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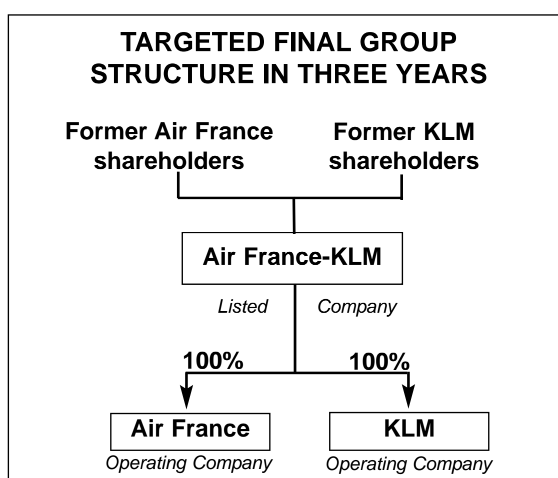
Air France/KLM: a defensive merger

The Air France/KLM merger proposal has been interpreted as an innovative move, the start of the long-awaited European flag carrier consolidation process. In reality, the commercial benefits are questionable in the short and medium term, and the deal raises complex competition issues.

Air France has agreed to pay the equivalent of €784m for KLM, through a share exchange mechanism, with the finalisation of the transaction scheduled for next April. The price represents a premium of 40% over the pre-announcement KLM share price, and , more significantly, a premium of 84% over the average KLM share price during the previous six moths.



For KLM management this is the exit they have been seeking for some years. Having decided that that couldn't get the airline's costs down sufficiently to make it profitable, their strategy for creating shareholder value has been to find a purchaser who, for whatever reason, is willing to pay a premium over the stockmarket valuation. (This recalls the actions of Steven Wolf's management at US Airways and the Belgian government's attitude to Sabena, though in both these case a sale was not concluded.)

A new company, Air France-KLM, will be created to carry the transaction through, and KLM itself will be quarantined in a special purpose company for at least three and a half years, with the Dutch government given options to re-establish majority control if the ownership of the airline is challenged by bilateral partners. (see chart on page 2). By the end of that period it is assumed a US-EC Open Access agreement will be in place, and intra-European nationality restrictions on operating intercontinental service will have gone.

Commercial logic

Despite the loose claims for synergistic benefits made by some analysts, Air France is not actually predicting any significant finan-

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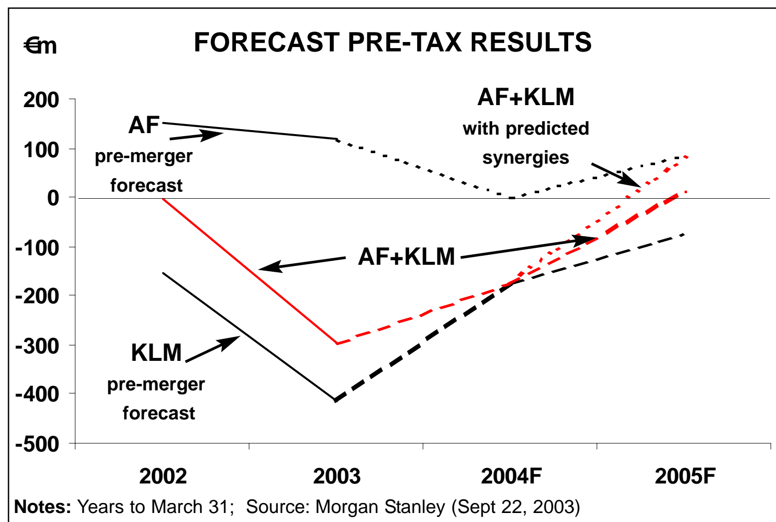


Notes: Years to March 31; Source: Morgan Stanley (Sept 22, 2003)

cial benefits in the short term - the opposite in fact. Adding in the identified synergies for the year 2004/05, about €70m, to Morgan Stanley's financial forecasts for the two carriers, published just before the merger announcement, suggests a pre-tax profit total of €44m for AF/KLM combined. This compares with an original forecast for a €78m profit for Air France alone (and a pre-tax loss of €104m for KLM).

It is claimed that the main benefits will emerge over the long term, as a consequence of the dominant position the merger will create. Standard statistics nave been trotted out to illustrate that AF/KL will be a leading global force: their combined revenue of €19bn would put them in the number one spot.

This is a dangerous assumption. To take some recent counter examples: the Air Canada/Canadian merger drove Air Canada into bankruptcy even though it apparently created a huge market advantage for Air Canada. The American/TWA merger produced a detailed and plausible synergistic benefit forecast (see *Aviation Strategy*, June 2001) but helped push American into (virtual) bankruptcy, despite moving American into the number one market share position in the US. The Swissair-Sabena and Air New Zealand-Ansett cross-border mergers were total disasters despite far fewer political obstacles than AF/KL will face.

There are no synergies between European hubs in terms of purely intra-European traffic. Zurich and Brussels didn't find any and neither will CDG and Schiphol.

Cost synergies

The projected cost savings come from the usual sources (see table, below) but are remarkably modest. Year 3 (2006/07) synergies are put at €220-260, about 1% of combined operating costs. And can anyone in today's deregulated market seriously specify a cost saving for the year 2008/09 (Year 5)?

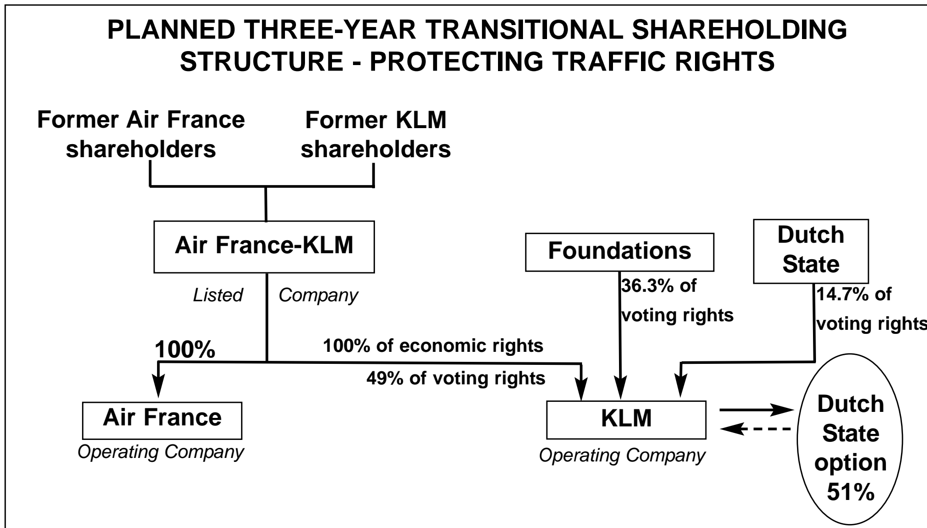
IDENTIFIED POTENTIAL ANNUAL SYNERGIES

	Main actions	Total annual synergies (€m EBIT)	
		Year 3	Year 5
Sales/Distribution	Coordination of sales structures Sales cost improvements Handling and catering	40	100
Network **Revenue Management** **Fleet**	Network/scheduling optimisation Revenue management harmonisation Optimisation of fleet utilisation Coordinated management	95-130	130-195
Cargo	Network optimisation Commercial alignments Support services	35	35
Maintenance	Procurement Insourcing Pooling (stocks, etc.)	25	60-65
IT Systems	Progressive convergence of IT systems	20	50-70
Other	Procurement synergies	5-10	10-30
TOTAL*		220-260	385-495

Source: Air France and KLM. **Note:** *= Before remedies which may be requested by the EC

The synergy problem with AF/KL is that it the combined network is complementary rather than overlapping and that it is impossible to relocate and rationalise services at one main base in the foreseeable future. Successful mergers - historically, BA/BCal, Air France/UTA, Northwest/Republic, and more recently, easyJet/Go and Ryanair/Buzz - depend on taking out cost at the same time as rapidly consolidating operations and completely subsuming the minor brand.

Air France cannot achieve these cost benefits because it cannot absorb KLM in the short/medium term, and it is unlikely that Air France has much to teach KLM about cost control.



The cost risks, in fact, are significant and unquantified. To take one minor example: IT synergies are estimated at positive €20-70m in the AF/KL plan. Anyone who has been involved in IT harmonisation knows the opposite is likely to be the reality.

The intangible cost , which is not quantified, relates to management diversion or confusion. It will be interesting to see how HR works at the combined airline; French morale must have been boosted by headlines proclaiming Air France to be " le leader mondial de l'aviation" and “un géant du ciel” (*Le Figaro/LeMonde*), while Dutch employees will have to come to terms with the slow death of the famous KLM brand.

Hub consolidation

European industry consolidation is usually represented in terms of the number of flag-carriers. An alternative way is to look at the evolution of hubs.

Four years ago there were four major intercontinental hubs in Europe, accounting in total for 64% of long-haul departures - Heathrow, Frankfurt, CDG and Amsterdam. There were also ten second-level intercontinental hubs - Gatwick, Zurich, Madrid, Milan, Brussels, Copenhagen, Munich, Rome, Vienna and Munich - which accounted for the other 36%.

Since then BA has dehubbed Gatwick and has refocused Heathrow on point-to-point services, moving away from fifth freedom operations. Swissair's aim of finding a sustainable role as Europe's fifth intercontinental hub operator ended with bankruptcy; its successor, SWISS, has been forced to rapidly downsize its long-haul hub operation and will probably have to dismantle it totally if it is to survive. Sabena too has gone, with most of its intercontinental Brussels hub traffic being picked up by Lufthansa and Air France. SAS and Austrian have reduced marginally their intercontinental flights in the context of their alliances with Lufthansa. Alitalia has retreated from the idea of building up Milan Malpensa as a global hub, instead splitting long-haul services between Milan and Rome.

So there has already been a substantial consolidation of the European intercontinental hub systems with the three immunised alliances - Air France/Delta, Lufthansa/United and KLM/Northwest - competing effectively for transatlantic traffic at CDG, Frankfurt and Amsterdam.

The AF/KL transaction in effect proposes to reduce the number of main competitors in this market from three to two. It is a defensive merger rather than one that attempts to create a more competitive network. A defensive merger usually implies taking capacity out of the market, but in the short/medium term (five years) Air France is very limited in what it can do with the existing Amsterdam operation: the terms of the agreement with

KLM and the Dutch authorities require the KLM network stays more or less intact. Moreover, there has to be "fair long term development" of services between the two hubs.

Amsterdam, in the recent industry recession, has been an loss-making hub, whereas CDG has succeeded in generating profits. The fundamental reason for this difference is that, because of its limited home market, Amsterdam has a much higher proportion of connecting as against local traffic compared to Paris and the other major hubs. The split between sixth freedom and other traffic for KLM at Amsterdam is about 45/55 compared to 20/80 for Air France at CDG and 27/73 for Lufthansa at Frankfurt. As a consequence KLM's average yields are much lower than Air France's or Lufthansa's.

So could Air France in the short term accurately identify the markets behind or beyond the Amsterdam and Paris hubs where they are competing between themselves for connecting traffic, then push yields up in these markets? The big risk of Air France imposing its pricing on KLM is that KLM's discount traffic will shift to other carriers, KLM's load factors will drop but its cost base will stay the same.

For its investment to make sense in the long term, Air France will want to have the option of combining the two hubs, in the process downsizing and repositioning the weaker hub (Amsterdam). This would take capacity out of the market, and thus reduce pricing pressure. But there is an obvious problem with paying big money for KLM assets, revenue streams and labour obligations and then liquidating some part of them. Air France would be paying all the money up front, waiting for over five years for uncertain returns, which if they do materialise will be diffused across the entire industry.

EUROPE - US FREQUENCIES

	KLM	NW	KL/NW		AF	DL	AF/DL	TOTAL
AMS-JFK*	13		13	**CDG-JFK**	28	14	42	**55**
AMS-DTW		28	28					**28**
				CDG-ATL	14	14	28	**28**
AMS-BOS		7	7	**CDG-BOS**	14		14	**21**
AMS-IAD	7		7	**CDG-IAD**	14		14	**21**
AMS-MSP		14	14					**14**
AMS-SFO	7		7	**CDG-SFO**	7		7	**14**
AMS-LAX	7		7	**CDG-LAX**	7		7	**14**
AMS-CHI	7		7	**CDG-CHI**	7		7	**14**
AMS-MIA	7		7	**CDG-MIA**	7		7	**14**

Note: * = plus 7 DL flights weekly *Source: OAG*

Transatlantic gamble

The big commercial upside for Air France in on the Atlantic, but this also raises the gravest anti-competitive concerns, which may scupper the whole deal.

The AF/KL combination implies a four-way transatlantic alliance including Northwest and Delta. This could quickly become a six-way alliance if Continental, which has a US domestic marketing alliance with the other two US carriers, and Alitalia, already in SkyTeam and desperate to firm up its links with Air France, are included.

The six-way alliance would have a 50% share of the North Atlantic market. SkyTeam and Star combined would have about an 85% share of North Atlantic capacity to continental Europe.

The central question for the US authorities is antitrust immunity and joint pricing (if the four or six carriers just want to combine lounges and frequent flyer programmes there would be no problem). KLM and Northwest and Air France and Delta have immunised alliances that allow them to share information, set joint fares and jointly manage inventories on their North Atlantic routes. But Northwest, Delta and Continental just have a marketing alliance, and it would be highly illegal for them to share seat inventory information or collude on fares.

The logic behind the US Department of Transportation granting antitrust immunity was that overall competition would be improved because of the parallel introduction of open skies bilaterals and that the alliance partners had relatively small market shares (KLM and Northwest had about 4% each of the market when their ground-breaking alliance was sanctioned). A 50% market

share is a very different matter, especially when it implies that two or three US Majors would be involved in collusive fare setting. This could result in US moves to strip antitrust immunity from both KL/NW and DL/AF.

SHORT-TERM COMBINED FINANCIAL STRUCTURE

As of March 31, 2003 - in €m	Air France (1)	KLM (1)	Air France-KLM (2)
Gross debt	4,147	3,805	7,952
Cash and near cash	1,232	919	2,137*
Net debt	2,915	2,886	5,815
Shareholders' equity	3,994	1,476	4,778
Gearing	72%	195%	121%
EBITDAR/Net financial changes	7.9x	3.6x	6.2x

** Including transaction impact of € 14m*

Notes: (1) figures in local GAAPs; (2) Air France-KLM: aggregate numbers which may be subject to adjustment upon preparation of pro-forma financial statements

The situation probably returns BA to the moral high ground in transatlantic bilateral affairs. It can now do a lot to undermine AF/KL by resurrecting its claims for an immunised alliance with American.

As for the EC, it has evolved an industry view which conflates flag-carrier consolidation with its North Atlantic Open Access proposal. AF/KL will force it to re-consider whether greater consolidation really does mean greater competition.

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Airports: industry trends and key privatisation issues

As delegates gather for the 10th Global Airport Development Conference ("GAD") in Vienna this month, the agenda for the airport sector has an air of familiarity, mixed with a degree of uncertainty as to how key long-term issues will evolve. On the one hand the cyclicality of the airline industry to which airports are exposed has been a managerial headache since at least the first major oil crisis in 1973. The privatisation debate has been alive for over two decades since the BAA's IPO in 1987 and private sector involvement continues to take many different forms to achieve many different objectives. Even the security issue, brought into its sharpest focus on September 11, has its roots in the historical progress of terrorism as a global phenomenon, in which civil aviation has been seen as high profile but relatively soft target.

Along with the impact of the structure of the airline industry on different types of airports, future airport ownership will also be high on the agenda for delegates at GAD. Some major issues around privatisation also remain unresolved - how will the pipeline of transactions evolve? Which structures are best suited to deliver financing requirements, encourage operational enhancements and deliver sufficient benefits for investors? An overview of these issues follows.

Hub airports

The fortunes of major airports have been contrasted sharply with those of their principal airline customers. Most major airports have sustained a far lower impact on operating profitability than home-based carriers, as demonstrated by contrasting some of the European airports and their home-base carriers. This reinforces the view, which for example has influenced stock market performance of listed airports that the attractiveness of airport assets is in their "utility plus" status.

The operational leverage of airports is lower than airlines. Falling traffic does not tend to translate into as significant a decline in operating and pre-tax profitability. There are a number of reasons for this which are familiar to the capital markets. Airports' yield (as opposed to volume) risk is lower, since user charges (landing fees, passenger fees, etc.) are fixed or in some cases, through the regulatory formula, can be increased to offset a traffic decline. Airlines, on the other hand, have struggled to maintain load factors by aggressive price-cutting.

Large airports also benefit from the portfolio effect of exposure to a wide range of markets. At BAA's airports, the decline in long-haul traffic (principally North Atlantic and Asia) has been offset by the continual increase in short-haul traffic generated by LCCs.

Also, BAA has benefited since these same short-haul passengers produce favourable commercial revenue for the airport operator, given the LCCs' approach to on-board service, length of check-in time and absence of free service to certain groups of passenger (i.e. no cosy lounges for business class passengers).

Finally, airlines have tended to have much more aggressive capital structures than their airport infrastructure suppliers. The consequent higher financial leverage of airlines further exacerbates the impact of traffic and revenue decline on bottom line profit performance and cashflow.

Secondary hub airports

Within Europe not all hub airports have faired well. Smaller secondary hubs with a larger exposure to one of the second-tier (in terms of size) carriers have seen a more fundamental shift in traffic patterns. Sabena's failure, for example, resulted in a 27% decrease in traffic in 2002 and some long

haul routes may not be fully replaced. At Unique Zurich Airport the failure of SAir Group coincided with a large expansion programme and also a substantial 15% decline in traffic in 2002 over 2001. Unique's management forecast that traffic for 2003 is likely to be between 16-17m passengers, however the airport will feel more confident now that Swissair's replacement Swiss has found a home in the oneworld alliance.

These two examples demonstrate that the corollary of greater focus at the principal airport hubs as a result of airline network developments may well be a significant shift from secondary hubs. This does not mean that these airports cannot be successful, indeed both BIAC and Unique Zurich returned an operating profit in 2002. It will, however, have a profound long-term impact on the planning of capacity expansion, financing and also developing appropriate marketing and service packages to a slightly different future airline customer. The two airlines, which have emerged in these instances - SN Brussels and Swiss, are more focused on point-to-point markets, reducing the need for an infrastructure which can provide capacity peaking around banks of inter-connecting flights.

Regional airports

The regional airport sector, defined by throughput of less than 5m passengers, has benefited the most through the recent cycle, as LCCs, in particular with the Ryanair business model, have rolled out across Europe. These airports have achieved growth significantly above larger airports, though they have of course started from a much lower base.

The phenomenal growth of LCCs has opened up profoundly different opportunities for many regional airports. Ryanair has most clearly demonstrated this with its opening of four new bases in Europe since the first half of 2001. Despite the recent controversial ruling on Ryanair's subsidies from the Chamber of Commerce of Strasbourg and Lower Rhine, there appears to be no reason why regional airports cannot benefit from a continued rapid expansion of point-to-point short-haul services.

BAA TRAFFIC BY ORIGIN AND DESTINATION

	2002 pax (000's)	2001/02 change	Proportion of Group traffic
Domestic	24,096	9.1%	19%
Europe	63,270	4.1%	50%
N. Atlantic	17,833	-0.7%	14%
Other long haul	21,429	1.6%	17%
Total	**126,629**	3.9%	100%

Source: BAA

Restructuring of the airline industry

The main impact of the airline crisis since on airports is that future decisions about the operating structure, capacity expansion and capital expenditure plans by airports will be even more closely aligned to the fortunes and evolution of the airline industry and specific airlines (or groupings) upon which airports are reliant for traffic. Taking the widely held view of commentators on the future structure of the industry (consolidation around smaller number of global network airlines and LCC providers in short haul markets) the consequences for airport operators are clear.

Emergence of Global Network Carriers

The consequence of an airline sector where three airlines in Europe are dominant in the medium and long markets (if the Air France/KLM merger goes ahead) is of course to further focus network activity at key hubs. Capacity constraints in this respect have not in the long term been diminished by the loss of two or three years of traffic growth.

Fraport's growth potential is very much tied to the fourth runway, and as the Terminal 5 project at Heathrow starts, the critical issue of additional runway capacity for the south-east of England is BAA's greatest long-term challenge. The side effect of the need to

AIRPORT/AIRLINE COMPARISONS

	EBIT MARGINS (%)			TRAFFIC GROWTH	
	2000	2001	2002	2000/01	2001/02
BAA	25.1	27.7	30.4	-13.7%	-5.8%
BA	4.1	(1.3)	3.8	-2.2%	4.7%
FRA	21.5	13.7	(0.3)	-1.6%	-0.2%
LH	10.2	(1.9)	9.4	-1.9%	-2.0%
AMS	31.7	32.2	32.7	-0.2%	2.8%
KL	4	(1.4)	(2.1)	-2.9%	2.4%
CPH	37.2	32.2	34.4	-1.4%	0.9%
SK	6.4	-1.2	1.1	1.7%	1.4%
VIE	28.4	26.6	30.5	0.0%	0.8%
OS	3.2	(4.1)	1.7	-3.1%	-2.1%

Source: Company reports

address capacity constraints of the major hub operators (i.e. BAA, Schiphol, Aerports de Paris, Fraport) has been to re-focus the mind of airport management and investors on issues at the core airports, rather than in the international privatisation market.

Low Cost Carriers

In the short-haul market, although overall the penetration of traffic volumes in Europe is relatively small at present (around 12%), the LCCs have extensive growth plans. easyJet and Ryanair will add 120 and 82 aircraft respectively to their fleets in the next six years. The two dominant scheduled LCCs, Ryanair and easyJet, are likely to form the nucleus of this segment of the market. Their behaviour and requirements of airport infrastructure providers is extremely different to that of the traditional full service carriers.

The LCC impact is to challenge the way many airports have been run including engineering and capex concepts, traditional airport charging mechanisms and arguing for a more contractual nature in the relationship with the airport operator. This breed of airline is also different from a commercial perspective, particularly for the smaller regional airports, as they have a stronger and more aggressive bargaining outlook. Again Ryanair is confident that setbacks such as over Strasbourg will be obviated by the significant number of alternative destinations to which it can fly.

Charter carriers and tour operators are also responding to the emergence of LCCs, by forming their own low cost subsidiaries (e.g. My Travel Lite by My Travel, Hapag Lloyd Express by TUI). These types of carrier reflect both the desire of Vertically Integrated Tour Operators to benefit from growth in low cost travel (which they can claim to have fostered for many years in traditional leisure markets) and concern that the LCCs are dis-intermediating the package holiday concept. In any case the consequences for airport operators, in terms of pressure on pricing structures and infrastructure required by airlines, are likely to be the same as with the scheduled LCCs.

Under this broad vision for the industry it is medium sized airports (5-15m passengers) that perhaps face the most difficult positioning. Historically geared up to serve full service airlines, they are having to significantly adjust their thinking to both the LCCs and to another breed of carrier. The LCCs require more simple terminal concepts and different pricing structures. Ryanair, for example, was ready to fund a new terminal of its own at Aer Rianta's Dublin Airport.

At the same time regional and secondary hub services are being provided by a new breed of network carrier. The hybrid airline concept is evolving, and has usually involved the transformation of a former full service national flag carrier. Perhaps the most successful example in Europe is Aer Lingus, which still operates to major hub airports offering a mixed cabin service, cargo capacity and inter-line capability, but has also adopted as much as possible of the LCC concept. If this hybrid model is the future for Europe's second tier national flag carriers, they also alter the demands that will be made at many medium sized airports.

Airport privatisation

Against this background, airport privatisation continues to be an important theme.

This is the beginning of the third decade in which airports have been operated under private sector ownership. There is a very wide range of models for airport privatisation from stock market listing, to strategic ownership, to concession arrangements, to hybrid public listings with an anchor strategic investor.

Despite the relatively long history of airport privatisation, the steady pipeline of airport transactions, which has often been vaunted over the last ten years, has not materialised. And a very considerable proportion of the world's airport capacity continues to be operated by federal or local government-owned entities. In the UK, the market has moved into secondary or tertiary market trading, for example the sale of East Midlands and Bournemouth by National Express in February 2001 and of Prestwick by Stagecoach in January 2001.

A parallel development to secondary trading has also been the emergence of a new breed of airport owners/operators. Macquarie Bank for example through various vehicles (MAG and Map) has been the most active with the acquisition of stakes in Sydney International Airport, Aeroporti di Roma, Birmingham International Airport and Bristol International Airport over the last few years.

Alongside such specialist funds, engineering/concession companies have emerged as highly active players in today's privatisation market. The acquisition strategy of Spanish construction company Ferrovial, who acquired 50% of Bristol Airport alongside Macquarie in 2001 and acquired Belfast City Airport for £35m this year, is a clear example.

Key observations on how privatised airports are performing are as follows.

• Privatised sector performance

For institutional investors in listed airports the crisis has demonstrated once again that airports are quasi-utilities and have a lower operational risk profile than their airline customers. This makes airports attractive investments in uncertain times (defensive stocks), although equity research analysts tend to favour the airline sector over airports as recovery plays (cyclicality).

Recent history also shows that stock market performance of airport tends to be as much influenced by local circumstances as by geo-political events. BAA's share price for example was influenced by the quinquennial review for 2003-2008 and Fraport's shares are affected both by an overhang of the existing governmental shareholders (City of Frankfurt 20.46%, State of Hesse 32.04% and German Federal Government 18.32%) and the approval process for the fourth runway, expected to be commenced in 2006.

• Privatisation models vary

Privatisation has and will continue to take many different forms and therefore perhaps asking the question as to an optimal privatisation model is erroneous. The fact remains that airports are not network businesses, but their performance is largely influenced by local circumstances (size of catchment area, economic activity and cultural mix in this relevant catchment area, regulation and environmental constraints).

The objectives of privatisation also vary significantly within each political framework. In areas such as Mexico and in the process which is just commencing in India (privatisation of Mumbai and Delhi International Airports), access to international expertise and training, has been influential in designing privatisation structures around attracting international airport operators.

An evaluation of the valuation multiples (EV/EBITDA, P/E or P/FCF) in a range of privatisation models (listing, strategic sales or concession transactions), highlights that for governments to maximise exchequer receipts would suggest that a competitive auction of control to strategic/financial buyers is the optimal process and structure. For many airports operators' valuation issues have been superseded by public policy objectives.

• Access to capital is not a problem

Access to capital, which has been an important driver of privatisation, has not been seriously affected by the crisis itself. This is reflected in recent capital raising by airports (e.g. BAA's convertible bonds - £425m in 2003, £424m in 2002. Unique Zurich's private placement of US$275m in 2003) and in relatively stable credit ratings, where airport operators have tended to have higher ratings than their home base carriers and most remain investment grade credits, see table below. Market sources of capital (either equity or debt) of course do wish to see use of funds tied to specific projects with identifiable returns. Acquisition financing has a different range of parameters that affect investor / lender appetite and therefore pricing for securities or for syndicated loans.

• Pipeline will be difficult to tie down

Activity in the airport market slowed down immediately following September 11, for example with the postponement of potential privatisations of Brussels (BIAC), SEA (Milan) and Schiphol. However, in Europe there is evidence that reform of ownership and operating structures are starting again.

In France, the Government has examined ways in which to reform the structure of regional airports, and mechanisms for opening up the capital of Aeroports de Paris may be on the agenda. At regional and global levels privatisations are on the agenda (eg. Hong Kong, India and Italy).

It is difficult however to predict the actual flow of activity as the processes tend to be affected very much by local circumstances, in particular meeting political objectives. Schiphol Group's privatisation, which almost coincided with the Initial Public Offering of Fraport has been long delayed. The most prominent new process underway is in Hong Kong, where the Hong Kong Airport Authority (HKAA) has appointed Goldman Sachs (Asia) and NM Rothschilds & Sons to advise on privatisation options, whilst the Government is being advised by UBS Warburg. These appointments of course do not confirm a definitive structure or timetable for HKAA.

Increasingly the publicly listed companies have found that their stock market investors have little time for foreign activities and are either not rewarded or indeed penalised for such investments. For example, Fraport's investment in Manila (PIATCO) which has been written-off (€289.5m), had a significant impact on its share price.

The market is therefore witnessing a more cautious approach from the European airport operators, focused on selling skills and/or involvement capital where it makes strategic sense or the potential financial rewards are clear. Other types of operator, concessionaires, service companies and engineering and construction companies will continue to be highly active in the privatisation market. Their challenge will be to secure positions at attractive enough airports in a manner that will give clear returns and control.

Like their listed airport competitors they will need to demonstrate in a transparent manner to their shareholders that airport investments are worthwhile. This has been more difficult since many airport investments are of a minority nature, where returns come as both dividends or are part of concession structures.

EUROPEAN AIRLINE AND AIRPORT CORPORATE CREDIT RATINGS

Company	Rating
British Airways	BB+/Stable
Deutsche Lufthansa	BBB+/Negative/A-2
Aeroports de Paris	AAA/Stable
Amsterdam Schiphol	AA-/Stable
BAA plc	AA-/NegativeA-1+
Aer Rianta	A+/Negative/A-1
Birmingham Airport Holdings Ltd.	A-/Stable/A-2
Aeroporti di Roma SpA	BBB+/Stable/A-2
Newcastle Int'l Airport Ltd	BBB+/Stable
Unique Flughafen Zurich AG	BBB/Stable
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Source: S&P Global Transportation Report Card; Sept 26, 2003

Frontier: another LCC model, another success

In recent months several US low-cost carriers have successfully raised funds through secondary public share offerings. Most recently, Frontier and AirTran raised about $81m and $132m respectively by that method in late September, following JetBlue's $122.4m secondary offering in July. While JetBlue and AirTran certainly seem poised for exciting and profitable growth (see *Aviation Strategy* briefings, July/August 2003 and April 2003), will Frontier live up to the investors' expectations?

Denver-based Frontier is the smallest of the three, with annual revenues of $470m in its latest fiscal year ended March 31, 2003, compared to AirTran's $733m and JetBlue's $635m in 2002. It shares many characteristics with AirTran - both are early 1990s entrants, operate essentially hub-and-spoke networks and share their main hubs with a major carrier. The latter has had important implications for strategy; for example, pricing in the Southwest model is out of the question - Frontier calls itself an "affordable-fare" airline.

Like AirTran, Frontier has beaten heavy odds in surviving and building a profitable hub operation at Denver (DIA) in head-to-head competition with United. It had a shaky start in 1994 because it was very thinly capitalised and initially chose the wrong markets. 1996 and 1997 were equally challenging years because of United's "strong arm" pricing tactics and new competition from the former Shuttle in some of the Denver markets, as well as Western Pacific's move to DIA and subsequent Chapter 11 bankruptcy. All of that meant that the Denver market became saturated with excess capacity at deep-discount prices.

Frontier's prospects improved dramatically in 1998, following WestPac's shutdown and a clear signal from Washington to the major carriers that predatory behaviour would not be tolerated. Frontier was able to secure a $14.2m equity infusion in April 1998, which gave it adequate cash reserves for growth. It grabbed the opportunity to re-establish itself with a sound business plan and gradual growth strategy. In the first place, that meant becoming transcontinental, with services to Boston, Baltimore and New York LaGuardia, and focusing more on higher-yield traffic.

The result was an impressive financial turnaround in 1998/99, and in the subsequent two years Frontier's profits surged as revenues more than doubled. When its profits peaked in FY 2000/01, the airline had a stunning 17% operating margin - not far off from Southwest's industry leading 18%.

Under an ambitious programme introduced in May 2001, the airline is replacing its entire fleet of used 737s with brand new A320-family aircraft. As a result of the latest follow-on order in August, Frontier is due to add about 40 more Airbus aircraft in the next 4.5 years. This would mean growing ASMs at a heady 25-30% annual rate, which would be faster than AirTran.

However, unlike JetBlue and AirTran, Frontier has not remained profitable all the way through the post-September 11, 2001 industry crisis. It had a promising start, earning small quarterly profits through the end of March 2002 and a respectable $16.6m net profit for FY 2001/02. But after that there were four consecutive and steadily worsening quarterly losses, culminating in a disastrous $18m operating loss (15% of revenues) in this year's March quarter. For FY 2002/03, the airline reported a $30.6m operating loss and a $22.8m net loss.

The March quarter losses reflected the worsened industry environment due to the Iraq war, higher fuel prices and aggressive competition from United in the initial months after its Chapter 11 filing in December 2002 - and Frontier has since then returned to marginal profitability. However, the contrast with JetBlue's and AirTran's strong operating margins and uncertainty associated with UAL's bankruptcy has made Frontier look like a riskier investment proposition.

None of that was reflected in the secondary share offering, which was a huge success despite the added complication of further negative news from United. On September 17, two

days after the Frontier offering was first announced, UAL made the official announcement that it had decided to proceed with a low-cost unit (from February 2004) and that DIA would be the launch hub.

The result? Frontier's offering was increased in size from 3.7m to 4.7m shares. The underwriters (led by Morgan Stanley as sole bookrunning manager, with Merrill Lynch and Raymond James as co-managers) elected to purchase 350,000 extra shares, representing half of their increased over-allotment option. The offering was priced at $17, at a mere 4% discount to the previous day's closing price. Frontier collected $81.1m in net proceeds.The offering was a success; in the first place, because analysts considered the 2002/03 financial losses as temporary, predicting strong profit growth in the immediate future and continuing to recommend Frontier shares as a "buy".

Also, Frontier intended to use 60% of the proceeds to prepay most of its recent government-guaranteed loan several years early, rather than just for working capital. Investors must also have noted that, by granting Frontier the government-guaranteed loan in the first place, the ATSB was obviously convinced that the airline had a sustainable business model.

Frontier returned to profitability in the June quarter - one quarter ahead of expectations. The net profit amounted to only a marginal $2.1m or 7 cents per share before special items, but recent revenue and cost trends have been encouraging. In late September the First Call consensus forecast was a net profit before special items of 50 cents per share in the current year and $1.25 in FY 2004/05 - about $15m and $37.5m respectively, compared to last year's loss of $22.8m.

Revenue improvements

The revenue situation has improved dramatically since the March quarter, when United's aggressive pricing resulted in a collapse of unit revenues in the Denver markets. Frontier's average fare had plummeted by 15.6% and RASM by 17.1%, compared to an industry RASM decline of 3.5%. Although average fares and unit revenues have remained at low levels, in recent months Frontier has seen a surge in total revenues resulting from dramatic load factor improvements. In June, July and August its average load factor rose by 11, 15.4 and 17.2 percentage points respectively, from low-mid 60s to high-70s.

The improvements were attributed, first, to United having retrenched from its earlier aggressive price-matching policies. Second, like other US airlines, Frontier was able to raise its fares by $5 in the early summer as a result of the temporary suspension of the government-imposed security fees (which, unfortunately, were reinstated on October 1).

Third, and most significantly, Frontier is benefiting from a new simplified fare structure that it boldly introduced in the spring. The move essentially involved reducing its highest-level business fares by up to 44%, cutting its lowest available walk-up fares by up to 68% and capping one-way fares at $499. For example, on the San Francisco-Baltimore route, the new fare range is $139-$499, compared to $199-$788 previously.

It is worth noting that every effort by the US major carriers to change their fare structures in recent years has failed miserably. So it is impressive that Frontier can accomplish something like this - attracting more business travellers through fare changes evidently without provoking competitors.

The airline also attributed the revenue improvements to increased frequencies in key markets and a new branding campaign called "A Whole Different Animal" launched in May. The campaign includes TV, radio and print ads featuring the attractive animal artwork on Frontier's aircraft tails. It emphasizes a commitment to being "affordable, flexible, accommodating and comfortable" and spotlights the key attributes of a nationwide network, new Airbus fleet and LiveTV.

Frontier is the first and so far the only US airline that JetBlue has allowed to buy its LiveTV product, which features 24-channel satellite TV at every seat. The Denver-centred network means that it is not regarded as a direct competitor. Since signing the deal in October 2002, Frontier has now completed its installation on all A319s and A318s. The product is expensive, but the airline collects a $5

usage charge per flight segment. LiveTV may prove extremely helpful to Frontier in terms of differentiating its product.

Benefits of fleet renewal

Last year Frontier succeeded in reducing its unit costs by 10.8%, from 9.33 to 8.32 cents per ASM. Ex-fuel CASM fell by 13.8%. This was among the industry's best unit cost performances. The management attributed it primarily to savings from the new Airbus fleet, as well as higher aircraft utilisation and an increased percentage of owned (as opposed to leased) aircraft.

However, the savings from the Airbus fleet have been mitigated by significant return expenses associated with the 737s - mainly increased maintenance, such as C-checks, to meet specific return standards for the leased aircraft. The fleet transition benefits will not be fully realised until all of the 737s are out, which is scheduled to be by September 30, 2005. In Raymond James analyst James Parker's estimates, Frontier may by then have reduced its CASM to 7.5 cents.

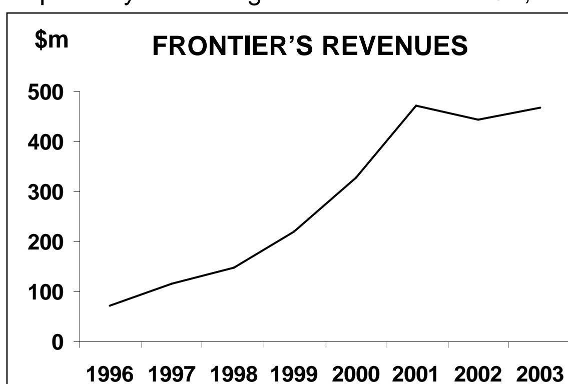
At the beginning of October Frontier's fleet consisted of 39 aircraft - 15 737s and 24 A319/A318s. Six months from now, at the end of March 2004, the fleet size will still be 39, though the composition will have changed to 11 737-300s and 28 Airbus aircraft, including 24 132-seat A319s and four 114-seat A318s. The current year is seeing a temporary reduction in ASM growth, to about 17.5% from last year's 31%, as there will only be two net aircraft additions (much of the growth will evidently be achieved through increased aircraft utilisation).Next year will see ASM growth accelerated to about 27%, facilitated by a new Airbus order in August. Frontier confirmed an earlier LoI to purchase 15 more A319s and lease 14 more A319s, for delivery over the next five years. This will bring its Airbus fleet to 62 aircraft by March 2008, including 55 A319s and seven A318s. The deal also granted purchase rights for 23 additional A319s or A320s from FY 2005/06.

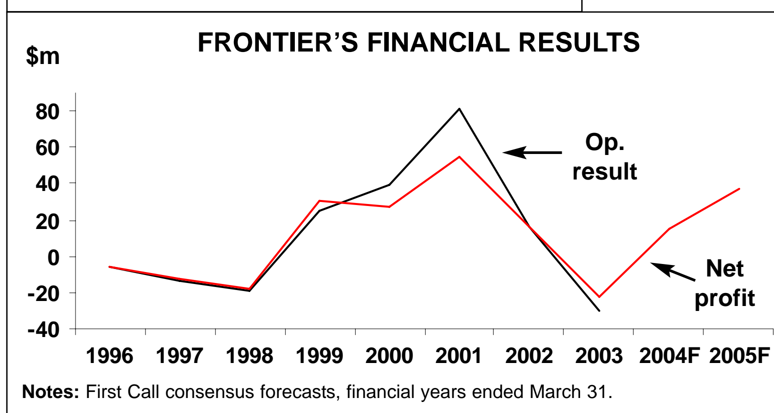
So far at least, the strategy seems to be to purchase about half of the new aircraft and take the other half on operating leases. The current outstanding commitment to buy 17 Airbus aircraft represents a $561.7m funding requirement (including spare parts, LiveTV, etc) over the next 4.5 years.

Stronger balance sheet

Frontier applied for government guarantees on a $70m credit line just two days before the late-June 2002 deadline, saying that it felt compelled to take that step after UAL applied for loan guarantees of nearly $2bn (the latter application is still pending, likely to be used as Chapter 11 exit funding). However, Frontier actually needed the money, because losses in the second half of 2002 had depleted its usual $100m-plus cash reserves to $31.5m at year-end and the first quarter of 2003 was shaping out to be a financial disaster.

Thanks to the ATSB loan, Frontier's cash reserves recovered to $104.9m at the end of March 2003. Improved operating results and a security fee reimbursement from the government subsequently raised the cash balance to $128.3m at the end of June.The company received a $26.6m tax refund in July but, as required by its loan agreement with the ATSB,





Notes: First Call consensus forecasts, financial years ended March 31.

used $10m of that to reduce the $70m outstanding under the loan. After using 60% of the share offering proceeds to further pay down the loan, Frontier expected to have just $11-12m outstanding on the ATSB loan.

Under the original schedule, quarterly principal payments were due to begin in September 2004 and there would have been a final $33m balloon payment due in June 2007. Now the balloon payment has been eliminated and Frontier will have six relatively small principal payments between September 2004 and March 2006.

All of this has helped restore Frontier's balance sheet, which has seen a substantial build-up of debt over the past two years as a result of the Airbus purchases. Long-term debt rose to $261.7m at the end of March 2003 from just $204,000 two years earlier, while stockholders' equity improved only marginally, from $144.8m to $159m, in that period.Pro-forma figures for June 30 show that, as a result of the share offering, long-term debt declined from $258.8m to $213.5m and stockholders' equity rose from $170.8m to $246.2m. In one analyst's estimate, the lease-adjusted debt-to-capital ratio improved from 83% to 75%.

Route network strategy

Because of Denver's great geographical location and large local market, Frontier was able to develop a nationwide route network earlier than other low-cost carriers. It serves a large number of key cities on both coasts, as well as some now in Mexico. It also considers RJ operations an important part of its business model, using affiliates to serve many smaller cities as Frontier JetExpress.

Frontier is continuing a "disciplined growth strategy", introducing new service as demand dictates and opportunities arise. The latest city additions are Orange County (California) and Milwaukee (Wisconsin). St. Louis will be added in November, followed by three new destinations in Mexico. As a significant development on the regional service front, last month Frontier signed up Alaska Air Group's Horizon Air as a new RJ partner. This will replace an expiring smaller-scale codeshare arrangement with Mesa, which recently joined the United camp. Horizon will operate up to nine 70-seat CRJ-700s for Frontier from January 1. The 12-year agreement appears to be structured like a standard fixed-fee agreement between a major carrier and its feeder partner, with Frontier controlling the schedule and destinations and paying Horizon a base margin and performance-based incentives.

By Heini Nuutinen

UAL uncertainty

The biggest risk for Frontier is that United could become a more aggressive competitor at DIA, where it is the dominant carrier with a 61% passenger share. The risk is magnified at present because of all the uncertainty surrounding the major carrier's bankruptcy. If things go badly for UAL, will it start cutting fares and dumping capacity, pushing also Frontier back to losses? If things go well, will United simply become a more formidable competitor?

On the other hand, United could continue cutting capacity, which might lead to some recovery in average fares and further market share gains for Frontier at DIA. In the first seven months of this year, Frontier improved its DIA market share by 28% to 13.6% as it continued to add capacity while United was cutting back. United's shrinkage could also give Frontier the extra gates that it is seeking.

But even United's shrinkage at DIA is not necessarily good news for Frontier. If United rejects a significant portion of its payment obligations to DIA or substantially reduces operations there, the resulting decline in revenues to the airport would proportionally raise costs for other airlines. As things stand, DIA is already one of the nation's most expensive hubs to operate from.

United's decision to launch its low-fare, low cost operation (currently only referred to as "LCO") from Denver in February, initially with four A320s but expanding to 40 by the end of next year, is obviously not good news for Frontier. However, it is hard to see the low-cost carrier being severely impacted. First, there is considerable scepticism that the proposed venture would work, given other majors' failed attempts to launch low-cost units. Second, it is not expected to add to DIA capacity; rather, it would replace existing United service in markets where the major already largely matches Frontier's fares.

The Big Three Chinese airlines: the great leap forward to come

It has been a terrible 12 months for the Chinese airline industry. Just after the effects of September 11 had faded away, along came Gulf War II and - most devastating of all - the Severe Acute Respiratory Syndrome (SARS) crisis.

Though passengers started falling off in March, the worst effects of SARS were felt in May and June of 2003 after the Chinese government admitted it had an epidemic on its hands. At its peak, the SARS crisis virtually halted all business and tourist traffic to China. Although the Chinese government gave temporary tax breaks to Chinese airlines and cut navigation and landing fees by 20% to both Chinese and foreign airlines for a limited period, profitability at Chinese airlines collapsed, forcing the Big Three - Air China, China Southern and China Eastern - to plan bond issues in order to secure short-term funding. The airlines slashed services and costs as a temporary response but, soaring oil prices due to the Gulf War and the SARS crisis meant that red ink appears all over Chinese airlines' P&L accounts for the first half of 2003.

Chinese airlines, however, appear to be recovering well in the second half of 2003, and the SARS effect on traffic disappeared by August at most of the country's airlines. Recovery has been slowest at airlines based in the areas most affected by SARS - Beijing and Tianjin as well as the provinces of Guangdong and Shanxi - but even here airlines are confident traffic will be back to normal by the end of September.

Traffic recovery comes on the back of growing confidence in the airline industry now that the Chinese government (in October 2002) has finally approved the long-anticipated Civil Aviation Administration of China (CAAC) restructuring plan for the industry, consolidating seven smaller airlines under the control of the traditional Big Three. The move was designed to cut out unnecessary domestic competition, enable economies of scale and allow a reduced number of carriers to compete against growing competition from carriers such as United and Cathay Pacific. The Chinese government is also pressing ahead - slowly but surely - with liberalisation both internally (e.g. by allowing airlines greater freedom to raise or discount fares and permitting Chinese companies to invest in airlines) and externally (e.g. by signing liberal ASAs and granting fifth freedom rights to selected foreign carriers).

Despite SARS and the Gulf War, there are still impressive growth forecasts for air traffic within and to/from China. The CAAC is forecasting that the country's airline traffic will grow at around 10% per year in the current decade and that Chinese airlines will carry 140m passengers and 30bn tonne-km annually by 2010. While this forecast is not as bullish as those made a couple of years ago (and Boeing and Airbus's forecasts are more conservative) there is little doubt that the Chinese aviation industry will still undergo some of the fastest growth rates in the world over the next few years. In addition, the World Tourism Organisation estimates China will become the world's top tourism destination by the year 2020.

By 2010 the CAAC estimates the Chinese fleet will almost double, to 1,250 aircraft, while the Aviation Industries Development Research Centre of China forecast (pre-SARS) that Chinese airlines would order 1,762 aircraft in the next two decades. As much as a third of this fleet growth will be in regional jets since the CAAC is keen to encourage a hub and spoke network though China, with regional airlines feeding in traffic to the Big Three at the major cities.

Altogether the Chinese fleet currently comprises 785 aircraft, 59 more than in 2002 due to a steady trickle of deliveries despite the SARS crisis. Today there are 79 outstanding orders, down on the order book of

107 a year ago. 49 of these orders are for Airbus aircraft, emphasising the increasing success Airbus is having in the market, though this may as much to do with geopolitical issues as business matters. Given the Chinese government's unease at the Gulf War, Airbus's market share may grow even faster in the next few years. Boeing's order book currently stands at 24, and Russian aircraft dominate the balance of today's orders.

Under the CAAC plan, Air China is now merging with China National Aviation/Zhejiang Airlines and China Southwest; China Southern is combining with China Northern and Xinjiang Airlines; and China Eastern is taking over China Northwest, Yunnan Airlines and Air Great Wall. Other than Air Great Wall however, none of the mergers have yet been completed, and they will not do so until well into 2004, when their names will finally disappear.

Since last year's survey three new airlines have appeared - Air China Cargo (see Air China section below), CR Airways and Yangtze River Express. CR Airways is a former Hong Kong-based helicopter operator that has received permission to operate a CRJ200 in early 2004, while Yangtze River Express is a dedicated cargo airline that launched in January 2003 with three 737-300s. Yangtze is part owned by Hainan Airlines and the Shanghai Airport Group, and has signed a freight distribution contract with UPS. While further start-ups are bound to emerge over the next few years in China, at the same time many of the existing regional carriers are likely to be swallowed up by the Big Three.

Our commentary below does not include the Hong-Kong airlines - Cathay Pacific and Dragonair, who earlier this year fought a bitter legal battle (which Cathay won) over Cathay's plans to launch operations to three mainland Chinese cities - Beijing, Shanghai and Xiamen. Though Dragonair is minority-owned by Cathay and Swire Pacific, the largest single shareholder (with 43%) is the China National Aviation Company (CNAC), which is owned by the China National Aviation Corporation (owner of Zhejiang Airlines and now part of the Air China group).

Air China

Air China has not released financial results for the first-half of 2003, but because of its Beijing base the airline was hit hard by the SARS crisis and is almost certain to have recorded a net loss for the period similar to, if not worse, than those of its Big Three rivals. In 2002, Air China posted a net profit of $89m (compared with a $5m net profit in 2001), based on revenues of more than $2bn.

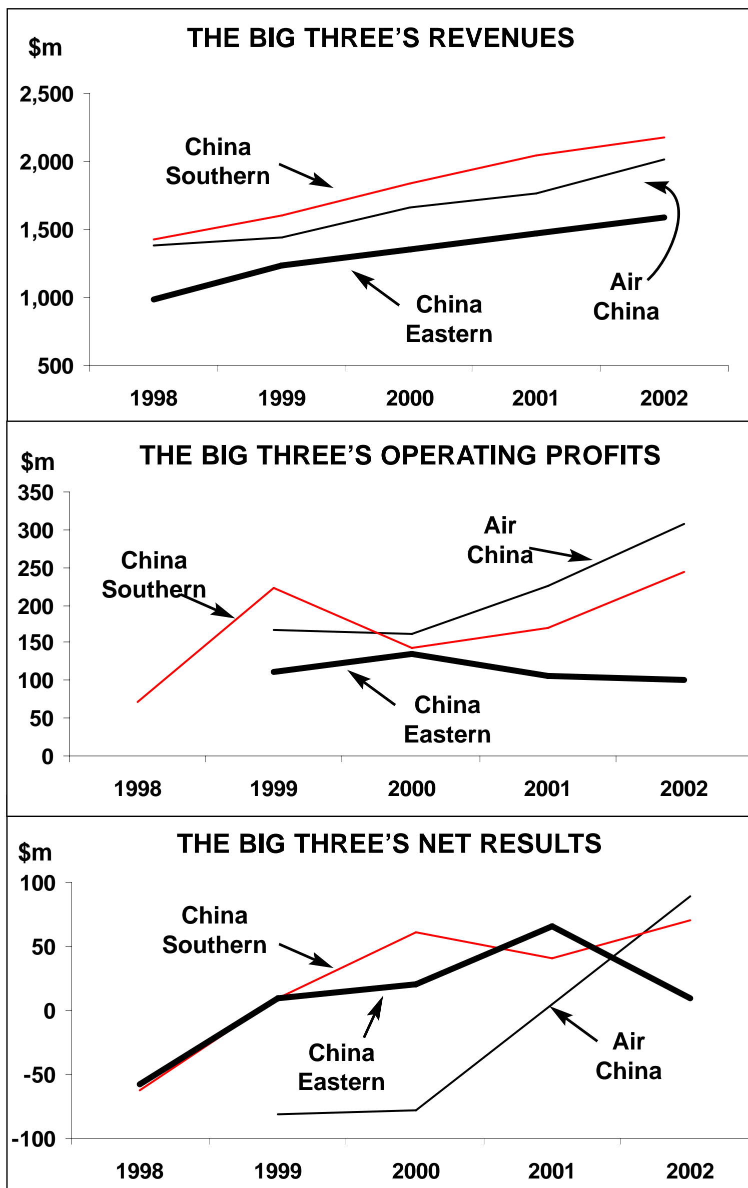
Air China had been planning an IPO in 2003, but the SARS crisis meant the listing had to be postponed. It has been reported that Air China may get a "backdoor listing" by buying a 20% stake in Ji Nan-based Shandong Airlines - which is listed on the Shenzhen Stock Exchange - and a 26% stake in the airline's unlisted parent, the Shandong Aviation Group. But Air China's interest in Ji Nan-based Shandong Airlines is to secure regional feed from the airline, which has a 26-strong fleet of Bombardier, Saab and 737 aircraft but is believed to be loss making. Air China's long-term strategy is still to get a direct listing on a main exchange, and more immediately it is pressing ahead with plans to issue up to $350m worth of bonds in order to secure short-term funding.

Air China employs 23,000 staff and has a fleet of 73, all of which were Boeing aircraft until recently. Air China received its first A319 in July, one of 11 that will be delivered by the end of 2004 as part of an overhaul of its short-haul fleet. Most of these are destined for Zhejiang Airlines, now a subsidiary of Air China. The A319s were ordered last year as a replacement for a cancelled order of A318s due to problems with the development of Pratt & Whitney engines, but nevertheless this represents an important step forward for Airbus in China, a market traditionally dominated by Boeing. Air China may order further A319s, it is believed, and earlier plans to postpone deliveries, considered at the height of the SARS epidemic, have now been dropped.

The airline has more international routes than any of its Chinese competitors and

there has been intense speculation as to which global airline alliance Air China will join. Air China's deteriorating relationship with Northwest (see the China survey in *Aviation Strategy*, October 2002) was formally terminated in June this year, and in August Air China signed a codesharing and frequent-flyer alliance with United, thus edging the Chinese carrier even closer to the Star camp. Star is keen to encourage Air China to become a fully-fledged member of the global alliance, plugging a perceived "China gap" that still exists even though South Korean-based Asian Airlines - which operates to 12 Chinese destinations - joined Star in March. A successful Air China tie-up with United to follow an already-profitable codesharing deal with Lufthansa since 2000, may well persuade Air China to take the plunge sooner rather than later.

In March 2003 Air China launched a new cargo subsidiary - Air China Cargo - in which it owns a 51% stake, the remainder belonging to Hong Kong-based conglomerate CITIC Pacific (25%) and Beijing Capital International Airport (24%). Air China Cargo has taken over all of its parent airline's cargo operations, which comprised four 747-200Fs, but has plans to increase its fleet. In 2004 and 2005 three Tupolev Tu-204Fs will be delivered to Air China Cargo, the legacy of a China government order in 2001 for China Southwest Airlines, now part of Air China as a consequence of the CAAC consolidation plan. In addition, in September 2003 Air China Cargo leased a 747-400F from SIA Cargo for three years, and another 747-400F may be leased or bought in early 2004. Air China Cargo expects to earn around $0.5bn in revenue this year, and become one of one the largest cargo airlines in the world within a few years.



China Eastern

Shanghai-based China Eastern, the first Chinese airline to be listed abroad (in Hong Kong and the NYSE), has been badly affected by SARS and the Gulf War. At one point, rumours of huge losses due to the SARS crisis led to China Eastern's shares being suspended from the Shanghai and Hong Kong exchanges, though they were quickly reinstated.

When they were eventually revealed, the losses were large. In the first half of 2003 China Eastern made a $151m net loss, compared with a $3m net profit in January-June 2002. This was despite the Chinese government's help in the form of tax and infrastructure charge exemptions (which China Eastern is lobbying hard to be extended until the end of 2003) that benefited the airline's bottom line by $30m in the first-half of 2003.

Revenue fell 8% over the six-month peri-

od, to $661m. Passenger RPKs fell 20% in the first-half of 2003, though there was a significant difference between domestic RPKs, which fell 8%, and international RPKs, which fell 29%. Interestingly, cargo traffic was totally unaffected by the crises, with cargo revenues up 30% over the half-year period - a reflection of the Shanghai region's underlying economic boom. Yet the disappointing first-half 2003 figures came on the back of a bad 2002, when China Eastern reported a $10m net profit, substantially down on 2001.

May traffic was the worst affected by the SARS crisis, being 84% down on the same month in 2002 and way ahead of 30% plus capacity reductions made by the airline on some routes. In June, traffic was 47% down but July traffic returned to pre-SARS levels domestically - which was much quicker than the airline anticipated - though international traffic was still some 42% down in July.

China Eastern operates an 87-strong fleet and has the largest order book of any Chinese airline - 22 deliveries are outstanding, 20 of them Airbuses. Initially the SARS crisis forced China Eastern to defer its outstanding deliveries due in 2003, but quick recovery since the epidemic ended has encouraged the airline to return to almost the same delivery schedule as existed pre-SARS.

Ten new aircraft will be delivered between now and the end of 2003 and the 22 outstanding orders will cost the airline around $17bn according to Luo Weide, China Eastern CFO. So far this year China Eastern has received two of its order for five high-capacity A340-600s, which will replace MD11s on long-haul operations to North America, and the remainder will be delivered by the end of 2003. The MD11s are being transferred to cargo subsidiary China Cargo Airlines, which operates regionally and to the US. Seven A320s will be delivered to China Eastern in the remainder of 2003 and 10 more through 2004-2005. The airline also has two Tu-204-120Cs on order.

In August 2002 China Eastern bought Wuhan Airlines, a regional carrier that today has a fleet of nine aircraft, eight of them 737s. Wuhan was a member of the China Sky Aviation Enterprises alliance along with five Chinese regional airlines, but since two of the other members are now associated with China Southern this independent alliance is effectively dead.

China Eastern still has to complete the complicated takeover of China Northwest and Yunnan Airlines, as designated by the CAAC, since the two airlines have initially been acquired by China Eastern's parent company. Before the three airlines can be merged a complicated asset valuation process has to be completed, for which China Eastern has hired Morgan Stanley to assist it. In addition, China Eastern's formal purchase of the two airlines from its parent will have to be financed by some combination of equity issue and/or corporate bonds, a process that the airline says will be completed by the end of 2003.

China Southern

Guangzhou-based China Southern saw its profitability wiped out by the crises that hit China this year. For the first half of 2003 it recorded a net loss of $150m, compared with a net profit of $15m in the first half of 2002, while revenue fell 21% to $821m. Domestic RPKs fell 26% over the half-year and international RPKs were down 31%. For the full year 2002, China Southern posted net profits of $70m, 69% up on September-11 affected 2001 and based on a 7% rise in revenue.

Guangzhou was at the heart of the SARS epidemic and there was little the airline could do to at the height of the crisis. After cutting international capacity by up to 80% and domestic routes by almost 50%, June RPKs were down 62% on June 2002. However, the airline appears to be recovering quickly - the July RPK figure was just 14% down on the year before, and traffic is forecast to be back to normal in August and ahead of last year in September. The recovery will be helped by the launch of China Southern's online ticket sales operation which it expects to sell more than 10% of all tickets sold during 2003.

China Southern has a fleet of 100, making it the largest airline in China. Boeing has the

largest fleet share, with 67 aircraft, and there are also 24 A319s and A320s. Like the other Big Three members, at the height of the SARS crisis China Southern considered deferring aircraft deliveries, but decided to keep to the original delivery schedule once the SARS effect died down (and in order to escape punitive delay/cancellation charges). Currently there are 10 outstanding orders, for nine 737-700/800s and one 777-200ER, which will be delivered by 2005. The new 737s will replace older 737s currently on operating leases.

These orders will be partly funded by the 1bn shares China Southern issued in July 2003, equivalent to 22.86% of issued share capital, which raised a total of $300m. At the start of 2003 the airline was planning to raise almost twice that figure from the equity issue, but the SARS crisis affected the amount it could raise. The $300m will also be used partly to pay off some long-term debt, the airline says.

In its prospectus for the new shares, China Southern forecast a $25m net profit for full year 2003, compared with a $62m net profit in 2002. However, this forecast was prepared under Chinese accounting standards, which tends to produce figures lower than those reported under international accounting standards that Aviation Economics uses in the graphs on page 17.

Once China Southern completes the integration of China Northern and Xinjiang Airlines, it may look to acquire regional feeder airlines. In 2002, China Southern bought a 49% stake in China Postal Airlines for $18m and a 39% stake in Sichuan Airlines for $16.5m. The latter deal is intriguing in that at the same time Shanghai Airlines and Shandong Airlines also each bought a 10% stake in southwest-based Sichuan, which has a fleet of 15 A320s, A321s and ERJ-145s. This deal finally broke China Sky Aviation Enterprises, the independent alliance of Chinese airlines that included Shanghai and Shandong. Between them, Shandong and Shanghai operate a fleet of 54 aircraft along the east of the country and are the largest remaining independents after Hainan Airlines (see below). But the informal alignment of Shandong with China Southern may not be too long lasting, as Air China is reported to be trying to "steal" Shandong away by buying a stake in the airline (see Air China section).

The others

SARS and the Gulf War also hit Hainan Airlines, mainland China's fourth largest carrier with a fleet of 50 aircraft, even though the southern island province of Hainan was not directly contaminated by SARS. Traffic fell by 80% during the crisis, helping Hainan Airlines post a net loss of $118m in January-June 2003, compared with a $7m net profit in the first-half of 2002. Revenue fell 14% in 1H 2003.

However, traffic has bounced back since July and further good news may be on the way for Hainan Airlines with CAAC discussions over declaring an "open-skies" policy for the Hainan province, which would bring competition from non-Chinese airlines on international routes. The CAAC's reasoning is that open skies would bring more tourist traffic to the traditional Chinese holiday island, since currently most flights to the island operate from the Chinese mainland. Open skies would allow foreign airlines to bring in tourist traffic to Hainan, but forbid them from flying on to the mainland, thereby theoretically providing new passengers for Hainan Airlines.

Now that the SARS crisis is over and with open skies on the horizon, Hainan Airlines will be looking to get back into profitability quickly, building on the 2002 net profit of $16m and 2001 net profit of $7m. On the downside, increasing competition from the Big Three is bound to have a negative effect on profit growth.

For China's remaining airlines, the future looks bleak. Once the Big Three consolidate the airlines assigned to them as part of the CAAC master plan, they will exert an even stronger grip on domestic aviation, directly accounting for 439 aircraft (56% of all aircraft in China) and 52 outstanding orders (66% of all Chinese orders).

		Group revenue US$m	Group costs US$m	Group op. profit US$m	Group net profit US$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group employees
Alaska	**Year 2001**	**2,141**	**2,263**	**-121.8**	**-39.5**	**-5.7%**	**-1.8%**	**28,837**	**19,712**	**68.4%**	**13,668**	**10,742**
	Apr-Jun 02	477	480	-2.2	-2.5	-0.5%	-0.5%	7,932	5,427	68.4%	3,616	10,222
	Jul-Sep 02	620	597	24	11	3.9%	1.8%	8,380	5,911	70.5%	3,978	10,465
	Oct-Dec 02	430	484	-60	-94	-14.0%	-21.9%	7,657	5,092	66.5%	3,367	
	Year 2002	**2,224**	**2,313**	**-89**	**-119**	**-4.0%**	**-5.4%**	**31,156**	**21,220**	**68.1%**	**14,154**	**10,142**
	Jan-Mar 03	519	597	-79	-56	-15.2%	-10.8%	7,577	5,058	66.7%	3,258	9,988
	Apr-Jun 03	576	581	-5	-3	-0.9%	-0.5%	7,932	5,427	68.4%	3,616	10,222
American	**Year 2001**	**18,963**	**20,823**	**-1,860**	**-1,762**	**-9.8%**	**-9.3%**	**161,030**	**176,143**	**69.4%**	**99,235**	**102,093**
	Apr-Jun 02	4,479	5,080	-601	-495	-13.4%	-11.1%	70,724	53,125	71.4%	24,340	100,100
	Jul-Sep 02	4,494	5,815	-1,321	-924	-29.4%	-20.6%	73,899	53,236	72.0%	24,952	99,700
	Oct-Dec 02	4,190	4,869	-679	-529	-16.2%	-12.6%	67,964	47,428	69.8%	22,857	93,500
	Year 2002	**17,299**	**20,629**	**-3,330**	**-3,511**	**-19.2%**	**-20.3%**	**277,121**	**195,927**	**70.7%**	**94,143**	**93,500**
	Jan-Mar 03	4,120	4,989	-869	-1,043	-21.1%	-25.3%	64,813	44,800	69.1%	21,021	92,200
	Apr-Jun 03	4,324	4,237	87	-75	2.0%	-1.7%	68,678	51,095	74.4%		
America West	**Year 2001**	**2,066**	**2,380**	**-316**	**-148**	**-15.3%**	**-7.2%**	**42,709**	**30,696**	**71.9%**	**19,576**	**13,827**
	Apr-Jun 02	533	534	-1	-15	-0.2%	-2.8%	11,024	8,351	75.8%	5,080	11,973
	Jul-Sep 02	510	552	-42	-32	-8.2%	-6.3%	11,504	8,619	74.9%	5,165	12,320
	Oct-Dec 02	522	560	-38	-32	-7.3%	-6.1%	11,154	8,160	73.2%	4,906	
	Year 2002	**2,047**	**2,246**	**-199**	**-430**	**-9.7%**	**-21.0%**	**43,464**	**33,653**	**73.6%**	**19,454**	**13,000**
	Jan-Mar 03	523	569	-46	-62	-8.8%	-11.9%	11,027	7,841	71.1%	4,655	
	Apr-Jun 03	576	559	17	80	3.0%	13.9%	11,223	8,854	78.9%	5,185	11,309
Continental	**Year 2001**	**8,969**	**9,119**	**-150**	**-95**	**-1.7%**	**-1.1%**	**135,962**	**98,393**	**72.4%**	**44,238**	**44,273**
	Apr-Jun 02	2,192	2,307	-115	-139	-5.2%	-6.3%	33,108	24,922	74.6%	10,727	41,116
	Jul-Sep 02	2,178	2,132	46	-37	2.1%	-1.7%	33,839	25,625	75.0%	10,581	40,925
	Oct-Dec 02	2,036	2,094	-56	-109	-2.8%	-5.4%	31,496	22,382	70.6%	9,651	40,500
	Year 2002	**8,402**	**8,714**	**-312**	**-451**	**-3.7%**	**-5.4%**	**128,940**	**95,510**	**73.3%**	**41,014**	**40,713**
	Jan-Mar 03	2,042	2,266	-224	-221	-11.0%	-10.8%	30,699	21,362	68.9%	9,245	
	Apr-Jun 03	2,216	1,978	238	79	10.7%	3.6%	30,847	24,841	75.9%	10,120	
Delta	**Year 2001**	**13,879**	**15,124**	**-1,245**	**-1,216**	**-9.0%**	**-8.8%**	**237,914**	**163,693**	**68.8%**	**104,943**	**77,654**
	Apr-Jun 02	3,474	3,601	-127	-186	-3.7%	-5.4%	60,709	42,355	73.4%	27,427	75,700
	Jul-Sep 02	3,420	3,805	-385	-326	-11.3%	-9.5%	59,287	44,037	74.3%	27,713	76,000
	Oct-Dec 02	3,308	3,670	-362	-363	-10.9%	-11.0%	56,776	40,419	71.2%	27,290	75,100
	Year 2002	**13,305**	**14,614**	**-1,309**	**-1,272**	**-9.8%**	**-9.6%**	**228,068**	**172,735**	**71.9%**	**107,048**	**75,100**
	Jan-Mar 03	3,155	3,690	-535	-466	-17.0%	-14.8%	53,435	36,827	68.9%	24,910	72,200
	Apr-Jun 03	3,307	3,111	196	184	5.9%	5.6%	51,552	38,742	75.2%	25,969	69,800
Northwest	**Year 2001**	**9,905**	**10,773**	**-868**	**-423**	**-8.8%**	**-4.3%**	**158,284**	**117,682**	**74.3%**	**54,056**	**50,309**
	Apr-Jun 02	2,406	2,452	-46	-93	-1.9%	-3.9%	39,848	29,902	78.9%	13,627	46,260
	Jul-Sep 02	2,564	2,556	8	-46	0.3%	-1.8%	40,321	31,787	78.8%	14,365	45,466
	Oct-Dec 02	2,339	2,951	-612	-488	-26.2%	-20.9%	37,115	27,611	74.4%	12,779	44,323
	Year 2002	**9,489**	**10,335**	**-846**	**-798**	**-8.9%**	**-8.4%**	**150,355**	**115,913**	**77.1%**	**52,669**	**44,323**
	Jan-Mar 03	2,250	2,576	-326	-396	-14.5%	-17.6%	36,251	26,653	73.5%	12,284	42,781
	Apr-Jun 03	2,297	2,370	-73	227	-3.2%	9.9%	34,434	26,322	76.4%	12,800	39,442
Southwest	**Year 2001**	**5,555**	**4,924**	**631**	**511**	**11.4%**	**9.2%**	**105,079**	**71,604**	**68.1%**	**64,447**	**31,014**
	Apr-Jun 02	1,473	1,284	189	102	12.8%	6.9%	29,074	20,314	69.9%	16,772	33,149
	Jul-Sep 02	1,391	1,300	91	75	6.5%	5.4%	28,342	19,180	67.7%	16,256	33,609
	Oct-Dec 02	1,401	1,313	88	42	6.3%	3.0%	28,296	17,835	63.0%	15,554	33,705
	Year 2002	**5,522**	**5,104**	**417**	**241**	**7.6%**	**4.4%**	**110,859**	**73,049**	**65.9%**	**63,046**	**33,705**
	Jan-Mar 03	1,351	1,305	46	24	3.4%	1.8%	28,000	17,534	62.6%	15,077	33,140
	Apr-Jun 03	1,515	1,375	140	246	9.2%	16.2%	28,796	20,198	70.1%	17,063	32,902
United	**Year 2001**	**16,138**	**18,481**	**-2,343**	**-2,145**	**-14.5%**	**-13.3%**	**265,291**	**187,701**	**70.8%**	**75,457**	**96,142**
	Apr-Jun 02	3,793	4,278	-485	-341	-12.8%	-9.0%	60,315	44,896	74.4%	17,501	79,800
	Jul-Sep 02	3,737	4,383	-646	-889	-17.3%	-23.8%	64,147	48,335	75.4%	18,900	79,900
	Oct-Dec 02	3,468	4,462	-994	-1,473	-28.7%	-42.5%	59,988	43,158	71.9%	16,823	77,000
	Year 2002	**14,286**	**17,123**	**-2,837**	**-3,212**	**-19.9%**	**-22.5%**	**238,569**	**176,152**	**73.5%**	**68,585**	**78,700**
	Jan-Mar 03	3,184	3,997	-813	-1,343	-25.5%	-42.2%	55,751	39,980	71.7%	15,688	70,600
	Apr-Jun 03	3,109	3,540	-431	-623	-13.9%	-20.0%	51,692	39,809	77.0%	16,381	60,000
US Airways	**Year 2001**	**8,288**	**9,355**	**-1,067**	**-1,969**	**-12.9%**	**-23.8%**	**107,347**	**73,944**	**68.9%**	**56,114**	**43,846**
	Apr-Jun 02	1,903	2,078	-175	-248	-9.2%	-13.0%	23,516	17,658	75.1%	13,000	33,902
	Jul-Sep 02	1,752	1,933	-181	-335	-10.3%	-19.1%	24,075	17,276	71.8%	11,994	33,302
	Oct-Dec 02	1,614	2,217	-603	-794	-37.4%	-49.2%	20,631	14,096	68.3%	10,354	30,585
	Year 2002	**6,977**	**8,294**	**-1,317**	**-1,646**	**-18.9%**	**-23.6%**	**90,700**	**64,433**	**71.0%**	**47,155**	**30,585**
	Jan-Mar 03	1,534	1,741	-207	1,635	-13.5%	106.6%	19,579	13,249	67.7%	9,427	27,397
	Apr-Jun 03	1,777	1,710	67	13	3.8%	0.7%	20,929	15,789	75.4%	10,855	26,587

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation. 1 ASM = 1.6093 ASK.

		Group revenue US$m	Group costs US$m	Group op. profit US$m	Group net profit US$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group employees
Air France												
	Year 2001/02	**11,234**	**11,017**	**217**	**141**	**1.9%**	**1.3%**	**123,777**	**94,828**	**76.6%**		**70,156**
	Apr-Jun 02	3,276	3,124	163	157	5.0%	4.8%	31,687	24,435	77.1%		
	Jul-Sep 02	3,264	3,122	142	57	4.4%	1.7%	33,806	26,366	78.0%		71,290
	Oct-Dec 02	3,396	3,392	4	2	0.1%	0.1%	32,581	24,558	75.4%		
	Jan-Mar 03	3,240	3,373	-133	-106	-4.1%	-3.3%	32,070	23,906	74.5%		
	Year 2002/03	**13,702**	**13,495**	**207**	**130**	**1.5%**	**0.9%**	**131,247**	**99,960**	**76.2%**		**71,525**
	Apr-Jun 03	3,442	3,453	-10	5	-0.3%	0.1%	31,888	23,736	74.4%		71,936
Alitalia												
	Jan-Jun 01	2,348	2,504	-156	-228	-6.6%	-9.7%	26,437	18,953	71.7%	12,565	24,023
	Year 2001	**4,745**	**5,007**	**-262**	**-818**	**-5.5%**	**-17.2%**	**51,392**	**36,391**	**70.8%**	**24,737**	**23,667**
	Jan-Jun 02	2,462	2,574	-63	-49	-2.6%	-2.0%			69.7%		21,366
	Year 2002	**5,279**	**4,934**	**-89**	**101**	**-1.7%**	**1.9%**	**42,224**	**29,917**	**70.8%**	**22,041**	**22,536**
	Jan-Mar 03	1,097	1,226	-187		-17.0%		10,503	6,959	66.3	4,993	21,984
BA												
	Year 2001/02	**12,138**	**12,298**	**-160**	**-207**	**-1.3%**	**-1.7%**	**151,046**	**106,270**	**70.4%**	**40,004**	**57,227**
	Apr-Jun 02	3,127	2,886	241	61	7.7%	2.0%	35,020	24,679	70.5%	9,665	52,926
	Jul-Sep 02	3,323	2,931	392	240	11.8%	7.2%	35,608	27,301	76.7%	10,607	52,116
	Oct-Dec 02	3,025	2,939	86	21	2.8%	0.7%	34,815	24,693	70.9%	9,200	51,171
	Jan-Mar 03	2,721	2,988	-213	-216	-7.8%	-7.9%	33,729	23,439	69.5%	8,547	50,309
	Year 2002/03	**12,490**	**12,011**	**543**	**117**	**4.3%**	**0.9%**	**139,172**	**100,112**	**71.9%**	**38,019**	**51,630**
	Apr-Jun 03	3,023	2,957	59	-104	2.0%	-3.4%	34,962	25,102	71.8%	9,769	49,215
Iberia												
	Jan-Mar 02	1,070	1,076	-9	-5	-0.8%	-0.5%	13,502	9,429	69.8%	5,916	
	Apr-Jun 02	1,245	1,134	98	76	7.9%	6.1%	14,004	10,105	72.2%	6,726	
	Jul-Sep 02	1,229	1,103	132	104	10.7%	8.5%	14,535	11,419	78.6%	6,624	
	Oct-Dec 02	1,236	1,219	18	-17	1.5%	-1.4%	13,593	9,695	71.3%	5,689	25,544
	Year 2002	**5,123**	**4,852**	**272**	**174**	**5.3%**	**3.4%**	**55,633**	**40,647**	**73.0%**	**24,956**	**25,963**
	Jan-Mar 03	1,128	1,183	-55	-24	-4.9%	-2.1%	13,200	9,458	71.6%	5,717	
	Apr-Jun 03	1,348	1,265	83	60	6.2%	4.5%	13,516	9,982	73.8%	6,472	
KLM												
	Year 2001/02	**5,933**	**6,018**	**-85**	**-141**	**-1.4%**	**-2.4%**	**72,228**	**56,947**	**78.7%**	**15,949**	**33,265**
	Apr-Jun 02	1,639	1,599	40	11	2.4%	0.7%	18,041	14,326	79.4%		34,366
	Jul-Sep 02	1,844	1,523	140	86	7.6%	4.7%	19,448	16,331	82.7%		34,931
	Oct-Dec 02	1,693	1,760	-68	-71	-4.0%	-4.2%	19,063	14,722	77.2%		34,850
	Jan-Mar 03	1,487	1,521	-272	-483	-18.3%	-32.5%	20,390	15,444	75.7%		34,497
	Year 2002/03	**7,004**	**7,147**	**-144**	**-449**	**-2.1%**	**-6.4%**	**87,647**	**69,016**	**78.7%**	**23,437**	**34,666**
	Apr-Jun 03	1,621	1,483	-76	-62	-4.7%	-3.8%	17,261	13,077	75.8%		33,448
Lufthansa												
	Year 2001	**14,966**	**14,948**	**18**	**-530**	**0.1%**	**-3.5%**	**126,400**	**90,389**	**71.5%**	**45,710**	**87,975**
	Apr-Jun 02	4,968	4,601	285	138	5.7%	2.8%	30,769	22,835	70.8%	11,300	90,308
	Jul-Sep 02	4,431	4,254	454	369	10.2%	8.3%	32,409	25,189	71.1%	12,067	90,704
	Oct-Dec 02							30,282	21,476	70.9%	10,886	
	Year 2002	**17,791**	**16,122**	**1,669**	**751**	**9.4%**	**4.2%**	**119,877**	**88,570**	**73.9%**	**43,900**	**94,135**
	Jan-Mar 03	4,242	4,588	-346	-411	-8.2%	-9.7%	29,251	20,618	70.5%	10,391	
	Apr-Jun 03	4,423	4,214	209	-39	4.7%	-0.9%	30,597	22,315	71.7%	10,758	
SAS												
	Year 2001	**4,984**	**5,093**	**-109**	**-103**	-2.2%	-2.1%	**35,521**	**22,956**	**64.6%**	**23,060**	**22,656**
	Apr-Jun 02	1,965	1,608	242	106	12.3%	5.4%	8,773	6,240	71.1%	6,034	
	Jul-Sep 02	1,821	1,587	233	56	12.8%	3.1%	8,701	6,281	70.2%	5,586	21,896
	Oct-Dec 02	1,984	1,826	158	-34	8.0%	-1.7%	8,334	5,463	65.6%	5,155	
	Year 2002	**7,430**	**7,024**	**78**	**-15**	**1.0%**	**-0.2%**	**34,626**	**23,621**	**68.2%**	**21,866**	
	Jan-Mar 03	1,608	1,654	-224	-188	-13.9%	-11.7%	8,040	4,900	60.9%	4,477	30,373
	Apr-Jun 03	1,906	1,705	201	8	10.5%	0.4%	8,563	5,614	65.6%	5,128	
Ryanair												
	Year 2000/01	**442**	**338**	**104**	**95**	**23.5%**	**21.5%**	**6,657**	**4,656**	**69.9%**	**7,000**	**1,476**
	Year 2001/02	**642**	**474**	**168**	**155**	**26.2%**	**24.1%**	**10,295**	**7,251**	**81.0%**	**11,900**	**1,547**
	Apr-Jun 02	189	153	47	40	24.9%	21.2%	2,852		83.0%	3,540	
	Jul-Sep 02	272	149	123	113	45.2%	41.5%	3,138			4,300	1,676
	Oct-Dec 02	201	149	53	47	26.4%	23.4%			86.0%	3,930	1,761
	Year 2002/03	**910**	**625**	**285**	**259**	**31.3%**	**28.5%**			**84.0%**	**15,740**	**1,900**
	Apr-Jun 03	280	220	57	46	20.4%	16.4%			78.0%	5,100	2,135
easyJet												
	Year 2000/01	**513**	**455**	**58**	**54**	**11.3%**	**10.5%**	**7,003**	**5,903**	**83.0%**	**7,115**	**1,632**
	Oct-Mar 02	285	279	6	1	2.1%	0.4%	4,266		84.2%	4,300	
	Apr-Sep 02	579	474	105	76	18.1%	13.1%	6,503			7,050	
	Year 2001/02	**864**	**656**	**111**	**77**	**12.8%**	**8.9%**	**10,769**	**9,218**	**84.8%**	**11,350**	**3,100**
	Oct-Mar 03	602	676	-74	-76	-12.3%	-12.6%	9,594	7,938	82.2%	9,347	

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation. 1 ASM = 1.6093 ASK

		Group revenue US$m	Group costs US$m	Group op. profit US$m	Group net profit US$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group employees
ANA												
	Apr-Sep 00	5,228	4,793	495	359	9.5%	6.9%	47,586	31,753	66.7%	24,958	
	Oct 00-Mar 01	5,376	5,186	190	-486	3.5%	-9.0%	46,278	29,168	63.0%	24,471	
	Year 2000/01	**10,914**	**10,629**	**285**	**-137**	**2.6%**	**-1.3%**	**85,994**	**58,710**	**68.3%**	**43,700**	**14,303**
	Apr-Sep 01	5,168	4,811	357	136	6.9%	2.6%	45,756	30,790	67.3%	25,876	
	Year 2001/02	**9,714**	**9,529**	**185**	**-76**	**1.9%**	**-0.8%**	**87,908**	**57,904**	**64.7%**	**49,306**	
	Apr-Sep 02	5,322	5,194	127	-69	2.4%	-1.3%	44,429	29,627	66.7%	25,341	
Cathay Pacific												
	Year 2000	**4,431**	**3,752**	**679**	**642**	**15.3%**	**14.5%**	**61,909**	**47,153**	**76.2%**	**11,860**	**14,293**
	Jan-Jun 01	2,031	1,898	133	170	6.5%	8.4%	32,419	23,309	71.9%	5,936	
	Year 2001	**3,902**	**3,795**	**107**	**84**	**2.7%**	**2.2%**	**62,790**	**44,792**	**71.3%**	**11,270**	**15,391**
	Jan-Jun 02	1,989	1,753	235	181	11.8%	9.1%	29,537		78.1%		14,300
	Year 2002	**4,243**	**3,634**	**609**	**513**	**14.4%**	**12.1%**	**63,050**		**77.8%**		**14,600**
	Jan-Jun 03	1,575	1,672	-97	-159	-6.2%	-10.1%	26,831		64.4%	4,019	14,800
JAL												
	Year 1999/00	**14,442**	**14,039**	**403**	**177**	**2.8%**	**1.2%**	**119,971**	**88,479**	**70.2%**	**37,200**	**18,974**
	Year 2000/01	**13,740**	**13,106**	**634**	**331**	**4.6%**	**2.4%**	**129,435**	**95,264**	**73.6%**	**38,700**	**17,514**
	Year 2001/02	**9,607**	**9,741**	**-135**	**-286**	**-1.4%**	**-3.0%**				**37,183**	
	Year 2002/03	**17,387**	**17,298**	**88**	**97**	**0.5%**	**0.6%**	**145,944**	**99,190**	**68.0%**	**56,022**	
Korean Air												
	Year 2000	**4,916**	**4,896**	**20**	**-409**	**0.4%**	**-8.3%**	**55,824**	**40,606**	**72.7%**	**22,070**	**16,000**
	Year 2001	**4,309**	**4,468**	**-159**	**-448**	**-3.7%**	**-10.4%**	**55,802**	**38,452**		**21638**	
	Jan - Mar 02	1,113	1,060	54	23	4.9%	2.1%	13,409	9,799	73.1%	5,399	
Malaysian												
	Year 1999/00	**2,148**	**2,120**	**28**	**-68**	**1.3%**	**-3.2%**	**48,158**	**34,930**	**71.3%**	**15,370**	**21,687**
	Year 2000/01	**2,357**	**2,178**	**179**	**-351**	**7.6%**	**-14.9%**	**52,329**	**39,142**	**74.8%**	**16,590**	**21,518**
	Year 2001/02	**2,228**	**2,518**	**-204**	**-220**	**-9.2%**	**-9.9%**	**52,595**	**34,709**	**66.0%**	**15,734**	**21,438**
Qantas												
	Year 1999/00	**5,710**	**5,162**	**548**	**324**	**9.6%**	**5.7%**	**85,033**	**64,149**	**75.4%**	**20,490**	**29,217**
	Year 2000/01	**5,473**	**5,099**	**374**	**223**	**6.8%**	**4.1%**	**92,943**	**70,540**	**75.9%**	**22,150**	**31,632**
	Year 2001/02	**6,133**	**5,785**	**348**	**232**	**5.7%**	**3.8%**	**95,944**	**75,134**	**78.3%**	**27,128**	**33,044**
	Year 2002/03	**7,588**	**7,217**	**335**	**231**	**4.4%**	**3.0%**	**99,509**	**77,225**	**77.6%**	**28,884**	**34,872**
Singapore												
	Year 2000/01	**5,729**	**4,954**	**775**	**892**	**13.5%**	**15.6%**	**92,648**	**71,118**	**76.8%**	**15,000**	
	Oct 01-Mar 02	2,807	2,508	299		10.7%		46,501	33,904			
	Year 2001/02	**5,399**	**4,837**	**562**	**395**	**10.4%**	**7.3%**	**94,559**	**69,995**	**74.0%**	**14,765**	**29,422**
	Apr 02-Sep 02	2,278	2,134	144	289	6.3%	12.7%	49,196	37,799	76.8%	7,775	
	Year 2002/03	**5,936**	**5,531**	**405**	**601**	**6.8%**	**10.1%**	**99,566**	**74,183**	**74.5%**	**15,326**	**30,243**

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation. 1 ASM = 1.6093 ASK.

AIRCRAFT AVAILABLE FOR SALE OR LEASE

	Old narrowbodies	Old widebodies	Total old	New narrowbodies	New widebodies	Total new	Total
1998	187	125	312	67	55	122	434
1999	243	134	377	101	53	154	531
2000	302	172	474	160	42	202	676
2001	368	188	556	291	101	392	948
2002	366	144	510	273	102	375	885
2003 - July	313	143	456	293	125	418	874

AIRCRAFT SOLD OR LEASED

	Old narrowbodies	Old widebodies	Total old	New narrowbodies	New widebodies	Total new	Total
1998	482	243	725	795	127	922	1,647
1999	582	230	812	989	170	1,159	1,971
2000	475	205	680	895	223	1,118	1,798
2001	286	142	428	1,055	198	1,253	1,681
2002	439	213	652	1,205	246	1,451	2,103
2003 - July	34	7	41	83	21	104	145

Source: *BACK* **Notes:** *As at end year; Old narrowbodies = 707, DC8, DC9, 727,737-100/200, F28, BAC 1-11, Caravelle; Old widebodies = L1011, DC10, 747-100/200, A300B4; New narrow-bodies = 737-300+, 757. A320 types, BAe 146, F100, RJ; New widebodies = 747-300+, 767, 777. A600, A310, A330, A340.*

EUROPEAN SCHEDULED TRAFFIC

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total Int'l		
	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 %
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73	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
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
2000	208.2	132.8	63.8	229.9	179.4	78.1	137.8	108.0	78.3	508.9	396.5	77.9	755.0	555.2	73.5
2001	212.9	133.4	62.7	217.6	161.3	74.1	131.7	100.9	76.6	492.2	372.6	75.7	743.3	530.5	71.4
2002	197.2	129.3	65.6	181.0	144.4	79.8	129.1	104.4	80.9	447.8	355.1	79.3	679.2	507.7	74.7
July-03	19.0	13.6	71.6	20.4	17.2	84.2	10.8	8.6	79.2	44.2	36.2	81.9	66.4	52.2	78.6
Ann. chng	0.3%	1.5%	0.9	6.5%	6.5%	0.0	-7.6%	-10.1%	-2.2	1.6%	1.5%	-0.1	1.3%	1.9%	0.5
Jan-July 03	121.4	77.0	63.5	123.0	96.8	78.7	74.3	54.4	73.3	283.9	218.6	77.0	424.5	308.3	72.6
Ann. Chng	1.6%	-0.5%	-1.3	5.2%	3.2%	-1.5	-3.8%	-12.4%	-7.2	1.6%	-1.0%	-2.0	1.4%	-1.0%	-1.8

Source: AEA

US MAJORS' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total Int'l		
	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 %
1995	900.4	591.4	65.7	130.4	98.5	0.8	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
2000	1,033.5	740.1	71.6	178.9	141.4	79.0	127.7	97.7	76.5	83.0	57.6	69.4	380.9	289.9	76.1
2001	1,025.4	712.2	69.5	173.7	128.8	74.2	120.1	88.0	73.3	83.4	56.9	68.2	377.2	273.7	72.6
2002	990.0	701.6	70.9	159.0	125.7	67.2	103.0	83.0	80.5	84.1	56.8	67.5	346.1	265.5	76.7
Aug - 03	85.0	67.7	79.8	14.1	12.0	85.0	8.3	7.1	86.2	7.4	5.8	79.0	29.8	25.0	83.9
Ann. chng	-5.4%	-1.2%	3.3	-6.5%	-4.7%	1.6	-11.2%	-8.7%	2.4	-0.6%	6.7%	5.4	-6.5%	-3.5%	2.6
Jan-Aug 03	642.9	480.1	74.7	97.5	76.8	78.8	58.9	47.0	75.6	56.5	40.8	72.1	216.2	164.6	76.1
Ann. chng	-3.3%	-0.1%	2.4	-7.6%	-9.4%	-1.5	-8.2%	-15.4%	-6.5	0.2%	4.2%	2.7	-5.9%	-8.3%	-2.0

Note: US Majors = Aloha, Alaska, American, Am. West, American Transair, Continental, Cont. Micronesia, Delta, Hawaiian JetBlue, MidWest Express, Northwest,Southwest, United and US Airways **Source**: ATA

JET ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
Boeing	10 Sept	Shanghai A/L	5 757-200s		2004/5	
Airbus	18 Sept	CIT Leasing	2 A320s		2007	
	24 Sept	Royal Thai Air Force	1 A319		07/2004	CFM56-5B7/P
Bombardier	15 Sept	SkyWest A/L	30 CRJ700s		2004/5	plus 80 options

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

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	2,005	1,392	69.4	2,745	1,969	71.8	4,750	3,390	70.8	4.9	7.2	5.6	6.0	5.3	6.5
***2001**							4,698	3,262	69.4					-1.1	-3.9
***2002**							4,607	3,294	71.1					-1.9	0.4
***2003**							4,903	3,584	73.1					6.4	9.4
***2004**							5,154	3,819	74.1					5.1	6.6

*Note: * = Forecast; ICAO traffic includes charters. Source: Airline Monitor, June 2002*

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