

E-distribution = zero sum game?

For low cost carriers the advantages of selling through the internet are clear - it is the cheapest, most effective way to promote and distribute their own tickets. For the more traditional airlines investing in multi-airline sites, the questions are more complicated:

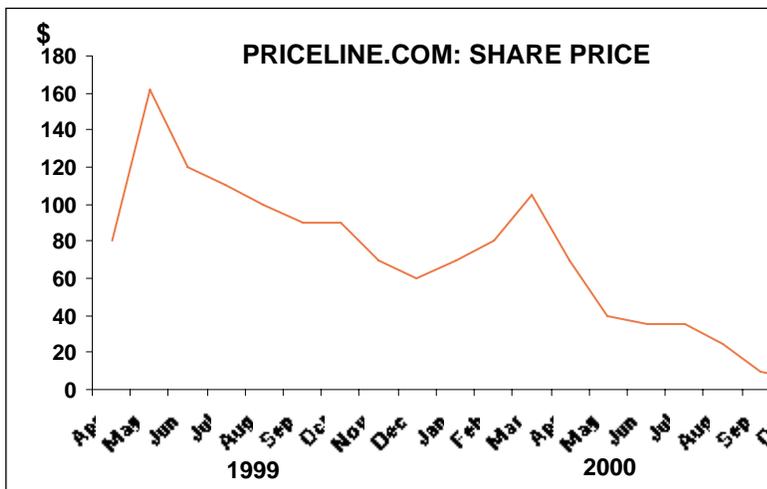
- Which revenue model should be used to make money out of the portals and websites?
- Can they avoid undermining the fare structure created by their yield management systems?
- How much fare and inventory data do they have to reveal to competitors who are also partners in the e-venture?
- How many portals is it wise to participate in?

But the fundamental issue is whether an airline with the right electronic product will be able to extract monopoly profits. The parallel is with Sabre's technical and market lead in the CRS field in the mid 80s, which made it more valuable than its parent, American Airlines. Or is it all a zero sum game, with all airlines finding e-distribution to be a cheaper and more efficient process than traditional sales channels, and passing all or most of the benefits on to the passenger through the forces of competition?

Shareholders in Priceline.com suspect the latter may be the case. The stockmarket value of this dotcom, which specialises in auctions of airline tickets and other things, has plummeted from a ludicrous \$14bn post-IPO to practically zilch. Revenues failed to grow fast enough, profits were as far off as ever, and confidence in the concept collapsed. Priceline.com is an extreme example, but other e-distribution ventures, like Travelocity, the Sabre-based online travel agency and the traditional CRSs, Galileo and Amadeus, have also seen their values evaporating rapidly.

The Priceline.com collapse has left its original airline shareholder, Delta, with 5.5m warrants exercisable at \$57. But don't feel sorry for Delta - it had already managed to sell off most of its investment for \$670m.

The latest hot website is Hotwire.com, backed by six of the US Majors. It looks like an electronic version of the old-fashioned [cont. page 2]



www.aviationeconomics.com

CONTENTS

Analysis

E-distribution developments 1-2

SIA's expansion and the Virgin question 2-3

Iberia: mañana privatisation 4-6

United/US Airways - start or end of mega-mergers? 7-8

Online

Internet version of newsletter 9

Briefings

Airport privatisation - unstoppable trend 10-14

JetBlue - justifying the hype 15-19

Macro-trends 20-21

Micro-trends 22-23

PUBLISHER

Aviation Economics

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

Tel: +44 (0) 20 7490 5215

Fax: +44 (0) 20 7490 5218

e-mail: info@aviationeconomics.com

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

Editor:
Keith McMullan

Associate Editor:
Heini Nuutinen

Subscription enquiries:
Keith McMullan
Tel: +44 (0) 20 7490 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.

bucket shop. Customers, US customers only at present, enter their required travel dates and destination, and Hotwire comes back with offer, but it doesn't reveal the exact timings nor the carrier until the ticket is paid for. Hotwire is, in effect, a mechanism for airlines to clear their expiring seat inventories, without allowing their competitors to see how much spare capacity they have available.

Then there is Orbitz which promises something grander - a truly neutral, inclusive air travel site. Financed by six US Majors (almost the same six as at Hotwire), it now has some 25 airline partners, but its launch has been postponed from late this year to mid-2001.

Orbitz's selling points are:

- It will be able to sell the whole range of airline tickets more cheaply because is going to force the

CRSs to reduce their fees on ticket transactions;

- It will provide a one-stop facility for passengers wishing to buy online;
- It will include all schedules including those of the low cost carriers who currently don't appear on sites like Travelocity or Expedia; and
- It will have super technology capable of phenomenally fast and wide searches.

By taking on the risk of full inclusion and non-discrimination (that's its repeated claim) Orbitz is gambling that it will become the generic mode for internet booking. Passengers will learn to "orbitz" their tickets (as one fedexes parcels).

If that happens, then Orbitz could have the same profit potential as the Sabre CRS used to. Alternatively, in 18 months time, a lifetime in cyberspace, the headlines might read "Obits for Orbitz".

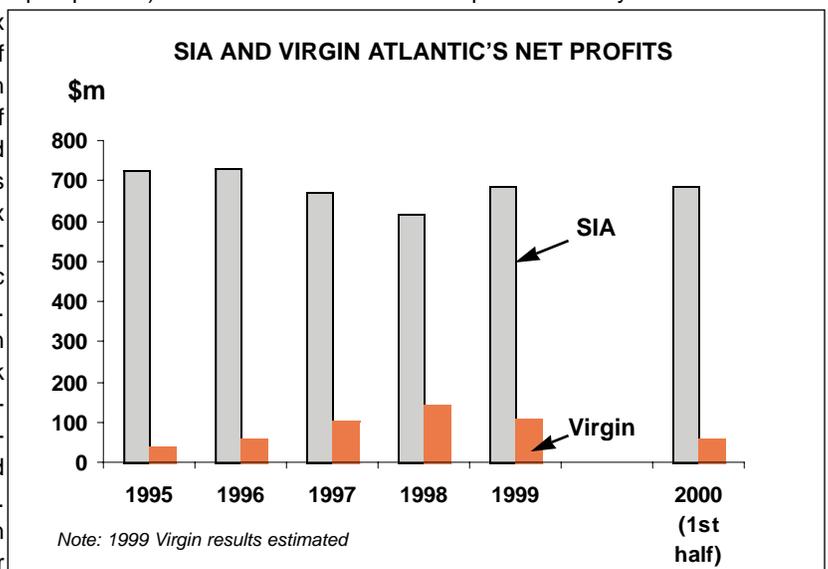
SIA's global ambition and the Virgin relationship

SIA is surging ahead, producing another very good set of results, placing a mega-order for A3XXs and achieving an early return on its investment in Virgin Atlantic. SIA's ambitions extend beyond being Asia leading carrier to becoming a genuinely global airline, and it looks as if it will achieve this status (although the tragedy of SIA's first crash, of a 747 at Taipei, puts commercial success into perspective).

Pre-tax profits for the six months to the end of September totalled S\$1.2bn (US\$686m), an increase of 88% over the same period last year. Interestingly, this figure including a pre-tax contribution from its ownership of 49% of Virgin Atlantic of S\$100m (US\$57m). According to Kevin O'Connor of Deutsche Bank in Hong Kong, it was uncertain whether any contribution from Virgin would appear in these results. Assuming that Virgin Atlantic contributes a further

S\$25m in the second half of the year, SIA's return on the reported S\$1.6bn purchase price (including S\$132m that was used as a capital injection), would be about 8.3%, slightly below SIA's own estimate of its WACC of 8.5%.

Such is the strength of SIA's balance sheet that the Virgin purchase and that of 35% of Air New Zealand still left it with net cash of S\$1.8bn at the end of September. analysts are concerned



that the company should be "working the balance sheet harder", which presumably means making more investments.

However, SIA's criteria for making airline investments are fairly rigorous: it looks for a reasonable degree of management control and for genuine, as opposed to imagined, synergies. In this regard, the Virgin investment gives it access to the Atlantic market, although the two airlines do not codeshare as yet and SIA is still pushing for fifth freedom rights from the UK.

One of the lessons of the Asian crisis for SIA was the desirability of having a presence in all the major long haul markets - Europe-Asia, Intra-Asia, Pacific and North Atlantic - in order to mitigate the effects of a severe regional downturn. The aim is to be able to move capacity smoothly between regions, so as to match differing supply and demand trends.

SIA's A3XX order was 25 units, 10 firm plus 15 options, to be deployed on routes to London, Tokyo, Hong Kong, Sydney, Los Angeles, San Francisco and New York, with an intermediate point on the US routes. They will complement the non-stop service SIA plans to operate to the US using A340-500s.

In order to realise the potential of its A3XX and A340-500 commitments, SIA will presumably want to place some of this equipment on key North Atlantic routes, like London-New York. This could simply be done through a cross-leasing agreement with Virgin Atlantic as part of a close cooperation strategy between the two airlines.

The problems are: first, although the two airlines have both have high quality inflight products, they are different; second, despite its theoretical attraction, equipment sharing has never been effectively developed within an alliance; third, Sir Richard Branson's relationships with business partners in the past have not been all that harmonious.

A speculative view

The alternative, and at present speculative, view of how the SIA/Virgin Atlantic relationship could develop is that SIA at some point will gain control of the other 51% of Virgin Atlantic. This would have to be done in cooperation with UK-based investors in order to protect traffic rights. These investors would have to be independent but in harmony with SIA's strategy. Possibly British Midland could be brought in if Sir Michael Bishop decides to sell off the 60% of the airline

still owned by him and his partners. (Virgin has approached British Midland several times with take-over proposals but was always repulsed.)

The outcome would be for SIA to have a genuine hub at London Heathrow in the same way as BA, for example, operates hubs at Changi and Bangkok. This evolution would also have the effect of underlining SIA's equal importance in the Star alliance alongside Lufthansa and United. It could also remove some of the friction within Star arising from Virgin's efforts in blocking British Midland's transatlantic plans.

Virginal mystery

But what would induce Branson to sell his majority stake in his airline, the jewel in the crown of the Virgin empire?

The answer may lie outside the airline industry. The Virgin Group is a mysterious body consisting of 140 or so offshore companies and family trusts, which reveal very little financial information. What does seem to be clear, however, is that most of the Virgin brands - V2 (records), Virgin Cola, Virgin Direct (financial services), Victory Corp (clothes), etc. are loss-making. Those parts of Virgin that are open to stockmarket scrutiny - like Virgin Express, the European low cost carrier - have revealed substantial losses and indebtedness. New ventures like Virgin Trains and Virgin Blue (the Australian low-cost carrier) have heavy capital investment programmes.

According to an analysis by *The Economist* published early last year, Virgin Atlantic had been acting as a cash cow for the other Virgin operations. But this role must have diminished because of harsher market conditions on the Atlantic in 1999. And now, with SIA owning 49% of the carrier, half of Virgin Atlantic's pre-tax profits accrue automatically to Singapore, and the SIA directors on Virgin Atlantic's board have an important say on major strategic issues such as capital expenditure.

Despite press reports of hidden cash mountains of £1 billion plus, Virgin has suffered a number of cashflow crises in the past. In fact, at least half the proceeds from the SIA sale went immediately to creditors and bankers of OurPrice, a chain of record shops owned by Virgin. Virgin Music, the original core company, and half of Virgin Atlantic have been sold in the past in solve such problems; the other half of Virgin Atlantic is the most marketable part of the Virgin empire should another cash crisis emerge.

Iberia: the mañana privatisation

It looks as if the full privatisation of Iberia, through the sale of the remaining 54% held by SEPI, the state holding company, may be postponed again. It was tentatively slated for November. This time the reason is that Iberia plans to take over its main domestic rival, Air Europa. The previous three postponements were variously attributed to Iberia's disappointing 1999 results and the generally negative reception of privatised companies by the Madrid stock exchange.

Currently, the proposed valuation of the airline is around Ps360bn (\$1.8bn), 34% down on the price originally agreed in December 1999 by BA and American for 10% of the company and by five Spanish financial institutions for another 30%. However, American and BA's purchase price will be adjusted to that achieved under the final privatisation. The Spanish government has announced that it intends to keep a golden share, a proposal that probably contravenes EC competition regulations.

Iberia has in fact put together a comprehensive turn-around strategy, and has evolved into a much more efficient airline than the one that had to return to Commission in 1995, asking for permission for another round of state aid - another \$1bn on top of \$1bn injected in 1992. The Commission did not buy Iberia's argument

that it had faced a unique set of exceptional circumstances (including curiously peseta devaluation, a development that actually had improved the airline's finances) and identified that the main reason for the airline's parlous state was the disastrous investments in Aerolineas Argentinas and Viasa.

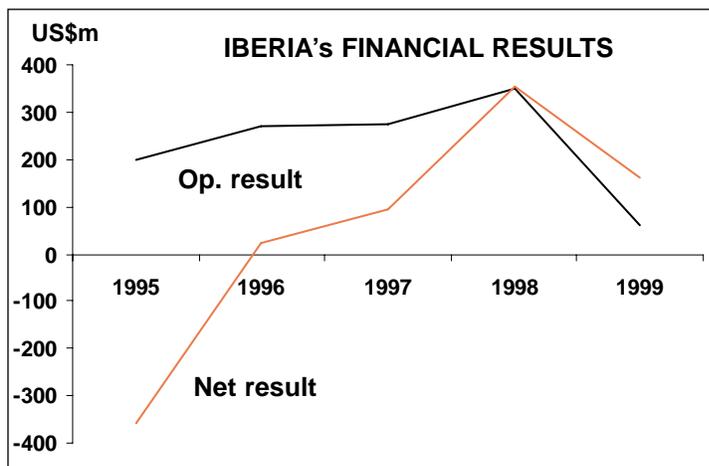
It was fortunate for Iberia that the Commission limited the amount of government funds available and insisted on a realistic plan that would address the airline's fundamental problems and curtail the South American adventure. New commercially-orientated management, under CEO Xabier de Irala, whose background included GE and ABB, were brought in, though really changing the corporate culture of a state-owned, southern European entity is an extremely difficult task, which has not yet been achieved.

Key elements of Iberia's strategy include the following.

Fleet renewal

As the table opposite shows, Iberia still has a preponderance of elderly narrowbodies in its fleets, many of which are Chapter 2 and probably cannot be hushkitted to meet new EC noise standards. Fleet planning had a low priority during the South American expansion era and as a consequence the fleet not only urgently needed renewal but also had become completely disparate. It now consists of five different types of narrowbodies and four types of widebodies.

The plan is to retire all the DC-9s, 727s and DC-10s over the next three years. The narrowbody fleet will be focused on the A320 family, with another 36 units due for delivery in the next three years, and on the 757-200, an aircraft that has proved very effective for Iberia on its denser routes, offering almost widebody unit costs. The widebody fleet will be based on the A340 plus the 747s. Increased aircraft utilisation has been factored into the plan - the aim is to get the fleet's daily utilisation up from 7.9 to 8.9



hours.

Corporate structure

Iberia is planning to implement a new corporate structure based on Single Business Units (SBUs) for the core airline, the maintenance unit, cargo services, etc.. This is the standard model for ex-state-owned airlines. Whether it works or not depends on whether the new structure results in greater transparency and a new focus on profitability or whether it just duplicates administration.

Union relations

In the early years of turn-around plan (1996-98) Iberia appeared to have made a break-through in its labour relations. By holding pilot salary increases to the rate of inflation and boosting productivity, and by introducing a secondary scale for new cabin crew employees, Iberia managed to reduce its unit labour costs to close to the European average.

In 1999, the pilots reverted to strike action in order to recover what they saw as lost pay differentials. The disruption caused by the strike was identified as the major reason for the sharp downturn in Iberia's profits in 1999 - operating profit fell by 82% to Ps12.2bn (\$62m) while net profit was down by 56% to Ps32.1bn (\$163m).

Although SELPA, the pilots' union, has representation on Iberia's board, this is, course, no guarantee of labour harmony. A further test will come next year as Iberia implements a plan to reduce the workforce by 1,000 employees.

Domestic consolidation

With about 23m passengers a year, Spain is the second largest domestic market in Europe (after France) and Iberia enjoys about a 70% share, up from around 60% in the early 90s. That share is due to increase by another 12 percentage points if Iberia's plans to take over Palma-based Air Europa come to fruition.

A price of around \$400m (or the equivalent in Iberia stock) has been mooted for Air Europa which operates a fleet of 20 737s and two 767ERs. Air Europa's own strategy

IBERIA'S FLEET PLANS

	No. in fleet	Average age	On order	Remarks
727-200	25	26		24 Chapter 2
747-200	8	20		1 Chapter 2
757-200	24	4	2	Delivery 2000
767-300	2	7		
A300	6	20		
A319	3	1		
A320	41	5	22	Delivery 2000-03
A321	2	1	14	Delivery 2000-03
A340	12	2	3	Delivery 2001
DC-10-30	6	22		2 Chapter 2
DC-9-30	25	29		13 Chapter 2
MD-80	37	9		
Total	191	13	41	

was to become the junior partner in the KLM/Alitalia alliance, with KLM taking an equity stake. That strategy fell apart when the two Euro-majors divorced.

Although the Spanish regulatory authorities appear nonchalant about the proposed take-over, the EC would surely object. The take-over would leave Spanair, half owned by SAS, as the only effective domestic competitor with just 12% of the market. Still, Iberia might be able to get away with the consolidation by arguing precedents (Air France taking over its regional airlines; Lufthansa buying EuroWings) and accepting some route or frequency withdrawals.

Low-cost threat

Iberia does face a threat from the northern European low-cost carriers, although the impact on Iberia has so far been muted as these airlines have either won traffic from the charter carriers (which dominate overall international flows to/from Spain) or have generated new demand. Nevertheless, Go has achieved a dominant market position on routes from London to the secondary points of Bilbao, Malaga and Alicante. EasyJet's operations to Barcelona and Madrid are performing well, and Barcelona has been identified as a possible hub to complement Geneva and Amsterdam, as the airline builds its continental network.

It is unclear how Iberia would respond to a concerted attack from the low-cost carri-

IBERIA's TRAFFIC TRENDS (000 pax)

	1998	1999	Change
Intra-Europe	6191	6277	1.4%
N. Atlantic	669	873	30.5%
Mid Atlantic	836	993	18.8%
S. Atlantic	458	491	7.2%
Others	399	355	-11.0%
Total international	8553	8989	5.1%
Domestic	13198	12887	-2.4%
Total traffic	21751	21876	0.6%

Source: AEA

ers. The airline does not have an subsidiary that it could convert into a separate low-cost operation. Aviaco, the former domestic airline and Viva, a charter/scheduled affiliate, have in recent years been consolidated into the parent.

Hub dominance

Iberia controls about 65% of the passengers at Madrid and Barcelona combined, which is almost the same size as Rome and Milan. Its market share is 65% compared to 52% for Alitalia at its two main hubs and just 53% for KLM at Schiphol.

Madrid Barajas, with a throughput of about 28m passengers a year is, like Paris CDG, an airport with high expansion potential. A third runway was opened last year and a fourth is planned for 2003. However, ATC delays at Madrid remain unacceptably high.

Electronic sales

Iberia aims to achieve substantial marketing and distribution cost savings through extensive use of electronic sales. The target is that by 2003 half of its customers will be flying on e-tickets and nearly a third will be booking via the internet.

This sounds optimistic but the internet as a sales medium has gained a surprisingly wide acceptance in the Mediterranean countries, possibly as a result of passengers being traumatised by the effort needed to buy a ticket through an airline shop or a captive travel agent.

Alliances

Iberia is in oneworld with the alliance supposedly cemented by BA's and American's equity. Unfortunately, oneworld is a shaky edifice at present.

One of the core concepts behind Iberia's participation in oneworld was that Madrid would act as the alliance's gateway hub for Europe-South American traffic. Whether this is working in practice is questionable: according the AEA statistics, Iberia's South American passenger volume increased by 7.2% to 491,000 in 1999, but during this period BA's own South American passengers grew by 18.8% to 367,000. Iberia's performance on the South Atlantic was below the market growth rate of 11.1%, and it achieved a load factor of only 69.8%

So, quite logically, Iberia is playing the alliance game. On the one hand, it has suggested that it might be interested in buying 10% of BA's stock (how this reconciles with Iberia's stated aim of achieving a RoI of 16.6% is unclear).

On the other hand, Iberia has also entered into a codesharing agreement with Air France on all Franco-Spanish routes except Paris-Madrid and Paris Barcelona, an agreement that will be extended to some long-haul operation next year.

The prospect of Iberia abandoning oneworld for SkyTeam is real. And then there is KLM in the background still looking for a partner with a large passenger base.

South American potential

Iberia's great potential lies in its South American links and the development of Madrid as the undisputed connecting hub for this traffic. But this potential has not yet been realised.

The danger is that Iberia will again be tempted into managerial involvement with Aerolineas Argentinas (Iberia still owns about 8% of the Argentine flag carrier and SEPI another 40%) in order to rationalise capacity and boost traffic. Iberia has to concentrate on completing its own turn-around and avoid being distracted by the impossible Aerolineas.

United/US Airways: start or end of the merger process?

The proposed \$11.6bn United/US Airways merger, which was approved by US Airways' shareholders by an overwhelming 98.5% vote in mid-October, may face fresh complications because of an unexpected spanner thrown in the works by Continental. The Houston-based carrier has offered to pay 50% more than DC Air for US Airways' Washington Reagan National assets - an alternative that would value those assets more fairly and probably also be more acceptable to the regulators.

US Airways' shareholders had, of course, been expected to approve UAL's \$60-a-share offer, because the price was almost double the low 30s that US Airways' shares had been trading. The deal envisages UAL paying \$4.3bn in cash and assuming \$7.3bn of debt and lease obligations.

The offer had to be generous in light of the high degree of risk of being eventually turned down by the regulators. But it is also clear that UAL was able to offer so much only because the deal would ensure that US Airways' valuable slots at National would not end up in the hands of strong competitors.

The DC Air deal

As part of the merger agreement, UAL would sell US Airways' 119 jet slots, 103 commuter slots, eight gates and related facilities at National for \$141m to new entrant DC Air, owned by Robert Johnson, founder of Black Entertainment Television and a member of US Airways' board since 1998.

To ensure a quick transfer once the merger is completed, US Airways has set up a new wholly-owned subsidiary to operate the 44 routes in question (subject to DoT approval) from November 18.

The asset sale to DC Air was designed to avoid an inevitable antitrust challenge regarding overlapping service in the Washington area, where US Airways is the

dominant carrier at National and United at Dulles. The move also hoped to address political issues such as adding a new entrant, providing minority ownership and ensuring continuation of service to small communities.

However, the DC Air deal has met with extensive criticism from all quarters, on grounds that the assets are sold too cheaply, that Johnson is not experienced enough, that he is not an independent buyer and that DC Air will not be a strong competitor. A late-September SEC filing by US Airways revealed that there were nine shareholder lawsuits challenging the DC Air proposal.

Continental's intervention

Consequently, Continental hit a nerve with its early-October offer to pay \$215m for the assets that are due to go to DC Air. The carrier said that it is offering what it believes the assets are worth and contrasted its position as a strong and well-funded competitor with that of DC Air, which will at least initially be heavily dependent on United.

US Airways and United did not consider Continental's proposal, citing their "binding" agreement that prohibits discussions with third parties regarding any alternatives. There have apparently been no other offers for any of US Airways' assets.

However, this is not likely to be the end of the matter. The DoJ, which will have a final say on the merger and which assets should be disposed of, may not look favourably at a plan that proposes addressing competition concerns by selling assets to an entity that will continue to have strong business connections with the seller. The regulators will like that even less now that there are alternatives. Of course, the DoJ may decide that more assets should be sold as a precondition to the merger.

Other airlines may put in their own bids for US Airways' assets, either following

Continental's example or, most likely, if and when the regulators have clearly indicated their intentions.

Access to Washington National, which is one of only four airports in the US with strict slot controls, is highly coveted by numerous airlines, including low-fare operators like AirTran. The other major carriers would probably also be interested in US Airways' Shuttle and leaseholds at Philadelphia. One way or another, it seems likely that United and US Airways will eventually have to consider other bids.

US Airways claims that the merger proposal has attracted support from more than 50 members of Congress, as well as obviously numerous community leaders and regional economic development boards. But the Senate Commerce Committee recently passed a nonbinding resolution opposing the merger, arguing that it would not be in the public interest. Many state attorneys also oppose the deal after conducting their own investigations.

The views of the legislators and politicians can influence the DoJ, which is conducting an antitrust review, and the DoT, which is providing input for the DoJ investigation. Of course, the merger proposal will also have to pass the scrutiny of the European Commission.

The DoJ's focus

While the DoJ's primary focus is to assess the case on its own merits, wider issues such as competitive consequences obviously influence the decision. Recent developments on that front have been positive for United and US Airways, as the cooling of the talks between American and Northwest have lessened fears that the United/US Airways deal would spark off a wave of industry consolidation.

However, in a shrewdly timed message clearly aimed at the regulators, in late October American released a statement to the effect that it continues to consider its strategic response to possible industry consolidation and that it remains open to merger possibilities.

One reason why merger talk has lessened in recent months is that the travel chaos and passenger dissatisfaction created this past summer by ATC delays, airline labour shortages and worsened customer service has turned political sentiment against airline consolidation. Ironically, the worst culprit was United, which had to cancel some 25,000 flights and delay thousands of others in the third quarter when its pilots refused to work overtime in protest at the lack of progress in contract talks.

The question asked by travellers and politicians alike was: If it is this bad with eight network providers, what would it be like with only three airline combines and one of them went on strike?

Northwest/Continental case

One rather ominous sign is that the DoJ is all set to go to court on November 1, two years after filing a lawsuit, to try to force Northwest to sell its controlling stake in Continental. The DoJ believes that the ownership stake substantially reduces the incentive for the two carriers to compete.

Some sort of last minute out-of-court settlement is possible, because the trial was postponed by a week at Northwest's request and Continental has been keen to buy back the stake. But the mere fact that the DoJ is going to such lengths to oppose a lesser deal indicates that antitrust laws will be rigorously applied for the United/US Airways merger.

Is UAL up to it?

Even if the deal can survive regulatory scrutiny, is United in a position to take on the challenge of integrating the two carriers' workforces? The summer episode of labour strife ended when the United offered its pilots industry-leading pay (the contract was ratified in late October), but it still has to deal with unhappy flight attendant and machinists' unions. Because of a substantial hike in labour costs and a dented image, UAL could report a loss for 2001 for the first time since 1993.

THE INTERNET VERSION OF AVIATION STRATEGY

The internet version of *Aviation Strategy* is now available. Subscribers will be able to:

- Receive their current copy of the newsletter electronically, which should be a lot faster than snail mail
- Access all the back issues of the newsletter, either through browsing through the back titles or using a key word search facility, so making your life easier and your filing cabinets less cluttered

To find the electronic version, simply go to our website - www.aviationeconomics.com - follow the leads to *Aviation Strategy*, enter your username and password, then click on whatever issues or articles you are looking for. The relevant newsletter will then be downloaded via Adobe Reader (this is a free facility) and you can read on screen, print off or cut and paste to other files.

To request your user-name and password please email us at info@aviationeconomics.com. Please note that the passwords will only be allocated to paid-up subscribers, that they are personal and they must not be used by non-subscribers. Subscription packages for readers at the same company address are available - please contact us for details.

Meanwhile, the hard copy version will continue to be published as normal. Our next project will be to revamp the databases and produce them in an online version.

The Aviation Economics website was designed and built by Newforms.co.uk Ltd based in Brighton. The company specialises in custom website solutions for small and medium businesses, and offers great design and powerful functionality at competitive prices. If you have a potential project in mind, then you can find more information on the Newforms website at www.newforms.co.uk or call Joe Aliferis/Norman Buskell on +44 (0)1273 778250

CUSTOMISED AIRLINE AND MARKET BRIEFINGS

If you are interested in a briefing on a particular airline or industry sector or market, *Aviation Economics* is able to produce in-depth reports customised to your requirements.

**Contact: Tim Coombs or Keith McMullan
+44 (0)20 7490 5215 info@aviationeconomics.com**

Airport privatisation - unstoppable process but becoming riskier

Over the next five years, another ten or so major airports will generate headline privatisation news, with many more small airports also expected to come onto the market at the same time. Amsterdam, Brussels, Frankfurt, Munich, Sydney and Mexico City are the leading candidates.

Few airports in Europe and Latin America will remain in public hands, while a slow acceleration in moves towards privatisation, or at least in the adoption of commercial management and operational practices, is forecast to take place in the Far East. In the US, airport owners are using privatisation on a more limited scale, transferring ownership of only selected assets, such as terminal buildings and cargo facilities, to private companies.

The FAA's Airport Pilot Privatisation Program (APPP), which was launched in 1996 with the aim of privatising five selected airports, has made slow progress, with no major hub airport taking this route. Unlike airports in other countries, US airports have been more fortunate in being able to access large funds through bond issues and federal grants, taking away the urgency felt elsewhere, but there too, the mood is changing.

European airports have taken the lead in the privatisation stakes, and continue to set the pace. This is partly because the public funds to finance large infrastructure developments, especially at congested hubs, are drying up fast. But with limited possibilities for expansion at home, the international market is also seen as the natural extension to grow the business and export expertise lacking in other parts of the world. Global airport groups are thus beginning to take shape, with bidding having taken on a strong competitive edge.

Yet, an element of caution is creeping into the hitherto unchallenged perception that airports represent a safe investment coupled with plentiful opportunities for sizeable year-on-year profits. Poor stock performance and erratic share prices have pushed some airport companies into the red, making many industry

observers believe that the exceptionally high trade sales, at ratios of up to 21 EBITA (earnings before interest, tax, depreciation and amortisation), may now be a thing of the past.

The reasons include: continued and threatened increase in regulatory intervention; ever more stringent environmental restrictions, especially on night flying; and in Europe, the fall-out from the abolition of duty-free, which has depressed non-aviation revenues.

At airports run by a public-private partnership, another restraining factor could be the possible conflict between the differing objectives of the participants and interference by the public body in commercial decisions. These are all factors which potential investors are now beginning to take into account much more carefully than before, with the result that the price paid for airports will be based more on the reality of profit projections, rather than exaggerated expectations. Airport operators will also need to come up with new revenue streams to enhance the bottom line.

AENA: Spanish conquest

One of Europe's largest airport operators, Spain's Aeropuertos Espanoles y Navegación Aérea (AENA), with annual revenues in excess of \$1bn, and privatisation on the cards, is now moving into the international arena. With the country's strong historical connections with Latin America, few cultural and no language difficulties, the first strikes beyond its borders were not surprisingly directed towards that continent. A first tentative step was taken in March 1997, when it paid just \$7.3m for a 40% stake in Aeropuertos del Caribe (ACSA), which won a 15-year concession to manage and operate Barranquilla's Ernesto Cortissoz International in Colombia. A similar 15-year concession and 40% participation in Aeroportuario de la Costa (SACSA) for Rafael Nunez International in Cartagena de Indias, followed

MAJOR INTERNATIONAL AIRPORT GROUPS

	ADP	ADR	AENA	AerRianta	BAA	CPH
Revenues (\$m)	1,243	575	1,125	276	3,135	223
Net income (\$m)	98	40	125	29	540	47
Number of airports	29	13	59	6	15	11
Passengers (m)	79	43	147	40	200	27
Freight ('000 tonnes)	1,360	480	600	290	3,000	400
Equity interests*	France Belgium China	Italy S. Africa	Spain Colombia Cuba Mexico	Eire Germany	UK Australia Italy Mauritius US	Denmark Mexico

Note: *Equity interests shown only include countries where management or operation of airports and/or terminals is involved.

Lima's Jorge Chavez International. The re-election of Alberto Fujimori as president last July had revived Peru's privatisation plans, but these were thrown into almost immediate doubt by his announcement to step down next

in August 1998.

These were inexpensive ventures into small airports with annual revenues of under \$5m, but a successful bid for Mexico's 12-airport Pacific Group in July 1999 moved AENA into the top league of international airport operators. The AENA-led consortium won a 15% stake and a 15-year concession in the airport group, which accounts for 30% of the Mexican market. But it is aiming higher still, having set its sights on the impending privatisation of the Mexico City airports. Mexico City is the biggest airport with more than 20 million passengers annually, and one of only two airports in Latin America - Sao Paulo Guarulhos International is the other - which makes it into the world's top 100 airports. All winners of the three previously privatised groups are allowed to bid for Mexico's big prize, and competition will be fierce.

There is no doubt that winning in Mexico has increased the momentum for AENA's international division, leading to further success in Colombia and Cuba. In May this year AENA won a third airport in Colombia, with a one-third stake in Aerocali, which began a 20-year concession at Cali's Alfonso Bonilla Aragón Airport in September. Also in May 2000, AENA signed a six-year contract for the new \$40m Jardines del Rey Airport, presently under construction in Cuba. The contract will be taken up following completion of the airport scheduled for the second half of 2001.

Although AENA lost out to Vancouver Airport Services (YVRAS) in Montevideo, both companies, along with BAA, Aéroports de Montréal, Frankfurt Airport (FAG) and Vienna Airport, have also pre-qualified to bid for the concession at Peru's main gateway airport,

year. If Lima's privatisation can be successfully implemented, other major airports, including Cuzco, Arequipa, Iquitos and Trujillo, could follow soon after, or may be added to the Lima package.

YVRAS: the quiet Canadian

YVRAS has stolen up almost unnoticed, building on previously unspectacular investments at home, by striking out overseas, with an emphasis on the Americas. Having itself gone through a process of privatisation in the early 1990s, it uses its successful management and construction experience to good effect, aggressively marketing its expertise in seamless transition management. As a result, it is now providing vigorous competition to the more established airport companies and is well on the way to fulfilling its ambition of becoming a top five player in the international marketplace. Vancouver's near neighbour, Aéroports de Montréal (ADM), has a similar goal, but has so far underachieved, losing out recently at both Mexico and Colombia.

Apart from its home airport at Vancouver, YVRAS manages another five smaller facilities in Canada, as well as 11 across the world. Starting in 1997 with the concession for the Arturo Merino Benitez International Airport at Santiago, Chile, it has since added four airports in the Dominican Republic - Santo Domingo's Las Americas, Gregorio Luperon in Puerto Plata, Arroyo Barril in Samana and Maria Montez in Barahona - which offer excellent opportunities on the back of the growing popularity of the republic by international tourists.

YVRAS also manages Kindley Field in Bermuda and the airport at Providenciales in

the Turks and Caicos Islands, and has won the concession for Carrasco International at Montevideo in Uruguay. The last-named has not yet been signed because of unresolved contractual difficulties, encouraging AENA, the second-highest bidder to wait in the wings.

On the other side of the Pacific, YVRAS has added the Cook Islands to its interest in Wellington Airport. A 15-year management contract will include the development of Rarotonga and Aitutaki airports, and the implementation of a strategy to make the airports commercially self-sufficient. The major investment will be in a new terminal building at Rarotonga.

Hochtief: Berlin stalemate

As 2000 reaches its close, nothing has been resolved over the increasingly acrimonious privatisation of the Berlin airport system in Germany, which is casting a shadow over the planned construction schedule for the new Berlin Brandenburg International Airport (BBI) at Schönefeld. The battle between the Hochtief consortium, which also includes Frankfurt Airport, ABB and Bankgesellschaft Berlin, and the airport authority continues, while the IVG consortium is standing by, ready to invest close on DM5bn (\$2.5bn) in the first stage of the new development.

Construction giant Hochtief, which was disqualified for procedural irregularities after winning the contract late last year, lost one appeal in August, when the Brandenburg authorities ruled against the company. The Essen-based concern, determined that it be re-instated, has since taken the matter to the highest Brandenburg regional court, after which it can go no higher.

Dismissing concerns over a possible delay in the schedule, the airport authority has stated that if there is no satisfactory conclusion to this long-running dispute, the present shareholders themselves - the Federal Government (26%), and the State governments of Berlin and Brandenburg (37% each) - will make a decision before the end of December on who should take over the 50-year concession. The winner will also inherit Berlin's major airport at Tegel, which will close in 2007 upon comple-

tion of Schönefeld, and historic Tempelhof, handling regional flights. Tempelhof is due to close in 2002, but the new owner will face strong local resistance to that move. In the meantime, overcrowded Tegel will require more investment to ensure that Berlin will cope with increasing traffic until the new airport is completed.

If Hochtief does lose out in Berlin, it would seriously affect its strategy of making airport management and construction a central pillar of its growing business empire. It has drawn flak at Düsseldorf for raising charges, but has received acclaim for completing the new Athens Eleftherios Venizelos International Airport on time and within budget. The airport systems are now under test until the opening of the airport in March next year. Hochtief, together with ABB and KrantzTKT, will manage and operate the airport on a 30-year concession.

Should Hochtief be re-instated at Berlin, it would also be welcome news for Frankfurt Airport (FAG), which has been limited to equity stakes in Hannover and Hahn airports, having lost out with international bids. Frankfurt is working towards generating half of its revenues from international business, and will be marketing itself much more aggressively in the future. FAG itself is on the Federal Government's high priority list for privatisation, which could take place with an International Public Offering (IPO) in May 2001.

An interesting development is the increasing co-operation between FAG and the Schiphol Group at Amsterdam. While its joint bid for a 51% stake in Aeroporti di Roma (ADR) failed, the Schiphol Group may invite FAG to participate in Brisbane Airport Corporation, and is also keen to jointly attack other new privatisation opportunities on the international stage. Other areas under consideration for co-operation include ground handling, passenger and cargo flights, retail, real estate development, facility management, consulting, and information and communications technology.

Meanwhile, discussions on the flotation of a significant proportion of the Dutch Government's shares in the Schiphol Group are nearing completion. The form and phasing

MAJOR INTERNATIONAL AIRPORT GROUPS

	FAG	HOC	Schiphol	SEA	TBI	YVRAS
Revenues (\$m)	1,310	2,990*	541	455	144	165
Net income (\$m)	69	202*	120	41	-5	33
Number of airports	3	3	6	36	13	17
Passengers (m)	51	27	55	45	25	25
Freight (t x 1,000)	1,500	175	1,600	400	100	300
Equity interests**	Germany	Germany Greece	Netherlands Australia US	Italy Argentina	UK Bolivia Spain Sweden US	Canada Bermuda Chile Cook Islds Dom. Rep. N. Zealand. Turks & Caic. Uruguay

Note: *Hochtief financial figures are for the whole group, in which the airport business is only a minor part. **Equity interests shown only include countries where management or operation of airports and/or terminals is involved.

of the flotation, essentially to protect the public interest in Amsterdam Schiphol Airport, will be detailed before the end of the year, with flotation also likely in spring 2001. Neighbour Brussels National is in a similar situation with the impending privatisation of the Brussels International Airport Company (BIAC). The Belgian Government is reducing its 63.6% shareholding to just 15%, through a listing on Euronext. BIAC is, however, only concerned with using the funds to develop its home airport and has no international ambitions. The listing is scheduled for 2001, but its exact timing will be influenced by what happens at Frankfurt and Amsterdam.

ADR: Roman holiday

The sale of a 51% stake in Aeroporti di Roma (ADR) in June represented the biggest pay day for any airport company, with the local Leonardo consortium paying at least 17 times EBIT and propelling ADR's worth to around Lit5 trillion (\$2.750bn). The Italian Government has been accused of favouring home grown companies over foreign bidders, with the joint tender by Frankfurt and Amsterdam reportedly thrown out because of their state ownership. ADR has rejected any favouritism, saying that the tender regulations limited equity holdings of government-owned companies to just 2%.

The Leonardo consortium does not include an airport operator, which suggests that the present management will remain largely in place. Other members of the con-

sortium are investment company Gemina, utilities company Falck, Italtipetroli, and construction firm Impregilo. Ownership of the airport is presently limited to the concession granted by the Italian Ministry of Transport, which runs out in 2044.

ADR's interests in other airports

include a 20% stake in Airports Company South Africa (ACSA), which manages the country's nine biggest airports, 15% of the shares in Genoa Airport, and 16.57% in Lamezia Terme Airport. Further north, a group headed by Edizione Holding (Benetton Group) paid Lit114 billion (\$63m) for a 41.33% stake in SAGAT Turin Airport. The shares were acquired from the majority shareholders, the City of Turin, Province of Turin, Turin Chamber of Commerce, and Piedmont Region.

ADP: Mexican fiesta

Aéroports de Paris (ADP), in conjunction with Société Generale d'Enterprises and local concerns Holdingmex and construction company ICA, has secured Mexico's third airport group at a cost of \$91m. The North Central Group comprises 13 airports, handling nearly 10 million passengers, or one-sixth of Mexico's air traffic. All three groups now privatised are expected to launch a public offering for the rest of the shares in 2001.

UBS Warburg, which advised the Mexican Government on the sale of its airports, has also been contracted by the Incheon International Airport Company (IIAC) in South Korea to advise on the privatisation of the new airport due to open next March. ADP, together with Suez Lyonnaise des Eaux, took a 10% stake in the Beijing Capital International Airport Company for €120m early in 2000, and also took a stake in Liège-Bierset Airport in Belgium. It had been awarded the manage-

ment of Jakarta's Soekarno Hatta International Airport in Indonesia, but political changes prevented the contract from being signed, which is now believed to be put out to tender again. ADP will again be up against the Schiphol Group.

BAA: New York bound

New York mayor Giuliani has dangled an enormous carrot in front of BAA. Known for his hostile attitude towards the Port Authority of New York and New Jersey, the present operators of J F Kennedy, La Guardia and Newark airports, the mayor's office announced last May that sole negotiations have begun with BAA USA regarding the long-term management, operation and development of JFK and LaGuardia.

BAA beat Schiphol USA, Hochtief Airports and Zürich Airport to what could become the most lucrative airport contract ever. BAA would initially provide oversight and consulting services for the two airports, before assuming full control when the lease with the Port Authority runs out in 2015.

BAA is still awaiting some concrete results from its investment in Allied Airport Management (AAM), which won a licence for commercial management of Chinese airports with more than 2m passengers. BAA Pacific and the China Airport Construction Corporation, the members of AAM, had hoped to secure two airports by the end of 2000, with another four targeted to follow.

Little progress has been made on the privatisation of Portugal's Aeroportos e Navegacao Aérea (ANA EP), another target for BAA. The continued procrastination over Lisbon's second airport has delayed the project, although it now looks as if it might come off in the early part of 2001. As in Rome, BAA is likely to be up against the Schiphol Group and Frankfurt Airport, with Aéroports de Paris also likely to bid. BAA has changed its mind about bidding for the new Bangalore airport in India's Karnataka State.

Some re-positioning is taking place among the UK's other international airport operators. National Express has put up for sale its UK East Midlands and Bournemouth International airports, as a result of dipping profits at its air-

ports division. But it is firmly holding on to Stewart International Airport in the State of New York, viewing its close proximity to Manhattan as offering excellent opportunities. National Express is also using its ownership of Stewart, which it took over last April on a 99-year lease from the US Department of Transportation, as a foothold in the US, awaiting possible future privatisation at other smaller airports.

TBI has sold a 29.1% stake in the airports of Darwin, Alice Springs and Tennant Creek in Australia's Northern Territory to National Australia Asset Management, but retains 19.9% of the original 49% holding purchased by AGI, which it acquired last year. The sale price of A\$21.65m represents a 22% premium over the price paid by AGI in June 1998. TBI also still has a 16% interest in Perth and 30% in Hobart airports.

And TBI and Aer Rianta

In a push into southern Europe, TBI has taken a 20% stake in Ciudad Real Airport, the first major private airport to be built in Spain. The Pta30bn (\$150m) project is still awaiting the green light. TBI's decision to invest in the tiny Skavsta Airport appears to have been vindicated, with the Swedish Government now in favour of developing the airport into Stockholm's second facility, rather than building a new airport.

Irish airport operator Aer Rianta is still awaiting the go-ahead for its partial privatisation, following the Irish Government's proposal to offer 30% on the international market. Aer Rianta, a specialist in retail activities, especially at airports in Western and Eastern Europe and the CIS, has been hit by the loss of intra-EU duty-free, and is looking towards the IPO to boost revenues and to help its investment plans both at home and abroad.

Aer Rianta has complete management and operational control of three airports in the Irish Republic, including Dublin, Shannon and Cork, while its international success also extends to part ownership of Birmingham International in the UK (40%), and Düsseldorf and Düsseldorf Express (Mönchengladbach) (50%) in Germany. It has also been nominated as partner for the 49% privatisation of Hamburg International Airport.

JetBlue: justifying the hype

JetBlue Airways, which began low-fare operations from New York JFK in February 2000, generated a great deal of hype because of its success in raising \$130m in start-up funds. It had a strong management team and a promising growth niche. But skeptics argued that the carrier would not be able to attain Southwest's cost and efficiency levels in the high-cost Northeast environment and with a much smaller fleet. And what about this year's sharp hike in fuel prices? How could JetBlue possibly make viable a strategy that combines low fares with exceptional service quality?

Now in its ninth month of operation, JetBlue is rapidly proving the skeptics wrong. It has either met or exceeded all of its original financial targets. The company announced a "significant operating profit" for August - only its sixth full month of operation - and expects to post a profit for the second half of 2000.

The initial pro forma statements filed with the DoT in May 1999 envisaged profits for the last five months of 2000. But those forecasts were based on fuel prices of 60 cents per gallon, when East Coast carriers typically paid at least 100 cents.

As a privately owned carrier, JetBlue is not required to report financial data. But its leadership has indicated that while revenue generation has been stronger than anticipated, costs have also been below budget. CEO David Neeleman predicted in June that unit costs would be "something starting with a six" by the end of this year. This would be an amazing achievement with a (year-end) fleet of just ten A320s and at this year's fuel prices. The April 1999 plan predicted unit costs of 7.39 cents per ASM - roughly Southwest's level - when 11 aircraft are in operation.

Even though JetBlue has grown to a 10-city, nine-aircraft operation in eight months, it has avoided the hiccups and growing pains

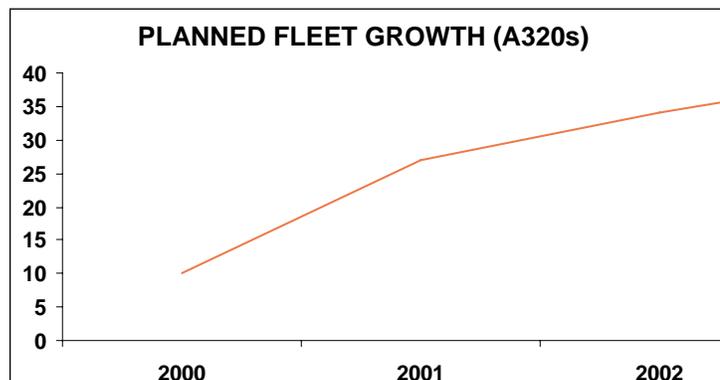
usually suffered by new carriers in their initial year of operation. This is in large part because the A320s have been extremely reliable. Also, and more surprisingly, the carrier seems to have suffered few ill-effects from ATC delays or the difficult weather conditions experienced along the East Coast this summer.

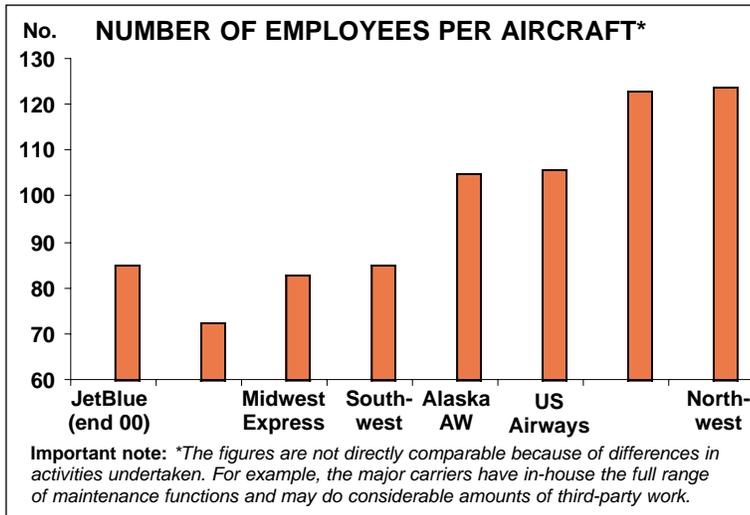
All of that was reflected in impressive operational performance statistics for the first six months of operation. Only ten flights were cancelled through August 31. JetBlue's completion factor (99.8%) and on-time performance (80.3%) were three and seven percentage points higher than the averages for the major carriers in the first half of this year. The rates for mishandled baggage and involuntary denied boardings were only a small fraction of those of competitors.

JetBlue's ability to achieve industry-leading operational reliability, low unit costs and profitability so early suggests that its management has found better ways of doing things. What factors or strategies explain this new entrant's success? Could other carriers learn from it?

Promising growth niche

Many US new entrant carriers fail because they do not find markets that are large enough and have sufficient growth potential. There is no doubt that JetBlue has





found a promising niche. JFK has an immediate catchment area of 5m people and can draw traffic from the tri-state area that has a population of 18m. Domestic traffic there has stagnated since the mid-1980s, as the entrenched major carriers have virtually eliminated price competition. Consequently, the over-priced and underserved markets have much pent-up demand.

JFK does pose many challenges - among them New York City area's ATC and ground congestion, high cost of living, the airport's relative distance from the city and lack of a rapid public transport connection. But JFK has been underutilised during a large part of the day, is undergoing a \$9m redevelopment programme and will get a rapid rail link at some point in the future.

JetBlue should be able to generate substantial volumes of new traffic with its Southwest-style one-class, high-frequency service and fares of up to 80% below what was previously available. It may even be able to duplicate the famous "Southwest effect", which sees markets tripling or quadrupling within one or two years.

Strong political support

JetBlue would not be where it is today without the overwhelming local and national political support it has received since its inception. The carrier obtained its DoT fitness certificate in a record four months

(though having the financial and other credentials obviously helped). It also received an exemption to the "high density rule" at JFK for an unprecedented 75 slots - all that it had sought.

The quest to become New York City's first-ever homegrown low-fare airline obviously captured the imagination of local politicians. But JetBlue also smartly made a commitment to bring lower fares to upstate cities like Buffalo and Rochester (both are already served) and Syracuse (next year), which are among the 20 cities in the US with the highest average fares. This won it strong support from Washington politicians and legislators like Senator Charles Schumer and Congresswoman Louise Slaughter (among about 30 high-ranking officials specifically mentioned by the airline).

When the JFK slot award was announced in September 1999, Senator Schumer made this memorable statement: "JetBlue is the perfect airline to break the monopoly power which other airlines used as ransom to hold Upstate's economy hostage. They are modern, well financed and committed to Upstate. It is a perfect fit for New York."

As an indication of continued political support, just a week after JetBlue's launch, when competitors had (predictably) matched its fares, Congresswoman Slaughter urged Washington regulators to monitor the major airlines closely for any signs of predatory behaviour toward this new entrant.

While other US start-ups will find it hard to come up with plans that could inspire politicians to a similar extent, they can probably learn from JetBlue's efforts on that front. David Neeleman said in a recent CNN interview that he learned to appreciate the importance of politics in the airline business at Southwest and that he continues to spend a lot of time with politicians. JetBlue also employs a full-time "VP Government Affairs" based in Washington DC.

Adequate capitalisation

Inadequate capitalisation is one of the main reasons why start-up carriers fail.

JetBlue is uniquely well-funded by new entrant standards, having secured \$130m in initial equity capital - at least four times as much as the best-funded of the previous new entrants had raised. Its prestigious backers include Chase Capital Partners (a venture capital arm of Chase Manhattan Bank) and venture funds controlled by New York-based financier George Soros.

Success on the funding front gave JetBlue two important advantages not usually enjoyed by new entrants. First, it was able to sign a contract Airbus to purchase up to 75 new A320s (the quoted price for the deal was \$3.6bn, based on list prices, but JetBlue will have paid nowhere near that amount). Second, it has ample resources to weather competitive responses from the major carriers.

In September JetBlue secured a commitment for an additional \$30m in equity capital from its existing investors, all of whom participated in their full pro-rata shares. This brings the total raised to \$160m. The company was in no immediate need of new funding; rather, it just wanted to boost reserves at a time when shareholder sentiment was particularly high following news that a profit was earned in August.

Highly experienced management team

The company succeeded in raising so much initial capital, in the first place, because of the unique credentials of its creator, David Neeleman. Most of JetBlue's current investors were involved in Morris Air, which Neeleman co-founded in 1984 and sold to Southwest in 1993. After a brief spell at Southwest, he helped start Canadian carrier WestJet, which went public in July 1999.

Neeleman began putting together a plan for New Air, as JetBlue was initially known, while waiting for his five-year non-compete deal with Southwest to expire. This, he said recently, gave him time to "really think it out". Some of the concepts were evidently tested at WestJet, the Canadian Southwest clone (see *Aviation Strategy*, March 2000).

The end result was a solid plan which, in combination with Neeleman's track record of starting low-fare carriers and making them successful, enabled him to raise the JetBlue funding "in a very short period".

If JetBlue becomes a huge success, Neeleman will inevitably be compared to the most admired US airline industry icon, Herb Kelleher. The two men's leadership styles are very different. While Kelleher, a boisterous and fun-loving man, has built a personality cult to maintain the special "Southwest spirit", Neeleman, a devout Mormon, has gathered a strong management team to help him implement similar strategies.

The team includes industry veterans from Southwest and Continental. President/COO Dave Barger previously ran Continental's Newark hub. CFO John Owen spent 14 years at Southwest as treasurer and in operations and planning. VP Human Resources Ann Rhoades headed the famous "People Department" at Southwest and is therefore uniquely qualified to implement a similar corporate culture at JetBlue.

New Airbus fleet

This year's hike in fuel prices has really driven home the benefits of operating brand new aircraft right from the start. JetBlue never even considered doing it any other way. The A320 fleet also enables it to keep maintenance costs down, maximise efficiency, maintain good operational performance, offer high service quality and create the right image.

The aircraft is ideally suited to JetBlue's requirements because it has more seats than the 737 models and offers the flexibility to serve markets that range from 280-mile intra-state to 2,400-mile coast-to-coast sectors.

Passenger comfort was a key consideration - the A320 has a wider cabin and can accommodate special perks like "roomy all-leather seating", and latest technology features like 24-channel satellite TV in every seat.

The initial April 1999 Airbus deal included

25 firm orders, 25 options and 25 purchase rights for the A320-232. In May this year seven of the options were exercised. Separate arrangements are in place to lease eight A320s from ILFC and SALE (five of which are already in the fleet). This adds up to 40 firm commitments, of which 10 will have been delivered by year-end. The remaining 30 are due in 2001-2003 (ten aircraft per year), and the options have delivery slots in 2003-2007. The contract includes some flexibility to convert to the smaller A319 and the larger A321 models.

Low fares, high service quality

JetBlue's pricing is in the classic mode adopted by many low-fare new entrants. There are 21-day and 7-day advance purchase and walk-up fares, which represent typically 60-75% savings over what was previously available. There are no round trip purchase or Saturday night stay requirements. Fares from JFK to upstate cities range from \$49 to \$99, Florida is \$79-\$179 and California \$99-\$299.

However, JetBlue is more up-market than Southwest, as indicated by its assigned seating, leather seats and free latest-technology inflight entertainment systems. In that respect it appears to have been more influenced by Virgin Atlantic.

Service philosophy, though, is very Southwest-style, with talk of "the JetBlue experience" and emphasis on open interaction with passengers and friendly but respectful service. Like Southwest, JetBlue goes to great lengths to select high quality employees, trains them well, does not cut corners as far as pay and benefits are concerned, and motivates workers with profit-sharing and stock options.

The airline has found an interesting solution to the problem faced by many new entrants, namely what to do when an aircraft breaks down. Since beginning two coast-to-coast "red-eye" services in the summer, JetBlue has kept one of those aircraft at JFK during the day to serve as a back-up and to give flexibility for maintenance. It can appar-

ently afford to do it because overall aircraft utilisation is already high.

This combination of offering low fares without sacrificing any aspect of service and with extremely high reliability thrown in has obviously made JetBlue a real hit in the marketplace. It achieved a 71.6% average load factor in the initial six-plus months through August 31, despite building operations from scratch, and has attracted substantial volumes of return customers.

Unprecedented efficiency

But how can it pull it off financially? Extremely low unit costs are the key, and the carrier aims to achieve those through "unprecedented efficiency". The ultimate cost target is six cents per ASM, which would make JetBlue the lowest-cost operator in the US.

In a presentation at a Merrill Lynch conference in June, David Neeleman released some interesting detail about the two specific things on the cost front that set JetBlue apart from the crowd - labour efficiency and aircraft efficiency. Incidentally, those are the factors that essentially account for Southwest's success.

Neeleman predicted that by the end of this year JetBlue will have fewer employees per aircraft than any other airline. The year-end target is 85, which is roughly what Southwest is currently achieving, and JetBlue is hoping for 70-75 by the end of its second year of operation.

Like Southwest, JetBlue benefits from a uniform fleet and high aircraft and gate utilisation. Initially its maintenance costs are lower than Southwest's thanks to a newer fleet. Like Southwest, it offers competitive wages and employee profit-sharing. Its pilots are fully utilised and fly based on an incentive programme. Uniquely, all of its reservations agents are home-based workers, who are paid a relatively low hourly rate but can boost their earnings through an incentive programme.

Labour efficiency is also boosted by extensive use of new technology. JetBlue is, naturally, ticketless and puts a heavy

emphasis on the Web. In June Internet bookings already represented 40% of total bookings. The carrier said that it had booked so much business on the Web that it had 65 fewer people on its payroll than had been expected at that point.

To make absolutely sure that everyone understands that "low costs and efficiency are key to our survival", Neeleman said that he gives every single new employee an "airline economics 101 lecture".

Neeleman claimed that JetBlue generates more ASMs per aircraft on a year-round basis than any other narrowbody operator in the world, achieving levels similar to those of European charters in the summer. This is the result of operating larger aircraft (the A320s have 162 seats - 26 more than the 737-700 for the same fuel burn) and achieving high aircraft utilisation. In the early summer JetBlue's A320s were already averaging 12 hours a day, and that was before night flights began to the West Coast. Aircraft are turned around in just 30 minutes.

The airline decided to serve two secondary coast-to-coast markets, JFK to Los Angeles (Ontario) and San Francisco (Oakland), mainly because they offered an opportunity to utilise aircraft at night. The incremental cost of operating those services was estimated at just 2 cents per seat-mile or about \$50 per seat each way, so the services must be profitable with \$99-\$249 fares.

Growth plans and prospects

After the initial services linking JFK with Fort Lauderdale, Buffalo and Tampa with leased aircraft in February and March, there was a three-month gap until the A320 deliveries from Airbus commenced in June. But since late June JetBlue has added one or two new routes each month to include more Florida and upstate New York cities and the two in California. There has also been a Southwest-style rapid build-up of frequencies in the key Florida and upstate markets, many of which now have four or five daily flights.

The latest new additions have been Burlington (Vermont) and West Palm Beach (Florida), in September and October respectively. Fort Myers (Florida) and Salt Lake City (Utah) - where Neeleman grew up and launched his aviation career with Morris Air - are due to follow in mid-November.

In the short term, JetBlue will mainly focus on building up its Florida and upstate services - it has made a commitment to serve Syracuse next year and Portland (Maine) also looks likely. After that there are "tons of options" in the Mid-Atlantic region (the Carolinas), the Midwest and elsewhere.

In contrast to Southwest, which keeps its expansion plans secret as long as possible for competitive reasons, JetBlue has been publicising a list of over 40 cities it is considering serving from JFK within three years almost since its certificate application - evidently to ensure political support. The list includes both major and secondary cities in the eastern two-thirds of the country.

As for facilities, there are no foreseeable growth constraints at JFK. The 75 slots secured initially will be phased in over three years, taking JetBlue to the 32-aircraft mark. In 2004 it will be able to move to new and larger facilities at the airport. However, finding enough high-quality employees in the JFK area may turn out to be a challenge in the future.

JetBlue has drawn a predictably robust competitive response from the major carriers in terms of fare-matching. Pressures will continue as MetroJet is now substantially expanding its service to Florida and Southwest has just entered the Buffalo market. However, none of that is direct competition, and Southwest's service from Islip on Long Island is not much of a threat to a JFK-based carrier.

As regards the larger majors, operating extensive domestic service from LaGuardia, JetBlue has a competitive product and can generate new traffic. If it can consolidate profitability, it is likely to go public within the next few years.

By Heini Nuutinen

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 %
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
1999	200.0	124.9	62.5	218.9	166.5	76.1	134.5	103.1	76.7	492.3	371.0	75.4	727.2	519.5	71.4
Aug 00	19.0	13.3	69.8	21.0	17.9	85.0	11.8	9.6	81.1	45.0	37.5	83.4	67.5	53.4	79.2
Ann. chng	4.7%	6.4%	1.1	1.9%	4.9%	2.4	2.3%	0.6%	-1.3	1.5%	4.0%	2.0	2.7%	4.8%	1.6
Jan-Aug 00	139.1	89.0	64.0	153.0	121.3	79.3	92.0	71.7	78.0	339.6	265.7	78.2	504.0	372.3	73.9
Ann. chng	5.8%	7.8%	1.2	5.8%	8.8%	2.2	2.9%	5.0%	1.6	3.9%	7.7%	2.8	4.7%	8.0%	2.2

Source: AEA.

US MAJORS' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
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	960.8	678.8	70.7	150.5	117.8	78.3	112.7	82.5	73.2	83.5	52.4	62.8	346.7	252.7	72.9
1999	1,007.3	707.5	70.2	164.2	128.2	78.1	113.2	84.7	74.8	81.3	54.3	66.8	358.7	267.2	74.5
Aug 00	90.5	68.8	76.6										34.5	28.1	81.4
Ann. chng	1.1%	3.9%	2.2										5.5%	6.4%	0.6
Jan-Aug 00	691.3	504.7	73.0										252.5	195.3	77.3
Ann. chng	3.5%	5.7%	1.5										5.7%	8.9%	2.2

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 %
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	1,911	1,297	67.9	2,600	1,858	71.5	4,512	3,157	70.0	5.4	5.0	5.7	7.4	5.6	6.4
*2000	2,004	1,392	69.4	2,745	1,969	71.8	4,750	3,361	70.8	4.9	7.2	5.6	6.0	5.3	6.5
*2001	2,100	1,440	68.5	2,907	2,063	70.9	5,009	3,503	69.9	4.7	3.5	5.9	4.7	5.4	4.2
*2002	2,161	1,463	67.7	3,022	2,119	70.1	5,182	3,582	69.1	2.8	1.6	3.9	2.7	3.5	2.2
*2003	2,233	1,533	68.7	3,170	2,253	71.1	5,403	3,788	70.1	3.4	4.9	4.9	6.3	4.3	5.8
*2004	2,317	1,607	69.4	3,332	2,393	71.8	5,651	4,000	70.8	3.7	4.8	5.2	6.2	4.6	5.6

Note: * = Forecast; ICAO traffic includes charters. Source: Airline Monitor, July 2000.

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
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	127	117	114	115	111	179	150	155	153	135	220	151	152	136	122
*2000	131	120	117	118	112	191	156	164	162	142	239	158	159	143	126

Note: * = Forecast; Real = inflation adjusted. Source: OECD Economic Outlook, December 1999.

Aviation Strategy

Macro-trends

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		
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	1999	0.621	1.938	6.498	1.587	1.010	103.3	5.92%***
*2000	127	126	127	117	108	Oct 2000	0.689	2.308	7.739	1.798	0.848	109.2	6.59%***

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

AVERAGE JET FUEL PRICES

	Average price per gallon (cents)	Change		Average price per gallon (cents)	Change
1979	57.7		1990	78.1	29.00%
1980	89.2	54.5%	1991	69.1	-11.5%
1981	104.7	17.4%	1992	63.7	-7.8%
1982	98.9	-5.5%	1993	60.5	-5.0%
1983	89.3	-9.7%	1994	55.8	-7.8%
1984	85.1	-4.7%	1995	55.8	0.0%
1985	81.0	-4.8%	1996	66.5	19.2%
1986	55.8	-31.1%	1997	64.6	-2.9%
1987	56.0	0.4%	1998	51.4	-20.4%
1988	53.5	-4.5%	1999	53.4	3.9%
1989	60.5	13.1%	2000	73.9	38.4%

Note: Average prices paid by US airlines both domestically and internationally; 2000 is to August

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
ATR	Sept 28	Bangkok AW	6 ATR72-500s		2Q 2001-03	Plus 6 options
Airbus	Oct 11	Air Canada	12 A321s, 2A319s		4Q 2001+	
	Oct 11	Qatar AW	1 Airbus Corp. Jet			IAE V2527 engines, Plus 1 option
BAE Systems	Sept 28	Air Botnia	5 Avro RJ 85s	\$120m	2Q 2000+	
Boeing	Oct ?	Ryanair	3 737-800s		2Q 2002+	
	Oct ?	American AL	2 777-200ERs, 4 737-800s		2002	One of the 777s R-R Trent powered
	Oct ?	Continental	15 757-300s		Q4 2001-03	
Embraer	Sept ?	American Eagle	130 ERJ-140s		2001-06	Launch customer
	Oct?	Air Moldova	2 ERJ-145s			Plus 2 options
	Oct?	Regional AL	5 ERJ-135s			Plus 5 options
	Oct?	Axon AL	4 ERJ-145s			Plus 2 options
	Oct ?	Regourd Aviatio-Occitana	4 ERJ-145s			Plus 1 option
	Oct ?	Pan Europeenne	1 ERJ-135			Plus 1 option

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*														
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					
Jul-Sep 99	4,629	4,603	547	279	67,972.2	48,792.9	71.8	6.88	6.26					
Oct-Dec 99	4,477	4,206	271	280	65,751.2	44,328.2	67.4	6.81	6.41					98,700
Jan-Mar 00	4,577	4,365	212	132	64,392.8	43,478.4	67.5	7.11	6.78					104,500
Apr-Jun 00	5,011	4,494	517	321	67,000.4	50,538.7	75.4	7.48	6.71					105,900
Jul-Sept 00	5,256	4,684	572	313	66,654.0	50,828.1	76.3	7.89	7.03					107,500
America West														
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				
Jul-Sep 99	553	511	41	22	10,522.9	7,502.8	71.3	5.26	4.86	4,896				
Oct-Dec 99	569	532	37	29	10,594.0	7,307.8	69.0	5.37	5.02	4,822				11,575
Jan-Mar 00	563	552	11	15	10,440.8	6,960.5	66.7	5.39	5.29	4,612				12,024
Apr-Jun 00	618	570	48	33	10,979.8	8,091.7	73.7	5.63	5.19	5,206				12,158
Jul-Sept 00	591	591	0	1	11,079.9	8,088.3	73.0	5.33	5.33	5,178				
Continental														
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				
Jul-Sep 99	2,283	2,071	21	110	34,711.0	26,380.3	76.0	6.58	5.97	11,922				
Oct-Dec 99	2,158	2,073	85	33	33,771.2	24,094.4	71.3	6.39	6.14	11,347				
Jan-Mar 00	2,277	2,223	54	14	33,710.2	24,143.0	71.6	6.75	6.59	11,201				
Apr-Jun 00	2,571	2,292	279	149	34,406.9	26,534.0	77.1	7.47	6.66	12,084				
Jul-Sept 00	2,622	2,368	254	135	35,978.0	27,881.1	77.5	7.29	6.58	12,155				
Delta														
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	27,438				
Jul-Sep 99	3,877	3,527	350	352	60,710.8	45,528.3	75.0	6.39	5.81	27,183	5,258.2			72,300
Oct-Dec 99	3,713	3,705	8	352	58,265.1	40,495.3	69.5	6.37	6.36	25,739				
Jan-Mar 00	3,960	3,605	355	223	57,093.8	39,404.4	69.0	6.94	6.31	25,093				72,300
Apr-Jun 00	4,439	3,863	606	460	59,753.4	46,509.8	77.8	7.48	6.46	28,333				73,800
Northwest														
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					
Jul-Sep 99	2,843	2,472	370	180	43,194.5	33,562.1	77.7	6.58	5.73					
Oct-Dec 99	2,555	2,461	94	29	39,228.3	28,618.2	73.0	6.51	6.27					
Jan-Mar 00	2,570	2,573	-3	3	39,486.0	28,627.4	72.5	6.51	6.52					
Apr-Jun 00	2,927	2,675	252	115	42,049.6	33,523.5	79.7	6.96	6.36					
Jul-Sept 00	3,178	2,824	354	207	44,379.9	35,353.1	79.7	7.16	6.36					
Southwest														
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				
Jul-Sep 99	1,235	1,029	206	127	21,903.8	15,464.0	70.6	5.64	4.70	14,932				
Oct-Dec 99	1,204	1,050	154	94	22,360.7	15,047.8	67.3	5.38	4.70	14,818				27,653
Jan-Mar 00	1,243	1,057	155	74	22,773.8	15,210.2	66.8	5.46	4.77	14,389				27,911
Apr-Jun 00	1,461	1,146	315	191	23,724.3	17,624.9	74.3	6.16	4.83	16,501				
Jul-Sept 00	1,479	1,179	300	184	24,638	17,650.8	71.6	6.00	4.79	16,501				
TWA														
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					
Jul-Sep 99	876	935	-59	-54	15,188.0	11,524.3	75.9	5.76	6.16	6,928	1,957.0	1,248.6	63.8	20,982
Oct-Dec 99	809	913	-104	-76	14,501.6	9,687.1	66.8	5.58	6.30	6,038				
Jan-Mar 00	954	939	15	-4	15,465.4	11,607.0	75.1	6.17	6.07	7,020				
Apr-Jun 00														
Jul-Sept 00	973	984	-11	-35	15,928.0	12,316.3	77.3	6.00	4.79	7,211				
United														
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					
Jul-Sep 99	4,845	4,226	619	359	74,043.0	55,628.0	75.1	6.54	5.71	23,765				96,700
Oct-Dec 99	4,480	4,286	194	129	70,715.9	49,172.2	69.5	6.34	6.06	21,536				96,600
Jan-Mar 00	4,546	4,294	252	-99	68,421.1	46,683.5	68.2	6.64	6.28	20,141				96,100
Apr-Jun 00	5,109	4,504	605	408	70,913.5	53,624.8	75.6	7.20	6.35	22,412				98,300
Jul-Sept 00	4,905	4,946	-41	-116	72,495.7	54,049.9	74.6	6.77	6.82	21,458				99,700
US Airways														
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					
Jul-Sep 99	2,102	2,213	-111	-85	23,006.6	17,205.6	71.7	8.76	9.22	13,984				40,613
Oct-Dec 99	2,135	2,256	-121	-81	24,705.9	16,714.2	67.6	8.64	9.13	14,075				41,636
Jan-Mar 00	2,098	2,237	-139	-218	24,250.3	15,568.7	64.2	8.65	9.22	12,804				42,727
Apr-Jun 00	2,433	2,265	168	80	26,171.9	19,557.4	74.7	9.30	8.65	15,554				42,653
Jul-Sept 00	2,381	2,376	5	-30	28,452.4	20,726.2	72.8	8.37	8.35	15,809				44,026
ANA														
Oct-Dec 98														
Jan-Mar 99														
Apr-Jun 99														
Jul-Sep 99	4,541	4,329	212	146	44,156.0	29,032.0	65.7	10.28	9.80	21,970				
Oct-Dec 99														
Jan-Mar 00	5,591	5,842	-251	6	49,646.9	31,844.9	64.1	11.26	11.77	27,430				
Apr-Jun 00														
Cathay Pacific														
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														
Apr-Jun 99														
Jul-Sep 99	1,695	1,664	31	17	28,801.0	19,325.5	67.1	5.89	5.78	5,267.0	3,581.6	68.0		
Oct-Dec 99														
Jan-Mar 00	1,989	1,658	331	133	29,313.0	22,167.9	75.6	6.79	5.66	5,600.0				
Apr-Jun 00														
Jul-Sept 00	2,070	1,765	305	285	29,839.0	22,588.1	75.7	6.94	5.92	5,483.0				
JAL														
Oct-Dec 98														
Jan-Mar 99														
Apr-Jun 99														
Jul-Sep 99														
Oct-Dec 99														
Jan-Mar 00	14,555	14,249	305	249	123,097.8	84,092.9	68.3	11.82	11.58	35,492	18,405.3	11,890.4	64.6	
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														

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 98	4,109	3,834	275	266	47,931.0	32,276.0	67.0	8.57	8.00	19,714	6,682	5,225	76.6	
Jan-Mar 99														
Apr-Jun 99														
Jul-Sep 99	TWELVE MONTH FIGURES													
Oct-Dec 99	4,340	4,177	163	232	49,516.0	36,693.0	74.0	8.76	8.44	20,564	7,827	5,995	78.2	
Jan-Mar 00														
Apr-Jun 00														
Malaysian														
Oct-Dec 98	TWELVE MONTH FIGURES													
Jan-Mar 99	1,966	1,556	410	-183	45,442.3	30,592.9	67.3	4.33	4.97	13,709	6,649.0	4,030.0	60.6	
Apr-Jun 99														
Jul-Sep 99	TWELVE MONTH FIGURES													
Oct-Dec 99	2,148	1,652	496	-67	48,906.0	34,930.0	71.4	4.39	3.38		7,531.5	4,853.4	64.4	
Jan-Mar 00														
Apr-Jun 00														
Singapore														
Oct-Dec 98	SIX MONTH FIGURES													
Jan-Mar 99	2,421	2,130	291	341	41,725.5	30,843.7	74.9	5.80	5.10	6,537	7,958.5	5,540.3	69.6	
Apr-Jun 99	SIX MONTH FIGURES													
Jul-Sep 99	2,577	2,259	317	346	43,145.7	32,288.3	74.8	5.97	5.24	6,752	8,251.9	5,852.7	70.9	
Oct-Dec 99	SIX MONTH FIGURES													
Jan-Mar 00	2,459	2,203	256	439	44,582.6	33,430.1	75.0	5.51	4.94	7,030	8,665.8	6,185.7	71.4	
Apr-Jun 00														
Thai Airways														
Oct-Dec 98	TWELVE MONTH FIGURES													
Jan-Mar 99														
Apr-Jun 99														
Jul-Sep 99	2,858	2,695	163	136	51,788.0	37,642.0	72.7	5.52	5.20	16,331	7,309.0	5,097.0	69.7	
Oct-Dec 99														
Jan-Mar 00														
Apr-Jun 00														
Air France														
Oct-Dec 98	SIX MONTH FIGURES													
Jan-Mar 99	5,550	5,552	-2	56	51,394.0	38,242.0	74.4	10.80	10.80					
Apr-Jun 99	SIX MONTH FIGURES													
Jul-Sep 99	5,249	4,889	360	316	56,934.0	43,896.0	77.1	9.22	8.59	20,600				
Oct-Dec 99	SIX MONTH FIGURES													
Jan-Mar 00	4,831	4,430	401	41	55,508.0	41,650.0	75.0	8.70	7.98	19,200				
Apr-Jun 00														
Alitalia														
Jan-Mar 99	1,937	1,990	-53	1	26,227.2	16,805.2	64.1	7.39	7.59	11,318	3,749.3	2,434.3	64.9	
Apr-Jun 99	SIX MONTH FIGURES													
Jul-Sep 99														
Oct-Dec 99	SIX MONTHS FIGURES													
Jan-Mar 00	2,225	2,2254	-29	-15	24,747.8	16,898.8	68.3	8.99	9.11	11,693	3,464.8	2,404.5	69.4	
Apr-Jun 00														
BA														
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	29,537.8	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
Jul-Sep 99	3,933	3,742	191	49	47,465.0	35,873.0	75.6	8.29	7.88	12,983	6,690.0	4,689.0	70.1	65,607
Oct-Dec 99	3,473	3,476	-3	-112	45,347.0	30,192.0	66.6	7.66	7.67	11,084	6,469.0	4,270.0	66.1	65,800
Jan-Mar 00	3,097	3,281	-184	-247	44,533.0	29,328.0	65.9	6.95	7.37	10,778	6,253.0	4,041.0	64.6	64,874
Apr-Jun 00	3,488	3,342	146	-85	44,826.0	32,295.0	72.0	7.78	7.46	11,633	6,475.0	4,407.0	68.1	61,411
Iberia														
Oct-Dec 98	4,451	4,100	351	356	45,041.6	32,520.0	72.2	9.88	9.10	21,753		3,740.0		22,065
Jan-Mar 99														
Apr-Jun 99														
Jul-Sep 99	TWELVE MONTH FIGURES													
Oct-Dec 99	3,712	3,659	53	179	50,227.6	34,606.8	68.9	7.39	7.28	21,877				
Jan-Mar 00														
Apr-Jun 00														
KLM														
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
Jul-Sep 99	1,731	1,596	135	32	19,630.0	16,083.0	81.9	8.81	8.13		3,352.0	2,640.0	78.8	35,226
Oct-Dec 99	1,450	1,479	-29	-17	19,014.0	14,434.0	75.9	7.63	7.78		3,280.0	2,550.0	77.7	35,128
Jan-Mar 00	1,361	1,436	-75	-142	18,627.0	14,084.0	75.6	7.31	7.71		3,238.0	2,453.0	75.8	35,348
Apr-Jun 00	1,600	1,509	91	39	18,730.0	15,149.0	80.9	8.54	8.06		3,276.0	2,549.0	77.8	27,267
Jul-Sep 00	1,615	1,445	170	100	19,386.0	16,378.0	84.5	8.33	7.45		3,359.0	2,703.0	80.5	26,447
Lufthansa***														
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	9.86	11,444	5,626.0	3,993	71.0	53,854
Jul-Sep 99	4,049	3,677	382	184	31,335.0	23,866.0	76.2	12.92	11.73	11,891	5,699.0	4,142.0	72.7	
Oct-Dec 99	3,398	2,964	434	378	29,120.0	20,313.0	69.8	11.67	10.18	10,807	5,503.0	3,930.0	71.4	66,207
Jan-Mar 00	2,831	2,742	89	11	28,599.0	19,781.0	69.2	9.90	9.59	10,355	5,422.0	3,751.0	69.2	
Apr-Jun 00	4,159	3,935	223	400	31,865.0	24,405.0	76.6	13.05	12.35	12,249	5,988.0	4,338.0	72.4	
SAS														
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	1,357	1,294	63	60*	8,466.0	5,571.0	65.8	16.03	15.28	5,580				27,706
Jul-Sep 99	1,173	1,150	23	12*	8,450.0	5,667.0	67.1	13.88	13.61	5,589				27,589
Oct-Dec 99	1,210	1,083	127	138*	8,227.0	5,210.0	63.3	14.71	13.16	5,536				
Jan-Mar 00	1,145	1,179	-34	-33*	8,253.0	4,992.0	60.5	13.87	14.24	5,314				28,600
Apr-Jun 00	1,289	1,176	113	112*	8,492.0	70.7	15.18	13.85	13.85	6,236				28,295
Swissair**														
Oct-Dec 98	2,187	2,070	117	165	20,476.8	15,391.3	75.2	10.68	10.11	5,277				10,396
Jan-Mar 99	SIX MONTH FIGURES													
Apr-Jun 99	1,932	1,877	55	57	23,411.0	16,130.0	68.9	8.25	8.02	7,784				10,715
Jul-Sep 99	SIX MONTH FIGURES													
Oct-Dec 99	2,344	2,272	72	125	21,934.0	16,839.0	76.8	10.69	10.36	6,081				
Jan-Mar 00	SIX MONTH FIGURES													
Apr-Jun 00	1,916	2,006	-90	2	25,476.0	18,241.0	71.6	7.52	7.87	9,162	3,972.8	2,719.6	68.5	

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
- E&M processes
- Distribution policy

For further information please contact:

Tim Coombs or Keith McMullan

Aviation Economics

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

Tel: + 44 (0)20 7490 5215 Fax: +44 (0)20 7490 5218

e-mail:kgm@aviationeconomics.com

SUBSCRIPTION FORM

Please enter my Aviation Strategy subscription for:

One year (12 issues) @
£390 / €625 / US\$625,
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 _____

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

Please invoice me

Please charge my AMEX/Mastercard/Visa credit card or Switch debit card

Card number _____

Name on card _____ Expiry date _____

I am sending a direct bank transfer of
£390 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 (0)20 7490 5218

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