

Europe's low-cost carriers - where will it all end?

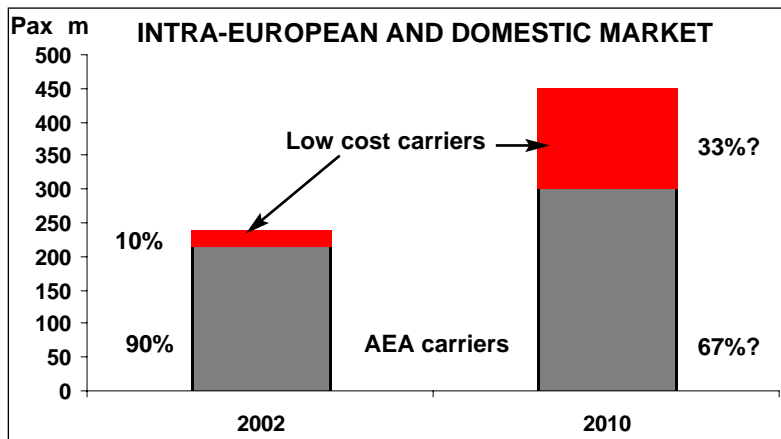
Europe's low-cost carriers are oozing confidence, reporting strong growth rates, record profits, and placing large aircraft orders, while their traditional rivals languish.

Ryanair has just placed an order for 100 737-800s plus 50 options at the lowest unit price ever (\$29.5m, before escalation factors, might not be wild speculation). It now is planning on a fleet of 178 jets and a passenger base of 55m by 2010.

easyJet has yet to decide on the size and composition of its upcoming mega-order, but it will not be eclipsed by Ryanair. Its chief executive, Ray Webster, talks of an eventual 300-unit fleet, and the immense potential for profitable expansion - by taking daily frequencies on London-Edinburgh up from 12 at present to 20 or even 30.

The low-cost carriers continue to push back boundaries and attack markets that were once the sole preserve of the flag-carriers. For instance, easyJet's advertising now promotes its "Hall of Fame", containing the top European companies that now include easyJet in their business travel policy. Ryanair has signalled a modification in its secondary airport strategy by signing up with Rome Ciampino.

They are, however, still running into barriers as they expand their bases in continental Europe. easyJet has been frustrated by its meagre allocation of slots at Paris Orly where it intends to build a hub. The Iberian peninsula remains blocked off to Ryanair because AENA, the Spanish airports authority, for the present, refuses to allow airports to negotiate special deals. Lufthansa is insisting on taking Ryanair to court under arcane German consumer legislation, though in the process is [cont. page 5]



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Forecast updated, not so bad as before

Aviation Strategy has now updated its global traffic and surplus forecast originally made last October.

2001 comes in almost as badly as expected with global RPKs down nearly 5%. This is the worst year ever (the decline in Gulf war-impacted 1991 was 3%).

However, traffic has been recovering. AEA international traffic had declined by an average of 16% between September 11 and the end of January, but the latest total for the last week in January shows a fall of 5% (a note of caution: the AEA numbers are now being complicated by the removal of Sabena from the base data, the transfer of Swissair operations to Crossair, and of course do not include the rapidly expanding low-cost carriers). ATA reported that US system RPMs fell by 14% in December compared to an average decline of around 25% for the period from September 11 to the end of the year. AAPO estimates that Asian carriers' international traffic was down 13% in December as against 22% in the previous month.

Consequently, we now see 2002 as being just marginally negative - having decreased the negative traffic forecast for the first eight months and increased the positive forecast for the last four. Global RPKs are put at -1% against our previous estimate of -5%.

2003 is still the year when traffic rebounds. The recalculated rebound is 14% globally, less

spectacular than the 17% we originally guessed but still very powerful. The assumption behind this forecast is that traffic will revert to the level it would have been at if September 11 had not happened (for the US we modify this assumption to 95% of the level traffic would have been at). For comparison, there was a 9% resurgence in 1992.

At present the recovery in traffic is being driven by greatly reduced yields, the result of both a deteriorating business/economy mix and across the board discounting. The ATA, which is the only industry body to regularly publish such data, estimates that US average fares were down 15% domestically and 14% internationally in December compared to the previous year.

This means that the traffic recovery will not translate quickly into a profits recovery. 2002 will, however, be better than the \$13bn net loss we estimated in the December 2001 issue; it could be much better but only if further deep cost cutting is pursued. As much of the bad news as possible will be dumped into the airlines' 2001 results, and the global loss figure will look horrendous - perhaps a \$14bn net loss (against our recent forecast of \$9bn).

Capacity adjustments in the post-September 11 market have been made rapidly - through parking surplus aircraft and, in Europe, through airline bankruptcies. So load factors have remained relatively stable. The AEA load factor was down just 1% for December and 2.1% for the

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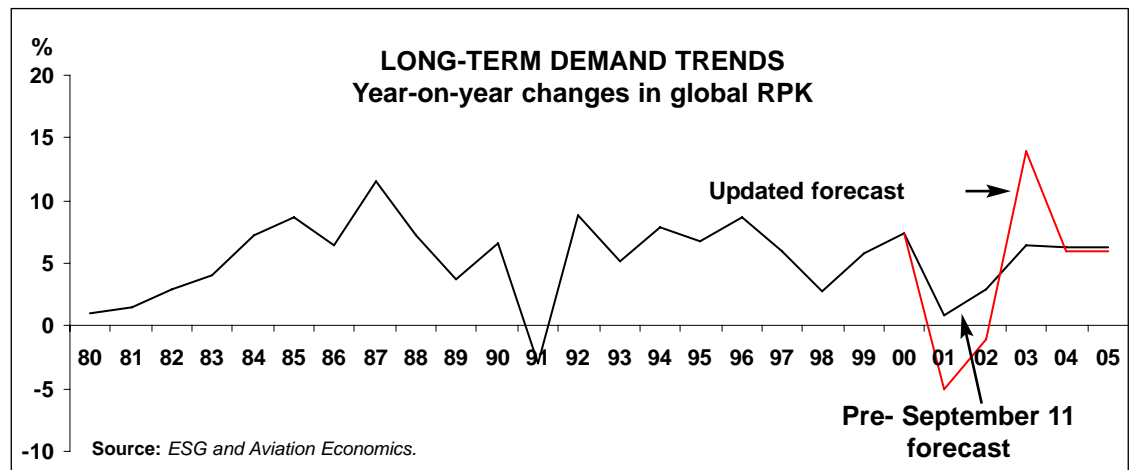
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Analysis

UPDATED TRAFFIC FORECAST Year-on-year changes in global RPK

	US Dom	US Int	US Total	Euro Dom	Euro Int	Euro Total	Asian Dom	Asian Int	Asian Total	World Dom	World Int	World Total
2000	6%	7%	6%	2%	7%	7%	9%	11%	11%	5%	9%	7%
2001	-7%	-8%	-8%	-1%	-7%	-6%	1%	-2%	-1%	-5%	-5%	-5%
2002	-2%	-2%	-2%	2%	-1%	0%	2%	-1%	0%	-1%	-1%	-1%
2003	11%	15%	12%	5%	15%	14%	13%	20%	18%	11%	17%	14%
2004	5%	6%	5%	5%	6%	6%	7%	8%	8%	5%	7%	6%
2005	5%	6%	5%	5%	6%	6%	7%	8%	8%	5%	7%	6%

year, whereas US carriers' load factor was down 2.5% for December and the same for the year.

So the demand/supply balance has adjusted through reduced utilisation plus adjustments in aircraft types, and most importantly parking. Our new estimate of the global aircraft surplus is 11% average for 2001 and 14% average for 2002, which look terrible in comparison to the 9% surpluses experienced in the early 90s.

The October 2001 issue of *Aviation Strategy* explained the methodology behind the surplus assessments. The two main changes incorporated in this update are the new traffic numbers and another assessment of the main manufacturers output this year.

Boeing and Airbus got remarkably close the achieving their output targets last year, although many of the recent deliveries have been parked immediately. For 2002, we are opting for 260 deliveries from Airbus against the 300-plus that it states it will be able to force operators to take. For Boeing, 330 deliveries are in the forecast, again below the officially anticipated output.

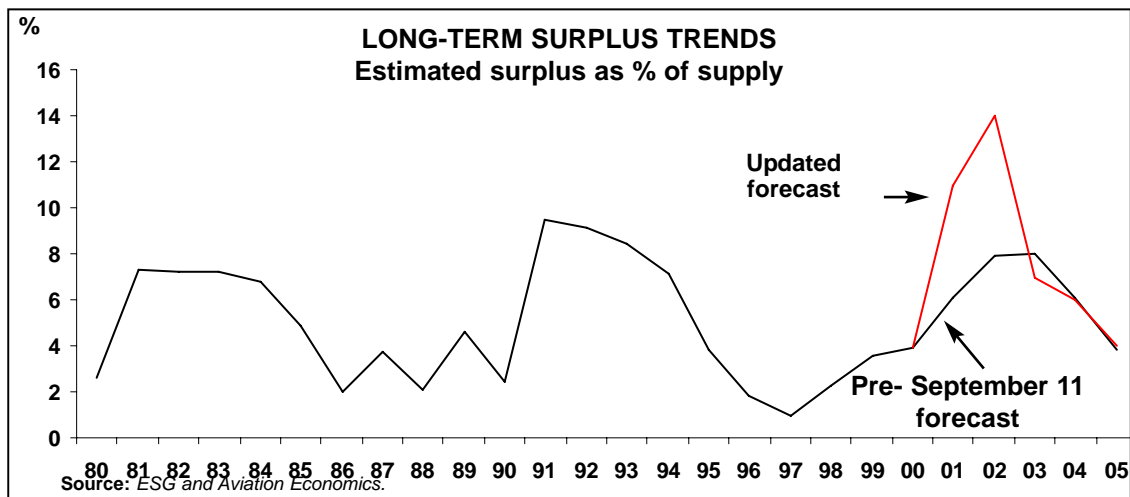
The surplus calculated for 2002 is equivalent to

2,250 jet units, which turns out to be disturbingly close to the total for aircraft now officially parked. According to Acas, there were about 2,100 parked jets as at the end of 2001 - details overleaf.

Could it be that September 11 has caused a one-off restructuring of the market with the problem of the surplus being neatly solved by decommissioning economically obsolete types? That seems almost too good to be true, yet it looks as if about 1,800 of this total are unlikely to re-enter the passenger market in the developed world. The exceptions are the A320 types, the 737NGs plus the 737-400s and the 747-400s.

What then is to be done with the rest? Many are suited for nothing better than recycling into aluminium, and others like the A300s and MD-11s are candidates for freighter conversion, but this still leaves a large number of perfectly serviceable, if somewhat elderly and noisy, types searching for a role.

The obvious place for them to go is where they are needed - in the Third World and Russia. But bureaucratic barriers in the form of import taxes and continuing state protection for inefficient flag-carriers will continue to frustrate.



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PARKED AIRCRAFT END-2001

	727 2/300	737- 4/500	737- NG	A320 fam.	DC- 9	MD- 80	747- 2/300	747- 400	757/ 767	A300 /310	A330 /340	DC- 10	DC- 8	L10 11	MD- 11	Bae 146/ F100	RJs	Oth- er	Total	
United Airlines	75	24					5					1						2	107	
US Airways		59	1	3	11	3										30			107	
GECAS		11	3	4	16	9	8		1	6		6	2			1	8		75	
Federal Express	8						1			7		40			10				66	
Delta Air Lines	14	1								2				32					49	
Iberia	8				25							6							39	
Pegasus Aviation	14	1			5	3	2		4	1		6		2					38	
Boeing Capital Corp					3	11			12	1	2	2			3				34	
American Airlines	19					2			4			3		1	3				32	
Finova Capital Corp	10	1			3	4	1				2	5	1						27	
Emery Worldwide	18													8					26	
ILFC			1	6					6	2	10	1							26	
British Airways							8		12									4	24	
Lufthansa		9	3	2			5			4	1								24	
Avborne Group Inc	22																		22	
Custom Air		5												17					22	
Continental Airlines	1	5		2		5						8							21	
Air Canada		7			7		3	1	2										20	
Air Canada Regional																	19		19	
Okada Air	1													18					19	
Air Lib						4						2					12		18	
Ansett Australia		2							7								9		18	
Northwest Airlines						6	2					9							17	
Republic Financial Corp	13	2			1														16	
Ansett Worldwide		6				2			4	3									15	
Kalitta Air	1						7						2	5					15	
Sabena				11							3								14	
SAS					10												4		14	
Wells Fargo International Air Leases	5	3		2		3	1												14	
Iraqi Airways	3	1											2	7					13	
Kabo Air	6						4											3	13	
Boeing Holding Corp	2						7		2	2									13	
Int. Airline Support Group	1	1					7	2	2										12	
Kendell Airlines					11													12	12	
Debis Airfinance		1								2	3						5		11	
Merpati																	11		11	
Southwest Airlines				11															11	
Airplanes Group		2			1	1				3				3					10	
European Av. Air Charter		4													6				10	
Others (486 owners)	202	129	9	5	29	78	46	91	3	36	46	9	37	74	62	5	70	28	73	1,032
TOTAL	423	274	17	20	55	174	96	147	11	95	74	28	126	92	154	21	161	48	82	2,098

[from page 1] generating some good local publicity for Ryanair.

Ryanair and easyJet are confident about maintaining at least a 25% pa growth over this decade, while the AEA's intra-Europe and domestic traffic growth has traditionally plodded along at 4-5% pa.

The graph on the first page illustrates how these divergent growth trends could change the face of European aviation in the medium term.

Assuming that the low-cost carriers achieve half their growth from stimulating new markets and half from capturing traffic from the incumbents, then their share of the intra European scheduled market will surge from about 10% today to 33% by 2010.

This is noticeably larger stake than the 15-20% of the US domestic market that Southwest and its clones now command (though that share is set to increase substantially in the post-September 11 environment). There are several reasons why the European low-cost carriers might achieve greater penetration.

- There is a wider unit cost differential between European low-cost carriers and the Euro-majors than between Southwest and the US network airlines;
- The European market is much more geared towards point-to-point operations with limited scope for intra-European hubs; and
- The disintegration process for the politically-based European flag-carriers has only

just begun.

For the AEA airlines it is not just a question of losing market share to the low-cost carriers. The probability is that the low-cost airlines will divert ever-increasing numbers of the full service carriers' intra-European point to point passengers whose average yield is usually higher than those of short/long haul connecting passengers. This poses a further threat to the viability of their European operations and to their overall network profitability.

BA, in its "Future Size and Shape" strategic review, says that it will face up to the low cost carrier challenge by emulating their mode of operation on its own short haul network. But because BA is at its core a network carrier with a strong focus of business-orientated long-haul travel, it is difficult to see how it can successfully replicate the key elements of the low-cost model. For example:

- Because of the magnitude of intralining and interlining passengers on its short haul flights, it has to continue to rely on conventional distribution channels and cannot maximise the power of the internet;
- To maintain an overall service image it is obliged to keep frills like free food and FFP schemes on its short-hauls;
- Maximising aircraft utilisation is constrained by the need for connectivity at main hubs;
- Cutting overheads is vital for BA but it cannot get close to the low-costs, whose managers are happy to work in converted hangars.

Boeing and Airbus: 2001 orders

Net order intake almost recorded a dead heat for Boeing and Airbus in 2001. Boeing's firm orders stood at 272 for the year and Airbus's at 274. These figures are well down on 2000 (Airbus's net firm orders were 520, Boeing's 611), hardly a surprise.

Boeing suffered 63 cancellations from gross orders of 335 and delivered 527 aircraft in 2001 (62% of the commercial aviation industry deliveries for the year according to Boeing), it expects a sharp delivery decline to around 380 aircraft for 2002 and worse (between 275 and 300) in 2003. Approximately 80% of the 335 aircraft in its 2001

gross order total are due for delivery in less than three years - "favourable order-to-delivery timing" as Boeing puts it. There are plans to reduce employment from September 2001 until mid-2002 by up to 30,000. As of early January, job losses ran to about 12,000.

In 2001, Airbus delivered 325 aircraft with 101 cancellations, from a gross order total of 375. 90% of the cancelled were due to companies facing bankruptcy: Sabena, Swissair and TWA.

Airbus has warned that new orders would fall sharply this year, but Airbus president and chief executive Noel Forgeard repeated the previous

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forecast that Airbus deliveries could still total about 300 in 2002; there is no official forecast for 2003. There were the equivalent of 6,000 full-time job cuts. This is part of measures to cut costs by up to €750m, in 2002 there will be reductions of €200m each in production, overheads and

research and development.

Boeing chairman and CEO Phil Condit expects 2003 to be the "down year". Airbus thinks that "the logic of the downturn suggests that 2003 might be the lowest point of the cycle."

BOEING FIRM ORDERS 2001							
	717	737	747	757	767	777	Total
Air 2000				4			4
Air Berlin		4					4
Air France			2				2
European total	0	4	2	4	0	0	10
AirTran	3						3
American Airlines		4		1	15		20
Boeing Business Jet		18					18
Continental Airlines				15			15
Northwest Airlines			2	19			21
US Navy		1					1
N. American total	3	23	2	35	15	0	78
Azteca Lineas Aereas		2					2
Lat. American total	0	2	0	0	0	0	2
Air China		6					6
All Nippon Airways					9		9
China Eastern Airlines		4					4
China Southern Airlines		20	2				22
Hainan Airlines		3					3
JAL						3	3
Qantas		15					15
Shanghai Airlines		3					3
Singapore Airlines						13	13
Thai Airways			2				2
Xiamen				2			2
Asian total	0	51	4	2	9	16	82
Emirates					25		25
Oman Air		2					2
Royal Air Maroc		10					10
Afr./M.East total	0	12	0	0	25	0	37
CIT Aerospace		20		1			21
ILFC		6	5				11
Pembroke Capital	2						2
Lessor total	2	26	5	1	0	0	34
Unidentified	1	70	3	2	2	14	91
Gross Total	6	188	16	44	51	30	335
NET TOTAL after changes							272

AIRBUS FIRM ORDERS 2001

	A319	A320	A321	A300-600R	A330	A340	A380	Total
Air France	1		3				10	14
Airtours			4					4
Cyprus Airways	2							2
Finnair		1						1
GB Airways		4	1					5
LTU International			2					2
Lufthansa							15	15
SAS					1			1
Virgin Atlantic							6	6
European Total	3	5	10	0	1	0	31	50
Frontier Airlines	2							2
United Airlines	9	9						18
UPS				58				58
JetBlue		32						32
N.American Total	11	41	0	58	0	0	0	110
Air Caledonie Int'l					2			2
All Nippon Airways		3						3
Air Tahiti Nui						1		1
Dragonair					1			1
EVA Air					2			2
Japan Air System				3				3
Qantas					13		12	25
Silkair		1						1
Singapore Airlines							10	10
Asian Total	0	4	0	3	18	1	22	48
TACA		1						1
TAM Brasil	3	2						5
Govt. of Venezuela	1							1
S.American Total	4	3	0	0	0	0	0	7
Emirates					5		22	27
Kuwait Fin. House		4						4
Royal Air Maroc			4					4
Qatar Airways		1			5			6
Afr./M.East Total	0	5	4	0	10	0	22	41
GECAS	2	2			2			6
ILFC	25	38	17		21	1	10	112
Lessor Total	27	40	17	0	23	1	10	118
Unannounced	1							1
Unannounced Total	1	0	0	0	0	0	0	1
GROSS TOTAL	46	98	31	61	52	2	85	375
NET TOTAL after changes								274

US industry outlook has brightened

Despite continued heavy financial losses, the outlook for US major airlines has brightened. While existing bank credit facilities and the government cash grants averted the initial post-September 11 cash crunch, aggressive capacity cuts, cost reductions and success in raising modest amounts of secured debt or equity have given the carriers more than adequate liquidity for the near term. With the possible exception of United (which may face labour troubles), the industry seems well positioned to take advantage of economic recovery in the coming months.

However, the dismal financial results released in recent weeks indicate that there is a long way to go. The nine major airlines posted an aggregate net loss of \$3.2bn for the fourth quarter - the largest loss since the \$3.6bn recorded in the fourth quarter of 1990. This brought the annual net loss to \$7.3bn, which contrasts with a \$2.6bn net profit earned in 2000.

Only Southwest was profitable in the fourth quarter and in 2001, though Continental stood apart from the network carriers for its relatively modest \$149m and \$95m net losses in those periods - the result of successful capacity management and cost controls. Alaska Airlines also escaped the worst effects because of its high leisure traffic content and West Coast focus. While low-fare and regional airlines generally performed better than the majors, only two - Atlantic Coast and Mesa - were profitable in the fourth quarter.

The losses would have been much worse without the benefit of significantly lower fuel prices. The major airlines typically paid 25-33% less for fuel in the fourth quarter.

The industry faces further significant losses in the current (seasonally weak) quarter. The latest estimate from Merrill Lynch analyst Michael Linenberg is an aggregate net loss of \$2.1bn for the major airlines in the first quarter.

Unlike the fluctuations experienced in

some other parts of the world, the post-September 11 recovery trends in industry fundamentals have been slow but remarkably steady in the US. Based on the month-to-month sequential improvements in traffic, load factors and unit revenues, as well as continued strict cost controls, most of the airlines now expect to start generating cash at some point during this spring or summer.

Continental is expected to lead the way, posting net profits for March and for the second quarter (after burning through \$3-4m of cash daily in January-February). US Airways, which has already more than halved its daily cash burn to \$3m from \$7m in the fourth quarter, expects to turn cash positive for April and the second quarter. Among the largest carriers, American hopes to start generating cash in the second or third quarter and Delta sometime in the second half of the year.

Of course, the major carriers are still expected to post losses for 2002 as a whole. But a solid financial recovery in 2003 now seems more likely than it did a couple of months ago.

While the current recovery trends in industry fundamentals seem well-established, airlines advise caution of the many unknowns. What happens if there are further adverse developments or if economic recovery falters? What will be the full extent of the increase in security and insurance costs, and to what extent will lower fuel prices offset those costs?

Traffic and load factor trends

While demand may well take a full year to recover to pre-September 11 levels, in the US this has been less of an issue than in other parts of the world because of the sharp capacity cuts implemented by airlines. In the fourth quarter, industry capacity (ASMs) fell by 13.9% and traffic (RPMs) by 18.8%, resulting in a 4.1-point decline in passenger

load factor to 66.2%.

However, over the past month or two demand appears to have stabilised. Many airlines reported a surge in total bookings and load factors over the year-end holiday period, and Continental actually experienced a year-over-year load factor improvement in December. January saw a 0.6-point increase in the industry's domestic load factor to 63% - the first monthly year-over-year improvement since the terrorist attacks.

For most airlines, load factors are currently running slightly above last year's levels. Exceptions include Southwest, whose load factors are still several points below last year's - Southwest did not reduce capacity after the terrorist attacks. Also, US Airways will take a little longer to close the gap as it has arguably been hit harder by the slump than any other carrier - its heavy East Coast exposure, focus on short haul, the closure and gradual opening of Washington National and loss of passengers to competitors' regional jets are all to blame.

Several airlines reported that recovery in international markets is lagging behind domestic recovery. American, for example, disclosed that its international load factors are still four points down whereas domestic load factors are three points above last year's levels.

Yield recovery prospects

The biggest problems in the US have been extremely depressed yields and unit revenues, reflecting both aggressive discounting and a sharp fall in business passengers using full fares. Before September 11, unit revenues were already down in double-digits due to economic downturn, so the dramatic fall precipitated by the terrorist attacks added to already depressed levels.

In the fourth quarter, yields typically fell by 15-18% and unit revenues by 17-21%. While Alaska and Northwest escaped with much lesser declines, United was hit espe-

OPERATING REVENUES (\$ millions)

	4Q00	4Q01	Change	2000	2001	Change
AMR Corp	4,859	3,804	(21.7)	19,703	18,963	(3.8)
UAL Corp	4,792	2,949	(38.5)	19,352	16,138	(16.6)
Delta Air Lines	4,016	2,863	(28.7)	16,741	13,879	(17.1)
Northwest AL	2,705	1,985	(26.6)	11,240	9,905	(11.9)
Continental AL	2,429	1,738	(28.4)	9,899	8,969	(9.4)
US Airways Group	2,356	1,565	(33.6)	9,269	8,288	(10.6)
Southwest AL	1,467	1,238	(15.7)	5,650	5,555	(1.7)
America West Hldgs	573	400	(30.2)	2,344	2,066	(11.9)
Alaska Air Group	532	462	(13.2)	2,177	2,141	(1.7)
TOTAL	23,729	17,004	(28.3)	96,375	85,904	(10.9)

NET RESULTS (\$ millions)

	4Q00	4Q01	00	01
AMR Corp	47	(798)	813	(1,762)
UAL Corp	(71)	(308)	50	(2,145)
Delta Air Lines	18	(734)	828	(1,216)
Northwest AL	(69)	(216)	256	(423)
Continental AL	44	(149)	342	(95)
US Airways Group	(101)	(1,008)	(269)	(1,969)
Southwest AL	155	64	603	511
America West Hldgs	(42)	(61)	8	(148)
Alaska Air Group	(29)	(36)	(70)	(40)
TOTAL	(48)	(3,246)	2,561	(7,287)

cially hard because of its high business traffic content (including a strong presence in international business markets like London and Tokyo), as well as uncertainty on the labour front.

The recovery trend in industry unit revenues has been gradual and steady, with the decline in domestic RASM tapering off from 30% in September to 24% in October, 19% in November and 16.5% in December. However, this trend was expected to come to a halt temporarily in the seasonally weak month of January (figures were not yet available at press time).

One of the key issues in 2002 is how quickly and to what extent business travel will recover. None of the airlines have detected any sign of recovery, based on discussions with their corporate customers, but most believe that, as always in the past, business travel will pick up when the econo-

my strengthens.

Analysts like UBS Warburg's Sam Buttrick have argued in recent months that business travel may actually never recover to the earlier levels, because business fares have risen by 15% in the past 18 months and are no longer considered value for money. Buttrick suggests that a substantial reduction in fares might be necessary to get business customers flying again.

However, the airlines have refuted such arguments, pointing out that the main problem is that domestic business travellers are now finding access to extremely low fares (rather than not flying at all). United, for example, reports that its business mix in November and December was very similar to those in the previous two years, but the yield was down by 20%.

Southwest has reported that its current full fare passenger mix of 35%, which is down from a peak of low-40s in 2000, is actually very similar to the one in the early 1990s recession. Since its load factors are still depressed, the airline plans to continue discounting "very aggressively" for the foreseeable future.

By contrast, the network carriers, whose load factors have already recovered (on sharply lower capacity levels), are clearly hoping that they might be able to start raising fares from the current 12-year lows once the economy and demand growth pick up.

Will capacity come back?

One particularly critical issue this year, affecting US airlines' ability to raise fares, is whether or not the sharp post-September 11 capacity cuts will be restored. Initially, airlines like American went out of their way to stress the importance of everyone keeping capacity cuts in place. After all, if one airline adds capacity, others will have to follow suit so as not to lose market share. However, American is now one of several carriers that have already added back capacity or announced plans to do so this spring.

All indications point to capacity being added back in an extremely cautious fashion. American, which began adding flights at

its main hubs and key cities in early February, says that the strategy is to "gradually and thoughtfully restore capacity as demand increases" so as not to cede share in key markets to key competitors. The airline still expects its capacity to decline by 7% in 2002.

United has decided to restore 127 daily flights in key markets in April for the same reason. It may have serious labour and cost problems, but it also has a great network and does not want to lose market share to competitors.

Southwest took the first two of its previously deferred 737-700s in early February and will take four more in March-April, to cautiously resume growth in key East Coast markets. The airline says that it will remain extremely conservative until there is more clarity in the earnings picture. Based on the current schedule to take 11 new aircraft in 2002, this year's capacity growth would be only 3.5-4% and no new cities would be added. However, there is flexibility to take up to 19 new aircraft this year, and Southwest has been hinting recently that it is likely to pass the 11 aircraft mark.

The network carriers' cutbacks, including the elimination of MetroJet and halving of Delta Express' operations, have given Southwest many exciting growth opportunities. However, the airline believes that there is no long-term strategic advantage to be gained by rushing into those markets before profitability is assured. As CFO Gary Kelly expressed it, "we think that those opportunities will be there for us later, as opposed to having to make those decisions right now".

US Airways, of course, is contracting in size quite dramatically, reducing its mainline fleet from the pre-attack 417 to 306 by this spring. The airline expects its capacity to decline by 10-12% this year. There will be no mainline growth for several years, as the airline has deferred all of its 2003 and 2004 aircraft deliveries and will take only three aircraft in 2005.

Significantly, US Airways took its 23% capacity cut as an opportunity to implement substantial permanent structural changes to its network, which, it hopes, will improve future earnings performance. The move

involved eliminating unprofitable flying and focusing efforts on East Coast hubs and key cities.

There are several reasons why the post-September 11 capacity cuts are unlikely to be restored in the near term. First, the extensive fleet retirements involved typically old aircraft, which are extremely unlikely to be brought back. Second, many of the airlines took the drastic capacity cuts as an opportunity to simplify their fleets by retiring entire fleet types, thus achieving more meaningful cost savings.

Over the past year, American has shed five aircraft types from its fleet - DC-10s, MD-11s, MD-90s, MD-87s and DC-9s - and will retire its remaining 727s and return TWA's 717s in the second quarter. United has retired two fleet types early, while US Airways will have shed four by this spring - DC-9s, 737-200s, MD-80s and Fokker 100s.

Whatever capacity is restored will be done mainly through increased utilization and planned new aircraft deliveries. However, US airlines have also drastically scaled back this year's aircraft purchases. Of the largest carriers, American is taking only nine of the 45 aircraft that had been scheduled prior to September 11, while United is taking just 24 of the 67 aircraft that it previously expected to receive in 2002-2003.

At the same time, the major airlines are increasingly using their lower-cost regional partners to help rebuild service. In recent months United has used its partners' regional jets extensively to replace mainline narrowbody aircraft, to rightsize operations in

UNIT REVENUES (Cents per ASM)

	4Q00	4Q01	Change	00	01	Change
American AL	10.23	8.07	(21.1)	10.18	9.22	(9.4)
UAL Corp	10.91	8.35	(23.5)	11.02	9.76	(11.4)
Delta Air Lines	10.43	8.38	(19.7)	10.80	9.39	(13.0)
Northwest AL	9.74	8.36	(14.2)	10.01	9.17	(8.4)
Continental AL	10.50	8.71	(17.0)	10.67	9.78	(8.3)
US Airways Group	12.06	9.56	(20.7)	12.51	10.92	(12.7)
Southwest AL	9.35	7.41	(20.7)	9.43	8.51	(9.8)
America West Hldgs	8.13	6.64	(18.3)	8.45	7.61	(9.9)
Alaska Air Group	9.80	9.26	(5.5)	10.10	9.77	(3.3)

PAX YIELD (Cents per RPM)

	4Q00	4Q01	Change	00	01	Change
American AL	14.67	12.46	(15.1)	14.06	13.28	(5.5)
UAL Corp	13.16	10.48	(20.4)	13.25	11.74	(11.4)
Delta Air Lines	14.14	12.14	(14.1)	13.86	12.74	(8.1)
Northwest AL	12.01	10.76	(10.4)	12.04	11.24	(6.6)
Continental AL	13.44	11.25	(16.3)	13.20	12.42	(5.9)
US Airways Group	15.90	13.46	(15.3)	16.28	14.32	(12.0)
Southwest AL	13.12	11.12	(15.2)	12.95	12.09	(6.6)
America West Hldgs	11.41	9.38	(17.8)	11.40	10.18	(10.7)
Alaska Air Group	13.67	12.67	(7.3)	13.50	13.13	(2.7)

markets where demand has declined. A similar trend is evident at Delta and American. Most recently, American, having greatly expanded Eagle operations at Raleigh/Durham, announced that it would also bring RJs to the West Coast in the current quarter. US Airways is now pinning its longer-term survival hopes on securing pilot approval for its regional partners to operate large numbers of RJs.

By Heini Nuutinen

AVIATION STRATEGY ONLINE

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SAS: its latest reinvention

One of the handful of truly multinational carriers, SAS is the pooled consortium of the national airlines of Sweden (government-owned ABA and Wallenberg-controlled SILA), Denmark (DDL) and Norway (DNL). Established in the 1950s, the national carriers retained the legal entities and route rights of their home nations and operational capacity was derogated to a consortium.

This multinational carrier was created simply because none of the four were large enough to develop and maintain international flights sufficient for the Scandinavian region. Each of the national stakes in the consortium were 50% held by the respective governments, thus legally ensuring the nationality ownership requirements under relevant bilateral agreements. Under this agreement SAS was required to maintain national involvement within the airline to the proportions of parent company ownership - 2/7ths of the aircraft, personnel etc had to be Danish, 2/7ths Norwegian and 3/7ths Swedish. A secondary consortium, SAS Commuter was established in the 1980s.

SAS's main operations base is at the Copenhagen hub of Kastrup, with subsidiary bases in Stockholm's Arlanda and Oslo's (new) Gardemoen airport. It dominates domestic flights within the extended Scandinavian area,

SAS FLEET			
	SAS	Air Botnia	Spanair
737-600	30		
737-700	6		
737-800	17 (6)		
767-300EREM	12		3
A320			3
A321	3 (9)		3
A330	(4)		
A340	4 (3)		
MD80	64		37
MD90	8		
DC9	10		
F28	4		
146-RJ85		5	
TOTAL	158 (22)	5	46

Note: Orders in brackets.

and operates a significant number of intra-European international flights.

Intercontinental exposure is limited - despite being excellently placed to provide long-haul polar connections through Copenhagen, SAS has never persuaded the traveller (who tends not to look at polar map projections) that journey times are shorter by going north in order to go east or west. As a result, only 5% of passengers and 6.5% of revenues come from long-haul operations.

SAS is primarily a business airline, carrying the highest proportion of business traffic among its major European competitors. It was one of the main pioneers of short-haul business class - and undoubtedly will be in the forefront of the next stage of branding development.

Thanks to the regional geography (particularly in Norway) and the requirement to fly commuter legs, SAS has one of the shortest average stage length of any major flag carrier (only 500km). This creates significant difficulties for any analysis of competitive position compared to the other European flag-carriers. Unavoidably, though, it has a high unit cost base and needs a high yield just to break even.

Business cycle decisions

SAS has been remarkably closely linked to the business cycle. In each of the last three cycles it has had to reinvent itself - and ironically for SAS, each cyclical downturn in the industry has come just after a decision to expand. In the early 1980s, under the tutelage of Jan Carlsson, the group restructured, setting up separate business units for its trading, hotel, leisure and other businesses. It took stakes in Continental (before its last Chapter 11 bankruptcy) and Lan Chile in an attempt to develop a global network - a move anticipating industry consolidation by a decade.

At the height of the cycle it managed to get involved with a disastrous acquisition of Intercontinental Hotels. In the 1990s SAS dis-

posed of its leisure interests and stakes in Continental, Lan Chile, Intercontinental and Diners Club Nordic. In their place it signed-up with Lufthansa and the Star Alliance, in effect admitting that its role was that of a regional player, albeit a quality-service regional.

Corporate changes

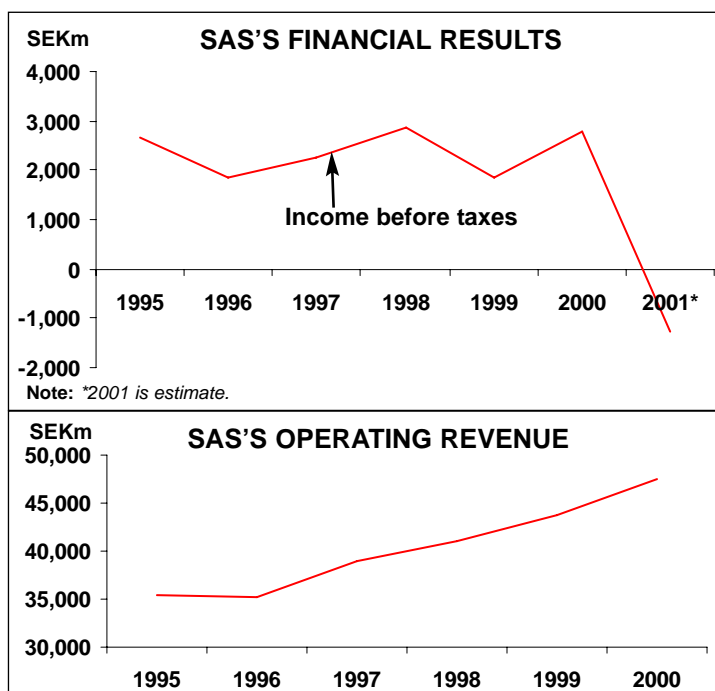
After more than two decades of discussion, 2001 was marked by agreement from the three Governments to consolidate SAS's capital structure. In June, the company reincorporated under SAS AB, resident in Sweden, with a single share structure. Each of the holding companies' shares were transferred into the new structure.

The capital markets could finally look at the shares as a single quote and single market capitalisation. SAS had been regarded as a "small market capitalisation" stock in the Swedish, Norwegian and Danish markets, and analysts found it hard to present more than one set of data for one of the shares in one of the markets. In its new structure, SAS is seen as a group with a market capitalisation worthy of attention by most major fund managers. It has a greater level of international investor interest, a positive share re-rating and a lower effective cost of capital. For the first time, the SAS Group's stock is transparent, shareholder- and market- friendly.

Fleet renewal

The group is in the process of its largest ever fleet re-equipment programme, which will result in a 50% increase in capacity over six years. Current outstanding orders account for a spending requirement of US\$1.5bn. After operating DC-9s and MD-80s on short-haul routes for many years it has ordered New Generation 737s as replacements. Since 1998 it has taken 53 of the aircraft, gradually disposing of its DC-9s. However, by end of January 2002, it still had 10 DC-9s (all sold and leased-back many years ago) and 64 MD-80s.

Last year, SAS surprised the markets by ordering 12 A321s for use in higher density and leisure routes, and 10 A330/A340s (with seven options) to replace its ageing B-767s. Four A340s were delivered in the latter half of last



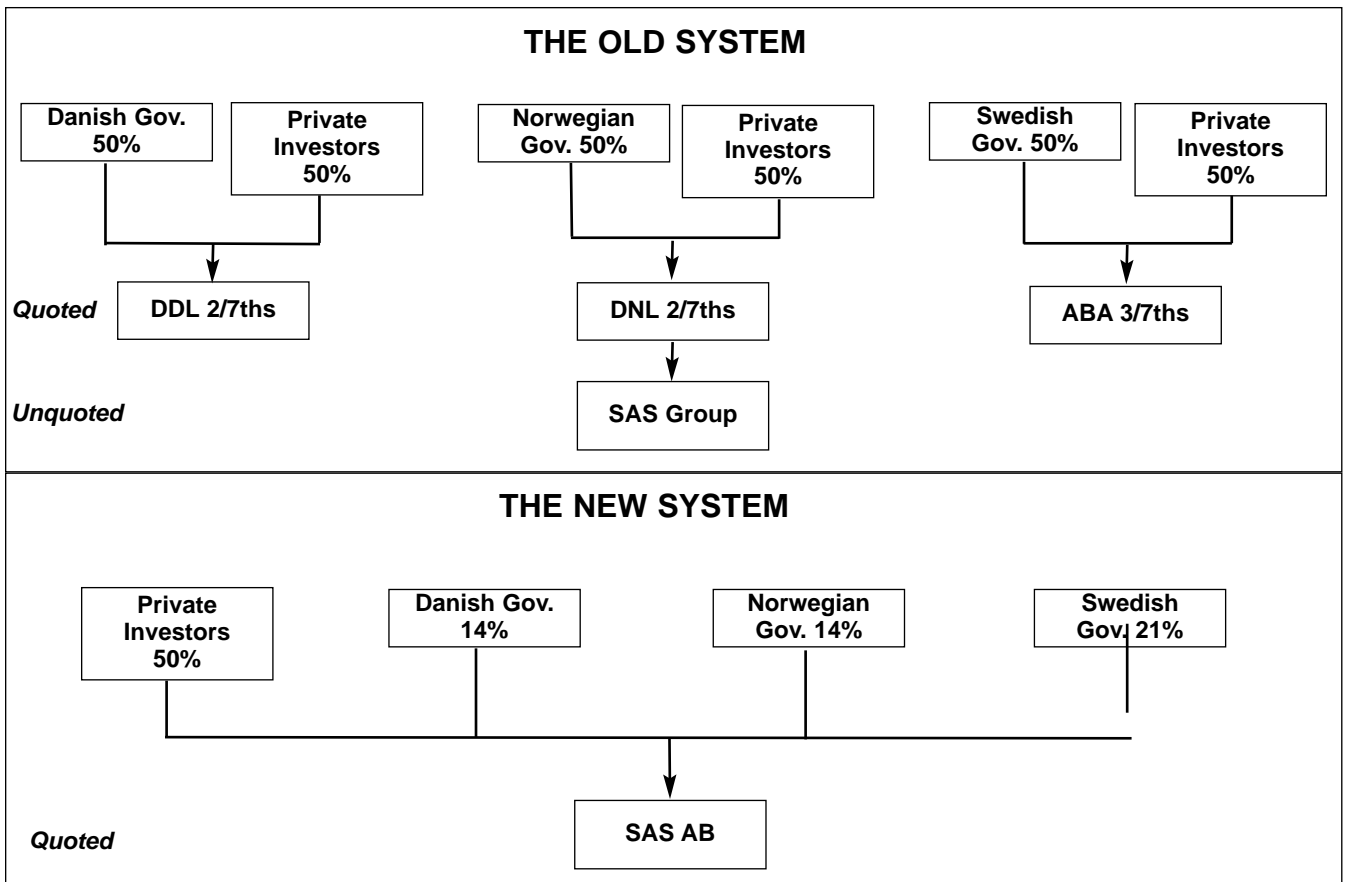
year and it wet leased an A330-200 from affiliate British Midland early last year. These new aircraft will add significantly to long-haul seat capacity - but also to operational efficiency. If SAS takes the full consignment, long-haul capacity will rise by around 45% overall - resulting from higher seat capacity and better range. SAS rationalised its decision by saying that it currently only maintains a 25% market share of long-haul operations into and out of Scandinavia and has been operating long-haul flights on very high load factors.

Following September 11, SAS has been negotiating for a delivery rate slowdown. It recently announced a year's delivery delay on nine A321s and four 737s. It is also likely to accelerate the disposal of its remaining DC-9s, 767s and Fokkers.

Although the new equipment has common cockpit configuration, the fleet renewal programme has created the massive logistical problem of retraining - a long-lasting problem.

Consolidation strategy

After the aborted Alcazar merger project (between SAS, Swissair, KLM and Austrian) and failed plans to lead a global carrier system, SAS signed a joint venture agreement with partner Lufthansa for all services between



Germany and Scandinavia. At the same time, it became one of the founder members of the Star Alliance. Having many years ago taken a 40% stake in British Midland, SAS then sold half of its BMI stake to Lufthansa two years ago, and BMI agreed to join the Star Alliance. Since then, the Star Alliance has had a real opportunity to build a presence at two major European hubs (Heathrow and Frankfurt airports). It now has the opportunity to challenge British Airways' stranglehold at Heathrow - through the combined power of the slots held by SAS, United, BMI and Lufthansa it can claim a position at LHR similar to the one that American enjoys at Chicago O'Hare against United.

SAS has been busy ensuring that it retains control in Scandinavia. It has control of Air Botnia in Finland to counter the Finnair attack into its home territory; Air Baltic to take feeder control to and from the emerging Baltic States; CimberAir in Denmark to control Danish domestic traffic; Wideroe for services

to and from Greenland (still Danish although outside the EU) and finally co-operation between SAS and Skyways has been approved by the Swedish competition authority. Already in partnership for five years, there has been clarification of codeshare and flight schedule adjustments that have satisfied the Swedish authority's scrutiny and monopoly concerns.

A significant move was the purchase of a majority stake in Spanair in 2001. (SAS helped establish Spanair when it was part of its leisure portfolio). SAS now owns 74% overall, with the possibility that Lufthansa might take a stake à la BMI. Already acting as a partner for several Star Alliance members, Spanair is likely to become a full member of the alliance in the next few months. Spanair has dropped its long-haul operations, though it has implemented some new code-sharing arrangements with, for example, Aerolineas to Buenos Aires. In time, this carrier might be able to provide the low cost fill-in service throughout Europe to the

Star Alliance (through wet lease or own operation) that is needed.

Finally, last year SAS gained authority approval to take over long-standing competitor Braathens in Norway (previously aligned with KLM). As a result it should now have a near-monopoly over Norwegian domestic flights.

This all-devouring consolidation policy has sometimes come at a price. SAS was fined more than €39m (US\$34m) for its participation in an illegal anti-competitive pact with Denmark's Maersk Air in August 2001. The two carriers had secretly agreed not to compete on key routes between their own countries. SAS's commercial division chief, Vagn Sorenson, resigned in the wake of the EC's findings. At Maersk, both the chairman and managing director resigned and the company was fined €13m.

The SAS group now regards itself as having some major competitive advantages. It enjoys effective control over the Scandinavian region. It considers that it has superior market position in an extended catchment area encompassing the Nordic region and Baltic states of a population exceeding 100m people. SAS services many routes that other carriers would not be willing to operate (such as Norwegian domestic services) but it also operates on lucrative routes which could come under threat from other carriers.

What SAS appears to lack is a coherent strategy to fight the incursion of low cost operators. It cannot do it on price. SAS is by definition high cost - as must any carrier operating in Scandinavia. This does not stop the likes of Ryanair attacking some of SAS's more lucrative short-haul routes (particularly UK-Scandinavia). In the near future, SAS will see low-cost airlines operating out of Gothenburg airport. Now that BMI has started up bmibaby as its answer to the bus operators, SAS may be able to persuade Michael Bishop to transfer some operations into its home base - but is likely to encounter significant union pressure at home if it did.

Post September 11

SAS had already been seeing weakness before September 11 in its home markets of Sweden and Denmark and their weakening

MARKET SHARES (% of CRS bookings)

Sweden	70%
Norway	37%
Denmark	60%
IntraScandinavia	87%
Scandinavia-UK	46%
Scandinavia-Europe	50%
Intercontinental	25%

economies - although Norway was performing reasonably well. Business traffic - its mainstay - overall was weak. Traffic plummeted immediately following the disaster in September, although not as badly as other European carriers. In the three months following the attack on New York, SAS traffic fell by 21% compared with a 31% decline for AEA members. Although there was a mild recovery from these depths in December, business traffic has slumped by 16% since September.

The company has reacted by reducing capacity by some 15-17% and instituted price rises and a surcharge to cover increased security costs. It has renegotiated its aircraft delivery programme, and is accelerating its aircraft disposal plans. The introduction of cost cutting measures will lead to the redundancy of some 2500 employees and further efficiency programmes aim to improve profitability by SEK5.5bn.

Results until August 2001 had already been disappointing and the company issued what was effectively a profit warning. The results for the nine months to end September showed effective breakeven and proved to be the worst in its history. September 11 aside, the company suffered a fatal accident at Milan Airport.

SAS revealed that it expected to announce a SEK1.0-1.5bn loss for the year (excluding extraordinary). In the current environment, profitability is unlikely to return in 2002. However, the group still has SEK17bn in equity, a fleet value significantly in excess of book value and, despite its aircraft acquisition plans a reasonably positive cash flow. Having established financial targets of 17-20% CFROI, 12% ROCE and 14% total shareholder return over the business cycle, SAS has a long way to go before it can prove that it is not destroying shareholder value.

Aviation Strategy

Macro-trends

EUROPEAN SCHEDULED TRAFFIC

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74.0	334.0	243.6	72.9	503.7	346.7	68.8
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73.0	362.6	269.5	74.3	532.8	373.7	70.1
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
1997	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
1998	188.3	120.3	63.9	194.2	149.7	77.1	135.4	100.6	74.3	453.6	344.2	75.9	673.2	484.8	72.0
1999	200.0	124.9	62.5	218.9	166.5	76.1	134.5	103.1	76.7	492.3	371.0	75.4	727.2	519.5	71.4
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
Dec 01	14.0	8.0	57.2	13.6	9.8	71.7	10.2	7.4	73.1	35.9	26.3	73.1	52.5	35.8	68.2
Ann. chng	-15.2%	-13.7%	1.0	-24.5%	-21.9%	2.4	-10.8%	-11.6%	-0.6	-13.7%	-12.9%	0.6	-14.3%	-13.2%	0.8
Jan-Dec 01	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
Ann. chng	1.3%	-0.4%	-1.0	-5.9%	-10.6%	-3.9	-4.8%	-7.1%	-1.9	-3.7%	-6.5%	-2.3	-2.2%	-5.0%	-2.1

Source: AEA.

US MAJORS' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1994	886.9	575.6	64.9	136.1	99.5	73.0	107.3	78.2	72.9	56.8	35.2	62.0	300.3	212.9	70.9
1995	900.4	591.4	65.7	130.4	98.5	75.6	114.3	83.7	73.2	62.1	39.1	63.0	306.7	221.3	72.1
1996	925.7	634.4	68.5	132.6	101.9	76.8	118.0	89.2	75.6	66.1	42.3	64.0	316.7	233.3	73.7
1997	953.3	663.7	69.6	138.1	108.9	78.9	122.0	91.2	74.7	71.3	46.4	65.1	331.2	246.5	74.4
1998	960.8	678.8	70.7	150.5	117.8	78.3	112.7	82.5	73.2	83.5	52.4	62.8	346.7	252.7	72.9
1999	1,007.3	707.5	70.2	164.2	128.2	78.1	113.2	84.7	74.8	81.3	54.3	66.8	358.7	267.2	74.5
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
Dec 01	77.5	52.1	67.2	11.4	8.2	71.7	8.3	6.3	76.5	7.0	4.9	69.7	26.7	19.4	72.7
Ann. chng	-11.2%	-13.2%	-1.6	-19.4%	-17.4%	1.7	-21.8%	-17.9%	3.7	-5.6%	-3.8%	1.3	-17.0%	-14.5%	2
Jan-Dec 01	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
Ann. chng	-0.8%	-3.8%	-2.1	-2.9%	-8.9%	-4.8	-6.0%	-9.9%	-3.2	0.5%	-1.2%	-1.2	-1.0%	-5.6%	3

Note: US Majors = American, Alaska, Am. West, Continental, Delta, NWA, Southwest, United, US Airways. Source: Airlines, ATA.

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	70.4	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	3,361	70.8	4.9	7.2	5.6	6.0	5.3	6.5
*2001							4,713	3,205	68.0					-1.1	-6.0
*2002							4,737	3,270	69.0					0.5	2.0
*2003							5,066	3,596	70.9					6.9	10.0
*2004							5,320	3,830	72.0					5.0	6.5

Note: * = Forecast; ICAO traffic includes charters. Source: Airline Monitor, Oct 2001.

DEMAND TRENDS (1990=100)

	Real GDP					Real exports					Real imports				
	US	UK	Germany	France	Japan	US	UK	Germany	France	Japan	US	UK	Germany	France	Japan
1993	105	100	100	101	105	117	107	106	109	112	117	104	108	101	96
1994	109	103	103	104	106	126	117	115	115	117	131	110	117	107	104
1995	111	106	105	106	107	137	126	122	123	123	141	115	124	113	119
1996	114	108	107	107	111	152	135	128	128	126	155	124	127	116	132
1997	118	112	110	109	112	172	146	142	142	138	177	135	136	123	132
1998	122	115	113	112	109	173	150	152	150	135	196	144	147	133	121
1999	127	117	114	115	111	179	150	155	153	135	220	151	152	136	122
2000	134	121	117	119	114	198	162	174	172	153	250	164	166	153	139
*2001	138	124	121	122	116	216	173	191	188	162	272	176	179	165	148

Note: * = Forecast; Real = inflation adjusted. Source: OECD Economic Outlook, July 2001.

Aviation Strategy

Macro-trends

FINANCIAL TRENDS (1990=100)

	Inflation (1990=100)					Exchange rates (against US\$)			LIBOR 6 month Euro-\$	
	US	UK	Germany	France	Japan	UK	Euro**	Japan		
1994	113	109	117	110	107	1993	0.666	0.854	111.2	3.36%
1995	117	112	119	112	107	1994	0.653	0.843	102.2	5.06%
1996	120	114	121	113	107	1995	0.634	0.765	94.1	6.12%
1997	122	117	123	114	108	1996	0.641	0.788	108.8	4.48%
1998	123	120	124	115	109	1997	0.611	0.884	121.1	5.85%
1999	125	122	126	116	108	1998	0.603	0.896	130.8	5.51%***
2000	128	124	127	117	107	1999	0.621	0.991	103.3	5.92%***
*2001	131	127	128	119	107	2000	0.603	1.086	118.1	5.36%***
						2001	0.693	1.122	117.6	3.35%***
						Jan 2002	0.703	1.139	134.4	3.39%***

Note: * = Forecast. Source: OECD Economic Outlook, July 2001. **Euro rate quoted from January 1999 onwards. 1990-1998 historical rates quoted in ECU. *** = \$ LIBOR BBA London interbank fixing six month rate.

AIRCRAFT AVAILABLE FOR SALE OR LEASE

	Old narrowbodies	Old widebodies	Total old	New narrowbodies	New widebodies	Total new	TOTAL
1989	216	38	254	42	2	44	298
1990	380	77	457	74	14	88	545
1991	457	129	586	114	27	141	727
1992	433	138	571	75	15	90	661
1993	370	195	565	103	37	140	705
1994	267	182	449	61	23	84	533
1995	238	157	395	49	29	78	473
1996	124	101	225	32	22	54	279
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-Jan	288	150	438	172	43	215	651
2001-Feb	298	155	453	152	46	198	651
2001-Mar	345	144	489	164	47	211	700
2001-Apr	326	130	456	184	61	245	701
2001-May	371	140	511	210	61	271	782
2001-Jun	353	150	513	222	67	289	802
2001-Jul	352	145	497	179	64	243	740
2001-Aug	373	157	530	218	80	298	828
2001-Sep	388	173	561	251	95	346	907
2001-Oct	378	180	558	263	97	360	918

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.

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
Airbus	Jan 14	Jet Blue	10 A320s		2002-05	IAE V2500 engines
ATR	Dec 21	Air Dolomiti	3 ATR 72-500s		2Q 2002-03	
BAE Systems	-	-	-			
Boeing	Jan 24	Ryanair	100 737-800s	\$6.1bn	2002-10	Plus 50 options
Bombardier	Dec 18	Hydro Quebec	2 Q400s			Replacing company's Convair 580s
Embraer	-	-	-			
Fairchild	-	-	-			

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

Aviation Strategy

Micro-trends

	Group revenue	Group costs	Group operating profit	Group net profit	Total ASK	Total RPK	Load factor	Group rev. per total ASK	Group costs per total ASK	Total pax.	Total ATK	Total RTK	Load factor	Group employees
	US\$m	US\$m	US\$m	US\$m	m	m	%	Cents	Cents	000s	m	m	%	
American*														
Apr-Jun 00	5,011	4,494	517	321	67,000.4	50,538.7	75.4	7.48	6.71					105,900
Jul-Sep 00	5,256	4,684	572	313	66,654.0	50,828.1	76.3	7.89	7.03					107,500
Oct-Dec 00	4,859	4,779	80	47	63,562.5	44,318.5	69.7	7.64	7.52					107,500
Jan-Mar 01	4,760	4,743	17	-43	62,725.7	42,590.7	67.9	7.59	7.56					108,900
Apr-Jun 01	4,838	5,586	-748	-494	66,007.0	47,484.0	71.9	7.33	8.46					128,300
Jul-Sep 01	4,816	5,374	-558	-414	62,675.9	45,314.7	72.3	7.68	8.57					127,200
Oct-Dec 01	3,804	4,952	-1148	-798	54,907.4	35,580.0	64.8	6.93	9.02					109,300
America West														
Apr-Jun 00	618	570	48	33	10,979.8	8,091.7	73.7	5.63	5.19	5,206				12,158
Jul-Sep 00	591	591	0	1	11,079.9	8,088.3	73.0	5.33	5.33	5,178				
Oct-Dec 00	573	654	-81	-47	11,133.1	7,616.8	68.4	5.15	5.87	4,958				
Jan-Mar 01	587	612	-25	-13	11,355.2	7,857.8	69.2	5.17	5.39	5,104				
Apr-Jun 01	587	641	-54	-42	11,097.7	8,367.4	75.5	5.29	5.78	5,294				
Jul-Sep 01	491	590	-99	-32	10,774.3	7,973.0	74.0	4.57	5.48	5,034				
Oct-Dec 01	400	538	-138	-61	9,477.2	6,492.0	68.5	4.22	5.68	4,144				
Continental														
Apr-Jun 00	2,571	2,292	279	149	34,406.9	26,534.0	77.1	7.47	6.66	12,084				
Jul-Sep 00	2,622	2,368	254	135	35,978.0	27,881.1	77.5	7.29	6.58	12,155				
Oct-Dec 00	2,429	2,332	97	44	34,454.0	24,685.1	71.6	7.05	6.77	11,456				
Jan-Mar 01	2,451	2,375	76	9	34,533.9	24,322.9	70.4	7.10	6.88	11,220				
Apr-Jun 01	2,556	2,419	137	42	36,712.9	27,443.4	74.8	6.96	6.59	12,256				
Jul-Sep 01	2,223	2,136	87	3	35,394.9	26,086.1	73.7	6.28	6.03	11,254				
Oct-Dec 01	1,738	1,895	-157	-149	29,321.4	20,554.3	70.1	5.93	6.46	9,508				
Delta														
Apr-Jun 00	4,439	3,863	606	460	59,753.4	46,509.8	77.8	7.48	6.46	28,333				73,800
Jul-Sep 00	4,325	3,827	498	127	61,319.9	47,076.5	76.8	7.05	6.24	27,378				
Oct-Dec 00	4,017	3,839	178	18	58,655.8	40,527.0	69.1	6.85	6.54	24,919				
Jan-Mar 01	3,842	3,957	-115	-133	60,714.1	40,690.6	67.0	6.33	6.52	26,932				
Apr-Jun 01	3,776	3,890	-114	-90	61,538.0	44,783.6	72.8	6.14	6.32	28,130				82,500
Jul-Sep 01	3,398	3,649	-251	-259	60,718.9	43,259.6	71.3	5.60	6.01	26,441				83,500
Oct-Dec 01														
Northwest														
Apr-Jun 00	2,927	2,675	252	115	42,049.6	33,523.5	79.7	6.96	6.36					
Jul-Sep 00	3,178	2,824	354	207	44,379.9	35,353.1	79.7	7.16	6.36					
Oct-Dec 00	2,740	2,774	-34	-69	40,417.6	29,850.1	73.9	6.78	6.86					
Jan-Mar 01	2,611	2,847	-236	-171	40,211.6	29,394.7	73.1	6.49	7.08					
Apr-Jun 01	2,715	2,751	-36	-55	42,216.8	32,886.9	77.9	6.43	6.52					
Jul-Sep 01	2,594	2,749	-155	19	41,870.8	31,753.1	75.8	6.20	6.57					
Oct-Dec 01	1,985	2,426	-441	-216	33,985.2	23,619.7	69.5	5.84	7.14					
Southwest														
Apr-Jun 00	1,461	1,146	315	191	23,724.3	17,624.9	74.3	6.16	4.83	16,501				
Jul-Sep 00	1,479	1,179	300	184	24,638.0	17,650.8	71.6	6.00	4.79	16,501				
Oct-Dec 00	1,467	1,216	251	155	25,267.5	17,443.2	69.0	5.81	4.81	16,287				
Jan-Mar 01	1,429	1,218	210	121	25,512.2	17,169.7	67.3	5.60	4.77	15,716				29,563
Apr-Jun 01	1,554	1,263	291	176	26,430.0	18,970.4	71.8	5.88	4.78	17,527				30,369
Jul-Sep 01	1,335	1,242	93	151	26,216.8	18,120.7	69.1	5.09	4.74	16,208				30,946
Oct-Dec 01	1,238	1,201	37	64	26,887.7	17,342.6	64.5	4.60	4.47	14,996				31,580
TWA														
Apr-Jun 00	973	984	-11	-35	15,928.0	12,316.3	77.3	6.00	4.79	7,211				
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01														
Apr-Jun 01														
Jul-Sep 01														
Oct-Dec 01														
United														
Apr-Jun 00	5,109	4,504	605	408	70,913.5	53,624.8	75.6	7.20	6.35	22,412				98,300
Jul-Sep 00	4,905	4,946	-41	-116	72,495.7	54,049.9	74.6	6.77	6.82	21,458				99,700
Oct-Dec 00	4,792	4,955	-163	-71	70,550.1	49,897.9	70.7	6.79	7.02	20,509				99,100
Jan-Mar 01	4,424	4,815	-391	-313	67,741.4	46,267.7	68.3	6.53	7.11	18,860				98,600
Apr-Jun 01	4,658	5,011	-353	-292	71,928.2	52,651.5	73.2	6.48	6.97	21,331				98,000
Jul-Sep 01	4,107	4,819	-712	-542	69,232.9	50,609.3	73.1	5.93	6.96	19,815				95,900
Oct-Dec 01	2,949	3,835	-886	-308	56,420.7	38,140.4	67.6	5.23	6.80	15,450				79,300
US Airways														
Apr-Jun 00	2,433	2,265	168	80	26,171.9	19,557.4	74.7	9.30	8.65	15,554				42,653
Jul-Sep 00	2,381	2,376	5	-30	28,452.4	20,726.2	72.8	8.37	8.35	15,809				44,026
Oct-Dec 00	2,347	2,428	-81	-98	28,275.4	19,590.0	69.3	8.30	8.59	15,605				43,467
Jan-Mar 01	2,241	2,469	-228	-171	27,752.4	18,372.1	66.2	8.07	8.90	14,193				44,077
Apr-Jun 01	2,493	2,473	20	-24	29,394.8	21,693.4	73.8	8.48	8.41	16,582				44,673
Jul-Sep 01	1,989	2,739	-750	-766	27,609.2	19,618.9	71.1	7.20	9.92	14,188				42,723
Oct-Dec 01	1,554	2,101	-547	-906	22,639.6	14,308.2	63.2	6.86	9.28	11,151				35,232
ANA														
Apr-Jun 00	SIX MONTH FIGURES													
Jul-Sep 00	5,288	4,793	495	359	47,586.3	31,753.1	66.7	11.11	10.07	24,958				
Oct-Dec 00	SIX MONTH FIGURES													
Jan-Mar 01	5,376	5,186	190	-486	46,278.4	29,168.4	63.0	11.61	11.21	24,471				
Apr-Jun 01	SIX MONTH FIGURES													
Jul-Sep 01	5,168	4,811	357	136	45,756.4	30,790.3	67.3	11.29	10.51	25,876				
Oct-Dec 01	SIX MONTH FIGURES													
Cathay Pacific														
Apr-Jun 00	2,070	1,765	305	285	29,839.0	22,588.1	75.7	6.94	5.92	5,483.0				
Jul-Sep 00	SIX MONTH FIGURES													
Oct-Dec 00	2,356	1,983	373	382	32,070.0	24,586.6	76.7	7.35	6.13	6,147.0				
Jan-Mar 01	SIX MONTH FIGURES													
Apr-Jun 01	2,031	1,898	133	170	32,419.0	23,309.3	71.9	6.26	5.85	5,936.0				
Jul-Sep 01	SIX MONTH FIGURES													
Oct-Dec 01	SIX MONTH FIGURES													
JAL														
Apr-Jun 00	TWELVE MONTH FIGURES													
Jul-Sep 00	TWELVE MONTH FIGURES													
Oct-Dec 00	TWELVE MONTH FIGURES													
Jan-Mar 01	14,198	13,542	656	342										
Apr-Jun 01	TWELVE MONTH FIGURES													
Jul-Sep 01	TWELVE MONTH FIGURES													
Oct-Dec 01	TWELVE MONTH FIGURES													

Note: Figures may not add up due to rounding. 1 ASM = 1.6093 ASK. *Airline group only.

Aviation Strategy

Micro-trends

	Group revenue	Group costs	Group operating profit	Group net profit	Total ASK	Total RPK	Load factor	Group rev. per total ASK	Group costs per total ASK	Total pax.	Total ATK	Total RTK	Load factor	Group employees
	US\$m	US\$m	US\$m	US\$m	m	m	%	Cents	Cents	000s	m	m	%	
Korean Air														
Apr-Jun 00	TWELVE MONTH FIGURES													
Jul-Sep 00	4,916	4,896	20	-409	55,824.0	40,606.0	72.7	8.81	8.77	22,070		10,407		16,000
Oct-Dec 00														
Jan-Mar 01														
Apr-Jun 01	TWELVE MONTH FIGURES													
Jul-Sep 01	4,309	4,468	-159	-448										
Oct-Dec 01														
Malaysian														
Apr-Jun 00	TWELVE MONTH FIGURES													
Jul-Sep 00	2,357	2,178	179	-351	52,329.0	39,142.4	74.8	4.50	4.16		8,055.0	5,379.0	66.8	
Oct-Dec 00														
Jan-Mar 01														
Apr-Jun 01														
Jul-Sep 01														
Oct-Dec 01														
Singapore														
Apr-Jun 00	SIX MONTH FIGURES													
Jul-Sep 00	2,864	2,438	426	668	46,477.5	36,136.6	77.8	61.6	5.25	7,584	8,950.0	6,524.6	72.9	
Oct-Dec 00	SIX MONTH FIGURES													
Jan-Mar 01	2,635	2,317	318	209	46,170.5	34,981.8	75.8	5.71	5.02	7,416	9,084.0	6,460.4	71.1	
Apr-Jun 01	SIX MONTH FIGURES													
Jul-Sep 01	2,592	2,329	263	90	48,057.7	36,091.4	75.1	5.39	4.85					
Oct-Dec 01														
Thai Airways														
Apr-Jun 00	TWELVE MONTH FIGURES													
Jul-Sep 00	3,111	2,732	379	121	55,517.0	41,347.0	74.5	5.60	4.92	17,700	7,752.0	5,469.0	70.6	
Oct-Dec 00														
Jan-Mar 01														
Apr-Jun 01	TWELVE MONTH FIGURES													
Jul-Sep 01	2,936	2,658	278	44	60,459.0	45,167.0	74.7	4.86	4.40	18,600	8,490.0	5,818.0	68.5	
Oct-Dec 01														
Air France														
Apr-Jun 00	SIX MONTH FIGURES													
Jul-Sep 00	5,506	5,132	374	385	60,088.0	48,464.0	80.7	9.16	8.54					
Oct-Dec 00	SIX MONTH FIGURES													
Jan-Mar 01	4,981	4,988	-7	-25	59,100.5	44,622.2	75.5	8.42	8.43					
Apr-Jun 01	SIX MONTH FIGURES													
Jul-Sep 01	5,798	5,511	287	250	64,474.4	50,984.1	79.1	8.99						
Oct-Dec 01														
Alitalia														
Apr-Jun 00	2,225	2,254	-29	-15	24,747.8	16,898.8	68.3	8.99	9.11	11,693	3,464.8	2,404.5	69.4	
Jul-Sep 00	SIX MONTH FIGURES													
Oct-Dec 00	2,553	2,753	-200	-209	32,735.2	24,534.2	74.9	7.80	8.41					
Jan-Mar 01	SIX MONTH FIGURES													
Apr-Jun 01	2,348	2,504	-156	-228	26,436.6	18,952.9	71.7	8.88	9.47	12,565	2,617.2	1,876.3	71.7	24,023
Jul-Sep 01														
Oct-Dec 01														
BA														
Apr-Jun 00	3,488	3,342	146	-85	44,826.0	32,295.0	72.0	7.78	7.46	11,633	6,475.0	4,407.0	68.1	61,411
Jul-Sep 00	3,673	3,293	380	197	45,333.0	35,093.0	77.4	8.10	7.26	12,615	6,608.0	4,741.0	71.7	62,793
Oct-Dec 00	3,328	3,212	116	84	42,347.0	29,008.0	68.5	7.86	7.58	10,493	6,230.0	4,128.0	66.3	62,831
Jan-Mar 01	3,048	3,136	-88	-111	40,018.0	26,800.0	67.0	7.62	7.84	9,721	5,883.0	3,711.0	63.1	62,425
Apr-Jun 01	3,277	3,206	71	37	40,980.0	28,646.0	69.9	8.00	7.82	11,293	6,124.0	3,915.0	63.9	58,989
Jul-Sep 01	3,219	3,116	103	33	39,629.0	29,297.0	73.9	8.12	7.86	11,306	5,969.0	3,868.0	64.8	59,902
Oct-Dec 01	2,616	2,882	-266	-205	35,449.0	23,106.0	65.2	7.38	8.13	8,574	5,436.0	3,341.0	61.5	55,758
Iberia														
Apr-Jun 00	TWELVE MONTH FIGURES													
Jul-Sep 00	4,136	4,075	61	188	54,120.0	40,049.0	74.0	7.64	7.53	24,500		4,382		26,814
Oct-Dec 00														
Jan-Mar 01														
Apr-Jun 01														
Jul-Sep 01														
Oct-Dec 01														
KLM														
Apr-Jun 00	1,600	1,509	91	39	18,730.0	15,149.0	80.9	8.54	8.06		3,276.0	2,549.0	77.8	27,267
Jul-Sep 00	1,615	1,445	170	100	19,386.0	16,378.0	84.5	8.33	7.45		3,359.0	2,703.0	80.5	26,447
Oct-Dec 00	1,617	1,574	43	4	19,050.0	14,715.0	77.2	8.49	8.26		3,316.0	2,618.0	78.9	26,349
Jan-Mar 01	1,360	1,422	-62	-77	18,056.0	13,805.0	76.4	7.53	7.88		3,230.0	2,471.0	76.5	26,538
Apr-Jun 01	1,507	1,487	20	17	19,231.0	15,200.0	79.0	7.84	7.73		3,322.0	2,526.0	76.0	27,211
Jul-Sep 01	1,679	1,596	83	24	19,554.0	16,049.0	82.1	8.59	8.16		3,328.0	2,559.0	76.9	28,911
Oct-Dec 01	1,291	1,358	-67	-82	17,030.0	12,483.0	73.3	7.58	7.97		3,063.0	2,323.0	75.8	27,738
Lufthansa***														
Apr-Jun 00	3,346	3,123	223	400	31,865.0	24,405.0	76.6	10.50	9.80	12,249	5,988.0	4,338.0	72.4	68,000
Jul-Sep 00	3,375	2,993	382	182	32,654.0	25,878.0	79.2	10.33	9.17	12,849	6,156.0	4,536.0	73.7	
Oct-Dec 00	3,750	3,148	602	10	30,682.0	22,096.0	72.0	12.22	10.26	11,547	5,997.0	4,293.0	71.6	69,523
Jan-Mar 01	3,222	3,202	20	-80	30,223.0	21,232.0	70.3	10.66	10.59	10,903	5,781.0	3,953.0	68.4	72,279
Apr-Jun 01	4,119	4,045	74	41	30,658.0	22,930.0	74.8	13.44	13.19	12,236	6,371.0	4,239.0	66.5	85,771
Jul-Sep 01	4,188	4,027	161	96	32,454.0	24,546.0	75.6	12.90	12.41	12,692	6,271.0	4,282.0	68.3	83,447
Oct-Dec 01														
SAS														
Apr-Jun 00	1,289	1,176	113	112*	8,492.0	6,004.0	70.7	15.18	13.85		6,236			28,295
Jul-Sep 00	1,122	1,070	52	33*	8,496.0	6,155.0	72.4	13.21	12.59		5,943			28,485
Oct-Dec 00	1,310	1,131	179	174*	8,541.0	5,492.0	64.3	15.34	13.24		5,747			27,767
Jan-Mar 01	1,183	1,175	8	2*	8,558.0	5,286.0	61.8	13.82	13.73		5,482			29,985
Apr-Jun 01	1,345	1,329	16	18*	9,144.0	6,227.0	68.1	14.71	14.53		6,279			30,499
Jul-Sep 01	1,199	1,220	-21	-20*	9,629.0	6,498.0	67.5	12.45	12.67		6,463			30,896
Oct-Dec 01														
Swissair**														
Apr-Jun 00	1,916	2,006	-90	2	25,476.0	18,241.0	71.6	7.52	7.87	9,162	3,972.8	2,719.6	68.5	
Jul-Sep 00	SIX MONTH FIGURES													
Oct-Dec 00	2,179	2,069	110	-1,650	23,540.0	17,677.0	75.1	9.27	8.79	5,890	4,296.2	3,007.4	70.0	
Jan-Mar 01														
Apr-Jun 01														
Jul-Sep 01														
Oct-Dec 01														

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

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