

A complete restructuring of the industry

It is becoming a little clearer what September 11 has precipitated for the airline industry - a complete restructuring akin to, perhaps greater than, that caused by US deregulation in the late 70s and early 80s.

But first of all, we have not yet changed the traffic and supply/demand forecast published in the October *Aviation Strategy*. The numbers coming from the AEA and ATA in October tend to confirm our initial estimates of traffic declines (September-December 20001) of 30% for US domestic, 40% for US international, 10% for intra-Europe and 30% for European international.

Several subscribers have suggested that the recovery and rebound will take place more quickly than we forecast. We hope so, but there's no evidence for this as yet, and one of the differences between the current situation and that of the Gulf war is that there is no end in sight for the conflict in Afghanistan - it could go on for a very long time.

On the supply side, the manufacturers have stopped giving estimates of 2002 output levels as they absorb the airlines' demands for deferrals and swaps (like that between American and Qantas). Finding a parking space in the Arizona desert is getting a bit more difficult. How many of the parked aircraft are going to be there permanently is impossible to verify - see pages 5-6.

Given the state of the industry, many observers are expecting governments to resume their traditional role and fully protect their flag carriers. Yet, despite intense lobbying the EC has not succumbed (see pages 2-3). In taking this attitude the EC is creating a lot of short-term grief but enabling a very necessary structural change to take place.

One reason that governments should not intervene is that the industry is still financeable from private sources. A number of multi-billion aircraft-backed bonds, EETCs, have been sold in the US,

RECENT TRAFFIC TRENDS (RPKs)

	Domestic	International	
US airlines*	-37%	-32%	
	Intra-European	N. Atlantic	Europe-Far East
AEA airlines**	-10%	-36%	-15%

* Sept 16-Sept 30 ie excluding airspace shutdown ** Sept 10-Oct 14

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albeit with increasing pricing. In the UK easyJet succeeded with a rights issue intended to partly finance fleet expansion, while Qantas's rights issue was 50% over-subscribed.

Money is following the airlines which have got some evident competitive advantage at the moment. In the not too distant future it will come back for those carriers, like BA, Air France, Delta or whoever, whose market position and strategies make commercial sense.

If governments intervene they will end up pouring taxpayers' money into bottomless pits. Just how insolvent some flag-carriers are is becoming clearer - Sabena's creditors, including most of Europe's leading investment, are now owed over \$2.1bn by the bankrupt carrier.

So far the Swiss government, Swiss banks and a range of Swiss corporations have somehow been persuaded (or pressurised) to invest \$2.4bn in the "new Swissair", but the chances of the rescue plan succeeding are diminishing by the day. First, the creditors of the former Swissair are not just going to forget about the \$10bn of debt they own; interminable litigation against the Swissair residual company, the banks involved, UBS and CSFB, and

Crossair itself, can be expected. Second, Crossair is going to have to take on Swissair flying staff at their former rates and use the old Swissair licences to operate the long-haul network, which is going to completely undermine Crossair's cost reduction strategy. Third, integrating Swissair managers into the very different Crossair culture will be excruciating.

Flag carriers do not have a divine right to exist. Those that do not have a commercial basis will disappear, albeit painfully slowly, but their markets will still be there. Who captures these markets is the next question.

The answer would appear to be a limited number of network carriers with extensive long-haul operations and a limited number of point-to-point low-cost airlines operating purely intra-continental services. However, the latter may even come to be regarded as mainstream carriers and the former as niche carriers.

There are also new entrant possibilities. There is, for example, a demand for inter-continental services from Europe's smaller and/or peripheral capitals - Dublin, Athens, etc. If the flag carrier disappears and the network carriers only offer services connecting via their hubs, is there a commercial role for low cost, long haul operators?

European Commission under pressure

Four weeks after the US terrorist attacks, the EC published its own response to the crisis. The Commission recognised that "certain emergency measures in support of the industry" could be adopted by the member states but emphatically warned against state aid not related to the events.

The framework covered the use of existing Community law on airport slots and state aid, insurance problems, security and compensation for the direct losses from the attacks. The Commission was very keen to prevent individual initiatives by member states that would distort competition between European airlines.

The Commission restricted state aid to compensation for actual damage sustained by EU airlines during the four-day closure of US airspace by limiting the calculation of losses on transatlantic routes, and thus excluded intra-European services from the equation.

Following the abrupt cancellation of war risk cover by the entire insurance industry (under the disguise of an up to 15 fold increase in premiums), the Commission allowed member states to provide insurance coverage to their carriers, initially for one month and to the end of the year if necessary.

The Commission also considered that the needed reinforcement of security measures must be borne by the member states.

In addition, the Commission promised to examine "on a case-by-case basis" requests for exemption from competition rules on agreements between companies and concerted practices. It would give favourable consideration to "capacity co-ordination agreements designed to maintain a regular service on less frequented routes or to co-ordinate schedule during off-peak periods of the day."

Most controversially, the Commission said that airlines were entitled to retain their slots with grandfather status in Community airports during the summer 2002 season. The Commission also pledged "the measure could be extended to the 2002/03 season if the current situation continued into the winter 2001 season."

At the same time, the Commission reminded Community airlines that it should not lose track of the need to "restructure and consolidate". The events of September 11 indeed stressed the need to move forward.

The response from Europe's main carriers to the Commission framework has been less than enthusiastic. Although most of the original demands made in September by the AEA were met, the strict ban on individual state aid raised cries of outrage in many capitals.

Against this backdrop of firm opposition, only one member state, Belgium, has so far been allowed by the Commission permission to grant state aid to its national carrier Sabena. That this final gesture will not save Sabena - expected to go into bankruptcy during the first week of November - will not quench the appetite for aid in other states.

The convoluted reasoning of the Commission for allowing the Sabena case to

go through became clear when it later turned down the Irish government request on behalf of Air Lingus: "A company has to be subject to a suspension of payments by a court to be eligible for a bridge loan."

Swissair indeed received a large contribution from the Swiss government in such circumstances but in any event, because the bilateral treaty between Switzerland and the EU has not been ratified yet, it is not clear whether the Commission can object to it.

Usually, it is the bane of the Commission that it is long on good intentions and short on political support from the member states. This has not been the case in the present aviation crisis. The member countries came out strongly in support of the Commission in mid-October. Already under pressure to meet the Community's budget criteria in the current economic climate, the states are probably less than anxious to compete in doling out aid to their national carriers.

Yet as the crisis deepens, the airlines inevitably have become more vocal in claiming that more must be done to help them. It was at first a minority of countries - France Italy and Ireland, not to forget Belgium - that called for government aid. The German government has been staunchly opposed to state aid to Lufthansa, as was the airline itself. That Germany maintains this policy is very important for the EC.

The call for consolidation by the Commission is a little disingenuous. The legal framework is simply not there. International ownership and control rules are a formidable obstacle to consolidation. member states too are not wholly innocent. By refusing a mandate to the Commission to represent all EU airlines vis-à-vis the rest of the world, particularly the US, European states make consolidation all the more difficult, if not impossible.

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BAA: the impact of September 11

The effects of the post-September 11 downturn in traffic are being felt throughout the travel supply chain - especially at airports. BAA's half-year results presented in late October gave an insight into emerging trends.

Airports of course do not have the same level of operational gearing towards passenger numbers that airlines do, but much of their revenue in the short run does relate to terminal passenger throughput and this does tend to be the principal business driver. Unlike airlines, however, they cannot get rid of the infrastructure and still have to build and plan for the long term. Many are sure to be revisiting their long-term growth forecasts and capital spending needs.

The impact on an individual airport will depend on the effect on the airlines that serve it, the relative proportion of long haul, transatlantic,

transfer, short haul and domestic traffic, the dependence on passenger charges and retail income.

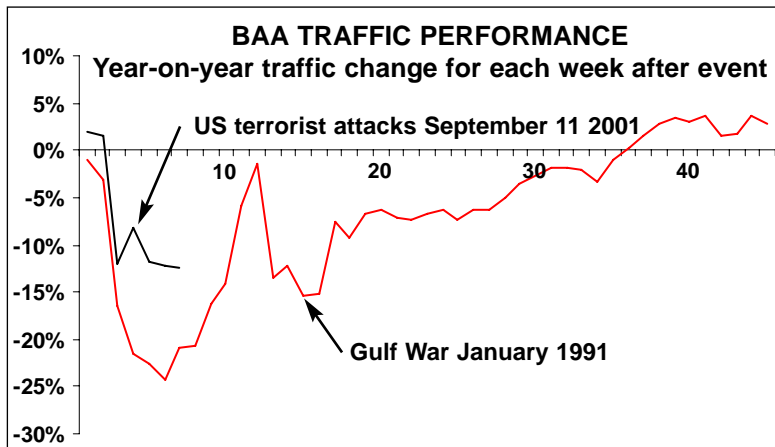
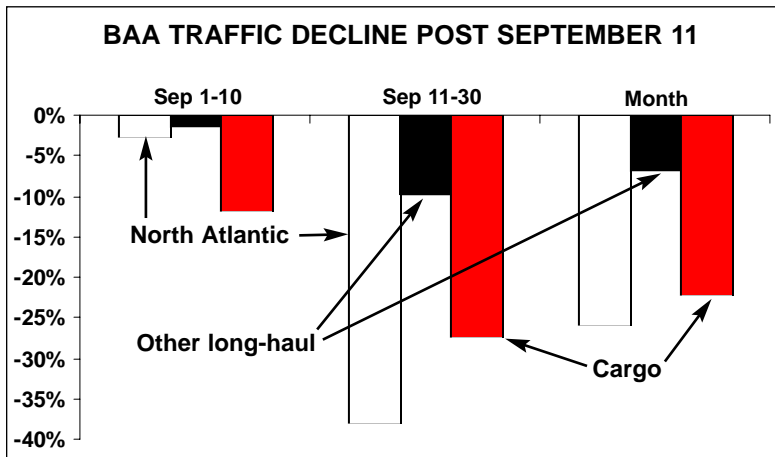
BAA plc, in its published results to the end of September, highlighted the impact of the terrorist attacks on September 11 in reasonable detail. Inevitably, the company stated "it is still too soon to predict the future for aviation with any degree of certainty". However, in line with the forecasts published in *Aviation Strategy* last month, "although the aviation industry is currently experiencing significant disruption to passenger volumes, we are confident that in the future growth will return to those markets currently depressed".

The immediate reaction is to compare the events of September with those at the start of the Gulf War in 1991. As the chart below shows, the fall off in traffic for BAA's airports initially has mirrored that during the Gulf War, but the decline has tailed off at around 12% year on year decline. We would have one major observation, however, to offset any optimism: the Gulf War started in January, which is the weakest month for traffic, and that traffic tends to be very highly discretionary. September/October is the real start of the business travel season after the traditional summer break.

The principal traffic impact was on long haul services. These were already mildly weak as a result of the combined factors of the weakening US economy, the continued impact of the UK foot and mouth epidemic and the slowdown in world trade. In the second half of the month however, North Atlantic traffic fell by nearly two fifths against prior year levels, and freight traffic - affected mainly by the cancellation of air services rather than demand - fell by 25%.

London's Heathrow airport is the largest in the group and the most affected by transatlantic traffic - so it is not surprising that it experienced the greatest year on year declines in passenger numbers in September with a 13% fall. Stansted airport, the low-cost haven, continued to register increases with a remarkable 11% growth in September.

The impact by market is more pronounced: domestic and Irish traffic static, a 26% fall in



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transatlantic traffic, 7% fall in other long haul and a 2% decline in European traffic - the latter decline reflecting the transfers to and from long haul.

In the first three weeks of October, the company stated that passenger numbers continued to show declines of 12% year on year.

Financial implications

"Safety and security continues to be BAA's number one priority." As a result of September's events increased security measures were imposed and put in place. This is likely to cost the group an extra £25m a year (or 25p per passenger). Over time of course this will be passed on to the airlines and the passengers. As we mentioned in the Management article last month on airport security, there will be increased pressure on landside and airside capacity - which ironically in Heathrow's case increases the need for the building of the long-awaited fifth terminal.

For BAA, half its airport revenue comes from passenger spending through its retail outlets. This is likely to be more heavily affected by the slow down in long-haul traffic. Overall traffic fell by 6% in September, but the net retail income per passenger grew by 5%, two percentage points below recent trend and net retail revenues for the month fell by 1% to £45m. Given the abolition of intra-European duty free, the long haul passengers provide the best net value from retail sales at the airports. As the company stated, "the expect-

BAA'S RETAIL PERFORMANCE

	Net income		Income	
	£m	% chg	per pax	% chg
Five months to Aug	216	8%	£3.71	7%
September	45	-1%	£4.04	5%
Six months to Sept	261	7%	£3.76	7%

ed downturn in traffic could have a disproportionately adverse effect on income".

During the period of the Gulf War in 1991, BAA's profits received a hit of 20%, but bounced back as the war's effects on the industry receded. This time it appears that it also received a 20% hit to profitability in the second half of September and the likely conclusion is that trend would continue for the short run. As BAA's CEO Mike Hodgkinson said in his statement on the results: "There seems no reason to believe that once confidence is restored air travel will not return to growth. The key to our success will be to achieve the correct balance between short term actions and the need to provide in the long term infrastructure the country and our customers want."

BAA'S FINANCIAL PERFORMANCE

Operating profits (£m)	2001	2000	Change
Five months to August	293	279	5.0%
September	52	58	-10.3%
Six months to September	345	337	2.4%

Scrapping/parking decisions

One of the perpetual questions facing the aviation industry is how much capacity is going to be deleted permanently. Almost inevitably the forecasts prove to be too optimistic, ie too high, or are simply unverifiable. It is very difficult to determine when an aircraft has been taken permanently out of service.

Indeed, with aluminum and engine part prices so low at present there is little incentive to make the scrapping decision. A wide-body currently may command a scrap price of just \$60-80,000 and half of that can be eaten up in cutting costs. Parking a jet costs anywhere between \$3,000 and \$12,000 a month at a facility like Evergreen's in the

Arizona desert. The variation in costs largely depends on how many engines there are and the owners' requirements for maintaining the engines.

The temptation for an owner of an elderly jet would be to store the aircraft and hope for either an upturn in demand for recycled aluminum or some opportunity to bring the aircraft back into service. The latter is not totally improbable as long as fuel prices remain comparatively low.

In our October forecast we were looking at some 1,000 deletions during 2001 and 2002, and we have now identified 1,100 prime candidates: the following tables show those jet aircraft, currently officially in pas-

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JETS OVER 20 YEARS OLD IN NORTH AMERICAN FLEET

	F28	727	737	DC9	MD80	Narrow-bodies				Wide-bodies		Total
						747	DC10	L1011				
Northwest		27		172	1	200	14	40		54		254
United		75	22			97		3		3		100
Delta		62				62			21	21		83
American		57				57		3		3		60
Air Canada			28	19		47	3			3		50
Airtran Airways			3	34		37				0		37
American Trans Air		19				19			14	14		33
Air Canada Regional	32					32				0		32
Midwest Express				24	7	31				0		31
Hawaiian				12		12		14		14		26
Continental		2			3	5		18		18		23
WestJet			21			21				0		21
TWA				16	2	18				0		18
US Airways			1	3	14	18				0		18
Canada 3000		1	16			17				0		17
Spirit				5	7	12				0		12
Champion Air		11				11				0		11
Others (50 airlines)	6	64	50	10	0	130	0	21	13	34		164
Total	32	254	91	285	34	696	17	78	35	130		826

senger service with European and North American airlines.

In the US Northwest operates the oldest fleet but this consists of refurbished DC-9s on which Northwest built its recovery plan in the mid-90s. It is unlikely that Northwest would accelerate their scrapping, although the carrier has stated that it will take all its 50 or so scheduled deliveries this year and next including 30 A320s.

The scale of the parking/deletion exer-

cise on the part of the other Majors is now clear. Continental has grounded 50 jets, DC-10s and MD-80s. United is to accelerate the retirement of 95 aircraft, 72 of which are 727s. Air Canada is removing 17 DC-9s and 38 737s, though 20 of these are to be shifted to the low-cost subsidiary, Tango. Delta will park some 60 jets. US Airways will retire 41 737-200s, 30 MD-80s and 40F100s. American intends to retire its 727 fleet.

JETS OVER 20 YEARS OLD IN EUROPEAN FLEET

	1-11	F28	727	737	DC9	MD80	Narrow-bodies				Wide-bodies		Total
							747	DC10	A300	L1011			
Iberia			20		25		45	4	6	4		14	59
European Air Charter	10			8			18			2		2	20
Air Lib		3				1	4		14			14	18
Olympic Airways			4	11			15	1				1	16
SAS					16		16					0	16
Air Atlanta Icelandic							0	10		3		13	13
Ryanair				13			13					0	13
JAT			6		5		11		1			1	12
British Airways							0	11				11	11
Air France							0	10				10	10
Others (53 airlines)	4	1	19	20	12	2	58	24	9	18	6	57	115
Total	14	4	49	52	58	3	180	60	30	24	9	123	303

Source: ACAS

Qantas: inheriting markets, not buying problems

Qantas is the only international network carrier whose prospects have improved since September 11. It has seized the opportunity presented by Ansett's bankruptcy to hugely increase its market share, sell a successful rights issue and re-equip its 737 operation. But will it be able to build on this new foundation?

Qantas has emerged as the survivor of the chaos of the Australasian market. To resume the situation: in 1999 Singapore Airlines attempted to buy Ansett mainly to secure domestic feed from the Australian market. It was repulsed by Air New Zealand which was able to increase its stake in Ansett from 50% to 100% and, it thought, gain essential extra mass to enhance its chances of success internationally.

Then two new low cost carriers - Impulse and Virgin Blue - entered the market, completely undermining Ansett's and Qantas's domestic profitability. Impulse itself also lost a great deal, and in May was taken over by Qantas.

Ansett's losses were, however, on a different scale and exacerbated by public concern about the carrier's safety performance. On September 13 Ansett went into administrative bankruptcy and its fleet was grounded. Its parent, Air New Zealand, would have been forced into bankruptcy as well had not the New Zealand government in effect re-nationalised the airline with a NZ\$885m (US\$370m) recapitalisation. In the process, SIA's 25% investment in ANZ was wiped out.

In recent months just about every consolidation permutation involving the major Australasian players had been explored - SIA buying all of Ansett, divesting its stake in ANZ in which Qantas would then buy 49%; SIA increasing its 25% stake in ANZ to gain effective ownership; Qantas buying out Ansett; Qantas investing in ANZ; SIA investing in Virgin Blue and amalgamating with Ansett.

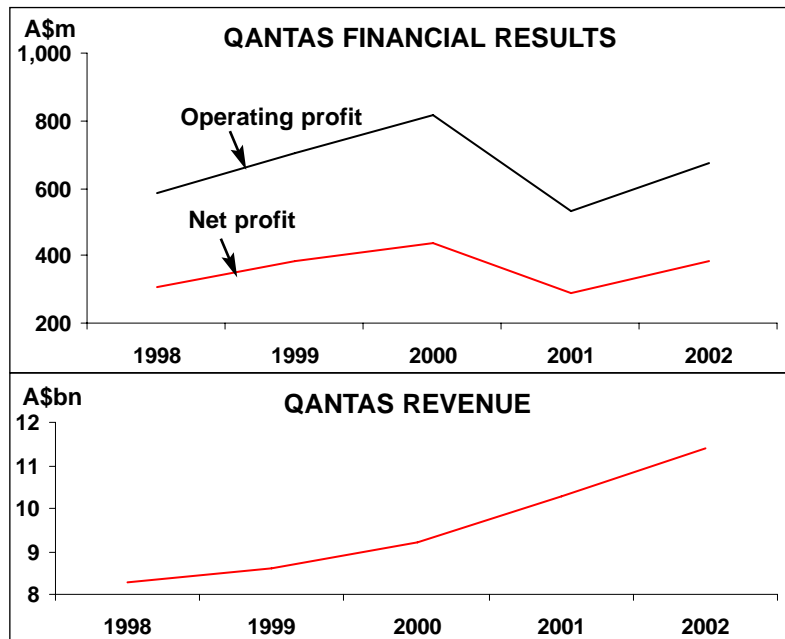
In the end none of these restructurings

took place (though Ansett 2 is evolving - see below). Qantas, perhaps more by luck than judgement, avoided buying the deep problems of existing carriers and instead inherited a lucrative market.

Qantas's domestic market share shot up to 85% after Ansett's demise, and its load factor got as close to 100% as is possible. Such was the lack of capacity in the Australian market that transcontinental services - Sydney-Perth - were being offered by SIA via Changi.

Fortunately, Qantas was able to shift capacity from its long-hauls which were obviously suffering in the post-September 11 market, redeploying 747-400s on domestic services. Qantas's immediate reaction to September 11 was a reduction in services to the US from 31 to 28 a week, and temporary suspension of one service a week to India, Taipei and Jakarta.

Its public relations response to Ansett's demise was also effective. Stranded Ansett passengers were given free seats up to September 27, and discounts were offered to Ansett passengers starting new journeys.



QANTAS FLEET			
	In fleet	On order	Notes
737-300	16		
737-400	22		
737-700		15	From American. Plus up to 60 optio
747-200	4		
747-300	6		
747-400	25	6	Long range version Del. 2002-06
747SP	2		
767-2/300	24		
A330		13	Delivery 2005-05
A380		12	Delivery 2006-10
Total	99	46	

Rights issue

Qantas moved quickly to emphasise its determination to maintain a dominant domestic market share - not 85% evidently but a "sustainable" share of 65-70% by announcing a further fleet expansion (Qantas finalised its 10-year investment programme last November). The carrier stated that it expected aircraft to be available at "greatly reduced prices", and targeted 737NGs and A320s for delivery during January-July 2002

Funds for the new equipment investment were partly provided by a rights issue towards the end of October, underwritten by UBS Warburg, Merrill Lynch and Deutsche Bank, which raised A\$450m. Remarkably, this was 50% more than originally planned.

Qantas opted for the 737-800, placing an initial firm order for 15 aircraft, with options on another 60. The first aircraft will be in service in January and the other 14 will be progressively introduced between February and July 2002.

In fact, the aircraft will come from the mega-order placed by its oneworld partner American, which clearly isn't interested in deliveries in the near future. As expected, no price details were revealed but presumably Qantas will have benefited from a double discount - the first achieved by American as part of its "lowest guaranteed price agreement" with Boeing, the second because Qantas is one of the very few airlines worldwide willing to take over deliveries at this time. In addition, American will assist Qantas

with technical advice, simulator training, spare parts and engines.

The features of Qantas's fleet operation will then be:

- The 737-800s forming the core of the narrowbody fleet, with an all-economy class configuration of at least 165 seats, operating on services where there is small or no demand for business class travel;
- Reconfiguration of a number of existing Qantas 737s to create a total fleet of about 40 all-economy class aircraft;
- Flights between Perth, Adelaide Melbourne, Sydney and Brisbane operated by two-class 767s or A330s;
- Regular two-class 747 services between Perth and the east coast of Australia and on long haul leisure routes;
- A significant increase in direct flights between capital cities with fewer stops at ports in between; and
- An extension of the Cityflyer service, which currently operates between Sydney and Melbourne, to Brisbane.

Qantas and American have also formalised a 10-year strategic alliance. This will involve:

- Qantas using American Airlines' specifications as standard for the replacement of the Qantas 737 fleet, creating opportunities for short-term leasing between the airlines;
- Qantas progressively relocating to American's terminal at Los Angeles airport;
- Qantas commencing Auckland-Dallas-Auckland non-stop services when the new, long-range 747-400 is delivered in late 2002;
- Expansion of the codeshare agreement and FFP agreements between the two carriers.

So it seems that Qantas has moved decisively to consolidate the transpacific route in a manner that complements its agreement with BA on the kangaroo route. Although American is in a weakened state at present, the oneworld combination with Qantas looks very well positioned to compete with United. The demise of Ansett removes competition from the Hong Kong and Osaka route and the threat of new competition on London, Los Angeles and Tokyo. SIA is weakened by Ansett's collapse in that it has lost actual and potential feed from the key eastern seaboard market. It also seems to be at loggerheads

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with Virgin Atlantic over the role of Virgin Blue in the Australian market and other matters. Virgin Atlantic, itself, the other main competitor on Australia-UK services, is facing serious financial problems because of its exposure to the transatlantic market.

At the airline's AGM in late October, Margaret Jackson, the Qantas chairman, made clear her view of the market she hopes Qantas will now be able to operate in:

"In our view, it is critical that all participants draw the right conclusions from the Ansett situation. As an industry, we cannot afford to try and recreate the recent past of cut-throat competition. Nor can we afford to retreat to some distant past of heavy regulation, limited discount fares and costly government intervention.

"We need to accept that the Australian aviation industry of the future may look very different to that of the past. For example, Canada only has one national carrier. So does France. So do Germany, Italy and many other countries. Instead of two national carriers, competition can very effectively be sustained by a range of independent competitors focusing on particular market segments.

"We should prepare for a closer alignment between the Australian and New Zealand aviation markets. It was with this in mind several months ago that we sought to become a cornerstone shareholder in ANZ. Such a partnership made sense to us then, and it still does, but it could now be some time before a real market-driven solution is achievable".

So, a future with Qantas as the sole international carrier of Australia and a potential take-over of ANZ, now greatly weakened and currently without top management.

Financial outlook

The turn-around in Qantas's fortunes is reflected in earnings forecasts. For example, Kevin O'Connor of Deutsche Bank is predicting a net profit of A\$382m (US\$190m) for the year ending June 30, 2002, compared to A\$291m for 2001. This forecast, based on a domestic market share of 70-75%, is upgraded from A\$300m pre-September 11

and pre-Ansett collapse.

The share price has also moved up from about A\$2.9 just after September 11 to A\$3.6 in late October. This capitalises the airline at A\$4.8bn, which is roughly the same as BA, and BA of course owns 25% of Qantas.

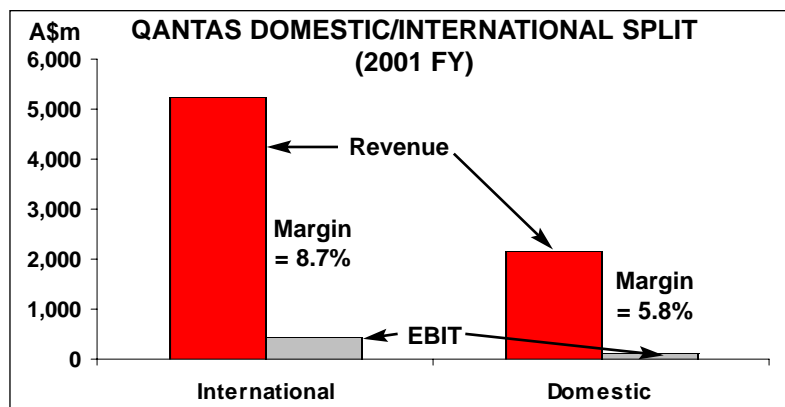
Looking further ahead the year to June 2003 holds the promise of not only a dominant domestic position but also a recovery in the international market. This, again according to Deutsche Bank, will produce a net profit of around A\$509m (US\$255m).

This sounds almost too good to be true given the recent turmoil in the Australasian market. The opposite, ultra-pessimistic viewpoint is that Qantas could end up like Air Canada, with a dominant market share but ever-deteriorating finances to the extent that massive government subsidies are being pumped in.

The most important difference between the two situations is that Qantas has managed to avoid the trap of buying out Ansett whereas Air Canada took over Canadian, and in the process bought union and cost problems plus totally uncommercial government restrictions on its freedom to manoeuvre - to drop unprofitable services and to lay off surplus employees.

Moreover, Virgin Blue is not quite WestJet, although it exudes confidence, has reported a marginal operating profit and has announced plans to expand its 737 fleet by three units to 15 by year-end (it had previously aimed for this total by end-2002).

Virgin Blue is estimated to have labour unit costs some 20% below those of Qantas, but some elements of a successful low-cost strategy may be missing. The airline seems



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to be lacking a core market of routes from which it can expand - as WestJet has at Calgary or Ryanair has at Dublin and Stansted. It is taking on Qantas on trunk routes like Sydney-Brisbane and Brisbane-Melbourne, which means that it is faced with the same level of infrastructure costs as the flag-carrier. Virgin will undoubtedly expand on its pre-September market shares of around 12% but the Australian market does not seem to provide the opportunity of major cost savings through the use of secondary airports. Also, Virgin Blue has not gone for a strict one-type fleet - it will be operating 737-400s, -700s and -800s.

On the other hand, the airline is receiving strong government support in the form of start-up subsidies to enter new routes like Brisbane-Cairns and Brisbane-Darwin.

The other competitive uncertainty for Qantas is whether Ansett will re-emerge in some form. There are at least two proposals. The first comes from Ansett's employees, and includes buying 35 planes and employing 7,000 workers from Ansett - the cost of a re-start-up is put at A\$500m.

The second comes from two wealthy and locally well-known Australian investors - Lindsay Fox and Solomon Lew. Their venture includes buying and leasing 29 new Airbuses and employing some 4,000 staff, which more like European flag-carrier staffing levels that that of a low-cost lean competitor. The aim is to capture about 20% of the domestic market.

The Ansett 2 plan is costed at A\$2.5bn of which about half would be equity. Given the record of Australian start-up attracting private capital will be difficult and institutional capital will also be reluctant if only because

local fund managers usually hold shares in Qantas.

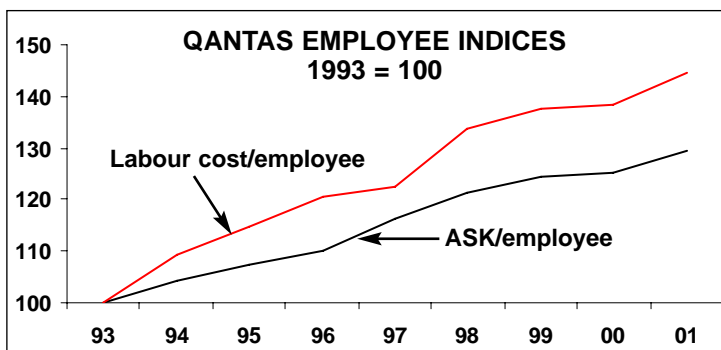
Qantas's biggest threat may be internal rather than external. As the graph below indicates, Qantas's unit labour costs continued to outpace productivity increase even during the period of intense domestic competition. Now Qantas appears to be willing to confront its traditionally very powerful unions. Its aim, it states, is to achieve a compatible cost base to its low-cost rivals. This will entail accept a wage freeze, flexible work hours and a ban on overtime. Exploiting the newly available pool of labour from Ansett may help Qantas achieve this aim.

It is also proposing launching a low cost subsidiary - named or re-named Australian Airlines - next April. This is a strategy that has been tried many times in the US and Europe but never with any great success.

The unions' response has been traditional and ominous. The Australian Services Union, which represents more than a quarter of the airline's staff, commented "The Australian civil aviation market is the one market that has the demand for seats and Qantas is ideally placed to meet that Virgin Blue's costs didn't take into account the "discounter's very different product aimed at the lower leisure market."

The Australian Manufacturing Workers Union, the main union representing the mechanics, is possibly more militant, threatening strike action and complaining, "Qantas on their own admission are going to make hundred of millions of profit ... on that basis we cannot accept the wage cut they are proposing. A wage freeze is a wage cut."

Qantas also has to be very wary of its government, which is determined to promote what it sees as a reasonable level of competition in the Australasian market. Qantas recent offer of a million discount seats elicited an immediate response from the Australian Competition & Consumer Commission, which evidently suspected this of being a tactic to stall the growth of competitors. In the longer term it may well try to promote cabotage to encourage competition.



US Majors: initial responses to the crisis

The Bush administration took ten days after the events of September 11 to provide support to the US carriers. The closure of all US airspace for the three days after the terrorist attacks cost the airlines an initial \$1bn. However, unlike the decision taken by the EC, the US government decided to support the airlines and compensate for loss of traffic beyond the time when US airspace reopened.

In their submission for a financial bail-out to the US House of Representatives, the combined US airlines outlined the following traffic recovery scenario:

- Traffic to recover to 60% of previous expectations (i.e. pre September 11) by December 2001;
- To 75% of previous expectations by end of the first quarter 2002; and
- To 85% of previous expectations by end of the second quarter 2002.

The *Air Transportation Safety and System Stabilisation Act* gave support to the airlines in two ways. Firstly, a cash injection of \$5bn was given to the carriers. This was divided up between the carriers by size (number of ASKs flown). The second form of support was in the form of loan guarantees of which the US government has set aside \$10bn. Also, the government has limited the airlines' insurance liability in case of further terrorist attacks.

The airlines had initially asked for \$24bn and been offered \$8bn. The \$15bn compromise in the short-term at least has removed the threat of an industry melt-down. The bail-out was not without its detractors, with some suggesting that the airlines should only be compensated for the three days of closure of US airspace and not the subsequent fall-off in traffic. Critics argued that the bail-out should not have been given without being dependent on fundamental reform of the airline industry's industrial relations. Also some Congressmen felt uncomfortable with airlines being made a special case, somehow

different from sectors such as hotels, leisure and insurance.

The carriers have been somewhat reluctant to use the government loan guarantees. Most carriers have stated that they would prefer if possible to borrow from the private capital markets. The government can ask for warrants over the shares of carriers that it guarantees (giving the government a potential share in any improvement in the industry's fortunes). So the carriers are cautious about applying for government guarantees in case their existing shareholders are diluted.

Re-capturing lost traffic

The airlines were initially criticised in some quarters for not lowering fare levels sufficiently to stimulate passenger demand - their thinking was that it was probably pointless trying to persuade frightened people to fly by lowering fares. However, by the start of October, with traffic levels still depressed, this policy changed. United announced cuts of between 25-50% in some business class fares, and virtually all the other majors carriers have followed suit with cuts in both business and leisure fares announced. Some carriers have waived Saturday night stopover restrictions.

In an industry-wide move, airlines are offering their frequent fliers up to double reward points for travel before the year end and also lowering redemption levels for frequent fliers seeking to redeem their miles. Similarly all carriers have been reporting record or near record level of operating performance (on-time departures) and there has also been a show of solidarity among airline senior executives who have volunteered to take pay cuts or temporarily suspend all remuneration.

However, there are some ominous signs of resistance to flying. A survey carried out by the Business Travel Coalition, post-September 11, revealed that 97% of US

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INITIAL CUT-BACKS

	Job cuts (% of total)	Capacity reduction
American	20,000 (18%)	20%
America West	2,000 (14%)	20%
Continental	12,000 (21%)	20%
Delta	13,000 (15%)	15%
Northwest	10,000 (19%)	20%
Southwest	0	0
United	20,000 (20%)	20%
USAirways	11,000 (25%)	23%

companies were advising their employees to scale back on air travel. Typically this amounted to a ban on non-essential travel (conferences, internal meetings etc.) which BTC estimates translates into a 40-50% drop in total journeys. Of course many US companies were already moving in this direction before September 11.

BTC has forecast that US corporate travel in January 2002 will be 50% below the level recorded in the previous January. The BTC emphasises the increased interest that US companies are showing in video-conferencing and web-conferencing.

American Airlines

American brought forward its plans to close TWA's Terminal Five at New York JFK from December to October, so that its JFK operations will be consolidated in its own terminal. American has also announced that it has brought forward by six months the first phase of its new JFK terminal construction project which is now expected to open in June 2003.

Third quarter losses for American totalled \$525m or \$414m after taking into account a portion of the government subsidy. Alarming for American, one of the effects of cutting capacity was to push up unit costs by nearly 8% on an annual basis. This combined will a fall in unit revenue of 16%

American does, however, have \$3bn in cash and the possibility of raising further funds through EETCs. Its early October EETC was a partial success in that the higher rated tranches were sold but the bankers were unable to dispose of the lower rated

tranches, so \$1.3bn rather than the planned \$2bn was raised.

American's alliance ambitions still wedded to oneworld. In August, American and BA applied for anti-trust immunity for their transatlantic services, and in October a extensive agreement was signed with Qantas following the transfer of American's short term 737 delivery positions to the Australian carrier. Immunity will not be granted until the UK, or perhaps now the EU, signs an "open skies" agreement with the US. But that development is looking ever more likely.

America West

America West reported a third quarter net loss of \$69m reduced to \$32m after government funding. AmWest if one of the most financially fragile carriers, and has failed to make some of its lease payments. Cash is only about \$250m and Chapter 11 bankruptcy may not be far away.

Continental

On September 17 Continental announced a 20% cut in system-wide ASKs. At its three major hubs, Continental announced a reduction of flights of 14% at Cleveland, 14% at Houston and 20% at Newark. Ten direct routings have been axed, eight domestic and also Newark-Dusseldorf and Newark-London Stansted. From October 1 the airline grounded its DC-10, 31 narrow-bodied aircraft and 14 Continental Express turboprops.

Continental had been hoping to float its ExpressJet subsidiary, valued pre-September 11th at \$320m but this transaction has been indefinitely postponed.

Continental's third quarter loss was \$97m, but government funding actually brought it up to a marginal profit, \$3m. The threat of defaulting on lease payment made just after September is now seen as a political gesture. Now Continental will probably not take up a government guaranteed loan

Delta

On October 2, Delta CEO Leo Mullin

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announced "major price promotions everywhere" and "significant reductions...for business travellers". In its most high profile promotion, Delta is offering 10,000 free round trip tickets to New York as part of a programme to stimulate tourism and convention business. In return Delta has been named the "official carrier" of New York's convention and visitors bureau.

Delta has been using its Delta Connection regional carriers extensively to deal with the crisis. Its two wholly owned subsidiaries, Atlantic Coast Airlines and Comair are being used to maintain schedules in Cincinnati and Atlanta respectively. The two other Delta Connection carriers, Atlantic Southeast Airlines and Skywest, are being used to shore up operations at Atlanta and Dallas Fort Worth respectively. Delta has parked 50 aircraft for at least the remainder of 2001 and is in negotiations with Boeing and Bombardier to defer deliveries.

On September 17 Delta was able to close its \$1.25bn EETC financing. Although the issue had to be priced significantly above levels that could have been achieved prior to September 11, with US Treasury rates at such low levels, the deal was relatively inexpensive by historical standards - the interest rate on the A tranche was 5.87% pa. The closure of this financing means that by end-September Delta had a cash balance of \$2.55bn and it announced that it had a further \$8.9bn of unencumbered assets to fall back on. Delta's third quarter loss was \$295m, which government aid helped reduce to \$259m.

Northwest

Northwest has been able to preserve service to all its US mainline destinations, but at lowered frequencies, although it has suspended its Delhi-Amsterdam service.

Third quarter results were better than feared - a loss of \$100m which turned into a profit of \$19m after government funding. Northwest, however, faces serious problems on the Pacific where October traffic was down 40% (compared to just 25% on the Atlantic). The airline announced that as of end-September it had a cash position of

over \$2bn.

With an elderly fleet, and low capital costs, Northwest is not as exposed as the other Majors when it parks aircraft. It has committed to taking all its scheduled deliveries, about 50 units, this year and next.

Southwest

Even Southwest has been forced to make adjustments to its strategy. It too announced fare sales, and told Boeing that it needed to delay fourth quarter 2001 deliveries of 737-700 aircraft (perhaps with the idea of taking advantage of very depressed second-hand prices). No labour lay-offs have had to be made.

The airline announced that as of end-September it had a cash position of \$1bn with a \$475m line of credit facility. Moreover, Southwest was able to produce a profit of \$83m for the third quarter before and government funding.

Southwest traffic and unit revenues and still trending upwards. Both in terms of operating economics and passenger appeal, the Southwest model has proved very successful in the post-September 11 market. Its stockmarket capitalisation was \$12.4bn at the end of October while that of the second place airline, Delta, was \$2.9bn.

United

Jim Goodwin, the CEO, became the first top management casualty of the crisis when he was sacked by the United board and replaced by John Creighton. United seems to be in severe financial problems, and Goodwin had lost the confidence of the unions, many of whose members are also shareholders in the airline.

As part of its 23% capacity cutback, United has announced:

- The discontinuation of the United Shuttle brand, with 30 out of 36 routes to be streamlined into either United mainline or United Express;
- Six cities to be downgraded to become United Express routes five to be operated by Atlantic Coast Airlines and one by Skywest; and

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THIRD QUARTER STATISTICS

	Stockmarket value (\$bn)	Rev (\$m)	Result* (\$m)	Change in unit cost	Change in yield
AmWest	64	479	(69)	3%	-14%
American	2,894	4,816	(525)	8%	-12%
Continental	975	2,223	(97)	-3%	-10%
Delta	2,955	3,398	(295)	5%	-10%
Northwest	1,122	2,594	(100)	2%	-10%
Southwest	12,451	1,335	83	-1%	-12%
United	1,473	4,107	(452)	3%	-14%
US Airways	324	1,989	(766)	-1%	-16%

* Before government funding and special items

• Six cities to lose all United service and a further eight domestic routes to be closed
UAL's third quarter loss was \$542m, before government funding but excluding \$617m in special charges. The airline is heading for a \$2bn-plus loss for the year.

The company's cash balance at September 30 was \$2.7 bn, including \$1.5bn raised in August from an EETC. Nevertheless, bankruptcy proceedings are looking more likely unless the unions forego major rises won before September 11. One of the effects of chapter 11 might be to wipe out the union's shareholding in the company and eventually restore a more normal corporate governance structure benefits to the company.

United has some comfort in being a cornerstone of the world's strongest alliance grouping, Star. On September 5, United applied for anti-trust immunity for its transatlantic alliance with bmi.

The anti-trust immunity application states that United, bmi and the other Star partners, intend to "operate as if they were a single firm with a common objective" by sharing pricing, scheduling and revenues on transatlantic routes. United already has such a waiver with Lufthansa, SAS and Austrian.

US Airways

The prolonged closure of one of US Airways' main hubs, Washington's Reagan National airport, because of the proximity of its flight paths to the White House and other US institutions has hurt the airline badly. The

airline has been the most draconian in terms of reducing capacity (23%) and employees (11,000 out of a total of 45,000).

The reduction in capacity will be achieved through downgrading services to regional jet services through US Airways Express and by retiring, by April 2002, all the carrier's 737-200s, MD-80s and F100s. Its 12 A321 deliveries scheduled for next year have been postponed.

US Airways was in deep trouble following the failure of United's take-over attempt, and third quarter results were very bad - a loss of \$766m before government funding, \$433m including the government money and special items. The airline announced a cash position of \$1bn at the end of September, but how much of this remains is unclear.

US Airways is a prime candidate for Chapter 11, and it is surprising that it has not yet filed.

Outlook

The airlines that would appear to have suffered least from September 11 are the regional jet operators. As the majors downsize capacity but preserve network coverage, the regional jets have been an important tool in replacing 100-plus seater aircraft.

Cash is king and airlines will probably seek to replicate the EETC transactions and raise cash from the sale and leaseback of unencumbered assets. Clearly there is a great disparity among balance sheet strength.

The questions that will need to be addressed are:

- Will the US government will continue to support the airlines through further bail-outs?
- Will it allow the weaker carriers to be acquired by the strong through a more laissez-faire competition policy?
- Will the stronger carriers (the big three) seek to acquire the weaker players and assume the usual merger problems or let them operate under Chapter 11 and potentially undermine the yield structure?
- Will the industry now reduce to the big three network carriers - American, United and Delta - plus Southwest, or, given the depressed price of assets, will new airlines evolve?

Cargo alliances - a way out of the crisis?

Even before September 11, the air cargo sector was moving into a serious downturn. But air cargo carriers have the opportunity of countering the recession through an innovative approach to freight alliances. Here consultants* from Roland Berger outline their ideas on air cargo alliances.

In Lufthansa Cargo's case, the load factor fell from a profitable 67.5% in the first half of 2000 to 62% in the same period this year; as a result, profits collapsed from €82m to just €2m. Similarly, Cargolux has been experiencing negative growth through 2001; in July, revenues were 12% down on the same month in the previous year. This is a worldwide phenomenon, as profit warnings from virtually all the major cargo carriers show.

Cargo airlines have taken defensive action, for example, by reducing capacity (by mid-year Lufthansa Cargo had taken the equivalent of two 747Fs out of the market), by cost-cutting and, recently, by imposing security surcharges and general price increases.

Besides airlines taking action individually, however, potential can also be realised through working together in the form of alliances. The main aim in forming an alliance is to create a global logistics service and hence increase market share. When they form alliances, airlines should be focusing on optimising their route networks and schedules. This optimisation has three main aspects:

- Improving coordination of the existing O&D service;
- Making it possible to add new O&Ds and to open up new markets; for example, linking two existing point-to-point routes via a common hub quadruples the existing O&D offering. Cargo alliances can achieve this effect by setting up a turnaround hub, where freight is transferred between the partner airlines;
- Facilitating major cost savings through new options in network planning - it is quite conceivable that in the future the operation of individual routes will be assigned on the basis of partners' unit costs.

How do clients benefit? By getting a better and expanded product for the same price. It also cuts their administrative costs, as all the alliance's routes are now available in a coordinated fashion. This "one stop shopping" reduces labour costs and speeds up the organisation of the transport.

These are the benefits of cargo alliances in principle: but whether they are achieved depends on whether alliances are designed with the appropriate success factors in mind.

Four success factors

There are four essential factors contributing to the success of cargo alliances: harmonising products, coordinating sales, optimising networks, and "enablers" such as processes, IT, or steering.

1) Harmonising products

Any alliance must be based on a common worldwide product range, offered by all partners, with the same quality and for the same price. Especially where shipment routings require the change of carriers, coordinated products are essential, so that the service sold can be supplied even when more than one partner is involved. This calls for enablers, as we will see below.

If the alliance is to be completely implemented so that clients no longer book their shipments with individual airlines but with the alliance, then only alliance products must be offered. This means that alliance members must abandon their individual products or amalgamate them into the alliance range.

2) Coordinating sales

By combining sales, the alliance becomes visible to the clients, who are now handled entirely by a joint alliance representative. To the airlines, this has the advantage that it cuts out intra-alliance competition and avoids duplication. This requires the alliance partners' sales organisations to be combined in different

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regions to create joint regional sales teams. The redundant staff can be put to work acquiring new clients instead, thus generating more sales.

To avoid classic integration problems, such joint sales organisations should be set up as independent companies ("Sales Inc."), with staff from partners' existing sales organisations transferring to them. These companies' task is to sell the total freight capacity of all the alliance members together. Organising the Sales Inc. as a profit centre that buys the partners' total capacity creates an incentive to sell as much capacity at the best possible price, whichever carrier produces it.

If the Sales Inc. is to succeed, it must access existing company databases and assume responsibility for revenue management. Revenue management can be decentralised thanks to the one-way nature of the cargo business: that is, capacity is marketed where it is provided. This is a significant difference to the passenger business. Another difference is in clients' brand loyalty, which is not as pronounced in the cargo world. Therefore, airline affiliation of the sales force is not that much of a selling proposition.

3) Optimising networks

The success of an airfreight alliance depends on creating a global route network. Given that some 70% of all airfreight is flown between Europe, Asia, North America, and within those three continents, cargo alliance members should be selected strategically. A truly "global" network, adding on South America, Africa and Australia, should only be created in a second wave.

As the alliance partners adjust their all-cargo networks, capacity on existing routes is cut and the offering is expanded into new markets. Aircraft utilisation is improved, lowering unit costs and increasing revenues. Combining networks is particularly beneficial if the partners' existing networks overlap only at certain strategic points, such as common hubs. These are then used by the alliance as transfer points between different carriers.

If the alliance is to endure, optimising networks must produce a win-win situation for all the partners involved. One obstacle on the way to achieving this situation might be the differ-

ence in the fleets of the partners. The synergies are the biggest when all the partners own all-cargo planes. However, it might be valuable to include a pure passenger carrier, if this carrier brings in market expertise or feeding capacity for a market that is not sufficiently covered by the all-cargo carriers.

4) Enablers

Just as important as the success factors above are the "enablers" which allow the realisation of the alliance's services on a global scale in the first place. This means harmonising processes, adapting IT systems, and deciding on a steering process.

Airlines must standardise handling processes, which requires standard labels and names, for example. This alone ensures consistent process quality and fault-free tracking & tracing between partners. Revenue management needs to know current load factors in order to know how much weight and what volume there is still to be sold; this also includes capacity on the alliance's passenger flights, of course.

For all these aspects, a common IT system is essential. This should not mean linking up existing systems, but if possible introducing a single, unified system covering all partners.

Another important enabler is the steering process. So far the disregard for this issue has caused serious problems for alliances when the airlines were not willing to give the necessary autonomy to the joint sales force. An alliance sales force should no longer serve the individual airlines but the alliance as a whole. Therefore, a mechanism has to be found for the airlines to place confidence in the joint sales team.

When setting up the Sales Inc., for example, it is essential to decide on the allocation of votes, joint sales targets, and the distribution of profits ('benefit distribution model'). As a pragmatic solution it is recommended to use the partners' regional market shares as guidelines. Using the proposed profit centre model, a mechanism for steering the sales company's day to day business is only necessary to a limited extent. More important for the success of the Sales Inc. are conflict resolution guidelines, which regulate the settlement of disputes.

Becoming global airfreight providers

There are two air cargo alliance systems at present, which are quite different.

SkyTeam Cargo

SkyTeam Cargo is the SkyTeam passenger alliance's cargo side, involving Aero-mexico, Air France, CSA Czech Airlines, Delta Air Lines, Korean Air and, since August 2001, Alitalia. SkyTeam Cargo was founded in September 2000, and currently offers 6,840 flights daily to nearly 420 destinations in over 100 countries. Via its main hubs Atlanta, Paris, Milan, Seoul, and Mexico City, it offers a global network covering virtually all important economic regions.

While SkyTeam Cargo will be offering a joint product portfolio in the future, the individual airlines will also retain their existing products. The new product line, to be launched worldwide, will be made up of what were originally Air France products: Equation (Express Cargo, launch date: end 2001), Dimension, Cohesion, and Variation (all to be launched in 2002).

On the handling side, SkyTeam Cargo is in a process of simplification. Under the "one roof" policy, the alliance partners will share the same terminal, and sign joint handling contracts. There are already plans to integrate the IT environment, which will be achieved through developing interfaces between proprietary systems.

In the US, a joint venture between Air France, Delta, and Korean Air is due to start work in January 2002, with the aim of promoting joint cargo operations and marketing SkyTeam Cargo's product range for international shipments through a joint sales team. The capital for this joint venture (\$2.5 m) has been raised by all the partners involved. To begin with the company will act as a GSA.

SkyTeam Cargo has completed the first steps on the way to implementing a successful strategy..

First, the partners have agreed on harmonising their products: their joint product range should be available worldwide by the end of 2002. In the medium term, the partners need to consider what the benefits of continuing their

own products are.

Second, the proposed North American joint venture marks a major step towards coordinating sales. It can be expected that the experience gained in the US will help boosting worldwide sales efficiency very quickly. However, complete success depends on merging client databases and revenue management systems - neither of which is planned at present.

The partners have also recognised the potential synergies to be achieved by optimising their network. On the relevant continents, SkyTeam Cargo has found good partners: the only gap left to be filled is in Southeast Asia. The overlaps between the networks of Air France Cargo and Alitalia Cargo are not so serious, as this means routes to North America and Asia can be divided up. This helps to make up for Korean Air's weakness in Europe.

The real need for action is on the side of the enablers: SkyTeam Cargo has not yet taken any real steps towards harmonising processes and IT. Most handling contracts state that Air France will provide handling services for the partners. On the IT side, interfaces will be introduced to link existing systems, which will lead to interface problems.

New Global Cargo

New Global Cargo is the airfreight alliance of the Star Alliance members Lufthansa Cargo, SAS Cargo, and Singapore Airlines Cargo, created on April 26, 2000. The aim of the alliance is to establish the leading worldwide airfreight logistics system. The alliance serves a network of 493 destinations in 103 countries, with 31 freight-only and 612 passenger aircraft providing 21.5 bn FTKs a year.

The partners plan to harmonise their individual products and IT infrastructure and merge their sales and handling operations. Four 'business integration teams' have been set up for this purpose (BIT Product, Sales, Handling, and IT).

Although all the founding members belong to the Star Alliance, New Global Cargo will also be accessible for other airlines. The essential factors are the compatibility with Alliance standards and the inde-

pendence of the cargo airlines. The cargo divisions of Singapore Airlines and SAS had taken this step by mid-2001 - in a similar way to when LH Cargo was established

Even before the alliance was announced, Lufthansa Cargo and SAS Cargo were already working together closely on long-haul routes (to Asia, for example). LH Cargo and Singapore Cargo also cooperate on the Frankfurt-Singapore route and on transports to Australia.

Progress the of the cargo alliances

Since the beginning of October, New Global Cargo has been offering harmonised express products - this explicitly does not embody a new alliance product - and is planning to do the same with standard airfreight in the first half of 2002. Harmonised time-definite products are planned on a worldwide scale.

New Global Cargo is already familiar with sales coordination due to the sales cooperation of LH Cargo and SAS Cargo. Even before the alliance was announced, the two carriers had merged their sales operations in Scandinavia, Finland and the Baltic states. However, apart from a "one roof" policy, which bundles both sales and handling units under one roof, there is no evidence of any actual measures being taken to realise sales synergies.

New Global Cargo's network is based primarily on the existing networks of LH Cargo and Singapore Cargo, two of the largest providers in the air cargo market. SAS Cargo's role seems to consist mainly of bringing in the Scandinavian market which, with its leading global IT manufacturers, generates valuable freight for the alliance. Despite these strengths, partners must be found in North America and the East Asia (Japan or Korea) if these important economic regions are to be served better.

In terms of enablers, New Global Cargo is also aiming to harmonise its existing IT systems rather than standardising the systems landscape. It has also announced that it will be harmonising its handling operations. However, the business integration teams have not completed their work yet, so no tangible results

have been achieved so far.

In addition to these alliances, there are large numbers of code sharing agreements, but we are not aware of any concrete plans for any further alliances. Among existing passenger alliances, the KLM-Northwest alliance is moving toward working together in the freight business. Together with Nippon Cargo Airlines, MAS Cargo, and Braathens Cargo around 400 destinations are offers and mutual GSA agreements have been signed. However, they have not yet formally become an alliance. The members of the Oneworld alliance do not see airfreight as one of their core competencies, and so have little interest in a freight alliance.

Future developments

Cargo alliances may be a way of coping with the current crisis and may help companies to participate disproportionately in the still expected growth of the industry over the coming years. Alliances help cut unit costs and offer clients better products - and thereby give profits a sustained boost.

The existing alliances have already taken major steps in the right direction. However, the airlines still have some way to go to meet all the identified success factors and thus achieve maximum synergies. SkyTeam Cargo should in particular be looking for a carrier in Southeast Asia to fill this last major gap in its network. It must also ensure that the joint sales operations take full advantage of their favourable operational starting position.

New Global Cargo must also push ahead actively on extending its network, which still has some gaps in its geographical coverage. The alliance also needs to concentrate on turning plans into action quickly and successfully, especially when it comes to harmonising products and integrating sales.

Both alliances need to be careful when drawing on their experience from the passenger side. Passenger alliances are driven primarily by marketing aspects, which are largely irrelevant on the cargo side. Instead, cargo alliances should concentrate on meeting the success factors above and push ahead to implement them.

Aviation Strategy

Value trends

E-VALUES: CHANGES IN MARKET VALUES FROM APRIL 2001 BASE

Airbus		Boeing/MDC		BAE			
A300-600F	15%	707	24%	757-300	12%	BAe146-100	17%
A300F4	13%	717	21%	757PF	13-14%	BAe146-200	15%
A310-200F	14%	727-100F	23%	767-200ER	11%	BAe146-300	16%
A310-300	15%	727-100FH	19%	767-300	15%	BAe146QT	12%
A319	12%	727-200FA	20-18%	767-300ER	13%		
A320-100	19%	727-200FHA	21-19%	767-400	13%	Bombardier	
A320-200	13-12%	737-300	16-19%	777-200	11%	CRJ100ER	12%
A321-100	13.5%	737-300QC	15-16%	777-200ER	10%	CRJ200ER	10%
A321-200	12%	737-400	17-19%	777-300	13%	CRJ700	12%
A330-200	10%	737-500	14-16%	MD11	16%		
A330-300	13%	737-600	13%	MD11F	16%	Dornier Fairchild	
A340-200	16%	737-700	11%	MD81	19-22%	Do 328JET	13%
A340-300	12%	737-800	10%	MD82	17-20%		
		737-900	13%	MD83	16-17%	Embraer	
Lockheed		747-100F	26%	MD88	17-18%	ERJ135	10%
L1011-200F	28%	747-200F	23%	MD90	18%	ERJ145	11%
		747-400	12-13%	MD90	18%		
		747-400F	11%	DC10-30F	22%	Fokker	
		757	13-14%	DC8-60F	22%	F100	23%
		757-200ER	12%	DC8-70F	27%	F70	21%

Post September 11, AVAC has introduced the concept of "E (Extraordinary) Market Values for the short term - perhaps covering the rest of the year. E Type Market Values reflect the asset value of the aircraft/engine while taking into account the current severe market conditions. E Type Market Values are some 11-15% lower than pre-September 11 values for Stage 3 types. Older aircraft types feature larger discounts.

E Type Market Values are accompanied by a clear statement that the current market conditions make a sale virtually impossible,

even at a distressed sale discount of 30%, implying that to realise the worth of the asset, retention until the market improves is imperative. The E-type Market Value therefore more reflects the intrinsic worth of the asset.

Current market values based on end-April 2001 assessments have been published in these issues of *Aviation Strategy*:

- Widebodies, June 2001;
- Narrowbody and Regional Jets, July/August 2001; and
- Jet freighters, September 2001.

AIRCRAFT AND ASSET VALUATIONS

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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 %
1993	137.8	79.8	57.9	145.1	102.0	70.3	96.3	68.1	70.7	319.1	223.7	70.1	479.7	318.0	66.3
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74.0	334.0	243.6	72.9	503.7	346.7	68.8
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73.0	362.6	269.5	74.3	532.8	373.7	70.1
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
1997	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
1998	188.3	120.3	63.9	194.2	149.7	77.1	135.4	100.6	74.3	453.6	344.2	75.9	673.2	484.8	72.0
1999	200.0	124.9	62.5	218.9	166.5	76.1	134.5	103.1	76.7	492.3	371.0	75.4	727.2	519.5	71.4
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
Sep 01	19.0	12.5	66.0	17.4	12.5	72.1	11.0	8.8	79.6	40.4	30.8	76.3	62.7	45.4	72.4
Ann. chng	4.0%	-3.1%	-4.8	-14.9%	-26.2%	-11.1	-3.8%	-8.6%	-4.2	-7.3%	-14.8%	-6.7	-3.8%	-11.9%	-6.6
Jan-Sep 01	165.7	106.5	64.3	173.5	132.1	76.1	100.6	79.1	78.7	381.8	295.5	77.4	577.7	422.2	73.1
Ann. chng	4.6%	3.7%	-0.5	-0.5%	-5.0%	-3.6	-3.1%	-3.3%	-0.2	-0.6%	-2.5%	-1.5	1.0%	-0.9%	-1.4

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 %
1993	867.7	538.5	62.1	140.3	97.0	69.2	112.5	79.7	70.8	55.8	32.5	58.2	308.7	209.2	67.8
1994	886.9	575.6	64.9	136.1	99.5	73.0	107.3	78.2	72.9	56.8	35.2	62.0	300.3	212.9	70.9
1995	900.4	591.4	65.7	130.4	98.5	75.6	114.3	83.7	73.2	62.1	39.1	63.0	306.7	221.3	72.1
1996	925.7	634.4	68.5	132.6	101.9	76.8	118.0	89.2	75.6	66.1	42.3	64.0	316.7	233.3	73.7
1997	953.3	663.7	69.6	138.1	108.9	78.9	122.0	91.2	74.7	71.3	46.4	65.1	331.2	246.5	74.4
1998	960.8	678.8	70.7	150.5	117.8	78.3	112.7	82.5	73.2	83.5	52.4	62.8	346.7	252.7	72.9
1999	1,007.3	707.5	70.2	164.2	128.2	78.1	113.2	84.7	74.8	81.3	54.3	66.8	358.7	267.2	74.5
2000	1,033.5	740.1	71.6										380.9	289.9	76.1
Sept 01	70.1	39.4	56.2%										27.7	18.3	66.1%
Ann Chng	-20.1%	-32.5%	-10.4										-16.8%	-30.1%	-12.6
Jan-Sept 01															
Ann. chng															

Note: US Majors = American, Alaska, Am. West, Continental, Delta, NWA, Southwest, TWA, United, USAir. 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	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	3,361	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, December 2000.

Aviation Strategy

Macro-trends

FINANCIAL TRENDS (1990=100)

	Inflation (1990=100)					Exchange rates (against US\$)						LIBOR 6 month Euro-\$	
	US	UK	Germany	France	Japan	UK	Germ.	France	Switz.	Euro**	Japan		
1993	111	109	114	108	106	1992	0.570	1.562	5.294	1.406	0.773	126.7	3.84%
1994	113	109	117	110	107	1993	0.666	1.653	5.662	1.477	0.854	111.2	3.36%
1995	117	112	119	112	107	1994	0.653	1.623	5.552	1.367	0.843	102.2	5.06%
1996	120	114	121	113	107	1995	0.634	1.433	4.991	1.182	0.765	94.1	6.12%
1997	122	117	123	114	108	1996	0.641	1.505	5.116	1.236	0.788	108.8	4.48%
1998	123	120	124	115	109	1997	0.611	1.734	5.836	1.451	0.884	121.1	5.85%
1999	125	122	126	116	108	1998	0.603	1.759	5.898	1.450	0.896	130.8	5.51%***
2000	128	124	127	117	107	1999	0.621	1.938	6.498	1.587	1.010	103.3	5.92%***
*2001	131	127	128	119	107	2000	0.603	2.119	7.108	1.658	0.923	118.1	5.36%***
						Oct 2001	0.689	2.163	7.254	1.631	0.904	122.0	3.41%***

Note: * = Forecast. Source: OECD Economic Outlook, December 2000. **Euro rate quoted from January 1999 onwards. 1990-1998 historical rates quote 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
1988	126	34	160	16	1	17	177
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-June	353	150	513	222	67	289	802

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	Oct 4	Silkair	1 A320-200			
	Oct 4	ILFC	1 A340-300			
ATR	Oct 11	Undisclosed	4 ATR42-500s		1Q2002+	
	Oct 11	Air Mauritius	1 ATR42-500		2Q2002	
BAe	-	-	-			
Boeing	Oct 29	Qantas	15 737-800s		1Q2002	Aircraft originally for American
	Oct 25	PIA	4 777-200ERS			
	Oct 2	CASC (China)	33 737-700/800s, 2 747-400Fs, 2 757-200s		2002-05	For five Chinese airlines
Bombardier	Oct 11	Petroleum Air Ser.	2 Q300s	\$30m	2Q2002	Plus five options
Embraer	Oct 22	Midwest Express	20 140s			Plus 20 options. Previously announced as a MoU in April.
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	%	
Korean Air														
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01														
Apr-Jun 01														
Jul-Sep 01														
Malaysian														
Jan-Mar 00	2,148	1,652	496	-67	48,906.0	34,930.0	71.4	4.39	3.38		7,531.5	4,853.4	64.4	
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01	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	
Apr-Jun 01														
Jul-Sep 01														
Singapore														
Jan-Mar 00	2,459	2,203	256	439	44,582.6	33,430.1	75.0	5.51	4.94	7,030	8,665.8	6,185.7	71.4	
Apr-Jun 00														
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														
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														
Jul-Sep 01														
Thai Airways														
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01				108	55,517.0	41,347.0	74.5			17,700	7,752.0	5,469.0	70.6	
Apr-Jun 01														
Jul-Sep 01														
Air France														
Jan-Mar 00	4,831	4,430	401	41	55,508.0	41,650.0	75.0	8.70	7.98	19,200				
Apr-Jun 00														
Jul-Sep 00	5,506	5,132	374	385	60,088.0	48,464.0	80.7	9.16	8.54					
Oct-Dec 00														
Jan-Mar 01	4,981	4,988	-7	-25	59,100.5	44,622.2	75.5	8.42	8.43					
Apr-Jun 01														
Jul-Sep 01														
Alitalia														
Jan-Mar 00														
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														
Oct-Dec 00														
Jan-Mar 01	2,553	2,753	-200	-209	32,735.2	24,534.2	74.9	7.80	8.41					
Apr-Jun 01														
Jul-Sep 01														
BA														
Jan-Mar 00	3,097	3,281	-184	-247	44,533.0	29,328.0	65.9	6.95	7.37	10,778	6,253.0	4,041.0	64.6	64,874
Apr-Jun 00	3,488	3,342	146	-85	44,826.0	32,295.0	72.0	7.78	7.46	11,633	6,475.0	4,407.0	68.1	61,411
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														
Iberia														
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01														
Apr-Jun 01														
Jul-Sep 01														
KLM														
Jan-Mar 00	1,361	1,436	-75	-142	18,627.0	14,084.0	75.6	7.31	7.71		3,238.0	2,453.0	75.8	35,348
Apr-Jun 00	1,600	1,509	91	39	18,730.0	15,149.0	80.9	8.54	8.06		3,276.0	2,549.0	77.8	27,267
Jul-Sep 00	1,615	1,445	170	100	19,386.0	16,378.0	84.5	8.33	7.45		3,359.0	2,703.0	80.5	26,447
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
Lufthansa***														
Jan-Mar 00	2,831	2,742	89	11	28,599.0	19,781.0	69.2	9.90	9.59	10,355	5,422.0	3,751.0	69.2	67,489
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														
SAS														
Jan-Mar 00	1,145	1,179	-34	-33*	8,253.0	4,992.0	60.5	13.87	14.24	5,314				28,060
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														
Swissair**														
Jan-Mar 00														
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														
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														

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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