

Asian airlines' bungee recovery

The collapse of the Asian economies and its aviation industry in the second half of 1997 was unexpected. The speed with which the economies are recovering and the airlines are recovering is equally remarkable, and the strength of the airline recovery may be the swing factor in the global aviation balance.

The graph below shows the latest AAPA traffic statistics for May. Most of the airlines are achieving 10%-plus rates, and this is the eighth consecutive month of overall positive traffic numbers. Average load factors are up to 68.1% compared with 64.2% a year ago. Garuda, starting to emerge from its crisis, and PAL, which is still mired in its are at opposite extremes in terms of traffic numbers.

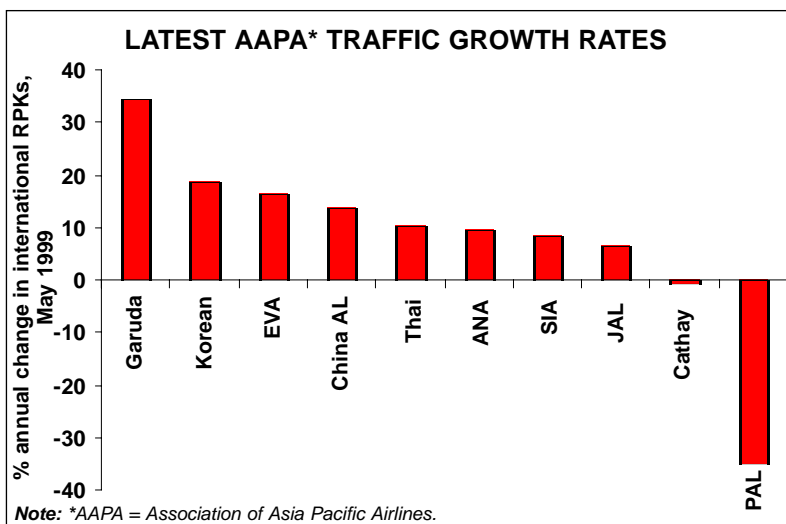
The combination of happy events that is leading to a return to profitability for most of the airlines includes:

- A general recovery in passenger numbers as consumer confidence returns;
- Potentially an increase in the Hong Kong and Japan markets as those key economies recover;
- A strengthening in yield on the back of local currency appreciation;
- Continuing boom in the cargo markets, though with a continuing directional imbalance;
- Cost benefits flowing from the emergency rationalisation plans that had to implemented in 1997 and 1998; and
- Minimal overall capacity growth as yet.

There are two key questions about the future of the Asian business.

First, will the recovery be strong enough to suck back capacity from other markets, particularly the Atlantic, so ensuring a better global market balance? There is little sign of this happening yet.

Second, will the airlines continue with key structural reforms, in particular distancing themselves from government interference. Slippage in the timetables of the privatisation candidates - Thai International, China Airlines, for example - would be worrying.



CONTENTS

Analysis

Asian airlines' bungee recovery **1**

Air Canada/Canadian amalgamation - dilemmas, dilemmas **2-3**

The rationale behind SAirGroup's outbidding **4-5**

KLM and Alitalia: one big ticket **6-8**

Brazil: four become two (or one)? **8-9**

Outlook for engines **9**

Briefing

British Airways: misunderstood but correct? **10-13**

US Airways: now what's going on? **14-17**

Management

Distribution and channel management: where now? **18-19**

PUBLISHER

Aviation Economics

James House, LG,
22/24 Corsham Street
London N1 6DR

Tel: +44 0207 490 5215
Fax: +44 0207 490 5218

e-mail: info@aviationeconomics.com

Air Canada/Canadian amalgamation - dilemmas, dilemmas

The Canadian government in mid-August announced that it was extending Air Canada and Canadian Airlines a temporary antitrust immunity of sorts in order to allow them to chat about some form of amalgamation, purchase of international rights or less expensive ways of managing the Canadian domestic market. This might seem momentous, but it is in fact the fourth time that the two carriers have met, usually secretly, to discuss these issues. A productive outcome is still very unlikely from whichever perspective one looks at the problem.

From the Canadian government's perspective, presiding over a merger, whether actual or virtual, would be politically embarrassing, signalling the first failure of an airline deregulation policy. Since there are no nationwide scheduled jet carrier alternatives, any amalgamation of the big two on domestic markets would mean an effective monopoly. And this monopoly could only be made more palatable for the Canadian taxpayer if the government were to re-regulate the domestic market, including fare setting and imposing market access and capacity rules. Many smaller markets (ie, most of Canada's domestic segments) would also have to be overseen and minimum service levels guaranteed year-round. This solution would be messy, to put it politely.

Alternatively, either carrier could give up its domestic system (including regional airline affiliates) and go purely international but a guaranteed feed agreement would have to be put in place. This would still produce a domestic monopoly, unless the Canadian government could successfully encourage the emergence of a third force for the first time since full Canadian deregulation in 1988. WestJet (see *Aviation Strategy*, October 1998 and August 1999) shows promise but it is still a small operator compared to the incumbents.

Air Canada's objectives

From Air Canada's perspective, the simple objective is to gain the status of the single Canadian international scheduled flag carrier. It

very quickly made an offer to buy all of Canadian's international services, but the proposal was rejected.

However, if Air Canada were to buy Canadian Airlines in any form, it would risk making that same mistake that Canadian made when it bought Wardair back in the late 1980s. At that time Canadian thought that this airline would be the final key addition to the new carrier that itself had been formed from a merger of CP Air, Pacific Western and other smaller companies. Canadian dumped the incompatible fleet but also very popular Wardair brand. The value of Wardair to Canadian was perceived to be access to key European markets like London, Paris, Frankfurt from which they were excluded at the time.

But after the take-over, the Canadian government designated additional charter carriers on the key European points in an effort to promote competition, so undermining the value of the new route rights. At the end of the day the Canadian Group was forced to swallow C\$500 million of debt that it could not afford. This is the fundamental reason why Canadian has been in perpetual reorganisation and has teetered on the brink of extinction so many times.

So if Air Canada were to buy Canadian outright or purchase all the international services, the government would at some point feel obliged to accommodate competing services, and Air Canada would probably end up in the same state as Canadian is today. A better option for Air Canada would be some form of asset stripping of Canadian's international route system.

As Air Canada has most of what it needs in Europe and there is little of interest in Canadian's US network (with the possible exception of some slots at congested US airports), all Air Canada's interest should be focused on the Asian routes. The question is, as usual, what would Air Canada have to pay for these routes? As noted above, Air Canada's first offer (for an undisclosed amount) for the international routes was rejected, but Air Canada's resources are limited because of its own financial problems. A large cash outlay for any route purchase paired with a recession of any

Aviation Strategy

is published 12 times a year by *Aviation Economics* on the first of each month

Editors:

Keith McMullan
Tim Coombs

Subscription enquiries:

Keith McMullan
Tel: +44 0207 490 5215

Copyright:

Aviation Economics
All rights reserved

Aviation Economics

Registered No: 2967706 (England)

Registered Office:

James House, LG 22/24 Corsham St
London N1 6DR
VAT No: 701780947

ISSN 1463-9254

The opinions expressed in this publication do not necessarily reflect the opinions of the editors, publisher or contributors. Every effort is made to ensure that the information contained in this publication is accurate, but no legal responsibility is accepted for any errors or omissions.

The contents of this publication, either in whole or in part, may not be copied, stored or reproduced in any format, printed or electronic, without the written consent of the publisher.

significance should be a serious concern for Air Canada management and shareholders.

The AA/CP perspective

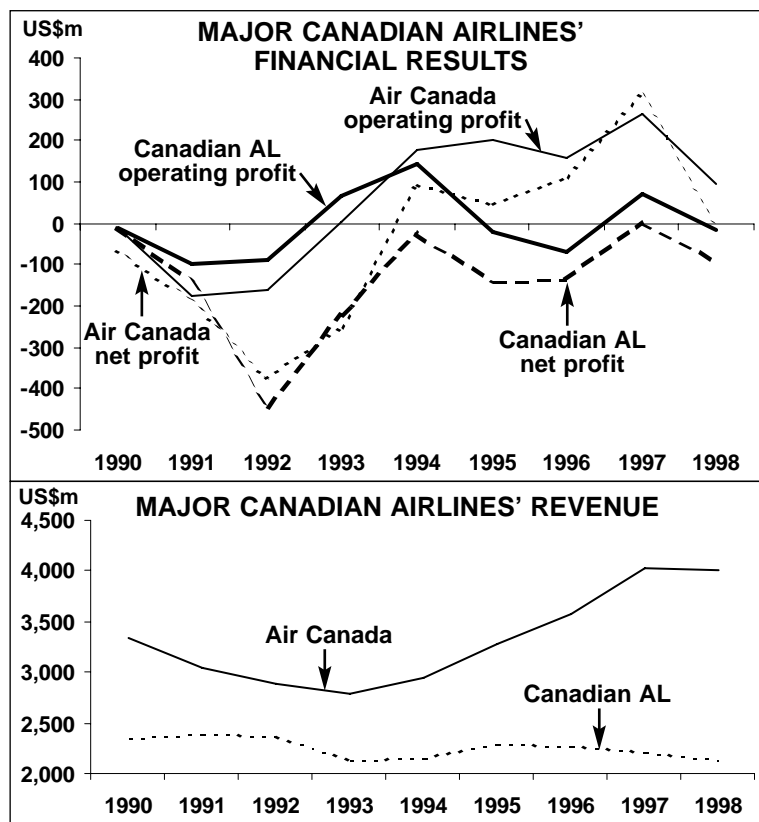
Canadian Airlines' perspective is really that of American Airlines, which owns 33% of the shares and 25% of the voting rights. When American bought into Canadian, it saw three main advantages. First, there was the cash flow that would result from the large management contract that Canadian signed with American and Sabre Decision Technologies. But because of the ongoing financial crisis, Canadian was never able to pay the fees it was supposed to. Second, there was potential route synergy to be achieved by joint operation in the new Canada/US open skies environment. But the AA/CP transborder partnership has produced limited results when compared to the Air Canada/United alliance.

Third, there was access to transpacific markets via the Vancouver gateway, which unfortunately was put together just in time for the Asian recession. But now that that Asian economies are clearly recovering, it would seem that the AA/CP gateway concept is poised to turn profitable.

Onex and American

There are widespread and probably justified suspicions in Canada that American is attempting to capitalise on its investments by its participation in the Onex consortium, and in the process gain a key position in a unified Canadian carrier. Onex Corp. an investment company, has made a C\$1bn (US\$700) proposal to purchase stock in the two Canadian airlines and then merge them, leaving Onex with about 31% of the new airline. AMR Corp is supporting the bid by contributing C\$500m (US\$335m) in equity and loans to the Onex bid (although, surprisingly, American has stated that it wishes to sell off its approximate 15% stake in the new airline within a few years).

Early indications are that Air Canada will try to put a poison pill in place to neutralise Onex, and powerful union and governmental voices are being raised in opposition. If Onex fails, will American then make one final attempt to revitalise Canadian through a new round of investment (which would probably require the Canadian government to liberalise its laws on foreign investment)?



It would have to find a way to reduce significantly the operating costs of Canadian, and probably change its infrastructure in Canada. Most of Canadian's operating systems are already managed by American so a significant reduction of management staff and a DFW-based remote-control management structure should be feasible. In addition, American's older MD-80s (and/or ex-Reno aircraft) could be deployed to replace CP's 737s.

This strategy would probably put Canadian in a break-even position domestically. Then an improving Asian market and a concentration on some key profitable European routes (specifically the UK) should produce some profit at the company level. Equally importantly, American's strategic interests in the Pacific would be protected (though its new stake in Canadian would still have to be limited to comply with Canada-Asia bilateral ownership clauses).

Once Canadian has exhausted all of the options with Air Canada and/or Onex, it can tell the government that the American investment routes is the only one possible. And the loss of sovereign control should be more attractive to the government than the alternatives - bankruptcy of a major employer, a government bail-out or the creation of a domestic monopoly.

The rationale behind SAirGroup's outbidding

By far the most aggressive buyer of airline equity in the past year has been the SAir Group. The company has succeeded in building up a clutch of airline stakes as part of its Qualifyer alliance strategy. The most recent example of this this was the acquisition of a 20% stake plus an option for a further 10% in South African Airways, and new deals are reported to be in the negotiation stage - with Malev and Transbrasil. The losing bidders in the SAA auction - Lufthansa, Singapore Airlines, American Airlines and David Bonderman's Texas Pacific Group - would appear to have balked at the price that SAir was prepared to bid for SAA. What therefore allows the SAirGroup to outbid such well-heeled rivals?

SAirGroup is more than just an airline; indeed, the SAirGroup is probably the most diversified airline business in the world. Its key strategy is to extract value from an alliance/equity participation across a group of businesses. As well as the core airline, SAirLines - or as it is more frequently known, Swissair - the SAirGroup contains three other divisions:

- SAirServices, which provides ground han-

dling through Swissport International and aircraft maintenance through SR Technics;

- SAirLogistics, which focuses on freight forwarding and cargo; and
- SAirRelations, which contains the groups' interests in in-flight catering and sales, and hotels.

In addition, charter and regional airline expertise are pooled in the European Leisure Group, which has a membership that includes Balair, CTA, Sobelair, LTU, Lauda-air, Crossair and Air Europe.

Adding and extracting value

So when SAir approaches a potential investee airline with an alliance proposition and the possibility of taking an equity stake the Swiss company is looking at several income streams - from business sectors such as aircraft maintenance, ground services and catering. It can offer airline synergies as well, but Swissair and its alliance partners will not be able to compete as effectively as Star or Wings in terms of providing network benefits through codesharing and FFP cooperation.

However, whereas estimating the revenue benefits of codesharing will always be hit and miss, a contract with SAir's Gate Gourmet in-flight catering company guarantees future income for the SAirGroup, as well as providing concrete cost savings and probably an improvement in the in-flight product to the investee airline. Similarly, it is possible to calculate with a fair degree of certainty the revenue benefits and cost savings associated with using SAir's specialist subsidiary, Nuance, to manage in-flight sales.

Another major area of cost savings regularly claimed by alliances is the joint purchasing of aircraft. Here the SAirGroup is the only one of the alliance lead-airlines that can offer an established vehicle for this activity. Through its joint venture with GATX

SAIR INVESTMENTS IN PAST 24 MONTHS

Company	Details
Air Portugalia	42% stake
TAP	20% stake, currently on hold due to pilots' actions
SAA	20% stake, plus option for 10%, \$230m reported price
Dobbs	Purchase of second largest US airline caterer for a reported \$780m
Panalpina	10% stake in global airfreight operator
AOM	51% stake bought from Credit Lyonnais
LTU/LTT Touristik	49% stake in German charter airline and tour operator
Air Europe	49% stake in Italian long-haul charter, price about \$85m
Air Littoral	44% stake in French regional, total price \$70m
Air Volare	34% stake in small Italian charter
BA Catering	Purchase of BA's LHR catering operation for about \$105m
Cargolux	24.5% bought from Lufthansa

Corporation, SAir's Flightlease now owns, leases and manages the majority of the aircraft in the Swissair and Balair/CTA leisure fleets. Thus one of the potential benefits to a smallish airline of joining Qualifyer is from lower aircraft rentals and extra operational flexibility.

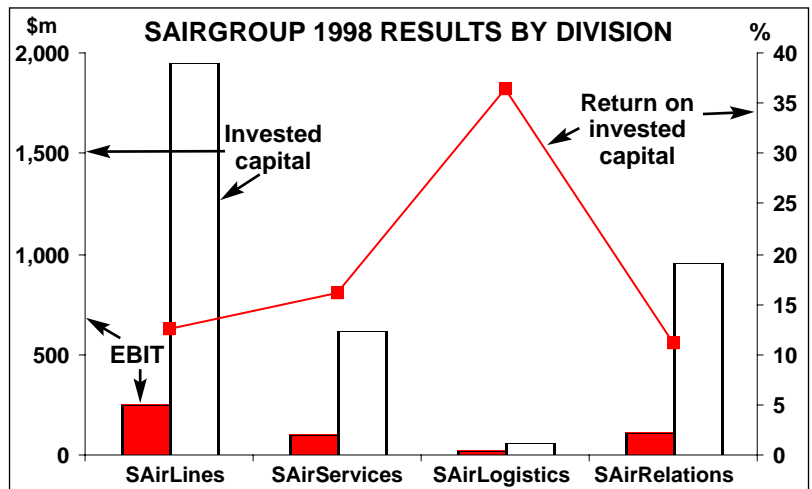
Of course, other airlines and alliances can offer some of these non-airline benefits as well. Lufthansa has its own third party maintenance division, (Lufthansa Technik) and its own catering company (SkyChefs, the global market leader over Gourmet). But at most major airlines, these peripheral businesses are usually classified as "separate business units" (SBUs) which means that, in practice, they rely on their parent airline for survival. Internal charging is not necessarily at market rates and the parent airline will often demand preferential treatment.

The set-up at SAirGroup is different. Each company within the SAirGroup bears responsibility for its own bottom-line results. The companies operate autonomously, though they are expected to identify and exploit synergistic potential among Group member companies, and to cross-sell all the Group's products. The reliance that SAir has on its affiliates (SAirRelations accounts for nearly a quarter of the total Group's invested capital) means that it can claim to be more "customer-focused" than its airline rivals.

Moreover, SAirGroup has also adopted a fairly transparent approach in accounting, giving quite detailed financial information on each of its divisions.

Intra-Group business is expected to be conducted at general market rates. Each company has a return on invested capital (ROIC) target. Interestingly the ROIC target for the SAirLines' division in 1998 was 8% while for the entire SAirGroup the target was 12%.

The fact that SAir can offer such a diversified range of services is particularly valuable to airlines that are privatisation candidates. This was undoubtedly part of the reason that the Portuguese government has adopted SAir as an alliance partner for TAP. The theory is that the combination of cost savings, revenue enhancements and pro-



ductivity gains from an association with SAir will enhance the value of TAP's shares when they are floated on the Lisbon stockexchange.

Swiss downsides

And what of the downside of SAir's strategy?

First, it tends to eat up capital, which SAir's balance sheet can bear but which does not endear the company to stockmarket investors (who at some point in the future may demand the break-up of this conglomerate-like structure).

Second, it may be exposing SAir to competition from low-cost, non-airline specialists in maintenance, catering, etc..

Third, all the associated businesses move in the same cycles as the core airline operation, giving SAirGroup little protection in a recession.

Finally, it should be remembered that SAirGroup's strategy was born out of necessity; it was designed to overcome Swissair's inherent disadvantage as a very high cost airline with a restricted home market. That disadvantage is still at the heart of the SAirGroup.

In the first half of this year SAirGroup reported a disappointing SFr84m (\$56m) operating profit. Non-airline activities contributed 46% of total revenue but 69% of consolidated operating profit. Airline activities risk becoming a loss-leader in SAir's strategy.

KLM and Alitalia: one big ticket

KLM is probably the most strategically innovative of the Euro-majors. Its immunised agreement with Northwest on the Atlantic has proved profitable, although relations between the two airlines have been anything but harmonious at times. But it was the protagonist in the Alcazar project which collapsed in a heap. And now it is putting together the first virtual merger between two Euro-majors.

The KLM/Alitalia alliance - somewhat clumsily named "One ticket to the world" goes further than the other three alliances. As well as the standard marketing aspects like co-ordinated schedules, FFP participation, etc., the two airlines intend to completely integrate management, share profits and make joint investment decisions. The alliance will cover the core business of both airlines: in KLM's case, KLM itself plus KLM cityhopper, representing 85% of group revenues and, in Alitalia's case, Alitalia itself plus Alitalia Team and Alitalia Express, representing 97% of group revenues. In other words, KLM/Alitalia intends to get as close to being a real merger as is possible for European flag-carriers (remembering that Alitalia is not yet fully privatised), just as

KLM/Northwest transatlantic cost and revenue sharing is as close to a full merger as is possible in that market. In the near future the Atlantic operations of Northwest and Continental will also have to be integrated into the alliance, although Continental has already balked at the idea of profit-sharing.

The overall strategic aim is to create a true partnership. Existing strengths and potentialities are assumed to be equal. KLM's strengths are its current size, its global nature and its hubbing skills; Alitalia's strengths are its home market position and superior growth prospects (presumably because of the new development of hubs in Italy and the current low propensity to fly among Italians).

From a regulatory perspective the KLM/Alitalia alliance posed few problems for the European Commission. Indeed it must be a relief to deal with a proposal that links two geographically and politically diverse entities committed to a pan-European venture - as opposed, for example to the Lufthansa/SAS collusion. Nevertheless, conditions have been imposed on the two routes - Amsterdam-Milan and Amsterdam-Rome - where there is a potential monopoly:

- Make 112 weekly slots available to competitors not currently operating from any of the three airports so they could set up a base to operate from one to the other two;
- Make available up to 224 slots to new entrants that apply to operate from Amsterdam, Milan or Rome;
- Reduce capacity in line with the new entrants' services and offer interlining;
- Allow new competitors to participate in their FFPs and ensure that CRS displays are not alliance-biased; and
- No over-ride commissions.

The last two conditions are representative of the general anti-trust regulation that the EC wants to place on the whole European industry. The first three conditions are only effective if a new entrant takes up

KLM AND ALITALIA 1998 TRAFFIC SUMMARY

	Pax ('000s)			Cargo ('000s tonnes)		
	KLM	Alitalia	Total	KLM	Alitalia	Total
Domestic	0	13,711	13,711	0	14	14
Intra Europe	8,096	7,351	15,447	58	25	83
N. Africa	140	353	493	5	4	9
Middle East	698	353	1,051	31	5	36
N. Atlantic	2,645	1,125	3,770	130	45	175
Other long-haul	3,410	1,284	4,694	232	52	284
Total	14,989	24,177	39,166	456	145	601
Domestic	0%	100%	100%	0	100%	100%
Intra Europe	52%	48%	100%	70%	30%	100%
N. Africa	28%	72%	100%	56%	44%	100%
Middle East	66%	34%	100%	86%	14%	100%
N. Atlantic	70%	30%	100%	74%	26%	100%
Other long-haul	73%	27%	100%	82%	18%	100%
Total	38%	62%	100%	76%	24%	100%

Source: AEA.

the challenge. Entering main airports like Schiphol or Malpensa is not currently part of Ryanair's strategy; AirOne, the Italian new entrant, usually prefers to co-operate than compete vigorously with Alitalia; but easyJet might find a use for its new 737s at these airports.

Details of the joint venture structure

The basic idea is to create a virtual company that will enable KLM and Alitalia to share the joint result of their passenger and cargo businesses on a 50:50 basis. Profit sharing in this virtual company will be organised at the level of "Adjusted EBITDAR" - Earnings Before Interest, Taxes, Depreciation, Amortisation and Rentals and corporate overheads.

To get to the EBITDAR level the two airlines' net revenues will be pooled and the sales and marketing costs of the joint venture will be deducted as will the charges from the capacity and service providers (i.e. the operating costs sustained by the two airlines in providing aircraft and services to the joint venture). The two airlines will continue to bear their own overheads, fleet depreciation, aircraft rentals, interest charges and taxes.

There are a couple of important conditions attached to the joint venture agreement, designed to incentivise both parties.

First, the charges from the capacity/service providers will be the lower of actual and market costs. Second, labour costs will be capped, with increases in excess of pre-determined benchmarks; and third, only individual annualised contributions above €450m will be included in the profit-sharing formula before March 2001, the idea being to get the airline to concentrate on creating new synergies rather than redistributing existing earnings.

An important element of the agreement is a joint fleet policy. The two airlines' existing fleets will be made available to the joint venture at no charge, and proceeds from aircraft disposals will be split 50:50. Eventually an integrated fleet policy will be developed, maybe through the establishment of a joint

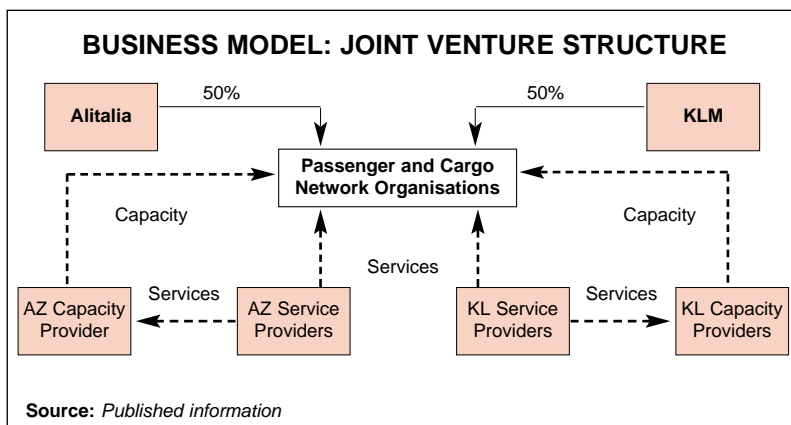
	Delta Air Lines Air France	The Qualifier Group	oneworld	Star Alliance	KLM Alitalia
ALLIANCE FEATURES VS. OTHER ALLIANCES					
Customers					
Schedule Alignment	✓	✓			
Lounge Access	✓	✓	✓	✓	✓
Joint Reciprocal FFP		✓	✓	✓	✓
Umbrella Branding		✓	✓	✓	✓
Company					
Integrated Network Management					✓
Integrated Sales Force					✓
Integrated Marketing					✓
Integrated Revenue Management					✓
Integrated Produce Development					✓
Financial					
Profit Sharing					✓
Joint Fleet Decisions & Investments					✓
Source: Published information					

fleet company. In addition, KLM will make a one-off contribution to Alitalia to acknowledge the Italian investment in the new Milan Malpensa airport.

KLM and Alitalia estimate the pro forma result of the alliance in 1988 would have been a joint EBITDAR of €1.23bn on revenues of €9.11bn with KLM contributing €649m of the EBITDAR (12.7% of revenues) and Alitalia €582m (14.5%).

The two airlines have bravely stated their estimates for the synergies that can be expected over the next three years - a total of €400m at the operating profit level. These will materialise from the following areas:

- Commercial synergies of €153m resulting from increased traffic feed to/from code-shared services within Europe and eventual-



ly on the Atlantic and other long-hauls, all of which will come under a unified network management structure;

- Network optimisation benefits of €57m derived from focusing on higher margin routes and future development of hubs;
- Fleet expansion benefits of €30m, presumably from better utilisation and maybe joint purchasing;
- Corporate savings of €90m mainly from the integration of the two sales and marketing structures; and
- Cargo network rationalisation, which is expected to yield some €70m.

Will it work?

The synergy benefits identified above are probably as much aspirations as reasonable expectations, and similar numbers have

been trotted out by other alliances as examples of their brilliant prospects. Some of these synergies have been achieved, other joint ventures have failed miserably, and overall it has proved to be very difficult to quantify the benefits of alliances.

Nevertheless, the KLM/Alitalia alliance is unique in that the two partners have committed to the overall strategic concept, have put in place a legal and economic framework and have hammered out many of the details of the joint venture. Now the implementation of the alliance basically depends on how well Dutch and Italian middle managers can work together. Perhaps not an obvious combination but important progress has already been made - the Italians have agreed not to use their mobiles during meetings and the Dutch have made concessions to the Italians' more civilised dining hours.

Brazil: four become two (or one)?

Brazil's airline industry could be in for a major restructuring if Varig, VASP, Transbrasil and TAM can reach agreement on how to rationalise their international operations in the face of overcapacity and heavy financial losses. The CEOs of the four carriers have been talking about co-operation and even mergers - all seemingly with the full blessing of the Brazilian regulators.

The policy change was confirmed when a high-ranking official from Brazil's Justice Department said in early August that the government would like to see the four carriers merge into two, suggesting that Varig should pair up with TAM and VASP with Transbrasil. This would be facilitated by a change in competition laws, which currently do not allow an individual company to control more than 50% of the domestic market.

There has been a shift in national priorities. As overseas competition has intensified and foreign companies have taken control over some public utilities, it has become politically desirable to allow mergers that create strong Brazilian-owned companies.

However, the government wants to keep options open for the airlines as there are also plans to raise the limit on foreign ownership of

the country's carriers from the current 20% to 49%.

The airlines have been hit hard by the effects of the January 1999 devaluation and ongoing recession, which have drastically reduced Brazilians' travel abroad and caused dollar-denominated debt and operating costs to soar. Also, domestic competition has increased sharply due to deregulation over the past 18 months, and price wars have made even key business-oriented routes such as Rio-Sao Paulo unprofitable.

Varig reported a R\$49m (US\$25m) net loss for the March quarter, which its independent accountants said was understated by R\$223m because of the deferral of foreign exchange losses. In April it instigated a new cost-cutting programme, which has involved route and fleet cutbacks and financial restructuring.

VASP, which has aggravated its financial position with foreign airline acquisitions, lost about US\$50m in that period and is now trying to renegotiate its US\$1.8bn debt. TAM and Transbrasil reported net losses of US\$60m and US\$16m respectively for the first quarter. So could the world now see the creation of a Brazilian mega-carrier similar in size to a mid-size US Major?

As in Canada (see pages 2-3), such a combination controlling practically 100% of the domestic market would probably be frowned on by the regulators.

Consolidation from four to two is also unlikely because of the problem of CEO egos. Although Varig/Transbrasil and VASP/TAM would make more sense, the latter would be difficult unless TAM acquires VASP. But VASP's CEO insists that his airline is not for sale (although its foreign subsidiaries Ecuatoriana, LAB and TAN-Argentina apparently are).

It is also a little hard to see how the airlines could combine their international operations while remaining independent and competing in the domestic market, which is believed to be one of the hottest scenarios under discussion. The Mexican CINTRA model, itself causing monopolistic anxieties in that country, is no doubt now being closely scrutinised in Brazil.

Varig would obviously emerge a winner from any restructuring. It is Latin America's

largest airline and has a strong international presence, which the Star alliance will help solidify. It already has a dominant 69% share of Brazilian carriers' international traffic and a 41% domestic market share.

But consolidation moves in Brazil could complicate established codeshare relationships with the US carriers - Varig's with United, VASP's with Continental, TAM's with American and Transbrasil's with Delta. Those alliances may not be of much help at present, but they showed considerable promise in better times not so long ago. It is worth noting that the Brazilian economy is now on track to resume growth by the end of this year.

More relaxed foreign ownership rules would, of course, attract the attention of the cash-rich US Majors. But Varig's CEO Fernando Pinto had another suggestion to his US counterparts in a recent speech: Why not use some of that money to promote Brazil as a destination for US tourists? He was referring to the peculiar fact that almost 80% of the US-Brazil passengers originate in Brazil.

Outlook for engines

To complement ESG's latest jet aircraft forecast (see *Aviation Strategy*, August 1999) here we summarise the associated jet engine delivery forecast.

The total value of the market is estimated at about \$10bn this year, but this number excludes spares, which would probably add a further 15%.

ESG ENGINE DELIVERY FORECAST

	P&W	GE	Rolls Royce	CFM Int.	IAE	Allied Signal	BMW	Allison	TOTAL
1998	245	415	174	838	224	80	-	120	2,096
1999	344	374	204	980	198	100	24	160	2,384
2000	228	310	148	930	204	60	60	160	2,100
2001	208	266	130	740	160	40	40	140	1,724
2002	230	234	160	622	140	40	40	100	1,566
2003	252	248	180	562	128	40	40	80	1,530
2004	272	244	196	594	124	40	60	60	1,590

Source: ESG, August 1999.

ESG VALUE OF ENGINES DELIVERED FORECAST

\$m	P&W	GE	Rolls Royce	CFM Int.	IAE	Allied Signal	BMW	Allison	TOTAL
1998	1,602	2,134	1,112	2,985	833	116	-	211	8,992
1999	2,005	1,918	1,403	3,587	740	146	70	284	10,154
2000	1,371	1,500	1,057	3,487	774	89	177	287	8,743
2001	1,267	1,259	976	2,826	613	60	120	254	7,375
2002	1,253	1,196	1,104	2,391	548	60	121	184	6,859
2003	1,452	1,292	1,236	2,210	512	61	122	148	7,034
2004	1,565	1,374	1,336	2,360	505	62	185	113	7,499

Source: ESG, August 1999.

British Airways: misunderstood but correct?

British Airways is in a slightly embarrassing situation. Its latest results indicate that its profitability is not only well below that of Ryanair in relative terms but is also lower in absolute terms. It is possible that BA will not break even this financial year while Air France could produce as a record profit of around \$300m. So does the airline's widely hyped but little understood strategy make sense?

Contra-cyclical cost-cutting

In the 1995/96 financial year BA reported annual net profits of £473m. This put BA in the top tier of the world's most profitable airlines, or as the airline modestly stated in its annual report, "our financial results continue to set the standards for the industry". Despite this, in the same year, it launched its Business Efficiency Programme (BEP), which announced the need to "identify and deliver £1bn of annual efficiency savings by March 2000".

For an airline with a total cost base at the time of about £8bn, this was greeted enthusiastically by both the financial community and institutional shareholders, if not by the employees of the airline. As we approach the end of the BEP, the airline is forecast to just break even or perhaps to report a loss for the current financial year that

ends on March 31, 2000. Where have all the efficiency savings gone? Why have they not been translated into increased profitability?

Measuring "efficiency savings" at any complicated business such as an airline is hard, but at every AGM BA is happy to update its shareholders with the latest news on the BEP. A headline number is usually announced and examples given of where savings have been achieved. The following examples are from the 1996/97 financial year:

- BA Regional staff to take pay cuts;
- 400 job losses at BA World Cargo over two years following increased automation;
- Two-year wage freeze and changed working practices for ramp and baggage staff;
- Outsourcing of catering, vehicle management and maintenance services at Heathrow and Gatwick; and
- Closure of the third party handling business at Heathrow.

Estimating BA's cost savings

As it is well-nigh impossible to quantify the BEP from BA's accounts we have looked at the question from this angle. Working from the 1994/95, the year before the BEP was introduced, we have recalculated BA's operating costs for the following four years as if its unit costs (per ATK) had remained the same as in 1994/95. These theoretical costs were then subtracted from the actual reported costs.

The results for 1998/99 and the four completed years of the BEP are shown in the table on the left. This gives an indication of the maximum real savings that have been achieved (some unit costs will fall naturally with overall capacity expansion; on the other hand, inflation has not been taken into account).

The answer would appear to be about £700m of savings so far under the BEP (after discounting the exceptional cost item BA allocated to BEP restructuring in 1996/97). Importantly, the large majority of these savings came through in the last financial year - without them BA's figures would not have been disappointing, they would have been disastrous.

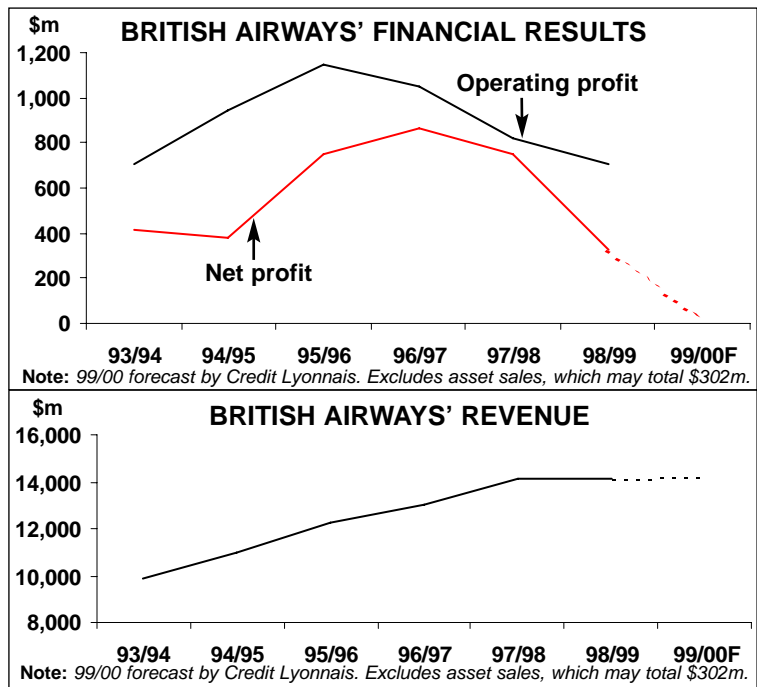
ESTIMATE OF BA'S COST SAVINGS UNDER THE BEP (£m)

	1998/99	Four-year total
Employee costs	304	422
Landing fees and en route charges	131	255
Selling costs	223	253
Depreciation and operating leases	58	243
Handling charges, catering & other op. costs	34	131
Fuel and oil	167	54
Engineering and other aircraft costs	-50	-110
Accommodation, ground equipment costs and currency effects	-109	-421
Total operating cost savings	757	827
BEP restructuring cost		-127
NET SAVINGS		700

Note: Calculated from base year 1994/95; the savings shown represent the difference between the actual costs and those that would have been incurred if BA's unit costs (per ATK) had remained at 1994/95 levels.

- The single most important area of cost saving was labour. Although overall staff numbers have increased, labour unit costs have come down as a result of the pay freezes painfully negotiated in 1997, the replacement of high-cost employees with newcomers, and, very importantly, an increase in capacity in 1998. Union conflict and strikes in 1997 may have resulted in bad publicity and deterioration in morale, but in cost control terms the action was essential.
- Landing fees and en route charges are largely outside BA's control, but this is one area where there would appear to have been significant cost savings. This is perhaps surprising as Eurocontrol prices have been escalating in recent years. On the other hand, landing fees have been reduced thanks largely to the RPI-x pricing formula that BAA has to apply at Heathrow and Gatwick.
- Rationalisation of the sales network - a gradual move to electronic means of production accounts for the reduction in selling costs.
- Aircraft depreciation/operating unit costs have benefited from higher aircraft utilisation, which rose from 8 hours a day in 1994/95 to 8.5 hours last year.
- Handling charges and catering costs have been cut through outsourcing and the subsidiary sales.
- Trends in fuel prices have delighted all airlines over the past five years. BA's own per gallon costs fell by 3-4% p.a. on average, more if dollar depreciation is taken into account. In addition, as BA is constantly renewing its fleet, savings in fuel burn to the order of roughly 3% p.a. should have been achieved. Unfortunately, it is difficult to detect this efficiency improvement in BA's numbers, probably because of the large increase in delays caused by air traffic control.
- Even in Engineering, where costs have risen, BA claimed to be making efficiency gains through outsourcing (of IT, for example). It is possible that some of the labour cost savings noted above reappear as purchases of external services in this category.
- The final category, which lumps together a disparate range of costs, looks to have been increasing alarmingly over the period of the BEP. However, much of this rise is associated with the impact of the appreciation of sterling on the cost structure, a development that is certainly outside management control.

Unfortunately, costs are only one part of the equation when it comes to the calculation of airline profitability. The BEP was put into effect recognising that yields were likely to fall in real terms and



in anticipation of some form of cyclical downturn in the industry. However, a recession did not materialise; rather competition increased both from UK low-cost new entrants and from the revitalised Lufthansa and Air France and their alliance partners. It is interesting to speculate about what would have happened if there had been a Europe-wide aviation downturn: there might now be another wide gap between the performance of BA and its continental rivals, who have not yet begun to address competition, cost and efficiency questions in the same way as BA.

In retrospect though, either the cost saving targets in the BEP were too low, the yield assumptions too high, or more likely a combination of both. It should be remembered that in 1997 BA's senior management was faced with an unenviable task explaining to the staff and unions the need for the BEP at a time when the airline was producing good profits. Having achieved the staff's "buy-in", albeit reluctantly, setting stiffer targets has proved a step too far.

The downsizing strategy

After five years of continuous cuts the easy savings will have been made. Aside from possibly Engineering and Flight Training, there are no large business units that can be outsourced, and most of the non-core activities have long since been

sold. Now the plan is to shrink the airline. Capacity growth in the current financial year to end-March 2000 will be just 0.6% and the following three years will see up to a 12% reduction in capacity.

The downsizing strategy will have one inevitable effect - it will push up BA's unit costs unless there is another attack on fixed and semi-fixed costs. Hence BA's immediate response in announcing (to the British Sunday press rather than its unions) a policy of cutting a further £225m out of its cost base by decimating its middle management through redundancies of more than 1,000.

Factoring in the planned reduction in ATKs, another £250m cost base reduction from the BEP and the new £225m additional cost cut, the cost per ATK for BA circa 2002 will be 37.7 pence/ATK, a rise of about 7% from the current level. Current unit revenue is only 37.0 pence, and to return to 1995/96 profit levels BA needs a unit revenue of around 42 pence.

So, on the basis of this crude calculation, we estimate that BA's target over the next two or three years has to be to push up unit revenue by 13%, through a combination of better load factors and higher yields. To achieve this, the airline is implementing a package of strategies - fleet downsizing, concentration on point-to-point, route rationalisation and new brands.

Fleet policy

A couple of years ago, BA was at the forefront of the airlines pressing Airbus to build the A3XX "super jumbo". However, the long-haul fleet in the future will now be increasingly centred on the 777

rather than the 747. BA has 19 orders and 16 options for the 777, having cancelled all nine orders for the 747. The 777's First and Business cabins are configured in much the same way as the 747s, so the seats are all being squeezed out of the Economy cabin.

There are interesting developments in the narrow-bodied fleet. BA has been pursuing a policy of phasing out 737 aircraft from Heathrow and using the 757 as its prime short-haul workhorse. The remaining 737s were either to be sold, used at its smaller UK hubs (Gatwick, Manchester and Birmingham), or be handed on to the airlines' subsidiaries.

However, this appears to have radically changed. The Heathrow 757 fleet is now perceived as offering too much capacity, so the 39 A319s and 20 A320s that BA has on firm order will eventually replace these aircraft. In turn, the 737 fleet must also be replaced as 737-200s are only Chapter 2-compliant, and the -300s and -400s are now too large for the new strategy.

BA is reported to be talking to Airbus and Boeing about acquiring 100-seater replacements. Unfortunately for Airbus and BA, the A318 delivery positions would appear to be too far out in time to permit BA to carry out its plans. Fortunately for Boeing, it can meet BA's demands with the 717. BA now has to decide whether it is worth the high cost of introducing a new type to its fleet in order to satisfy the strategic planners. BA will be looking to some innovative ideas from both manufacturers to solve the dilemma.

Route rationalisation

BA seems determined to prune its route structure, signalling its intentions by, for example, dropping Pittsburgh. It is also in the process of a three-month review of all its European services.

Assuming that the basic problem with the rationalised routes is revenue rather than operating cost, this strategy is the logical one to pursue. The downside - allowing competitors into Heathrow to operate the abandoned routes - is limited now that there will be no liberalisation of Bermuda 2 in the near future. Indeed, BA's shift towards smaller capacity jets could be seen as a way of mopping up as many slots as are available at this congested airport - from the BAA's point of view the new strategy can hardly be regarded as an optimal use of scarce resources.

BRITISH AIRWAYS' FLEET PLANS

	Current fleet	Orders (options)	Delivery/retirement schedule/notes
737-200	18	0	
737-300	7	0	
737-400	34	0	
747-100	6	0	
747-200	16	0	
747-400	57	0	
757-200	53	0	
767-300	28	0	
777	25	19 (16)	For delivery in 2000-2002
A319	0	39	Delivery in 1999-2004
A320	10	20 (129)	Delivery in 1999-2004. Options are for A320 family
Concorde	7	0	
DHC-7-100	2	0	
DHC-8	17	0	
TOTAL	280	78 (145)	

Note: Excludes Deutsche BA, Air Liberte and Go.

In Europe, there is a strong possibility that many of the leisure-orientated routes will be outsourced to Go, in the process increasing BA's presence at Stansted. This, in turn, may increase pressure for an IPO of Go; as long as it could retain a significant stake BA might welcome this development as it would diffuse some of criticism that Go is being subsidised by the parent and it would provide BA with a welcome infusion of funds.

Market segmentation

BA has four basic passenger segments: premium point-to-point, premium transfer, economy point-to-point and economy transfer. BA's aim is to change the revenue mix by concentrating on premium traffic, but it's really only the fourth category that BA wants to eliminate completely - the very low yielding economy transfer passengers. In effect, BA is attempting to redraw the competitive boundaries to those that it understands - operating in a duopoly against known competitors on major point-to-point routes.

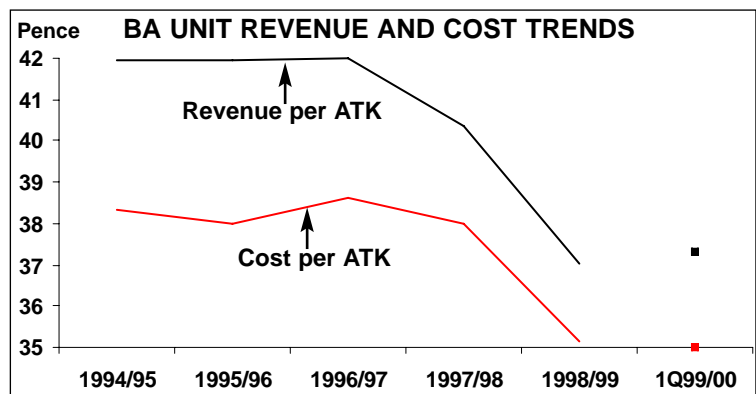
The risk is that by focusing so much on point-to-point business travel, BA is increasingly exposing the company fully to the vagaries of the UK business cycle. If the UK economy, which is never in sync with the German and French economies, slumps, the BA's profitability will depend on the second category - premium transfer. Then it will have to try to win this traffic back from the continental alliances.

By squeezing the number of economy seats, BA may run into another yield problem. If BA succeeds in filling the front cabins with business travellers, it may find that an unacceptably large proportion of the back cabin is occupied by business travellers redeeming their FFP miles and contribution zero yield.

Then there is also the classic segmentation problem: a business traveller is also likely to be at another time a leisure traveller. If BA inadvertently alienates the leisure-travelling business traveller, it will lose high yield custom.

Super-branding

To succeed in pushing up unit revenue BA has to extract premium prices through its new unique long-haul brand which feature both a super-First and a super-Business product (to be followed by a super-Economy product?).



BA has probably established a potential lead here. But it is not the only airline making product improvements at the top end of the market: Singapore Airlines and Cathay Pacific already offer bed seats and Virgin is similarly committed to their introduction.

The emphasis on promoting its own product brands again raise questions about the oneworld concept. Although it is certainly not going to disappear, oneworld as a brand is greatly weakened as AA/BA (see *Aviation Strategy* passim) is on perpetual hold and will only be resurrected when the UK and the US agree on some form of open skies. Nevertheless, the oneworld alliance still brings certain major strategic or tactical benefits to BA - the Bangkok hub with Qantas is very important in accessing Southeast Asia; Hong Kong with Cathay is the unquestioned gateway to China, Madrid with Iberia is potentially very important for South America; Helsinki with Finnair is useful for Northeast Asia.

In Europe, the question is whether the benefits that DBA and Air Liberte bring in terms of promoting oneworld compensate for the losses they continually report. Although selling these subsidiaries would be in line with the downsizing strategy, it is unlikely that BA would be willing to see Lufthansa, Air France or KLM encroach on its territory even if that territory is not presently producing any profits.

There are no European precedents to judge BA's package of strategies by, although it they are not too different from those pursued by the US Majors in recent years - severely restrain capacity, force up yields, fortify hubs, upgrade international products, outsource to lower-cost subsidiaries - which has produced record profits. But in the US all the main airlines were playing the same game.

US Airways: now what's going on?

US Airways aims to become a global "carrier of choice" with the help of a new Airbus fleet, MetroJet and other smart strategies. But, just as modest capacity growth has resumed for the first time in five years, costs are surging, yields are tumbling, operating performance is deteriorating and customer complaints are rising. Now that contract talks with the mechanics have broken down, the company faces the nightmarish prospect of a strike after a 30-day "cooling-off" period. At the same time, key shareholders are getting impatient.

All of this turmoil is disappointing in the light of the impressive efforts of the Wolf-Gangwal leadership team. First, a new five-year pilot contract in the autumn of 1997 ended years of stalemate, offered some cost savings and facilitated an order for up to 400 Airbus narrowbody aircraft. The deal also paved the way for the launch of MetroJet in June 1998 and the introduction of regional jets to the fleets of commuter partners.

The past 12 months have seen a complex route network restructuring, as MetroJet and the Boston-New York-Washington Shuttle, which was purchased in late 1997, have been grown rapidly at the expense of the mainline short-haul operations. MetroJet, which already serves 22 cities

with a 41-strong fleet, is helping US Airways retain low-fare markets, while Shuttle enhances its presence on the most lucrative business travel routes in the Northeast.

There has also been major transatlantic expansion since 1996. This is logical as the bulk of the US-Europe traffic is destined to or originates from US Airways' East coast stronghold. Seats offered to Europe have tripled since 1995, and further growth will be facilitated by the introduction of the A330 next year and the new terminal facilities at Philadelphia due to open in 2001.

Feeder operations have been enhanced with the introduction and expanded use of the regional jet by Mesa and Chautauqua Airlines - most recently at New York's La Guardia - and the growth of turboprop flying by other US Airways Express operators. And US Airways has strengthened its overall market position by forging a marketing and FFP alliance with American in April 1998.

All of this adds up to a smart and balanced expansion strategy, which focuses on strengthening US Airways' already formidable presence in the Eastern US. And the pace can hardly be considered reckless - just 3.9% overall ASM growth in the first six months of this year, after a 2.7% decline in 1998.

The network restructuring has been accompanied by various cost saving and revenue enhancing measures. The most important ones have been the consolidation of maintenance facilities from six to three, the launch of an improved international business product (Envoy Class) in late 1997, and a 25-year agreement with SABRE last year to provide most the company's computer needs.

At the same time, US Airways has consolidated its 1995 financial turnaround. For 1998 the Group reported a pre-tax profit of \$902m and a net profit of \$538m, representing 10.4% and 6.2% of revenues. Total debt was reduced from \$2.8bn to \$2bn in the three years to the end of 1998, while cash rose from \$900m to \$1.2bn in the same period. Some \$972m of preferred stock has been eliminated and there is a common stock repurchase programme in place to boost shareholder value.

The first indication that something was wrong came in early June 1999, when US Airways warned

US AIRWAYS' FLEET PLANS

	Current fleet	Orders (reconfirmable + options)	Delivery/retirement schedule/notes
727-200*	11	0	7 more to be retired in 1999
737-200	20	0	3 more going to MetroJet, 2 more retirements in 1999
737-200**	41	0	
737-300	85	0	
737-400	54	0	
757-200	34	0	
767-200	12	0	
DC-9-30	45	0	11 more retirements in 1999, rest in 2000-2001
MD-80	31	0	To be eventually replaced by A320 family
A319	17	101 A320F	11 more deliveries in 1999
A320	8	(112+160)	3 more deliveries in 1999. Then 25 A319/A320/A321s per year
A330	0	7 (7+16)	Firm orders: 6 due in 2000, 1 in early 2001
F-100	40	0	
TOTAL	398	108 (119+176)	

Note: *Shuttle. **Metrojet.

that its June quarter earnings would be below expectations. That in itself was none too surprising as the May statistics had indicated an industry-wide weakening of domestic traffic growth and yields. But a second warning from US Airways on July 14 that its earnings would remain disappointing through the rest of 1999 set alarm bells ringing.

The Group reported a 25.4% decline in operating profit to \$279m in the second quarter. Although net profit rose by 63% to \$317m, it included \$181m of non-recurring after-tax gains from the sale of securities - without those gains net earnings fell by 30% to \$136m.

It was not the worst of the profit declines posted by the Major, but the situation at US Airways is rather troubling for several reasons. First, the carrier appears to be under much greater pressure on the revenue side than the rest of the industry, while its cost trends are also disconcerting. Second, there has been a surge in flight cancellations and passenger complaints. Third, as indicated by two filings to the SEC in August, the problems have got worse as the summer has progressed.

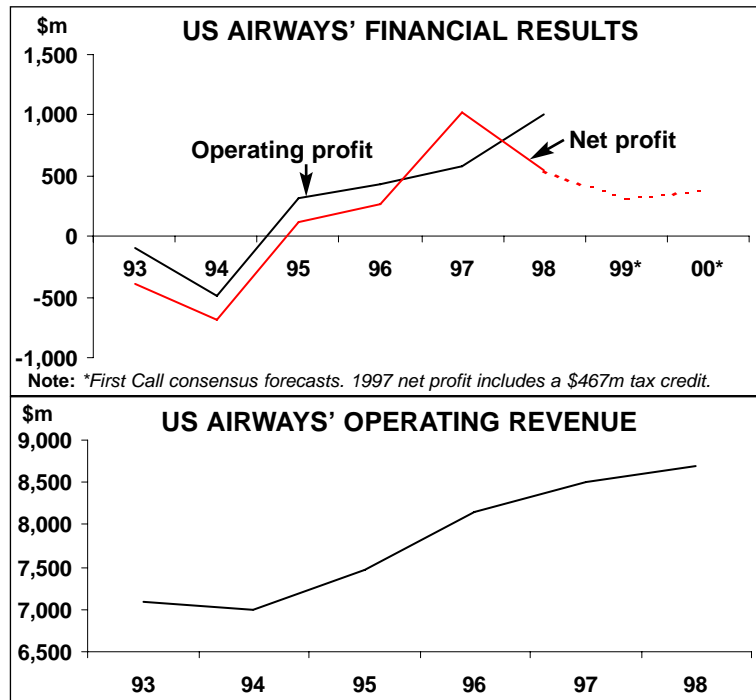
The company does not have a cohesive plan to tackle those issues. As a result, analysts have revised down their estimates of the Group's earnings for the third and fourth quarters and for the year several times this summer. The latest First Call consensus forecast is a profit of \$4.24 per diluted share for 1999, which would represent a 24% decline from last year's \$5.60. The 3Q and 4Q estimates are \$1.06 and 88 cents respectively.

However, these forecasts are probably already out of date as news of the breakdown of mechanics' contract talks at US Airways appears to have prompted another round of earnings revisions. On August 25 PaineWebber analyst Sam Buttrick reduced his estimates to just 60 cents for both 3Q and 4Q, and \$3.60 for the year, to reflect weaker revenue generation resulting from lost bookings during a countdown period to a possible strike.

US Airways' stock has been a dismal performer, falling by as much as 35% in July alone (beating UAL's 21% and TWA's 16%). In early August the share price plummeted to a new 52-week low of just over 30 cents, down from a peak of about 80 cents in mid-1998.

Why operational problems?

Since the beginning of this year US Airways has been plagued by an unusually high level of flight



cancellations. In the first quarter, 5.6% of its scheduled flights were not completed, which was more than double the level in the same period in 1998 and 1997. The second-quarter figures were nearly as bad, and July saw a cancellation rate of 7.6%, compared to 1.8% a year ago. The company warned in early August that its costs and revenues would continue to be hurt by flight cancellations and passenger dissatisfaction in the third quarter.

The cancellations have been blamed on a host of factors, including the weather (first quarter), ATC delays (particularly bad in July), pilot training issues, the complexity of integrating new Airbus aircraft, the need to reconfigure aircraft for MetroJet, problems in switching to SABRE, and delays in getting aircraft out of scheduled maintenance.

Some of this obviously hints at growing pains - after all, US Airways did take on a formidable challenge in simultaneously executing so many new strategies. However, the real reason for the continued maintenance delays appears to be the difficult situation with the mechanics. The company has not yet publicly admitted this, but all the evidence suggests that there has been a prolonged work slowdown.

This would certainly explain why there is no decisive strategy for dealing with the crisis. One of the recent SEC filings stated that the company is "unable to precisely determine the timing of when these factors will be resolved". According to

a US Airways spokesman, the situation is being controlled primarily with "a small number of pre-emptive flight cancellations".

All of that has made it necessary to scale back expansion. The slowing of domestic traffic growth in the spring prompted US Airways to reduce its planned 1999 ASM growth from 7% to 6%. In August that figure was trimmed to 5.1% due to lack of aircraft and demand conditions. US Airways anticipates only 1% RPM growth in 1999, which would lead to a 2.8-point load factor decline.

Serious labour trouble

But those growth rates will, of course, not materialise if the labour situation deteriorates. On August 23 the company's mechanics, represented by IAM, asked the National Mediation Board (NMB) to declare the contract talks at an impasse. As expected, the NMB released the two sides into a 30-day "cooling-off" period, which will expire on September 25. If no tentative contract is reached by then, the union will be free to strike.

The mechanics have been in contract talks since 1995. Although tentative agreement was reached in early June, in mid-July the membership rejected it with a 75% majority and voted to support a strike. Major issues like pay and job security are the sticking point. The union is seeking retroactive pay to September 1997, an immediate 4% rise, 4% annual rises thereafter and premiums on evening and overtime work.

US Airways has sought to secure concessionary contracts similar to the 1997 pilot deal with its other unions. Its 6,100 fleet service workers - another important IAM-represented group - ratified their first contract in April, while TWU-represented dispatchers followed suit in July. Talks with the 9,500 passenger service employees,

who have just elected to be represented by the Communications Workers of America (CWA), may be concluded relatively quickly. However, tough negotiations continue with the flight attendants under federal mediation.

US Airways has a long history of difficulties with its mechanics - each of the past four IAM contract talks dating back to 1982 ended in impasses and the most recent one resulted in a four-day strike in 1992. Although the mechanics' pay is believed to be close to the industry average, the workers are determined to get their share of the company's record profits.

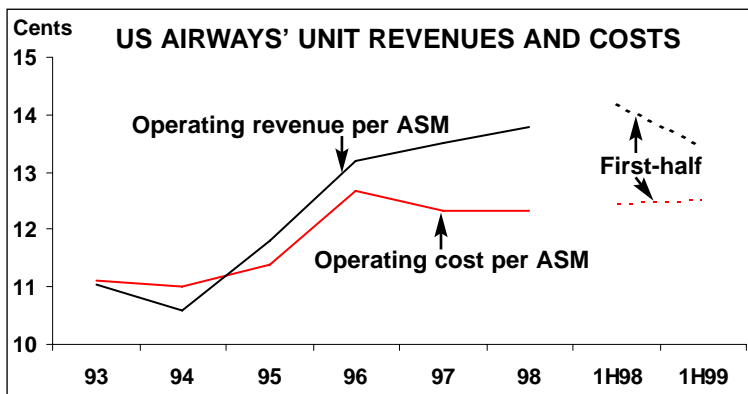
A strike is, of course, a nightmarish scenario for any carrier, but a 30-day countdown alone can inflict much financial damage. An August 27 SEC filing by US Airways warned of "an adverse effect on short-term revenues". PaineWebber tentatively estimates (without input from US Airways) that the "booking away" impact of a 30-day countdown could be a revenue loss of around \$50-60m.

Yield and unit cost pressures

US Airways has been expected to gradually lose its revenue-premium because of growing low-cost competition on the East coast, and the transfer of routes to low-fare MetroJet has naturally accelerated that trend. But no-one expected it to happen this fast. US Airways' unit revenues fell by 6.2% in the second quarter, which was the sharpest decline reported by the major carriers. According to a recent estimate by Merrill Lynch, July saw an 8% decline, when the average fall of just 0.8% for the rest of the industry reflected improvement over the May and June figures.

This has prompted some criticism from analysts that the financial effects of MetroJet were miscalculated. Perhaps the new venture has been taken to too many business-oriented markets, where the mainline operation previously attracted substantial volumes of premium-fare traffic? However, it is important to bear in mind that US Airways really had no choice other than to get on the low-cost bandwagon and that it needed to defend its key markets.

MetroJet was centred on Baltimore, where Southwest has established a base, and it was taken to the Northeast-Florida markets, where Delta Express has become a major competitor. But possibly the toughest challenge has actually come from United, which in April began aggressively



building Washington Dulles into a fully-fledged hub with numerous short-haul, transcontinental and international services. United is now also considering bringing its low-cost Shuttle to Dulles.

The indications are that MetroJet has achieved significant efficiencies with its one aircraft type, single-class, quick turnaround operations. Average daily aircraft utilisation has risen from nine to 12 hours. Load factors have apparently met expectations and a broad-based FFP has helped attract business traffic. However, MetroJet will not have much impact on US Airways' extremely high overall unit cost structure.

Because of the inevitable decline in unit revenues and yields, US Airways is pinning its hopes on unit cost reduction. Costs per ASM were supposed to start coming down this year with the help of capacity expansion, but that has not happened for several reasons. First, labour costs are rising - in the June quarter that trend was attributed to a decision to grant immediate pay rises to customer service agents. Second, the hike in fuel prices is having a greater impact on US Airways than on its competitors because it is less hedged against fuel costs. Third, there have been additional costs associated with getting new systems working. Fourth, extra spending is bound to be necessary to restore operational performance and service standards.

However, once the current problems have been ironed out, the modern and streamlined Airbus fleet is fully integrated and international expansion gets into full swing, unit costs should start coming down. US Airways is still expected to outperform the industry in terms of unit cost reduction over the next few years.

Fleet and expansion plans

Growth will largely come from MetroJet and transatlantic expansion, though because of the short term aircraft availability constraints MetroJet's expansion will now slow a little until around the middle of next year. Several new markets planned for this autumn have been cancelled and the venture will now utilise at most 48 aircraft by year-end, compared to the previously envisaged 54.

The process of fully integrating Shuttle continues with the transfer of more routes, revamping the product and upgrading the fleet. US Airways recently converted its own Boston-Washington National and Dulles to Boston and LaGuardia services into Shuttle, and Dallas services will follow

shortly. In October Shuttle will receive its first A320, which will replace its 11-strong hushkitted 727 fleet over the next year.

The A319 and the A320, which entered service last November and February respectively, will ultimately replace also the 737-200, DC9-30 and MD-80 fleets. There are now 25 A319/320s in the fleet, with 14 more scheduled for delivery by year-end. The rest of the 87 firm orders and 272 option will arrive at a rate of about 25 aircraft per year.

The A330-300, which is expected to enter service in late spring, will replace the transatlantic fleet of 12 767-200s (which will be transferred to long-haul domestic routes) and facilitate major international expansion, as well as a three-class service. The seven A330-300s on firm order are all due to arrive by early 2001, and the 23 options can be switched to other A330 models or the A340.

There are also ambitious plans on the drawing board for US Airways Express operators. Manufacturers have reportedly been approached for proposals for up to 400 regional jets. But that would require the approval of US Airways' pilots union, whose current contract caps the number of RJs at 9% of the mainline fleet (about 35). Even though RJs must be particularly threatening to the pilots of a predominantly short-haul carrier, the union is believed to be willing to consider relaxing the restrictions.

Shareholder value considerations

In early August US Airways' shares received a temporary boost as Tiger Management, a large New York City hedge fund that owns 22.4% of the airline's stock, said in an SEC filing that it is exploring ways to enhance shareholder value, including options such as a merger, sale or recapitalisation. While praising US Airways' management, Tiger felt that the stock was undervalued and indicated that it may consider selling its stake.

The announcement may have been intended mainly at stabilising the share price. It is certainly hard to see how US Airways could possibly benefit from another ownership change. A merger with another major carrier would be an unrealistic proposition because of labour and antitrust hurdles. US Airways and American have been talking about expanding their marketing alliance, which could obviously be extremely beneficial. However, the issue may have been relegated to the sidelines this summer as both carriers have had serious internal problems to deal with.

By Heini Nuutinen

Distribution and channel management: where now?

Distribution and channel management practices at the world's major airlines have changed radically in the last four years. Further progress is required but not necessarily guaranteed.

Until about 1995, travel agencies unquestionably performed best for the passenger along this value chain, and were in turn rewarded with 80% or more of total airline passenger bookings. In accessing information, for instance, the travel agencies were for the general public the only reliable, easily used source for unbiased, multiple carrier flight listings. In making reservations, by and large they did so more painlessly for the passenger than for any other distribution channel. In accessing other services, they did so with unparalleled convenience, and so forth across the entire value chain.

Disequilibrium factors

Six factors upset the equilibrium among distribution channels, allowing the initial round of commission cuts, led by Delta Air Lines in February 1995, and all subsequent rounds to stick.

- * Heavy profit pressure on the airlines - emanating from the bleak economic performance of the early 1990s;
- * An emerging understanding of the factors that affect passenger choice of airlines - that passengers mostly choose the carrier, and that travel agents influence carrier choice only on a small percentage of the tickets they book;
- * Recognition that the airlines' compensation of agencies had been cross-subsidising other travel partners and corporate travel management programmes - principally hotels and rental cars;
- * The increasing strength of airline brands as FFPs and alliances gained momentum;
- * A better understanding of profitability by passenger segment - that for many airlines their high-end business travellers contributed more than 100% of their profits; and
- * Emerging technology would facilitate more robust direct relationships with passengers - initially electronic ticketing and viable software-

based direct booking products, and later the Internet.

From an airline perspective, all-in travel agency distribution costs totalled between 15 and 19% of passenger revenues when commissions, overrides, agency support, credit card and CRS fees were fully accounted for. The time when these costs could be accepted at then-current levels simply had passed, especially in view of the fact that the travel agency channel cost per ticket was more than twice that of the direct channels.

All US carriers, and a high percentage of non-US airlines, have now significantly lowered their distribution costs. But individual responses have varied greatly and carry the mark of unfinished business in most cases. Commission rates are down across the board, having been reduced in several waves of cuts in most cases. Override policies have tightened up. Direct channel usage is much higher than would have been thought possible at the beginning of the decade, as passengers use proprietary booking products such as Eeas Sabre (American Airlines), United Connections and Priority Travelworks (US Airways) plus the Internet. An added bonus is that direct electronic channels are about two-thirds as expensive as the traditional direct channels (ticket-by-mail, airline/city ticket office, etc.).

The potential impact is dramatic. Consider the case of an airline with total distribution costs of 15% in 1995 with an 80/20 indirect/direct channel mix. A reversal to 20/80, with all direct in electronic channels, would drive an astonishing 7% of revenues to the bottom line, even if indirect channel costs did not drop. Clearly, savings of this magnitude are not on the cards in the short-term, but establish boundaries on the savings opportunity.

Separately, carriers are accumulating valuable experience on the leisure side. Auctions for low-end capacity are proliferating, run both by carriers themselves and by electronic intermediaries such as Priceline.com. Special deals such as last-minute travel for fixed low prices are now well-established on carrier Internet sites. These

mechanisms, targeted at one-off, low-end market opportunities, allow the carriers the chance to accumulate experience that can be applied to the distribution of higher yield seats now and in the future. Combined with the understanding of travel patterns and preferences gained through FFP databases, these techniques can be profitably applied to an airline's best customers.

Online travel agencies are part of the indirect channel world but with commission rates in the 4-5% range - about half current agency levels - are looking a lot like direct. Passengers, especially business travellers, have become more comfortable with new technology. The growth in e-commerce is conditioning the public, and specifically higher income and education segments most likely to travel frequently by air, to use the Internet to buy direct rather than subscribe to traditional distribution channels, in everything from books to pet food. However, the airlines' ability to take full advantage of these trends is bounded not only by the pace of public adoption of new technologies, but also by the relative unfriendliness of many airline Internet sites.

Taken together, these pluses and minuses should signal a bright future for airline distribution, punctuated by lower costs and more direct relationships with customers. Despite all of this progress, however - new technology, emerging channels, lower costs - the structure of airline distribution is little changed.

Large sales forces still support the high cost indirect distribution channel. While commissions have fallen close to what might appear to be a structural floor in many markets, overrides are still negotiated. Corporate discount levels are often high enough to be justifiable only on a defensive basis, since they could never move enough incremental traffic to match the profits negotiated away. The integration of electronic distribution with corporate travel management is largely unachieved. Carriers that have broken ranks and pursued cost reductions greater than their peers - such as SAS, which published disappointing financial results in August - have suffered, at least in some measure.

What are the next steps?

We suggest at least five:

First, airlines must prepare the infrastructure supporting direct distribution for much higher traf-

fic volumes. This means Internet sites with slick front ends and continuously improving technology guided by a steady stream of customer feedback (online surveys, analysis of complaints and service interruptions, usage analysis, etc.).

Second, agency incentives should be derived on a rigorously analytical basis, with costs and benefits explicitly understood and quantified. Too often a spirit of gradualism pervades negotiations, which inspire the airlines to settle for doing a bit better than in the last round, rather than seeking a paradigm shift based on changed realities. If an override programme costs more than the margin achievable on the incremental traffic it's likely to drive, it may be a bad idea. If it costs more than the contribution to fixed costs that it's likely to drive, it's definitely a bad idea.

Third, corporate programmes that offer discounts from the first dollar are not likely to be justifiable in terms of incremental traffic; while they may be rational from a competitive standpoint, it's important to be certain lest a carrier give away margin needlessly. Often the sales department is not the best positioned to perform an objective review of these agreements - a check by disinterested, quantitative staff is a good idea.

Fourth, those airlines with most or all of their sales force committed to support the travel agency distribution channel should consider redeployment, to at least some extent, to lower cost distribution channels targeted for expanded use in the future.

Finally, airlines should move with all speed to provide the technology support necessary to manage corporate travel programmes with reduced intermediary involvement. Many corporations will choose to continue to involve agencies, either because they value third party involvement or because the travel manager - agency - travel provider relationship and approach are firmly entrenched. This should not, however, dissuade the airline, especially those with a commanding home market seat share, from providing a viable direct alternative.

So, airlines have made significant progress in the last several years in distribution strategy, following more than a decade and a half of stagnation following US deregulation in 1978. In 1999, it's important to recognise that the last four years of progress will only be consolidated and continued if the industry resists the temptation to take another 15-year breather.

By Mark Shields
e-mail:
shieldsmf@yahoo.com

Aviation Strategy

Macro-trends

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 %
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
1997	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
1998	188.3	120.3	63.9	194.2	149.7	77.1	135.4	100.6	74.3	453.6	344.2	75.9	673.2	484.8	72.0
June 99	17.1	11.4	66.3	19.7	16.2	82.2	11.1	8.4	75.9	41.6	32.2	73.9	60.7	44.9	73.9
Ann. chng	9.5%	6.0%	-2.2	15.7%	11.7%	-3.0	3.2%	7.3%	2.9	11.8%	10.1%	-1.1	11.8%	10.1%	-1.1
Jan-June 99	97.0	59.2	61.0	103.4	77.6	75.0	66.4	49.6	74.7	237.6	174.9	73.6	350.3	244.3	69.7
Ann. chng	7.2%	4.9%	-1.4	14.1%	12.6%	-1.0	2.5%	2.2%	-0.5	9.9%	8.3%	-1.0	9.2%	7.8%	-0.9

Source: AEA. Note: Total long-haul traffic also includes S.Atlantic, Mid Atlantic & Southern Africa. Total int'l also includes N.Africa & M.East.

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 %
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	953.3	663.7	69.6	138.1	108.9	78.9	122.0	91.2	74.7	71.3	46.4	65.1	331.2	246.5	74.4
1998	961.0	679.1	70.7	150.3	118.5	78.8	112.1	81.6	72.8	84.0	52.3	62.3	346.4	252.4	72.9
June 99	85.1	63.4	74.5										31.0	24.5	79.1
Ann. chng	6.3%	4.0%	-2.1										3.5%	5.5%	1.5
Jan-June 99	490.1	343.6	70.1										173.9	127.0	73.0
Ann. chng	3.6%	3.4%	-0.1										2.2%	3.0%	0.5

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

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 %
1992	1,305	837	64.2	1,711	1,151	67.3	3,016	1,987	65.9	3.0	4.6	15.1	15.3	9.5	10.5
1993	1,349	855	63.3	1,785	1,205	67.5	3,135	2,060	65.7	3.4	2.0	4.4	4.8	3.9	3.6
1994	1,410	922	65.3	1,909	1,320	69.1	3,318	2,240	67.5	4.6	7.9	6.9	9.4	5.9	8.8
1995	1,468	970	66.1	2,070	1,444	69.8	3,537	2,414	68.3	4.1	5.4	8.5	9.4	6.6	7.8
1996	1,540	1,043	67.7	2,211	1,559	70.5	3,751	2,602	79.4	4.9	7.4	6.8	8.0	6.0	7.8
1997	1,584	1,089	68.8	2,346	1,672	71.3	3,930	2,763	70.3	2.9	4.5	6.1	7.2	4.8	6.1
1998	1,638	1,147	70.0	2,428	1,709	70.4	4,067	2,856	70.3	3.4	5.2	3.5	2.2	3.4	3.4
*1999	1,733	1,196	69.0	2,557	1,814	71.0	4,290	3,009	70.2	5.9	4.3	5.3	6.1	5.5	5.4
*2000	1,810	1,244	68.7	2,715	1,922	70.8	4,525	3,165	70.0	4.4	4.0	6.2	5.9	5.5	5.2
*2001	1,868	1,273	68.1	2,837	1,992	70.2	4,706	3,265	69.4	3.3	2.3	4.5	3.7	4.0	3.2
*2002	1,923	1,291	67.1	2,961	2,049	69.2	4,883	3,339	68.4	2.9	1.4	4.3	2.8	3.8	2.3
*2003	1,973	1,353	68.6	3,093	2,187	70.7	5,066	3,540	69.9	2.6	4.8	4.5	6.7	3.7	6.0

Note: * = Forecast; ICAO traffic includes charters. Source: Airline Monitor, July 1999.

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	114	108	107	107	111	152	135	128	128	126	155	124	127	116	132
1997	118	112	110	109	112	172	146	142	142	138	177	135	136	123	132
1998	122	115	113	112	109	173	150	152	150	135	196	144	147	133	121
*1999	124	116	115	115	109	179	154	159	156	140	211	150	156	141	124

Note: * = Forecast; Real = inflation adjusted. Source: OECD Economic Outlook, December 1998.

Aviation Strategy

Macro-trends

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
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	102	105	85	148	131	81	104	94	100	129	129	69
*1998	107	105	84	151	127	71	108	96	106	127	134	61

Note: * = First-half year. European indices = weighted average of BA, Lufthansa and KLM. US indices = American, Delta, 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 cost per employee. Unit fuel cost = fuel expenditure and taxes per ATK.

FINANCIAL TRENDS (1990=100)

	Inflation (1990=100)					Exchange rates (against US\$)						LIBOR 6 month Euro-\$	
	US	UK	Germany	France	Japan	UK	Germ.	France	Switz.	Euro**	Japan		
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	113	107	1996	0.641	1.505	5.116	1.236	0.788	108.8	4.48%
1997	122	117	123	114	108	1997	0.611	1.734	5.836	1.451	0.884	121.1	5.85%
1998	123	120	124	115	109	1998	0.603	1.759	5.898	1.450	0.896	130.8	5.51%***
*1999	125	122	126	116	108	Aug 1999	0.630	1.872	6.278	1.534	0.957	111.1	5.88%***

Note: * = Forecast. **Source:** OECD Economic Outlook, December 1998. **Euro rate quoted from January 1999 onwards. 1990-1998 historical rates quote ECU. *** = \$ LIBOR BBA London interbank fixing six month rate.

OPERATING COSTS PER BLOCK HOUR

Model	Cost \$	Model	Cost \$	Model	Cost \$
727-200	2,497	757-200	2,527	DC-10	4,878
737-100/200	1,865	767-200	3,130	A319	1,388
737-300	1,785	767-300	3,318	A320	2,149
737-400	1,933	777-200	3,810	AVRO/BAe 146	2,208
737-500	1,783	DC-9	1,982	Canadair RJ	1,048
737-800	2,220	MD-80	2,012	EMB-145	923
747-100/200	7,500	MD-90	1,832		
747-400/+	6,786	MD-11	5,361		

Source: ESG, Aug 1999. Costs include labour, fuel, maintenance, other, depreciation/rental; based on US airlines' Form 41 returns for 1998.

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
ATR	-	-	-	-	-	-
Airbus	Aug 24	LanChile	7 A340-300s		4Q00+	+ 7 options
	Aug 12	China Airlines	7 A340-300s		2Q01+	+ 1 option. + 4 A330-300 options
BAe	-	-	-	-	-	-
Boeing	Aug 11	China Airlines	13 747-400Fs	\$2.5bn	3Q00-07	
Bombardier	Aug 16	Atlantic Coast AL	20 CRJ-200s	\$430m	By 4Q02	
	Aug 3	Tyrolean Airways	2 CRJ-200s	\$47m		From options
Embraer	-	-	-	-	-	-
Fairchild Dornier	Aug 30	Hainan Airlines	19 328JETs	\$226m	4Q99-3Q01	+20 options

Note: Prices in US\$. Only firm orders from identifiable airlines/lessors are included. MoUs/Lols are excluded. **Source:** Manufacturers.

Aviation Strategy

Micro-trends

	Group revenue	Group costs	Group operating profit	Group net profit	Total ASK	Total RPK	Load factor	Group rev. per total ASK	Group costs per total 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	%	
American*														
Oct-Dec 97	4,228	3,871	357	208	63,308.3	42,715.7	67.5	6.68	6.11	19,681	9,366.9	5,025.2	53.6	88,302
Jan-Mar 98	4,229	3,802	427	290	62,405.4	41,846.6	67.1	6.78	6.09	19,267	9,207.0	4,889.4	53.1	87,569
Apr-Jun 98	4,497	3,889	608	409	64,471.8	46,075.9	71.5	6.98	6.03	20,901	9,512.3	5,317.6	55.9	87,076
Jul-Sep 98	4,583	3,958	625	433	65,920.1	48,093.9	73.0	6.95	6.00	21,457	9,739.3	5,466.1	56.1	89,078
Oct-Dec 98	4,152	3,857	295	182	64,317.3	43,811.6	68.1	6.46	6.00	19,805	9,526.7	5,060.1	53.1	90,460
Jan-Mar 99	3,991	3,954	37	158	62,624.3	41,835.4	66.8	6.37	6.31					
Apr-Jun 99	4,528	4,120	408	268	67,313.8	47,945.9	71.2	6.73	6.12					
America West														
Oct-Dec 97	473	432	41	20	9,573.7	6,219.9	65.0	4.94	4.51	4,375	1,200.4	670.1	55.8	11,232
Jan-Mar 98	483	434	49	25	9,408.0	5,851.4	62.2	5.13	4.61	4,149	1,180.7	630.2	53.4	11,329
Apr-Jun 98	534	457	77	41	9,787.8	6,899.1	70.5	5.46	4.67	4,643	1,228.9	733.0	59.7	11,645
Jul-Sep 98	499	453	46	22	9,884.3	7,108.3	71.9	5.05	4.58	4,665	1,240.4	746.9	60.2	11,600
Oct-Dec 98	507	470	37	20	10,037.2	6,491.9	64.7	5.05	4.68	4,335	1,261.2	688.1	54.6	11,687
Jan-Mar 99	520	469	51	26	10,135.4	6,485.5	64.0	5.13	4.63	4,263				
Apr-Jun 99	570	494	76	42	10,446.0	7,204.8	69.0	5.46	4.73	4,724				
Continental														
Oct-Dec 97	1,839	1,707	132	73	28,278.6	19,400.1	68.6	6.50	6.04	10,188	3,381.1	2,140.0	63.3	37,021
Jan-Mar 98	1,854	1,704	150	81	28,199.8	19,427.5	68.9	6.57	6.04	10,072	3,372.4	2,134.4	63.3	37,998
Apr-Jun 98	2,036	1,756	280	163	29,891.1	22,007.2	73.6	6.81	5.87	11,261	3,629.6	2,399.3	66.1	39,170
Jul-Sep 98	2,116	1,973	143	73	31,609.9	24,049.4	76.1	6.69	6.24	11,655	3,801.8	2,542.9	66.9	40,082
Oct-Dec 98	1,945	1,817	128	66	30,557.4	21,273.3	69.6	6.37	5.95	10,637	3,664.5	2,339.0	63.8	41,118
Jan-Mar 99	2,056	1,896	160	84	30,938.8	22,107.0	71.5	6.65	6.13	12,174				
Apr-Jun 99	2,198	1,942	256	137	32,448.3	24,009.1	74.0	6.77	5.98	11,493				
Delta														
Oct-Dec 97	3,433	3,101	332	190	56,177.4	38,854.9	69.2	6.11	5.52	25,464	7,941.4	4,639.6	58.4	69,982
Jan-Mar 98	3,390	3,053	337	195	54,782.2	37,619.0	68.7	6.19	5.57	24,572	7,766.6	4,448.9	57.3	71,962
Apr-Jun 98	3,761	3,167	594	362	57,175.5	43,502.6	76.1	6.58	5.54	27,536	8,189.9	5,049.5	61.7	74,116
Jul-Sep 98	3,802	3,250	552	327	59,017.9	45,242.3	76.7	6.44	5.51	27,575	8,486.8	5,196.9	61.2	75,722
Oct-Dec 98	3,448	3,128	320	194	57,810.9	39,947.7	69.1	5.96	5.41	25,531	8,244.1	4,699.3	57.0	76,649
Jan-Mar 99	3,504	3,148	356	216	56,050.3	39,163.9	69.9	6.25	5.62					
Apr-Jun 99	3,957	3,315	642	364	57,957.3	43,422.1	74.9	6.83	5.72					
Northwest														
Oct-Dec 97	2,491	2,264	227	105	38,465.5	27,791.0	72.2	6.48	5.89	13,383	6,247.0	3,820.5	61.2	48,852
Jan-Mar 98	2,429	2,273	156	71	38,260.1	27,038.2	70.7	6.35	5.94	12,704	6,052.7	3,513.4	58.0	49,776
Apr-Jun 98	2,475	2,355	120	49	38,332.7	29,533.7	77.0	6.46	6.14	13,676	6,102.8	3,745.5	61.4	51,284
Jul-Sep 98	1,928	2,404	-276	-224	32,406.3	24,295.8	75.0	5.95	6.80	11,148	5,107.4	3,058.6	59.9	50,654
Oct-Dec 98	2,212	2,404	-192	-181	37,947.0	26,534.3	69.9	5.83	6.34	12,962	6,125.2	3,588.9	58.6	50,503
Jan-Mar 99	2,281	2,295	-14	-29	37,041.3	26,271.8	70.9	6.16	6.20					
Apr-Jun 99	2,597	2,333	264	120	40,541.5	30,900.2	76.2	6.41	5.75					
Southwest														
Oct-Dec 97	975	847	128	81	18,501.4	11,654.2	63.0	5.27	4.58	12,612	2,361.5	1,222.6	51.8	24,454
Jan-Mar 98	943	831	112	70	18,137.1	11,102.3	61.2	5.20	4.58	11,849	2,304.2	1,161.6	50.4	24,573
Apr-Jun 98	1,079	870	209	133	18,849.6	13,236.7	70.2	5.72	4.62	13,766	2,394.0	1,378.0	57.6	24,807
Jul-Sep 98	1,095	891	204	130	19,762.1	13,620.3	68.9	5.54	4.51	13,681	2,519.0	1,420.4	56.4	25,428
Oct-Dec 98	1,047	888	159	100	19,763.0	12,603.4	63.8	5.30	4.49	13,291	2,504.1	1,317.4	52.6	26,296
Jan-Mar 99	1,076	909	167	96	19,944.0	12,949.2	64.9	5.40	4.56	12,934				
Apr-Jun 99	1,220	966	254	158	20,836.9	15,241.7	73.1	5.85	4.64	14,817				
TWA														
Oct-Dec 97	813	812	1	-31	14,348.8	9,570.2	66.7	5.67	5.66	5,743	1,966.4	1,098.0	55.8	22,322
Jan-Mar 98	765	834	-69	-56	13,626.4	9,276.3	68.1	5.61	6.12	5,629	1,879.7	1,046.5	55.7	22,198
Apr-Jun 98	884	838	46	19	14,142.2	10,787.3	76.3	6.25	5.93	6,417	1,979.0	1,186.2	59.9	22,147
Jul-Sep 98	863	839	24	-5	14,293.8	10,531.3	73.7	6.04	5.87	6,273	1,999.7	1,150.0	57.5	21,848
Oct-Dec 98	747	813	-66	-79	13,452.4	8,731.6	64.9	5.55	6.04	5,574	1,863.7	982.8	52.7	21,321
Jan-Mar 99	764	802	-38	-22	13,352.4	9,205.2	68.9	5.72	6.01					
Apr-Jun 99	866	848	18	-6	14,274.4	11,130.9	78.0	6.07	5.94					
United														
Oct-Dec 97	4,235	4,144	91	23	68,364.7	47,419.6	69.4	6.19	6.06	20,608	10,269.1	6,023.6	58.7	91,721
Jan-Mar 98	4,055	3,932	123	61	66,393.3	44,613.0	67.2	6.11	5.92	19,316	9,987.5	5,589.7	56.0	92,581
Apr-Jun 98	4,442	3,972	470	282	69,101.7	50,152.2	72.6	6.43	5.75	21,935	10,453.0	6,202.6	59.3	94,064
Jul-Sep 98	4,783	4,088	695	425	73,913.5	56,283.7	76.1	6.47	5.53	23,933	11,255.3	6,847.4	60.8	94,270
Oct-Dec 98	4,281	4,090	191	54	70,620.9	49,484.4	70.1	6.06	5.79	21,616	10,774.4	6,182.8	57.4	94,903
Jan-Mar 99	4,160	4,014	146	78	67,994.5	46,899.8	69.0	6.12	5.90					
Apr-Jun 99	4,541	4,108	433	669	71,573.6	50,198.9	70.1	6.34	5.74					
US Airways														
Oct-Dec 97	2,085	2,015	70	479	22,662.2	15,800.1	69.7	9.20	8.89	14,178	3,066.2	1,733.2	56.5	40,865
Jan-Mar 98	2,063	1,871	192	98	22,102.1	15,257.8	69.0	9.33	8.47	13,308	2,993.8	1,669.2	55.8	40,974
Apr-Jun 98	2,297	1,923	374	194	22,818.3	17,567.1	77.0	10.07	8.43	15,302	3,107.6	1,895.9	61.0	40,846
Jul-Sep 98	2,208	1,938	270	142	23,267.3	17,639.5	75.8	9.49	8.33	15,290	3,166.1	1,898.2	60.0	40,660
Oct-Dec 98	2,121	1,943	178	104	23,318.8	16,112.3	69.1	9.10	8.33	14,202	3,171.1	1,754.5	55.3	40,664
Jan-Mar 99	2,072	1,983	89	46	22,745.8	15,405.8	67.7	9.11	8.72					
Apr-Jun 99	2,286	2,007	279	317	23,891.7	17,557.5	73.5	9.57	8.40					
ANA														
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	3,459	3,545	-86	-68	40,446.9	26,187.7	64.7	8.55	8.76	20,102				
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	3,399	3,355	44	73	42,415.9	27,404.4	64.6	8.01	7.91	21,449				
Oct-Dec 98	SIX MONTH FIGURES													
Jan-Mar 99	SIX MONTH FIGURES													
Apr-Jun 99	SIX MONTH FIGURES													
Cathay Pacific														
Oct-Dec 97	1,921	1,784	137	117	28,932.0	18,917.0	64.4	6.64	6.17	4,810	5,325.0	3,718.0	69.8	
Jan-Mar 98	SIX MONTH FIGURES													
Apr-Jun 98	1,677	1,682	-5	-20	28,928.0	19,237.0	66.5	5.80	5.81		5,208.0	3,481.0	66.8	
Jul-Sep 98	SIX MONTH FIGURES													
Oct-Dec 98	1,769	1,713	56	-45	31,367.0	21,173.0	67.5	5.64	5.46		5,649.0	3,847.0	68.1	
Jan-Mar 99	SIX MONTH FIGURES													
Apr-Jun 99	SIX MONTH FIGURES													
JAL														
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	4,279	4,344	-65	-911	56,514.7	39,012.2	69.0	7.57	7.69	15,344	8,570.8	5,628.5	65.7	
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	4,463	4,262	201	133	58,439.5	40,413.9	69.2</							

Aviation Strategy

Micro-trends

	Group revenue	Group costs	Group operating profit	Group net profit	Total ASK	Total RPK	Load factor	Group rev. per total ASK	Group costs per total 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														
Oct-Dec 97	3,029	2,774	255	-234	58,246.9	40,190.3	69.0	5.20	4.76	25,580		9,737.7		17,139
Jan-Mar 98														
Apr-Jun 98														
Jul-Sep 98														
Oct-Dec 98														
Jan-Mar 99														
Apr-Jun 99														
Malaysian														
Oct-Dec 97	TWELVE MONTH FIGURES													
Jan-Mar 98	2,208	2,289	-81	-81	42,294.0	28,698.0	67.9	5.22	5.41	15,117		6,411.0		
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	860	958	-98	-11			57.2							
Oct-Dec 98														
Jan-Mar 99														
Apr-Jun 99														
Singapore														
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	2,336	2,080	256	258	39,093.6	26,224.3	67.1	5.98	5.32	5,822	7,303.0	4,951.5	67.8	
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	2,232	2,013	219	278	41,466.2	29,456.2	71.0	5.38	4.86	6,240	7,693.4	5,225.2	67.9	
Oct-Dec 98														
Jan-Mar 99														
Apr-Jun 99														
Thai Airways														
Oct-Dec 97	656	649	7	-661	12,144.0	7,715.0	63.5	5.40	5.34	3,800	1,712.0			
Jan-Mar 98	631	558	73	610	12,211.0	8,522.0	69.8	5.17	4.57	4,000	1,715.0			
Apr-Jun 98	586	583	3	-121	12,084.0	7,963.0	65.9	4.84	4.82		1,700.0			
Jul-Sep 98	629	584	45	176	12,118.0	8,769.0	72.4	5.19	4.82					
Oct-Dec 98	727	647	80	170	12,599.0	9,195.0	73.0	5.77	5.14					
Jan-Mar 99														
Apr-Jun 99														
Air France														
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	5,126	5,079	47	18										
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	4,982			224			76.5							
Oct-Dec 98														
Jan-Mar 99														
Apr-Jun 99														
Alitalia														
Oct-Dec 97	5,083	4,878	205	161	50,171.4	35,992.3	71.7	10.13	9.72	24,552				18,676
Jan-Mar 98														
Apr-Jun 98														
Jul-Sep 98														
Oct-Dec 98														
Jan-Mar 99														
Apr-Jun 99														
BA														
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
Jan-Mar 98	3,335	3,210	125	119	39,256.0	26,476.0	67.4	8.50	8.18	9,311	5,485.0	3,642.0	66.4	60,770
Apr-Jun 98	3,783	3,497	286	217	44,030.0	31,135.0	70.7	8.59	7.94	11,409	6,174.0	4,157.0	67.3	62,938
Jul-Sep 98	4,034	3,601	433	357	46,792.0	35,543.0	76.0	8.62	7.70	12,608	6,533.0	4,630.0	70.9	64,106
Oct-Dec 98	3,585	3,431	154	-114	44,454.0	29,736.0	66.9	8.06	7.72	10,747	6,277.0	4,111.0	65.5	64,608
Jan-Mar 99	3,343	3,481	-138	-119	43,544.0	29,537.0	67.8	7.68	7.99	10,285	6,130.0	3,933.0	64.2	64,366
Apr-Jun 99	3,527	3,378	149	302	45,813.0	32,032.0	69.9	7.70	7.37	11,733	6,437.0	4,215.0	65.5	65,179
Iberia														
Oct-Dec 97	4,168	3,900	268	126*	37,797.6	27,679.2	73.2	11.03	10.32	15,432				
Jan-Mar 98														
Apr-Jun 98														
Jul-Sep 98														
Oct-Dec 98	TWELVE MONTH FIGURES													
Jan-Mar 99					45,515.2	32,520.9	71.5			21,753				
Apr-Jun 99														
KLM														
Oct-Dec 97	1,630	1,570	60	23	18,096.0	13,555.0	74.9	9.01	8.68		3,114.0	2,414.0	77.5	35,092
Jan-Mar 98	1,538	1,568	-30	528	17,595.0	13,240.0	75.2	8.74	8.91		2,995.0	2,259.0	75.4	33,227
Apr-Jun 98	1,702	1,572	130	105	18,600.0	14,290.0	76.8	9.15	8.45		3,177.0	2,365.0	74.4	33,508
Jul-Sep 98	1,865	1,675	190	121	19,363.0	15,984.0	82.6	9.63	8.65		3,359.0	2,583.0	76.9	33,586
Oct-Dec 98	1,673	1,661	12	-15	18,476.0	13,767.0	74.5	9.05	8.99		3,214.0	2,415.0	75.1	33,761
Jan-Mar 99	1,550	1,670	-120	-45	17,716.0	13,294.0	75.0	8.75	9.43		3,088.0	2,284.0	74.0	33,892
Apr-Jun 99	1,626	1,547	79	37	18,778.0	14,302.0	76.2	8.66	8.24		3,253.0	2,427.0	74.6	34,980
Lufthansa***														
Oct-Dec 97	3,989	3,566	423	384*	30,209.0	21,691.0	71.8	13.20	11.80	10,839	5,457.0	3,919.0	71.8	59,630
Jan-Mar 98	2,902	2,860	42	223	23,742.0	16,236.0	68.4	12.22	12.05	8,778	4,618.0	3,171.0	68.7	54,849
Apr-Jun 98	3,507	3,081	426	289	26,132.0	19,489.0	74.6	13.42	11.79	10,631	5,078.0	3,575.0	70.4	54,556
Jul-Sep 98	3,528	3,167	361	198	26,929.0	20,681.0	76.8	13.10	11.76	11,198	5,231.0	3,748.0	71.6	54,695
Oct-Dec 98	2,929	2,106	823	96	25,530.0	18,259.0	71.5	11.47	8.25	9,819	5,204.0	3,676.0	70.6	55,368
Jan-Mar 99	3,301	3,210	91	64	25,445.0	17,942.0	70.5	12.97	12.62	9,658	4,972.0	3,435.0	69.1	56,420
Apr-Jun 99	3,322	3,012	310	97	30,500.0	22,279.0	73.0	10.89	9.88	11,444	5,626.0	3,993.0	71.0	53,854
SAS														
Oct-Dec 97	1,334	1,204	130	63*	7,771.0	4,940.0	63.6	17.17	15.49	5,211				28,716
Jan-Mar 98	1,184	1,077	106	76*	7,761.0	4,628.0	59.6	15.25	13.88	4,863				24,722
Apr-Jun 98	1,323	1,149	174	107*	7,546.0	5,260.0	69.7	17.53	15.23	5,449				25,174
Jul-Sep 98	1,283	1,152	131	127*	8,283.0	5,843.0	70.5	15.49	13.91	5,714				26,553
Oct-Dec 98	1,368	1,266	102	46*	8,116.0	5,089.0	62.7	16.86	15.60	5,431				27,071
Jan-Mar 99	1,203	1,227	-24	-3*	8,062.0	4,713.0	58.5	14.92	15.22	5,017				27,110
Apr-Jun 99														
Swissair**														
Oct-Dec 97	2,084	1,946	138	147	18,934.8	13,770.8	72.7	11.01	10.28	6,352	3,536.4	2,538.1	71.8	10,132
Jan-Mar 98	SIX MONTH FIGURES													
Apr-Jun 98	1,907	1,780	127	86	18,983.8	13,138.7	70.5	10.05	9.38					9,756
Jul-Sep 98	SIX MONTH FIGURES													
Oct-Dec 98	2,187	2,070	117	165										10,396
Jan-Mar 99														
Apr-Jun 99														

Note: Figures may not add up due to rounding. 1 ASM = 1.6093 ASK. *Pre-tax. **SAirLines' figures apart from net profit, which is SAirGroup. ***Excludes Condor from 1998 onwards. 4Q+ data are on IAS basis.

Aviation Economics

The Principals and Associates of *Aviation Economics* apply a problem-solving, creative and pragmatic approach to commercial aviation projects.

Our expertise is in strategic and financial consulting in Europe, the Americas, Asia, Africa and the Middle East, covering:

- Start-up business plans
- Turnaround strategies
- State aid applications
- Antitrust investigations
- Merger/takeover proposals
- Competitor analyses
- Credit analysis
- Corporate strategy reviews
- Market forecasts
- Privatisation projects
- IPO prospectuses
- Cash flow forecasts
- Asset valuations

For further information please contact:

Keith McMullan or Tim Coombs

Aviation Economics

James House, LG, 22/24 Corsham Street, London N1 6DR

Tel: + 44 0207 490 5215 Fax: +44 0207 490 5218

e-mail:kgm@aviationeconomics.com

SUBSCRIPTION FORM

Please enter my Aviation Strategy subscription for:

One year (12 issues) @
£360 / €540 / US\$595,
starting with the _____ issue

(Discounts available for multiple subscriptions - please call for details)

Delivery address

Name _____

Position _____

Company _____

Address _____

Country _____ Postcode _____

Tel _____ Fax _____

e-mail _____

DATA PROTECTION ACT

The information you provide will be held on our database and may be used to keep you informed of our products and services or for selected third party mailings

I enclose a Sterling, Euro or US Dollar cheque, made payable to:
Aviation Economics

Please invoice me

Please charge my AMEX credit card

Card number _____
Name on card _____ Expiry date _____

I am sending a direct bank transfer of
£360 net of all charges to Aviation
Economics' account: HSBC Bank
Sort code: 40 04 37 Account no: 91256904

Invoice address (if different from delivery address)

Name _____

Position _____

Company _____

Address _____

Country _____ Postcode _____

PLEASE RETURN THIS FORM TO:

Aviation Economics
James House, LG
22/24 Corsham Street
London N1 6DR
Fax: +44 0207 490 5218