

## Manufacturing aid: bluster and diplomacy

It seems like old times, with Boeing stomping around complaining about subsidies to Airbus just as it did in the late 1980s and early 1990s. That row calmed down when the Americans and Europeans signed a bilateral deal in 1992. That settlement limited launch aid to 33% of the development cost of a new model (in practice, Airbus) and indirect government aid from defence research contracts (in effect, the Pentagon and NASA deal for Boeing) to 4% of the firm's turnover. Airbus went on to develop new models and grab more than half the civil jet market from Boeing.

Now the Americans have had enough. They now interpret the 1992 deal as committing both parties to steady reduction of subsidies. They want a new, tougher deal than the 1992 bilateral, so that Airbus gets no more launch aid at all. Now all this at first sight looks rather odd in that Boeing itself is about to receive a big financial boost from the taxpayers of Washington state, Kansas and Japan. The home state of Boeing Commercial Airplane Group frightened the state government with talk of building the 7E7 elsewhere, threatening thousands of jobs in the Seattle area. The outcome was a new tax law that gives Boeing \$3.2bn of tax relief over the next 20 years. Kansas also offered an interest-free interest bond for the company in a bid to hold on to some nose and fuselage fabrication work in Wichita.

But the most important injection of state aid could come via Boeing's partnership with Mitsubishi, Kawasaki and Fuji to build wings and fuselage assemblies. This should give the Japanese conglomerates about 35% of the 7E7 project for which they are in line to receive cheap loans and subsidies worth \$1.5bn from the Japanese government. From Toulouse this looks like the American pot calling the European kettle black. For Boeing, however, these subsidies are just part of the normal economic development aid any enterprise might expect. Thus, were Airbus to open a factory in Washington state, it would be eligible for the same softer tax treatment. Likewise, Airbus gets some support from local authorities where it operates.

Boeing is on stronger ground, however, attacking Airbus launch aid per se. Toulouse maintains that it repays at something more than government borrowing rates and that the royalty on aircraft sales goes on and on even after the principal and interest is paid off. But Boeing's complaint is that Airbus has to pay nothing if the programme flops. What might have been defensible to get a new commercial aircraft industry started is no longer when that enterprise is the market leader against one other competitor which does not get such launch aid. Boeing's view is that it alone bears the business

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risk, whereas Airbus shares it with four European governments.

On September 16 the US trade representative Robert Zoellick meets his EU opposite number Pascal Lamy to try to work out a roadmap for a new aircraft agreement. Lamy's successor, who takes office in November, is Peter Mandelson, an able former member of the British cabinet. He is on record as saying that solving the issue is not going to be difficult. We may soon see how true or not that forecast is. Boeing is in a rush because it wants to block launch aid for an Airbus A350 (a longer range version of the A300-200) which Toulouse is mulling rushing out to spoil the launch of Boeing's 7E7. One worrying sign for Boeing was Singapore Airlines refusal to commit to the 7E7 last month when it ordered 18 more 777-ERs. Seattle had been hoping this flagship customer would give the new aircraft a boost with a launch order alongside Air New Zealand,

ANA and a pair of European charter carriers. SIA is waiting to see what Airbus can come up with, saying neither the existing A330-200 nor the 7E7 met its commercial criteria.

As Harry Stonecipher tries to steady Boeing nerves in the wake of the defence corruption scandals and the continuing delays with Pentagon orders for missiles and refuelling tankers, he has chosen to move forward aggressively on this commercial aircraft front. But the fact that Boeing's trade diplomacy is now led by Thomas Pickering, a former professional diplomat and US ambassador to the UN, who put together the first Gulf War coalition, could signal that this time there could be a role for patient peacemaking rather than the sort of bluster that comes more naturally Boeing's chief executive.

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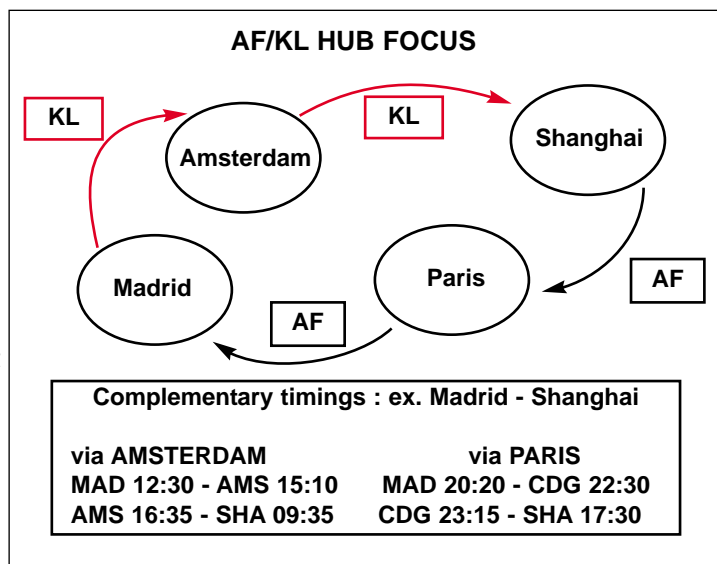
## Air France/KLM Group: Dual hub challenge

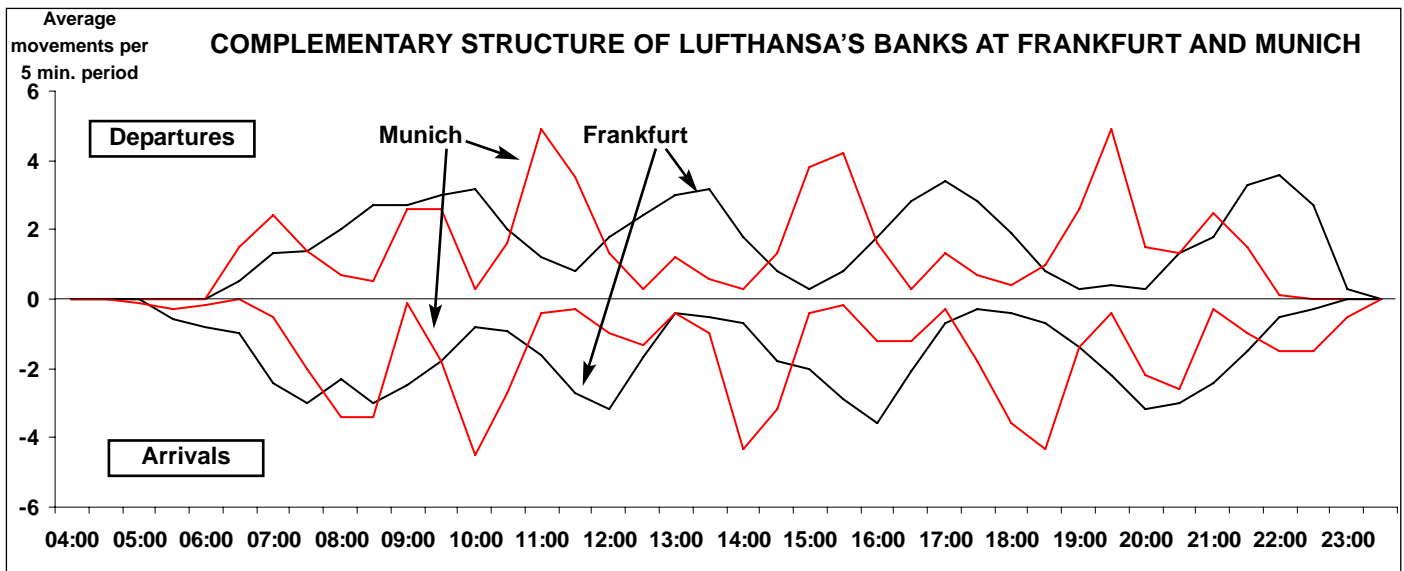
The Air France-KLM Group has revealed its first financial results since the merger was completed in May. It reported a net profit for the first quarter (April-June 2004) of €95m on revenues of €4.46bn.

The equivalent 2003 net profit was, according to AF-KL, €46m, so the result in theory shows a 106% improvement. However, comparing the new consolidated figures with previously reported individual Air France and KLM results (which showed a total loss of €53m for the equivalent period in 2003 and a total profit of €153m in 2002) is an accountancy nightmare. The latest results contain just two months of KLM against three months of Air France, the Dutch figures have been restated in accordance with French accounting standards, the subsidiary Servair has been incorporated on a different basis, and

negative goodwill arising from the merger has been amortised over two months.

What is clear is that the new airline has been expanding rapidly. Capacity (ASKs) was grown by 12.9% while traffic (RPKs) increased by 16.9% pushing the average





load factor up by 2.7 points to 77.7%.

As well as expanding to capture as much connecting traffic as possible, AF-KL also seems to be relying on capacity growth to control unit costs. The group's cost per ASK fell 4.8% between 2003 and 2004 partly the result of growth, partly the result of KLM's restructuring plan which was put in place before the merger. Planned cost savings from the merger itself are very modest - about €200m a year up to 2007.

The focus now is on developing a dual hub system coordinating traffic flows over Paris CDG and Schiphol. The European model for a successful dual hub system is already in place - Lufthansa organises its flight banks at Frankfurt and Munich in a complementary fashion (see chart above) so maximising connections and frequencies on all its city-pairs.

AF-KL is making moves along this strategic path. The Madrid-Shanghai example (chart on left) shows how complementary timings are being used to market a double daily KL-AF service.

AF-KL does, however, face significant

obstacles in attempting to emulate the Lufthansa model. First, there are still two separate management structures at the two airlines, and, with the best will in the world, coordinating schedules and operations will be difficult. Air France also has to tread carefully as the terms of the merger stated that growth at the two hubs has to be fully balanced for at least five years. Diverting traffic from Schiphol to the more profitable CDG hub would be the most logical commercial strategy, but one that is currently impossible.

Then there are pricing issues. For a number of reasons Air France's network is higher yielding than KLM's. To what extent can Air France impose its pricing policies on KLM at the same time as building the dual hub network?

Finally, there is the question of the two US partners. Anti-trust immunity allows Air France to talk to Delta about coordinating pricing and seat inventories, and KLM can do the same with Northwest, but Delta and Northwest cannot collude between each other. This may hamper the development of a fully coordinated Atlantic network.

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## Severe threat to RJ50 sector from US legacy crisis

As the post-September 11 airline industry restructuring shifts to a higher gear in the US this autumn, with US Airways filing for Chapter 11 and facing possible liquidation, there could be one unexpected casualty: the 50-seat regional jet ("RJ50").

In his latest report on regional airlines, UBS analyst Robert Ashcroft argues that developments at the most financially troubled legacy carriers could lead to a "glut in RJ50s". And should the 50-seat RJ market somehow survive the next year or two, the 100-seat Embraer E190 in the hands of JetBlue and possibly other LCCs is "highly likely to be an RJ50-killer".

Such developments could have dire consequences especially for the independent regional airlines that have financed RJ50s themselves with long-term leases or loans - top-notch companies such as Mesa, Republic and SkyWest.

The 50-seat RJ is obviously not going to disappear entirely, even under the most pessimistic of scenarios. It overwhelmingly dominates the US regional airline RJ fleets, accounting for 1,322 of the 1,534 RJs operated as of August 27 (UBS figures). As Bombardier likes to point out, 66% of the US domestic markets have less than 100 daily passengers.

However, the UBS report draws attention to the fact that just about every trend points to the RJ50 greatly diminishing in importance.

First, demand for 50-seat RJs has been weak in the post-September 11 period - only 81 new commitments. The continued high number of deliveries mostly reflects pre-September 11 commitments; for example, AMR Eagle is still taking delivery of a massive RJ50 order placed many years ago.

Ashcroft suggests that RJ50 fleets in the US have been overbuilt as a result of pre-September 11 conditions that no longer exist (high fare environment, absence of larger RJs) or are in the process of changing (scope clauses in pilot contracts).

Many of the legacy carriers have indicated their preference for larger RJs by swapping RJ50 orders for RJ70s as soon as permitted by their

scope clauses. US Airways recently switched its 23 remaining RJ50 orders to RJ70s. United has reduced its pre-September 11 RJ50 commitments by 59 while taking on 70 RJ70 commitments - and United has not replaced all of the 87 RJ50s that Atlantic Coast took away for the Independence Air operation.

Most significantly, low-cost carrier (LCC) actions have indicated that the 50-seat RJ is not compatible with the LCC business model. The UBS report notes that America West, Frontier and AirTran have all reduced or eliminated RJ50 operations, while Independence Air has said that it would have opted for 70-seaters in a clean-slate design.

JetBlue's planned 100-seat E190 service will reduce RJ50 viability, because it will bring low fares to the types of smaller-city high-fare markets that currently in large part support the high per-seat cost RJ50s. The impact will not be felt for two years or more but that, on the negative side, JetBlue is unlikely to be the only E190 operator.

LCCs prefer larger aircraft simply because of their need to keep unit costs low. The same applies to the legacy carriers now that they are moving towards the LCC model as a survival tactic.

Chapter 11 has proved a very effective tool for reducing large aircraft ownership costs, particularly in a deep industry slump when aircraft values and lease rates have plummeted. Chapter 11 is also handy for shedding aircraft that one no longer wants. UBS suggests that the likely upcoming Chapter 11 visits will see legacy carriers tackle RJ50 obligations and that the process could "strand significant RJ50s without major airline employment".

For those unfamiliar with the legacy-regional relationships in the US, there are basically two types regarding aircraft ownership. In one, the RJs are owned or leased by the legacy and sub-leased by the regional (often a partly or wholly owned subsidiary or division). In the other model, the RJs are owned or leased by the regional.

When the RJs are owned or leased by the legacy, reducing aircraft ownership costs in

Chapter 11 means the usual process of renegotiating leases and financings and/or returning aircraft to lessors or financiers. The regional loses the business but will not be stuck with the aircraft.

When the regional owns or leases the RJs, the legacy in Chapter 11 can reduce costs by rejecting the feeder agreement. That could mean renegotiating the terms of the deal and/or rejecting RJs. If the contract is renegotiated, the regional's profit margins are typically squeezed (unless it can cut costs). If the RJs are rejected, the regional not only loses the business but also is stuck with the aircraft.

### Glut scenario

Many of the RJ50s have been financed by regional airlines with loans and leases that have something like 16-year terms. If a glut develops, RJ50 values and lease rates would fall and the airlines could be stuck with (pre-September 11) high-ownership-cost aircraft that they can't place. "These fleets then represent a long-tail liability - it is a brave investor who counts on a regional airline's major partners to remain distress-free for such a term."

If a glut in RJ50s develops, the majors have even more leverage over RJ50 contractors than previously and are likely to "significantly reduce or delay" payments to their partners while in Chapter 11. This, of course, would make it even harder than at present to raise permanent financing for RJs.

In the RJ50 glut/Chapter 11 scenario, the regionals that would fare the best are the "asset-light" airlines that operate RJs on subleases. UBS notes that the market has traditionally disliked those airlines for that very characteristic - not having control over assets.

Ashcroft did not say this but it would be logical to conclude that, in an extreme (and probably very unlikely) case of a regional getting stuck with a large RJ50 fleet without employment, the regional might have to file for its own Chapter 11 to get rid of the aircraft.

It would be totally ironic if the independent regionals were punished in this way, because they are the ones that have helped the legacy carriers the most in the post-September 11 environment, thanks to their ability to finance aircraft.

The worst positioned are the "asset-heavy" regionals linked to US Airways (Mesa and

Republic), and to a lesser extent those linked to Delta (SkyWest and Republic). Mesa and Republic, which both generate 40-45% of their revenues from US Airways Express, have seen their share prices fall and analyst ratings further reduced in recent weeks, as US Airways' prospects have worsened.

In addition to reducing his Mesa and Republic ratings from "buy" to "neutral", UBS' Ashcroft has reduced his "baseline" valuation forward earnings multiple for regionals with RJ50 exposure from 12x to 9x. That is still higher than the major airlines' traditional 7-8x multiple because of the better growth prospects of regional airlines.

S&P noted on September 8, when again lowering US Airways' credit ratings, that time was running out to get cost cuts. One crucial date is September 15, when a \$110m pension payment is due - the agency suggested that US Airways may opt not to make it and file for Chapter 11 instead.

September 30 will see the expiration of covenant-waiver agreements with GE, Embraer and Bombardier. This could mean loss of access to RJ financing commitments, which would jeopardise US Airways' new business strategy. At stake are orders for 110 70-seaters scheduled to go to wholly owned units MidAtlantic and PSA.

UBS' Ashcroft believes that US Airways' liquidation would ground many RJ50s for some time - an unprecedented situation - and significantly hurt its regional partners. Other regionals might benefit in the short term (as their legacy partners would gain), but the net effect on the regional sector would be negative.

Ashcroft makes the point that Delta controls many RJ50s through its own subsidiaries, giving it an opportunity to seek ownership cost reductions. Also, it could get 70-seat RJ scope clause relief in a new mainline pilot contract (either before or in Chapter 11), as a result of which it might shed RJ50s (in Chapter 11) and order more RJ70s.

Delta said practically nothing about its future RJ strategy when it unveiled its new strategic plan on September 8. The plan will eliminate hub operations at Dallas/Fort Worth in favour of growing the three other hubs and offering more point-to-point services. There would appear to be an overall reduction in RJ deployment between now and February - Merrill Lynch analyst Mike Linenberg calculated the reduction in daily regional flights at

5%, observing that this could be "indicative of Delta's appetite for additional regional jets for its network, particularly for the smaller shells".

JP Morgan analyst Jamie Baker suggested that the wholly owned regionals - Atlantic Southeast and Comair - might be intended to form the collateral behind a Delta DIP financing, which would explain "management's reluctance to agree with virtually every other network operator that 50-seaters are incompatible with the current revenue environment".

### New regional model

Ashcroft remains bullish on 70-seat RJs - the report indicated that the view would change only if both US Airways and United liquidated and the other four legacies did not get any further RJ70 scope clause relief.

The perfect regional model for the new environment? Ashcroft: "We see the key to future regional airline success as managing RJ50 exposure, grabbing as much RJ70 growth as possible, and probably opportunities beyond traditional regional airline roles - such as E190s."

## Parked aircraft analysis

The global total for parked jets as at mid-year was nearly 2,400 according to our analysis of ACAS data. This represents about 15% of global supply.

However, we estimate only just over 700 of these aircraft are likely to be returned to commercial passenger service. The LCC phenomenon

has mopped up many of the surplus narrowbodies.

There have been signs of a firming in lease rates especially for modern narrowbodies but overhanging the whole aircraft market is the threat of liquidation of one or more the US majors, which would result in a new influx of used aircraft.

### PARKED AIRCRAFT ANALYSIS

RETURNABLE TO PAX SERVICE						OBSOLETE FOR PAX SERVICE						Overall total		
REGIONAL JETS						NARROWBODIES								
	<5 years	5-10 years	10-20 years	20-30 years	> 30 years	Total		<5 years	5-10 years	10-20 years	20-30 years	> 30 years	Total	
Emb135/145	3	7				10	F28			3	45	24	72	
328JET	18	1	1			20								
CRJ	12	21	4			37								
146	3	12	51	2		68								
F100		10	90			100								
<b>Total</b>	<b>36</b>	<b>51</b>	<b>146</b>	<b>2</b>	<b>0</b>	<b>235</b>		<b>0</b>	<b>0</b>	<b>3</b>	<b>45</b>	<b>24</b>	<b>72</b>	<b>307</b>
NARROWBODIES						NARROWBODIES								
	<5 years	5-10 years	10-20 years	20-30 years	> 30 years	Total		<5 years	5-10 years	10-20 years	20-30 years	> 30 years	Total	
A320 family	19	27	14			60	737-1/200			13	157	55	225	
737-3/4/500		8	73			81	727				294	240	534	
737-7/800	5	1				6	707			1	3	62	66	
757	7	5	46	2		60	DC8					69	69	
717	3					3	DC9				66	148	214	
MD80		4	75			79	MD80				40		40	
MD90		11				11	BAC1-11			4	4	19	27	
<b>Total</b>	<b>34</b>	<b>56</b>	<b>208</b>	<b>2</b>	<b>0</b>	<b>300</b>	<b>Total</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>564</b>	<b>593</b>	<b>1,175</b>	<b>1,475</b>
WIDEBODIES						WIDEBODIES								
	<5 years	5-10 years	10-20 years	20-30 years	> 30 years	Total		<5 years	5-10 years	10-20 years	20-30 years	> 30 years	Total	
747-400	3	5	25			33	747-1/2/300			14	84	43	141	
767	5	2	38			45	747SP				14		14	
777	2	5				7	767				41		41	
A300-600			5			5	A300			4	36		40	
A310		2	45			47	A310				5		5	
A330	2	1				3	DC10			2	68	21	91	
A340	3	2	1			6	L1011			1	76	9	86	
MD11		7	28			35								
<b>Total</b>	<b>15</b>	<b>24</b>	<b>142</b>	<b>0</b>	<b>0</b>	<b>181</b>	<b>Total</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>324</b>	<b>73</b>	<b>418</b>	<b>599</b>
<b>TOTAL</b>	<b>85</b>	<b>131</b>	<b>496</b>	<b>4</b>	<b>0</b>	<b>716</b>	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>933</b>	<b>690</b>	<b>1,665</b>	<b>2,381</b>

### Gol: Brazilian version of the LCC model

**G**ol Linhas Aereas Inteligentes, Brazil's rapidly growing and hugely profitable low-cost carrier (LCC), became better known globally in June when it went public with listings in both New York and Sao Paulo. The airline will go international in December with service to Buenos Aires in Argentina. Gol has exciting growth potential, but could the strict regulatory regime impede its plans? How will it fare when there is effective competition?

Gol, which began flying in January 2001, is a particularly nice addition to the global LCC ranks because of the positive social impact it is having in Brazil. Its low fares have made air travel affordable to a larger segment of the Brazilian population. It is providing needed links in a country that is as large as the US but lacks highway and rail infrastructure. It is offering an affordable alternative to the buses - Brazil's main mode of long-haul transportation. As the first true LCC in Latin America, Gol also has the potential to have significant impact in international markets within the region.

Gol is majority-owned and controlled by Brazil's Aurea Group, one of the world's largest bus companies. Aurea's founder Constantino de Oliveira, 72, is Gol's chairman - the airline describes him as "the principal architect of our creation". His son and namesake, "Junior", 35, is Gol's CEO and credited for introducing the "low-cost, low-fare" concept in Brazil. AIG Capital Partners, the venture capital arm of the insurance giant, acquired a 12.5% equity stake in Gol in February 2003, later selling half of the stake in the IPO.

Because of its position as a low-fare pioneer in Brazil and the dismal financial condition of the country's other (high-cost) airlines, Gol has captured a 22% domestic market share in just three years. It currently operates a 31-point network with a 25-strong fleet of Boeing 737s.

But the most impressive thing about Gol is its financial performance. After becoming modestly profitable in 2002, the airline reported net earnings of R\$175m on revenues of R\$1.4bn for 2003, representing a 12.5% net margin - among

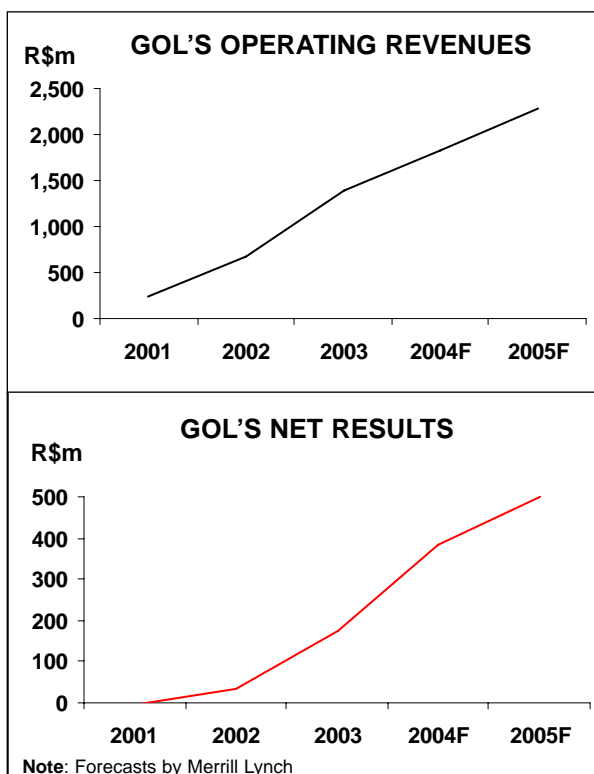
the best in the airline industry worldwide. The 18.9% pretax margin was 2-3 points higher than JetBlue's and Virgin Blue's and 11 points higher than Southwest's (only Ryanair bested Gol with a 23.3% pretax margin in 2003).

While North American and European LCCs have been feeling the effects of the fuel price hike and escalated competition this year, Gol has continued to improve its profit margins. Net profit for the first half of 2004 was R\$163.9m, accounting for 20% of revenues. The second quarter, which is typically the airline's seasonally weakest, saw a spectacular 29% pretax margin.

The strong profits are due to a combination of strong traffic growth, extremely low unit costs and a relatively healthy airline revenue environment in Brazil. The latter probably explains to a large extent why Gol's is achieving unusually high profit margins.

The revenue environment in Brazil is relatively healthy because, unlike in the US, there is no excess industry capacity. Also, demand is fairly inelastic since 70% of all domestic trips in Brazil are for business purposes, compared to 30% in the US.

There is no excess capacity partly because of the cutbacks of the financially struggling carriers - the TAM/Varig code-share last year also removed some capacity - and partly because of government controls over capacity



addition. The lack of excess capacity has enabled the airlines to maintain pricing power. Thus Gol, which has wisely invested in a sophisticated yield management system, has been able to use the system to its full effect to maximise revenues. For example, it has raised some fares to compensate for discounting in other markets. The result has been stable or improving yields and unit revenues and healthy load factors.

Gol is able to avoid the worst effects of fuel price hikes and adverse exchange rate movements, because both of those are typically largely incorporated into the fare structure in Brazil, with a time lag of 2-4 months. The airline hedges fuel needs 60-90 days ahead to allow for the delay in raising fares. The ability to link fares and fuel prices is another example of the pricing power that airlines enjoy in Brazil - it would not be possible in the US.

From an international perspective, perhaps the least interesting thing about Gol is the business model that looks like a carbon copy of Southwest's. However, what makes Gol interesting is that it is applying the common LCC formula in unusual circumstances.

### Unique environment

Gol's circumstances are unusual, first of all, because Brazil is a relatively undeveloped aviation market with huge growth potential. According to the IPO prospectus, Brazil had only 30m enplanements out of a population of 175m in 2002, compared to 650m enplanements in the US out of a population of 293m in 2003. On a per-capita basis, Brazil had 0.17 enplanements, compared to 2.43 in the US, 1.38 in the EU and 0.36 in Argentina.

Brazilians do like to travel - interstate buses carried some 130m passengers in 2000 (the latest year available). Consequently, pulling passengers from the buses represents a large growth opportunity for an LCC. Given the 175m population and the large size of the country, Brazil has the potential to develop into one of the world's leading domestic aviation markets. As the first LCC, Gol is perfectly positioned to play a Southwest-type role.

The second reason why Gol's circumstances are unusual is that, unlike most LCCs, it operates currently in a re-regulated regime. After six or

seven years of gradual aviation deregulation, the Brazilian government reintroduced many controls in 2002 as the airline industry losses surged from R\$1.47bn in 2001 to R\$6.75bn in 2002. The motive was to protect the industry's financial performance. The new rules limit route entry, addition of capacity or frequencies, acquisition of new aircraft and the entry of new carriers. For any changes, airlines must file with the DAC and justify the economic viability of the action.

Third, Gol's circumstances are unusual because it currently lacks effective competition. The barriers to entry are high, while the three main established airlines - Varig, TAM and Vasp - continue to struggle financially, with high cost levels and heavy debt burdens.

Gol has not been disadvantaged by the new controls; rather, it has probably benefited. First, because of its low cost levels, it must have found it easier than competitors to justify growth. Second, the controls may have stopped potential new LCC entrants in their tracks, or at least delayed them. Third, the new rules have helped keep in business the weakest carriers, which are not capable of challenging Gol.

US-based analysts have expressed admiration for Brazil's moves, though some fear that Gol might be negatively affected in the future. Raymond James analyst Jim Parker pondered that "Wouldn't it be great if the US government required US airlines, particularly the legacy carriers, to demonstrate profitability before adding capacity?" Merrill Lynch analyst Michael Linenberg's was more measured: "We view this as not necessarily a bad thing, given the industry's propensity to over-expand, but at some point the increased regulation could become an impediment to Gol's expansion plans".

How might Gol be affected if the government became absolutely determined to get the legacy carriers back on their feet? In recent weeks there has been speculation about the government assuming control of Varig temporarily to restructure it and sell it to a private investor.

Gol will face competition from new LCC entrants at some point in the future. A pretax profit margin of 29% invites competitive challenges. Even with the existing limits on new entry, there must be many business plans on the drawing board - one recent newspaper article mentioned a company named Webjet targeting the trunk routes and two others LCC hopefuls aiming for



leisure markets.

### The June IPO

In late June Gol became the second Brazilian company ever to complete a dual-listing IPO. The airline and certain existing shareholders (AIG and the four de Oliveira brothers) offered a total of 33m preferred shares, in the form of ADSs outside Brazil and preferred shares in Brazil. Both offerings were priced at the top of their anticipated ranges, at \$17 and R\$26.57, and were significantly oversubscribed. The ADSs were listed on the NYSE and the preferred shares on Sao Paulo's Bovespa.

The offerings raised a useful R\$878m or US\$280.9m in gross proceeds, of which US\$151.4m went to the airline and US\$115.5m went to the selling shareholders. The proceeds will be used to fund fleet expansion.

The IPO significantly strengthened Gol's balance sheet, raising its cash position rose by R\$505m to R\$696m - a healthy 45% of annualised net revenues. The lease-adjusted debt-to-capital ratio at the end of June was 62.4%, which is relative low by airline standards.

The offerings had minimal impact on ownership and control. Only 17.6% of Gol's stock is now in public hands, and Aurea/de Oliveira family remain firmly in control with a 77% ownership stake. The two AIG representatives on Gol's eight-member board were due to be replaced by independent directors.

The IPO was an important vote of confidence in Gol's prospects. The local offering had the highest retail demand ever demonstrated in a Brazilian IPO - the airline's top executives said that they believed many of the investors were actually Gol customers.

Just as importantly, Gol established a foothold in the much larger US capital markets, which it can tap for further funds in the future. While Morgan Stanley was the sole bookrunner in the global offering, Gol wisely also brought in other financial powerhouses - Merrill Lynch, JPMorgan, Raymond James and UBS. (By coincidence, it was the analysts from those institutions that initiated coverage on Gol.)

Gol's valuation was at a discount to North American LCCs, reflecting what one analyst called a "Brazil-related risk discount". It was val-

ued at only about 11 times expected 2005 earnings, compared JetBlue's and Southwest's PE multiples of 20-22 and AirTran's 15-16. The valuation was attractive given Gol's profitability and growth prospects, and its share price has already risen from the \$17 offer price to over \$19 (after a somewhat slow start in the initial two months).

### The business model

In its own words, Gol's is "modeled after the successful strategies of other international low-cost airlines". It is mostly in the classic Southwest mould: low costs, low fares, simple product, single-type fleet, high efficiency, strong brand, friendly service, motivated workforce and extensive use of new technology.

Gol's unit costs are unusually low - at R\$0.141 or 4.8 US cents per ASK in 2003, they are lower than many other LCCs' (including Southwest) and about 25% lower than Brazilian legacy carriers'. The unit costs are impressive given Gol's average stage length of less than 700 kilometres, which is shorter than Southwest's. The main drivers are low labour costs, a new fleet and high aircraft utilisation.

The airline claims that it operates the newest fleet in South America - 22 leased 737-700/800s, plus three interim 737-300s (another two are due by year-end) on two-year operating leases. The 300s will facilitate growth until deliveries of new Boeing aircraft start in mid-2006. Gol placed an order in May 2004 for up to 43 737-700/800s - currently 17 of those are firm orders and 26 are options. Gol's average aircraft utilisation, at 13.3 hours per day in the second quarter and 14 hours in July, is among the highest in the world. The only other airline with 13-plus hours that comes to mind is JetBlue. In both cases, the high utilisation is due to short turnarounds and night flights.

Offering night flights at bus rates between major domestic cities was a bright idea implemented in December 2003. The flights have very

Type	2003	2004	2005	2006	2007	2008	2009	2010
737-700	18	18	24	32	33	34	35	39
737-800	4	4	4	7	12	19	26	31
737-300	0	5	5	0	0	0	0	0
<b>Total</b>	<b>22</b>	<b>27</b>	<b>33</b>	<b>39</b>	<b>45</b>	<b>53</b>	<b>61</b>	<b>70</b>

**Note:** Totals equal number of aircraft at year-end

low marginal costs. One aircraft typically covers six cities. Since travel time is typically cut from 24 to five hours or less, the services have been extremely popular, with average load factors in the high 80s or 90s. Yields are typically just over half of Gol's system yields.

Gol also benefits from exceptionally high Internet sales. In the first half of 2004, 74% of its sales were through the Internet - about the same as JetBlue's but more than Southwest's and AirTran's. One analyst noted that this is particularly impressive, given that the Internet is not nearly as widespread in Brazil as it is in the US. Other Brazilian carriers may achieve only 5% maximum. Gol is also 100% ticketless.

The product is simple - single class, no FFP, no airport lounges, only light snacks and beverages, no expensive entertainment systems. Seating is pre-assigned, but in all other respects it is Southwest-style, without the JetBlue-style frills. On the pricing front, Gol differentiates itself from competition by offering typically 20-30% lower fares and making most seats available at those fares. As an interesting feature, the airline also offers its customers "a variety of flexible payment mechanisms, such as monthly installment payments".

According to the IPO prospectus, Gol's fare structure is "designed to balance load factors and yields to maximise profitability". This may sound like the opposite of having a "simple fare structure" - the key concept for US LCCs. However, industry practice or government regulations in Brazil already eliminate some of the complexity by not allowing advance purchase restrictions, minimum stays or Saturday night stay requirements. Brazilian airlines are allowed to establish their own fares, but the regulatory authority monitors them to make sure that they do not affect economic viability.

By combining low fares with simple and reliable service, Gol has succeeded in developing a strong brand in Brazil. It is scoring highly in customer surveys and winning "company of the year" type awards. Most importantly, Gol has apparently succeeded in creating a Southwest-style employee culture - something that numerous LCC-hopefuls around the world have tried and failed in. The talk is of a "highly motivated, enthusiastic workforce" that benefits from the best training practices, profit sharing etc.

Like other LCCs, Gol aims to stimulate traffic

and has succeeded in that. According to the IPO prospectus, passenger volume at various airports where Gol introduced service during 2001 rose by 8-24% between 2000 to 2002, compared to a mere 6% increase in aggregate traffic at Brazil's top 50 airports in that period.

## Route policy and growth plans

Gol operates in two types of markets. First, there are the high-density competitive markets, such as Sao Paulo-Rio Janeiro, where the airline operates direct point-to-point service. Second, there are the thinner leisure-oriented markets where it operates multiple-stop service (a linear-type network that has all but disappeared in most mature aviation markets). Since the first or last segment is typically a major route such as Sao Paulo-Brasilia, the strategy enables Gol to offer more destinations and frequencies and achieve higher load factors.

Because of the wide variety of markets, flight frequencies range from just one daily to a shuttle-type service with 38 daily flights in the Sao-Paulo-Rio market. Gol is fortunate in being able to establish an early significant presence in high-yield business markets like that.

After introducing two new domestic cities in August, Gol currently has government approval to add two more, Joinville and Uberlandia, in the fourth quarter. The airline will also begin twice-daily Sao Paulo-Buenos Aires service in December, its first international route, which will bring its network to 34 cities.

The airline has potentially substantial growth opportunities, both domestically and within South America, though at this point it is not clear how much of it Gol will have to share with competitors. Gol's CFO Richard Lark disclosed in a recent conference call that the company's three-year plan includes at least 20 medium-sized cities in Brazil that meet its criteria of being overpriced or underserved, plus there will a "connecting the dots" strategy. Outside Brazil, Gol will be targeting principal capital city markets similar to the Sao Paulo-Buenos Aires route. Lark said that the strategy would be to integrate the routes with the rest of the network to maximise connections (almost half of Gol's passengers are connecting or through passengers). Gol expects to triple its

fleet to 69 737-700/800s by year-end 2010. The current order commitments would mean average annual seat capacity growth of 20% over the next four or five years. However, because operating leases for the existing fleet of 22 737-700/800s will start expiring in 2007, the airline will have flexibility to grow more slowly, depending on the economic and competitive scenarios.

### Financial outlook

Gol is expected to continue posting strong earnings growth for the foreseeable future. Merrill Lynch and Raymond James forecasts see the net profit more or less doubling from last year's R\$175m to R\$330-380m in 2004, followed by another healthy increase to R\$445-500m in 2005.

Pretax profit margin would rise from last year's 19% to the high 20s or low 30s.

The bullish earnings projections are supported by economic trends in Brazil, which indicate resumption of strong GDP growth this year. One Brazil-based analyst made the point recently that airline revenues in Brazil continue to be closely correlated with GDP growth, generally increasing at three times the GDP rate.

However, Gol's earnings and share price projections carry a higher than usual amount of risk and uncertainty. In addition to possible regulatory changes, there is exchange rate instability and uncertainty about inflation. Gol-specific risks affecting the share price include low liquidity (a free float of only 17.6%) and the Aurea Group retaining a 77% controlling stake in the company.

By Heini Nuutinen

## Austrian looking east as turnaround continues

Austrian Airlines Group (AAG) still appears the most likely of Europe's medium-sized carriers to be able to retain its independence long-term, despite the fact that whenever it appears to survive one challenge, along comes another one.

After a successful turnaround in 2002 that saw an overhaul of costs and strategy (see *Aviation Strategy*, May 2003), 2003 was all about AAG resisting the crises of Gulf War II and SARS, while undergoing a revamping of brands and starting a tough round of negotiations with unions.

In response to the Gulf War and SARS, AAG grounded aircraft and cut capacity by 11% in April 2003 and 10% in May, saving the group a total of €20m, while other measures introduced during the crises chipped away an additional €40m in costs. Although RPKs fell 15.5% in May 2003 compared with May 2002, traffic recovered steadily afterwards, and in November 2003 ASKs were higher than the corresponding month in 2002 for the first time since March. Recovery in the second-half of 2003 meant that for the full 2003 AAG reported operating profits of €63.3m - 53% up on 2002 despite a 6.9% fall in operating revenue to €2.2bn. Net profit rose 6.5% to €46m. Rising traffic in the last half of the year didn't quite overcome the traf-

fic decline of the first half, so overall in 2003 passengers flown at AAG fell 4% to 8.5m. Group ASKs rose by 0.1% in 2003 and RPKs fell 0.1%, leading to a 0.2 percentage drop in load factor to 72.4%.

The continued emphasis on cost cutting through the crises proved to be successful, with unit costs (€ cents/ASK) falling by 5.1% in 2003 compared with 2002. Within that overall fall, flight-related unit costs fell by 1% in 2003, passenger-related unit costs fell by 5.5% and fixed unit costs fell by 6.6%. But the importance of that continuing cost reduction was underlined when yields fell by 11.4% in 2003, much of that decline coming from AAG's slashing of fares on some routes in response to increasing competition from LCCs, particularly on services to/from Germany.

### Cost question

With yields continuing to fall, AAG is trying to cut costs just as fast. The focus over the last 12 months has been on labour, but AAG's efforts to change terms and conditions among its 7,000 staff were not immediately successful. Management

AAG'S FLEET		
	Fleet	Order (Options)
<b>Austrian Airlines</b>		
A319	3	5
A320	8	
A321	6	
A330	4	
A340	4	
737-800		3
MD-80	7	
F70	3	
<b>Total</b>	<b>35</b>	<b>8</b>
<b>Lauda Air</b>		
737-3/400	3	
737-6/7/800	7	1
767-300ER	4	
777-200ER	3	
<b>Total</b>	<b>17</b>	<b>1</b>
<b>Austrian Arrows</b>		
Dash 8 Q3/400	20	2
CRJ100LR	4	
CRJ200LR	13	
F70	6	
F100	3	8 (6)
<b>Total</b>	<b>46</b>	<b>10 (6)</b>
<b>Group total</b>	<b>98</b>	<b>19 (6)</b>

wanted to reduce the salaries of new Austrian pilots to the same levels as Lauda Air pilots, but there was unexpectedly fierce resistance to the proposed changes. In 2003 AAG's plans led to an overwhelming vote by the group's pilots and flight attendants to instead pursue a group-wide collective agreement which would include a common seniority list for employees from Austrian, Lauda and Tyrolean. In return, the unions would agree that all new hirings would join on pay rates less than existing staff - a move that the unions estimated would save AAG €10m.

The workers' proposal was initially strongly opposed by management, which wanted to keep individual agreements for the three parts of the Group. AAG CEO Vagn Sorensen said: "A group-wise collective agreement would unavoidably set in train an upwards cost-spiral, which we simply cannot afford. We have to solve our cost problem exactly where we have it - namely in the Austrian Airlines' flight operations - rather than exporting that problem to Tyrolean and Lauda Air." He added that cost savings of €10m as calculated by the union "turn out to be a complete fallacy upon closer inspection and a little more than an attempt to force savings upon others rather than personally accept that responsibility".

However, the workforce was not intimidated by AAG's reaction and in August 2003 members of the HVT union - which represents both pilots and flight attendants, at Austrian - walked out, followed by further stoppages over two days in October. Subsequent talks between the two sides failed, with claims from the HVT that management was not willing to be flexible, though the group insisted that its own proposals did not include any lay-offs.

In November 2003 senior executives, including Vagn Sorensen, announced a voluntary 10% reduction in their salaries from the beginning of 2004, similar to a 15% reduction management took

for 12 months after September 11. After a deadline to solve the dispute by mid-November lapsed, pilots staged a lightning 15-minute strike on November 17. The very next day a preliminary agreement between the two sides was reached, under which current Austrian and Lauda pilots would get a 3% pay rise but all new pilots hired into the group would earn up to 27% less than existing pay scales and have less valuable pensions than existing employees. At the heart of this deal was a merger of mainline and Lauda Air pilot operations.

Talks on the details of the outline agreement (including pay scales, pension entitlements and rest entitlements) were held earlier this year and a new labour contract was due to come into force in April, allowing Austrian and Lauda Air flight operations to be combined (though retaining their separate brands) from July 2004. However, as the implementation date passed, the two sides had still not managed to agree all the details, and negotiations continued into the summer. In mid-August the prospect of a complete breakdown became apparent, with unions accusing management of backing down from previously agreed terms. Pilots and flight attendants walked out for two hours in August, and the prospect of further wildcat strikes led management to cancel flights. Finally, after 20 hours of talks on August 23, a deal was struck, and Austrian and Lauda Air flight operations are now expected to merge on October 1.

AAG's other current cost focus is the fleet. The group is still hampered by having many aircraft types (the *Schmetterlingsammlung*, or butterfly collection), although there has been progress in reducing the variety. In March 2004 the group announced it was buying nine Fokker 100s from American, with an option for another six aircraft. Five have already been delivered, with the first F100 entering service in July after an overhaul. All the aircraft will join the group by the end of 2004 and will be used partly to replace MD-87s and partly for new routes in central and eastern Europe. A side effect of this deal is that the Star alliance's plans for a joint member purchase of up to 200 regional jets may not now go ahead for several years.

The first A319 from an order for seven of the type arrived in February. The A319s will replace the MD-80s. Another 737-800 was ordered in June, for delivery to Lauda Air in June 2005 as a replacement for 737-3/400s. In January, orders for two Bombardier Q400 turboprops were placed for

Austrian Arrows, to be delivered in early 2005.

### Improving results

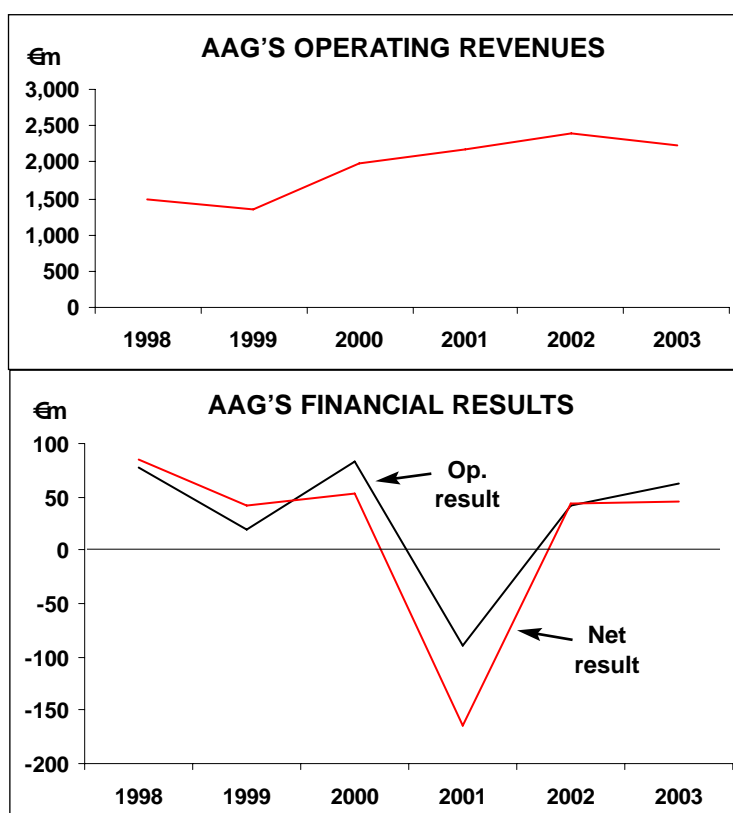
Despite the ongoing dispute between management and unions, the improvement in financial results continued into the first half of 2004, when AAG reported an 11.3% rise in revenue to €1.1bn, based on a 15% rise in passengers carried to 4.4m. Much of this came from expansion of services in central and eastern Europe (see below), with scheduled ASKs up 18.5% in the half-year but RPKs up 28%, resulting in a 5.3 percentage rise in load factor to 71.2%. In January-June 2004 the operating loss (EBIT) fell to €18.9m, compared with a €23.3m loss in 1H 2003. Adjusted EBIT, which ignores one-off effects such as asset sales and write-offs, was €8.5m in the red, compared with a €52.5m loss in 1H 2003. The adjusted net loss for the half-year was €11.4m, compared with a €59.4m net loss in January-June 2003. AAG traditionally posts much stronger results in the second-half of the year than the first.

Full year results may also be boosted by the benefits of the rebranding unveiled in September 2003, in which Tyrolean Airways was renamed Austrian Arrows and Austrian Airlines renamed Austrian. Both airlines are adopting a new livery, which will be completed across the fleet by 2005. The renaming of Tyrolean will help the airline move away from a "regional" image as it now focuses on competing against the LCCs. Lauda Air is to become a charter-only specialist, and in 2005 Lauda's 767s and 777s that operate scheduled services will be painted in Austrian livery.

In Austrian Arrows' first six months of operations - from November 2003 to May 2004 - passengers carried rose 16% compared with the previous half-year period at Tyrolean. Half of the passenger increase came from one route - Innsbruck-London - while 35% came from Innsbruck-Vienna and the rest from Innsbruck-Frankfurt. Altogether, these three routes earned €5m in revenue for Austrian Arrows, which will launch a route to Frankfurt in November and is also looking at new routes to Barcelona and Paris.

### Focus East

AAG's major strategic effort in 2004 is 'Focus



East', the group's ambitious plan to become the major aviation player in central and eastern Europe. The enlargement of the EU eastwards is boosting east-west European traffic flows - both business and leisure - and increasingly the region is developing from a "market of origin" into a "market of destination", to use AAG's terminology. The withdrawal of SWISS from certain routes also presents opportunities.

The goal of Focus East is to increase AAG's passenger traffic to the region by 50% by 2008 (to 2m passengers per year) by adding up five new routes each year. Presently AAG operates to 38 destinations in central and eastern Europe, accounting for more than 20% of all passengers flown by the group, but the airline believes that there are up to 100 potentially viable destinations in the region. For the summer 2004 schedule AAG increased flights to central and eastern Europe by a substantial 102 per week.

The group is now the airline with the largest number of destinations in the region (Lufthansa has the second largest number - 25) and the third largest in terms of weekly frequencies (with 464, behind CSA's 558 and LOT's 475). In terms of traffic transferring to/from flights to central and eastern

Europe, in the first half of 2004 AAG had a 14.8% market share, second only to Lufthansa (with 22.6% of transfer traffic). Central to this expansion is AAG's Vienna hub, and frequencies will be boosted on key routes such as Moscow, Prague and Budapest. AAG is also developing feeder routes unto Vienna from smaller east European destinations, though there are plans for flights direct from key east European destinations into western European, thereby bypassing the Vienna hub.

But AAG's plans for eastern domination are facing competition, not only from the mainline carriers but increasingly from the LCCs, who are not only establishing routes directly into eastern Europe but also beginning to open mini-hubs there as well. Most worryingly for AAG, LCC operations are springing up at Bratislava, the capital of Slovakia and just 50 km from Vienna. In 2002 AAG considered launching a LCC in Bratislava Stefanik airport to take advantage of lower labour and infrastructure costs, but instead it decided to base Austrian Arrows aircraft there. Daily services from Bratislava to Paris CDG, Brussels and London Heathrow began in May 2004, the same time as Latvia joined the EU, with one 737 based at the airport. But these routes compete against Bratislava-based LCC SkyEurope Airlines, which has a fleet of seven 737-500s and six Emb-120ERs and operates to 18 destinations in Europe, 15 of them from Bratislava (including Amsterdam, Paris and Zurich).

Another LCC, Wizz Air, sandwiches AAG through Budapest and Katowice. Germanwings is also looking to establish a base at Bratislava, and is reported to be talking with Bratislava airport at present. And in May Lufthansa began daily flights between Bratislava and Munich. Most ominous of all, in August 2004 easyJet announced it would start operations out of Bratislava in November, initially to Berlin and then the following month to London Luton.

AAG is considering a joint bid with Austrian and Slovakian partners for Bratislava airport, which the Slovakian government intends to start privatising sometime this year. Although AAG's stake in a joint bid is likely to be small, its potential involvement in a bid for Bratislava is politically tricky, as AAG could transfer services from Vienna to its cheaper rival. Flughafen Wien, operator of Vienna International Airport, is itself likely to bid for Bratislava airport, while reports out of Austria claim

that the Vienna city council - which owns 20% of Vienna airport - is putting pressure on AAG to withdraw from any bid for Bratislava.

Elsewhere in eastern Europe, in March AAG agreed a partnership deal with Serbia's Jat Airways, including codesharing on the Vienna-Belgrade route. Austrian is also analysing a possible bid for a minority share in Bulgaria Air, the national airline that replaced the collapsed Balkan Bulgarian, and with whom Austrian codeshares on Vienna-Sofia. The government aims to privatise Bulgaria Air, which has just four 737-300s, by the end of 2004. AAG may also be considering a bid for Malev, which the Hungarian government aims to sell by the end of 2004, but the airline is heavily in debt.

After Latvia entered the EU in May, AAG relaunched a Vienna-Riga route. Austrian withdrew from the route in 2002 after refusing to comply with Latvian government demands to reduce frequencies in order to match those of Air Baltic. Under the EU aviation regime, however, traffic restrictions are no longer possible. AAG is also eyeing Russia and the former Soviet republics. It currently offers 15 routes there, but plans to add services to Astrakhan and Tyumen in Russia. AAG became the first non-Russian airline to operate to Rostov when it launched a route with CRJs in 2003, and in March 2004 it launched a three-times-a-week route to Almaty, in the Kazakh republic. AAG is also keen to persuade Aeroflot to join the Star alliance, which would build on existing codesharing between Aeroflot and Austrian on Vienna-Moscow.

Outside Europe, AAG is focusing on Asia, with capacity to the region increasing by 20% this year. Austrian relaunched a route to Shanghai in April (after a four year absence) and started a Vienna-Singapore-Melbourne service in June, the latter of which is picking up feed traffic from fellow Star member Singapore Airlines. AAG also added summer capacity on existing routes to Sydney, Melbourne, Tokyo and Beijing, while a codeshare deal was signed with Air New Zealand at the end of 2003. Codesharing with domestic Japanese airline Fair (which is part-owned by ANA) also started in July.

## The future

As AAG forges ahead in eastern and central Europe, its continuing challenge will be to keep

cutting costs as yield falls. Vagn Sorensen warns that there is a steady migration of passengers from business to economy class, and the group forecasts that yield will fall by 7% in 2004, on top of the 10% fall in 2003.

Now that the long running saga with the unions is resolved, AAG is switching focus to other areas. Rising oil prices are hitting AAG hard (fuel accounts for 10% of costs), and the group introduced a surcharge of €6 per scheduled flight in May. AAG hedges the cost of approximately 35% of its fuel needs, but that still leaves the group exposed to a large upside price risk.

AAG's unit costs fell by 6.4% in January-June 2004 compared with the previous half-year, and ATK per employee increased by 11.4% in the half year compared with 1H 2003. However, other areas left to cut costs in are diminishing. The integration of Austrian and Lauda operations should provide savings of tens of millions of Euros per year, and further cost savings will come from a gradual shift to internet sales, a switch in head office location, a cut in travel agent commission and continuing fleet overhaul.

Above those, the one remaining area of high cost is AAG's main hub - Vienna airport. AAG's waves of flights give the group a 60% market share at Vienna and the airport's landing charges, probably the highest in Europe, ensure that no LCC would base an operation there. But nearby Bratislava offers a much cheaper alternative base, and involvement of AAG in a successful bid for the Slovakian airport would open up a vital cost-saving option.

Another challenge to AAG may come from expansion of the Star alliance - membership of which is claimed to boost AAG's revenue by €350m a year (with €500m forecast for 2005). The latest arrivals - South African Airways, TAP and Finland's Blue I - offer little overlap with AAG, but the possibility of Swiss joining Star (which is more much likely following the breakdown in talks between Swiss and oneworld in June) is disconcerting to the Austrian group. Vagn Sorensen said: "There are simply too many overlaps, and Swiss membership would affect AUA negatively at the moment." That may be true, but Star will examine whether Swiss's membership would benefit the alliance as a whole, rather than base its decision on the effects on any one individual member.

Specifically, AAG is worried that Swiss's Zurich hub would be a competitor to Vienna and become

a focus for east-west traffic flows. Of course if Lufthansa ever bought Swiss, then AAG's objections to Swiss would become irrelevant. Coincidentally, in March 2004 "Der Spiegel", a German magazine, reported that board chairman Vagn Sorensen would move to Lufthansa in the near future, a story that AAG refuted as "speculation".

And AAG is still facing complaints against the dominance of Star in the German and Austrian markets. In July 2003 Graz-based Styrian Spirit dropped its Linz-Dusseldorf and Linz-Frankfurt services - launched only a few months previously - after alleging that AAG had cut its prices on the routes in order to force Styrian out of business. Styrian complained both to domestic courts and to the European Commission, claiming that AAG was not meeting the EC's conditions for approving the Lufthansa-Austrian alliance, which included specific measures against selective price dumping.

AAG forecasts that largely through the extra services and routes into central and Eastern Europe, and on long-haul to Asia, the group will see passengers carried rise by 14% this year. Most importantly, AAG finance director Thomas Kleibl maintains the group is on target to record adjusted EBIT of €50m for full year 2004 (compared with €4.2m in 2003), rising to an adjusted EBIT of €100m in 2006.

AAG's shareholders would welcome that confidence. CSFB sold its remaining 5% stake in AAG at the beginning of the year, placing them on the Vienna stock exchange and increasing the group's free float to 43.2%, which for the first time exceeds the 39.7% stake held by OIAG, the state holding company. The remaining shareholders include Air France (1.5%) and - after a series of investment roadshows were held to sell the group's turnaround story - UK-based Gartmore Investment Management (5.1%). AAG is also buying back 5% of the share base over an eighteen-month period starting in November 2004.

Longstanding shareholders, who watched AAG's price plunge from a high of €36 in 1998 to €5.4 in 2002, have seen a steady recovery in the last two years to just under €10 at the end of August. As long as costs and debt keep coming down (long-term debt has been reduced by almost €300m in the last 18 months) and AAG continues to forge ahead in eastern and central Europe, prospects for the group remain good.







# Aviation Strategy

## Databases

		Group revenue US\$m	Group costs US\$m	Group op. profit US\$m	Group net profit US\$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group employees
<b>ANA</b>												
YE 31/03	Year 2001/02	9,714	9,529	185	-76	1.9%	-0.8%	87,908	57,904	64.7%	49,306	
	Apr-Sep 02	5,322	5,194	127	-69	2.4%	-1.3%	44,429	29,627	66.7%	25,341	
	Year 2002/03	10,116	10,137	-22	-235	-0.2%	-2.3%	88,539	59,107	66.7%	50,916	14,506
	Apr-Sep 03	5,493	5,362	131	186	2.4%	3.4%	32,494	19,838	61.1%	22,866	
<b>Cathay Pacific</b>												
YE 31/12	Year 2002	4,243	3,634	609	513	14.4%	12.1%	63,050		77.8%		14,600
	Jan-Jun 03	1,575	1,672	-97	-159	-6.2%	-10.1%	26,831		64.4%	4,019	14,800
	Year 2003	3,810	3,523	287	168	7.5%	4.4%	59,280	42,774	72.2%	12,322	14,673
	Jan-Jun 04	2,331	2,046	285	233	12.2%	10.0%	35,250		76.1%	6,404	
<b>JAL</b>												
YE 31/03	Year 2000/01	13,740	13,106	634	331	4.6%	2.4%	129,435	95,264	73.6%	38,700	17,514
	Year 2001/02	9,607	9,741	-135	-286	-1.4%	-3.0%				37,183	
	Year 2002/03	17,387	17,298	88	97	0.5%	0.6%	145,944	99,190	68.0%	56,022	
<b>Korean Air</b>												
YE 31/12	Year 2001	4,309	4,468	-159	-448	-3.7%	-10.4%	55,802	38,452		21,638	
	Year 2002	5,206	4,960	246	93	4.7%	1.8%	58,310	41,818	71.7%		
	Year 2003	5,172	4,911	261	-202	5.0%	-3.9%	59,074	40,507	68.6%	21,811	
<b>Malaysian</b>												
YE 31/03	Year 2000/01	2,357	2,178	179	-351	7.6%	-14.9%	52,329	39,142	74.8%	16,590	21,518
	Year 2001/02	2,228	2,518	-204	-220	-9.2%	-9.9%	52,595	34,709	66.0%	15,734	21,438
	Year 2002/03	2,350	2,343	7	89	0.3%	3.8%	54,266	37,653	69.4%		21,916
<b>Qantas</b>												
YE 30/06	Year 2001/02	6,133	5,785	348	232	5.7%	3.8%	95,944	75,134	78.3%	27,128	33,044
	Jul-Dec 02	3,429	3,126	303	200	8.8%	5.8%	50,948	40,743	80.0%	15,161	34,770
	Year 2002/03	7,588	7,217	335	231	4.4%	3.0%	99,509	77,225	77.6%	28,884	34,872
	Jul-Dec 03	4,348	3,898	450	269	10.3%	6.2%	50,685	40,419	79.7%	15,107	33,552
<b>Singapore</b>												
YE 31/03	Year 2001/02	5,399	4,837	562	395	10.4%	7.3%	94,559	69,995	74.0%	14,765	29,422
	Year 2002/03	5,936	5,531	405	601	6.8%	10.1%	99,566	74,183	74.5%	15,326	30,243
	Year 2003/04	5,732	5,332	400	525	7.0%	9.2%	88,253	64,685	73.3%	13,278	29,734
	Apr-Jun 04	1,588	1,409	179	159	11.3%	10.0%	25,249	18,167	71.9%	3,800	

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

### AIRCRAFT AVAILABLE FOR SALE OR LEASE

	Old narrowbodies	Old widebodies	Total old	New narrowbodies	New widebodies	Total new	Total
1999	243	134	377	101	53	154	531
2000	302	172	474	160	42	202	676
2001	368	188	556	291	101	392	948
2002	366	144	510	273	102	375	885
2003	275	117	392	274	131	405	797
2004-March	227	94	321	249	110	359	680

### AIRCRAFT SOLD OR LEASED

	Old narrowbodies	Old widebodies	Total old	New narrowbodies	New widebodies	Total new	Total
1999	582	230	812	989	170	1,159	1,971
2000	475	205	680	895	223	1,118	1,798
2001	286	142	428	1,055	198	1,253	1,681
2002	439	213	652	1,205	246	1,451	2,103
2003	408	94	502	1,119	212	1,331	1,833
2004-March	32	13	45	215	32	247	292

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

# Aviation Strategy

## Databases

### EUROPEAN SCHEDULED TRAFFIC

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total Int'l		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
1997	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
1998	188.3	120.3	63.9	194.2	149.7	77.1	135.4	100.6	74.3	453.6	344.2	75.9	673.2	484.8	72
1999	200.0	124.9	62.5	218.9	166.5	76.1	134.5	103.1	76.7	492.3	371.0	75.4	727.2	519.5	71.4
2000	208.2	132.8	63.8	229.9	179.4	78.1	137.8	108.0	78.3	508.9	396.5	77.9	755.0	555.2	73.5
2001	212.9	133.4	62.7	217.6	161.3	74.1	131.7	100.9	76.6	492.2	372.6	75.7	743.3	530.5	71.4
2002	197.2	129.3	65.6	181.0	144.4	79.8	129.1	104.4	80.9	447.8	355.1	79.3	679.2	507.7	74.7
2003	210.7	136.7	64.9	215.0	171.3	79.7	131.7	101.2	76.8	497.2	390.8	78.6	742.6	551.3	74.2
June 04	19.3	13.8	69.5	20.3	18.0	88.6	12.9	9.9	76.4	45.6	37.2	81.6	68.2	52.8	77.4
Ann. chng	9.0%	8.2%	-0.5	5.3%	8.2%	2.3	36.1%	42.5%	3.4	12.0%	14.2%	1.6	11.3%	12.4%	0.8
Jan-June 04	106.4	67.7	63.6	108.5	87.8	80.9	73.9	56.7	76.7	260.0	205.2	78.9	424.7	311.6	73.4
Ann. chng	5.6%	8.8%	1.9	6.6%	11.2%	3.3	16.8%	24.3%	4.6	8.9%	13.1%	2.9	7.9%	11.7%	2.5

Source: AEA

### US MAJORS' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total Int'l		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1996	925.7	634.4	68.5	132.6	101.9	76.8	118.0	89.2	75.6	66.1	42.3	64.0	316.7	233.3	73.7
1997	953.3	663.7	69.6	138.1	108.9	78.9	122.0	91.2	74.7	71.3	46.4	65.1	331.2	246.5	74.4
1998	960.8	678.8	70.7	150.5	117.8	78.3	112.7	82.5	73.2	83.5	52.4	62.8	346.7	252.7	72.9
1999	1,007.3	707.5	70.2	164.2	128.2	78.1	113.2	84.7	74.8	81.3	54.3	66.8	358.7	267.2	74.5
2000	1,033.5	740.1	71.6	178.9	141.4	79.0	127.7	97.7	76.5	83.0	57.6	69.4	380.9	289.9	76.1
2001	1,025.4	712.2	69.5	173.7	128.8	74.2	120.1	88.0	73.3	83.4	56.9	68.2	377.2	273.7	72.6
2002	990.0	701.6	70.9	159.0	125.7	67.2	103.0	83.0	80.5	84.1	56.8	67.5	346.1	265.5	76.7
2003	963.1	706.6	73.4	148.3	117.6	79.3	94.8	74.0	80.5	84.2	59.3	70.5	327.2	251.0	76.7
Jul - 04	89.6	74.5	83.1	15.5	13.6	87.5	9.3	7.9	85.3	8.6	6.8	78.7	33.5	28.3	84.6
Ann. chng	5.2%	6.7%	1.2	10.8%	13.2%	1.9	20.5%	22.6%	1.5	17.8%	15.0%	-1.9	15.1%	16.1%	0.7
Jan-Jul 04	592.1	447.5	75.6	93.3	76.1	81.5	59.3	50.4	84.9	56.8	40.4	71.1	209.4	166.8	79.7
Ann. chng	6.1%	8.5%	1.7	11.9%	17.3%	3.8	10.1%	26.4%	11.0	15.5%	15.5%	0.0	12.3%	19.4%	4.8

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

### JET ORDERS

	Date	Buyer	Order	Delivery	Other information/engines
Boeing	19 July	GOL	2 x 737-800	07/2006	
	19 July	Emirates	4 x 777	2006-	plus 9 options
	20 July	AirTran	2 x 737-700	1Q 2006	
	21 July	THY	15 x 737		
	22 July	Air Senegal	1 x 737-700	07/2005	plus 1 option
	29 July	Air China	2 x 747-400F	11/05 - 03/06	
	03 Aug	WestJet	6 x 737-600	2005 - 2006	
	01 Sept	Air China	7 x 737-700	11/05 -2006	
	09 Sept	Copa Airlines	2 x 737-700	2005	CFM56-7
	09 Sept	Aeromexico	8 x 737-700	2005	
Airbus	20 July	Etihad	4 x A380, 8 x A340, 12 x A340		plus 8 options
	21 July	THY	5 x A330, 12 x A321, 19 x A320		
	21 July	Kingfisher	4 x A320	4Q 2005	plus 8 options
	22 July	TAM	10 x A320	2005	plus 20 options
	05 Aug	Virgin Atlantic	13 x A340-600	2006 - 2008	plus 13 options
	12 Aug	America West	10 x A320, 7 x A319	'06-'08	
	25 Aug	AZAL	3 x A319	09/2005 - 2007	
	27 Aug	Thai Airways Int'l	6 x A380	2008/09	
Embraer	01 Sept	Cebu Pacific	1 x A340-500, 1 x A340 - 600	09/05 -2007	
	19 July	Luxair	2 x ERJ135	1Q 2005	
	19 July	Trans States	7 x ERJ145	2004	
	19 July	Republic	2 x ERJ170	3Q 2004	
	17 Aug	Republic	4 x ERJ170	2Q 2005	
Bombardier	17 July	Adria Air	1 x CRJ-200		
	17 July	Styrian Spirit	1 x CRJ-200		
	19 July	Air Nostrum	20 x CRJ-200		

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

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