Regional aid and airlines: the real issues

Michael O’Leary, the Ryanair CEO, various French municipalities and British second-home owners are among those outraged by the implications of the Strasbourg Court decision declaring the airport’s payments to the low-cost carrier an illegal subsidy. What are the real issues uncovered by this?

Acting on a complaint by Air France subsidiary Brit Air, the Strasbourg Administrative Court on July 24 cancelled two contracts, which bound the Chamber of Commerce and Industry of Strasbourg and Lower Rhine to Ryanair. Brit Air had filed its complaint in December 2002, the Chamber of Commerce is the airport operator.

Having failing to obtain a stay on the judgement, Ryanair stopped operating London-Strasbourg on August 24, terminating a service that was generating about 240,000 passengers a year, compared to about 30,000 a year with Brit Air, and immediately started up services to Baden Baden, 40km across the border in Germany. Ryanair has appealed the Strasbourg decision, says it is confident that it will be reversed, at which point it will resume its Strasbourg services.

Ryanair is clearly determined to play hard, lambasting Air France’s projectionist actions and threatening to withdraw services from any French airport where its agreements are challenged and to pull out of its Charleroi hub in Belgium where it is facing an EC investigation into possible illegal subsidies provided by the region-

Notes: 2003 figures based on current trends, easyJet figures include Go from May 2002, Ryanair figures include Buzz from Jan 2003. Passenger figures include domestic and intra-Europe.
The regional airports, forlorn and totally underutilised pre-Ryanair, and the local French and Italian authorities, certainly recognise Ryanair’s role in boosting tourism. For example, the town of Pau in the French Pyrenees raised local funds to persuade Ryanair to continue Buzz’s service there following the take-over of the former KLM subsidiary. (The competing airport of Tarbes which has lost traffic to Pau takes a very different view of Ryanair.)

Another example: City of Derry airport located in the north west of Northern Ireland now has twice-daily 737 connections to London, a service that was inconceivable before Ryanair struck a deal with the airport’s local authority owners. As well as promoting tourism to Donegal and the Causeway Coast, the air link is credited with facilitating new business activity in the region, making the millions of euros of regional aid that the EU and the UK aid have pumped in work more effectively. (The counter-argument, which sounds parsimonious, is that the local authority is financing Ryanair to export local consumer spending from Londonderry to London.)

Ryanair argues that the Strasbourg decision undermined the ability of publicly owned airports to act like, and compete with, privately owned airports. The so-called subsidy, it implies, is just the public sector equivalent of the incentives that private airports offer to new entrant airlines - in terms of deep discounts
from rack rates, advertising support, yield-related charges, etc. Also, Ryanair can point out that it guarantees exceptional levels of traffic to the regional airport as its side of the transaction.

The question of openness arises here. The use of taxpayers' money in whatever form surely has to be revealed and made public knowledge, and is in some circumstances notifiable to the EC, as pointed out by the Strasbourg Court. Yet Ryanair makes non-disclosure a key clause of its airport agreements - Michael O'Leary compares the confidentiality of his airline's relationship with an airport to that of the confidential box. In reality, however, it is difficult to keep a major public agreement secret - see, for instance, Aviation Strategy, July/August 2001 on Ryanair and Charleroi.

So how important are the airport "subsidies" to Ryanair's business model? In a recent teleconference with analysts Michael O'Leary seemed to imply that the Strasbourg airport income was not critical for Ryanair's profitable operation of the route but it was essential if Ryanair were to meet its operating profit margin target of over 20%.

The Ryanair model is driven by an integrated series of strategies, all designed to complement each other and leading to the all-important goal of minimising and continuously reducing unit costs. For instance, Ryanair's airport policy not only brings it low or non-existent airport charges but also reduced spending on advertising (which is carried by the airport or tourism bureau). The high volumes of traffic Ryanair guarantees ties in with its main promotional tool - the offer of ultra-low or free fares - as well as enhancing its negotiating power with other potential airports. Quick turn-arounds at the uncongested airports are a vital part of its strategy of high aircraft and crew utilisation. Take away the regional airport element of the Ryanair strategy, and the whole model would probably revert to producing industry-standard profit margins.

<table>
<thead>
<tr>
<th>No of PSO routes</th>
<th>Min aircraft size</th>
<th>Frequency requirement</th>
<th>Timetable requirement</th>
<th>Fares requirement</th>
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<td>28*</td>
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</tr>
<tr>
<td>Spain</td>
<td>13******</td>
<td>None</td>
<td>Yes</td>
<td>Usually yes</td>
</tr>
</tbody>
</table>

Notes: * = Of which 18 to/from Corsica, ** = All to/from Sardinia, *** = 13 tender units comprising 61 individual routes, **** = Of which 6 to the Azores and 3 to Madeira, ***** = 4 groups comprising 12 individual routes, ****** = All within Canary islands. Source: Air Transport Group, Cranfield University

**Public service obligations in Europe: a comparative study** August 2002, by Cranfield University. Data and information from this report were used in this article. However, the opinions expressed are Aviation Strategy's.
imposing a PSO are very vague. Consequently, there is a wide variation in the usage of PSOs within the EEA. There is also a wide variation in the transparency of the PSO administration. At the one extreme, Norway, which operates 13 mini-networks to tiny, isolated communities, is fully open about traffic, services and subsidy amounts. At the other, Greece has over 20 PSO routes mainly to the Aegean islands operated by Olympic Aviation, a subsidiary of Olympic Airways, but detail on this operation is lost in the intrigues of internal Greek politics and Olympic’s convoluted finances.

It is sometimes difficult to see a fundamental distinction between a Ryanair-type agreement and a PSO type. Indeed, at least one German airport with a Ryanair agreement has advertised its “call for tender” in a section of the OJ rarely visited by airlines, specifying the traffic volumes it had already presumably agreed with Ryanair, a total that no other airline could hope to match.

France itself is the European leader when it comes to route subsidies: PSOs are applied to 46 domestic routes, about 11% of domestic capacity (compared to just 0.7% in Germany), most linking regional points to Paris. The most important subsidised routes (the amount of the subsidy is not openly available) are to/from Corsica. Notably, Air France operates a 5-6 daily A320 services on the Ajaccio-Paris PSO route that carries nearly 400,000 passengers a year. And there are another five routes with passenger volumes of over 100,000 passengers a year. The subsidy is administered by the Corsican authorities, and part-financed by a ticket tax on all departing passengers from French airports. The imposition of PSOs on Paris routes means that slots have to be preserved for these services at Orly. So about 30% of slots at Paris Orly are ring-fenced for PSO and other domestic services, which creates part of the impediment to easyJet building a hub there. (However, there would be no legal reason why easyJet should not apply for a French PSO.)

Italy operates a similar regime: PSO routes link Sardinia with Rome and Milan. The main PSO route is Cagliari-Rome, operated with 12 daily MD80 or A321 frequencies by Alitalia. Traffic on the route is in excess of 800,000 passengers a year.

The other Sardinian routes are split between Alitalia, Volare and Meridiana. Alitalia is in the process of buying out Meridiana and has signed an extensive codeshare with Volare, actions that have attracted the attention of the Italian and EC competition authorities. Some of the Sardinian routes were until a couple of years ago operated on a commercial basis but became PSOs when the Italian government imposed new conditions on the operation of the services, including minimum size of aircraft, timetable requirements, maximum fares and special fares for Sardinians.

In the UK PSOs have been limited to services linking remote communities in the Highlands and Islands of Scotland to Glasgow. However, this year Scottish Enterprise and Invest Northern Ireland, the regional development agencies, have received central government funding (about €12m in total) with the general aim of improving air access. These funds could be used for new PSO services or airport investment.

The Northern Irish situation illustrates a variation of the regional aid theme. Northern Ireland is very well connected to London with multiple daily frequencies from two Belfast airports to four London airports. However, a perceived problem has arisen because of the change in the operators on the route. easyJet (incorporating Go) has displaced BA and bmi on Belfast-London, with BA withdrawing completely and bmi downsizing and switching from Belfast International to Belfast City airport. Whereas BA and bmi used to offer multiple frequencies into Heathrow, easyJet operates to Luton, Stansted and Gatwick with the result that the opportunity for connecting at Heathrow onto continental European points has been greatly reduced for Belfast originat- ing or destined passengers. One proposal now is for a subsidy for direct services from Belfast to continental European points.

In brief, regional subsidies or support of whatever form, and whether designed as PSOs or not, comprise an integral part of the European aviation market. The Strasbourg ruling against Ryanair is only one part of the larger, complicated picture facing the EC. Ryanair could help the EC resolve its problem simply by being a little bit less aggressive.
The impending retirement of Concorde services has provided a fresh impetus to the concept of the all-business class long-haul airline. A number of such airlines are either now flying or are expected to fly soon. Historically, the model has never been sustainable in the airline industry, with initially promising projects like MGM Grand Air ending in failure. Who are the newest players and how will they fare?

**Blue Fox**

In planning since 2000, the UK-based start-up has been hampered by the usual suspects - economic downturn, September 11, Iraq War and SARS. The carrier had planned to use specially configured 767-300ERs on twice-daily London Stansted-JFK flights, offering a 50-inch pitch, DVDs and onboard chefs, targeting business executives who were price-sensitive and did not work for large corporations or banks with their own corporate programmes.

A quite high-profile chairman, Norman Tebbit, a senior minister in the Thatcher government, was appointed, but the chances of Blue Fox ever flying have been dealt a blow with the loss of Mike McTighe, the proposed COO, who has joined Air Atlanta Europe, the newly created UK operating subsidiary of Air Atlanta Icelandic, as its managing director.

**Bluetail**

In August 2002, German and US entrepreneurs announced that they were seeking to launch a business-class only airline in the second-half of 2003 using a 777, initially on transatlantic services between German and US cities.

Bluetail's plan involves leasing the 777, stripping the first-class and economy-class seats from the aircraft and replacing them with business-class seats in order to accommodate 100-120 passengers. Additional space created by the conversion will allow aircraft configuration with extras such as communications and office equipment, sleeping quarters and a bar. The airline needs around €22m in basic start-up capital; if aircraft financing is fully accounted for, the total requirement is almost €100m.

**Privatair**

Swiss-based Privatair is probably the most advanced of the premium carriers. On behalf of Lufthansa, it started an all-business-class transatlantic service, using a 48-seat Boeing Business Jet (BBJ) on Düsseldorf-New York Newark service in June 2002. This replaced Lufthansa's own A340 operation on the route. The BBJ service is priced at standard Lufthansa business-class fares and operates as a normal scheduled flight under LH flight numbers. Privatair has since launched two more services for Lufthansa, Munich-New York Newark which started in May this year, and Düsseldorf-Chicago which began in June, both using A319s in a business jet configuration, leased from CIT Aerospace.

Lufthansa has said that the Düsseldorf-New York service's load factors and yields are meeting targets, customer satisfaction is good and that the operation is profitable. Lufthansa chose the new services after exhaustive route studies, with an essential ingredient being "a business centre at one end and another at the other end" of the route.

The Düsseldorf-Chicago service is a new route for the carrier, whereas Munich to Newark doubles Lufthansa's business class capacity to New York from Munich as it already flies daily to Kennedy Airport with an A340-300 with 42 business seats.

Lufthansa's expansion of its executive service has prompted renewed interest in the concept from other carriers. Privatair says it has been contacted by 30 airlines about similar operations, and has entered into serious route and pricing studies with six of them. Inevitably, one such carrier is believed to be Virgin Atlantic.

**Primaris**

Las Vegas-based Primaris is planning to offer first-class-only transcontinental and international service from the autumn of 2003. Targeting business travellers not just with the promise of better space and service, but also with discounts.
Primaris will offer first-class fares for 50% to 70% less than the unrestricted fares of the incumbent airlines. With a declared break-even load factor of 60%, the airline is configuring its 757s to accommodate 100 seats in a two-by-two configuration offering 45" seat pitch. Letters of intent have been signed with lessors Pembroke Group and Aviation Capital Group for ten 757-200s. At this time the airline is still awaiting authorization to conduct operations as an air carrier. It has applied for an FAA Air Carrier Operating Certificate and US DoT authority to conduct interstate and foreign scheduled air transportation.

**Premium Airways**

Premium Airways plans to start operations in January 2004, initially operating twice-daily flights between JFK and Paris CDG with two 757-200 aircraft configured with 80 business class seats. The company is in the process of applying for slots at the two airports. With all-business class configuration, Premium intends to offer JFK-CDG return tickets at $3,150, CDG-JFK returns at €2,250 - roughly a 50% reduction compared to its competitors.

Founder Jerome Maillet says the company hopes to provide more details about the airline in mid-September, including disclosing the identity of its investors. Maillet argues that, although the North Atlantic is one of the most competitive markets in the world, the competition "essentially pertains to the economy cabin where elastic demand has driven fares to incredibly low levels". Business class fares, he argues, are among the highest fares in the market on a per miles flown basis (and on the contrary the average economy ticket is priced very low per miles flown). Premium says its break-even load factor will be 38%.

**Royal Jet**

Gulf Air is to launch a weekly premium service from Abu Dhabi to Geneva in Switzerland using a Boeing Business Jet (BBJ). The BBJ aircraft has been configured to provide a three-class service for VIPs and corporate passengers and will be operated by Gulf-based Royal Jet.

**Success/failure indicators**

The timing of the launch of these all business class airlines may be problematic. Although capacity has never been cheaper and there is a ready supply of personnel, these plusses are outweighed by excess capacity, a preponderance of cheap fares and weak demand especially at the high yield end of the market. Certainly, passengers do respond to low fares, but business passengers also particularly value frequency and the ability to book a flight to other destinations within one airline. The lack of scale and scope economies will work against these new entrants.

The proposed round trip fare for Premium Airways, $3,150, means that the airline will rely on attracting expense-account travellers. This fare represents a 50% discount to the published business class fares of the traditional carriers, but it should be noted that with corporate discounts, many business travellers pay considerably less than the published fare. Currently several airlines are discounting published C Class transatlantic fares by as much as 50%. Websites such as www.first-class-air.com are selling C Class round-trip fares to Europe starting at $3,000. Until recently such discounting of C and F fares has been rare, but in today's environment, Premium Airlines may well not be able to enjoy the sort of price advantage it seems to expect.

The Privatair business model would appear to have more advantages with the backing and co-operation of a major European airline. As the contracted and integrated service, Privatair has no direct competition from the major airline, and has use of its lounges, FFP, marketing clout etc. The problem for Privatair is that Lufthansa will be keen to operate its own services, re-instating A340 operations when demand recovers.

Whereas full service carriers have limited weapons at their disposal to tackle low-cost carriers, their armoury is somewhat greater when they come to respond to the threat posed by all-business class airlines. More importantly, the threat of the loss of high-yielding business class traffic will make the traditional carriers very keen to nip the concept in the bud.

Pricing is one such tool, and it will be interesting to see whether Air France, American Airlines, Continental and Delta will allow themselves to be undercut, or will they match Premium Airways at least on some seats? The traditional flag carriers also have very powerful and well-established frequent flier programmes, which will almost certainly be used to encourage passengers to remain loyal.
Atlantic Coast Airlines, one of the largest regional carriers in the US, recently announced what has to be one of the most intriguing airline strategy changes devised in the post-September 11, 2001 environment. If implemented and successful, Project “Goldilocks” could also have potentially significant impact on the East Coast competitive landscape.

In brief, ACA wants to give up its United Express business, which currently generates 85% of its revenues. It wants to transform itself from a regional fee-for-service provider into a low fare carrier with a large independent hub operation at Washington Dulles. It intends to utilise its 50-seat RJs in smaller markets and to acquire larger narrowbody jets for higher-density and transcontinental routes.

The most striking thing about the proposal is that it would dramatically increase in the risk profile of the business. ACA would be switching from the industry’s safest, most predictable business model (the “fixed-fee” or “fee-per-departure” feeder agreement) to what has to be the riskiest form of existence. Low-fare carriers in the US have had a dismal survival record.

The largest US regional airlines have remained profitable through the current industry slump because of the protections afforded by their fixed-fee contracts, which guarantee at least small profit margins. The airlines collect the same fees regardless of what load factors and fares are.

While working with a partner that is in Chapter 11 bankruptcy is obviously not ideal, ACA is still expected to post a healthy pretax profit margin for 2003 similar to last year’s 12%. Of the non-regional carriers, only Southwest and JetBlue have earned better margins than that over the past two years.

The announcement came after months of frustrating negotiations with United, which sought cost cuts and concessions from its regional partners as part of its Chapter 11 restructuring. However, Goldilocks does not appear to be a negotiating ploy; ACA’s leadership firmly believes that the strategy change is in the best interests of shareholders and (barring a hostile takeover) is determined to implement it.

Why, then, would ACA want to make such a controversial switch? Is this further evidence that the low-fare business model will soon dominate the industry? Or has United’s bankruptcy fundamentally changed the attractiveness of the regional business model?

There is considerable interest in ACA’s proposals also because of the potential implications for the rest of the industry. In the first place, ACA is throwing a big spanner in the works of UAL’s reorganisation - how will the major airline cope with the loss of its key partner and RJ provider at Chicago and Dulles?

The possibility of a new low-fare airline emerging to dominate a major East Coast hub is big news indeed. Does ACA have the potential to become Washington DC’s equivalent of JetBlue? Could it inflict serious damage to US Airways’ planned RJ operations? Or would the DC-area incumbents (including Southwest at Baltimore) mount strong competitive responses?

Not least of all, there is interest in the economics of ACA’s proposed venture. This is believed to be the first time anyone has attempted to be a low-fare short-haul carrier with a fleet of RJs, when 150-seater aircraft have tended to be the norm in such operations.

However, there is considerable scepticism about the economics of the proposed venture. If there were doubts about JetBlue doing it with 100-seaters (Aviation Strategy, July/August 2003), how could ACA do it with 50-seaters?

With the economics untested, the investment community has been sharply divided on the plan. Several Wall Street analysts, including Blaylock’s Ray Neidl, JP Morgan’s Jamie Baker and UBS’ Robert Ashcroft, have said outright that they believe ACA will be unsuccessful. They are mainly concerned about the RJs’ high unit costs, with Baker arguing that “50-seat economics are particularly ill-suited for low-fare operation”.

By contrast, Raymond James’ analyst James Parker and Merrill Lynch’s Michael Linenberg have rated ACA’s chances of success as high. Linenberg reminded investors that RJs have sub-
stantially lower per-trip costs than larger jets, which makes them optimal for small and medium sized markets. He also noted that the timing could not be better for ACA to utilise its resources in that way, given the weakened financial state of the majors.

Some logistical issues

ACA's tentative schedule calls for Goldilocks to be launched in the second quarter of 2004.

However, the RJ part of the plan can only materialise if and when United formally rejects ACA's feeder agreement, which has another seven years to run. This could take place in three ways: when UAL liquidates, when it emerges from Chapter 11 or by mutual agreement between UAL and ACA on how to phase out the aircraft. United has now officially delayed its planned Chapter 11 exit to the first half of 2004 (meaning late spring or early summer).

Under bankruptcy rules, United has the option of either assuming ACA's existing contract or rejecting it. It is not likely to assume the contract, because that would mean having to honour all the terms, including higher profit margins and previous RJ growth commitments. The latter may no longer be possible in light of the new growth oppor-

unities granted to SkyWest, Mesa, Air Wisconsin and Trans States as part of new concessionary contracts.

James Parker pointed out in a recent research note that United will have to submit a plan for reorganisation 90 days prior to exiting bankruptcy, and that it will have to state how and when it will replace ACA. Parker suggested that the two sides would most likely agree to a phase-out of RJs and stations beginning in April 2004.

There is obviously a risk that ACA could be stuck with the United contract longer than desired. However, the flip side of that would be that it would continue to earn strong profit margins from the United business, which would help fund the new narrowbody operation. ACA has indicated that it could launch that part of Goldilocks first and fold the RJs in later.

Why this path?

ACA said that Goldilocks was the culmination of an extensive evaluation of different business platforms and changes in the airline industry going back to July 2001. The initial aim was to ensure continued growth opportunities in 2003-2004 and beyond, but after United's Chapter 11 filing in December 2002 it was also for contingency planning purposes.

In the end, it was a combination of being attracted by the low-fare carrier platform, becoming disillusioned by the fixed-fee model and losing faith in UAL's long-term prospects.

ACA felt that this was an ideal time to move into the segment of the industry that it believed would succeed in the long term. As CEO Kerry Skeen explained it: "I don't think anyone will dispute that the low-fare platform is the best place to be, to have earnings and to be able to grow earnings". ACA also believes that the likely industry consolidation in the next 10 years will have a negative effect on the regionals, specifically in terms of reducing the number of hubs. It has noted a trend in contract talks of the majors playing one regional against another, suggesting continued problems with the major partners.

Regarding the UAL talks, the airline gave a long list of reasons why it could not agree to the terms of a new contract, but in essence it was because of the trend of the fixed-fee economics deteriorating over time. Also, ACA is taking a rather dim view of UAL's chances of successfully exiting
bankruptcy, achieving long-term stability and avoiding labour problems.

Skeen said: "Now that the risk profiles are changing dramatically for that type of business, coupled with a reduction in economic benefit, it is very compelling for us to use CRJs in this manner".

Goldilocks’ business model

The initial Goldilocks business would consist of three elements. First, the airline would operate 87 50-seat CRJ-200s in about 36 low-to-medium density markets from Dulles. They would fly initially 275 departures daily on routes of up to 1,000 miles, with an average trip length of 300-400 miles.

Second, ACA plans to keep its Cincinnati and Boston-based Delta Connection operations, which currently utilise 32 328JETs. It has discussed the matter with Delta and does not foresee problems in the short term at least.

Third, ACA hopes to utilise 130-200 seat narrowbody aircraft in coast-to-coast and other primary markets currently served by United. That fleet would grow from 3-4 aircraft initially (operating 50 daily frequencies) to about 20 within 12-18 months.

The intention is to retire the remaining J-41s when the United service ends. ACA does not anticipate taking any of the 34 CRJs remaining on firm order. The impression gained is that, under the May 2003 CRJ deferral deal with Bombardier, ACA need not take any of the 34 aircraft in the event that it does not sign a new agreement with United.

ACA has said that it would consider other codeshare relationships. However, its top executives also concede that the business model does not really support other codeshares because it is designed to be a very simple operation.

In contrast with United, whose objective at Dulles is to get feed to international and key domestic routes, ACA will aim to cater more for local traffic (aiming for a 50/50 mix). This will require higher frequencies and more attractive scheduling than is currently the case with United, which operates only one daily flight bank at Dulles. Essentially, ACA expects to revert back to the Dulles schedule of eight daily banks that it had before it converted to fixed-fee service with United in 2000.

Like Southwest and JetBlue, ACA hopes to stimulate traffic. It estimates that 75% of its planned connecting markets do not have low-fare service today. It plans to offer 30-40% lower average fares and 60-70% lower unrestricted fares than what is currently available in those markets.

Key strategic advantages

ACA has many prerequisites in place to make Goldilocks a success. First, it has identified good markets that are evidently underserved and over-priced. Second, it is already an established operation and will have considerable critical mass at Dulles from day one. Third, it has strong cash reserves to tap for start-up funds and to help sustain losses initially.

ACA will enjoy the unique advantage of being able to create almost overnight a formidable presence at Dulles with 87 CRJs. While implementation may be a challenge, scale should aid in the efforts to develop a brand. ACA calculates that, in terms of departures, it will immediately be the largest airline in the DC area, operating 275 daily flights compared to US Airways’ 183 and Southwest's 156.

The ACA executives made the interesting observation that the only US low-fare carriers that have consistently produced double-digit operating margins since 2001 (Southwest and JetBlue) are both the largest carriers in their main cities. By comparison, AirTran and Frontier, which have not produced double-digit margins (though AirTran is beginning to), are only number two carriers in Atlanta and Denver respectively.

The metropolitan DC area is the nation's fifth largest local traffic market with 42m annual passengers. Dulles (13m) is the 25th largest local market, which ACA believes is understated because it has never really been stimulated by lower fares; only AirTran and JetBlue are present in a few larger markets, and many people drive to Baltimore for Southwest's low fares. Also, Dulles has had inferior service levels compared to National and Baltimore.

ACA is making the case that Dulles is geographically the most convenient airport for the vast majority of DC area residents. The intention is to pull the traffic back to Dulles that would have naturally gone there in the first place, rather than provoke US Airways or Southwest by trying to steal their traffic.

Being able to develop the low-fare operation on one's home turf will be a major strength. ACA has 46 gates, a maintenance base and other key facilities at Dulles - the sort of infrastructure that
Questions have been raised about ACA's ability to take over functions such as scheduling, pricing and revenue management, but the leadership points out that it only gave up those activities three years ago when it went 100% fixed fee. In 1998 and 1999 the company achieved operating margins of 18.1% and 14.1% respectively. It has been in business for 14 years, and most of the pre-2000 senior management talent is still there. ACA is hoping that the Goldilocks announcement will deter other potential new entrants from Dulles (among others, Branson was earlier believed to be targeting that airport for his planned US start-up). However, ACA is not worried about new entrants because they could only start with a few aircraft.

According to James Parker, US Airways' current market coverage overlaps 95% of ACA's planned markets, but Southwest serves only 23% of the city pairs. Head-to-head competition with Southwest and many other low-cost carriers would be limited by the fact that they could not profitably serve ACA's 50-seat markets with 150-seaters.

The biggest near-term uncertainty is in respect of United's plans. United has so far insisted that Dulles will remain an important hub in its global network. However, it will have to cover Chicago first.

ACA had a substantial $221m of cash on June 30 and expects $250-265m at the end of June 2004 (assuming continuation of United Express operations until that point). This would make Goldilocks an even better funded venture than JetBlue, which had $140m of seed money. It would have ample resources to take it through several initial quarters of operating losses.

However, it is worth noting that ACA will have the challenge of financing larger aircraft and that its hitherto extremely strong balance sheet is likely to weaken as a result.

**Goldilocks' economics**

ACA expects to achieve unit costs of 15-16 cents per ASM with Goldilocks CRJs, which would be substantially below the 22 cents that the major carriers are apparently paying to the regionals (in Parker's estimates). The regional's profit margin and differences in utilisation account for much of the gap.

After taking control of the schedule, ACA expects to be able to boost daily RJ utilisation from the current nine to 11 hours. As a result, facility utilisation and labour productivity will also rise. The addition of larger aircraft will provide a further efficiency boost. Goldilocks will rely on web-based reservations and ticket sales. ACA already has competitive pay scales, an extremely productive workforce and not many restrictive work rules.

Skeen said that ACA's rationale was exactly the same as JetBlue's was with the recent ERJ-190 decision - to operate high-frequency service in smaller markets that could not be served profitably with larger aircraft.

For example, a typical Goldilocks market of 350 miles might generate $12,000 a day in local revenues. CRJ's costs are $2,800 per departure, so ACA could operate 4.3 daily CRJ departures. The addition of $10,000 daily connecting revenues would enable ACA to operate a total of eight daily CRJ departures. By comparison, a 125-seater could profitably operate less than two daily flights in that market.

The key thing to understanding the Goldilocks concept and economics is that ACA's RJs and competitors' 150-seaters will not generally be present in the same markets. However, ACA's leadership suggested that in the relatively limited number of head-to-head markets with Southwest, ACA was likely to offer $15-20 higher fares - a difference so small that people would probably just choose the more convenient airport.

Parker, whose company sponsored investor meetings for ACA in Boston and New York in mid-August, suggested in a research note that the unit cost difference between a 737 and a 50-seat RJ on a 224-mile route would be six cents or $13.44 per seat/$19.50 per passenger. Therefore ACA would need to charge $20 more per passenger in average fare to offset the higher CASM.

Parker feels that Goldilocks' biggest risk is on the revenue side of the equation. The higher RJ unit costs will require fares “at the upper end of the low fare range” (again, assuming RJs in head-to-head competition with 150-seaters).

In Parker's best-case scenario, Goldilocks would earn a 15% pretax margin on $945m revenues within 2-3 years of 87 RJs and 20 narrow-bodies being fully on stream. In his worst-case scenario, there would be no profit within 2-3 years, Goldilocks is shut down and ACA reverts to a revenue sharing agreement under a major airline code at Dulles, which would produce at least a modest profit margin.

By Heini Nuutinen
East Africa is experiencing an upsurge in start-up activity and a growing battle between Kenya Airways, the region's traditional aviation giant, and South African Airways (SAA), which wants to establish a East African hub. Why is a region that suffered terrorist attacks in 2002 becoming the focus of such aviation activity?

On the face of it the increased interest in East Africa is surprising given that Africa's economy slowed last year. In 2002 Africa's GDP grew by 3.1%, compared with 4.3% in 2001, according to the OECD and the African Development Bank, but that general slowdown disguises wide regional variations across the continent. GDP growth was actually highest in East Africa, and the region's most important countries in terms of aviation - Kenya, Ethiopia, Tanzania and Uganda - saw respective GDP growth in 2002 of 1.6%, 5.0%, 5.7% and 5.7%, with forecast growth for 2003 of 2.8%, 6.0%, 5.9% and 6.3%.

Yet although East African GDP is growing fast, populations are large, and low income per capita does not translate into major domestic or intra-African aviation markets. Additionally, says the World Bank, Africa's airlines face distinct disadvantages compared with carriers in the rest of the world. Aviation fuel costs are up to 50% more expensive in Africa, while aircraft lease rates are some 15-30% higher.

What Kenya Airways, SAA and a host of start-ups see in the region is its potential not for intra-African passengers but for pan-continental traffic. For many years that has meant tourism, largely from Europe and Asia and attracted to game reserves such as the Masai Mara and the many beaches along the east coast. But now airlines see the possibility for more than just tourism - they aim to exploit East Africa's geographical position as well. Specifically, they see the region as an ideal hub to connect:

- Africa with the Middle East and Asia on an east-west axis,
- Southern and Central Africa with Europe on a north-south axis.

The geographical advantages of East Africa have long been realised, but airlines have traditionally struggled to exploit them given the region's relative poverty in global terms and, more importantly, the regulated and immature aviation industry.

Until the 1990s liberalisation and deregulation was not an issue in Africa, but from the early 1990s global institutions such as the World Bank and IMF have "encouraged" liberalisation as the price of providing further loans and/or debt relief. As a result, privatisation and economic liberalisation programmes have started to have an impact in certain countries, and as a consequence selected governments have been more willing to reduce regulation of air fares, lessen the propensity for political appointees at state airlines, and move towards allowing national airlines to make wholly-commercial decisions.

Another impetus has been given by the Yamoussoukro Treaty, an agreement by African countries to liberalise aviation that was signed way back in 1988 but which was not formally ratified until 1999. It is these two factors - economic reform pushed by global institutions and a political will to implement Yamoussoukro - that have been the impetus for the aviation gold rush in East Africa we are seeing today.

Yet it is not all good news for East Africa's aviation industry. As can be expected, the push for liberalisation varies widely across countries and issues, so while many governments have moved relatively fast to start the flag carrier privatisation process, other governments are moving slowly to remove competition restrictions on flights between important city pairs, or to even think about pan-regional interests rather than their own national aviation interests.

Importantly, there is stubborn and growing resistance to the way aviation deregulation and liberalisation is being carried out. Some African politicians and economists...
argue strongly that the clamour for aviation liberalisation in the region is led by those western countries that benefited tremendously from protecting their own national airlines for many decades - yet they are the first to want East Africa's infant aviation industry to open up to full market forces, even if that has the consequence of seeing some of the region's airlines disappear.

In one sense whether that point of view is correct or not is irrelevant since, whatever its impact, aviation liberalisation is occurring regardless in East Africa.

Uganda

One of the most liberalising countries in East Africa is Uganda, and start-up airlines there are finding it relatively easy to launch operations. This is partly due to the April 2000 collapse of flag carrier Uganda Airlines after 24 years of operation following the Ugandan government's failed attempt to sell the airline. SAA had been interested in acquiring Uganda Airlines, which flew to a range of destinations across Africa, but pulled out after months of negotiations. Unconfirmed reports from the Ugandan side said that the deal collapsed following insistence from SAA that Uganda Airlines operated as a SAA franchisee, an unacceptable condition to the government.

The collapse of Uganda Airlines created a vacuum in the country that start-ups - encouraged by Uganda's moves towards economic liberalisation - attempted to exploit. Entebbe-based AfricaOne was launched in early 2002 by Tanzanian investors and UK-based African cargo specialist DAS Air Services, to serve Dubai and four African destinations with three DC-9s. Apparently backed with around $35m of capital, it had ambitious plans for long-haul routes to Europe out of Uganda using A310s, A330s and 767-300ERs, to be followed by further operations based in western and southern Africa.

But the airline's long-haul plans were rather too ambitious, and AfricaOne ran into trouble closer to home. Plans for Lagos-Entebbe flights were delayed by problems with the existing Nigeria-Uganda bilateral - a delay that cost AfricaOne $4m, the airline claimed - and AfricaOne collapsed when two of its DC-9s were repossessed by the Boeing Capital Corporation in April 2003.

Another Ugandan start-up, East African Airlines (EAA), has been more successful. Launched in December 2002, the airline operates a 737-200 and a 767-300ER out of Entebbe on three African destinations, including Johannesburg, and is trying to get permission to fly to other African airports. EAA's strategy is to feed traffic into major airlines flying to/from East Africa, and although it had a partnership deal with the short-lived AfricaOne it also has a codeshare agreement with Air Zimbabwe and with Kenya Airways on the trunk route between Nairobi and Entebbe. EAA is also planning to launch long-haul routes of its own, initially to India.

Tanzania

Air Tanzania was founded in 1977 and serves eight African destinations out of Dar-es-Salaam with three 737s. As part of Tanzania's privatisation programme encouraged by the World Bank, a minority stake in the airline was put up for sale in 2002. In December 2002, SAA acquired a 49% stake for $10m, and is committing another $10m to revamping the airline. In reality, the airline has been virtually reformed since SAA took a stake, being legally reconstituted as Air Tanzania Corporation (ATCL).

It is still undergoing significant change - a number of lapsed routes have been restarted, SAA is transferring aircraft to Tanzania and SAA is also negotiating a deal for a 737-800 for the Air Tanzania fleet. With SAA undergoing a major fleet replacement programme, with 38 Airbuses replacing Boeing aircraft, it is possible that Air Tanzania will convert to an all-Airbus fleet.

Essentially Air Tanzania was acquired to provide an East African hub for SAA as part of a new and aggressive strategy to expand SAA's operations in other parts of the continent. SAA insists that Air Tanzania will retain its brand and identity, but the move is worry-
ing other airlines in East Africa, some of which distrust SAA's long-term motives. As Brian Presbury, the former CEO of Kenya Airways, says, "SAA has a poor track record in the region" - a none-too-subtle reference to SA Alliance Air, the collaboration between SAA and the Tanzanian and Ugandan governments that collapsed in October 2000 with losses of more than $40m.

The comment also indicates the growing rivalry between SAA and Kenya Airways. In response to SAA's investment in Air Tanzania, in March 2003 Kenya Airways bought 49% of Tanzania's Precision Air, from the Tanzania Venture Capital Fund and 16% from the airline's founder, Michael Shirima, who retains 51%. Precision Air operates a fleet of six ATR 42s and Let 410s on domestic Tanzanian routes and to Mombasa and Nairobi in Kenya, a total of 15 destinations. Precision Air focuses mostly on providing services for tourist passengers, although Kenya Airways' long-term strategy for the airline is unknown.

Kenya Airways was launched in 1977 to fill the void left by the collapse of East African Airways, the pan-regional airline owned jointly by the governments of Kenya, Tanzania and Uganda. In 1996 Kenya Airways became the first African airline to undergo privatisation, at the same time signing a strategic alliance with KLM. Today the Dutch airline has a 26% stake in Kenya Airways, foreign institutional investors have 30%, local investors and employees 21% and the Kenyan government the remaining 23%.

Based at Nairobi, Kenya Airways operates to more than 20 destinations, though at present the only non-African routes are to Mumbai, Amsterdam, London Heathrow and Dubai. Flights to Bangkok and Hong Kong are planned to commence in early September. The airline has been profitable for the last decade, although it reported US$7m pre-tax profits for the year to March 2003, a 48% reduction compared with 2001/02 despite a 9% increase in revenue to $352m. Operating profits fell a third in 2002/03, to $10.7m, as the airline's performance over the year was hit by the build-up to Gulf War II, the SARS crisis, weak global and local economies (Kenya has the weakest economy among the major East African nations) and the attempted missile attack on an Israeli Arkia Airlines' 757 that was taking off from Mombasa airport in November 2002. That terrorist attack cost Kenya Airways at least $1.4m, the airline estimates, (compared with the $7.7m cost of September 11).

The Mombasa incident, along with ongoing security concerns, led the UK government to suspend flights to Kenya during May-June 2003, with other governments warning against travelling to the country. This particularly affected tourism, although Kenya Airways operated as normal through the period.

Since ditching the last of its A310s in April 2002, Kenya Airways has had an all-Boeing fleet, which now stands at 16 aircraft, 11 of which are 737s. Four 737-700s have been delivered over the last year and two more ageing 737-200s will have to be replaced sometime over the next two or three years. Kenya Airways has considered replacing them with 70-seat turboprops, but has put off a decision for a while.

The new 737s are adding extra capacity on intra-East African routes, and total ASKs at the airline rose by 10% in 2002/03. However, load factor fell by 2% during the year, as RPK growth did not keep up with capacity increases. International traffic rose during the year, but this was cancelled out by a 4% decrease in domestic passengers due to terrorism fears, a weak national economy and worries over possible violence before the 2002 Kenyan general election (in which the country's ruling party was voted out of government after 40 years' rule).

For long-haul, Kenya Airways operates five 767-300ERs, and in March 2002 it announced an order for three 777-200ERs - for delivery from 2004 onwards - replacing its earlier commitment to the proposed 767-400ER. Kenya Airways had been the only airline to order the aircraft, and Boeing cancelled its development in 2001.
Cargo aircraft may also be added to the fleet at some point as Kenya Airways is keen to develop Nairobi as a hub for cargo traffic. Kenya Airways owns 60% of Kencargo Airlines International, a Nairobi-based airline that was launched in April 2001 in association with KLM and Martinair, which each have 20%. The airline only operates a single Antonov 12 at present and primarily is a sales and marketing entity for the three airlines' existing cargo capacity.

Looking ahead to 2003/04, the airline is confident that revenue and profits will improve as tourism, business travel and aid from the IMF returns to Kenya following the apparent end of terrorism threats and the election of a new government, although that hasn't stopped the airline from hiring McKinsey and launching a cost-cutting programme and other measures during the first half of the 2003/04 financial year.

As well as looking to improve its own performance, Kenya Airways has also been at the forefront of efforts to restructure the aviation industry in East Africa. In 2002 it withdrew its interest in the privatisation of Air Tanzania (see above), instead proposing a new airline in East Africa that would involve the governments and airlines of Kenya, Tanzania and Uganda. The Tanzanian government was not interested in Kenya Airways' proposal, and instead carried on with the part-privatisation of Air Tanzania.

Despite the Tanzanian government's decision, Brian Presbury, CEO of Kenya Airways at the time (he was replaced by Titus Naikuni in April 2003), argued that the need for a pan-East African airline was still necessary. He said that small national East African airlines were not viable economically, and that governments needed to think about more than just having their own national airline and protecting their domestic markets. But some in the region are concerned about the relative dominance of Kenya Airways in East Africa, while other African aviation analysts point out that since pan-regional airline consolidation has not been feasible in Europe, why should East Africa be any different?

That viewpoint is refuted by Kenya's Airways' management, even more so given some of the local difficulties it is facing. Kenya Airways is known to want to set up a shuttle service between Kenya, Tanzania and Uganda, but has faced problems in getting permission from the respective governments.

Presbury said: "Kenya Airways is still struggling with some of these bilateral issues. There has to be a recognition that putting up the barriers is no good for anyone. It's in everyone's interests that African carriers share resources, otherwise some carriers will fail."

Kenya Airways also wants Kenya's own aviation infrastructure to be improved. Currently, Nairobi is not an FAA Category One status airport, so services to the US are not allowed despite a partnership agreement with Northwest signed back in 1998. However, the Kenyan government has now made the Kenya CAA more independent, so the airline is hopeful that improvements to Nairobi airport will be made.

This is doubly important now that Kenya Airways has its own domestic carrier, Kenya Flamingo Airlines. The airline operates Saab 340s and was launched in 2000 in order to replace domestic Kenya Airways services out of Nairobi. Kenya Flamingo Airlines switched to a low-cost operation in May 2002, at the same time reducing its fares by up to 30%.

However, this does not appear to be a success and there has been strong opposition from Kenyan travel agents to Flamingo's use of internet bookings. As a result Kenya Airways is re-examining the business strategy for Flamingo, although it insists it is still committed to a low-cost concept. Given Africa's high infrastructure costs, it is not certain whether the low-cost carrier (LCC) business model can be established in the continent. The most successful example so far appears to be South Africa's kulala.com - launched in July 2002 as a LCC subsidiary of Comair - although SAA claims that kulala.com "has not eroded our market at all".

At present, domestic rivals to Kenya Airways include privately-owned East African Safari Air which has begun a scheduled twice-weekly service between Paris
and Nairobi, operating via Rome. The service is using a Boeing 767-300 leased from ILFC and it will offer direct connections to Kilimanjaro and Zanzibar.

Another domestic carrier, Airkenya-Aviation operates seven Bombardier and Shorts aircraft within the country. Airkenya also has a regional subsidiary based in Nairobi called Regional Air, a British Airways franchise partner that uses four 737-200s on routes to 18 African destinations. In June 2003 Airkenya was bought by an unknown Kenyan consortium with a promise that the airline will undergo a restructuring programme.

**Ethiopia**

Operating since 1946, Ethiopian Airlines is still 100% owned by the government. Based at Bole Airport, Addis Ababa, the airline operates to 50 African destinations: six in Asia, five in Europe, six in the Middle East and two in the US (Newark and Washington Dulles).

Ethiopian Airlines has a fleet of 22, mostly Boeing aircraft. In 2002 it placed orders for three 737-700s and three 767-300ERs to replace old aircraft, which will be delivered over 2003-05. The airline also announced it would lease up to a further six more 737s and 767s in a deal worth more than $500m in total. The order was secured against fierce competition from Airbus, which has been trying hard to break into the African market, which traditionally has given more than 70% of new aircraft orders to Boeing. Ethiopian Airlines may also order up to three 777s in order to complete its fleet renewal plans. The airline has also implemented construction of a cargo terminal and maintenance hangar at Bole Airport, both due to be finished within two years.

In the year to 30 June 2002, the airline reported an operating profit of $16.9m and a net profit of $9.8m, in 2001 the figures were $8.3m and $6.6m respectively compared with a $19.2m operating loss and a $3.8m net loss in the 2000 financial year. Ethiopian Airlines is aiming to build on the fact that it is one of the few East African airlines with an extensive route network outside the continent. More than three-quarters of Ethiopian Airlines’ passengers fly on its international routes and the airline believes there is room to expand its network on an east-west axis, particularly to India and East Asia. The airline is being aided by a new terminal that has just opened at Addis Ababa, funded by the Kuwaiti government. Ethiopian Airlines is launching an internet booking capability and also hiring external consultants to advise on restructuring, with an aim of building a 15-year strategic plan.

Ethiopian Airlines will be under further pressure in future as Ethiopia has reviewed its air transport laws to allow private airlines into the cargo business. Parliament has recently amended the Privatisation of Air Transport (PAT) law, allowing private companies to engage in air cargo transport.
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Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation. 1 ASM = 1,6093 ASK.
### Aviation Strategy

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Note: Annual figures may not add up to total of interim results due to adjustments and consolidation. 1 ASK = 1.6903 ASK

September 2003

17
### Aviation Strategy

#### Databases

**Group**
- **ANA**
- **Cathay Pacific**
- **JAL**
- **Korean Air**
- **Malaysian**
- **Qantas**
- **Singapore**

**Operating Net Total**
- **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**

**Year 2000/01**
- **US$m**
- **US$m**
- **US$m**
- **US$m**
- **%**
- **%**
- **%**
- **%**

**Group**
- **Operating Net Total**
- **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**

**Year 2001/02**
- **US$m**
- **US$m**
- **US$m**
- **US$m**
- **%**
- **%**
- **%**
- **%**

**Year 2002/03**
- **US$m**
- **US$m**
- **US$m**
- **US$m**
- **%**
- **%**
- **%**
- **%**

**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**
- **US$m**
- **New narrowbodies**
- **Total**

**Widebodies**
- **US$m**
- **New widebodies**
- **Total**

**Total**
- **Total**

**Year 1998**
- **187**
- **4,793**
- **679**
- **28**
- **70**
- **670**
- **20**
- **55**
- **122**
- **434**

**Year 1999**
- **243**
- **4,793**
- **377**
- **101**
- **53**
- **531**

**Year 2000**
- **302**
- **4,793**
- **556**
- **291**
- **101**
- **531**

**Year 2001**
- **368**
- **4,793**
- **510**
- **273**
- **102**
- **885**

**Year 2002**
- **314**
- **4,793**
- **458**
- **300**
- **110**
- **868**

**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.

**AIRCRAFT SOLD OR LEASED**

**Old narrowbodies**
- **US$m**
- **New narrowbodies**
- **Total**

**Widebodies**
- **US$m**
- **New widebodies**
- **Total**

**Total**
- **Total**

**Year 1998**
- **482**
- **4,793**
- **725**
- **795**
- **127**
- **922**
- **1,647**

**Year 1999**
- **582**
- **4,793**
- **812**
- **989**
- **170**
- **1,159**

**Year 2000**
- **475**
- **4,793**
- **680**
- **895**
- **223**
- **1,118**

**Year 2001**
- **286**
- **4,793**
- **428**
- **1,055**
- **198**
- **1,253**

**Year 2002**
- **439**
- **4,793**
- **652**
- **1,205**
- **246**
- **1,451**

**Year 2003 - March**
- **49**
- **4,793**
- **57**
- **110**
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**18 September 2003**
Aviation Strategy

Databases

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<td>-6.6%</td>
<td>-5.2%</td>
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<td>Jan-July 03</td>
<td>121.4</td>
<td>77.0</td>
<td>63.5</td>
<td>123.0</td>
<td>73.7</td>
</tr>
<tr>
<td>Ann. Chng</td>
<td>-1.6%</td>
<td>-0.5%</td>
<td>-1.3</td>
<td>5.2%</td>
<td>-3.2%</td>
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<tr>
<td>Source: AEA</td>
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JET ORDERS

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<tr>
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<th>Price</th>
<th>Delivery</th>
<th>Other information/engines</th>
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<td>Boeing</td>
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<tr>
<td>30 June</td>
<td>Southwest A/L</td>
<td>14 737-700s</td>
<td>2004-06</td>
<td>CF6-80C2, op lease via Mitsubishi Corp.</td>
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<tr>
<td>31 July</td>
<td>Uzbekistan A/W</td>
<td>7 767-300ERs</td>
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<tr>
<td>1 Sept</td>
<td>JAL Group</td>
<td>5 A340-500s</td>
<td>2005 -</td>
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<tr>
<td>Airbus</td>
<td></td>
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<tr>
<td>6 Aug</td>
<td>Thai Airways</td>
<td>3 A340-500s</td>
<td>2004-08</td>
<td></td>
</tr>
<tr>
<td>21 Aug</td>
<td>Frontier A/L</td>
<td>15 A319s</td>
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<tr>
<td>Note: Prices in US$. Only firm orders from identifiable airlines/lessors are included.</td>
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ICAO WORLD TRAFFIC AND ESG FORECAST

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<th>Domestic</th>
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<th>Total</th>
<th>Domestic growth rate</th>
<th>International growth rate</th>
<th>Total growth rate</th>
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<tr>
<td>ASK</td>
<td>RPK</td>
<td>LF bn</td>
<td>ASK</td>
<td>RPK LF</td>
<td>ASK RPK RPK ASK RPK RPK</td>
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<td>bn</td>
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<td>1995</td>
<td>1,468</td>
<td>970</td>
<td>66.1</td>
<td>2,070</td>
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<td>67.7</td>
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<td>1,088</td>
<td>68.6</td>
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<td>2,448</td>
<td>71.7</td>
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<td>1,297</td>
<td>67.9</td>
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<td>2,005</td>
<td>1,392</td>
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<td>2,745</td>
<td>71.8</td>
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<td>2001</td>
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<td>3,262</td>
<td>69.4</td>
<td>4,118</td>
<td>69.1</td>
<td>7.8</td>
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<tr>
<td>2002P</td>
<td>4,587</td>
<td>3,243</td>
<td>70.7</td>
<td>4,067</td>
<td>69.0</td>
<td>7.5</td>
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<td>*2003</td>
<td>4,865</td>
<td>3,502</td>
<td>72.0</td>
<td>4,367</td>
<td>71.9</td>
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<td>*2004</td>
<td>5,145</td>
<td>3,730</td>
<td>72.5</td>
<td>4,681</td>
<td>72.0</td>
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<tr>
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<td>5,415</td>
<td>3,954</td>
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<td>4,765</td>
<td>72.5</td>
<td>7.1</td>
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<td>*2006</td>
<td>5,702</td>
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<td>73.5</td>
<td>5,098</td>
<td>73.0</td>
<td>7.0</td>
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<tr>
<td>Note: *=Forecast; P=Preliminary; ICAO traffic includes charters.</td>
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</tr>
</tbody>
</table>

Source: Airline Monitor, January 2003
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- Cash flow forecasts
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