Aviation Strategy

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Thoughts for 1999

Economic analysts are generally being miserable at the moment, worrying about a loss of consumer confidence in the West, the ripple effects of the Asian crisis, the stubborn recession in Japan, imminent melt-downs in Brazil and other developing economies, the impact of the euro, Y2K, etc, etc. Yet the actual GDP forecasts for 1999 are not all that bad, showing a slow-down in growth rather than stagnation or decline. The consensus would appear to be: the US, a real GDP increase of 2.3% in 1999, down from a 3.5% rise in 1998; the EU - a 2.1% rise, compared with 2.8% in 1998; Japan - a 1.0% rise, up from a 2.0% fall in 1998; Southeast Asia - up from negative figures that are too painful to calculate yet.

As usual the airline industry will act as a lead indicator of the global economic trends. But within the industry some new trends will emerge; this is our list of developments to look out for.

• Capacity imbalance is becoming a major worry, especially as widebody aircraft are shifting from Asia to the Atlantic. Airlines operating from countries that have signed open skies agreements are potentially the most at risk, whereas BA's decision to postpone its alliance with American and retain the protection of Bermuda 2 may prove to be the correct strategy in this phase of the cycle. One question that may be answered in 1999 is whether capacity as traditionally measured is now being overstated because codesharing duplicates the services actually provided.

• Buying minority stakes has again become a widely used tactic to assure an alliance partner's loyalty. These investments tend to pay off when the investor airline also gains management control, and specifically joint inventory control on overlapping routes, as American has done with Canadian and as BA will do with Qantas. Cathay, undoubtedly wisely, pulled out of its 40% purchase of PAL when it became clear that its management authority would not be certain. On the other hand, Swissair has proceeded with minority stakes in flag-carriers, charters and regionals as part of a bold expansion; is this really the way to overcome Swissair's geo-aeropolitical exclusion in Europe?

• The US virtual mergers face strong opposition from the antitrust authorities, yet two of them - Northwest/Continental and American/US Airways - are still possible or even probable. But some questions are being raised about diseconomies of scope - specifically, FFP amalgamation. By combining major FFPs, airlines risk removing the one characteristic that stops air travel becoming a commodity, so they will have to revert to competing purely on price. Also, by merging FFPs frequent flyers will find themselves closer to critical redemption levels than they would be with separate FFPs - hence the cost to airlines of operating the FFPs will rise.

• There are signs that the US will change its rules on foreign ownership to allow an increase in its limit to 49%, which might be enough to tempt Virgin Atlantic into making a bid for a domestic carrier (MidWest Express is a bit of wild speculation). At the same time the US authorities, faced with acceleration *(continued on page 2)*

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in the consolidation process, will move further from their traditional laissez-faire attitude towards reregulation in favour of consumer interests.
• The Asian crisis bottomed out in August - in terms of traffic but not yield - and has been staging a tentative recovery since then. SIA will emerge as one of the main global players from the crisis, having established its regional empire with Ansett, ANZ and China Airlines, and its entry into Star will be as a co-equal to Lufthansa and United. Cathay, plus Dragonair, is attempting the same strategy within the now looser oneworld alliance.
• Asian governments - in Malaysia, Indonesia, the Philippines and South Korea - are, like European governments earlier this decade, not going to allow their flag-carriers to disappear. The issue is whether Asian aid will prove to be more effective than European aid. If government funds are used to prop up existing networks, which are based on delusions about the role of flag-carriers, this money will be wasted; if the funds are used to restructure, downsize and focus on regional markets, then the aid might just be justifiable.
• It has been a long time since the last wave of airline bankruptcies. Many of the Asian airlines are in effect bankrupt but, as noted above, will be bailed out by their governments. A couple of the European flag carriers teeter on the edge - will their governments invent a Euro-Chapter 11? In the US TWA has to reverse its losses very rapidly in view of its capital expenditure commitments on A318s and 717s.
• A second wave of European flag carrier privatisations is set to occur in 1999. On the blocks are Austrian and Air France (both postponements from 1998), Iberia, the second portion of Alitalia and possibly Aer Lingus. The question will be whether the industry cycle will be strong enough to support these privatisations and indeed whether there is still sufficient investor appetite. There will also be another wave of European regional carrier IPOs or private placements in order to raise the funds necessary to expand their Emb 145/135 and CRJ fleets.
• European low-cost carriers are going to consolidate their position in the market if economic conditions deteriorate. Unlike the US in the mid-1980s, they will not be forced out because the cost gap between them and the Euro-majors is much wider than that between the US Majors and US start-ups, the leading low-cost carriers have very good quality management and the regulatory authorities are exercising a type of reverse-discrimination. None of the continental Euro-majors, constrained by their unions, has yet to develop an adequate response to the low-cost threat beyond hopeful reliance on FFPs and slot shortages.
• The low-cost carriers will also increasingly encroach on the territory of the traditional Euro-charters, exploiting a change in leisure travel patterns away from packages to shorter, more frequent, more specialised holidays spread throughout the year. Still, the prediction of Stelios Haji-Ianniou of easyJet that the charter sector will disappear completely within five years is a bit extreme.
• Another type of airline may be just over the horizon - the long-haul start-up. There is now the realistic possibility of starting point-to-point operations on very thin transatlantic routes, using the new 737ER configured to, say, 100 seats. The first airline to contemplate such a strategy, Swiss World, has collapsed but others, and some of the US majors, are starting to take the concept semi-seriously.
• In the manufacturing industry, relations between Boeing and Airbus are going to deteriorate. Infuriated by loss of market share, which it attributes to unfair, government-subsidised competition, Boeing may persuade the US government to tear up the 1992 agreement on research and trade in large commercial aircraft.
• Radical restructuring of the aircraft financing business will continue with more investment banks purchasing operating lessors in an attempt to boost their RoI. There is also a chance that GECC will sell or float GECAS.

Meanwhile - whether these predictions come true or not - *Aviation Economics* wishes all the readers of *Aviation Strategy* a prosperous New Year.

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Airbus's SCE conversion: cutting the Gordian knot

The transformation of Airbus into a Single Corporate Entity (SCE) has been described as a "complex and revolutionary" process - and that was before the French partner, Aérospatiale, issued its demand for 50% ownership in the new entity following the proposed BAe/DASA amalgamation (see *Aviation Strategy,* December 1998). But does the SCE process really have to be "complex and revolutionary"?

The simple solution would be for Airbus to be reconstituted as a corporate entity - with public transparent accounting - that would be responsible for assembling and marketing Airbus aircraft, while Aérospatiale, BAe, DASA and CASA would act as subcontractors. Airbus already acts as the single point of contact with the customers and is solely responsible for revenue collection. The key change would be to have a corporate Airbus contract with the various subcontractor manufacturers rather than simply remitting the sales proceeds, minus direct costs, to the partner-owners on a pro-rata basis.

Initially this would probably involve little change in the production process in terms of the supplier relationships. The partners would retain their assets and contract to sell their products, including aircraft assembly (very important in the case of Aérospatiale), to Airbus. As new programmes are developed Airbus would be free to select the most appropriate supplier for any component, regardless of the supplier's position as a shareholder in the new enterprise. No large aircraft are produced entirely in-house these days; on the contrary the modal approach adopted by Airbus - ironically for political reasons - has proved to be very efficient.

"Corporatising" Airbus in this manner would resolve the extremely difficult question of how to allocate the Airbus-related assets of the partners to the new entity. Aérospatiale, BAe, DASA and CASA would continue to own their own facilities, pay their own workers and in turn would be paid by Airbus for their own output.

If a partner desired to transfer some or even all of its own assets to Airbus, this could be handled as a business transaction, with the financial markets providing debt or equity as required. It is possible that the new Airbus could choose to acquire most of the production capability for its products if it so wanted, but it would not be obliged to do so - and could well prefer to retain maximum flexibility by not investing in industrial infrastructure.

Government support?

On the thorny issue of government support, direct development aid as agreed to in the 1992 US-EU bilateral agreement would be relatively easy to administer and monitor. The agreed-upon one-third development support could be provided directly to the new Airbus which could then use the funding as it saw fit, accounted for on a contractual basis. In a market-driven environment Airbus could choose to allocate some of this funding to companies in Asia, the US or elsewhere - wherever it could best be utilised.

With regard to the liabilities incurred prior to the formation of the new entity, including repayment of launch aid, royalties, levies, etc, the EC should require that these be identified and either transferred to the new entity's balance sheet or retained by the partners on their own books as a condition for approving the new Airbus. (Given the EC's intervention in the Boeing-McDonnell Douglas merger, the EC will certainly have to rule on this new company.)

It would seem logical that the privately owned British and German participants would be relatively eager to proceed down this route, and it is possible that that the French treasury would have similar leanings, given its current spending needs.

Slots sales: the multi-million dollar debate

The interminable debate on slot sales continues. Logic appears to be on the side of slot sales (see *Aviation Strategy,* September 1998), although opposition to sales from some quarters is as entrenched as ever. Intriguingly, however, there appears to be a growing public difference of opinion within the Commission. At a recent European Aviation Club seminar on slots held in Brussels, the views of the representatives from DG4, the competition directorate, and DG7, the transport directorate, were clearly not aligned.

Christine Schreiber, from Van Miert's cabinet at DG4, said that on the subject of slot trading the views of Van Miert remained unchanged - i.e. that he was very sceptical about the process itself. If airlines were allowed to sell slots in the open market this would lead to the perpetuation of the larger carriers' current dominant position and that it would prevent the entry of new entrants.

DG7's views, as presented by Ben Van Houtte, were more flexible. He said that the Commission had "yet to make any firm policy decisions defining its policy towards slots", and that the EC was waiting for the results of a study that would be completed in the first half of 1999.

However, Van Houtte added that the Commission was clear on some points, particularly that more transparency is required on slot trading. Existing EU legislation permits slots to be traded for "genuine" reasons but Van Houtte described some exchanges as a "sham". He added that the EC believed that legislation will need to be introduced to give legal powers to slot co-ordination committees and that their accountability should in future come under the EC's supervision rather than that of the member states. Furthermore, the EU was concerned that in some cases these committees were not acting independently as some of the slot co-ordinators were still to be found on the payroll of airlines.

The mechanism of slot trading

The European Aviation Club meeting also featured an equally complex debate about the mechanism of slot trading, if it is eventually allowed.

Barry Humphreys of Virgin Atlantic said that he would approve of a market approach to slot trading but only when all the disparities of the marketplace had been removed - i.e. when all airlines had been privatised and acted in a truly commercial manner.

Humphreys suggested that some 5-10% of slots should be handed back to the co-ordinator each year and re-allocated on a fair basis. He re-emphasised the view that grandfather rights were now the largest single barrier to new competition.

David Starkie of Economics-Plus said that a fully liberalised trading market should exist for slots, which would bring unconstrained market forces to bear. He acknowledged that this could lead to further market concentration and predatory behaviour, but such misdemeanours could always be dealt with under general competition and antitrust legislation. Although the incumbent operators would benefit from a windfall gain this only reflected the revenue stream that had been created by that slot usage.

Phil Evans of the UK Consumers' Association argued for an "economically efficient" system. Firstly, grandfather rights should be abolished and, secondly, a closely regulated, independent and centralised after-market in slots be created. He felt that slot auctions would not work because of collusion.

Targeted re-allocations were one possibility, but would require the need for criteria on confiscation and re-distribution. If this was too radical he proposed that a leasehold arrangement might provide a middle way. Slots would be the property of the airport and leased to, and maintained by, the airlines.

The catalyst for action on slot sales may come with the UK Department of Trade and Industry's again delayed decision on whether British Airways can sell the 267 slots the EC is demanding it gives up in order to get approval for the American alliance. But the problem is that BA itself now wants the Dti to delay this decision, so the EC is as far from crystallising its policy as ever.

Air France - closer to the day of glory

Air France is taking its final steps towards privatisation, or opening-up of capital as it has to be referred to in France. Latest betting is that a sale of about 20% of the airline will be made in March 1999 with the aim of raising Ff 3.5-4.0bn ($627-717m).

According to chairman Jean-Cyril Spinetta, Air France has four key strategic thrusts:

- “Playing a trump card”;
- Building global alliances;
- Creating new social dynamics;
- Improving profitability.

The trump card is Paris CDG airport. In contrast to its competitors Air France stands to benefit from a major capacity increase at its main hub, with a third runway being completed next year, a fourth scheduled for 2001 and a new terminal for 2003. The number of slots and the capacity to handle passengers will both increase by more than 50%. This will enhance its hub system: the number of connections between short- and long-hauls is set to increase by 38% in 1999.

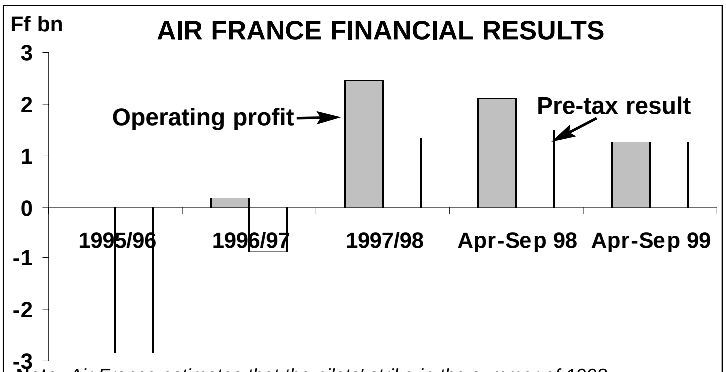
The problem for Air France is how to keep competitors from benefiting from these new slots given, for example, BA’s aspiration eventually to operate intercontinental service from Paris. The tactic of blocking the development of the American/Air Liberté enclave at Orly by banning intercontinental service to that airport now looks dangerous as this operation would probably benefit from a switch to CDG.

Air France has to fill the new slots with its own or its allies’ services. One problem is that Air France has been undermined in its own domestic market by BA, Swissair and KLM, which have signed up most of the available regional franchisees (see *Aviation Strategy,* December 1998). Also, Air France’s domestic shuttle operation, La Navette, links Orly (rather than CDG) to the main provincial cities. The other problem is that Air France does not have a transatlantic partner yet.

However, Air France now states explicitly that it will chose *the* US partner in 1999. Will it be Continental or Delta? Delta would appear to be the better choice because of its dominant position on US-continental routes and because it will probably be easier to unravel the Delta/Swissair/Sabena alliance than extract Continental from its Northwest/KLM/Alitalia amalgam.

“Creating new social dynamics” basically means the agreement with the pilots’ union, whereby in return for permanent wage concessions the pilots will be able to own up to 12% of the airline with a further 4% going to other employees over at least five years. Their wages are supposed to converge with those of BA, Lufthansa and KLM over a seven-year period. This agreement is not exactly a breakthrough in labour relations but it might just protect the airline from the type of strike action that disrupted the World Cup last summer.

For details of Air France’s projections of enhanced profitability we will have to wait for the prospectus. The airline’s managers have a reasonably good turnaround story to relate, but will they be able to answer awkward questions from investors about the future? For example, how much will Air France simply be relying on expansion to reduce unit costs, and can the recent improvements in unit revenue be maintained as the industry moves into the down phase of the cycle?



Note: *Air France estimates that the pilots' strike in the summer of 1998 reduced operating profit by Ff 1.3bn.*

Smooth descent from the industry zenith

The zenith of the earning cycle in the US industry looks as if it was reached in 1998, but the descent in 1999 will be smooth.

Since the end of 1992 the US Majors have reported improved earnings every single quarter until the third quarter of 1998, and even then the marginal decline was caused by the Northwest strike. The basic formula for success was very simple: restrain capacity growth at 1-3% while demand was running at 4-5% pa, and watch load factors and unit revenues increase.

In 1999, however, there will be a significant capacity surge as deliveries start to accelerate at the same time, inevitably, as demand conditions weaken. Even so the supply/demand balance will not be too badly affected. Various estimates put ASM growth at 4-5.5% in 1999 while RPM growth will be around 3-4%.

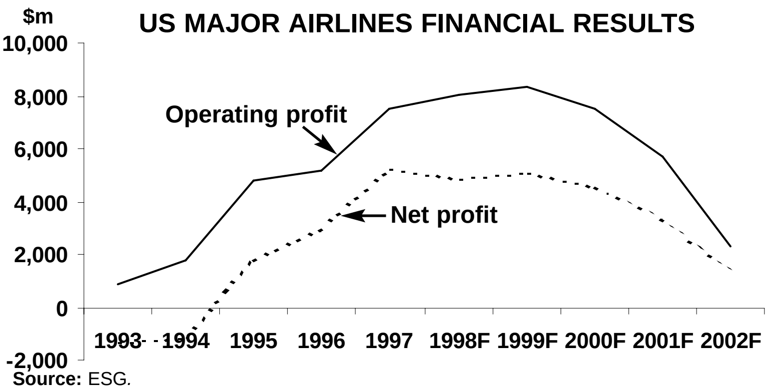
The US Majors enjoy an element of flexibility in their fleet planning at present as they can bring forward the retirement of their Stage 2 aircraft. This is the strategy now being employed by American, United and Delta, which are removing their 727s and DC-9s, while Northwest is at least temporarily cutting capacity by parking some 747s that otherwise would be used on the Pacific. There is a limit to this strategy though, as airline have made important investments in hushkitting Stage 2 types.

In October 1998 unit revenues fell by 3.1%, the first decline in over a year, reflecting a growing resistance on the part of business travellers to high fares. But on the cost side, the airlines have benefited from collapsing fuel prices, which in December were 30% lower than a year ago.

Wall Street overreacted to the first sign of supply/demand imbalance by dumping airline stocks in the late summer. To some extent analysts have regained confidence in the sector: the First Call analysis of all the analysts' forecasts, made in December 1998, mostly shows just a moderate decline in 1999 earning per share, and some stocks - Northwest, US Airways and Southwest - are expected to gain value.

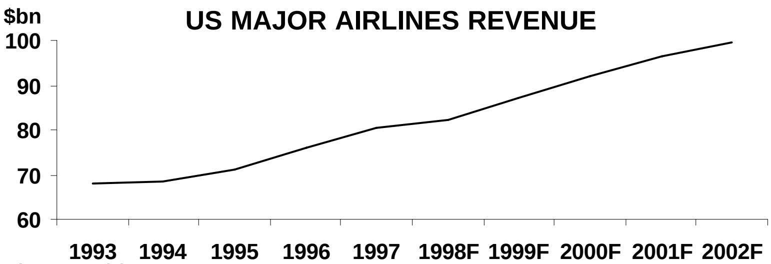
The guru of US airline forecasting, Ed Greenslet of ESG, foresees a marginal increase in profits in 1999 - to $8.3bn from $8.1bn at the operating level and to $5.1bn from $4.9bn for net results. The US Majors' operating profit margin in the 1990s is peaking at 9.5%, in contrast to the previous peak in 1989 when it was a miserable 3.7% of revenue. The implication, as Greenslet points out, is that it would take a recession of early 1990s proportions plus a full-scale Gulf war to wipe out the accumulated industry profits. And that surely can't happen.

US MAJOR AIRLINES FINANCIAL RESULTS



Source: ESG.

US MAJOR AIRLINES REVENUE



Source: ESG.

US MAJOR AIRLINES EARNINGS FORECAST

	Earnings per share* ($) 1997	1998F	1999F	Implied 1999 P/E ratio	Forecast 5-year AAEG*
UAL Corp.	9.97	10.63	9.35	6.3	8.4%
AMR Corp.	5.32	7.60	6.71	8.3	8.2%
Delta	6.34	6.67	5.00	9.3	4.5%
Northwest	5.29	-1.45	3.45	6.5	8.3%
US Airways Group	6.18	5.69	6.37	7.5	10.0%
Continental	5.03	5.98	5.34	5.6	8.4%
Southwest	0.93	1.23	1.26	16.8	14.8%
TWA	-1.98	-1.09	-0.83	n.a.	13.0%
America West Holdings	1.63	2.30	2.06	6.5	13.0%
Alaska Air Group	3.53	4.97	4.39	8.6	10.5%

Note: **Before extraordinary items. Consensus forecasts as at December 15 1998. Brokers included in consensus: 5-13, depending on airline. AAEG = average annual earnings growth.* **Source:** *First Call Corporation.*

1998 was absolutely, positively, the peak of the order cycle

In terms of jet orders, analysts (including *Aviation Strategy*) were wrong with the conclusions they made at the end of 1997. Against all predictions that year was not the top of the order cycle as 1998 jet orders have been even higher.

Apart from any last-minute orders that manufacturers managed to win in the final few days of December, *Aviation Strategy's* annual survey reveals 507 firm orders for Airbus, 520 for Boeing and 360 for other jet manufacturers. This compares with 479, 515 and 252 orders for these three categories in 1997. *Aviation Strategy's* usual rules about counting orders apply in these tables - firm orders only are counted, and we discount any manufacturer "firm" order that we believe is not firm (i.e. LoIs, MoUs, double-counted orders etc). With predictions from virtually everyone that the industry is definitely on the downwards part of the cycle, we can now safely claim to be at the top of the jet order cycle - definitely!

Orders, however, tell only one side of the story for the jet manufacturers. The past month has been dominated by the loss of 17% in the market value of Boeing, the decline of the share price followed Boeing's profits warning for 1999 (a 25% reduction on previous forecasts) and that in the year 2000 aircraft operating margins will be in the range 1-3% (compared with 10% earlier this decade). In addition Boeing announced a downward revision of production rates across its entire

AIRBUS 1998 FIRM ORDERS

	A300 -600R	A310 -300	A319	A320	A321	A330 TBA	A330 -200	A340 TBA	A340 -300	A340 -500	A340 -600	
European airlines												
Aer Lingus						1						
Air France			15		3							
British Airways			39	20								
CityBird	2											
Corsair						2						
Edelweiss Air				3								
Eurowings			1									
Iberia				33	19				6			
Lufthansa					6			1	10		10	
Sabena			26	5	3		2					
Swissair											9	
THY									2			
Virgin Atlantic								2				
European total												**220**
North American airlines												
Air Canada										2	3	
United AL			20	32								
UPS	30											
US Airways						7						
North American total												**94**
Asian airlines												
Air Lanka							6					
Asian total												**6**
Latin American airlines												
LanChile			11	9								
TACA			21	11								
TAM			25	13								
Latin American total												**90**
African & Middle Eastern airlines												
Emirates						1				6		
Nouvelair				1								
AME total												**8**
Lessors												
debis			2									
GECAS			2	21	17							
ILFC				6				10				
SALE				4								
Lessors total												**62**
All undisclosed orders			13	6	3	5						**27**
TOTAL ORDERS	**32**	**0**	**175**	**164**	**51**	**16**	**8**	**13**	**18**	**8**	**22**	**507**

range of aircraft. For example, the 747 which has been a cash cow for Boeing in recent times, will face a reduction in production from 3.5/month to just 1/month in early 2000. Consequently Boeing stated that it is to cut 20,000 jobs over and above the 24,000 job losses previously announced - a 20% reduction in the workforce.

Airbus, of course, has also had its fair share of trauma in 1998, most particularly due to its potential SCE metamorphosis (see page 3), but *Aviation Strategy* will take a closer look at the two largest manufacturers in its February 1999 issue.

BOEING 1998 FIRM ORDERS

	717 -200	737 -300	737 -400	737 -500	737 -600	737 -700	737 -800	737 -900	747 -400	747 -400F	757 -200	757 -300	767 -200ER	767 -300ER	777 -200	MD 11-F	MD 80-83	MD 90-30	
European airlines																			
AB Airlines						6													
Air Berlin							4												
Bavaria	5					2													
British Airways											6				22				
Britannia Airways							2												
Cargolux AL										2									
Condor												1							
Cronus AL						1													
CSA			2	1															
easyJet						15													
Hapag-Lloyd							5												
Icelandair											2								
Lauda Air														1					
Lufthansa																3			
LTU											2			1					
KLM							4	4											
Ryanair							25												
SAS					14														
Virgin Atlantic									1										
European total																			**131**
North American airlines																			
Alaska AL			1			5													
American AL							25								23				
American Trans Air											3								
Boeing Bus. Jet						17													
Continental AL								15					10						
Delta AL							1				4			1	2				
Federal Express																3			
Southwest AL						59													
TWA											4						24		
United AL									1					6	16				
USAF										1									
US Navy						1													
North American total																			**222**
Asian airlines																			
China AL							9		4										
Chinese Taiwan AF							1												
CAAC						5	5												
EVA Air									1										
Korean AL							11	11											
UNI Airways																		4	
Asian total																			**51**
Latin American airlines																			
Varig AL						4	10							6					
Latin American total																			**20**
African & Middle Eastern airlines																			
Air Algerie					3		7												
Arkia												2							
El Al						2	3		1										
Tunisair					2														
AME total																			**20**
Lessors																			
Boullioun AS		6				30													
GATX							5												
GECAS		3												9					
Heller Financial		2																	
ILFC							9				6			1					
Itochu Airlease Corp.							2												
Sunrock AC				1															
Lessors total																			**74**
All undisclosed orders										1						1			**2**
TOTAL ORDERS	**5**	**11**	**3**	**2**	**19**	**147**	**128**	**30**	**8**	**4**	**27**	**3**	**10**	**25**	**63**	**7**	**24**	**4**	**520**

The other manufacturers

By far the major winner among the other manufacturers was Bombardier, with a massive 202 jet orders, compared with 144 in 1997. Bombardier's success story is significant. Regional aircraft turnover was C$1.7bn (US$1.2bn) in the financial year ending January 31, 1998 - accounting for more than 20% of Bombardier Inc's total revenue. Bombardier is basing its strategy for the next decade on its belief that the largest share of the regional aircraft market will be in the 60-90 seat segment - it forecasts that by 2016 the average regional aircraft will be a 70-seater. But Bombardier believes there will be continuing demand for both jets and turboprops - hence the development of the 68-78 seat CRJ-700 and the 70-78 seat Dash 8-Q400.

Bombardier is also contemplating a 90-seat aircraft, dubbed the BRJ-X. This would fill the gap between the 120+ seat 717, A318 and 737-600 and the existing regional aircraft (up to 70 seats) from Embraer and Bombardier. Estimated development costs of C$1bn mean that Bombardier needs risk-sharing partners if the programme is to keep to an ambitious target of official launch in late 1999 and certification in 2003.

Elsewhere, US certification for the 37-seat ERJ-135 is expected in mid-1999, although Embraer's stated target of 500 sales looks optimistic. Overall Embraer is still weak - it made a loss of $13m in 1997, although this was a significant improvement on the $40m loss in 1996 and the $307m loss in 1995. The results for 1998 will be crucial - if Embraer does not return to profitability despite all the cost and productivity improvements it has made in the last few years and an impressive 137 orders in 1998 (and a $41m profit in the first-half of 1998), it is unlikely to face the impending aviation downturn with any degree of confidence.

BAe was the undoubted loser among the other manufacturers in 1998. It recorded just 10 orders for the RJ100 in 1998, surely not enough for any kind of decent return.

OTHER MANUFACTURERS' 1998 FIRM ORDERS

	ERJ -135	ERJ -145	CRJ -100	CRJ -100LR	CRJ -200	CRJ -200ER	CRJ -700	RJ -100	Do-328JET	Do-728JET	
European airlines											
Air Nostrum						5					
Brit Air			6				2				
CityFlyer Express								2			
Euro City Line									9		
European Regional AL		2									
Flandre Air	2										
Lufthansa CityLine			3								
Lufthansa			10				10				
Luxair		5									
Maersk Air				2							
Park Express								5			
Tyrolean AW					2						
Tyrolean JS									2		
European total											**67**
North American airlines											
Business Express	20										
Atlantic Coast AL						25					
Atlantic SouthEast AL					15		12				
Comair			30				20				
Continental Express		25									
Horizon Air							25				
Eagle Air	75										
Midway AL						23					
Trans State AL		6									
North American total											**276**
Asian airlines											
Kendell AL					12						
National Jet Systems		2									
Asian total											**14**
Latin American Airlines											
Latin American total											**0**
African & Middle Eastern airlines											
AME total											**0**
Lessors											
Flightlease								3			
Lessors total											**3**
All undisclosed orders											**0**
TOTAL ORDERS	**97**	**40**	**49**	**2**	**29**	**53**	**69**	**10**	**11**	**0**	**360**

Airport privatisation - no stopping the juggernaut

The financial and economic crises in various parts of the world, triggered more than a year ago by the ailing Tiger economies in Asia, appear to have had little effect on the airport privatisation juggernaut. In fact, rather the opposite seems to be occurring - economic crises appear to be speeding up the airport privatisation process, and 1999 looks set to be a busy year for the industry.

The drive to airport privatisation is now global. For example, the second round of the Australian sell-off has taken the total influx of money into the government coffers beyond A$4bn (US$2.6bn), with Sydney yet to come. South Africa made its first foray into the private sector last spring and Argentina finally managed to sell off 35 airports, although many consider the success of the winning bidders a double-edged sword.

Meanwhile, selection of a preferred bidder for the first group of Mexican airports is imminent, while in Europe the contract for the new Berlin airport was due to be signed in December 1998. In 1999, more Mexican airports will come onto the market, Portugal is expected to privatise 15 airports, while further opportunities are likely in Spain and Italy.

In the US, the FAA pilot scheme is getting slowly off the ground, but the real money there appears to be in managing and operating terminal facilities at the major gateway airports. Both Airport Group International (AGI) and the UK's BAA have established a bridgehead and can be expected to make further decisive moves in that country in the near future.

Overall, therefore, the prospects for continuing airport privatisation look assured. Individual stockmarkets have recovered some of the losses sustained at the height of the economic crises, and the reflationary package in Japan and IMF-led recovery programme in Brazil have been designed to restimulate both market areas - although worries persist over the muddled situation in Russia. But if the upturn materialises, IPOs, rather than trade sales may become the favourite way of attracting new money into airports.

MAJOR AIRPORT WINNERS SO FAR

	AGI	AMS	BAA	FAG	HOC	MAN	ROM	SEA
Argentina								x
Australia	x	x	x			x		
Bolivia	x							
Germany				x	x			
Greece					x			
Italy			x				x	x
South Africa							x	
UK	x		x					
USA	x	x	x					

Cash crisis

The economic crisis, which has now lasted for more than one year, is doubtless driving privatisation moves in the Asia/Pacific region. Thailand is planning to privatise the Thai Airports Authority (AAT), which is responsible for Bangkok's Don Muang International and the new Bangkok International being built at Nong Ngu Hao, as well as Chiang Mai, Hat Yai and Phuket, the other three airports with international traffic. Present plans call for 75% of the equity in the three provincial airports to be sold to the private sector for a period of 20 years. A study by Thai Investment Securities has suggested that privatisation of the three airports could raise at least Baht10bn ($215m).

The details for the main Bangkok gateways are unclear, but the Thai government was expected to draw up a shortlist of candidates by the end of November 1998. The high traffic levels at the Thai airports, swelled by a considerable tourist traffic, make the sale attractive to possible investors, and it is known that the UK's BAA, Amsterdam Airport Schiphol and Aéroports de Paris are among those determined to take up this opportunity.

The Korean government will privatise the Korea Airport Construction Authority (KACA) next year as a first step towards the private operation of Seoul's new Inchon International Airport, currently under construction. A total of Won 2.5trillion ($1.8bn) of capital is intended to be sold to private investors in several tranches.

Other Asian countries affected by the crisis could well follow suit, with perhaps Japan top of the list for potential investors, and China also in the frame. One of the hardest hit by the crisis is Indonesia. As part of the structural reform package agreed with the International Monetary Fund (IMF), the Indonesian government has appointed Warburg Dillon Read to advise on the privatisation of airport operator Angkasa Pura II.

With tourist traffic having fallen sharply as a result of forest fires, continuing political unrest, outbreak of dengue fever and a spate of aircraft accidents, it is possible that Angkasa Pura II could be picked up cheaply, although it is difficult to see one of the major European airport operators being prepared to take the risk in such a volatile country as Indonesia.

Europe on track

Among a 10-point strategic plan to define the future role of German airports, privatisation remains a major objective. After the controversial $350m sale by the government of North Rhine-Westphalia of its 50% stake in Düsseldorf, with powerful local company Hochtief ousting the preferred bidder Airport Group International (AGI), signatures were due to be put to the contract for the new Berlin Brandenburg airport sometime in December 1998.

Hochtief again proved the victor, leaving a trail of formidable bidders in its wake. They dropped out one by one - BAA, Copenhagen Airport, Amsterdam Schiphol and AGI - leaving a straight fight between the Hochtief consortium, which includes Frankfurt Airport (FAG), and another German-dominated consortium led by IVG.

The amount paid by Hochtief for the 74.9% stake on offer has not been disclosed. Now that the Berlin deal has been concluded, the federal government is keen to get on with selling the rest of its holdings in Hamburg, Cologne/Bonn, Frankfurt and Munich.

In the UK, a private/public sector partnership to provide the investment needs of London Luton Airport was signed in September. Barclays Investment, together with AGI and Bechtel Enterprises paid £100m ($165m) for a 30-year concession to operate and develop the airport. Ownership will remain with the local council. The money will be used for new passenger facilities to eventually increase the airport's capacity to 10m passengers.

Portugal is making plans to privatise its airport system next year, while neighbouring Spain is also seeking new initiatives. The Czech government will be using the spa town of Karlovy Vary as the test case for its proposed airport privatisation programme which, if successful, will be used on two other small regional airports at Brno and Ostrava.

Elsewhere in Europe, UK property company TBI has bought a 90% stake in Skvasta Airport in southern Sweden for around $33m. TBI already owns Cardiff and Belfast International in the UK and Sanford International (Orlando) in Florida.

Advantage ANZAC

The second round of airport privatisation in Australia attracted few of the heavyweights that pursued Brisbane, Perth and Melbourne, yet it still proved a similarly successful enterprise for the Australian government, if not quite on the scale of the first. The 14 airports netted the government another A$730m (US$500m), bringing the total raised to date to close on A$4.1bn (US$2.7bn).

A consortium led by the UK's Manchester Airport took the lion's share, paying nearly A$470m for Adelaide, Parafield and Coolangatta airports. Canberra went to the local Capital Airports Group for A$66.5m, while Australia Pacific

Airports Corporation (APAC), which won Melbourne in the first round, paid A$17.3m for Launceston. Hobart International Airport Corporation, which includes US Airport Group International (AGI), bought Hobart for A$35.9m, and AGI is also involved in Airport Development Group (ADG), which paid AS$110m for Darwin, Tennant Creek and Alice Springs. Mt Isa, Townsville, Jandakot and Moorabbin were sold to property investors for A$31m and Brisbane's Archerfield went for A$3.1m.

The third and final round will include the airports in the Sydney basin - Kingsford Smith, three general aviation fields and the yet-to-be-built new Sydney airport at Badgery's Creek. Given the successes achieved in rounds one and two, even with unprofitable airports, analysts' expectations that the Sydney airports will yield in excess of A$3bn would appear to be highly realistic.

There is also growing support for airport privatisation across the Tasman Sea in New Zealand, although the government is taking a more softly softly approach. A Merrill Lynch study into the Auckland airport company concluded that the government should relinquish its 51% stake in the gateway airport to the private sector, if it is to avoid the risks inherent in changes to the airline industry and expansion into non-core business necessary to finance the investment for future growth.

The value of the airport company of around NZ$1bn (US$500m) would make its sale an attractive proposition and the government has opted for a flotation on the stockmarket, rather than a direct sale or lease to a strategic investor. While this is an attempt to keep ownership within the country, it has not ruled out offering shares to foreign investors. It has been predicted that a successful flotation could raise up to NZ$2.5bn (US$1.25bn).

The New Zealand government has also sold its two-thirds stake in Wellington Airport on the southern tip of North Island, but the reluctance by the other owner, the Wellington city council, to sell its shares illustrates the schism that is still prevalent on the privatisation issue. While both owners had initially endorsed the sale, Wellington decided to hold on to its share, with the result that one of the key bidders, the UK's BAA, pulled out.

In the end, the government share was sold to New Zealand company Infratil for just under NZ$100m (US$50m). The airport was estimated to be worth some NZ$200m (US$100m). New Zealand's third major airport, Christchurch on South Island, could also be partially privatised, and the government and the local council are considering selling their 25% and 8% respective holdings.

Strategic move in South Africa ...

The Airports Company South Africa (ACSA) selected an international consortium led by Aeroporti di Roma as its strategic partner in May. Having won out over such formidable competitors as BAA, Amsterdam Schiphol and Frankfurt Airport/Aéroports de Montreal, this success marks Aeroporti di Roma's first decisive move into airport management outside Italy.

The consortium, which also includes AND AMRO Ventures, Cofiri, LDV Holding, Robert Fleming and Company, and Simest, paid R820m ($165m) for a 20% stake, with the option to acquire another 10% within six years. ACSA operates nine major airports in South Africa, including the three principal and profitable international facilities at Johannesburg, Durban and Cape Town. The others are Bloemfontein, East London, George, Kimberley, Port Elizabeth and Upington.

... but rest of continent some way behind

In East Africa, the formal handing over of Kilimanjaro Airport to a private company in September 1998 ended four years of hard negotiations for the increasingly shabby tourist facility. The Kilimanjaro Airports Development Company (KADCO), owned by Mott McDonald and Inter Consult of Tanzania, with the government retaining a minor holding, has won a 25-year concession and believes it can make the airport - which is the main gateway to the Serengeti and Ngorongoro national parks - a profitable enterprise once it has been upgraded. Offshore, the Republic of Malagasy has called in consultants to take a serious look at the privatisation of all of Madagascar's airports.

But these are mere blips on the African landscape and should not be seen as a major shift. Going into 1999 African governments are still fiercely determined to hang on to control of their airports (and airlines), in many cases watching what are their main links to the outside world deteriorate for lack of investment. The attitude of African governments will change, but this is unlikely to be in the short-term.

What is more significant, however, is the lead taken by Oman to give the private sector a greater role. Other countries in the Middle East may be forced to follow suit, as the need to reduce reliance on oil becomes more pressing. Oman is planning to fully privatise Muscat's Seeb International Airport within nine months, with Salalah next on the list.

Full steam ahead in Latin America

Another success for Italy was achieved in Argentina, with Milan airport company Società Esercizi Aeroportuali (SEA) coming out on top in the fierce battle for a 30-year concession for the management and operation of a total of 33 airports. The Aeropuertos 2000 consortium, comprising SEA, US services company Ogden, Italian financiers Simest and Argentine company Riva, has agreed to pay the Argentine government $171m a year for the concession, which allows for a 10-year extension, and has committed to an investment of approximately $2.1bn.

Of this, some $1.35bn will be expended at Buenos Aires' main Ministro Pistarini International Airport at Ezeiza, with another large chunk to go to the capital's other airport, Jorge Newbery (Aeroparque). This leaves little for the rest. Some believe that the consortium paid well over the odds and as the serious examination begins, it would not be surprising to see the airports back on the market.

Mexico is close to announcing a strategic partner for the first of four airport groups to be privatised. The Southeast Group, which comprises nine of the country's 58 airports, including Cancun and Merida, has the highest base of international traffic and will prove the most attractive segment of the privatisation programme, aside from Mexico City itself.

On offer is a 15% stake, with a 5% additional option, an annual technical fee and the right to appoint key board members. The group will be floated on the stock exchange and on international capital markets in the first half of 1999.

Financial advisor Warburg Dillon Read says the strategic partnership concept is more likely to get the price right than would a higher risk trade sale. The Pacific Group was expected to be put up for sale before the end of 1998, followed in 1999 by Mexico City and the Northcentral Group. At Mexico City, the Ministry for Communications and Transport (SCT) may go for a build-operate-transfer (BOT) structure.

Venezuela has been toying with the idea of airport privatisation for some time and has now made a start with the appointment of US consultants Aarotec to develop privatisation strategies for the airports in the state of Sucre on the north-eastern Atlantic coast.

The three airports are Antonio José de Sucre International at Cumana, and the small domestic airports at Carupano and Guiria. Aarotec is also part of a team advising the Honduran government on commercialisation of the four main airports at Tegucigalpa, Roatan, La Ceiba and San Pedro Sula, but the terrible devastation caused by hurricane Mitch will have set back these plans by many years. Lima, Cuzco, Arequipa, Iquitos and Trujillo airports in Peru will also be privatised, as will Montevideo airport in Uruquay, where bids are now being processed.

Elsewhere in South America, the lucrative market of Brazil could offer the next major opportunity for airport privatisation.

Russian aviation: traffic recovery sunk by the rouble crisis

In our annual survey of Russian aviation, *Aviation Strategy* looks at a mixed year for the region's airlines. Although Russian traffic fell again in 1997, the fall in numbers was relatively small - from 26.9m to 25.1m. This is the first time since 1990 that the drop has been in single digit percentage terms - 7%.

1998 started promisingly; almost all the major carriers reported increased traffic. However, the August financial crash resulted in an overnight collapse of traffic. Four months later the airlines have had to adapt to a changed situation - frozen bank accounts and dramatic falls in passenger and cargo volumes. Some have had to re-enter the world of barter to achieve some sense of reality; those with foreign earnings have found ways to cover some of their hard currency debts externally. But no airline has had an easy time.

In the first six months of 1998, traffic levels were 4.1% below those of 1997, with 10.4m pas-

RUSSIAN FLEET PLANS

	ARIA	Vnukovo Airlines	Transaero	Pulkovo AC	BAL-Bashkiri	Tyumenaviatrans	Tyumen Airlines	Kras Air	Domodedovo AL	Sibir	Kola Avia	AJT	KMV	Rossiya	TOTAL
IL-96-300	6								2 (1)					1 (1)	**9 (2)**
IL-96M	(17)														**(17)**
IL-96T	(3)														**(3)**
IL-86	18	22	1	9				2		7		5			**64**
IL-76F	12														**12**
IL-76							7	11	4						**22**
IL-62	21							7	22					14	**64**
IL-18									2					3	**5**
TU-154	33	23		20	11	5	16	15		16	8		11	11	**169**
TU-134	12			10	4		16						5	17	**64**
TU-204		3						(10)					1		**4 (10)**
AN-124-100	1													2	**3**
AN-12							9								**9**
AN-2					31	77									**108**
AN-24					4	10	13	4							**31**
AN-26						12	7	3							**22**
AN-28					5										**5**
AN-74					4										**4**
MI-2														1	**1**
MI-6						24									**24**
MI-8/17					13	201					6			8	**228**
MI-10						7									**7**
MI-26						16									**16**
YAK 40						27		3						8	**38**
YAK 42		2													**2**
A310	10														**10**
767-300	2 (4)		1												**3 (4)**
777-200	2														**2**
737-400	7 (3)														**7 (3)**
DC-10F	9														**9**
757-200			3												**3**
737-200			5												**5**
737-700			2												**2**
FLEET	**133**	**50**	**12**	**39**	**72**	**379**	**68**	**45**	**30**	**23**	**14**	**5**	**17**	**65**	**952**
ORDERS	**(27)**							**(10)**	**(1)**					**(1)**	**(39)**

sengers carried. By August, just as the crisis began, the decline had reached 5.3% overall. In freight, the first six months saw a fall of only 0.1%, but by the end of August the eight-month fall had reached 5.2%.

From surplus to shortage

To make matters worse, the surplus of aircraft in airline fleets, which has allowed them to avoid the expensive question of new aircraft, has begun to dry up. Many of the surplus aircraft, which have remained parked due to falling traffic, have come to the point where they need either an expensive overhaul or scrapping. With low traffic, scrapping seems more likely, and indeed the total Russian jet passenger fleet fell from 1,753 at the beginning of 1998 to 1,331 at the end of September. The current fleet has just 41 western jets. But with the mix of long-and short-haul traffic, and with relatively low utilisation currently being achieved, Russia's Federal Aviation Service calculates that by the end of winter 1998/99, there will not be enough aircraft to carry the passengers seeking to travel.

This presents a problem for airlines. The last generation of Soviet aircraft came to Russia's airlines paid for by the state, and even though their fuel costs were markedly higher than similar generation and capacity western aircraft, overall costs were lower. Today, new or used Russian aircraft must be paid for, and there is almost no loan or lease funding available domestically for Russia's airlines - so their opportunities to obtain new aircraft are low. The only other possibility for fleet renewal is to convert a number of low-time military trainer and transport aircraft back to airline standards, and thus allow low cost Stage II aircraft to meet domestic market needs.

But the lack of funding is also hurting Russian and CIS manufacturing industry; in 1997, only five new airliners were delivered, and the cash shortage has seen most of the industry's younger staff seek other employment - it is now rare to see anyone under 40 working on aircraft production lines. And that will, in time, mean a further crisis.

For the short- to medium-term, good news is not in sight. The current financial crisis is hurting every aspect of the economy, and GDP seems set to fall even further. The middle class, a new phenomenon in Russia, has taken the brunt of the pain, and, at best, has put its travel plans on hold. But it is important to remember the country's resources in minerals, timber, agriculture and its people and their technical achievements. For those with a longer vision, the country will come back to strength and prosperity.

ARIA

Continuing its growth, ARIA brought 1997 passenger levels up by some 2% to 3.9m as it began more domestic services to feed its international routes. Although the growth numbers are small, only seven former Aeroflot units recorded any growth in the year, and the airline's management does seem to have a focus. Some 2.8m passengers flew with ARIA in the period January 1st to August 10th, just before the financial crisis struck Russia, but the next two months saw heavy falls for all airlines so it is difficult to make an assessment of ARIA's traffic for the full-year.

By the end of October, seven 737-400s, two 777-200s and two A310s had joined the fleet in 1998, and ARIA and GECAS have announced plans for the lease of four 767-300ERs in 1999, (replacing two older 767s, plus two A310s). The first new IL-96 - a T (or freighter) version powered by PW2337 engines - is expected early in 1999, and the airline is considering the lease of some additional IL-62s for domestic routes; but no decision has, as yet, been taken on the TU-204.

•Chief Executive: Valeri M. Okulov
•Address: Moscow 125167 Leningradski Prospekt 37
•Tel: (095) 752 9001 Fax: (095) 155 6647

Vnukovo Airlines

A further fall in traffic saw Vnukovo carry just 1.8m passengers in 1997, which still leaves it in second place among Russia's airlines, and the largest domestic airline. Its new owners, the Russian Aviation Consortium, have merged another of their subsidiaries into Vnukovo, and have adopted their corporate colours for the airline. In October 1998 the airline announced that it was transferring its Moscow operations from Vnukovo Airport (where it and its predecessor Aeroflot unit had been based since its foundation in 1936), to Domodedovo due to the level of airport and fuel charges. But it plans to maintain contact and hopes that "the problem can be resolved".

•Chief Executive (acting): Tatevos Surinov
•Address: Moscow 103027 Vnukovo Airport
•Tel: (095) 436 2576 Fax: (095) 436 2572

Transaero

The largest of Russia's 'non Aeroflot' carriers, Transaero achieved 6% growth in passenger numbers in 1997, and flew some 1.6m passengers. But this figure was disappointing and it did not achieve its targets. 1998 has not provided better news; although scheduled traffic in the first six months showed a growth of 10%, a lack of capacity saw charter figures fall heavily and overall just 0.7m were carried.

Meanwhile, although Transaero reported an operating profit, its overall results in 1997 are a loss - unannounced, but believed to be about $18m.

Responding to the fall of the rouble, Transaero and its lessors agreed that three DC-10-30s and two 757s should be returned, and that the airline "would concentrate on its smaller aircraft needs", and on international routes rather than domestic.

1998 has seen the introduction of the 737-700, (adding to five 737-200s), and a single 767-300ER, which is replacing the DC-10-30s on the airline's long-haul routes; and it has seen an attempt to replace the board defeated. But the way forward will not be easy.

•Chief Executive: Alexander Pleshakov
•Address: 103340 Moscow Sheremetyevo 1 Airport
•Tel: (095) 578 5060 Fax: (095) 578 5038

Pulkovo Aviation Complex

Still operating as a combination of Pulkovo airport and Pulkovo airline, the St. Petersburg company returned a profit, (by Russian accountancy rules) equal to almost $28m in 1997, despite a traffic fall to 1.4m passengers. It added two more TU-134s to its fleet in the year, but has by now withdrawn all its AN-12 cargo turboprops. It is now under some pressure to separate the airline from the airport even though the synergy generated by the two operations has been a major factor in its profitability.

•Chief Executive: Boris Demchenko
•Address: 196210 St. Petersburg, Pilot St. 18/4
•Tel: (812) 122 9924 Fax: (812) 104 3702

BAL-Bashkiri

Based at Ufa, the capital of the autonomous republic of Bashkortostan, BAL-Bashkiri in 1997 reached the fifth highest passenger carrier position for Russia's airlines despite a 19% traffic fall. Passengers numbered just 738,000, almost half of that of the fourth highest, and are typical of the problems caused by the enormous financial strains of the Russian people outside the two major cities, which results in little money being available for air travel.

•Chief Executive: Rinat Baembitov
•Address: 450056 UFA, Airport
•Tel:(3472) 52 97 40 Fax: (3472) 52 97 52

Tyumenaviatrans

The break up of Aeroflot saw two sizeable companies formed in the western Siberian oil region of Tyumen. One of these, Tyumenaviatrans, was formed with a large aerial work fleet and a small regional fleet. It went on to purchase five new TU-154Ms and added some major trunk routes and international charter services, and 1997 saw it reach sixth place in Russia with 702,300 passengers, up 4% on 1996.

•Chief Executive: Vladimir Illarionov
•Address: 625025 Tyumen, Plekhanovo Airport
•Tel: (3452) 23 23 93 Fax: (3452) 23 23 93

Tyumen Airlines

The second airline based at Tyumen, Tyumen Airlines saw traffic volumes fall by 26% in 1997. It had taken most of the passenger services from the old Aeroflot, along with a sizeable cargo fleet. But passenger numbers came to just 638,000 in 1997 and left it in seventh place. 1998 will show a further fall of at least 20%.

•Chief Executive: Yuri Yermolaev
•Address: 625033 Tyumen, Roshchino Airport
•Tel: (3452) 39 44 12 Fax: (3452) 39 44 58

Kras Air - Krasnoyarsk Airlines

Russian fiscal requirements, which added some $12m to the cost/lease of the RB211-powered Tupolev TU-204-120s ordered by Kras Air, have resulted in the deferment of their delivery for some time. Traffic fell by about 3% in 1997, to 632,000, but the first eight months of 1998 saw a significant growth. The appointment of a new governor (Alexander Lebed) to the Krasnoyarsk region resulted in a change of management at the airline.

•Chief Executive: Boris Abrahamovich
•Address: 663020 Krasnoyarsk, Yemelianovo Airport
•Tel: (3912) 23 63 66 Fax: (3912) 24 488 96

Domodedovo Airlines

With the break up of the Domodedovo Civil Aviation Production Association, the separated airline was also divided with part going to the Eastline company. The major scheduled routes stayed with Domodedovo Airlines, and its 1997 traffic was determined to be 626,000 passengers. The airport, maintenance base and 'state properties' have been separated.

•Chief Executive: Alexander Akimov
•Address: 103325 Moscow Region, Domodedova Airport
•Tel: (095) 323 8991 Fax: (095) 952 8651

Sibir

Despite a significant growth in traffic volumes in 1997, when 609,200 passengers were carried (up a substantial 50% on 1996), the 1997 annual general meeting saw a change of management. With revenues of $102m, a net loss of $0.2m resulted for 1997; the new management have begun a determined restructuring of the airline and have formed close alliances with several other airlines based in towns and cities close to Sibir's base at Novosibirsk - Russia's third-largest city. The alliance works under Sibir's name, and includes integrated timetables and route structures.

•Chief Executive: Vyacheslav Filyev
•Address: 663115 Novosibirsk Region, Tolmachevo Airport
•Tel: (3832) 22 75 72 Fax: (3832) 32 22 71

While the above airlines were the top 10 by passenger volumes in Russian for 1997, other newsworthy carriers follow:

Kogalymavia - Kola Avia

Kola Avia ended 1997 with 431,000 passenger, figures up some 37% on 1996. It has continued to grow in 1998 and has developed new services, including its second Moscow route to Sheremetyevo Airport, mainly to interline passengers for international flights.

•Chief Executive: Nikolai Zolnikov
•Address: 626481 Tyumen Region, Kogalym Airport
•Tel: (34867) 23 101 Fax: (34867) 29 695

AJT Air International

Now six years' old, AJT became the first holiday charter carrier to enter the top 20 Russian airlines in 1997; its passenger numbers grew from 108,000 in 1996 to 398,600 last year. The airline flies mainly summer charter and inclusive tour type services from Moscow to Turkey, North Africa and southern European resorts with a fleet of IL-86s.

•Chief Executive: Sergei Gusak
•Address: 125167 Moscow, Leningradski Prospect 37/7
•Tel: (095) 155 5495 Fax: (095) 155 5495

KMV - Kavkazia Mineralnie Vodi

KMV achieved a profit of $3m despite a 15% fall in traffic to 377,500 passengers. It continues to lease several TU-154s to Iran, and became the third Russian airline to introduce the TU-204 to regular passenger service early in 1998 when it took delivery of a single 204-100 on lease from engine manufacturer Perm Motors. (Perm Airlines had earlier taken Perm Motors first TU-204-100.)

•Chief Executive: Vasili Babaskin
•Address: 357310 Mineralnie Vodi, Airport
•Tel: (86531) 77 000 Fax: (86531) 31 828

Rossiya

The Government Transport Company, responsible for carrying the President and Government on official journeys, has supplemented revenues over the past few years by operating some scheduled and charter services. In 1997, it carried 247,000 passengers on these flights.

Now plans have been prepared to divide the company into three parts; governmental flights will be hived off into a purpose executive operation; passenger scheduled and charter services will be renamed and reformed; while its two AN-124s will be the basis of a cargo charter airline.

• Chief Executive: Vladimir Katchnov
• Address: 103027 Moscow, Vnukovo Airport, 1st. Reisovaya St 2
• Tel: (095) 436 2665 Fax: (095) 436 2328

Baikal Avia

With a 26% fall in passengers carried in 1997, the Irkutsk-based Baikal Avia carried just 232,000 passengers in 1997; and October 1998 saw its fight between shareholders end up in a court battle which eventually declared Baikal Avia bankrupt.

By Paul Duffy

The implications of being one cycle ahead

Today the world economies have become disconnected; witness the continuing economic boom in the US, the continental European economies lagging the UK's growth, recession in Japan and disaster in Southeast Asia. And, as the world's airlines were deregulated at different times, the combined effect is that the US airline industry is one economic cycle ahead of Europe and Europe is one cycle ahead of Asia. So what can the laggards learn from the US experience, and to what extent will the European and Asian industries follow the US model?

Since the deregulation of the US airline industry in 1978, there have been two periods of recession - 1979-82 and 1990-93 - and two periods of prosperity (at least in airline industry terms) - 1983-89 and 1994 to the present. Over the past 20 years the US airline industry has undergone such a vast transformation that it may now be justifiable to describe it as 'mature'.

The 1st US cycle - chaos

The timing couldn't have been worse in many respects. One of most regulated and protected industries in the world was suddenly let off the leash by the regulators just as the US, and rest of the world, slid into recession. The downturn in demand resulted in over-capacity, and this in turn allowed start-ups (some low-cost, others not) to enter the market with relative ease. And the result of some 200 start-ups entering the market, competing with the incumbent Majors that were struggling to adapt to the new environment, was chaos.

By the end of the 1980s, however, the airlines had absorbed many of the lessons of deregulation, and had developed the skills and tools needed to manage throughout the cycle. Among the most important of these was a more sophisticated understanding of yield management, the use of frequent flier programmes, the development of hub and spoke systems, consolidation and - perhaps most importantly - a keen focus on costs.

REGULATION VERSUS DEREGULATION

	Regulation	Deregulation/Open Skies Phase 1	Deregulation/Open Skies Phase 2
Route system	Point-to-point	Hub & spoke	Multi-hub/global network
Competition	Historical norm	Low-cost	Alliances
Cost base	High	Falling	Low
New entrants	No	Yes	Limited
Airline strategy	Growth	Aggressive market share	Consolidation
Where?	Asia today	Europe today	US today

The 2nd US cycle - order

These skills didn't save the US airlines from massive losses (worse than those experienced in Europe and Asia) in the recession, but they meant that the surviving carriers emerged from the downturn in much improved health.

The Majors have now resumed the consolidation process that began in the previous cycle. If the Continental/Northwest and American/US Airways quasi-mergers are permitted, then the top four airlines in the US accounted for 83% of the market in 1997, up from 64% in 1991.

Even more important has been stability in pricing, brought about by the fact that the disparity in the cost of production has shrunk. The cost differential between benchmark Southwest and the mega-Majors has narrowed significantly: in 1991 the cost per ASM difference between Southwest and Delta was 37%; by 1997 this figure had narrowed to 20%.

The nature of competition has moved from point-to-point basis to network competition through the use of hubs. Consequently hub domination has been a major priority for the mega-Majors. The average market share of the largest airline at the top 10 largest US airports has increased from under 50% in 1990 to more than 60% in 1997.

Another feature of this cycle for the US carriers has been a restrained and responsible approach to ordering new capacity. With carriers no longer aggressively chasing market share, the amount of new aircraft ordered has led to a general improvement in load factors. In 1991 the average load factor of the Majors was 53.6%, by 1997 this figure had risen to 70.9%.

With a more conservative approach to the introduction of capacity and continuing consolidation, the yield environment has hardened. Published business fares have risen strongly according to the American Express index, and in 1997 the lowest discount fares available had risen by 33% in just two years.

A more circumspect attitude towards aircraft ordering has also had a favourable impact on balance sheets. Gearing levels have fallen sharply, credit ratings improved and therefore the cost of borrowing reduced for the Majors. Start-ups, on the other hand, are finding it harder to raise capital and funding, and their market share has dropped to 1.3% of total RPMs. Hence the competitive environment appears to have evolved from cut-throat competition to one of almost happy co-existence.

The US airline industry model will, of course, not be exactly replicated in Europe and Asia, but it does provide a framework in which to place the likely developments that will occur in the next cycle.

Europe today - confusion

In the 1980s, the European airline scene was typified by a relatively stable cost, yield and traffic growth environment, which produced reasonably healthy levels of profitability. But only a very few privatised European scheduled carriers prepared adequately for Euro-deregulation; the rest did practically nothing. The discrepancies in cost and product levels were to cause much bloodshed once the regulatory shackles were removed.

The European market is characterised by confusion. Some carriers are profitable (but not as profitable as their US counterparts) and many others, despite the buoyancy of underlying market, are scarcely breaking even. But the natural selection process has not really begun. Government protection in the form of some US$17bn worth of state aid has bought some of the larger flag carriers time, but the next downturn will force the unreformed carriers to downsize, retreat, or perish. But hub and spoke systems are increasing in importance - with Paris CDG, Frankfurt and Schiphol all providing stiff competition to London Heathrow.

The complicating factors

So what are the critical differences between the US market and the evolving European market? First, the US domestic market accounts for nearly a third of world traffic, and therefore for US airlines the most important strategic decision to get right is how to maximise domestic profitability. This was highlighted by the ill-fated attempt of United and Delta to enter a domestic codesharing agreement. From a non-US perspective, the key question was how would this alliance impact on the Star Alliance and Atlantic Excellence partners. From the perspective of Delta and United however, if the domestic codeshare agreement had been consummated, the revenue benefits created would have far outweighed anything that could be generated through their international alliances.

No sizeable carrier outside the US has a domestic market of anywhere near that of the US. Therefore the most important question for the strategic planners of European airlines is to get their international policy correct, and so it has been the Europeans that have been driving the international alliances, particularly across the Atlantic.

Second, cross-border restrictions on airline ownership prevent consolidation. These barriers are particularly strong in Asia, where no real multilateral liberalisation legislation is in place. However, the Asian economic crisis has caused rapid change: Singapore Airlines' attempt to purchase 30% of China Airlines and Cathay Pacific's proposed acquisition of a stake in PAL are a sign that the consolidation phase may have started.

In Europe, the consolidation phase is underway. EU carriers can now own other EU carriers, the only complication being the protection of bilateral agreement for airlines wishing to operate outside of the EU itself. If this hypothesis is right, then the next upswing should be far more profitable for the European airlines than the current upswing. And if airline alliances continue apace alongside consolidation then the first decade of the next century, regulators permitting, could represent a golden era.

The 3rd US cycle: reregulation?

US market maturity has resulted in the concentration of power in the hands of the few. The last of the mega-Mergers are probably over - United and Delta was seen as a step too far. The question with the current level of concentration is whether the mega-Majors will win the public relations battle that network competition gives the consumer the best combination of choice, service and most importantly price. If the airlines fail to win that argument then the next US cycle may be dominated by the reregulation of the industry.

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 %
1991	114.8	65.2	56.8	120.9	84.3	69.7	80.0	53.1	66.4	267.6	182.0	68.0	397.8	257.9	64.7
1992	129.6	73.5	56.7	134.5	95.0	70.6	89.4	61.6	68.9	296.8	207.1	69.8	445.8	293.4	65.8
1993	137.8	79.8	57.9	145.1	102.0	70.3	96.3	68.1	70.7	319.1	223.7	70.1	479.7	318.0	66.3
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74.0	334.0	243.6	72.9	503.7	346.7	68.8
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73.0	362.6	269.5	74.3	532.8	373.7	70.1
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
1997	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
Oct 98	16.4	10.9	66.3	17.3	13.9	79.9	11.7	8.9	76.2	39.4	30.8	78.1	58.6	43.5	74.3
Ann. chng	6.3%	6.3%	0.0	9.8%	9.8%	0.0	2.7%	5.4%	1.9	7.8%	8.8%	0.7	7.5%	8.3%	0.6
Jan-Oct 98	157.7	102.9	65.3	162.6	128.5	79.0	113.3	84.5	74.6	378.1	291.2	77.0	561.7	411.0	73.2
Ann. chng	7.3%	8.7%	0.8	9.0%	8.2%	-0.6	5.2%	4.1%	-0.8	8.2%	7.5%	-0.5	8.0%	7.7%	-0.2

Source: AEA.

US MAJORS' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1990	863.1	523.2	60.6	121.3	84.2	69.4	106.7	75.8	71.0	42.2	26.6	63.0	270.2	186.5	69.0
1991	835.1	512.7	61.4	108.0	75.2	69.6	117.0	78.5	67.1	44.3	27.4	61.8	269.2	181.0	67.2
1992	857.8	536.9	62.6	134.4	92.4	68.7	123.1	85.0	69.0	48.0	27.4	57.0	305.4	204.7	67.0
1993	867.7	538.5	62.1	140.3	97.0	69.2	112.5	79.7	70.8	55.8	32.5	58.2	308.7	209.2	67.8
1994	886.9	575.6	64.9	136.1	99.5	73.0	107.3	78.2	72.9	56.8	35.2	62.0	300.3	212.9	70.9
1995	900.4	591.4	65.7	130.4	98.5	75.6	114.3	83.7	73.2	62.1	39.1	63.0	306.7	221.3	72.1
1996	925.7	634.4	68.5	132.6	101.9	76.8	118.0	89.2	75.6	66.1	42.3	64.0	316.7	233.3	73.7
1997	953.3	663.7	69.6	138.1	108.9	78.9	122.0	91.2	74.7	71.3	46.4	65.1	331.2	246.5	74.4
Oct 98	82.8	57.1	69.0										29.6	21.6	72.9
Ann. chng	2.4%	3.7%	0.8										3.1%	1.4%	-1.2
Jan-Oct 98	799.6	568.8	71.1										290.4	214.3	73.8
Ann. chng	0.4%	2.3%	1.2										4.8%	2.6%	-1.6

Note: US Majors = American, Alaska, Am. West, Continental, Delta, NWA, Southwest, TWA, United, USAir. **Source:** Airlines, ESG.

ICAO WORLD TRAFFIC AND ESG FORECAST

	Domestic			International			Total			Domestic growth rate		International growth rate		Total growth rate	
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK %	RPK %	ASK %	RPK %	ASK %	RPK %
1991	1,267	800	63.2	1,487	998	67.1	2,754	1,798	65.3	-0.3	0.6	-2.6	-6.1	-1.6	-3.2
1992	1,300	840	64.6	1,711	1,149	67.2	3,011	1,989	66.1	2.7	5.0	15.0	15.2	9.4	10.7
1993	1,347	856	63.6	1,790	1,209	67.5	3,137	2,065	65.8	3.6	1.9	4.6	5.2	4.2	3.8
1994	1,403	924	65.8	1,930	1,326	68.7	3,333	2,250	67.5	4.2	7.9	7.8	9.7	6.3	9.0
1995	1,477	980	66.3	2,044	1,424	69.7	3,521	2,404	68.3	5.3	6.1	5.9	7.4	5.6	6.9
1996	1,526	1,046	68.6	2,163	1,537	71.1	3,689	2,583	70.0	3.3	6.7	5.8	7.9	4.8	7.4
1997	1,617	1,102	68.2	2,387	1,704	71.4	4,004	2,807	70.1	4.6	5.5	7.6	9.1	6.4	7.7
***1998**	1,624	1,122	69.1	2,470	1,751	70.9	4,094	2,873	70.2	0.4	1.8	3.5	2.7	2.3	2.4
***1999**	1,675	1,155	69.0	2,586	1,833	70.9	4,261	2,988	70.1	3.2	3.0	4.7	4.7	4.1	4.0
***2000**	1,738	1,194	68.7	2,729	1,930	70.7	4,467	3,124	69.9	3.7	3.3	5.5	5.3	4.8	4.5
***2001**	1,791	1,218	68.0	2,857	2,004	70.1	4,648	3,222	69.3	3.1	2.0	4.7	3.8	4.0	3.1
***2002**	1,806	1,210	67.0	2,916	2,015	69.1	4,722	3,225	68.3	0.8	-0.7	2.1	0.6	1.6	0.1
***2003**	1,857	1,273	68.5	3,066	2,165	70.6	4,923	3,437	69.8	2.9	5.2	5.1	7.4	4.3	6.6

Note: * = Forecast; ICAO traffic includes charters. **Source:** Airline Monitor, July 1998.

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
1991	99	98	101	101	104	106	99	112	104	105	99	95	113	103	97
1992	102	98	102	102	105	113	103	112	109	110	107	101	115	104	96
1993	105	100	100	101	105	117	107	106	109	112	117	104	108	101	96
1994	109	103	103	104	106	126	117	115	115	117	131	110	117	107	104
1995	111	106	105	106	107	137	126	122	123	123	141	115	124	113	119
1996	114	108	107	107	111	152	135	128	128	126	155	124	127	116	132
1997	118	112	110	109	112	172	146	142	142	138	177	135	136	123	132
***1998**	121	113	113	113	112	180	154	155	154	145	200	148	146	133	130
***1999**	124	115	116	116	113	189	160	166	163	155	219	156	156	141	133

Note: * = Forecast; Real = inflation adjusted. **Source:** OECD Economic Outlook, June 1998.

COST INDICES (1990=100)

	Europe						US					
	Unit revenue	Unit op. cost	Unit lab. cost	Efficiency	Av. lab. cost	Unit fuel cost	Unit revenue	Unit op. cost	Unit lab. cost	Efficiency	Av. lab. cost	Unit fuel cost
1991	106	109	103	105	108	88	100	102	102	101	103	84
1992	99	103	96	119	114	80	98	100	101	107	108	75
1993	100	100	90	133	118	82	101	98	99	116	115	67
1994	100	98	87	142	123	71	98	94	101	124	125	62
1995	99	97	86	151	128	67	99	93	98	129	127	61
1996	100	101	88	155	135	80	102	94	98	129	126	72
1997	102	105	85	148	131	81	104	94	100	129	129	69
***1998**	107	105	84	151	127	71	108	96	106	127	134	61

Note: * = First-half year. European indices = weighted average of BA, Lufthansa and KLM. US indices = American, Delta, United and Southwest. Unit revenue = airline revenue per ATK. Unit operating cost = cost per ATK. Unit labour cost = salary, social charges and pension costs per ATK. Efficiency = ATKs per employee. Average labour cost = salary, social costs and pension cost per employee. Unit fuel cost = fuel expenditure and taxes per ATK.

FINANCIAL TRENDS (1990=100)

	Inflation (1990=100)					Exchange rates (against US$)							LIBOR
	US	UK	Germany	France	Japan		UK	Germ.	France	Switz.	ECU	Japan	6 month Euro-$
1990	100	100	100	100	100	**1990**	0.563	1.616	5.446	1.389	0.788	144.8	8.27%
1991	104	106	104	103	103	**1991**	0.567	1.659	5.641	1.434	0.809	134.5	5.91%
1992	107	107	109	106	105	**1992**	0.570	1.562	5.294	1.406	0.773	126.7	3.84%
1993	111	109	114	108	106	**1993**	0.666	1.653	5.662	1.477	0.854	111.2	3.36%
1994	113	109	117	110	107	**1994**	0.653	1.623	5.552	1.367	0.843	102.2	5.06%
1995	117	112	119	112	107	**1995**	0.634	1.433	4.991	1.182	0.765	94.1	6.12%
1996	120	114	121	113	107	**1996**	0.641	1.505	5.116	1.236	0.788	108.8	4.48%
1997	122	117	123	114	108	**1997**	0.611	1.734	5.836	1.451	0.884	121.1	5.85%
***1998**	123	119	125	116	109	**Dec 1998**	0.595	1.664	5.581	1.346	0.847	115.7	5.06%**
***1999**	126	122	127	117	109								

Note: * = Forecast. **Source:** OECD Economic Outlook, June 1998. ** = $ LIBOR BBA London interbank fixing six month rate.

WET LEASE RATES

	ACMI RATE $/BLOCK HOUR		ACMI RATE $/BLOCK HOUR		ACMI RATE $/BLOCK HOUR		ACMI RATE $/BLOCK HOUR
727-200	2,800-4,000	**747-300**	8,000-8,500	**DC9-40**	2,450-2,750	**A320-200**	3,250-4,000
737-200A	2,950-3,250	**757-200ER**	3,000-4,250	**DC9-50**	2,550-2,850	**A321-100**	3,750-4,500
737-300	3,000-3,700	**767-200ER**	5,800-6,200	**DC10-30**	5,500-6,500	**BAe 146-100**	1,750-1,950
737-400	3,200-4,000	**767-300ER**	5,800-6,200	**L-1011-100**	5,000-5,500	**BAe 146-200**	3,000-3,300
737-500	3,000-3,500	**MD-11**	7,500-8,000	**L-1011-500**	5,000-5,650	**BAe 146-300**	3,250-3,300
737-800	3,800-4,000	**MD-87**	3,200	**A300B4-200**	4,500-5,350	**F-70**	1,800-1,900
747-200	7,200-7,700	**DC9-30**	1,950-2,250	**A300-600R**	5,600-5,800	**F-100**	3,100

Note: ACMI = Wet lease rate (aircraft, crew, maintenance & insurance). **Source:** Alan John Hodder.

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
ATR	-					
Airbus	Dec 18	Iberia	6 A340-300s		4Q99+	+ 5 options
	Nov 26	CityBird	2 A300-600s		2Q99	
BAe	-					
Boeing	Dec 8	Cargolux Airlines	2 747-400Fs	$335m	4Q99+2Q02	
	Dec 3	Icelandair	2 757-200s	$131m		
	Dec 1	Boullioun AS	3 737-300s		99	
Bombardier	Dec 22	Horizon Air	25 CRJ-700s	$580m	2Q02+	
	Dec 17	Atlantic Coast AL	10 CRJ-200ERs	$210m	3Q00-3Q01	From options
	Dec 7	Midway Airlines	3 CRJ-200ERs	$64m	4Q99-1Q00	From options
Embraer	-					
Fairchild Dornier	-					

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

Micro-trends

	Group revenue US$m	Group costs US$m	Group operating profit US$m	Group net profit US$m	Total ASK m	Total RPK m	Load factor %	Group rev. per total ASK Cents	Group costs per total ASK Cents	Total pax. 000s	Total ATK m	Total RTK m	Load factor %	Group employees
American*														
Jan-Mar 97	4,006	3,782	224	152	62,059.4	41,676.0	67.2	6.46	6.09	19,363	9,283.2	4,848.4	52.2	86,246
Apr-Jun 97	4,292	3,812	480	302	64,026.0	45,012.1	70.3	6.70	5.95	20,697	9,482.2	5,241.2	55.3	87,248
Jul-Sep 97	4,377	3,868	509	323	65,093.0	46,943.3	72.1	6.72	5.94	21,343	9,637.3	5,406.0	56.1	87,793
Oct-Dec 97	4,228	3,871	357	208	63,308.3	42,715.7	67.5	6.68	6.11	19,681	9,366.9	5,025.2	53.6	88,302
Jan-Mar 98	4,223	3,798	425	290	62,405.4	41,846.6	67.1	6.77	6.09	19,267	9,207.0	4,889.4	53.1	87,569
Apr-Jun 98	4,491	3,885	606	409	64,471.8	46,075.9	71.5	6.97	6.03	20,901	9,512.3	5,317.6	55.9	87,076
Jul-Sep 98	4,583	3,958	625	433	65,920.1	48,093.9	73.0	6.95	6.00					88,300
America West														
Jan-Mar 97	475	442	33	14	9,318.8	6,408.6	68.8	5.10	4.74	4,590	1,168.8	686.7	58.8	11,422
Apr-Jun 97	478	427	51	23	9,410.5	6,668.9	70.9	5.08	4.54	4,674	1,180.1	712.8	60.4	11,690
Jul-Sep 97	462	425	37	18	9,623.6	6,779.9	70.5	4.80	4.42	4,692	1,205.8	724.3	60.1	11,506
Oct-Dec 97	473	432	41	20	9,573.7	6,219.9	65.0	4.94	4.51	4,375	1,200.4	670.1	55.8	11,232
Jan-Mar 98	483	434	49	25	9,408.0	5,851.4	62.2	5.13	4.61	4,149	1,180.7	630.2	53.4	11,329
Apr-Jun 98	534	457	77	41	9,787.8	6,899.1	70.5	5.46	4.67	4,643	1,228.9	733.0	59.7	11,645
Jul-Sep 98	499	453	46	22	9,884.3	7,108.3	71.9	5.05	4.58	4,665				11,560
Continental														
Jan-Mar 97	1,698	1,552	146	74	25,478.4	17,526.9	68.8	6.66	6.09	9,739	2,820.6	1,790.5	63.5	33,766
Apr-Jun 97	1,786	1,555	231	128	26,530.9	19,186.1	72.3	6.73	5.86	10,462	3,032.6	1,996.8	65.8	34,672
Jul-Sep 97	1,890	1,683	207	110	28,462.1	20,982.1	73.7	6.64	5.91	10,822	3,331.3	2,206.5	66.2	35,630
Oct-Dec 97	1,839	1,707	132	73	28,278.6	19,400.1	68.6	6.50	6.04	10,188	3,381.1	2,140.0	63.3	37,021
Jan-Mar 98	1,854	1,704	150	81	28,199.8	19,427.5	68.9	6.57	6.04	10,072	3,372.4	2,134.4	63.3	37,998
Apr-Jun 98	2,036	1,756	280	163	29,891.1	22,007.2	73.6	6.81	5.87	11,261	3,629.6	2,399.3	66.1	39,170
Jul-Sep 98	2,116	1,973	143	73	31,609.9	24,049.4	76.1	6.69	6.24	11,655				40,300
Delta														
Jan-Mar 97	3,420	3,074	346	189	54,214.1	37,334.2	68.9	6.31	5.67	24,573	7,489.7	4,354.8	58.1	67,851
Apr-Jun 97	3,541	3,022	519	301	55,604.5	41,457.2	74.6	6.37	5.43	26,617	7,777.3	4,798.9	61.7	69,118
Jul-Sep 97	3,552	3,121	431	254	57,424.7	42,783.2	74.5	6.19	5.43	26,478	8,112.8	4,946.2	61.0	69,502
Oct-Dec 97	3,433	3,101	332	190	56,177.4	38,854.9	69.2	6.11	5.52	25,464	7,941.4	4,639.6	58.4	69,982
Jan-Mar 98	3,389	3,053	336	195	54,782.3	39,602.7	68.7	6.19	5.57	24,572	7,766.6	4.448.9	57.3	71,962
Apr-Jun 98	3,760	3,165	595	362	57,175.5	43,502.6	76.1	6.58	5.54	27,536	8,189.9	5,049.5	61.7	74,116
Jul-Sep 98	3,802	3,250	552	327	59,017.9	45,242.3	76.7	6.44	5.51					75,000
Northwest														
Jan-Mar 97	2,376	2,241	135	65	37,102.1	26,702.1	72.0	6.40	6.04	12,661	5,800.7	3,471.3	59.8	47,628
Apr-Jun 97	2,558	2,267	291	136	38,985.3	29,195.9	74.9	6.56	5.82	13,780	6,175.7	3,817.3	61.8	48,025
Jul-Sep 97	2,801	2,298	504	290	41,491.3	32,231.1	77.7	6.75	5.54	14,743	6,587.3	4,189.3	63.6	47,843
Oct-Dec 97	2,491	2,264	227	105	38,465.5	27,791.0	72.2	6.48	5.89	13,383	6,247.0	3,820.5	61.2	48,852
Jan-Mar 98	2,429	2,272	156	71	38,260.1	27,038.2	70.7	6.35	5.94	12,704	6,052.7	3,513.4	58.0	49,776
Apr-Jun 98	2,476	2,356	120	49	38,332.7	29,533.7	77.0	6.46	6.15	13,676	6,102.8	3,745.5	61.4	51,264
Jul-Sep 98	1,928	2,204	-276	-224	32,406.3	24,295.8	75.0	5.95	6.80					50,669
Southwest														
Jan-Mar 97	887	800	87	51	16,926.0	10,513.6	62.1	5.24	4.73	12,046	2,163.7	1,097.2	50.7	23,980
Apr-Jun 97	957	800	156	94	17,672.1	11,288.4	63.9	5.42	4.53	12,722	2,264.0	1,180.6	52.1	24,226
Jul-Sep 97	997	845	152	93	18,494.3	12,176.9	65.8	5.39	4.57	13,019	2,362.1	1,274.1	53.9	24,273
Oct-Dec 97	975	847	128	81	18,501.4	11,654.2	63.0	5.27	4.58	12,612	2,361.5	1,222.6	51.8	24,454
Jan-Mar 98	943	831	112	70	18,137.1	11,102.3	61.2	5.20	4.58	11,849	2,304.2	1,161.6	50.4	24,573
Apr-Jun 98	1,079	870	209	133	18,849.6	13,236.7	70.2	5.72	4.62	13,766	2,394.0	1,378.0	57.6	24,807
Jul-Sep 98	1,095	891	204	130	19,762.1	13,620.3	68.9	5.54	4.51	13,681				25,460
TWA														
Jan-Mar 97	762	862	-99	-72	13,772.4	9,129.6	66.3	5.53	6.26	5,345	1,898.2	1,054.3	55.5	25,662
Apr-Jun 97	844	839	6	-14	14,705.8	10,273.7	69.9	5.74	5.71	5,958	2,051.9	1,169.5	57.0	23,490
Jul-Sep 97	908	845	64	6	15,922.4	11,447.0	71.9	5.70	5.31	6,324	2,209.2	1,284.2	58.1	22,539
Oct-Dec 97	813	812	1	-31	14,348.8	9,570.2	66.7	5.67	5.66	5,743	1,966.4	1,098.0	55.8	22,322
Jan-Mar 98	765	834	-69	-56	13,626.4	9,276.3	68.1	5.61	6.12	5,629	1,879.7	1,046.5	55.7	22,198
Apr-Jun 98	884	838	46	19	14,142.2	10,787.3	76.3	6.25	5.93	6,417	1,979.0	1,186.2	59.9	22,147
Jul-Sep 98	863	839	24	-5	14,293.8	10,531.3	73.7	6.04	5.87					22,200
United														
Jan-Mar 97	4,121	3,927	194	105	64,832.6	45,296.6	69.9	6.36	6.06	19,683	9,386.1	5,530.0	58.9	86,443
Apr-Jun 97	4,382	3,970	412	242	67,458.0	48,894.2	72.5	6.50	5.89	21,271	9,917.6	6,032.1	60.8	88,939
Jul-Sep 97	4,640	4,077	563	579	71,375.4	53,721.0	75.3	6.50	5.71	22,641	10,566.8	6,561.1	62.1	90,324
Oct-Dec 97	4,235	4,144	91	23	68,364.7	47,419.6	69.4	6.19	6.06	20,608	10,269.1	6,023.6	58.7	91,721
Jan-Mar 98	4,055	3,932	123	61	66,393.3	44,613.0	67.2	6.11	5.92	19,316	9,987.5	5,589.7	56.0	92,581
Apr-Jun 98	4,442	3,972	470	282	69,101.7	50,152.2	72.6	6.43	5.75	21,935	10,453.0	6,202.6	59.3	94,064
Jul-Sep 98	4,783	4,088	695	425	73,913.5	56,283.7	76.1	6.47	5.53					93,575
US Airways														
Jan-Mar 97	2,101	1,925	176	153	23,397.6	16,009.3	68.4	8.98	8.23	13,773	3,141.2	1,734.3	55.2	42,225
Apr-Jun 97	2,213	1,957	256	206	24,014.0	17,707.1	73.7	9.22	8.15	15,533	3,234.0	1,911.0	59.1	42,320
Jul-Sep 97	2,115	2,032	83	187	24,070.3	17,668.5	73.4	8.19	7.83	15,080	3,245.5	1,918.0	59.1	42,159
Oct-Dec 97	2,085	2,015	70	479	22,662.2	15,800.1	69.7	9.20	8.89	14,178	3,066.2	1,733.2	56.5	40,865
Jan-Mar 98	2,063	1,871	192	98	22,102.1	15,257.8	69.0	9.33	8.47	13,308	2,993.8	1,669.2	55.8	40,974
Apr-Jun 98	2,297	1,923	374	194	22,818.3	17,567.1	77.0	10.07	8.43	15,302	3,107.6	1,895.9	61.0	40,846
Jul-Sep 98	2,208	1,938	270	142	23,267.3	17,639.5	75.8	9.49	8.33					40,390
ANA														
Jan-Mar 97	3,090	3,160	-69	-40	41,442.7	26,945.8	65.0	7.46	7.62	24,721				15,996
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	3,928	3,829	99	50	39,702.7	25,742.0	64.8	9.89	9.65	20,730				
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	3,459	3,545	-86	-68	40,446.9	26,187.7	64.7	8.55	8.76	20,102				
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	3,399	3,355	44	73	42,415.9	27,404.4	64.6	8.01	7.91	21,449				
Cathay Pacific														
Jan-Mar 97	SIX MONTH FIGURES													
Apr-Jun 97	2,037	1,858	179	138	28,172.0	20,044.0	71.2	7.23	6.60	5,208	5,074.0	3,613.0	71.2	
Jul-Sep 97	SIX MONTH FIGURES													
Oct-Dec 97	1,921	1,784	137	117	28,932.0	18,917.0	64.4	6.64	6.17	4,810	5,325.0	3,718.0	69.8	
Jan-Mar 98	SIX MONTH FIGURES													
Apr-Jun 98	1,677	1,682	-5	-20	28,928.0	19,237.0	66.5	5.80	5.81		5,208.0	3,481.0	66.8	
Jul-Sep 98														
JAL														
Jan-Mar 97	4,797	4,882	-86	-138	61,639.1	43,455.6	70.5	7.78	7.92	18,890	8,868.0	6,225.0	70.2	19,046
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	5,325	5,016	309	169	56,060.9	39,748.3	70.9	9.50	8.95	16,020	8,555.0	5,705.2	66.7	
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	4,279	4,344	-65	-911	56,514.7	39,012.2	69.0	7.57	7.69	15,344	8,570.8	5,628.5	65.7	
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	4,463	4,262	201	133	58,439.5	40,413.9	69.2	7.64	7.29	16,008	8,959.7	5,725.4	63.9	

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

Micro-trends

	Group revenue US$m	Group costs US$m	Group operating profit US$m	Group net profit US$m	Total ASK m	Total RPK m	Load factor %	Group rev. per total ASK Cents	Group costs per total ASK Cents	Total pax. 000s	Total ATK m	Total RTK m	Load factor %	Group employees
Korean Air														
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97	TWELVE MONTH FIGURES													
Oct-Dec 97	3,029	2,774	255	-234	58,246.9	40,190.3	69.0	5.20	4.76	25,580		9,737.7		17,139
Jan-Mar 98														
Apr-Jun 98														
Jul-Sep 98														
Malaysian														
Jan-Mar 97	2,581	2,459	122	132	40,096.9	27,903.7	69.6	6.44	6.13	15,371	6,149.2	3,706.8	60.3	22,546
Apr-Jun 97														
Jul-Sep 97														
Oct-Dec 97	TWELVE MONTH FIGURES													
Jan-Mar 98	2,208	2,289	-81	-81	42,294.0	28,698.0	67.9	5.22	5.41	15,117	6,411.0			
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	860			-112			57.2							
Singapore														
Jan-Mar 97	2,492	2,205	288	316	37,354.4	27,490.1	73.6	6.67	5.90	6,092	6,901.3	4,879.1	70.7	27,223
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	2,549	2,171	379	402	38,125.4	28,216.7	74.0	6.69	5.69	6,135	7,231.9	5,091.5	70.4	27,777
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	2,336	2,080	256	258	39,093.6	26,224.3	67.1	5.98	5.32	5,822	7,303.0	4,951.5	67.8	
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	2,232	2,013	219	278	41,466.2	29,456.2	71.0	5.38	4.86	6,240	7,693.4	5,225.2	67.9	
Thai Airways														
Jan-Mar 97	824	777	47	25	11,369.0	8,128.0	71.5	7.25	6.83	4,000	1,621.0			
Apr-Jun 97	773	775	-2	11	11,352.0	7,583.0	66.8	6.81	6.83	3,700	1,620.0			
Jul-Sep 97	697	672	25	-1,050	11,462.0	7,668.0	66.9	6.08	5.86	3,500	1,639.0			
Oct-Dec 97	656	649	7	-661	12,144.0	7,715.0	63.5	5.40	5.34	3,800	1,712.0			
Jan-Mar 98	631	558	73	610	12,211.0	8,522.0	69.8	5.17	4.57	4,000	1,715.0			
Apr-Jun 98	586	583	3	-179	12,084.0	7,963.0	65.9	4.84	4.82		1,700.0			
Jul-Sep 98														
Air France														
Jan-Mar 97	8,780	8,563	217	75	77,333.0	58,586.0	75.8	11.35	11.07	16,733		5,036.0		36,173
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	5,224	4,850	374	297			76.1							
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	5,126	5,079	47	18										
Apr-Jun 98	SIX MONTH FIGURES													
Jul-Sep 98	4,982			224			76.5							
Alitalia														
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97	TWELVE MONTH FIGURES													
Oct-Dec 97	5,083	4,878	205	161	50,171.4	35,992.3	71.7	10.13	9.72	24,552				18,676
Jan-Mar 98														
Apr-Jun 98														
Jul-Sep 98														
BA														
Jan-Mar 97	3,179	3,130	49	113	36,211.0	25,416.0	70.2	8.78	8.64	9,070	5,057.0	3,456.0	68.3	60,188
Apr-Jun 97	3,624	3,395	229	260	39,697.0	28,756.0	72.4	9.13	8.55	10,613	5,589.0	3,875.0	69.3	60,083
Jul-Sep 97	3,646	3,319	327	244	40,909.0	30,884.0	75.5	8.91	8.11	11,194	5,711.0	4,098.0	71.8	61,321
Oct-Dec 97	3,580	3,436	144	110	40,059.0	26,929.0	67.2	8.94	8.58	9,837	5,618.0	3,791.0	67.5	61,144
Jan-Mar 98	3,335	3,210	125	119	39,256.0	26,476.0	67.4	8.50	8.18	9,311	5,485.0	3,642.0	66.4	60,770
Apr-Jun 98	3,783	3,497	286	217	44,030.0	31,135.0	70.7	8.59	7.94	11,409	6,174.0	4,157.0	67.3	62,938
Jul-Sep 98	4,034	3,601	433	357	46,792.0	35,543.0	76.0	8.62	7.70	12,608	6,533.0	4,630.0	70.9	64,106
Iberia														
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97	TWELVE MONTH FIGURES													
Oct-Dec 97	4,168	3,900	268	126*	37,797.6	27,679.2	73.2	11.03	10.32	15,432				
Jan-Mar 98														
Apr-Jun 98														
Jul-Sep 98														
KLM														
Jan-Mar 97	1,361	1,444	-83	-153	16,279.0	12,455.0	76.5	8.36	8.87		2,838.0	2,090.0	73.6	31,912
Apr-Jun 97	1,692	1,566	126	99	17,310.0	13,640.0	78.8	9.77	9.05		2,996.0	2,335.0	77.9	34,804
Jul-Sep 97	1,842	1,592	250	438	18,798.0	15,736.0	83.7	9.80	8.47		3,231.0	2,587.0	80.1	34,928
Oct-Dec 97	1,630	1,570	60	23	18,096.0	13,555.0	74.9	9.01	8.68		3,098.0	2,404.0	77.6	35,092
Jan-Mar 98	1,538	1,568	-30	528	17,598.0	13,240.0	75.2	8.74	8.91		2,981.0	2,250.0	75.5	34,953
Apr-Jun 98	1,702	1,572	130	105	18,600.0	14,290.0	76.8	9.15	8.45		3,177.0	2,365.0	74.4	35,666
Jul-Sep 98	1,865	1,675	190	121	19,363.0	15,984.0	82.6	9.63	8.65		3,359.0	2,583.0	76.9	33,586
Lufthansa*														
Jan-Mar 97	3,198	3,198	-1	12*	28,099.0	19,726.0	70.2	11.38	11.38	9,186	4,985.0	3,477.0	69.7	57,291
Apr-Jun 97	3,654	3,463	192	220*	32,109.0	23,465.0	73.1	11.38	10.79	11,618	5,505.0	3,893.0	70.7	57,901
Jul-Sep 97	3,721	3,418	303	321*	33,739.0	26,410.0	78.3	11.03	10.13	12,807	5,787.0	4,298.0	74.3	58,178
Oct-Dec 97	3,989	3,566	423	384*	30,209.0	21,691.0	71.8	13.20	11.80	10,839	5,457.0	3,919.0	71.8	59,630
Jan-Mar 98	2,902	2,860	42	223	23,763.0	16,239.0	68.3	12.21	12.04	8,808	4,621.0	3,171.0	68.6	54,849
Apr-Jun 98	3,507	3,081	426	289	26,132.0	19,489.0	74.6	13.42	11.79	10,631	5,078.0	3,575.0	70.4	54,556
Jul-Sep 98	3,528	3,167	361	198	26,929.0	20,681.0	76.8	13.10	11.76	11,198	5,231.0	3,748.0	71.6	54,695
SAS														
Jan-Mar 97	1,133	1,108	24	-36*	7,443.0	4,335.0	58.2	15.22	14.89	4,515				23,440
Apr-Jun 97	1,379	1,151	228	178*	7,962.0	5,392.0	67.7	17.31	14.46	5,617				23,904
Jul-Sep 97	1,244	1,093	151	83*	8,084.0	5,598.0	69.2	15.39	13.52	5,325				24,168
Oct-Dec 97	1,334	1,204	130	63*	7,771.0	4,939.0	63.6	17.17	15.49	5,212				28,716
Jan-Mar 98	1,184	1,077	106	76*	7,761.0	4,628.0	59.6	15.25	13.88	4,863				24,722
Apr-Jun 98	1,323	1,149	174	107*	7,546.0	5,260.0	69.7	17.53	15.23	5,449				25,174
Jul-Sep 98	1,283	1,152	131	127*	8,283.0	5,843.0	70.5	15.49	13.91	5,714				26,553
Swissair**														
Jan-Mar 97	SIX MONTH FIGURES													
Apr-Jun 97	1,787	1,724	63	76	17,464.4	11,880.7	68.0	10.23	9.87	7,643	3,340.6	2,291.9	68.6	10,163
Jul-Sep 97	SIX MONTH FIGURES													
Oct-Dec 97	2,084	1,946	138	147	18,934.8	13,770.8	72.7	11.01	10.28	6,352	3,536.4	2,538.1	71.8	10,132
Jan-Mar 98	SIX MONTH FIGURES													
Apr-Jun 98	1,907	1,780	127	86	18,983.8	13,138.7	70.5	10.05	9.38					9,756
Jul-Sep 98														

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.