, load factors have reached record levels and probably cannot be pushed up much further. Hence there are no obvious indicators of over-capacity from the markets.

Third, when capacity is added it will be added in a much more controlled manner than in previous cycles. BA's request for tender for 100 short-haul jets emphasises this approach: it is demanding maximum flexibility in moving the new aircraft into and out of its fleet.

Fourth, global alliances represent another method of controlling capacity, as airlines have not had to build up their own fleets to expand into new markets. And should growth rates falter, the members of the alliances should be able to co-ordinate the required adjustments in capacity.

ESG Jet Transport Market Forecast
Airline Monitor, Jan/Feb 1998

REAL PRIVATE CONSUMPTION EXPENDITURE
% changes from previous period

				Estimates & projections			
	1993	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
US	2.9	3.3	2.4	2.6	3.3	3.1	2.4
Japan	1.2	1.9	2.0	2.8	1.4	1.7	2.0
Germany	0.1	1.2	1.9	1.3	0.9	1.9	2.2
France	0.2	1.4	1.7	2.1	0.6	2.2	2.3
Italy	-2.4	1.4	1.8	0.7	2.0	1.9	2.1
UK	2.5	2.8	1.7	3.5	4.4	3.7	2.3
Canada	1.6	2.9	1.4	2.4	4.0	3.1	2.9
Total	**1.6**	**2.5**	**2.1**	**2.4**	**2.5**	**2.6**	**2.3**

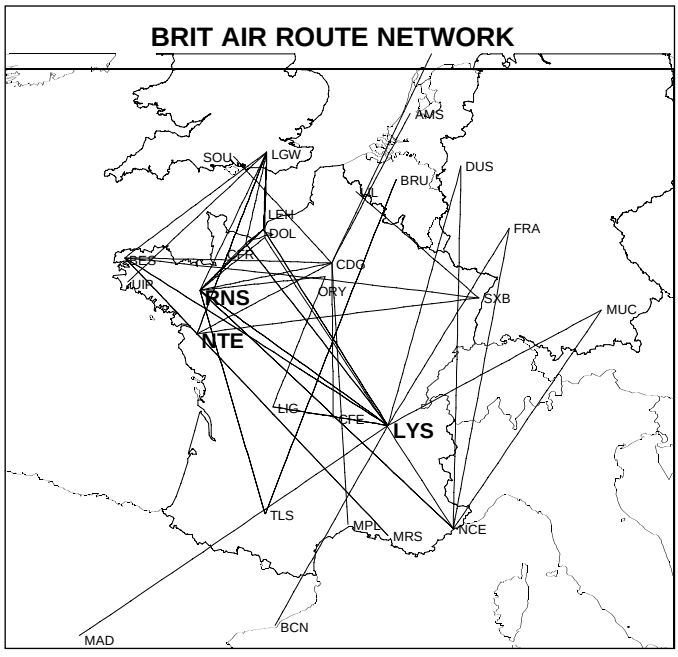
Source: *OECD Economic Outlook*

Brit Air: candidate for Euro-Comair role

The candidates for the European version of Southwest are well known, but who will be the European equivalent of Comair, probably the most successful of the US regionals?

Comair's success is both as a feeder to Delta and as an independent operator from its base at Cincinnati. It now operates about 60 Canadair Regional Jets (CRJs) out of a total fleet of 120, with another 30 CRJs scheduled to be delivered. Capitalised at $1.1bn with a P/E of 14, Comair is the benchmark for Europe's ambitious regionals wishing to raise funds for expansion from the equity markets.

In Europe the scale of regional operations is obviously much smaller (Comair is larger than many European flag carriers) and as yet the regional jet revolution has not crossed the Atlantic. Nevertheless, the trend towards franchising is evident. In many cases it is the only way that a high cost carrier can afford to access routes that can only support low-capacity aircraft (less than 100 seats) or to provide frequency of operation filling in between the peak periods.



The franchise is a method to ensure that the major carrier's brand is enforced, while the regional carrier benefits from the superior marketing presence of the franchiser. In this way, the major maintains feed into its hub to maximise connection potentials, retains its presence in strategically important regional routes and avoids the leeching of traffic onto other carriers' systems.

Swissair has passed on to Crossair all its operations involving aircraft of less than 100 seats. BA has been the most aggressive in forming numerous alliances with regionals - CityFlyer, Gill, Manx, Loganair, etc. But now major new opportunities are appearing in Europe's largest domestic market, France - which has about 23m passengers a year - as Air France commercialises and prepares for part-privatisation.

A previously little-known airline (outside its home territory) has emerged as a trend-setter - Brittany-headquartered Brit Air, which last year signed an extensive franchise agreement with Air France and in February completed a successful IPO. Advised by Credit Agricole Indosuez, Brit Air raised FF100m ($17m) of new equity on the second market of the Paris Bourse in February in an offering which capitalised the airline at FF353m ($60m), reflecting a prospective P/E ratio of 11 for the year to March 1999. The shares are currently trading at FF263, 5% up on the issue price.

The funds will assist a fleet development programme designed to increase the carrier's CRJ fleet from nine today to 14 by the year 2000, in addition to an unchanged turboprop fleet comprising ten ATR 42s and two ATR 72s. Brit Air is Europe's third largest operator of 50-seat jets after Lufthansa Cityline (28 aircraft) and Lufthansa's French codesharer, Air Littoral (15).

Brit Air was founded in 1973 by the current president, Xavier Leclercq, to provide air taxi operations for local businesses, and was backed by the local Chamber of

Commerce (which still owns 40% of the equity). It built up scheduled operations at first on routes connecting Brittany and Normandy to London, and then between Rennes and Lyons. In 1997 it carried nearly 1m passengers, mostly business travellers.

The airline has a long-established relationship with both Air Inter and Air France providing, for example, aircraft on wet lease on the Brest to Orly route to provide in-fill services and codesharing on Paris-Southampton route.

The new agreement covers an initial 11 extra services that Air France will transfer to Brit Air, alongside four routes currently operated by Brit Air as wet leases on Air France's behalf. The deal lasts for an initial but renewable five-year period. Brit Air will carry the Air France tail logo and name as well as its own, but the cabin crew will wear Brit Air uniforms. The fees Brit Air will pay Air France are revenue-related.

For the franchised routes, Brit Air retains all the risks and rewards of operation and remains autonomous, being responsible for timetables, frequencies, equipment type, pricing and capacity management. It gains access to Air France's marketing power including the Fréquence Plus FFP, and it will use the same yield management system as Air France. For all connecting flights it has a favourable pro-rate agreement with a guaranteed minimum.

However, Brit Air will be able to reduce its risks as it has opted to provide some of the new services on a wet lease rather than a full franchise basis. Notably, the company decided that it could not profitably compete against Lufthansa on Lyons-Munich and so decided to simply operate aircraft on behalf of Air France on this route.

Brit Air already operated some franchise routes for Air France, but on a route by route basis. But the addition of these 11 new routes means that it will be able to expand its route network substantially in one go onto routes which have already been developed and which should immediately be profitable. Since the franchise agreement started in November 1997, there have already been some strong visible benefits. As an example, traffic on the Brest to Lyons routes jumped by around 15% almost overnight as soon as Brit Air became a full member of Fréquence Plus.

BRIT AIR FORECAST TRAFFIC AND FINANCIALS

	1997*	1998	1999
Pax (000s)			
Brit Air operations	395	431	438
Ait France franchise	148	387	458
Air France wet-lease	612	525	539
Total	1,155	1,343	1,435
Financials (FFm)			
Total revenues	912.8	886.7	1,124.6
Operating profit	37.1	41.8	66.6
Pre-tax profit	25.5	36.5	65.9
Net profit	17.3	22.6	33.8
Total cash flow (FFm)	79.4	88.8	117.3

Note: * *15 months to March.*

Brit Air's route structure will revolve round three airports - Rennes and Nantes in its traditional home territory, and Lyons, which has the potential to become an important hub for secondary traffic flows. For example, Lyons is strategically positioned for northwest-southeast routes such as Rennes-Rome, or northeast-southwest such as Munich-Madrid. The opportunity at Lyons is to be able to offer a much wider range of connections - particularly interlining onto and from Air France flights. Once the third and fourth runways open at CDG, Brit Air will have the opportunity to develop many more routes into Air France's main hub.

Whereas Comair's success is well recognised in the US, Europe appears not yet to have appreciated the strong advantages presented by deregulation to the second-line regionals - especially those which align themselves with a major airline in their home markets, even if they have to forego their name.

As happened in the US, the trend is for European majors to focus on hub to hub competition, feeding traffic from (usually less profitable) short haul routes to (usually more profitable) long haul. At the same time, new opportunities are emerging for regional point to point services that bypass congested hub systems.

Small, agile, entrepreneurial companies such as Brit Air now can use the market presence of their flag carrier to reach the parts that it cannot, and do so profitably.

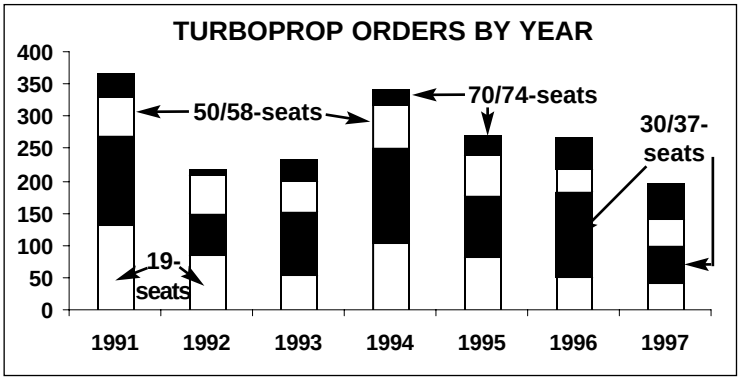
The continuing fall of the turboprop manufacturer

After Fokker came Saab. Following the Swedish manufacturer's announcement that it too was withdrawing from the turboprop market, the remaining turboprop manufacturers can now almost be counted on the fingers of one hand.

With the demise of Saab and the end of the line for BAe's Jetstream 41, 1997 was a bad year for turboprops. Orders totalled 195, well down on the 266 orders recorded in 1996, and in direct contrast to the jet market where orders rose in 1997 (see *Aviation Strategy,* January 1998). Many of the 1997 orders were undisclosed and, as with jet orders, undisclosed orders have to be taken with the proverbial pinch of salt. The totals here are also for gross orders, and do not take into account cancellations. One manufacturer told *Aviation Strategy* that half its reported 1997 orders had already been cancelled; other companies will not even discuss the subject.

Many analysts highlight the relentless advance of jets into previously turboprop-only markets as the cause of the turboprop demise, and this is certainly a key factor. But turboprop manufacturers sometimes ignore the real reasons for this trend - many turboprop products are poor in terms of the price/performance ratio, and, perhaps most important of all, most frequent flyers prefer roomier, quick jets to cramped, slow turboprops.

Turboprop manufacturers still in business may disagree with that statement, but if their products are so good, why are they selling so few aircraft at something like a peak in the aviation cycle? And, more importantly, with so few units sold can any turboprop manufacturer realistically claim to be making a profit?



The 19-seat market

The 19-seat market has continued its slow but steady decline (see chart, below), but Raytheon's Beech 1900D remains a solid seller, with 20 orders in 1997. Its rivals (apart from all the second-hand 19-seaters that can be easily picked up, such as the Jetstream 31) are Fairchild Dornier's Metro 23 and Do-228, which achieved sales of 18 between them in 1997.

The Metro 23 airframe is well proven and is the basis for several models at Fairchild, but the Do-228 looks vulnerable. The 228 has been in service since 1982 and even though it is now available with TPE 331-10 engines, it only sold five units in 1997. Now that the Dornier is integrated into Fairchild, the necessity to offer two 19-seat models may be waning. On the other hand, Fairchild Dornier has little debt and a cash pile of more than $150m, so it has no pressing reason to pull the Do-228 from the market just yet.

30/37-seats

The Do-328 fared slightly better than the 228 in 1997, with 11 orders. The 30-37 seat category is in a sorry state following the exit of the Saab 340 and Jetstream 41, with just the Emb-120, the Dash 8-1/200 and the CN-235 remaining to compete with the D-328. More than 120 aircraft were sold in this market in 1996, but demand halved in 1997 to 60 units, due to a combination of a strong second-hand market and the encroachment of jets such as the Emb-135 and the Do-328JET.

The market, therefore, now appears too thin for four turboprop models, and unless the parent companies stay determined to maintain a market presence whatever the cost, the remaining products on offer are likely to thin down within a year or two. 1998 will be a crucial year, and competition between the three models for orders will be intense.

50/58-seats

The 50/58-seat category is really a 50-seat category now, following the exit of the Saab 2000. Here the ATR 42 faces the Dash 8-300 and the IPTN N250. The real competition comes from jets, where the challenge of the CRJ-100/200 and the Emb-145 is likely to prove too great in the long run. In the meantime, the reduction of available models from four to three should help the ATR 42 and the Dash 8-300 pick up reasonable sales in 1998, although what margin will be made on these units is open to question. As for the N250, its future may depend on whether government subsidies to IPTN continue.

70/74-seats

The 70-74 seat category includes the ATP, ATR 72 and Dash-8-400. In terms of volume, 1997 was another good year for the 70/74-seater, which has seen increasing sales despite the trend towards declining demand in all the other turboprop seat categories. So can the 70/74 seat-market continue to defy the general decline in turboprop sales in 1998? Even the ATR 72, which sold 34 units in 1997, making it the turboprop best-seller of the year, only has a backlog of around 20-30 aircraft. That backlog is relatively good compared with other turboprop models, but in absolute terms the total is small, meaning that one poor sales year could see the ATR 72 face some serious problems.

The robustness of the 70/74-seat category was the only good news for the turboprop industry in 1997. Elsewhere, production of Saab 340 and Saab 2000s will halt in mid-1999. Despite respectable orders, these two models cost Saab at least $100-200m per year recently. Although redundancies will be minimised, regional aircraft production accounted for almost one-quarter of the group's 8,000 employees.

What must be worrying for the surviving turboprops is that Saab exited the market despite recording 33 orders in 1997. That total was beaten by only two manufacturers - Bombardier (44) and AI(R) (62). And with BAe cancelling the Airjet, the future of AI(R) is not certain.

TURBOPROP 1997 FIRM ORDERS

	Beech 1900D	Emb -120	ATR 42	ATR 72	BAe ATP	BAe J41	BAe J32	Metro 23	Dornier 228	Dornier 328	Saab 340B	Saab 2000	Dash 8-1/200	Dash 8-300	Dash 8-400	
European airlines																
Air Caledonie			1													
Air Dolomiti			1	3												
Air Iceland								2								
Air Nostrum				4												
Air UK				5												
British World Airlines					2											
Eurowings			5													
Rheintalflug														1	1	
SAS Commuter															15	
TAVAJ													4			
Tyrolean														3		
European total																***47***
North American airlines																
American Eagle				12												
Horizon Air													10			
Midroc													2			
North American total																***24***
Asian airlines																
CASC/Xingiang AL				5												
Great China Airlines														2		
Hainan AL								10								
Pearljet Corp.								1								
Asian total																***18***
Others																
Air Guadeloupe									2							
Aeromar			2													
Club VIP										2						
Iran Asseman				2												
Linea Area IACCA				1												
Rio-Sul Linhas Aereas		7														
Undisclosed	20		11	2	1	4	1		3	9	21	12	1	4	1	
Others total																***106***
TOTAL	**20**	**7**	**20**	**34**	**3**	**4**	**1**	**13**	**5**	**11**	**21**	**12**	**17**	**10**	**17**	***195***

TWA: burning fewer dollars, but can it make a profit?

TWA is still reporting losses, but recent operating improvements and successful cash-raising efforts have given it a new lease of life. Is the carrier now set for financial recovery and are its longer term prospects any better?

TWA emerged from the first of two Chapter 11 reorganisations in November 1993 with reduced debt, $200m cash and no labour problems, but by the following summer it was again in a sorry state. It was overleveraged with a high cost structure, an old fleet, antiquated operating systems, a weakened route structure, a tarnished market image and an unfocused competitive strategy.

An eight-week Chapter 11 reorganisation in the summer of 1995 accomplished some meaningful financial restructuring, even though long-term debt remained at a substantial $1.26bn. For a while it looked like TWA was staging a recovery, but the process came to a halt in the second-half of 1996 because of over-ambitious expansion, operational problems, the tragic crash of Flight 800 and renewed management turmoil.

The combined effect of all of that, plus the hike in fuel prices (which hit TWA hard because of its old fleet), was to cause costs to soar and the yield to plummet, sending the company into a tailspin from which it seemed incapable of recovering. TWA made a net loss of $285m in 1996 and a net loss of $111m in 1997, bringing the total net losses accumulated since 1989 to $2.4bn.

Throughout much of last year the company was in an almost constant cash crisis. In March it was rescued by a St. Louis business organisation, Civic Progress, which made a $26m advance purchase of tickets. TWA also received a surprise confidence-booster when Prince al-Waleed bin Talal of Saudi Arabia purchased 2.1m of its shares (about 4% of the total) on the open market - a purely speculative move taking advantage of the rock-bottom share price.

These expressions of confidence in TWA's future helped the company raise $50m in a private offering later that month, enabling it to scrape through the remainder of the winter season. But as losses continued, it finished the second quarter with only $103m in cash, down from $304m a year earlier.

The situation became alarming when TWA failed to build up its cash reserves in the peak season. It entered the fourth quarter with a cash balance of just $105m. Since it traditionally burns through $100-$170m of cash in the October-March period, the chances of making it through the winter seemed pretty slim indeed.

However, operational performance began to improve in the late summer and TWA actually reported a sharply improved $64m operating profit and a marginal $6m net profit (up from a $14m loss) for the third quarter. And, during the final months of the year it became increasingly evident that a recovery was under way.

Although operating and net losses were still reported for the full year ($29.3m and $110.8m respectively), TWA turned in a marginal $0.5m operating profit for the fourth quarter, compared to a $232m loss a year earlier. The $31m net loss, which included $10m of special charges, represented a massive improvement over the previous year's $263m loss.

The gradual reduction of debt since December 1995 had freed up enough collateral for TWA to raise funds through asset-backed securities late last year. The company completed three transactions in December 1997, raising $326m, $178m of which was used to refinance debt and to pay or prepay interest, leaving a useful $148m cash cushion.

At the end of December, TWA had $237.8m in cash reserves which, assuming that operational performance continues to improve, is probably enough to last at least until the next economic downturn.

Although TWA's debt now again exceeds $1bn and its credit ratings are still in the junky CCC-CC range, S&P's recent decision to upgrade the ratings outlook from "negative" to "stable" is a promising sign.

An added benefit of the December financings was the ability to repay the remaining $60m debt

to Icahn-affiliate Karabu Corporation (a total of $190m was originally borrowed in 1993). However, the company could still not totally shake off its former owner Carl Icahn as he has rights to buy and resell discounted TWA tickets.

TWA's share price rose sharply in early December 1997, from the $6-$8 it had hovered at since late 1996 to a high of $11.50-$12. After briefly falling to around $10-$10.50 in the early part of January, the shares soared to over $13 after the fourth-quarter earnings were released on February 13. The Saudi prince's original $14m investment in TWA has roughly doubled in value in 11 months.

The company attributes its "dramatic operational turnaround" mainly to the past year's efforts to renew and right-size the fleet, as well as improved operational reliability and numerous initiatives designed to attract full-fare passengers.

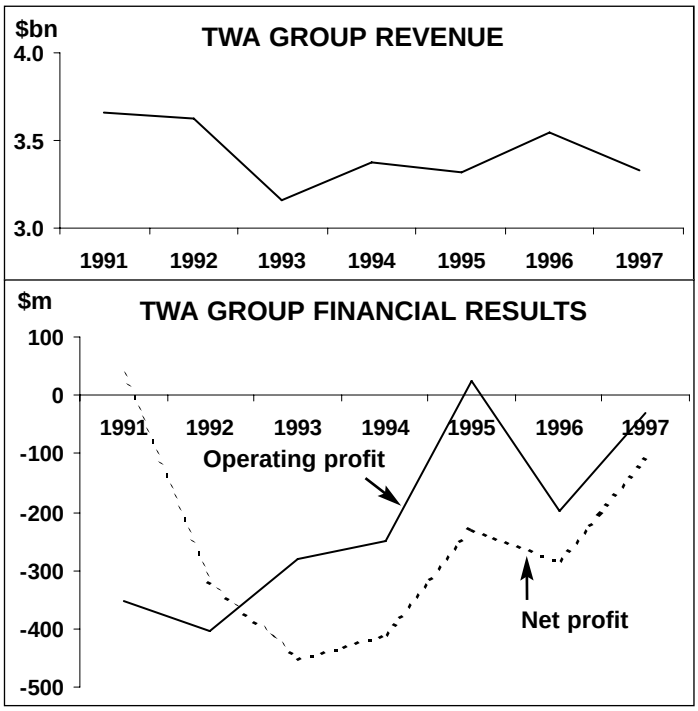
The biggest improvements were on the revenue side. While capacity and operating costs fell by 10.2% and 21.6% respectively in the fourth quarter due to fleet downsizing and other cutbacks, revenues actually rose by 1.2%. This was primarily due to an 8.6% surge in yield, though a four-point rise in the passenger load factor, to a respectable 66.8%, also helped.

The positive trends have apparently continued in the current quarter and TWA expects its cash burn to be roughly half of last year's level. According to First Call, analysts currently estimate the first-quarter net loss to be somewhere between 40 and 70 cents per share, down from last year's $1.51. Through the first half of the year, comparisons will also be helped by the fact that in the same period in 1997 a lot of aircraft were out of service.

But to what extent have the economics of TWA actually improved? Has it restructured itself sufficiently to become profitable and catch up with the other major US carriers?

Fleet renewal and right-sizing

About a year ago TWA decided to phase out its inefficient, old 747s and L-1011s and substitute the smaller, newer 767s and 757s on transatlantic and transcontinental routes. This process is now complete - the last L-1011 retired in September 1997 and the last 747 on February 20 - and the benefits in terms of yield and load



factor improvement will continue to be felt through the best part of this year.

Most other US carriers retired their domestic widebodies years ago, so TWA is a little late in the game. Downsizing aircraft on the Atlantic routes makes particularly good sense for TWA because it previously had to carry what it described as "junk yield traffic from all across America" to fill the 747s. Now the smaller 767s can be filled with higher-yield traffic from the New York area.

The lack of a larger widebody will limit the carrier's future expansion opportunities in long haul markets - the 767 is not ideal for the Honolulu or the hoped-for Tokyo route - but the yield and other benefits in most existing markets obviously outweigh that disadvantage.

TWA is in the process of taking delivery of $2bn-plus worth of new or recent-vintage aircraft. Deliveries of 20 ordered 757s began in 1996 and 12 arrived last year. A new 767-300 has just joined the fleet and another will arrive in March (15th and 16th, both on lease from ILFC). The carrier also began taking delivery of 15 new and nine almost-new MD-80s last summer, while continuing to hushkit its DC-9-30s.

The impact of the 747 and L-1011 retirements and the addition of 26 new aircraft last year was to reduce the average age of TWA's aircraft from 19 to 17 years - still some way to go

to catch up with competitors. Twelve new aircraft are currently contracted for delivery this year, though there will apparently be more.

After last year's 10.2% capacity contraction, which was sharpened by the route cutbacks, TWA expects its ASMs to decline by 4% in 1998. This is mainly due to the L-1011 retirements, and domestic capacity will start to inch up in the fourth quarter. However, there will be a similar (4%) rise in the number of departures, in line with the aim of offering a better service for the full-fare traveller.

Yield-boosting efforts

Yield has been one of TWA's main problems in recent years - it used to have a strong brand name but lost it gradually due to a host of factors.

The carrier has tried hard to remedy the situation over the years but to no avail. It blamed the second-quarter 1997 losses squarely on its inability to "reclaim its share" of the premium-fare business travel market.

Much of the current turnaround must be attributed to TWA's remarkable success in improving its on-time performance, which, along with convenient schedules, ranks high among business travellers' priorities. TWA moved up from last position in 1996 to second position in 1997 in the DoT's domestic on-time performance rankings. It actually came first in the second and third quarters.

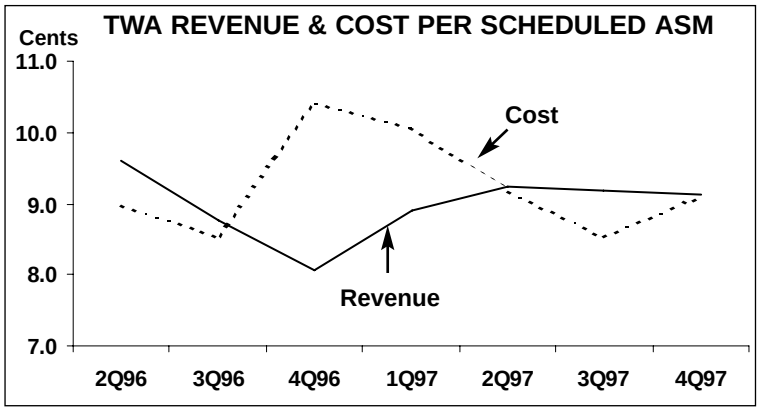
Many of the US carriers have focused heavily on the business passenger over the past year or two but TWA's efforts since the summer really stand out. Most significantly, the carrier decided to reconfigure its 155-strong domestic narrowbody fleet to offer 60% more first class seats (mainly to improve passengers' chances of securing an upgrade). The move meant no overall reduction in the number of seats because new slimmer first class seats were installed and the coach class seat pitch was reduced.

Since the MD-80 part of the programme has only just been completed and the DC-9 part is just beginning, the results will be seen in the current year. However, TWA has reported a measurable increase in first class revenues as the reconfigured aircraft entered service and even before the product was properly marketed.

The other first class incentives already introduced or under way include new domestic menus, FFP enhancements, revamped Ambassadors clubs at St. Louis, JFK and LaGuardia, new ticket counters and check-in areas and numerous improvements at JFK's Terminal 5.

TWA is now going for an "all-out marketing push" to improve its share of business traffic in 1998. It began marketing the new Trans World First domestic product in mid-January. The FFP will be completely relaunched in the near future. This month (March) the carrier will launch a new branded business class product that offers shuttle-type service in eight or so business markets out of St. Louis.

The recent trends suggest that TWA is closing the historical yield gap with its competitors. In the fourth quarter of 1996, its yield of 11 cents per RPM was way below the 12-13 cents reported by the six largest carriers. Now its yield (12.02 cents in the fourth quarter) is virtually the same as Northwest's and not that much lower than US Airways' 12.36 or United's 12.51. The gap will narrow further if TWA achieves its 10% yield improvement target this year - not an unrealistic proposition in the light of its current efforts.



Costs and productivity

TWA's decision in December 1996 to reduce transatlantic and some domestic services out of JFK in January was an emergency measure aimed at stemming huge losses and conserving cash in the winter months. The move involved consolidating activities at JFK into one terminal and furloughing about 500 workers. The company hoped that the cutbacks would generate cost savings to the tune of $400m annually - exactly the amount that total operating costs fell in 1997.

The fleet changes prompted another round of 1,000 job cuts in the second half of last year. This involved furloughing some 450 mechanics (as 23 domestic line maintenance stations were consolidated into 13) and eliminating 550 positions in airport operations, reservations and other areas through attrition. However, that may be the extent of the cost cuts for the time being at least.

Unit cost reductions do not feature in TWA's recovery plans, which is understandable as capacity cuts and fleet downsizing tend to have a negative impact in that respect. TWA's costs per ASM rose from 8.76 cents in 1996 to 8.97 cents in 1997. The focus now is clearly on productivity improvements.

The biggest challenge on the cost side is to ensure the continuation of favourable labour agreements, which may no longer be possible in the current industry climate. All of TWA's union contracts became amendable in September and the long-suffering workforce has been angered by the past year's furloughs. Talks with the pilots are reportedly not going well, and the flight attendants are likely to adopt a tougher stance now that they are represented by the more powerful machinists' union.

Structural problems

The past year's network restructuring efforts have involved downsizing the lossmaking JFK hub and strengthening further the profitable St. Louis hub, which TWA believes still has some growth potential.

The JFK moves have won much praise from outsiders, particularly since they have been accompanied by measures designed to improve image and yields - it is just a pity that those actions were not taken earlier.

However, the cutbacks have enabled competitors such as Delta to further strengthen their positions in the transatlantic market. It seems that, despite the continuing investment in JFK facilities, that hub is becoming less important for TWA with every passing day.

After years of trying, TWA has only managed to secure two relatively insignificant (though high-quality) transatlantic partners, Air Europa and Royal Jordanian, and can therefore not compete effectively with the mega-carrier alliances that may build up operations via the important JFK gateway. TWA may find itself in the difficult predicament of needing to pull out but not knowing how to deal with the employee problem. One of the most significant new achievements at St. Louis is the elimination of seasonal fluctuations. Because of the heavy reliance of east-west traffic, TWA's operations have traditionally been more seasonally peaked than those of other major carriers. The peak summer day/trough winter day capacity variance used to be as high as 50%, but increased north-south flying reduced the variance to 25% in 1996 and the aim now is to effectively eliminate it (4%) this year.

While TWA has succeeded much better than expected in developing a lucrative Midwest franchise and retaining a dominant position at St. Louis, the strategy has only limited potential. Increased reliance on a single hub makes the carrier vulnerable in the longer term.

The next move?

TWA's immediate priority now is to become profitable, but there is no clear indication as to when that might be achieved. The uncertainty is illustrated by the wide disparity in analysts' estimates: the three brokers reporting on TWA to First Call predict the company's 1998 earnings to be anywhere between a loss of 50 cents per share and a profit of 80 cents a share.

The key question is: can TWA move fast enough to take advantage of the current economic boom? If it cannot make money in this environment, it has no hope of surviving a downturn.

But even if it stages a sustained recovery, TWA's long term fundamentals have not changed. Its limited route structure and weak balance sheet make it an unlikely long-term survivor.

TWA needs a domestic alliance probably more than any of its competitors. It is not at all attractive as an equity partner at present because of its weak balance sheet, high share price, old fleet, unusual governance structure and tough contract negotiations with the unions. But since many potential partners are interested in the St. Louis hub and TWA's image has clearly improved, there seems no reason why domestic codeshare and marketing cooperation could not be implemented.

By Heini Nuutinen

British Midland: sweating its assets, but where next?

British Midland is a relatively small airline yet has managed to challenge British Airways in the lucrative business travel market - and turn in a steady stream of profits at the same time. But what does the airline do now - more of the same, or, given that it has just applied for long-haul routes to the US, are there other viable strategic options?

British Midland Airways is the UK's second-largest scheduled airline, with 14% of all slots at London Heathrow (although its head office is in the Midlands). British Midland's history can be traced back to 1938 but it was only in the 1980s - when the airline successfully appealed for the right to operate services in competition with British Airways out of London Heathrow - that the airline became a major player. The first European services began in 1986 (to Amsterdam), and today the airline operates 41 aircraft to 19 European destinations.

The airline employs 4,750 and is a 100% subsidiary of British Midland PLC, formerly known as Airlines of Britain Holdings. This is controlled by Sir Michael Bishop, via the BBW Partnership (in which he has two other partners). SAS bought a 24.9% stake in ABH in 1988, which increased to 40% in 1994.

The holding company also owns a number of other companies, most of which are aviation-related. In March 1997 the group demerged British Regional Airlines (Holdings), which includes Business Air, Manx Airlines and Loganair. According to Austin Reid, British Midland PLC's managing director, this was because these airlines followed a different strategy to British Midland Airways, which may have led to some conflict in the future. Now British Regional Airlines is owned directly by BBW Partnership and operates independently to British Midland PLC.

Even before the sale of these airlines, it was British Midland Airways that was the core of British Midland PLC. In 1996 more than three-quarters of the holding company's revenues came from the airline, as did 65% of operating profit and 60% of net profit. In turn, 88% of the airline's revenue ($739m in 1996) comes from scheduled passenger services, and only 5% derives from charters and leasing. (The rest comes from aircraft handling services, cargo, duty free sales etc.) 43% of revenue is earned on domestic UK routes.

BRITISH MIDLAND'S FLEET PLANS

	Current fleet	Orders (options)	Delivery/retirement schedule
Saab 340s	6	0	
Fokker 70	3	0	
Fokker 100	6	0	
737-300	8	0	Precise plans for the 737 fleet (i.e. how
737-400	5	0	many will be kept and how many will be
737-500	13	0	released) have yet to be announced.
A320	0	12	From April 1998 to 2003. Four from Airbus and eight on lease from ILFC
A321	0	10	From April 1998 to 2003. Four from Airbus and six on lease from ILFC
TOTAL	**41**	**22**	

Slot power

The airline has managed to post respectable operating and net results since the early 1990s (see graphs, right), but Reid is keen to improve the operating profit margin (1.6% in 1996). British Midland's strategy to improve margin is twofold - to trim costs where possible and, more importantly, to sweat key assets.

These key assets are its slots; therefore the immediate strategic goal for the airline is to maximise return on these slots (while acquiring new slots where it can). In practical terms that means adjusting its portfolio of routes, so that the airline launches routes that it believes will be more profitable than the worst-performing of its existing routes. A prime example is London Heathrow-Manchester, which is launched later this month (on March 29). British Midland claims that this is currently the largest volume route in Europe (one million passengers per year) where the customer has no choice of airline. British Midland will operate eight return flights per day, using 737-500s.

This service will use slots freed up by British Midland's withdrawal from a Zurich service on

March 28 (where Reid says the airline was never allowed to put in place the product it wanted, with the result that break-even would have taken as much as five years to achieve).

British Midland's target on Heathrow-Manchester is a 35% market share, and break-even within a short period of time. Although the route will initially be flown by two 737-500s, they will be upgraded to A321s as demand grows. If British Midland is successful in winning 35% of a million passengers a year market, it is not likely to please British Airways. Nevertheless, Reid does not expect BA to respond by lowering fares. Although British Midland is promoting a headline price differential with BA's fares, in reality fare structures and levels are not that much different.

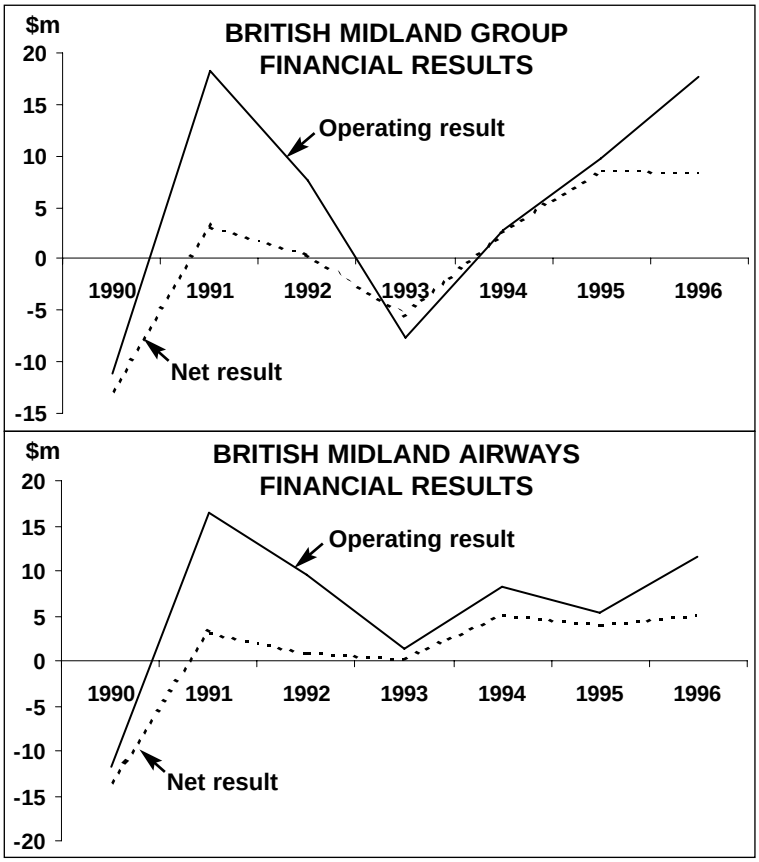
In any case British Midland has clearly signalled how it would react to a fare war - it would retaliate in kind. BA is much more likely to be concerned about loss of feed than direct revenue loss, and airlines flying onwards from Manchester will now have a choice of code-share partners.

Outside the UK, the main gaps in British Midland's European network are to Italy (Milan and Rome) and Spain (Barcelona and Madrid). British Midland did exercise fifth freedom rights via a London Heathrow-Cologne/Bonn-Rome Fiumicino route last summer, but for all new routes the slot problem is ever-present.

Where next?

Over and above asset sweating and cost control, what are the options for British Midland in the medium-term? Reid says there are two obvious choices - the first of which he calls "the BA strategy". This is to take the less critical routes and switch them to other airports, thus freeing up slots at London Heathrow. The second is to start up an entirely new operation at another airport. The problem with the first option is that, for British Midland, its "less critical" routes depend on connecting traffic, of which there would be little or none at other airports.

And starting up elsewhere is not a viable option either - at least not with anything approaching lowish costs. A few years ago British Midland ran the numbers on whether to start or convert to a "low-cost" operation. Its analysis found that low-cost airlines need four



conditions: cheap aircraft, good deals with airports, cheap labour and direct bookings.

The first and last of these conditions would be no problem for British Midland, but existing labour agreements would make the third condition difficult to achieve, and as for cheap, or even cost-free deals with airports, Reid believes that first-mover advantages are considerable. The days of low-costs persuading second-tier airports to grant almost free access are gone, particularly now that Ryanair is showing a profit. "Airports want to reclaim some of that margin," says Reid. So British Midland decided against the low-cost route, and moved into the business market instead, where margins are more robust.

As for the challenge of low-costs to British Midland itself, Reid says that the airline is not afraid of competition, and that it will compete vigorously wherever challenged. Competition stimulates the market, he says, although there is some evidence that after an initial market uplift passenger flows do slow down. But he is sceptical about the challenge of the low-costs long-term. BA can afford to gamble $80m on

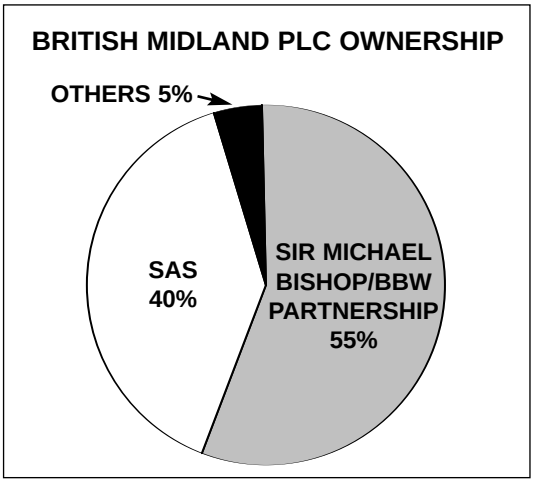
Go, but Ryanair aside, there is very little evidence that the UK and Ireland-based low-cost operators are making money. And Reid questions how airlines like easyJet can afford such vast aircraft orders.

So, if starting operations at other airports is ruled out, what other options are available to British Midland?

Alliances and/or long-haul

One possibility is a major alliance or alliances. British Midland has never been big on alliances, over and above tactical codesharing on specific routes. It codeshares with 17 airlines at Heathrow, including part-owners SAS and, from April 1997, Lufthansa. The SAS connection alone has very tangible benefits - in 1996 British Midland had net receipts of $11m from SAS for interline billing, handling and other services, but the biggest codesharing benefits come from United. With the Lufthansa codesharing the Star alliance is the obvious candidate if British Midland decided it did want to move from tactical codesharing to strategic alliance.

Talks are ongoing with Lufthansa, particularly about British Midland operating some Lufthansa routes. But the chances of an agreement recede as Sterling strengthens against the Deutschmark, thus reducing the differential between the lower UK cost base and the higher German one. Nevertheless, Reid says that British Midland is “clearly closer to Star than any other grouping”. However, with its strong position at Heathrow, it makes little sense for British Midland to tie itself to an exclusive alliance, however strong the partner(s).



A key determinant of British Midland's alliance strategy (if it decides to have one) will be the outcome of the BA/AA saga. Open skies between the UK and US would transform the transatlantic market, and on February 24 the airline applied to the UK CAA for route licenses to 10 destinations in the US. The proposed routes would be flown on the slots that BA would have to give up in order to allow the BA/AA tie-up to go ahead. If the application is successful, British Midland would use long-haul aircraft delivery slots freed up by Asian airlines.

But applying for routes is not the same as flying them. According to Reid, British Midland would prefer to wait 3-5 years before launching medium- and long-haul routes. Even with open skies it would take 12-18 months before the first British Midland aircraft departed for the US. And if UK/US open skies does occur and if British Midland also joins Star, there could be complex route swapping between the Star partners.

The long-haul application raises the question of whether the airline would be able to make major and instant strategic leaps if it had to. British Midland has made all the right moves so far, but only after extensive analysis of situations. Is the airline's culture flexible enough to react to major change such as a UK/US open skies deal? The long-haul application would suggest that it is, but the impression is that the airline would not be prepared to risk its steady stream of profits by making major gambles.

The business market

Another key question for British Midland is whether it can retain competitive advantage in the business market. With the launch of Diamond EuroClass in 1993, British Midland became the first airline to offer a separate business cabin on all its European routes, at headline fares up to 40% cheaper than rivals'. With subsequent product and fare enhancements, such as the Diamond Club FFP or the Diamond Pass season ticket, British Midland has worked hard to maintain its reputation among business travellers. In addition, Diamond EuroClass was upgraded in 1996 and introduced onto UK domestic routes in October 1996.

Following analysis, the airline concluded that business travellers are prepared to pay a

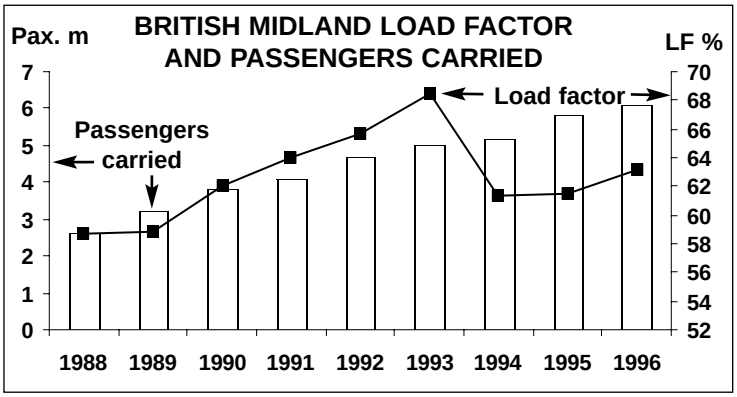
little extra for a better business class product. But while business customers appreciate all the extras that, say, Diamond EuroClass can deliver, what they really value - and what they are prepared to pay a margin for - is what Reid calls "space". That means space on the ground - i.e. a segregated business lounge - as well as space on the cabin. Hence British Midland's decision to go from six-abreast to five-abreast.

This can cause short-term pain, as on peak routes revenue is foregone, but British Midland sees a longer-term gain in customer loyalty, which leads to added margin via the concept of customer lifetime value. The only problem for British Midland is that if its analysis is correct, the idea of space could easily be copied by BA (although BA has not yet followed British Midland's two-class domestic UK service). British Midland would then have to find other business class innovations.

But at least British Midland is helped (so far at least) by the reputation that Sir Michael has built up for being the business travellers' champion, battling away to increase choice on some of Europe's busiest routes. It's a shrewd image, but sceptical observers may detect a hint of Branson-type hype in the image Sir Michael puts forward.

Reid believes a boost will be given to its business class service by new Airbus equipment. The $1bn deal was signed in July 1997, for 11 A320s and 9 A321s (subsequently increased to 12 and 10 respectively), to be delivered over 1998-2003. Four of each type will be bought direct from Airbus and the remainder will be acquired under a lease agreement with ILFC. The airline often mixes and matches leasing and purchasing in order to achieve the right balance of both cash flow and balance sheet effect. In March 1996 it purchased seven 737-500s it had previously leased, but only a few months' later - in May 1996 - it sold and leased back four of the same aircraft.

The fleet decision came down to the A321 versus the 757 (and depending on that decision, A320s or 737s would also be ordered). Reid says he likes to think that the A321 was chosen solely because it was the best operational choice, but he admits that price too was



a factor. But even if Boeing had beaten Airbus on price, British Midland would probably have gone for Airbus anyway due to flight deck commonality between the A321 and A320. In any case, says Reid, "BA has the 757, so the A321 is yet another point of differentiation". On the turboprop front, on March 29 the airline is launching a sub-brand, British Midland Commuter, which will use Saab 340s on existing British Midland routes and some ex-Business Air routes.

The future

In the medium-term, British Midland's profit improvement will continue. In the ten months to October 31, 1997, airline turnover increased 16% on the same period in 1996 and passengers carried rose by 7%. Passenger load factor increased 2.8 points to 70.1%. According to Reid, British Midland will report pre-tax profits for 1997 of "at least" $24.5m, compared with $9.5m in 1996.

Longer-term, however, there remains one key question - what will become of British Midland, both the airline and the group, once Sir Michael Bishop retires? Just when Sir Michael will exit from his shareholding is anyone's guess, but the form it takes could have a tremendous impact on the future of the airline. For example, SAS has pre-emption rights and might have very different plans for British Midland if it took control. On the other hand, a flotation might pressure management into short-term profit maximisation.

But all this is no more than speculation, and until the day Sir Michael retires British Midland is likely to continue its steady, if conservative, progress.

How to create a successful and long-lasting alliance

Airlines have three basic growth options: organic (i.e. independent growth); a non-equity or equity-based joint venture/alliance; and mergers and acquisitions. In this article **Louis Gialloreto** looks at the option that almost all airlines have attempted at some point: joint ventures/alliances:

Joint ventures/alliances are carried out in all stages of the economic cycle (see diagram, right). In times of economic downturn, when consolidation is a key concern, joint ventures/alliances offer a "cheap" cooperation-based method of maintaining some small growth in a declining market, or at least keeping revenue erosion at a rate of decline that is less than the general market decline. Indeed, sharing production assets in order to maintain market presence became a popular strategy in the last downturn, at least until markets turned around, at which point many airlines reverted to a predominantly organic growth strategy. However, even in upturn alliances retain their popularity, eclipsed only (in domestic or regional circumstances) by M&A potential. The perceived - and in many cases real - lower cost /unit of alliance growth continues to attract airline strategists' attention.

But just how do airlines establish and maintain an ongoing alliance that provides substantive competitive advantage over a protracted period of time? The time factor is key, because often alliances seem to be a short- or medium-term interlude to an otherwise independent/organic growth strategy.

Alliance considerations

The initial premise of any alliance should be incremental gain for both sides. An alliance that yields discrepancies in early results (i.e. where one airline clearly gains revenue and one airline loses revenue) has been put together badly.

Not all airlines are good partner fits. For example, an airline in need is rarely a good partner, just as a very strong airline may not feel that it ever needs help. Thus an alliance based on a much stronger and a much weaker airline will not stand the test of time unless the weaker partner has unique access to a market. Therefore, some form of incremental benefit accruing in roughly equal share to two market players of roughly equal strength is optimal. The fact that so few alliance attempts have actually had these criteria as basic parameters could explain why there have been so many alliance failures to date.

The purpose of the alliance can vary in terms of both ultimate objective and timeframe expectation. Some carriers use alliances as a tool of temporary truce in a market where otherwise there is intense market competition. Leveraging initial market position off the assets of others has worked as a short-term play for some airlines, but eventually these carriers become known for this short-termism, thus discouraging potential new partners.

Theoretically, one way around this problem is via the inclusion of equity tranches in an alliance agreement, indicating some sense of permanence to the arrangement. These tranches can be small or large, although not large enough to have effective control. Yet the so-called "cementing with equity" concept has not proven itself as a reliable indicator of intent - in fact it is quite the contrary. Airlines must therefore seek out partners where there are short- and long-term reasons for staying together. This requires a rather sober review of market, environmental and competitive parameters, and then coming to a joint determination as to how the alliance could outperform the two airlines operating on their own.

The worst situation of all is the copycat phenomenon, whereby an airline enters an alliance with whoever is available in order to react against an alliance entered into by a rival. It can be argued that copycat scenarios

drive at least 50% of all alliance attempts, even though these alliances always prove to be less successful than thought-out alliances. So an objective view of initial intent of an alliance often provides a good barometer of the arrangement's longevity.

The "test-of-intent"

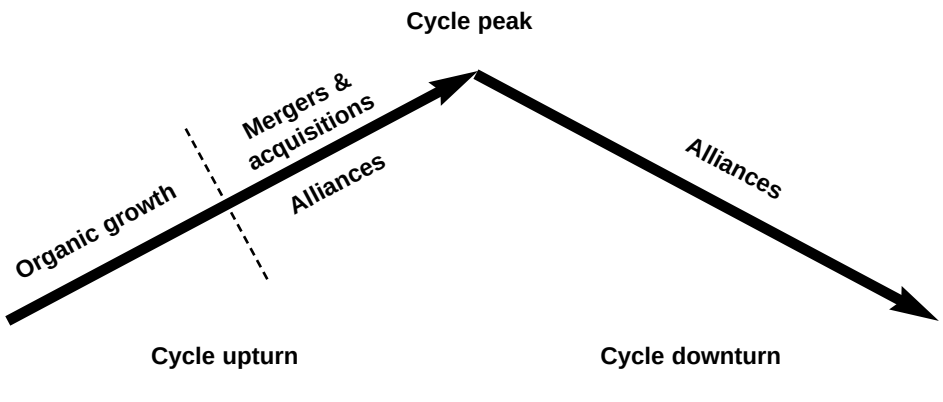
So how can an airline test the intent of a potential alliance partner? Walk-away penalties are one method to weed out the short-termers. Similarly, the degree to which each partner is prepared to invest in the initial relationship is a key indicator. Another test is the expected timeframe to fruition of anticipated benefits. A mix of early and later expected returns provides incentive to continue building value. And setting specific goals (qualitative and quantitative) prior to alliance start-up helps set and measure expectations. Adding in some form of managerial bonus based on overall performance of the alliance over time is a technique some airlines use. Indeed, gaining consensus to the alliance from not only those who design but who actually implement the agreement is essential. Finally, an understanding of how a potential alliance will impact an airline's overall growth strategy is also a key consideration.

Another major impediment is the multiple alliance or alliance portfolio problem. As an airline adds partners, existing alliances/ alliance partners may not fit in with the newly blended partners. Some airlines have tried to overcome this by selecting a block group of partners, ceasing the search for new ones and refocusing on building up from within the block. The cost of wooing and adding any new partners is to a certain extent split among the block. Nonetheless, a majority of airlines still play the "add two drop one" game of alliance management. And even at block alliances such as Star, the recent haggling over Asian partners shows just how hard it is to achieve a harmonious block.

So what kind of timeframe is necessary before an alliance can be deemed truly successful? There are few examples, but it would seem that five years is a minimum timeframe to establish "intent". In fact, the ability to maintain an alliance throughout what have been 10 year aviation cycles would seem to be the appropriate test of success. Over this period the partners should have established a particular alliance or alliance block as part of an integrated growth strategy, thus making it far more difficult to walk away from. Over such a period of time the alliance group will probably have forged its own separate business culture via management swaps, joint training etc. Similarly, the integration of back office functions also indicates relationship maturity.

In summary, the use of joint growth mechanisms has a sound conceptual underpinning. However, practice has proven less positive. Confusion or misrepresentation of intent, cyclical pressures and an inability to manage an alliance portfolio have all contributed to the poor track record of alliances/ joint ventures. Even so, alliances remain an attractive strategic option for airlines.

CYCLICAL AIRLINE GROWTH STRATEGIES



EUROPEAN SCHEDULED TRAFFIC

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1990	113.4	70.9	62.5	128.8	89.7	69.6	80.5	57.6	71.6	272.6	191.7	70.3	405.8	274.9	67.7
1991	114.8	65.2	56.8	120.9	84.3	69.7	80.0	53.1	66.4	267.6	182.0	68.0	397.8	257.9	64.7
1992	129.6	73.5	56.7	134.5	95.0	70.6	89.4	61.6	68.9	296.8	207.1	69.8	445.8	293.4	65.8
1993	137.8	79.8	57.9	145.1	102.0	70.3	96.3	68.1	70.7	319.1	223.7	70.1	479.7	318.0	66.3
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74.0	334.0	243.6	72.9	503.7	346.7	68.8
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73.0	362.6	269.5	74.3	532.8	373.7	70.1
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
Dec 97	14.1	8.0	56.7	13.8	9.6	69.9	11.4	7.6	67.1	35.4	24.7	69.9	51.8	34.2	65.9
Ann. chng	7.0%	11.0%	2.0	6.8%	8.3%	1.0	8.2%	3.3%	-3.2	8.0%	6.9%	-0.7	7.6%	7.6%	0.0
Jan-Dec 97	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
Ann. chng	5.9%	10.2%	2.5	8.2%	9.7%	1.1	7.5%	9.0%	1.0	7.2%	9.6%	1.7	6.7%	9.7%	2.0

Source: AEA

US MAJORS' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1990	863.1	523.2	60.6	121.3	84.2	69.4	106.7	75.8	71.0	42.2	26.6	63.0	270.2	186.5	69.0
1991	835.1	512.7	61.4	108.0	75.2	69.6	117.0	78.5	67.1	44.3	27.4	61.8	269.2	181.0	67.2
1992	857.8	536.9	62.6	134.4	92.4	68.7	123.1	85.0	69.0	48.0	27.4	57.0	305.4	204.7	67.0
1993	867.7	538.5	62.1	140.3	97.0	69.2	112.5	79.7	70.8	55.8	32.5	58.2	308.7	209.2	67.8
1994	886.9	575.6	64.9	136.1	99.5	73.0	107.3	78.2	72.9	56.8	35.2	62.0	300.3	212.9	70.9
1995	900.4	591.4	65.7	130.4	98.5	75.6	114.3	83.7	73.2	62.1	39.1	63.0	306.7	221.3	72.1
1996	925.7	634.4	68.5	132.6	101.9	76.8	118.0	89.2	75.6	66.1	42.3	64.0	316.7	233.3	73.7
1997 1st half	469.7	325.4	69.3	64.6	50.2	77.7	59.7	44.3	74.2	34.3	22.5	65.6	158.6	117.0	73.8
Dec 97	80.3	54.9	68.5										27.9	19.2	68.8
Ann. chng	1.2%	1.2%	0.0										5.5%	4.9%	-0.4
Jan-Dec 97	953.3	663.7	69.6										331.2	246.5	74.4
Ann. chng	3.0%	4.6%	1.0										4.6%	5.7%	0.7

Note: US Majors = American, Alaska, Am. West, Continental, Delta, NWA, Southwest, TWA, United, USAir **Source:** US DoT.

ICAO WORLD TRAFFIC AND ESG FORECAST

	Domestic			International			Total			Domestic growth rate		International growth rate		Total growth rate	
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK %	RPK %	ASK %	RPK %	ASK %	RPK %
1990	1,270	795	62.6	1,527	1,062	69.5	2,797	1,857	66.4	5.8	5.0	9.4	8.9	7.8	7.0
1991	1,267	800	63.2	1,487	998	67.1	2,754	1,798	65.3	-0.3	0.6	-2.6	-6.1	-1.6	-3.2
1992	1,300	840	64.6	1,711	1,149	67.2	3,011	1,989	66.1	2.7	5.0	15.0	15.2	9.4	10.7
1993	1,347	856	63.6	1,790	1,209	67.5	3,137	2,065	65.8	3.6	1.9	4.6	5.2	4.2	3.8
1994	1,403	924	65.8	1,930	1,326	68.7	3,333	2,250	67.5	4.2	7.9	7.8	9.7	6.3	9.0
1995	1,477	980	66.3	2,044	1,424	69.7	3,521	2,404	68.3	5.3	6.1	5.9	7.4	5.6	6.9
1996	1,526	1,046	68.6	2,163	1,537	71.1	3,689	2,583	70.0	3.3	6.7	5.8	7.9	4.8	7.4
***1997**	1,585	1,102	69.5	2,305	1,659	72.0	3,890	2,762	71.0	3.9	5.4	6.5	7.9	5.4	6.9
***1998**	1,621	1,133	69.9	2,398	1,728	72.1	4.018	2,861	71.2	2.2	2.8	4.1	4.2	3.3	3.6
***1999**	1,678	1,170	69.7	2,522	1,812	71.9	4,200	2,982	71.0	3.6	3.3	5.2	4.8	4.5	4.2
***2000**	1,757	1,217	69.2	2,686	1,917	71.4	4,443	3,133	70.5	4.7	4.0	6.5	5.8	5.8	5.1
***2001**	1,831	1,249	68.2	2,840	1,997	70.3	4,672	3,246	69.5	4.2	2.6	5.8	4.2	5.1	3.6
***2002**	1,852	1,244	67.2	2,916	2,023	69.4	4,768	3,267	68.5	1.1	-0.4	2.7	1.3	2.1	0.6

Note: * = Forecast; ICAO traffic includes charters. **Source:** Airline Monitor.

DEMAND TRENDS (1990=100)

	Real GDP					Real exports					Real imports				
	US	UK	Germany	France	Japan	US	UK	Germany	France	Japan	US	UK	Germany	France	Japan
1991	99	98	101	101	104	106	99	112	104	105	99	95	113	103	97
1992	102	98	102	102	105	113	103	112	109	110	107	101	115	104	96
1993	105	100	100	101	105	117	107	106	109	112	117	104	108	101	96
1994	109	103	103	104	106	126	117	115	115	117	131	110	117	107	104
1995	111	106	105	106	107	137	126	122	123	123	141	115	124	113	119
1996	113	108	107	107	111	146	134	128	128	126	150	123	127	116	132
***1997**	117	112	110	109	112	151	142	141	140	139	172	132	135	121	135
***1998**	120	115	113	113	113	162	148	154	150	151	191	143	144	128	144

Note: * = Forecast; Real = adjusted for inflation. **Source:** OECD Economic Outlook, Jan 1997. Real GDP forecast from The Economist poll of forecasts

COST INDICES (1990=100)

	Europe						US					
	Unit revenue	Unit op. cost	Unit lab. cost	Efficiency	Av. lab. cost	Unit fuel cost	Unit revenue	Unit op. cost	Unit lab. cost	Efficiency	Av. lab. cost	Unit fuel cost
1990	100	100	100	100	100	100	100	100	100	100	100	100
1991	106	109	103	105	108	88	100	102	102	101	103	84
1992	99	103	96	119	114	80	98	100	101	107	108	75
1993	100	100	90	133	118	82	101	98	99	116	115	67
1994	100	98	87	142	123	71	98	94	101	124	125	62
1995	99	97	86	151	128	67	99	93	98	129	127	61
1996	100	101	88	155	135	80	102	94	98	129	126	72
***1997**	110	107	85	161	136	84	107	96	102	124	126	71

Note: * = Provisional. European indices = weighted average of BA, Lufthansa and KLM. US indices = American, United and Southwest. Unit revenue = airline revenue per ATK. Unit operating cost = cost per ATK. Unit labour cost = salary, social charges and pension costs per ATK. Efficiency = ATKs per employee. Average labour cost = salary, social costs and pension costs per employee. Unit fuel cost = fuel expenditure and taxes per ATK.

FINANCIAL TRENDS (1990=100)

	Inflation (1990=100)						Exchange rates (against US$)						LIBOR
	US	UK	Germany	France	Japan		UK	Germ.	France	Switz.	ECU	Japan	6 month Euro-$
1990	100	100	100	100	100	**1990**	0.563	1.616	5.446	1.389	0.788	144.8	8.27%
1991	104	106	104	103	103	**1991**	0.567	1.659	5.641	1.434	0.809	134.5	5.91%
1992	107	107	109	106	105	**1992**	0.570	1.562	5.294	1.406	0.773	126.7	3.84%
1993	111	109	114	108	106	**1993**	0.666	1.653	5.662	1.477	0.854	111.2	3.36%
1994	113	109	117	110	107	**1994**	0.653	1.623	5.552	1.367	0.843	102.2	5.06%
1995	117	112	119	112	107	**1995**	0.634	1.433	4.991	1.182	0.765	94.1	6.12%
1996	120	114	121	114	107	**1996**	0.641	1.505	5.116	1.236	0.788	108.8	4.48%
***1997**	122	117	123	115	109	**1997**	0.611	1.734	5.836	1.451	0.884	121.1	5.85%
***1998**	125	121	126	117	109	**Feb 1998**	0.609	1.799	6.033	1.452	0.910	127.9	5.63%**

Note: * = Forecast, from The Economist. 1990-96 trends from OECD. ** = $ LIBOR BBA London six month rate.

TURBOPROP VALUES

	Mid-life value ($000)		Mid-life value ($000)		Mid-life value ($000)		Mid-life value ($000)
ATR 42-300	4,300	DHC Twin Otter 300	780	Emb-110P1	320	F.27-600	900
ATR 42-500	11,250	DHC Dash 7	1,650	Emb-110P2	360	F.50	4,950
ATR 72-200	7,750	DHC Dash 8-100	3,750	Emb-120/120 Adv	2,300	YS-11-200	250
BAe ATP	5,250	DHC Dash 8-200	9,500	Emb-120ER	3,600	YS-11-500	350
BAe 748-2A	450	DHC Dash 9-300	5,750	Do228-200	850	Beech C99	400
BAe 748-2B	850	DHC Dash 8-400	16,700	Do 328-100	6,250	Beech 1900C/C1	1,200
Jetstream 31	750	Shorts 330-200	350	Metro II/IIA	260	Beech 1900D	3,950
Jetstream Super 31	1,500	Shorts 360/360 Adv	950	Metro III	550	Saab 340A	2,800
Jetstream 41	4,750	Shorts 360-300	1,600	Metro 23	2,300	Saab 340B	4,600
DHC Twin Otter 100	280	CASA/IPTN 212-200	300	F.27-100/200	250	Saab 2000	12,000
DHC Twin Otter 200	450			F.27-400/400M/500	950		

Note: Values are for the oldest aircraft of this series, in clean “half-life” (i.e. mid way between D checks) condition. **Source:** MBA

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Engines	Delivery	Other information
Aero Int. (Reg.)	Feb 18	EuroLOT	5 ATR 42-300s			2Q98+	+ 3 options
Airbus	-						
Boeing	-						
Bombardier	Feb 24	Adria AW	1 CRJ-200LR			4Q98	From option. + 2 new options.
	Feb 24	Air Littoral	5 CRJ-100s	$100m		2Q98-99	
	Feb 12	Brit Air	1 CRJ-100			4Q98	From option
	Feb 10	Royal Wings	1 Dash 8-300			1Q98	
	Feb 10	Rheintalflug	1 Dash 8-300				+ 1 option
	Feb 9	Tyrolean AW	2 Dash 8-300s, 1 Dash 8-400B, 2 CRJ-200B LRs	$97m total			
Embraer	-						
Fairchild Dornier	Feb 4	Tyrolean JS	2 328JETs			99-00	Executive & air ambulance versions
Raytheon	-						

Note: Only firm orders are included - i.e. MoUs and LoIs are excluded. **Source:** Manufacturers.

	Group revenue US$m	Group costs US$m	Group operating profit US$m	Group net profit US$m	Total ASK m	Total RPK m	Load factor %	Group rev. per total ASK Cents	Group costs per total ASK Cents	Total pax. 000s	Total ATK m	Total RTK m	Load factor %	Group employees
American*														
Apr-Jun 96	4,159	3,675	484	293	63,634.9	44,020.8	69.2	6.54	5.78	20,200	9,539.9	5,128.8	53.8	87,800
Jul-Sep 96	4,171	3,691	480	282	64,766.3	45,799.1	70.7	6.44	5.70	20,806	9,726.6	5,265.6	54.1	89,300
Oct-Dec 96	3,967	3,751	216	284	62,503.6	42,194.2	67.5	6.35	6.00	19,528	9,366.1	4,969.5	53.1	
Jan-Mar 97	4,006	3,782	224	152	62,059.4	41,676.0	67.2	6.46	6.09	19,363	9,283.2	4,848.4	52.2	90,000
Apr-Jun 97	4,292	3,812	480	302	64,026.0	45,012.1	70.3	6.70	5.95	20,697	9,482.2	5,241.2	55.3	90,500
Jul-Sep 97	4,377	3,868	509	323	65,093.0	46,943.3	72.1	6.72	5.94					91,900
Oct-Dec 97	4,228	3,871	357	208	63,308.3	42,715.7	67.5	6.68	6.11					
America West														
Apr-Jun 96	464	402	62	28	8,614.9	6,193.2	71.9	5.39	4.67	4,589	1,079.0	659.2	61.1	9,321
Jul-Sep 96	423	476	-53	-46	8,939.7	6,419.5	71.8	4.73	5.32	4,671	1,119.4	682.3	61.0	9,208
Oct-Dec 96	440	415	25	12	9,272.8	6,405.0	69.1	4.75	4.48	4,620	1,162.4	688.1	59.2	9,652
Jan-Mar 97	462	429	33	14	9,318.8	6,408.6	68.8	4.96	4.60	4,587	1,168.8	686.7	58.8	10,015
Apr-Jun 97	478	427	51	23	9,410.5	6,668.9	70.9	5.08	4.54	4,674	1,180.1	712.8	60.4	10,013
Jul-Sep 97	462	425	37	18	9,623.6	6,779.9	70.5	4.80	4.42	4,692				9,828
Oct-Dec 97	473	432	41	20	9,573.7	6,219.9	65.0	4.94	4.51	4,375				9,611
Continental														
Apr-Jun 96	1,639	1,410	229	167	24,384.1	16,941.1	69.5	6.72	5.78	9,799	2,647.0	1,723.7	65.1	31,891
Jul-Sep 96	1,671	1,594	77	18	25,937.1	18,188.3	70.1	6.44	6.15	9,972	2,785.9	1,830.0	65.7	32,706
Oct-Dec 96	1,561	1,462	99	47	25,258.0	16,628.9	65.8	6.18	5.79	9,474	2,803.4	1,732.3	61.8	33,468
Jan-Mar 97	1,698	1,552	146	74	25,478.4	17,526.9	68.8	6.66	6.09	9,739	2,820.6	1,790.5	63.5	33,766
Apr-Jun 97	1,786	1,555	231	128	26,530.9	19,186.1	72.3	6.73	5.86	10,462	3,032.6	1,996.8	65.8	34,672
Jul-Sep 97	1,890	1,683	207	110	28,462.1	20,982.1	73.7	6.64	5.91	10,822				35,700
Oct-Dec 97	1,839	1,707	132	73	28,278.6	19,400.1	68.6	6.50	6.04	10,188				
Delta														
Apr-Jun 96	3,359	3,064	295	161	53,909.9	38,877.5	72.1	6.23	5.68	24,896	7,460.1	4,439.4	59.5	60,289
Jul-Sep 96	3,432	2,994	438	238	55,337.4	40,868.2	73.9	6.20	5.41	25,260	7,677.8	4,623.5	60.2	60,888
Oct-Dec 96	3,197	2,970	227	125	55,030.0	37,664.1	68.4	5.81	5.40	24,625	7,606.7	4,420.7	58.1	61,872
Jan-Mar 97	3,420	3,074	346	189	54,214.1	37,334.2	68.9	6.31	5.67	24,599	7,489.7	4,354.8	58.1	62,141
Apr-Jun 97	3,541	3,022	519	301	55,604.5	41,457.2	74.6	6.37	5.43	26,617	7,777.3	4,798.9	61.7	63,441
Jul-Sep 97	3,552	3,121	431	254	57,424.7	42,783.2	74.5	6.19	5.43	26,506		4,945.4		63,708
Oct-Dec 97	3,433	3,101	332	190	56,177.4	38,854.9	69.2	6.11	5.52			4,639.6		65,454
Northwest														
Apr-Jun 96	2,540	2,166	375	203	37,754.2	28,261.7	74.9	6.73	5.74	13,555	6,033.6	3,722.2	61.7	46,184
Jul-Sep 96	2,735	2,266	469	254	40,461.0	31,077.4	76.8	6.76	5.60	14,368	6,445.2	4,045.4	62.8	46,994
Oct-Dec 96	2,340	2,265	75	26	37,216.7	26,054.6	70.0	6.29	6.09	12,723	5,965.7	3,566.9	59.8	47,631
Jan-Mar 97	2,376	2,241	135	65	37,102.1	26,702.1	72.0	6.40	6.04	12,661	5,800.7	3,471.3	59.8	47,628
Apr-Jun 97	2,558	2,267	291	136	38,985.3	29,195.9	74.9	6.56	5.82	13,862	6,175.7	3,817.3	61.8	48,025
Jul-Sep 97	2,801	2,298	504	290	41,491.3	32,231.1	77.7	6.75	5.54	14,743				47,996
Oct-Dec 97	2,491	2,264	227	105	38,465.5	27,791.0	72.2	6.48	5.89					
Southwest														
Apr-Jun 96	910	768	142	85	16,359.3	10,958.3	67.0	5.56	4.69	12,575	2,099.4	1,137.8	54.2	21,559
Jul-Sep 96	891	789	103	61	16,865.2	11,801.8	70.0	5.28	4.68	12,847	2,164.7	1,224.4	56.6	22,844
Oct-Dec 96	832	784	48	28	16,802.4	11,431.7	68.0	4.95	4.67	12,795	2,148.9	1,188.4	55.3	23,395
Jan-Mar 97	887	800	87	51	16,926.0	10,513.6	62.1	5.24	4.73	12,046	2,163.7	1,097.2	50.7	23,980
Apr-Jun 97	957	800	156	94	17,672.1	11,288.4	63.9	5.42	4.53	12,722	2,264.0	1,180.6	52.1	24,226
Jul-Sep 97	997	845	152	93	18,494.3	12,176.9	65.8	5.39	4.57	13,019				23,840
Oct-Dec 97	975	847	128	81	18,501.4	11,654.2	63.0	5.27	4.58	12,612				
TWA														
Apr-Jun 96	966	904	62	25	16,205.7	11,316.6	69.8	5.96	5.58	6,046	2,239.5	1,310.4	58.5	25,194
Jul-Sep 96	1,003	977	26	-14	18,426.5	12,919.5	70.1	5.44	5.30	6,381	2,550.6	1,476.5	57.9	26,332
Oct-Dec 96	803	1,036	-232	-263	16,020.4	10,050.2	62.7	5.01	6.47	5,525	2,201.5	1,195.1	54.3	26,578
Jan-Mar 97	762	862	-99	-72	13,772.4	9,129.6	66.3	5.53	6.26	5,345	1,898.2	1,054.3	55.5	25,662
Apr-Jun 97	844	839	6	-14	14,705.8	10,273.7	69.9	5.74	5.71	5,958	2,051.9	1,169.5	57.0	23,490
Jul-Sep 97	908	845	64	6	15,922.4	11,447.0	71.9	5.70	5.31					24,200
Oct-Dec 97	813	812	1	-31	14,348.8	9,570.2	66.7	5.67	5.66					
United														
Apr-Jun 96	4,164	3,766	398	196	64,851.3	47,411.0	73.1	6.42	5.81	20,736	9,330.4	5,696.9	61.1	83,347
Jul-Sep 96	4,488	3,878	610	340	68,560.4	51,680.9	75.4	6.55	5.66	22,241	9,868.5	6,134.8	62.2	84,579
Oct-Dec 96	3,976	3,923	53	19	65,894.4	45,617.2	69.2	6.03	5.95	19,969	9,505.3	5,615.2	59.1	85,900
Jan-Mar 97	4,121	3,927	194	105	64,832.6	45,296.6	69.9	6.36	6.06	19,683	9,386.1	5,530.0	58.9	86,443
Apr-Jun 97	4,382	3,970	412	242	67,458.0	48,894.2	72.5	6.50	5.89	21,271	9,917.6	6,032.1	60.8	88,939
Jul-Sep 97	4,640	4,077	563	579	71,375.4	53,721.0	75.3	6.50	5.71	22,641				90,300
Oct-Dec 97	4,235	4,144	91	23	68,364.7	47,419.6	69.4	6.19	6.06	20,623				91,700
US Airways														
Apr-Jun 96	2,149	1,904	246	201	22,889.1	16,303.8	71.2	9.39	8.32	14,961	3,067.2	1,744.6	56.9	41,864
Jul-Sep 96	2,073	1,941	131	68	23,632.6	16,522.7	69.9	8.77	8.21	14,329	3,297.6	1,806.1	54.8	42,192
Oct-Dec 96	2,052	2,003	49	27	23,684.1	16,146.1	68.2	8.66	8.46	14,412	3,182.8	1,755.7	55.2	43,144
Jan-Mar 97	2,101	1,925	176	153	23,397.6	16,009.3	68.4	8.98	8.23	13,867	3,141.2	1,734.3	55.2	42,225
Apr-Jun 97	2,213	1,957	256	206	24,014.0	17,707.1	73.7	9.22	8.15	15,533	3,234.0	1,911.0	59.1	42,320
Jul-Sep 97	2,115	2,032	83	187	24,070.3	17,668.5	73.4	8.19	7.83	15,080				41,980
Oct-Dec 97	2,085	2,015	70	479	22,662.2	15,800.1	69.7	9.20	8.89	14,178				
ANA														
Apr-Jun 96	SIX MONTH FIGURES													
Jul-Sep 96	4,060	3,846	214	75	36,248.3	23,421.2	64.6	11.20	10.61	20,104				15,914
Oct-Dec 96	SIX MONTH FIGURES													
Jan-Mar 97	3,090	3,160	-69	-40	41,442.7	26,945.8	65.0	7.46	7.62	24,721				15,996
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	3,928	3,829	99	50	39,702.7	25,742.0	64.8	9.89	9.65	20,730				
Oct-Dec 97														
Cathay Pacific														
Apr-Jun 96	1,944	1,766	178	211							4,752.0	3,234.0	68.1	
Jul-Sep 96	SIX MONTH FIGURES													
Oct-Dec 96	2,207	1,899	308	279							5,266.0	3,838.0	72.9	
Jan-Mar 97	SIX MONTH FIGURES													
Apr-Jun 97	2,022	1,858	164	138							5,074.0	3,613.0	71.2	
Jul-Sep 97														
Oct-Dec 97														
JAL														
Apr-Jun 96	SIX MONTH FIGURES													
Jul-Sep 96	5,406	5,269	137	24	54,783.8	38,491.2	70.3	9.87	9.62	15,046	8,254.3	5,406.0	65.5	19,046
Oct-Dec 96	SIX MONTH FIGURES													
Jan-Mar 97	4,797	4,882	-86	-138	61,639.1	43,455.6	70.5	7.78	7.92	18,890	8,868.0	6,225.0	70.2	19,046
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	5,325	5,016	309	169	56,060.9	39,748.3	70.9	9.50	8.95	16,020	8,556.0	5,705.0	66.7	
Oct-Dec 97														

Note: Figures may not add up due to rounding. *Airline group only.

	Group revenue	Group costs	Group operating profit	Group net profit	Total ASK	Total RPK	Load factor	Group rev. per schd. ASK	Group costs per schd. ASK	Total pax.	Total ATK	Total RTK	Load factor	Group employees
	US$m	US$m	US$m	US$m	m	m	%	Cents	Cents	000s	m	m	%	
Korean Air														
Apr-Jun 96														
Jul-Sep 96	TWELVE MONTH FIGURES													
Oct-Dec 96	4,341	4,314	27	-249	54,071.5	38,136.6	70.5	8.03	7.98	23,741	10,953.3	8,253.2	75.3	17,139
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97														
Oct-Dec 97														
Malaysian														
Apr-Jun 96														
Jul-Sep 96														
Oct-Dec 96	TWELVE MONTH FIGURES													
Jan-Mar 97	2,581	2,459	122	132	40,096.9	27,903.7	69.6	6.44	6.13	15,371	6,149.2	3,706.8	60.3	22,546
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97			18											
Oct-Dec 97														
Singapore														
Apr-Jun 96	SIX MONTH FIGURES													
Jul-Sep 96	2,506	2,173	332	398	36,152.9	27,202.4	75.2	6.93	6.01	5,930	6,599.8	4,632.9	70.2	27,259
Oct-Dec 96	SIX MONTH FIGURES													
Jan-Mar 97	2,492	2,205	288	316	37,354.4	27,490.1	73.6	6.67	5.90	6,092	6,901.3	4,879.1	70.7	27,223
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	2,549	2,171	379	402	38,125.4	28,216.7	74.0	6.69	5.69	6,135	7,231.0	5,091.5	70.4	27,777
Oct-Dec 97														
Thai Airways														
Apr-Jun 96	TWELVE MONTH FIGURES													
Jul-Sep 96	3,090	2,717	373	134	42,099.0	29,226.0	69.4	7.34	6.45	14,308	5,789.0	3,940.0	68.1	22,136
Oct-Dec 96														
Jan-Mar 97														
Apr-Jun 97	TWELVE MONTH FIGURES													
Jul-Sep 97				68										
Oct-Dec 97														
Air France														
Apr-Jun 96														
Jul-Sep 96														
Oct-Dec 96	TWELVE MONTH FIGURES													
Jan-Mar 97	8,780	8,563	217	75	77,333.0	58,586.0	75.8	11.35	11.07	16,733*		5,036.0		36,173
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	5,226			297										
Oct-Dec 97														
Alitalia														
Apr-Jun 96														
Jul-Sep 96	TWELVE MONTH FIGURES													
Oct-Dec 96	5,223			780	50,960.4	34,131.5	68.9	10.25		23,138	8,167.7	5,674.0	69.5	16,507
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97														
Oct-Dec 97														
BA														
Apr-Jun 96	3,206	2,908	297	175	36,302.0	26,047.0	71.8	8.83	8.01	9,603	5,130.0	3,535.0	68.9	58,578
Jul-Sep 96	3,560	3,068	493	427	37,693.0	29,179.0	77.4	9.44	8.14	10,432	5,299.0	3,851.0	72.7	59,160
Oct-Dec 96	3,301	3,087	215	154	35,976.0	25,417.0	70.6	9.18	8.58	9,075	5,056.0	3,494.0	69.1	58,911
Jan-Mar 97	3,179	3,130	49	113	36,211.0	25,416.0	70.2	8.78	8.64	9,070	5,057.0	3,456.0	68.3	60,188
Apr-Jun 97	3,624	3,395	229	260	39,697.0	28,756.0	72.4	9.13	8.55	10,613	5,589.0	3,875.0	69.3	60,083
Jul-Sep 97	3,646	3,319	327	244	40,909.0	30,884.0	75.5	8.91	8.11	11,194	5,711.0	4,098.0	71.8	61,321
Oct-Dec 97	3,580	3,436	144	110	40,059.0	26,929.0	67.2	8.94	8.58	9,837	5,618.0	3,791.0	67.5	61,144
Iberia														
Apr-Jun 96														
Jul-Sep 96	TWELVE MONTH FIGURES													
Oct-Dec 96	4,385	4,120	265	28	36,975.9	25,931.2	70.1	11.86	11.14	14,623	5,252.3	3,216.3	61.2	26,280
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97	TWELVE MONTH FIGURES													
Oct-Dec 97					37,797.6	27,679.2	73.2			15,432				
KLM														
Apr-Jun 96	1,441	1,394	47	159	15,980.0	11,729.0	73.4	9.02	8.72		2,892.0	2,045.0	70.7	31,398
Jul-Sep 96	1,680	1,569	111	154	17,296.0	13,820.0	79.9	9.71	9.09		3,075.0	2,373.0	77.2	31,836
Oct-Dec 96	1,483	1,494	-11	-4	16,806.0	12,346.0	73.5	8.82	8.89		3,010.0	2,203.0	73.2	31,866
Jan-Mar 97	1,361	1,444	-83	-153	16,279.0	12,455.0	76.5	8.36	8.87		2,838.0	2,090.0	73.6	31,912
Apr-Jun 97	1,692	1,566	126	99	17,310.0	13,663.0	78.9	9.77	9.05		2,999.0	2,338.0	78.0	34,804
Jul-Sep 97	1,842	1,592	250	438	18,798.0	15,747.0	83.8	9.80	8.47		3,233.0	2,589.0	80.1	34,928
Oct-Dec 97	1,630	1,570	60	23	18,096.0	13,555.0	74.9	9.01	8.68		3,098.0	2,404.0	77.6	35,092
Lufthansa														
Apr-Jun 96	3,641	3,539	103	111*	29,675.0	20,227.0	68.2	12.27	11.93	10,612	5,293.0	3,603,0	68.1	57,999
Jul-Sep 96	3,813	3,612	201	210*	30,907.0	23,356.0	75.6	12.34	11.69	11,636	5,420.0	3,909.0	72.1	57,999
Oct-Dec 96	4,369	4,195	174	165*	28,991.0	20,320.0	70.1	15.07	14.47	7,886	5,230.0	3,762.0	71.9	57,999
Jan-Mar 97	3,198	3,198	-1	12*	28,099.0	19,726.0	70.2	11.38	11.38	9,186	4,985.0	3,477.0	69.7	57,291
Apr-Jun 97	3,654	3,463	192	220*	32,109.0	23,465.0	73.1	11.38	10.79	11,618	5,505.0	3,893.0	70.7	57,901
Jul-Sep 97	3,721	3,418	303	321*	33,739.0	26,410.0	78.3	11.03	10.13	12,807	5,787.0	4,298.0	74.3	58,178
Oct-Dec 97										10,839	5,457.0	3,919.0	71.8	
SAS														
Apr-Jun 96	1,372	1,174	198	129*	7,585.0	5,046.0	66.5	18.09	15.48	5,198				22,883
Jul-Sep 96	1,297	1,180	117	41*	8,084.0	5,390.0	66.7	16.04	14.60	5,111				23,622
Oct-Dec 96	1,368	1,231	137	54*	7,678.0	4,688.0	61.1	17.82	16.03	4,948				25,530
Jan-Mar 97	1,133	1,108	24	-36*	7,443.0	4,335.0	58.2	15.22	14.89	4,551				23,440
Apr-Jun 97	1,379	1,151	228	178*	7,962.0	5,392.0	67.7	17.31	14.46	5,617				23,904
Jul-Sep 97	1,244	1,093	151	83*	8,084.0	5,598.0	69.2	15.39	13.52	5,227				24,168
Oct-Dec 97	1,334	1,204	130	63*	7,771.0	4,939.0	63.6	17.17	15.49	5,212				28,716
Swissair**														
Apr-Jun 96	2,257	2,128	130	-42	16,439.3	10,155.0	61.8	13.73	12.94	6,502	3,035.5	1,994.2	65.7	10,202
Jul-Sep 96	SIX MONTH FIGURES													
Oct-Dec 96	1,285	1,348	-63	-355	16,372.6	11,074.0	64.4	7.85	8.23	4,857				10,202
Jan-Mar 97	SIX MONTH FIGURES													
Apr-Jun 97	1,787	1,724	63	76	17,464.4	11,880.7	68.0	10.23	9.87	7,643	3,340.6	2,291.9	68.6	10,163
Jul-Sep 97														
Oct-Dec 97														

Note: Figures may not add up due to rounding. *Pre-tax. **SAirLines.

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