

British Airways: has the future arrived yet?

In the March edition of *Aviation Strategy* we outlined British Airways' new strategy that the company had developed following September 11 - under the soubriquet of Future Size And Shape. Many aircraft have flown since the plan was first considered and implemented. We now review the company's success in achieving objectives in the past eight months.

The prime objective of the strategy was to allow the company to return to profitability - with the target of a 10% margin by 2004 - with annual cost savings generated by the a year of £650m a year. The main planks of the strategy involved cost reduction, a full restructuring of short haul operations and simplification of processes.

The immediate element of the strategy was to cut manpower. Accruing to this was an acceleration of the existing fleet strategy and the further downsizing of operations at Gatwick. In addition, the company had finally discovered a possible strategic response to the incursion of low fares operators - especially necessary after the sale of Go.

Staff levels

For an airline the largest identifiable marginal cost is that of employees. Very quickly after September 11 BA announced job cuts of 7,500 (5,800 of which had gone by the end of December) out of its then staffing levels of 56,700 man-power-equivalents (mpe). In February it announced a further cut of 5,800 positions. The company stated its intention of completing 10,000 of this reduction by the end of March 2003 and the whole 13,000 reduction in workforce by the end of March 2004.

By the end of September this year the company's staff levels had fallen by 9,800 from the levels at the end of August 2001 (including some 1,400 from the sale of its subsidiary World Network Services). Usefully only 12% of these reductions came from early retirement and nearly 40% arose from natural wastage. For the quarter ended September this year, staff costs were 15% down on the prior year levels. It appears that the company is well on target to achieve its stated plans.

Fleet and network restructuring.

Under "Future Size And Shape", the fleet strategy was unchanged but the implementation accelerated. As with any airline it takes time to get the behemoth that is the historic fleet to change

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direction. The fleet restructuring and simplification involves not just the short-haul fleet renewal (with the delivery of A320s to replace older short haul Boeings) but also the alignment of individual fleet types to reduce the number and complexity of the sub-fleets. Where the process is most notable is at Gatwick. The company finally gave up the idea of trying to make its Gatwick operations into a full hub. There it has just about completed the de-hubbing: The number of destinations it serves from the airport has fallen from 95 to 49 (involving the transfer of 30 routes to Heathrow). It has aligned the fleet so that it now only operates three types instead of seven. Transfer traffic has fallen to 20%.

At the end of September the company operated some 349 aircraft, a net 24 down on the same time last year. In the period however, it disposed of eight older 747-200s, 18 757s acquired and returned two 777s and cancelled its 777 options, and disposed of eight 737s while acquiring a net 12 A320s and 3 regional jets. The fleet restructuring appears to be on track.

Since 1998 the company had been spending large amounts of cash on re-equipping its long haul fleet - through the acquisition of 777s and 747s to replace its ageing 747-200s. That re-equipment programme was over by the summer of 2001 - apart from a group of options for 777s. The airline had embarked on its short haul fleet renewal - through the acquisition of A320s. In any case the cash burn was due to fall dramatically. All other things being equal the company's capital spend was due to fall from the average annual £2bn over the previous five years. With further tweaking of the delivery patterns the average aircraft spend between 2003 and 2007 was now set to fall to an average of less than £250m a year.

Short-haul revamp

Not even in the US has any full service network airline really been able to create a satisfactory response to the point-to-point, no frills operator. The first reaction is to

attempt to join them in their own game - as indeed BA did with the creation of 'go'. This palpably does not work - as BA finally accepted when it sold go last year - finding a significant level of traffic cannibalisation.

In the FSAS review, BA did come up with what could be the solution.

From the perspective of a traditional flag-carrier, the problem dates back to the fully regulated era. Then it was deemed competitively unfair to offer discounts and it was assumed that people who wanted to take advantage of lower tariffs knew where they wanted to go and when they wanted to go far in advance. In addition, because of the historic prorated rules, transfer traffic was effectively granted the lowest available discounts that would otherwise be available on the open market. It is this loophole that the LCCs can effectively exploit.

The paradigm step-change comes from opening distribution channels that empower the consumer. Until even a few years ago, the traveller could only really get a price for a ticket by going to an agent (whose interest was in selling the highest price ticket), going direct to the airline (whose interest was in selling the highest price ticket), booking through an inclusive tour brochure (where the price would be hidden), or finding a bucket shop (from whom the ticket may not have been valid). Now, for the first time, with the internet there is a real opportunity for the consumer to find the best deal.

The other complication for the network carrier is the way that its capacity or yield management system works: altering the availability of capacity in various tariff bands

BA's SHORT-HAUL DISTRIBUTION		
	April 02	Sept 02
Travel trade	54%	49%
BA.com	20%	34%
Contact BA	17%	11%
Other direct	9%	6%
Total	100%	100%

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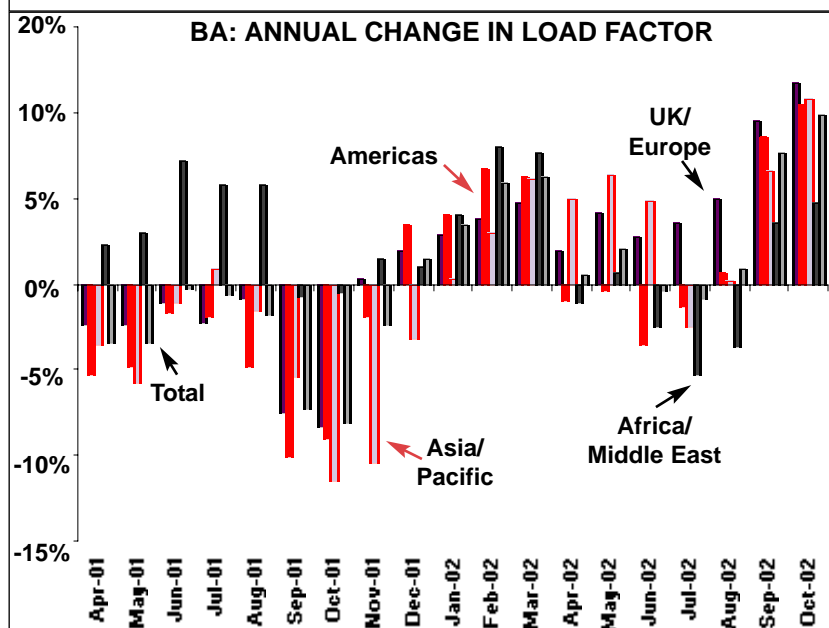
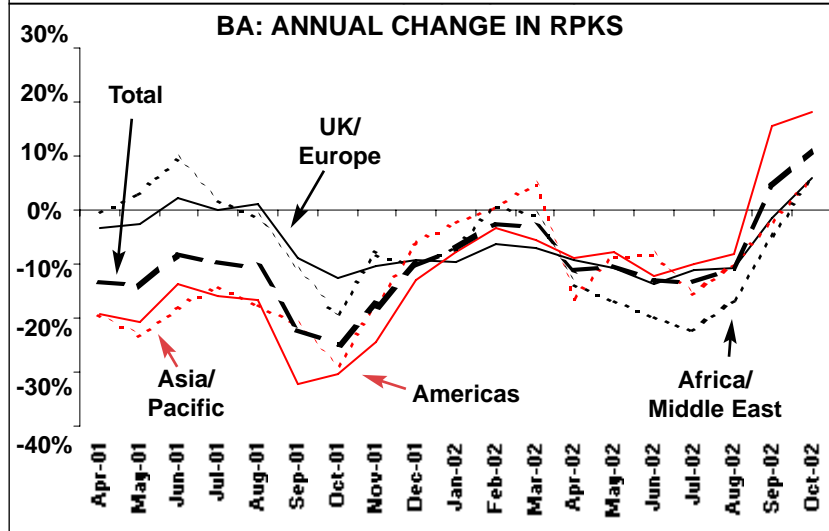
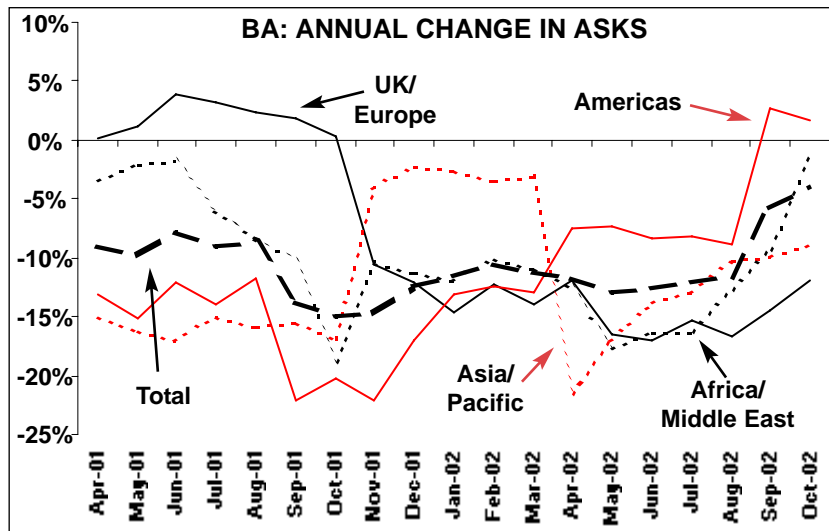
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daily basis to the confusion and consternation of the consumer.

The strategic answer that BA found was to incorporate the LCC pricing model into the network operations. It completely revamped its online booking engine allowing the passenger online to find the best price for where he wants to go in a few easy steps. It slashed agency commissions to a very low per booking fee (£2.50) for short haul unrestricted fares. It introduced a £10 discount for passengers booking online (and a further discount for ticket less travel where available). More importantly it started telling the consumer that there were cheap fares available comparable or better than the no frills competition - and telling them in the same language and in the same media ("we fly to A for prices from £X") - and included in the message the idea that fares would rise closer to departure. In addition it has dismantled some of the historic restrictions (such as the Saturday night stay requirement) where possible to bring its offering closer to that of the low fare competitors. This has meant a complete change in the algorithm of its inventory management for short haul unrestricted tariffs.

The new booking engine came on line in the spring, and the new commission levels took effect from June. The new lower fares without restrictions are now available on 176 routes through Europe. Since April the passenger use of Internet bookings has more than doubled. The usage of the online booking site BA.com has risen from 20% of the total in April to 34% by September. The proportion of short haul bookings through the Travel Trade has fallen to 49% from 54%.

The short haul load factors have shown consistent improvement throughout the summer. The short haul yield has been improving with unit revenues throughout the summer with an average growth (excluding the anomaly of September) of 3.5%. In the second quarter of the financial year (the three months ended September) BA's selling costs fell by nearly 9% year on year against a traffic revenue decline of 5%. For the six months selling costs fell by 12% against a 7% decline in revenues.



Financial performance

For the quarter ended September 2002 BA produced a set of results and a positive surprise. Traffic fell by 7% in the quarter compared with prior year levels against a 10% decline in capacity and load factors improved by nearly 3 points. Unit revenues jumped by 5%. Total revenues fell by only 6.5% year on year. Overall unit costs fell by 6% and total costs fell by 15%. Operating profit jumped to £248m (€389m) for the quarter compared with £72m in the previous year generating an operating margin of 12% - the best summer quarter margin since 1996. Operating cash flow in terms of EBITDAR (earnings before interest, tax, depreciation, amortisation and rentals) jumped by 40% to £486m and the pre-tax profit reached £245m up from a nominal £5m in the prior year period.

In the six months to September, the company has improved its liquidity position dramatically. Cash inflow from operations improved by £150m to £756m. The non-operating cash outflow was limited to a net £18m compared with £557m last time. This was helped by skipping last year's dividend payment - but more dramatically, was affected by the fall in capital expenditure requirements and the disposal of assets. In February BA set itself a target of achieving asset sales of £500m by the end of March 2003. So far it has achieved £426m of this - mostly through the disposal of aircraft. Cash at the end of September stood at

£1.5bn (€2.36bn) up by £500m from September 2001 and up by £300m from March 2002, (and the company has additional committed facilities of £0.5bn). On top of this the company has identifiable realisable assets of £2bn giving current liquidity of £4bn. Net debt peaked in December 2001 at £6.5bn - and has been reduced by more than £1bn to £5.5bn.

The results were positively received by the financial community - and allowed analysts to increase forecasts to show profitability for the current financial year.

Outlook

In the short term BA's strategy appears to be working. For the first time for two years (well before the events of September 11) the fundamental direction of the finances appears to be right: there is a positive gap between the change in unit revenues and unit costs and the capital spending programme has been slashed from historic levels.

While the world's economy is in the doldrums and more specifically the aviation industry is suffering its worst downturn in traffic and results, BA appears to be getting its house in order. In the longer run there may be more doubt. If it does succeed it will be the first airline that has quickly and efficiently been able to shrink into profitability. So far the short haul strategy appears to be working to a certain extent.

However there is still a long way to go before BA gets close to achieving its group financial targets. In addition the ever threat of war in the Middle East adds significant operational uncertainty. Meanwhile, the low fares competition is growing very strongly and their aggressive marketing innovations may make BA's attempts to return its short haul operations to profitability short lived. In the FSAS review the company looked at and rejected the "BOAC option" of returning the airline solely to a long haul operator. If this attempt to beat the no frills operators at their own game fails - the company may well have to revisit the idea.

	BA's RESULTS (£m)			
	3 months to September 2002		6 months to September 2002	
	2002	Ann change	2002	Ann change
Revenues	£2,104	-6.5%	£4,156	-8.6%
Operating profit	£248	244.4%	£406	232.8%
Pretax profit	£245	Nm	£310	588.9%
Unit Revenues (p/ASK)	5.09	4.9%	5.08	5.4%
Unit Costs (p/ATK)	32.89	-6.1%	-0.043	-4.3%
Traffic (RPK)	27,301	-6.8%	51,980	-10.3%
Capacity (ASK)	35,608	-10.1%	70,628	-12.4%
Load Factor	76.7%	2.8pts	73.6%	1.7pts

Business Jets: Fractional ownership in the post September 11 world

Proponents of the Business Jet (BJ) fractional ownership concept argued that September 11 would boost their business as top business flyers and high net worth individuals increasingly switched from scheduled airlines to BJs. While the demand is undoubtedly there, finding a profitable business model for this sector is proving difficult.

An early indication of the problems facing this sector was United's decision in March 2002 to shelve its BJ fractional ownership subsidiary, Avolar, having given up the search for external investors in the venture, which had ordered or optioned 306 new BJs. Avolar's failure came as a profound disappointment. Airline fractional BJ operations were supposed to be the next growth opportunity for the private aviation industry.

The end of the airline BJ model, coupled with questions about profitability at the fractional ownership concerns, raises concern about the future of the BJ market. Explosive growth in recent years seems to have stalled, the market's long-term direction is unclear.

The original fractional BJ ownership company was Executive Jet, created in 1986 and re-branded as NetJets in 2002. NetJets is now owned by Berkshire Hathaway, the venture capital enterprise run by Warren Buffett. It has, according to Aviation Research Group/US (ARG/US), a 49% share of the US fractional ownership market.

The two other key payers are FlexJet, 18%, and Flight Options, 33%. FlexJet was established in the mid 90s by Bombardier as a vehicle for leasing out its own BJs; it may now be up for sale as part of the manufacturer's restructuring process. Flight Options was the most important of the independent providers, and doubled its size in December 2001 when it merged with Travel Air, a subsidiary of Raytheon Aircraft. Over the past seven years some 57 fractional operations were set up in the US, but they almost all failed.

The number of fractional owners was esti-

mated by ARG/US at around 4,500 in 2002, a total it expects to soar to 13,500 by 2006. However, there has been as yet no firm evidence of a post-September 11 surge in business.

The fractional message

Fractional companies proudly state that 70-80% of their client bases have had no experience with private plane ownership. And most of these newcomers came from first and business class sections, which provide a disproportionate amount of airline profits. By some estimates, 8-12% of these sections have moved to private aviation (these are the passengers who pay full price, not those upgrading by using FFP benefits).

This development in aviation mirrors a broader economic trend. As for instance with retail stores, customers are splitting into a large cost-sensitive element (scheduled air service, which is becoming more Spartan than ever), and a small, price-inelastic element (private aviation). There is less and less of a middle market.

So, the departure of these very high-yield passengers had a strong negative impact on airline finances. Inevitably but belatedly, the airlines took the defensive move of co-opting the trend towards private aviation. This led to Avolar, the most ambitious example of the numerous airline fractional concepts. Actually, Avolar's demise was presaged by the decision by British Airways to drop their plans for corporate jet services. This leaves just Lufthansa's experimental Dusseldorf-New York BBJ service and Air Canada's planned Elite operation.

Fractional profitability

When Avolar died, Warren Buffet admitted that NetJets lost money in 2001. The

costs of European expansion in 2001 outweighing the small profit earned in the US during that year. He also doubted that the other fractional players made any money at all.

Naturally, this statement was quickly refuted. Flight Options stated that it had made its first quarterly profit in the last quarter of 2001. However, around the same time, Bombardier admitted that FlexJet did not make money in 2001, and could only hope to break even on operations in 2002.

Obviously, making money with fractional operations is difficult. Unless a provider has a tremendous market presence (in terms of bases and planes), it will need to fly a large number of non-revenue producing flights. After all, planes will often need to fly empty somewhere to pick up a customer; they might also need to fly empty after dropping off a customer.

Airlines are occasionally hobbled by Airplanes On Ground (AOGs, planes that produce no revenue but still have a capital cost attached). Fractional companies are hobbled by something much worse, planes that produce no revenue but still have capital and operating costs attached.

Fractional companies are also extremely sensitive to demand surges: the fleet must be sized to meet the highest demand surge requirements. If it is not, customers will need to be paid for any violation of timing and availability guarantees. To avoid this, the fractionals need to supplement their fleets by chartering in other aircraft, which is an expensive proposition.

Despite the difficulties inherent in making money with this business model, the fractional players all have big plans. They currently operate over 650 BJs, with about 1,500 more on order. Yet if they continue to lose money, their financial backers may decide to cut their losses, the way Raytheon did with Travel Air and United did with Avolar.

It is possible that this industry will follow the traditional pattern of new technology market development: a new idea leads to many players, who suddenly discover that they need to make money. The industry then experiences a painful shakeout, followed by a mature market, which is often a duopoly.

This industry may have a lot in common with the dotcoms.

If fractional companies need to raise their prices to bolster their profitability, their relative competitiveness may diminish. They would be less able to attract scheduled airline service customers. Indeed, some recent converts might switch back to airlines.

Currently, fractional companies account for 17-18% of new BJ deliveries. Their orders, however, account for well over half the stated industry backlog (alarming, the rest of the backlog is completely opaque and non-verifiable). Fractional aircraft account for 6% of the worldwide BJ fleet. According to the Honeywell's annual BJ survey, this figure will rise to 15-17% by 2011.

Clearly, the future of the BJ manufacturing industry is closely linked to the success or failure of fractional ownership. There is also certain to be a cost to manufacturers from fractional ownership itself. Any kind of concentration of market power in buyers increases their ability to negotiate lower prices, which affects manufacturer profit margins. Also, if competition among fractional ownership firms grows, possibly with the emergence of discount fractional players, price competition would result. This would further increase pressure on manufacturer margins as the fractional players try to pass down their cost-cutting efforts.

Another related problem might be the flexibility that fractional companies have when ordering aircraft. If a company buys one or two jets, the manufacturer will enforce the sales conditions and schedule, making deferrals difficult. But fractional companies, with their greater market power, will be able to demand deferrals (and possibly even cancellations) based on prevailing market conditions.

So, sales to fractional firms may be somewhat less "firm" than sales to traditional BJ end-users. This is particularly true if fractionals fail to raise their prices and need to cut their costs instead. The one profitable fractional company, Flight Options, has only purchased used BJs, at much lower prices. The company it absorbed, Raytheon's unprofitable Travel Air, only purchased new jets. The Flight Options model might be the

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right one. This would be good for the fractional business (higher residual values), but not as good for manufacturers (fewer direct new sales).

Fractional ownership will also have an impact on market cyclicality. We don't know enough about how the mature industry will behave during inevitable market cycles. But looking to the commercial jetliner industry for a parallel, there are roughly two alternatives. If fractional companies behave like jetliner lessor GPA did in the 1988-1990 market upturn, placing large block orders in anticipation of continued market growth, fractionals may exacerbate market cyclicality. However, if they behave a bit more rationally, like ILFC, they will place large block orders when the market is down and the buyer has the advantage over the manufacturer. While this ILFC-type model would further increase pressures on manufacturer

margins, it implies a strong and welcome counter-cyclical impact on the market.

Finally, because fractional ownership companies emphasise greater utilisation of aircraft, residual values may suffer. If a fractional firm uses a given plane twice as many hours per year as the current norm, values for the entire fleet of those planes may decline somewhat. And because fractional companies place large block orders for new BJs, they are more likely to dump large fleets of earlier models on the market, which would also depress prices.

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BJ PRODUCTION OUTPUT: TEAL GROUP FORECAST

Units Produced	2002	2003	2004	2005	2006	2007	Market price New 2002 (\$m)
Raytheon Beechjet/Premier	55	70	52	38	42	43	5.4
Raytheon Hawker 800	40	34	22	24	24	29	12.0
Raytheon Hawker Horizon	3	0	26	30	33	24	16.8
Bombardier Continental Jet	2	24	33	31	23	21	16.3
Bombardier Challenger	29	25	22	17	20	19	23.2
Bombardier Global 5000	0	0	1	12	14	12	33.0
Bombardier Global Express	24	22	17	12	14	14	41.7
Cessna CitationJet	80	60	50	46	55	60	4.5
Cessna Citation (other)	144	124	110	100	110	145	8.0
Cessna Citation X	29	20	15	15	14	20	18.6
Dassault Falcon 900	25	21	17	14	11	7	31.0
Dassault F.50/2000	48	52	56	38	32	30	21.6
Dassault Falcon 7X	0	0	0	1	6	23	36.0
GD Gulfstream IV	31	24	25	23	26	31	32.0
GD Gulfstream V	28	26	23	25	26	27	41.9
GD G100	13	12	12	12	12	16	12.4
GD G200	29	28	22	18	16	22	18.8
Bombardier Learjet	81	55	44	45	65	91	8.9
New Very Light Models	0	0	0	12	40	80	1.4
Swearingen SJ30	0	14	22	23	16	18	4.9
Total Units	661	611	569	536	599	732	

EU airlines: financial results surprisingly resilient

There is an ironic contrast between the July-September results of the leading European carriers and those of the US majors (see previous issue). They are generally profitable at the operating and net levels, and in contrast to the US majors they have not this time turned to their governments for aid. Mostly as a consequence of increased load factors, unit revenues exceeded unit costs for both the main flag-carriers and the dynamic LCCs.

Air France

Despite a pilots' strike in early September, which had a €55m impact on turnover, the Air France group posted a 0.9% increase in revenue to €3.24bn. Pre-tax profit rose 28% to €113m. Long haul and international medium-haul revenues rose by 4.9% in total, partly compensating for a weaker French domestic market (down 8.3% compared to the second quarter of 2001).

In a move due to be finalised in January 2003, SkyTeam partners Air France and Alitalia are to take a cross-equity shareholding of 2% in each other. Air France chairman Jean-Cyril Spinetta states that Air France is on track to post its sixth consecutive positive financial year.

Iberia

On revenues of €1.23bn, the Iberia Group achieved an operating profit of €127m, a 140% rise from a year ago. The Iberia Group is anticipating pre-tax profits of €230m for the full year 2002, reaping the rewards of a successful €580m cost-cutting programme and a faster than anticipated traffic recovery. The company expects lower revenues than the €4.7bn reported in 2001 because of reduced capacity and the sale of its subsidiary Binter Canarias in the summer.

Iberia has delayed delivery of Airbus A320s and A321s, terminated a wet-lease agreement with Air Europa, retired some older A300s, and cut some 2,300 positions company-wide. Iberia expects to make its selection between Airbus and Boeing by year-end to acquire up to ten long-haul

aircraft for delivery starting in late 2004. The airline is evaluating the A340-600, the 777-300ER, and the 747-400 to replace its fleet of six 747-200s.

Recent reports suggest Iberia appears to be edging closer to bidding for a stake in codeshare partner TAP Air Portugal after CEO Angel Mullor stated that the carrier is analysing participating in the privatisation process.

KLM

Dutch flag-carrier KLM increased its second-quarter operating income by 70% to €141m and more than trebled net profit to €27m, despite a costly strike (€9m of charges). Load factors systemwide was a remarkable 82.7%. Group operating revenues were the same as from last year. However, KLM is unlikely to turn a positive net result for the full year and faces a serious fine relating to the terminated Alitalia alliance.

KLM has recently outlined its plans to expand its UK-based budget operation Buzz and to concentrate its Amsterdam-based Transavia unit on charter and scheduled flights to leisure destinations. The Dutch leisure market seems to be recovering, with volume increases in both charter and scheduled services. Transavia's operating revenues improved considerably in the quarter. It will now scale back some of its existing scheduled services and concentrate solely on charter operations and scheduled flights to leisure destinations. Buzz increased its network capacity by 20%, reflecting the start up of high frequency, short-haul routes focused on the French market. In August, Buzz announced a new lease agreement for six 737-300s; the airline also plans to establish a second UK hub at south coast airport Bournemouth.

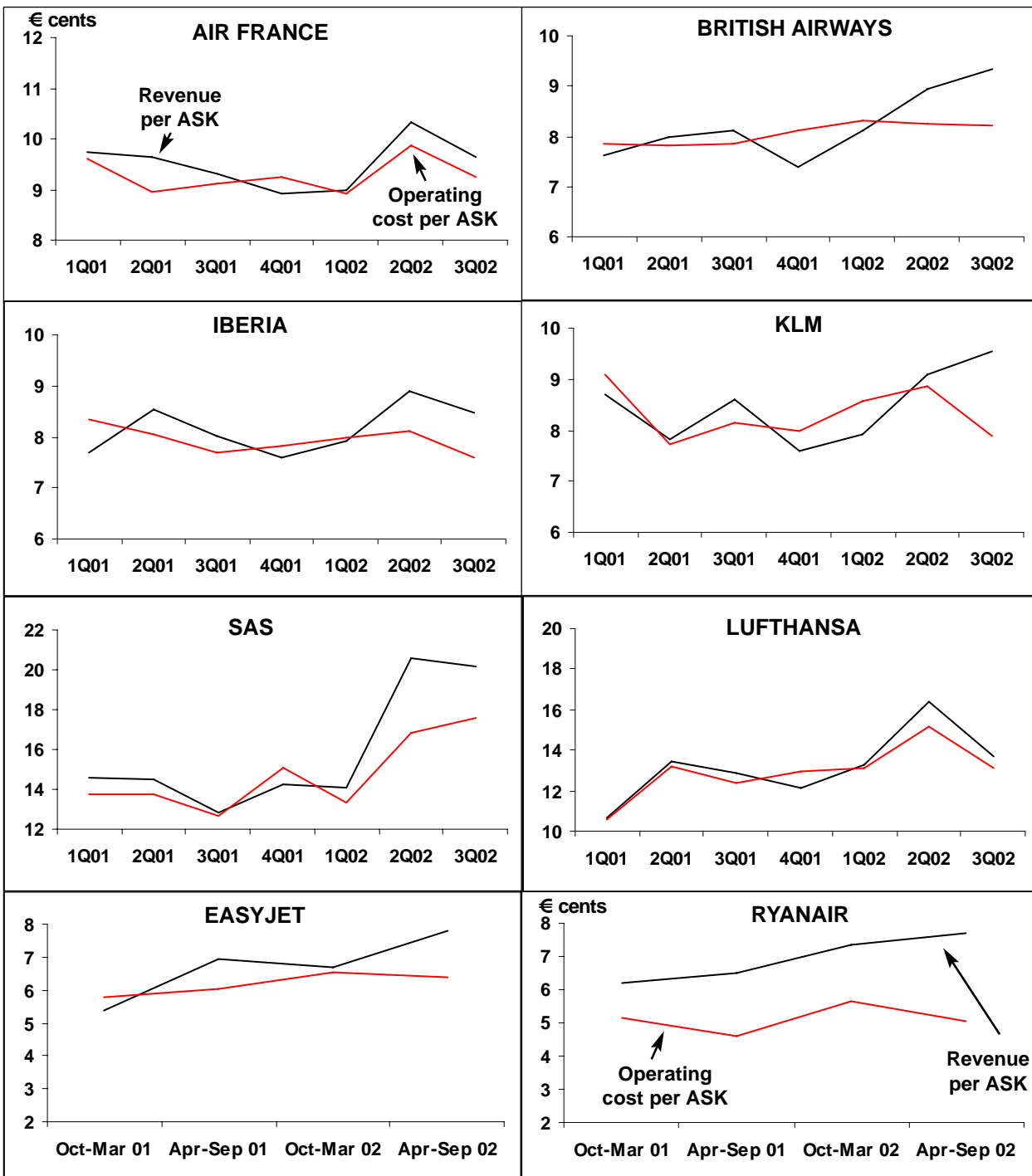
Lufthansa

Lufthansa achieved group revenues of €4.47bn, an operating profit of €458m and a net profit of €372m for the quarter ended September 30. Strong capacity growth continued in the third

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EU MAJORS' UNIT REVENUE AND UNIT COST TRENDS



quarter, and Lufthansa is planning to expand its flight schedule in the winter of 2002/2003 by 13%, almost equalling the winter 2000/2001 timetable. In the quarter Lufthansa ordered ten A330-300s, which are due to be delivered from 2004.

A new flexible pricing concept was introduced in the late summer in reaction to the threat from

LCCs. With easyJet likely to exercise its purchase option on DBA, Ryanair established at Frankfurt Hahn, and local LCCs like Air Berlin and Hapag Lloyd Express expanding aggressively, the German market is going to be very interesting over the next 18 months.

United and Lufthansa plan to strengthen their

immunised transatlantic agreement. United, teetering on the edge of Chapter 11, says closer relations with Lufthansa will increase revenues by approximately \$90m a year, once all tenets of the pact are in place. As part of the enhanced agreement, United and Lufthansa will share revenues on North Atlantic flights, align North Atlantic pricing and sales strategies and "work even more closely in areas such as scheduling, customer service and marketing". United is looking for financial support from its Star partner. Lufthansa has also completed the acquisition of a further stake in bmi, giving it a shareholding in the UK airline just below 30%.

SAS

The third quarter produced group operating revenues of SEK16.6bn (€1.8bn) and an operating profit of SEK1,041m (€132m) leading to a 3.1% net profit of SEK506m (€56m). Traffic figures for the SAS Group rose by 32%, compared to the third quarter 2001, due to the acquisition of Braathens and Spanair. However, the SAS Group's own traffic fell 7.3% while capacity was down 6.7%.

Short-term improvement measures, initiated in late 2001, have been judged insufficient to lift the Group to profitability. So, earlier this year a number of restructuring measures were undertaken. The SAS Group is laying off 300 full time pilots, part of a company-wide reduction of SAS' workforce as it cuts its fleet from 199 aircraft to 153. SAS still has a firm order book of 20 aircraft, 737-800s, A321s and A330s, due for delivery until 2005.

Ryanair

Ryanair turned in an operating profit of €122m and a €112m net profit, an annual increase of 73%, on total operating revenues of €270m for the quarter ended September 30. Operating margins have risen to 45% from 37% in the comparative period.

Ryanair has recently opened its eighth European base at Milan Bergamo. Average fares have fallen 2% over the past six months, but operating costs have fallen by 11% on a per passenger basis. Ryanair is set to carry more than 9,000 passengers per employee by the end of the year (a figure twice that of Southwest and ten times BA).

The new 737-800s in the fleet have added 45% more seats per flight than existing 737-200s while still maintaining 25-minute turnarounds. 13 more 737-800s will be delivered over the next six months.

The Irish government is evaluating 13 propos-

als for a new private terminal at Dublin. Ryanair will be in the bidding for the construction of the new terminal and values the development costs of the terminal at €114m. Ryanair has been a harsh critic of Aer Rianta, arguing that its airport charges are prohibitive. It says that if a new low-cost terminal is built it would double the number of aircraft based there. CEO Michael O'Leary said "If approved Ryanair will respond with the largest single investment in Irish tourism by placing up to 20 new 737-800 series aircraft in Dublin and opening up a wide range of new low fare routes between Ireland and Continental Europe."

easyJet

The third quarter also coincides with the end of easyJet's financial year; a net profit of €77m was reached for the year. The period April to September 2002 contributed the bulk of the year's profit with a net profit of €76m recorded. This profit came from revenues of €579m and an operating income of €106m.

On 31 July 2002, easyJet completed the acquisition of Go for £374m (€579m) to become Europe's largest LCC. This was partially funded by a rights issue that raised £277 (€429m). Two months of Go revenues contributed a further £66m (€102m) to the company's revenues in the period July to September 2002. However, easyJet estimates the cost of integrating Go also added £7.1m (€11m) to its costs in the 2002 financial year. Newcastle has become easyJet's latest UK base, and next year should see further development of Paris Orly and Munich (if it goes ahead with the DBA purchase).

In October 2002, easyJet selected Airbus for supply of its next stream of new aircraft. The proposed order is for 120 A319 aircraft to be delivered over a five-year period from the second half of the 2003. In addition, easyJet has options with price protection on a further 120 A319 aircraft, valid until 2012, and options to switch to larger sized A320 and A321 aircraft.

Stockmarket analysts focused on an 8% yield decline in easyJet's latest numbers, and the stock price suffered consequently. However, easyJet's own analysis links the yield changes with capacity growth - a 45% increase in sectors, as in 2002, equates with a 6% decline in revenue per flight while a 25% increase in sectors, which is planned for 2003, should be associated with a 2% increase in revenue per flights.

“deltaBlue”: Return of the low-fare airline-within-an-airline?

In a remarkable strategy reversal, some of the US major airlines are looking to return to the low-fare "airline within an airline" concept as a means of defending their markets from low-cost competition. Most notably, Delta has just announced plans to create a new low-fare airline subsidiary in early 2003. UAL, in turn, has been considering resurrecting United Shuttle (though averting bankruptcy is obviously a priority for UAL at present).

This comes barely a year after the major airlines seemingly lost all interest in operating separately branded low-fare units in the post-9/11 environment. The final months of 2001 saw US Airways phase out MetroJet, United discontinue the Shuttle brand and Delta halve its Delta Express operation.

Shedding the low-fare units was part of efforts to better match capacity with sharply reduced customer demand. There was less demand for high utilisation, quick turnaround flights. The airlines wanted flexibility to use larger or smaller aircraft depending on market conditions and frequency needs (all of the low-fare units had dedicated fleets of Boeing 737s).

However, the majors also gave the impression that they were taking the 20%-plus post-9/11 capacity cuts as an opportunity to revamp their networks. In effect, they withdrew from the lowest-yielding market segments, which they could not serve profitably at their high cost levels. Although the low-fare units may have served a useful purpose in helping their parents retain market share, they never got their unit costs anywhere near the original targets (Southwest's levels).

All of that enabled low-fare airlines that actually have low cost structures - the likes of Southwest, AirTran, Frontier and JetBlue - to significantly gain market share (and remain profitable) during the post-9/11 industry crisis. The low-cost carrier inroads have again been the greatest on the East Coast, affecting US Airways and Delta the most.

By Heini Nuutinen US Airways, which has been in Chapter 11 bankrupt-

cy since August, estimates that, over the past four years, low-cost carriers have almost doubled their share of East Coast capacity from 10.7% to 19.4%, while its own capacity has fallen from 21.9% to 18%.

According to Delta's calculations, low-cost carriers' share of industry capacity has grown by one percentage point annually since 1990 and will increase from the current 22% to 30% by the end of the decade. Almost 40% of its passengers already have a meaningful low-fare carrier option. Delta's surveys also showed that 70%-plus of its passengers make their purchase decision almost exclusively on price. Delta considers low-fare competition its "single greatest emerging challenge" and a much bigger threat than that posed by other hub-and-spoke competition.

Of course, having already downsized, US Airways' priority now is to complete a financial reorganisation and emerge from Chapter 11. If it succeeds, it is looking to strengthen its hub-and-spoke operations through a major expansion of regional jet services, rather than trying to resurrect MetroJet.

However, Delta is the most obvious candidate to continue head-to-head battles with low-cost carriers in the core leisure markets - and probably the one most likely to succeed in that task. First, it is in a relatively strong financial position by current industry standards. Second, it has the experience and strong market position built with Delta Express (the sole remaining low-fare unit operated by a major). Third, it is already an industry leader in RJ operations. Fourth, it has a primarily non-union workforce and lower than average labour costs.

In the November 20 announcement, Delta said that the new venture would be a wholly owned, separate subsidiary that would utilise a dedicated fleet of 36 757s by the end of 2003. Operations would begin in the spring, initially in major Northeast-Florida markets, with later expansion across Delta's US network. The unit would have a "cost competitive business model", a simple low fare structure, a distinctive brand and "amenities and services to meet the expecta-

tions of price-savvy customers".

The venture is still a work in progress, with details such as name, product and service elements and marketing and people strategies to be determined and unveiled in the coming weeks and months. According to Delta executives, the name will be announced by February.

It is already quite clear that the new venture is being both modelled on and targeted at JetBlue, rather than Delta's traditional rival AirTran Airways. This is despite the fact that only 6% of Delta's domestic revenues are currently exposed to JetBlue, compared to 26% to AirTran (JP Morgan figures).

Delta's choice reflects JetBlue's huge all-around success - operationally, financially and in the marketplace. But JP Morgan analyst Jamie Baker also suggested recently that thanks to a new fare structure introduced in the summer of 2001, "Delta already has AirTran on the run". As evidence, Baker pointed out that AirTran now derives less than 40% of its revenues from Atlanta, compared to more than 60% two years ago.

The new Delta subsidiary will replace Delta Express, the low-fare unit created in 1996 that currently serves 14 cities in the Northeast-Florida market. It has helped Delta maintain market share in Florida but, despite the fact that its pilots worked at lower pay, was not much of a success on the cost front. Also, Delta now feels that a more powerful response is needed to the low-cost carrier threat.

The new unit's 757s will come from the secondary hubs of Salt Lake City, Cincinnati and Dallas, where Delta has identified a need to slightly reduce hull size. The Delta Express 737-200s will go to those hubs as the reconfigured 757s are delivered.

The new unit's president, former Midway Airlines chief John Selvaggio, presented an impressive list of five things that the new venture needed to be successful. It sounded like the Southwest/JetBlue model: a clear mission, strong focus on costs, operational simplicity, the right markets and a distinct brand.

However, history is not encouraging as regards to the major network carriers' ability to successfully execute such strategies for their low-fare units. There is considerable scepticism especially about Delta's ability to reach the ambitious cost targets and to create an attrac-

tive, distinct brand.

Sustainable low cost structure?

The aim is to get the new low-fare carrier's unit costs 20% below those of Delta's mainline 757s. The cost per ASM target is "a number that begins with seven", which would be truly impressive (Southwest's unit costs in the first nine months of this year were 7.39 cents, while JetBlue's were 6.48 cents).

Interestingly, there is no intention to seek separate lower pay scales. Instead, Delta is counting on getting the cost savings through increased productivity of people, aircraft and other assets.

The savings would arise, first, from the aircraft and route structure changes. Single class seating (199 seats, as opposed to 180-184 in two-class configuration) and point-to-point flying will inherently improve unit costs.

Second, Delta is aiming for average daily aircraft utilisation of 13.2 hours - a rate that would be among the highest in the industry. It would compare with 10.7 hours for the mainline 757s and about 11 hours that Delta Express achieved at its peak. It would even be higher than the 13 hours currently achieved by JetBlue.

According to Delta, the 13.2 hour utilisation would be achieved by extending the operating day and opting for a specific route structure (making east-west long haul services highly likely in the near term). Also, Delta has apparently developed a process that will reduce the 757 turnaround time at airports from 80 to 50 minutes.

Third, there will be savings from operational efficiencies, primarily employee productivity. For example, going single class will reduce the number of flight attendants per flight from 5-6 to four. There will also be efficiencies from new airport and in-flight processes, increased self-service and automation.

Fourth, the new unit is expected to benefit from an aggressive direct distribution goal of having 70% of all tickets purchased directly from the airline's website or reservations service centres.

The plan is to recruit for the new unit directly from Delta's active workforce, the idea being to select the right type of people to meet Southwest/JetBlue-style service and efficiency targets. Delta expects there to be opportunities for income enhancement through higher productivity.

Nevertheless, the plan not to seek reduced wages has drawn criticism from analysts. Several have argued that it will make it harder to fight low-cost competitors. According to JP Morgan's Baker, a senior Delta 757 captain earns \$245 per hour, which is substantially more than the \$149, \$118 and \$100 earned by senior captains at Southwest, AirTran and JetBlue respectively.

Baker is finding it hard to accept Delta's efficiency improvement assumptions. He estimates that the new unit's seat-mile costs will still be 10% higher than Southwest's and 30% higher than JetBlue's (based on 2Q02 DOCs, adjusted for a higher seat count and a 7-8% efficiency boost at "deltaBlue").

While agreeing that it makes sense for the new unit to use 757s in the large markets, many analysts are unimpressed by a strategy of lowering unit costs by bringing larger aircraft to point-to-point markets. It is certainly much easier than reducing labour or overhead costs. However, labour or overhead cost reductions are not necessarily any more sustainable in the long run.

Then there are the thorny cost allocation problems. As Raymond James analyst Jim Parker pointed out in a recent research note, the majors may claim low costs for their low-fare units when many cost items, such as overheads, airport facilities, maintenance, marketing and distribution, remain the burden of the parent.

A distinct brand

Delta is establishing a new subsidiary, rather than just expanding Delta Express, because it wants to create a distinct brand. By doing that, it hopes to avoid the customer and employee confusion that has plagued other low-fare subsidiaries, including Delta Express.

No doubt influenced by JetBlue's success, the new brand will offer more amenities than Delta Express. The details will not be announced until early 2003, but Delta executives described it as "very relevant, very attractive and quite popular". It would "address the yet-unmet needs of customers", though it would also include an element of Delta's FFP and interlining at New York JFK.

There have been reports that the name would be as "snappy" as JetBlue's. And Delta executives have hinted that there would be entertainment options competitive with JetBlue's popular in-flight satellite television. LiveTV has been so vital

for JetBlue that it ended up buying the company in September (for \$80m, including the retirement of \$39m of debt). While JetBlue is not allowing direct competitors access to LiveTV, Delta executives hinted that similar alternative technology is available.

The problem from Delta's point of view is that an attractive brand usually consists of more than just flashy amenities. It may include components such as a special corporate culture, entrepreneurial spirit, high-profile leadership and high worker motivation, which are much harder to emulate.

Markets and growth strategy

One of the new unit's strongest points is that it will enter high-density markets where low-fare demand is proven and where Delta already has a strong presence. In other words, it will not have to take a risk with small new markets that require stimulation.

There are no plans at this point to bring the new unit to Atlanta, but Delta is not ruling out bringing it to hubs. Its route structure is certainly expected to be much more diversified than that of Delta Express, with some non-East Coast flying likely to be added in 2003.

If all goes to plan, by the end of next year the low-fare unit will represent about 10% of Delta's total ASMs - the same as Delta Express at its peak. Delta is expected to grow it relatively slowly and stick to the concept.

Even if it is hugely successful, there is virtually no chance that the low-fare unit could eventually take over the rest of Delta's operations, because Delta has a valuable hub-and-spoke mainline franchise to maintain. The two types of network require fundamentally different operating and pricing strategies.

When announcing the new venture, Delta spoke of it as just one important component of its current "portfolio of businesses", which also includes network service through hubs, international service, codeshare relationships and RJ operations. Like AMR and others, Delta is also focusing on trying to fix problems with the mainline business model. The \$75m capital budget allocated for the low-fare venture is only a small part of Delta's anticipated total \$1.6bn capital spending next year.

Virgin Blue - Australasia's LLC or Ansett reinvented?

Virgin Blue, Richard Branson's low cost carrier in Australia, is facing a key strategic choice as it prepares for an IPO in 2003. Does the airline keep to its initial low cost carrier (LCC) strategy, or will it be tempted to grow and fill the gap in Australian's aviation industry left by the collapse of Ansett?

When Virgin Blue was launched in August 2000 its mission was to provide LCC competition on Australia's key domestic routes against both established carriers - Qantas and Ansett - as well as Impulse Airlines, an LCC that launched in June 2000. Not surprisingly, the result was a vicious fare war that cost the industry A\$500m (US\$275m), according to the Centre for Asia Pacific Aviation*. Most of the loss fell on Ansett, forcing it into administration in September 2001 before finally collapsing in March 2002. By then Impulse Airlines had already disappeared, in effect being taken over by Qantas in May 2001 after closing routes and wet-leasing its fleet to Qantas.

Through a mix of luck and judgement, Virgin Blue found itself in the enviable position of being the number two airline in a market worth some A\$10bn (US\$5.5bn) in domestic route revenue per year - but with just two airlines operating in total. Today Virgin Blue's market share is estimated at 15-20% of the Australian domestic market, although (in common with most of Sir Richard Branson's empire) getting up-to-date revenue or profit figures for Virgin Blue is almost impossible, and is likely to remain this way until an IPO prospectus is released in 2003. However, Branson recently stated that the airline was aiming for a net profit of A\$100m (US\$55m) for the current financial year (to March 2003). That is a significant

achievement for a start-up that originally estimated it would take five years to make a profit after launching in 2000 - and the prime reason behind going for an IPO sometime during the

first half of 2003.

The IPO on the Australian Stock Exchange will offer investors up to 20% of Virgin Blue, it is believed, and Goldman Sachs are likely to be hired to arrange the issue. Analysts estimate the airline will be valued around the A\$1,450m (US\$800m) mark on its stock market debut. This will ensure a nice return on shares sold at the IPO by the Patrick Corporation, the Australian transport and logistics company that bought 50% of Virgin Blue from Branson's Virgin Group for A\$260 million (\$143 million), plus a premium based on Virgin Blue's performance over the next three years, in March 2002. This premium is calculated as an extra A\$30m paid by Patrick for every A\$100m increase in the capitalisation of the discount air carrier over A\$600m at the time of "any future significant change in shareholdings". At a A\$1,450m IPO valuation, that would give Branson an additional A\$279m for the 50% stake he sold to Patrick - which perhaps explains why the Virgin Group is so keen to get the IPO away, and why there has been a flurry of strategic initiatives over the last few months.

Strategic pressures?

At the time, the Patrick buy-in was seen as good move for Virgin Blue as the new ownership ensured that the airline was reclassified as Australian airline, allowing it to apply for international routes. But as well as this beneficial influence it is also possible that - whether accidental or intentional - Patrick's involvement may now be affecting what had previously been Virgin Blue's clear focus on the LCC model. In March, Chris Corrigan, the CEO of the Patrick Corporation, said that it would not be a passive investment, and that "the key issue that will drive the management team in the next 12 to 18 months will be capturing a significantly larger share of the Australian domes-

* "Low-Cost Airlines in the Asia Pacific Region" by Peter Harbison Managing Director, Centre for Asia Pacific Aviation www.centreforaviation.com

Aviation Strategy

Briefing

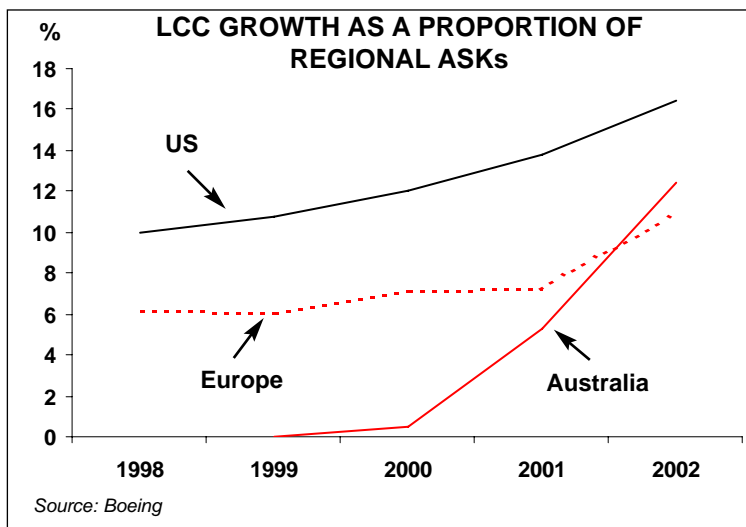
tic market".

As largely point-to-point airline with a majority of sales made via its web site, Virgin Blue's unit costs are some 35% less than Qantas, according to the Centre for Asia Pacific Aviation (see graph, below). But can that difference remain if, as some analysts fear, the airline has decided to move away from its profitable niche and instead challenge Qantas as hard as it can? Virgin Blue has a domestic market share target of 50% within five years - a target that, if is more than just marketing hype, will mean having to make substantial inroads into key Qantas markets. To compete hard against Qantas in all domestic sectors would surely decrease the cost gap that exists between the two. And if Virgin Blue really wants to challenge Qantas, it knows that its larger rival earns three-quarters of its revenue from international routes, so that would mean significant international expansion for Virgin Blue.

And that is exactly what Virgin Blue is contemplating. Since the Patrick deal Virgin Blue has been planning international services, probably to start with services to New Zealand in 2003 and closely followed by routes to Pacific islands such as Fiji, New Caledonia, Vanuatu and Papua New Guinea. Virgin Blue may even be being bounced into starting international expansion sooner than planned, due to Qantas's Australian Airlines, its new international, low-cost subsidiary for leisure travellers. Virgin Blue's plans for services to Hong Kong appear to be speeding up now that Qantas has requested permission to operate four more flights there, which if granted by Australia's International Air Services Commission would mean that Qantas accounted for 33 of the 36 frequencies allowed on the Hong Kong-Australian sector.

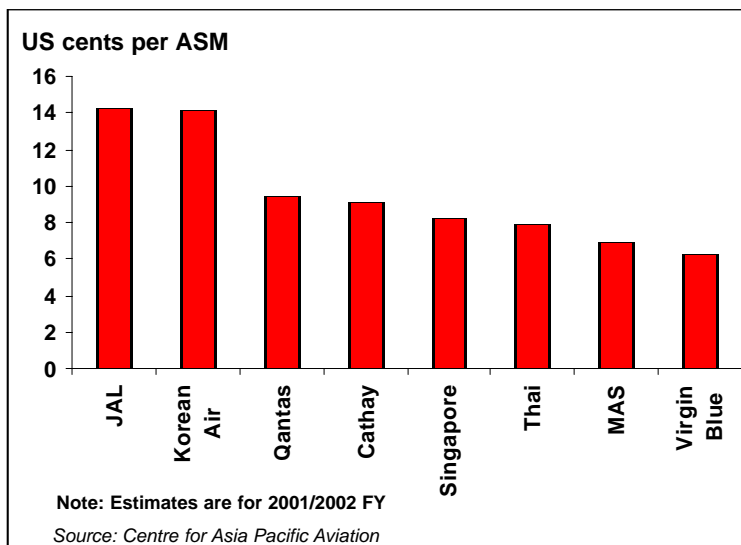
Virgin Blue reacted to the announcement in November that Qantas was going to buy 22.5% stake in Air New Zealand for NZ\$550m (US\$270m) by complaining to the New Zealand government about the monopolisation of New Zealand and trans-Tasman markets. It then suggested that it might be interested in buying Air New Zealand's LCC subsidiary Freedom Air.

Indeed, there are signs that Virgin Blue



is started to get obsessed with Qantas an echo of Virgin Atlantic's relationship with BA. Despite gaining a strong hold in the Australian market, Virgin Blue seems to be attacking Qantas with all the legal and regulatory means at its disposal (such as by pressing the Australian Competition and Consumer Commission to release its report into alleged predatory practices on the Adelaide-Brisbane route) - perhaps echoing Virgin Atlantic's obsession with British Airways in the 1990s. And the more that Virgin Blue gets concerned about everything that Qantas does, the more likely is to forget its original LCC mantra.

International expansion will be challenging. As most international routes would not



work with a low-cost, no-frills model, they are likely to be operated by a subsidiary of Virgin Blue (raising the improbable spectacle of an LCC having a "high-cost" subsidiary) or by a separate company altogether, possibly under the name Virgin Pacific (according to David Huttner, commercial head at Virgin Blue).

In the short term the setting up of even a separate international airline would seriously distract the Virgin Blue management team. And anyway, could an international start-up really be kept at arms length from Virgin Blue in operational terms? "Virgin Pacific" flights out of major Australian airports would surely use the staff and facilities of Virgin Blue - or would a completely new infrastructure be set up at Australian airports to serve Virgin Pacific only?

Fleet decisions

And then there is the problem of aircraft. Virgin Blue has a fleet of 29 737s fleet, most of which are on operating leases (see table, below). One further leased aircraft will arrive in the first quarter of 2003, but the airline has been contemplating an order for up to 40 narrowbody aircraft for several months. The order was supposed to have been placed in the summer, but is now expected to be made before the end of 2002. But a 40-strong aircraft order would only occur if Virgin Blue decided to switch manufacturers, replacing 737s with a combination of A319s, A320s and A321s. If it sticks with 737s a smaller order would be more likely, an order for ten 737-900Xs has recently been mooted.

But other than for the shortest routes,

VIRGIN BLUE FLEET		
	Fleet	Orders
737-300	1	
737-400	1	
737-700	17	2
737-800	10	
TOTAL	29	2

international expansion will necessitate a completely new type of aircraft - larger, and with a greater range. This would mean either another order from Virgin Blue, to follow on from a narrowbody order, or else the airline will announce a single order for both types at the same time. Airbus is hoping that this requirement will encourage Virgin Blue to order A320s for Virgin Blue and A330s for Virgin Pacific, types that offer substantial commonality. Against this has to be set the costs of switching to a new narrowbody type, although it is assumed Airbus will again price its aircraft extremely cheap in order to score another surprise victory against Boeing. It may be a close decision, but some analysts believe that Virgin executives are talking up Airbus's chances in order to get the best deal possible from Boeing, who they intend to stick with anyway.

A complicating factor, however, is Virgin Blue's apparent plans to significantly expand its cargo capability - a move that may have "suggested" by logistics owner Patrick, but one that yet again is largely incompatible with a LCC strategy, this time due to longer loading and unloading times for aircraft with significant amounts of freight. But if Virgin Blue is serious about winning much more revenue from flying cargo, that could impact upon the aircraft type choice, as A320s can be palletised - unlike 737s, which are relatively more cargo-unfriendly.

But even without the strategic distraction of international routes and cargo expansion, Virgin Blue's unit costs may be rising anyway. Virgin Blue has been moved into a number of airport terminal previously used by Ansett - newer terminals with better facilities and which are more convenient for passengers, but which are inevitably slightly more expensive. For example, after resolving a long-running legal dispute with Sydney Airports Corporation, the operator of Sydney airport, Virgin Blue will move to Terminal 2, the facility formerly used by Ansett there. The airport deal signed is for 17 years.

Despite denials, Virgin Blue may also be contemplating joining a global aviation alliance - a move that yet again is likely to increase costs. Virgin Blue is codesharing with United on Brisbane-Sydney, to be fol-

lowed by codesharing on 12 other domestic routes, all out of Sydney or Melbourne. This was perhaps more important to United than Virgin Blue, given that United's Star Alliance lost its local partner when Ansett collapsed earlier in 2002, leaving oneworld as the only global alliance to have a presence in Australia, via Qantas. Virgin Blue claims it is not interested in joining the Star Alliance, although it did hold informal talks with Star member Air New Zealand at the beginning of 2002 (although they came to nothing). Singapore Airlines, a major shareholder in Virgin Atlantic, is also in the Star Alliance.

The future

Ambitious international expansion plans, the move into cargo and a blinkered goal of 50% domestic market share are simply incompatible with remaining a low cost air-

line.

Over all this looms the shadow of the IPO, which - Virgin Blue's owners apparently believe - becomes much sexier if Virgin Blue says its will challenge Qantas both domestically and internationally, hence dangling the promise of fat shareholder returns for years to come. Branson famously tore up a cheque from Air New Zealand of A\$250 million for Virgin Blue in 2001. That proved to be a good decision, but going for an IPO and changing strategy in order to get the IPO away may prove a gamble too far for the Virgin Group.

The alternative - sticking with a core LCC business model that has proven effective, thus cementing Virgin Blue as a substantial niche player in the Australian market for years to come - may be simply too mundane for Branson and the bankers that advise him.

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Jet values and lease rates

The following tables reflect the current values (not "fair market") and lease rates for narrowbody and widebody jets. The figures are from The Aircraft Value Analysis Company (contact details

opposite). The values shown are not solely based on current market averages, but also such factors as remarketing value, number in service, number on order and backlog, projected life span, etc.

NARROWBODY VALUES (US \$m)									
	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A318	29.3				717-200	22.3			
A319 (IGW)	34.1	26.4			727-200Adv				1.5
A320-200 (IGW)	40.3	31.7	23.1		737-200Adv				2.6
A321-200 (LGW)	46.7	36.7			737-300 (LGW)		18.8	15.2	
					737-400 (LGW)		18.4	15.3	
					737-500		16.0	11.6	
					737-600	29.9			
					737-700	34.3			
					737-800	42.8			
					737-900	42.9			
					757-200	37.6	30.0	22.5	
					757-200ER	41.8	33.2	24.6	
					757-300	53.6			
					MD-82		13.8	11.6	7.3
					MD-83		15.6	12.9	
					MD-88		16.4	13.4	
					MD-90		18.2		
WIDEBODY VALUES (US \$m)									
	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A300B4-200				6.0	747-200B				10.3
A300B4-600			19.2		747-400	127.9	97.1	66.2	
A300B4-600R (HGW)		43.1	31.2		767-200			20.4	9.9
A310-300 (IGW)		26.4	36.8		767-300		47.0	33.0	
A330-200	92.4				767-300ER (LGW)	72.9	56.4	39.8	
A330-300 (IGW)	88.6	69.2			767-400	80.4			
A340-200		60.9			777-200	99.2	76.4		
A340-300 (LGW)	96.3	75.5			777-200ER	115.8	93.3		
A340-300ER	103.5	81.5			777-300	120.5			
A340-500	118.6								
A340-600	126.8								
					DC-10-30				9.0
					DC-10-40				3.0
					MD-11P		49.4	37.0	

Note: as assessed at end Oct 2002, mid-range values for all types.
Source: AVAC

Aviation Strategy

Lease trends

NARROWBODY LEASE RATES (US \$000s per month)

	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A318	226				717-200	178			
A319 (IGW)	260	220			727-200Adv				52
A320-200 (IGW)	275	243	215		737-200Adv				50
A321-200 (LGW)	351	294			737-300 (LGW)	150	132		
					737-400 (LGW)	149	134		
					737-500	137	124		
					737-600	194			
					737-700	248			
					737-800	304			
					737-900	301			
					757-200	233	219	199	
					757-200ER	267	242	209	
					757-300	303			
					MD-82		139	124	93
					MD-83		150	130	
					MD-88		154	133	
					MD-90		148		

WIDEBODY LEASE RATES (US \$000s per month)

	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A300B4-200				107	747-200B				161
A300B4-600			237		747-400	889	739	587	
A300B4-600R (HGW)		322	287		767-200			193	119
A310-300 (IGW)		216	243		767-300		337	286	
A330-200	615				767-300ER (LGW)	470	416	358	
A330-300 (IGW)	613				767-400	568			
A340-200		480			777-200	679	572		
A340-300 (LGW)	681	572			777-200ER	779	677		
A340-300ER	732	596			777-300	821			
A340-500	830								
A340-600	901								
					DC-10-30				142
					DC-10-40				75
					MD-11P		488	398	

*Note: as assessed at end Oct 2002, mid-range values for all types.
Source: AVAC*

AIRCRAFT AND ASSET VALUATIONS

Contact Paul Leighton at AVAC (Aircraft Value Analysis Company)

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Aviation Strategy

Databases

	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 2000	2,177	2,198	-20.6	-70	-0.9%	-3.2%	27,834	19,277	69.3%	13,512	9,940
Jul-Sep 01	583.4	570.6	12.8	25.3	2.2%	4.3%	7,536	5,351	71.0%	3,741	10,826
Oct-Dec 01	462.2	558.6	-96.4	-36.4	-20.9%	-7.9%	6,622	4,389	66.4%	3,025	10,500
Year 2001	2,141	2,263	-121.8	-39.5	-5.7%	-1.8%	28,837	19,712	68.4%	13,668	10,742
Jan-Mar 02	497	548	-51.4	-34.4	-10.3%	-6.9%	7,189	4,791	66.6%	3,193	
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
American											
Year 2000	19,703	18,322	1,381	813	7.0%	4.1%	258,951	187,507	72.4%	86,239	99,610
Jul-Sep 01	4,816	5,374	-558	-414	-11.6%	-8.6%	62,676	45,315	72.3%	20,123	127,200
Oct-Dec 01	3,804	4,952	-1,148	-798	-30.2%	-21.0%	54,907	35,580	64.8%		109,300
Year 2001	18,963	20,823	-1,860	-1,762	-9.8%	-9.3%	161,030	176,143	69.4%	61,287	102,093
Jan-Mar 02	4,136	4,865	-729	-575	-17.6%	-13.9%	64,515	44,766			
Apr-Jun 02	4,479	5,080	-601	-495	-13.4%	-11.1%	70,724	53,125	71.4%		100,100
Jul-Sep 02	4,494	5,815	-1,321	-924	-29.4%	-20.6%	73,899	53,236	72.0%		99,700
America West											
Year 2000	2,344	2,357	-12,637	7,679	-539.1%	327.6%	43,580	30,741	70.5%	19,950	13,869
Jul-Sep 01	491	590	-99	-32	-20.2%	-6.5%	10,774	7,973	74.0%	5,034	13,633
Oct-Dec 01	400	538	-138	-61	-34.5%	-15.3%	9,477	6,492	68.5%	4,144	
Year 2001	2,066	2,380	-316	-148	-15.3%	-7.2%	42,709	30,696	71.9%	19,576	13,827
Jan-Mar 02	460	583	-123	-358	-26.7%	-77.8%	9,780	6,859	70.1%	4,303	
Apr-Jun 02	533	534	-1	-15	-0.2%	-2.8%	11,024	8,351	75.8%	5,080	
Jul-Sep 02	510	552	-42	-32	-8.2%	-6.3%	11,504	8,619	74.9%		
Continental											
Year 2000	9,899	9,170	729	342	7.4%	3.5%	134,718	100,283	74.4%	45,139	45,072
Jul-Sep 01	2,223	2,136	87	3	3.9%	0.1%	35,395	26,086	73.7%	11,254	
Oct-Dec 01	1,738	1,895	-157	-149	-9.0%	-8.6%	29,321	20,554	70.1%	9,508	
Year 2001	8,969	9,119	-150	-95	-1.7%	-1.1%	135,962	98,393	72.4%	44,238	45,166
Jan-Mar 02	1,993	2,180	-187	-166	-9.4%	-8.3%	30,498	22,582	74.0%	10,057	
Apr-Jun 02	2,192	2,307	-115	-139	-5.2%	-6.3%	33,108	24,922	74.6%		
Jul-Sep 02	2,178	2,132	46	-37	2.1%	-1.7%	33,839	25,625	75.0%	10,581	
Delta											
Year 2000	16,741	15,104	1,637	828	9.8%	4.9%	236,665	173,453	73.1%	105,591	79,584
Jul-Sep 01	3,398	3,649	-251	-259	-7.4%	-7.6%	60,719	43,260	71.3%	26,441	83,500
Oct-Dec 01	2,863	3,457	-594	-734	-20.7%	-25.6%	51,460	32,798	63.7%		
Year 2001	13,879	15,124	-1,245	-1,216	-9.0%	-8.8%	237,914	163,693	68.8%	104,943	77,654
Jan-Mar 02	3,103	3,538	-435	-397	-14.0%	-12.8%	54,298	37,384	68.9%	24,618	
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
Northwest											
Year 2000	11,240	10,671	569	256	5.1%	2.3%	171,789	127,298	76.6%	56,836	53,131
Jul-Sep 01	2,594	2,749	-155	19	-6.0%	0.7%	41,871	31,753	75.8%		
Oct-Dec 01	1,985	2,426	-441	-216	-22.2%	-10.9%	33,985	23,620	69.5%		
Year 2001	9,905	10,773	-868	-423	-8.8%	-4.3%	158,284	117,682	74.3%	54,056	50,309
Jan-Mar 02	2,180	2,376	-196	-171	-9.0%	-7.8%	35,022	26,611	76.0%	11,899	
Apr-Jun 02	2,406	2,452	-46	-93	-1.9%	-3.9%	39,848	29,902	78.9%		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
Southwest											
Year 2000	5,650	4,628	1,021	603	18.1%	10.7%	96,463	67,961	70.5%	72,568	28,752
Jul-Sep 01	1,335	1,242	93	151	7.0%	11.3%	26,217	18,121	69.1%	16,208	30,946
Oct-Dec 01	1,238	1,201	37	64	3.0%	5.2%	26,888	17,343	64.5%	14,996	31,580
Year 2001	5,555	4,924	631	511	11.4%	9.2%	105,079	71,604	68.1%	64,447	31,014
Jan-Mar 02	1,257	1,207	49	21	3.9%	1.7%	26,586	16,726	62.9%	14,463	
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	
United											
Year 2000	19,351	18,685	666	96	3.4%	0.5%	282,276	204,188	72.3%	83,853	100,976
Jul-Sep 01	4,107	4,819	-712	-542	-17.3%	-13.2%	69,233	50,610	73.1%	19,815	95,900
Oct-Dec 01	2,949	3,835	-886	-308	-30.0%	-10.4%	56,421	38,140	67.6%	15,450	79,300
Year 2001	16,138	18,481	-2,343	-2,145	-14.5%	-13.3%	265,291	187,701	70.8%	75,457	96,142
Jan-Mar 02	3,288	3,999	-711	-510	-21.6%	-15.5%	55,056	39,761	72.2%	15,361	
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
US Airways											
Year 2000	9,268	9,322	-54	-269	-0.6%	-2.9%	106,999	75,358	70.4%	59,772	45,228
Apr-Jun 01	2,493	2,473	20	-24	0.8%	-1.0%	29,395	21,693	73.8%	16,582	44,673
Jul-Sep 01	1,989	2,739	-750	-766	-37.7%	-38.5%	27,609	19,619	71.1%	14,188	42,723
Oct-Dec 01	1,554	2,101	-547	-906	-35.2%	-58.3%	22,640	14,308	63.2%	11,151	35,232
Year 2001	8,288	9,355	-1,067	-1,969	-12.9%	-23.8%	107,347	73,944	68.9%	56,114	43,846
Jan-Mar 02	1,709	2,079	-370	-269	-21.7%	-15.7%	22,495	15,419	68.5%	11,825	
Apr-Jun 02	1,903	2,078	-175	-248	-9.2%	-13.0%	23,516	17,658	75.1%	13,000	

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

Aviation Strategy

Databases

		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 2000/01	11,148	10,746	402	382	3.6%	3.4%	119,562	93,355	78.1%	42,400	52,310
	Jul-Sep 01	2,959	2,895	64		2.2%		31,738	25,481	79.2%		
	Oct-Dec 01	2,682	2,785	-103	-121	-3.8%	-4.5%	30,070	20,907	70.6%		
	Jan-Mar 02	2,667	2,647	20	1	0.7%	0.0%	29,703	22,925	77.2%		
	Year 2001/02	11,234	11,017	217	141	1.9%	1.3%	123,777	94,828	76.6%		
	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%		
Alitalia	Year 2000	4,968	5,210	-242	-236	-4.9%	-4.8%	57,483	41,433	72.1%	26,700	23,478
	Jan-Jun 01	2,348	2,504	-156	-228	-6.6%	-9.7%	26,437	18,953	71.7%	12,565	24,023
	Jul-Dec 01	2,397	2,503	-106	-590	-4.4%	-24.6%	24,944	17,423	69.8%	12,204	
	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
BA	Year 2000/01	13,700	13,139	561	189	4.1%	1.4%	162,824	116,674	71.7%	44,462	62,844
	Jul-Sep 01	3,219	3,116	103	33	3.2%	1.0%	39,629	29,297	73.9%	11,306	59,902
	Oct-Dec 01	2,616	2,882	-266	-205	-10.2%	-7.8%	35,449	23,106	65.2%	8,574	55,758
	Jan-Mar 02	2,842	2,908	-66	-63	-2.3%	-2.2%	34,998	25,221	72.1%	8,831	
	Year 2001/02	12,138	12,298	-160	-207	-1.3%	-1.7%	151,046	106,270	70.4%	40,004	
	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
Iberia	Apr-Jun 01	1,280	1,207	106	71	8.3%	5.5%	15,003	10,812	72.1%	7,179	
	Jul-Sep 01	1,278	1,225	50	134	3.9%	10.5%	15,941	11,951	75.0%	7,780	
	Oct-Dec 01	1,086	1,118	-143	-88	-13.2%	-8.1%	14,275	9,698	67.9%	6,265	
	Year 2001	4,240	4,236	4	45	0.1%	1.1%	59,014	41,297	70.8%	24,930	
	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	
KLM	Year 2000/01	6,319	6,068	251	70	4.0%	1.1%	75,222	60,047	79.8%	16,100	30,253
	Jul-Sep 01	1,679	1,596	83	24	4.9%	1.4%	19,554	16,049	82.1%		28,911
	Oct-Dec 01	1,291	1,358	-67	-82	-5.2%	-6.4%	17,030	12,483	73.3%		27,738
	Jan-Mar 02	1,302	1,414	-112	-97	-8.6%	-7.5%	16,473	13,215	79.9%		
	Year 2001/02	5,933	6,018	-85	-141	-1.4%	-2.4%	72,228	56,947	78.7%		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
Lufthansa	Year 2000	14,014	12,648	1,366	635	9.7%	4.5%	123,801	92,160	74.4%	47,000	69,523
	Jul-Sep 01	4,188	4,027	161	96	3.8%	2.3%	32,454	24,546	75.6%	12,692	83,447
	Oct-Dec 01	3,437	3,674					28,293	18,854	67.4%	9,873	
	Year 2001	14,966	14,948	18	-530	0.1%	-3.5%	126,400	90,389	71.5%	45,710	87,975
	Jan-Mar 02	3,556	3,513	43	-165	1.2%	-4.6%	26,451	19,409	71.0%	9,700	
	Apr-Jun 02	4,968	4,601	285	138	5.7%	2.8%	30,769	22,835		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
SAS	Year 2000	5,185	4,853	332	233	6.4%	4.5%	33,782	22,647	67.0%	23,240	22,698
	Jul-Sep 01	1,199	1,220	-21	-20	-1.8%	-1.7%	9,629	6,498	67.5%	6,463	30,896
	Oct-Dec 01	1,208	1,316	-108	-108	-8.9%	-8.9%	8,509	5,097	59.9%	5,300	
	Year 2001	4,984	5,093	-109	-103	-2.2%	-2.1%	35,521	22,956	64.6%	23,060	22,656
	Jan-Mar 02	1,392	1,534	-142	-133	-10.2%	-9.6%	8,228	5,229	63.1%	5,091	
	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
Ryanair	Year 2000/01	442	338	104	95	23.5%	21.5%	6,657	4,656	69.9%	7,000	1,476
	Jul-Sep 01	168	105	63	58	37.5%	34.5%	2,355		84.0%	2,900	
	Oct-Dec 01	122	97	25	26	20.5%	21.3%	2,304		79.0%	2,700	
	Jan-Mar 02	220	165	55	50	25.0%	22.7%	2,352				
	Year 2001/02	642	474	168	155	26.2%	24.1%	7,011		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
easyJet	Oct 00-Mar 01	210	225	-15	-15	-7.1%	-7.1%	3,908		80.6%	3,200	
	Apr-Sep 01	314	273	41	41	13.1%	13.1%				3,915	
	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

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

Aviation Strategy

Databases

		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	
	Oct 01-Mar 02											
Year 2001/02	9,714	9,529	185	-76	1.9%	-0.8%	87,908	57,904	64.7%	49,306		
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	
	Jul-Dec 01	1,871	1,897	-26	-86	-1.4%	-4.6%	30,371	21,497	70.8%	5,378	
	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
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	
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%					
	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
Qantas	Year 1999/00	5,710	5,162	548	324	9.6%	5.7%	85,033	64,149	75.4%	20,490	29,217
	Jul-Dec 00	2,745	2,492	224	142	8.2%	5.2%	46,060	35,451	77.0%	11,175	31,382
	Year 2000/01	5,473	5,099	374	223	6.8%	4.1%	92,943	70,540	75.9%	22,150	31,632
	Jul-Dec 01	3,050	2,904	125	84	4.1%	2.8%	48,484	37,262	76.9%	13,335	32,361
Year 2001/02	6,133	5,785	348	232	5.7%	3.8%	95,944	75,134	78.3%	27,128	33,044	
Singapore	Year 2000/01	5,729	4,954	775	892	13.5%	15.6%	92,648	71,118	76.8%	15,000	14,254
	Apr-Sep 01	2,592	2,329	263	90	10.1%	3.5%	48,058	36,091	75.1%		
	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	
	Apr 02-Sep 02	2,278	2,134	144	289	6.3%	12.7%	49,196	37,799	76.8%	7,775	14,252

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

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
Airbus	Nov 11	KLM	6 A330-200s		Apr 05	plus 18 options/converted Lol
	Nov 18	Aeroflot	8 A320s		3Q 03	CFM56-5
	Nov 18	GECAS	4 A320s			To be leased to Aeroflot
Boeing	Nov 14	PIA	3 777-200ER	1.5bn	2004-08	GE90
			2 777-200LR			
			3 777-300ER			

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

MoUs and Lols

Date	Buyer	Order	Price	Delivery	Other information/engines
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Aviation Strategy

Databases

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total Int'l		
	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	LF
	bn	bn	%	bn	bn	%	bn	bn	%	bn	bn	%	bn	bn	%
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74	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	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
Sep-02	17.5	12.6	72	16.0	13.2	82.8	10.9	9.3	85.4	37.8	31.4	82.9	58.2	46.0	79.1
Ann. chng	-9.7%	-1.2%	6.3	-4.8%	9.30%	10.7	-4.3%	2.6%	5.7	-5.7%	2.4%	6.5	-7.2%	1.3%	6.7
Jan-Sep 02	147.9	99.4	67.2	135.6	109.5	80.8	96.2	78.3	81.5	334.8	267.4	79.9	508.2	384.5	75.7
Ann. chng	-12.2%	-7.8%	3.2	-19.5%	-14.5%	4.7	-7.3%	-4.1%	2.7	-12.1%	-9.3%	2.5	-12.3%	-9.0%	2.7

Source: AEA

	Domestic			North Atlantic			Pacific			Latin America			Total Int'l		
	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	LF
	bn	bn	%	bn	bn	%	bn	bn	%	bn	bn	%	bn	bn	%
1994	886.9	575.6	64.9	136.1	99.5	73.0	107.3	78.2	72.9	56.8	35.2	62	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	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	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
Oct-02	83.7	57.2	68.3	14.4	10.9	76.2	9.0	7.0	78.1	6.6	4.0	60.3	30.0	22.0	73.2
Ann. chng	7.5%	13.2%	3.4	12.6%	41.5%	15.5	5.6%	49.6%	23.0	8.6%	24.6%	7.8	9.5%	40.4%	16.1
Jan-Oct 02	827.9	587.9	71	134.4	107.1	79.7	85.5	69.5	81.3	70.5	47.7	67.6	290.5	238.3	77.2
Ann. chng	-5.9%	-4.7%	1.2	-10.3%	-5.7%	3.9	-17.6%	-9.4%	7.4	1.0%	-0.6%	-1.1	-10.2%	-5.9%	3.6

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

	Domestic			International			Total			Domestic growth rate		International growth rate		Total growth rate	
	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	LF	ASK	RPK	ASK	RPK	ASK	RPK
	bn	bn	%	bn	bn	%	bn	bn	%	%	%	%	%	%	%
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

	Old	Old	Total	New	New	Total	Total
	narrowbodies	widebodies	old	narrowbodies	widebodies	new	Total
1997	162	104	266	54	13	67	333
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-Sep	391	157	548	325	125	450	998

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 narrowbodies = 737-300+, 757, A320 types, BAe 146, F100, RJ; New widebodies = 747-300+, 767, 777, A600, A310, A330, A340.

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