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Aviation Strategy

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Investors seeking airports

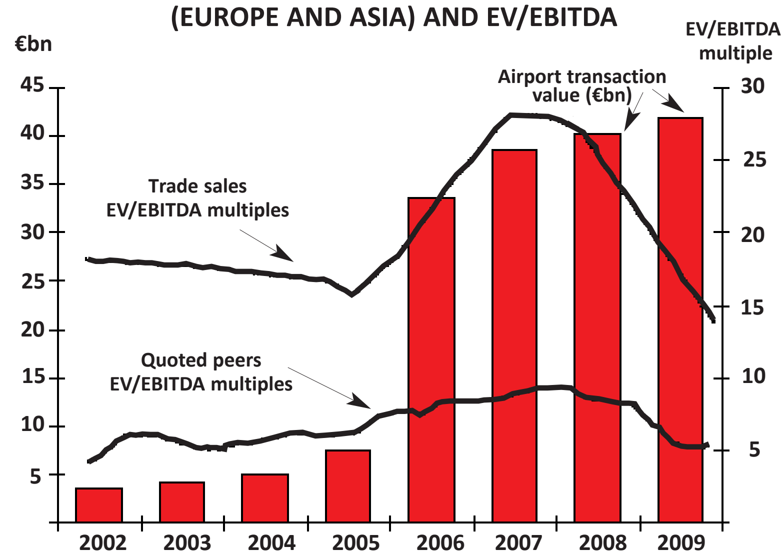
Dublin was the venue for the latest GAD "Investing in Airports Summit" where the elite of this sector's investors and financiers were invited to assess future industry trends as well as observing at close quarters the impact of Ireland's property/construction/banking collapse.

The trend in privatising, buying and selling airports has tailed off abruptly post-Lehman – the graph below, compiled from data presented by Gherardo Baruffa of Credit Agricole, shows that 2005-07 was the peak of airport acquisition process, with €31bn of assets bought and sold over three years. Pricing was exhibiting bubble-type tendencies by 2008 with EV/EBITDA multiples reaching around 28 for majority stake transactions, while debt/EBITDA leverage hit 15. Today the equivalent ratios would be around 14 and 8. The only significant transaction in 2010 was YVRAS's purchase of Peel Airport Group (Liverpool plus two smaller airports). Simon Morris of LeighFisher speculated that state capitalism has taken over – a market in which airport deals were mainly made between state or quasi-state entities.

Yet the impression from the banks was that they were very willing to come back into commercials transactions, naturally under different deals structure conditions and under different pricing terms (150-250bps, twice the boom-time margin, for senior debt, according to Arturo Ricio of HSBC). The question is: where are the deals going to come from?

Nothing seems imminent, but there is a wide range of possibilities. In the UK the Competition Commission-driven break-up of

CUMULATED AIRPORT TRANSACTION VALUE (EUROPE AND ASIA) AND EV/EBITDA



Source: Adapted from Credit Agricole presentation at GAD 2010

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BAA will eventually come through with the sale by Ferrovial of Stansted plus Glasgow or Edinburgh. The French regional airport process appears to be moving forward in a Gallic manner. In the US, however, the process that stalled with the failure of the financing for Chicago Midway seems to have stopped altogether (with the one exception of Puerto Rico). By contrast, there are a number of projects emerging in Eastern Europe, Russia and the CIS. More speculatively, Japan's regional airports, of which there are about 90, could be privatisation targets as part of the process of liberalising the domestic aviation industry. Greece, desperate for funds, is looking for mechanisms to first corporatise, then sell its 30-plus regional airports.

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Air France-KLM's "Base Project" A solution to LCC incursion?

Air France-KLM's half year results to end September were really quite good - driven by continued excellent performance in unit revenues in both the passenger and cargo divisions (up by a massive 18% and 38% respectively), and the company reported underlying net profits for the half year of €470m against a like-for-like loss of €604m in the same period the year before.

The investor day presentations revolved around strategy: including comments on the passenger business, the North Atlantic joint venture with Delta, and the development of the SkyTeam alliance. There was little really new - with the major exception of the exposition of a new plan to revitalise intra-European point to point services. Many legacy carriers have tried to find ways to offset the incursion of the low cost phenomenon, with little success. Indeed Air France itself two years ago started its own French "LCC" using the expertise of KLM's Transavia – targeting leisure point to point and charter services, specifically oriented to avoid cannibalising its own mainline traffic. It now seems that Air France has decided to create a new solution.

The plan as presented has the ironic soubriquet of the "Base Project". The company appears to have an idea to take some of the elements of the traditional low cost KISS principle; single aircraft type, high utilisation, quick turnaround times, point to point services, and no hotac expenses. It plans to establish a series of bases initially at the four largest domestic stations dedicating around ten A319/A320s at each (roughly a third of its total short haul fleet). It will be inviting staff currently based in Paris to volunteer to move to the provinces – but on the condition of changes in working practices. It would like to be able to reduce the number of crew per aircraft per day to around two, and get the crew to work harder each day but be remunerated on a "days on" basis. It plans to be able to put a schedule in place to increase utilisation from the current 8-9 hours by up to 50% to 12 hours a day, including turnaround times of 30-35 minutes.

Most of these "bases" make up the densest domestic routes, on which Air France operates a shuttle service (La Navette), and the management suggested that the first four would be Toulouse, Nice, Bordeaux and Marseilles (from which AF very conveniently has recently managed to oust Ryanair) with the first base opening, depending on union negotiations perhaps, in June 2011. The management stated that the shuttle would remain in place – with the fleet split between Orly and the provincial airport – but suggested that it may think of trying to do the same operational restructuring even at constrained Paris Orly. Increasing the utilisation by over 30% for these base aircraft would automatically lead to a significant increase in capacity on short haul point to point services by around the same amount – at the moment the company is stating that its current plans, without including the effects of the "base" project, show that intra European non hub point to point capacity would be falling by 1-2% annually.

This strategy might sound like one of

those traditional airline plans to extricate oneself from an uncompetitive cost structure: grow fast and your unit costs will fall (and AF itself pursued this policy quite well in the late 1990s). In the presentations the management suggested that its strategy would reduce unit costs on operations from the bases by some 15%, with a 27% reduction in manageable unit costs. Worryingly they also stated that the marginal cost of new capacity would be some 50% down on current unit costs, suggesting perhaps that in their thinking they would also look at marginal pricing on the marginal capacity. However, they are seemingly planning to use their traditional product and pricing policies.

If implemented there are likely to be considerable knock on effects on other elements of the domestic market operations. The company hinted that some of the new routes being considered would be those currently operated by its regional airlines (Britair, Regional, CityJet), and that it would probably start redesigning and rethinking the Lyons hub operation. The company rarely gives details of profitability by route segment; but it did point out that the regional carriers last year turned in an operating loss of €82m in FY2010, which they hope to be able to reduce to a €25m loss in the current year.

France has one of the lowest penetrations of its markets by low cost competition at only 20%. True, easyJet has managed to build operating bases at Paris Orly, Roissy and Lyons – but only has an 8% market share of all departing seats (although 6% share on domestic routes). Ryanair has just withdrawn from its first base in France in Marseilles, refusing to be forced into employing crew on French contracts – although with services touching into many secondary airports in France it has a total share of some 9% of the departing seats (and 11% for cross border routes). However, this low overall penetration rate compares with over 50% in the UK, 40% in Spain, around 35% in Italy and Germany.

Air France may be running a little scared that it too could see its dominating control of its home market start to see an accelerated erosion in its market share – and it cannot have been nice to see Vueling announce

THE TOP FIVE IN FRANCE

Domestic		Int'l / Intra-Europe		Total Europe	
Air France	84%	Air France	40%	Air France	52%
easyJet	6%	Ryanair	11%	Ryanair	9%
CCM	5%	easyJet	9%	easyJet	8%
Ryanair	2%	Lufthansa	7%	Lufthansa	5%
Airlinair	1%	BA	3%	BA	2%
Others	1%	Others	31%	Others	25%

Source: OAG

the establishment of a base in France's second city Toulouse. AF currently retains a near 85% share of domestic capacity and 52% of all intra European seats departing France. France is heavily centralised: the top ten domestic routes by seat capacity all involve Paris – either Orly or to a far lesser extent Roissy CDG – and account for 45% of total domestic seats; the top 20% of routes by number account for 80% of the seats. Domestic routes on the main corridors have significant competition from the TGV (with the exception of Toulouse – an extension from Bordeaux is planned for 2020), as well as road. Holiday patterns are also heavily concentrated – with synchronised school holidays and half term breaks – giving rise to extreme peaks in travel demand (not exactly conducive to low cost operations). This centralisation may reflect history and cultural myopia – and Air France's concentration on its hub at Roissy. Some 80% of all intra European seats from France depart from Paris – and Air France itself only operates a handful of routes that bypass Paris; and those from Corsica, Bordeaux and its mini hub at Lyons account for a mere 6% of the non-Paris based French originating intra-European traffic.

The management have recently been emphasising that its métier is to provide transport links between Europe and the rest of the world – hubbing through CDG and Amsterdam. At the investor day the management emphasised that the medium haul operation fulfils two main roles: to provide feed to the intercontinental hubs; and to develop market presence "essential to our marketing tools". This plan may work. It could also be a very expensive way to maintain frequent flyer membership; but is unlikely to repulse the LCCs.

Regional Jets and Turboprops: The new Russian and Chinese products

The December 2009 issue of *Aviation Strategy* examined the rapidly fragmenting regional jet (RJ) and turbo-prop markets. New entrants from Russia and China are set to shatter the duopoly that presently exists in each segment: Bombardier and Embraer in RJs and ATR and Bombardier in turbo-props.

Russian and Chinese ambitions go beyond the RJ market. Manufacturers from both countries are already learning lessons from their soon-to-be operational RJ programmes and applying them to far more ambitious narrowbody offerings. These aircraft are expected to arrive shortly after 2015, one year before Airbus is expected to release its A320NEO (New Engine Option) and perhaps a decade in advance of Boeing's ground-up redesign of its ageing 737 family. Fairly substantial differences exist between the respective paths that the Russian and Chinese aerospace industries have taken to this point and where they hope to be in ten years.

Russia has a very strong pedigree in aircraft construction both in the commercial and especially the military fields, honed during the post World War II Soviet years. The captive 'domestic' market catered for both Russia and its captive markets in eastern Europe and all of what now constitutes the Commonwealth of Independent States (CIS) region. Demand for both civilian and military aircraft allowed for a fragmented aircraft production industry that included Mikoyan, Sukhoi, Ilyushin, Tupolev, Beriev, Irkut, Antonov and Yakovlev, amongst others. Following the unravelling of the Soviet Union, the domestic aerospace industry was in disarray. Much needed modernisation has only come about within the last five years. Political will and finances have followed a Vladimir Putin-led effort to consolidate all of the aforementioned manufacturers (with the exception of Ukraine-based Antonov) into one entity - United Aircraft Corporation, or UAC. Stiff taxes on imported aircraft provide an economic incentive for Russian airlines to source their aircraft domestically and wait for the UAC entities to combine their disparate facilities and resources effectively.

The first stage in the consolidation of UAC was the development of the Sukhoi Superjet, also known as the SSJ, a 75-100 seat RJ. Part of the mantra for the SSJ was to develop an aircraft platform that would be certifiable in the 'West' and would involve a suitable number of 'Western' Tier 1 suppliers. This was done in the hope of allaying any preconceived notions that a wholly-Russian developed aircraft may have on customers. First delivery to launch customer Aeroflot is expected by the end of 2010 and with a fairly healthy order book, which may add Alitalia to its list in the coming weeks, the SSJ is on the path to becoming a success in the lead up to the all-important Irkut MS-21 narrowbody aimed at replacing the Tupolev 204/214 and competing head on against the Airbus A320 and Boeing 737 families.

China's aerospace industry has been built largely on the back of industrial participation with Russian manufacturers, then in the 1990s with McDonnell Douglas and more recently with Embraer, Airbus and Bombardier. The prerequisite to establish these facilities has been through joint ventures with the fledgling community of domestic Chinese aerospace firms, who have used the know-how to establish their own domestic aircraft producers who in turn have been busy developing the AVIC ARJ-21 RJ (based largely on the Boeing 717/McDonnell Douglas MD-80) and the more ambitious COMAC C919 narrowbody due by the middle of the decade.

Acceptance of these aircraft types within China is largely assured as the Chinese government controls the aircraft procurement process for all of China's airlines via a state controlled centralised procurement agency - the Civil Aviation Administration of China (CAAC). This ensures that the domestic market will remain captive and protected from competition in a manner that is arguably more effective than the Russian import duties.

Sukhoi Superjet SSJ 75/100

Sukhoi is 99.7% owned by the United Aviation Corporation (UAC) but the Superjet programme has been structured in a unique manner to ensure participation from key Western aerospace firms.

Sukhoi's Civil Aircraft subsidiary owns 75% of Sukhoi Superjet (Alenia Aeronautica of Italy owns the other 25%). Superjet International is 51% owned by Alenia and 49% by Sukhoi Civil and is responsible for several key aspects such as marketing, sales, delivery centre and customisation for the Western markets, training and worldwide after-sales support and services. These have traditionally been the areas that have prevented Russian aircraft from gaining more traction outside of home markets.

The SSJ 100 is expected to have a 10-15% operational cost advantage over its closest competitors from Bombardier (CRJ 900/1000) and Embraer's ERJ family of RJs plus an enticing pre-discount list price of US$28m. The SSJ has generated over 225 firm orders plus more than 80 options, mostly from Russian customers. Sukhoi hopes to sell approximately 700 of the aircraft in North America, Europe, Latin America, Russia and China. It is widely believed that Sukhoi will decide on whether to introduce a larger, stretched version of the SSJ 100 that could seat up to 110 passengers following the entry into service of the initial aircraft to Aeroflot later this year. This would catapult them firmly into the smaller half of the market that Bombardier is aiming at with the smaller version of their upcoming C-Series.

According to the Italian Civil Aviation Authority (ENAC), the four aircraft involved in the SSJ100 certification programme have logged around 840 flights and more than 2,070 flying hours, with Russian certification expected by the end of November. In September, the SSJ completed five validation flights led by EASA for noise programme certification aimed at a joint Russian-European certification process. Sales momentum for the Sukhoi picked up at this summer's Farnborough air show where it won 82 firm orders from four different customers.

Russian political pressure

Despite a seemingly successful Sukhoi SSJ programme to date, it is largely viewed as a stepping stone to more ambitious and larger aircraft offerings in the future. Vladimir Putin has invested a substantial amount of financial and political capital into the consolidation of the industry into UAC's formation and continues to use his influence to promote the domestic industry. Putin sharply criticised Aeroflot's chief executive Vitaly Savelyev prior to the 2010 Farnborough Air Show for not buying more Russian-made aircraft. Putin told Mr. Savelyev in a stage-managed meeting broadcast on Russian national television in September: "You want to dominate the domestic market, but you don't want to buy Russian technology...that won't do." While Aeroflot is one of the largest customers for the SSJ100, having placed firm orders for thirty with options for a further fifteen, a greater degree of support for Russian aircraft is expected in order to provide a toe-hold for the various development programmes in their domestic market.

In response to Putin's message, Aeroflot recently submitted a tentative time schedule for acquiring domestically built aircraft to the government. Acquisition plans up to 2020 include a pledge to purchase 40 Sukhoi SSJ100s, 11 Antonov AN-148s and 25 AN-140 52-seat turboprops before 2016. In addition, Aeroflot has pledged to order up to 50 Irkut MS-21 narrowbodies for delivery between 2016 and 2020. Aeroflot expects to integrate six other Russian state-owned airlines (Rossiya, Orenair, KavminVodyAvia, Vladivostok Avia, Saratov Airlines and SAT Airlines), with whom it expects to carry a combined 79.5 million passengers by 2025, up from 20 million this year. Market share in Russia is expected to increase from the current 36% (post-integration) to over 65% with group revenues quadrupling to $18 billion. The message from Putin was likely aimed at all of Russia's airlines, not only Aeroflot.

Aeroflot recently retired the last of its large fleet of Soviet-era Tupolev 154Ms and currently operates just six Russian-built aircraft – all four-engined Ilyushin IL-96s widebodies which are used on long-haul domestic routes and international flights from Moscow to Bangkok, Hanoi, Delhi, Seoul and elsewhere. Savelyev has stated the IL-96s were "profitable".

NEW PRODUCTS: ORDERS AND OPTIONS

Aircraft	Orders	Options	Major Clients
Sukhoi SSJ 75/100	225	80	Aeroflot (30), Kartika (30), Malev (15), Thai Orient (12), ItAli Air (10), Willis Leasing (6)
Irkut MS-21	93	37	Crecom Malaysia (50), Ilyushin Finance (28), VEB-Lizing (15)
ACAC ARJ 21	228	20	All domestic orders except GECAS (5) & Lao Air (2)
COMAC C919	50	50	

Aeroflot also inserted a caveat in its letter of 'intent' to Putin whereby it points out the importance of sticking to "the tight schedule" of aircraft delivery as "crucial." The ability to fulfil even small orders has been a consistent problem for both Tupolev (with its late 1980s designed TU-204/214 narrowbody that was designed as a TU-154 replacement) and the Ilyushin IL-96 widebody, as the respective factories struggle to upgrade production methods to handle modern production and supply processes.

Russian import duties

After the break-up of the Soviet Union, the Russian government introduced import duties on Western aircraft in a bid to prevent the collapse of the domestic manufacturers. A ban on the importation of older, second-hand, non-Russian aircraft has kept the older Soviet-type aircraft in operation for longer than expected with the venerable tri-jet Tupolev TU-154 still a mainstay of many Russian airline's fleets.

A significant 20% customs duty is imposed on the importation of aircraft. Russia has been flexible in applying this tax, offering limited customs duty exemptions to steer investment towards particular aircraft segments. For example, it is currently possible to import an aircraft duty-free if it has in excess of 300 seats or fewer than 50 seats. Some Russian carriers have benefited from relaxations where they have committed to investing in Russian-made aircraft, when Russian-made aircraft of a particular specification become available. Leasing aircraft doesn't help, Russian airlines avoid taxes as there is a Russian withholding tax on lease payments made abroad of 10%. A higher 20% tax applies if the aircraft only operates on Russian domestic routes.

Irkut MS21

Putin's sternly worded message to Aeroflot earlier in the summer also mentioned the UAC Irkut MS-21 project as an example of upcoming Russian-built aircraft that should be the "primary focus of the modernisation of the (domestic) fleet."

The Irkut/UAC MS-21 is aiming directly at the 150-210 seat narrowbody market currently dominated by Airbus and Boeing. It will make extensive use of composites in the fuselage and wing structures.

UAC is finalising the industrial infrastructure underpinning development and production of the MS-21, which is due for first flight in 2014. UAC has begun development of a new polymer composite structures manufacturing plant, which will develop the firm carbon-fibre wings for the MS-21. The UAC enterprise complements the efforts of Aerocompozit, a joint venture of Sukhoi and Progrestech set up last year to build composite structures for both the MS-21 and future versions of the SSJ. Aerocompozit selected Ulyanovsk, an industrial centre on the River Volga, as its production home next to the site of the Aviastar-SP plant, which manufactures Tupolev TU-204 passenger and cargo aircraft and will soon produce Ilyushin Il-476 freighters. The MS-21 will be powered by the Pratt & Whitney PW1000G geared turbofan (GTF) that will also power Bombardier's C-Series. In addition to a newly-developed offering by Russian engine manufacturer Aviadvigatel who are to develop a new turbofan (PS-14) that it claims will be 10-11% more fuel efficient than the CFM56/IAE V2500 engines that power Boeing and Airbus narrowbodies.

Despite being over four years away from its maiden flight and service entry in 2016, the MS-21 has already garnered a significant number of commitments from lessors. Ilyushin Finance recently placed an order for 28 MS-21s, with options on 22 more. VEB-Lizing committed to 15 with options on a further 15. Interestingly, fledgling Malaysian lessor Crecom ordered 50 MS-21s. Crecom is seeking exclusive regional marketing rights for the MS-21, which would include the establishment of a regional support centre for the MS-21 family with the aim of boosting Malaysia's own aerospace industry. Crecom's chief executive, Mohamad Isa Abdullah, stated at the Farnborough air show that they are looking to expand this agreement into the seven member countries of ASEAN.

Western acceptance

Support is crucial to the Superjet's development. Willis Lease Finance CEO Charles Willis stated that "success of this aircraft will rise or fall on support and [marketing firm Superjet International] is aware of that." Lack of a global logistic network to support Soviet-era aircraft effectively eliminated any slim chance to secure orders from countries other than those who face US and/or European sanctions, effectively forcing them to procure

Russian technology, such as Air Koryo (North Korea), Cubana (Cuba) and airlines in Syria and Iran.

However, Sukhoi's partnership with Alenia has allowed Sukhoi to tap into ATR's global logistics and support network to support SSJ customers in every corner of the globe, a first for a Russian aircraft type and a prerequisite for any Western airlines considering operations with the SSJ.

US-based Willis Lease Finance could firm-up its agreement to purchase six SSJ100s (with an option for a further four aircraft) anytime soon, in what would represent the manufacturer's first sales success in the North American market. However, while Willis is US-based, there is no indication that the aircraft will enter service with any North American airline. Regional carrier Pinnacle Airlines had reportedly shown interest in the Sukhoi but until an MoU/LoI is signed, Sukhoi will not undergo the lengthy and expensive US FAA certification process. Realistically, it was always going to be unlikely that any North American airline would order the Sukhoi until it had entered service. North America remains the most entrenched market for both Embraer and Bombardier, although the recent LoI from St. Louis based Trans-State Airlines for 50 Mitsubishi RJs (MRJ) plus 50 options indicates that there may be those willing to break up the cosy duopoly in the North American marketplace. Willis' chief executive Charles Willis stated recently that the SSJ100 is not a "game-changing" aircraft, but states: "Certain benchmarks have to be met but, if they are, it will be a good aircraft." Industry sources have indicated that Sukhois have been keenly priced.

While Sukhoi has secured several orders from smaller, regional carriers outside of Russia/CIS, the market awaits a sales victory to a "blue chip" airline. There has been a substantial amount of speculation that Alitalia may be their first major 'Western' customer (regional airline ItAli Air has ordered 10 SSJs). Sukhoi's Venice, Italy-based marketing and financing arm Superjet International made a proposal to Alitalia in early October in a bid to win the contest to replace Alitalia's fleet of 16 RJs (10 Bombardier CRJ 900s and 6 Embraer E170s). Curiously, the oldest of these 16 RJs is just six years old. Alitalia has stated that it will decide in a matter of weeks between the Sukhoi SSJ100, Bombardier CRJ1000 and Embraer E190/195. Sukhoi's offer of 20 aircraft and an undisclosed number of options is based on an operating lease package already agreed with an international leasing company. At the Farnborough air show in July, newly-formed Bermuda-based lessor Pearl Aircraft signed a tentative agreement to acquire 30 SSJ 100's, with options on another 15, and described Alitalia as "maybe" a target client.

Embraer has not given up on the process and recently stated that they see "a strong opportunity to win orders from Alitalia" for the E-190, once the Italian carrier completes its assessment of the type against the Sukhoi and Bombardier CRJ1000. Commenting on the political pressure that Alitalia may face, Embraer executive vice-president for airline markets Paulo Cesar Silva stated that "Alitalia is under a lot of pressure to look maybe with different eyes due to the association of the Italians with Sukhoi, but it's not a given that they will go for this solution."

The Italian connection to Sukhoi via Alenia's investment in the Sukhoi programme would suggest that a degree of domestic political 'support' will be behind the SSJ100. However, there are few aircraft procurement contests in the world that do not attract elements of political persuasion to varying degrees, with the post of US President being described by ex-Boeing management as 'Boeing's best sales person'.

RUSSIAN AIRCRAFT TYPES IN ACTIVE SERVICE

Antonov	
AN-140	6
AN-148	7
AN-24/30	210
AN-26/32	118
AN-38	2
AN-72/74	18
Ilyushin	
IL-114	5
IL-62	15
IL-76	88
IL-86/96	24
Tupolev	
TU 134	99
TU 154	130
TU 204/214	**39**
Yakovlev	
Yak 40	139
Yak 42	102
Total	**1,002**

UAC's product portfolio

There are a raft of other aircraft development programmes in Russia and many more under serious consideration. Most of these are niche aircraft that will compete with a small number of Western manufacturers, or in the case of others such as the Antonov AN-124 cargo plane, will operate in a segment almost exclusively belonging to themselves. Below we highlight those that do actually compete with Western aircraft or whose development is otherwise noteworthy.

Antonov AN-124: The super-heavy freighter that was first unveiled in 1986 has received a new lease of life as the outsize freight market continually increases in size. The last AN-124 was delivered in 2004 and Russian freight specialist Volga-Dnepr Airways has been lobbying to see a resumption of production. In addition to commercial operators, the Russian military have shown interest in ordering extra AN-124s. Russian president Dmitri Medvedev last January stated the intent to order 20. The Russian defence ministry may not be the largest customer for new AN-124s, but a state order could be more secure than those from commercial operators. "In our business plan we anticipate that the commercial airlines might place orders that are comparable to those from the defence ministry, but most of the technical and economic risks connected with resumption of production we anticipate will be largely carried by the state customers" according to UAC President Alexey Fedorov. The only competitors to the AN-124 are the Lockheed Galaxy C-5 and dedicated Boeing 747 Freighters that can be nose-loaded.

Ilyushin IL-476 : Assembly of the first prototype of the modernised, re-engined freighter is now under way, with flight tests due to start next year. The IL-476 is based on the IL-76, which was introduced in 1974. As the modifications are minor, UAC doesn't envisage the flight test process to take long with deliveries expected in 2012.

Again, much depends on the planned Russian rearmament programme, with UAC expecting a large military order for this latest iteration of a cargo and troop transporter that is able to land and take off from unpaved landing strips such as those that exist throughout Russia's northern and eastern regions. The IL-476's new PS-90A-76 engines will comply with International Civil Aviation Organisation (ICAO) Chapter 4 noise regulations and allow the type once again to be operated by commercial carriers into noise-sensitive European Union airspace. There are 88 IL-76s still in operation throughout Russia, the Middle East and Africa.

Antonov AN-148: The 68-85 seat AN-148 has finally entered service with St. Petersburg-based carrier Rossiya following a lengthy gestation period that stretched back to the 1990s. The AN-148 resembles a British Aerospace/AVRO RJ but with two engines rather than four. The type has been made somewhat redundant by the SSJ, which also comes in a similarly-sized 75-seat version (SSJ75). Regardless, Antonov has already begun production of a larger stretched derivative, the 99-seat AN-158. While it is difficult to see this aircraft gaining any traction in 'Western' markets, the operational performance of the first five AN-148's into Rossiya's fleet (the first aircraft was delivered in October 2009) has been notable.

Rossiya has stated that the incidence rate of technical failure in its entire fleet occurred once every 344 hours in the AN-148, every 5,355 hours in its Airbus fleet (mostly newer A319s and A320s) and every 2,824 hours in its Boeing 737-500 fleet. While acknowledging a number of technical deficiencies in the AN-148s, Rossiya says they do not compromise safety and the airline is working jointly with the lessor (Ilyushin Finance Co) and the manufacturer to resolve them. Rossiya is planning to firm-up an order for a further nine AN-148s despite its recent problems.

The order backlog for the AN-148 and its derivatives stands at over 110. The majority of these orders comes from Russian operators: Rossiya (six firm plus six options), Polyot (15), Moskovia (10), and Atlant-Soyuz (20) are the largest customers. Ukrainian carrier Aerosvit has ordered ten while internationally; Cubana (three plus three options) and Dagestan Airlines (15) have ordered the type while negotiations are reportedly under way with potential customers in Cuba, Venezuela, Bolivia and Syria. Production of the AN-148 is ramping up. While two aircraft were delivered in 2009, seven will follow in 2010, rising to 12 then eventually 24.

China

China has taken a different tack to developing its aerospace industry to the Russians. China clearly doesn't have the pedigree or experience that the Russians have built up over the Soviet-era, but they have a larger market and have established a state controlled centralised aircraft procurement agency, the Civil Aviation Administration of China (CAAC) to order and distribute aircraft amongst the countries' airlines. In addition to the obvious benefits to pricing that CAAC is able to maintain through ordering in bulk, it will also likely be used as a tool to encourage China's airlines to order Chinese aircraft currently under development, notably the MD-80 inspired ARJ-21 but further down the road the C919 narrowbody that will be aimed at the heart of the largest segment of the industry – the A320/737 dominated narrowbody segment of 150-210 seat aircraft.

ARJ-21

China's AVIC I Commercial Aircraft Company (ACAC) is the second new entrant after Sukhoi to announce their entry into the RJ market with their ARJ-21 model. The ARJ-21 RJ is being developed by Shanghai-based AVIC I, a consortium of six companies and aerospace research institutes carrying out the development and manufacture of the aircraft that was formed in 2002.

AVIC has stated that it has over 200 orders for the 80-100 seat ARJ-21. ACAC has also signed a deal with China National Aero-Technology Import and Export Corp to help market the planes overseas, although it is difficult to see this aircraft gaining much traction without a global parts and support network in place. Engine supplier GE has had its Commercial Aviation Services (GECAS) unit order five ARJ's with 20 options and is the first foreign company to order the type.

From a design innovation standpoint, the ARJ does not break many new moulds, using what will essentially be ten-year old GE engines on an airframe with a striking resemblance to the outgoing Boeing 717 (itself a derivative of the MD80/DC9 aircraft dating back to the 1960s). This is no coincidence. The Chinese first gained the knowhow to assemble aircraft as part of a deal with McDonnell Douglas in a 1992 Chinese order for 20 MD-80s and 20 MD-90s, which were assembled in Shanghai with kits shipped from the firm's former plant in Long Beach, California. The so-called "Trunkliner" programme included the shipment of machine tools from the US.

However, as plans were unveiled at the Asian Aerospace Expo in Hong Kong in September 2009 for an all new narrowbody aircraft called the C919 in the 130-200 seat segment, the ARJ-21 is best seen as a stepping-stone for Chinese aviation. The success or failure of it should be measured not solely on numbers of units sold but rather the lessons learned from the process that can be imparted onto by-products like the C919. More than 80% of the ARJ-21's systems will be designed and manufactured outside of China. GECAS has also ordered the ARJ-21, presumably for lease to a domestic carrier as only one airline outside of China (Lao Air) has ordered the aircraft.

COMAC C919

The C919, like the ARJ-21, is somewhat of an exercise in demonstrating to the outside world (and to a certain extent to the domestic market) that China can build and support its own aircraft development programme. Local participation in the supply chain of the C919 will mean that almost 50% of the aircraft's systems will be designed and manufactured domestically.

However, the list of foreign partners for the C919 shows very strong support from US-based aerospace companies. Honeywell is providing the landing gear systems, brake controls systems and tyres, Rockwell Collins the communication and navigation solutions and GE Aviation Systems will provide the avionics core processing system, display system and onboard maintenance systems. Each US firm will be partnered by a Chinese counterpart through locally established joint ventures. The C919 is also expected to be the first aircraft to enter service powered by CFM's LEAP-X engine, furthering GE's participation in the C919.

Manufacturing work on the C919 fuselage sections started in August. Jiangxi Hongdu Aviation Industry is supplying the forward and aft fuselage sections. Jiangxi Hongdu is a subsidiary of AVIC and is also a supplier of fuselage components to the Airbus A320 assembly facility in China. Some major Tier 1 suppliers involved in the RfP for the C919 have indicated that the specifications of many of the key components such as landing gear systems and others were within a very small fraction of the current A320 family, heightening long-held concerns about the respect for intellectual property rights in the country.

The first orders for the C919 were received last month from Air China, China Southern, China Eastern, Hainan Airlines, Chinese lessor CDB Leasing Company (CLC) and GECAS for a combined 50 firm plus up to 50 options. COMAC hopes to produce 2,300 C919s following the first aircraft taking to the skies for flight testing in 2014, with initial deliveries expected in 2015-2016 in a schedule that closely mirrors that of the Irkut MS-21.

Boeing predicts that worldwide demand for single-aisle aircraft (excluding RJs) will reach 21,160 between 2010 and 2029. That would indicate that COMAC would be aiming for an approximate market share of 15% of the global narrowbody market, which would seem to be ambitious. However, Boeing also forecasts that the Asia-Pacific region alone would account for some 6,700 narrowbodies of which China could reasonably expect to account for two-thirds, at which point the 2,300 estimate seems more plausible, especially in light of the fact that the CAAC can virtually force its domestic carriers to purchase the aircraft.

By Robert Cullemore
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WIZZ targets IPO and becoming Europe's third largest LCC

Hungarian LCC WIZZ Air continues to expand and is close to becoming the third-largest LCC in Europe in terms of passengers carried. With more than 100 new aircraft joining the fleet in the next six years, WIZZ Air is also positioning itself for an IPO within that same time period.

WIZZ Air was launched in 2004 by Jozsef Varadi, the former CEO of Malev, with US-based private equity house Indigo Partners investing into the airline in September 2004 and becoming a majority shareholder by December of that year. Expansion soon followed, with Budapest opening as its second base in the summer of 2005, followed by Warsaw and Gdansk in the same year.

With its main operating base in Budapest, today WIZZ Air operates just under 200 routes to 62 destinations in 21 European countries, with 12 operating bases in Hungary, Poland, Bulgaria, the Ukraine, Romania and the Czech Republic. It follows a classic LCC business model, with one-class 180-seat configurations in its single type fleet, an absence of frills and an increasing focus on ancillary revenues (such as from advertising on the backs of seats) - although, curiously, it only introduced internet check-ins from 2009.

WIZZ Air employs 1,200 and carried 7.8 million passengers in 2009, 33% more than in 2008. Last year it launched 40 routes, opened a base in Prague and received seven new aircraft. WIZZ Air aims to break the 10 million passengers carried barrier in 2010 and according to the latest figures from the European Low Fares Association, WIZZ Air is already the fifth largest LCC in terms of passengers carried and is closing in on the airlines in third and fourth place (Norwegian and Vueling respectively).

The WIZZ Air group has a fleet of 34 A320-200s but with 107 of the model on firm order, the fleet will grow to 132 by March 2017. Its first major order, for 50 aircraft, came in 2007, and the group added an order for 50 further aircraft last year, during the Paris air show. The fleet rose by four aircraft earlier this year but despite the large order book no new aircraft will arrive until next March - which perhaps gives the airline some breathing space while the global economy improves a little.

With 100-plus aircraft arriving in the six-year period after March, WIZZ Air is set for major expansion and Varadi and COO Chris Collins (previously at Frontier Airlines and JetBlue Airways) are scouring Europe for routes to put the new capacity onto. WIZZ Air says that it has a target list of 30 airports in central and eastern Europe. The plan is to enter into all of these over the next few years in the pursuit of annual double-digit passenger growth, with new bases opening at a rate of two or three each year.

WIZZ Air's two most important markets are Poland and Hungary. WIZZ Air currently operates 86 routes to six Polish airports, and last year the airline flew 3.3 million passengers to/from Poland. This will increase by 30% in 2010 as it aims to overtake flag carrier LOT as the largest airline in Poland in terms of passenger carried. WIZZ Air uses four bases in the country (at which 14 aircraft are based this year, up by three compared with 2009) and a fifth base will probably be opened at Lodz.

In Hungary, WIZZ Air carried 1 million passengers on flights to/from Budapest last year, and this is expected to rise to 1.25 million this year. It currently operates 22 routes out of Budapest, with a service to Istanbul starting in December and one to Antalya in June 2011. As new aircraft arrive WIZZ Air will increase frequency on routes from Budapest into western Europe; already WIZZ Air carries more passengers between Budapest and London than either British Airways or Malev, and it wants to similarly dominate other routes from the Hungarian capital.

Nevertheless, WIZZ Air protested vehemently against the re-nationalisation of Malev earlier this year, which it says "would likely be an unlawful state aid as it clearly violates the state aid rules, is discriminatory, and distorts competition". In February the Hungarian state agreed to acquire a 95% stake in Malev for HUF 25.2bn (€94m), but WIZZ Air says that the government will need to pump in further money into the flag carrier in order to keep it afloat. Malev was only privatised two years ago, when AirBridge (owned by Hungarian and Russian investors) bought a 99.9% stake, but the government has bought 95% of the airline back, leaving AirBridge with 5%.

The fastest growing market for WIZZ Air is actually Romania, where it carried 1.7 million passengers last year, 87% up on 2008. Though it operates to four airports in the country more than half its Romanian traffic goes through Bucharest. A fifth aircraft has recently been stationed in Bucharest, and new routes to Malaga will launch in December and to Larnaca in the summer of 2011.

The WIZZ Air group has also expanded into other countries, WIZZ Air Bulgaria launched in 2006 and WIZZ Air Ukraine in 2008. Based in Sofia's Bourgas airport, WIZZ Air Bulgaria has three aircraft and operates to destinations in the UK, Ireland, Germany, France, Scandinavia and the Mediterranean. WIZZ Air Ukraine is based in Kiev and operates two aircraft domestically and internationally to 10 destinations, from London Luton to Antalya. The Ukrainian subsidiary carried 0.5 million passengers in 2009, its first full year of operation, and had a load factor of more than 80% on its nine routes. Currently WIZZ Air Ukraine operates out of Boryspil airport, but it is likely to move into Kiev airport once a major upgrade, including runway repairs has been completed.

Serbia is also another country earmarked for expansion. WIZZ Air's thirteenth operating base will open in April 2011 at Belgrade, where initially WIZZ Air will station a single A320. WIZZ Air already operates routes to Belgrade from London and Dortmund, but the opening of the base will be accompanied by five new routes, to Rome Fiumicino, Malmo, Stockholm Skavsta, Eindhoven and Allgau-Memmingen (in the south of Germany). WIZZ Air's presence at Belgrade will undoubtedly heap more pressure on the Serbian flag carrier Jat Airways, in which the government is trying to engineer a merger with THY Turkish Airlines (see *Aviation Strategy*, November 2010).

WIZZ AIR GROUP FLEET

	Fleet	Orders	Options
WIZZ Air (Hungary)			
A320-200	29	107	12
WIZZ Air Bulgaria			
A320-200	3	0	0
WIZZ Air Ukraine			
A320-200	2	0	0
Total	**34**	**107**	**12**

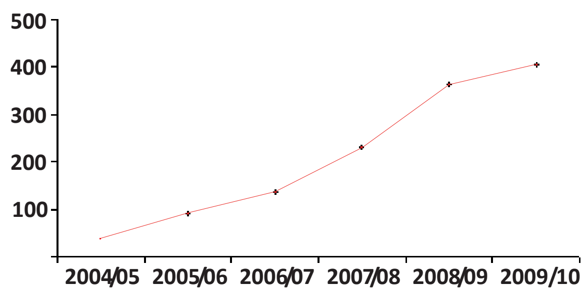
A fourteenth base will open in Vilnius, Lithuania, in April 2011, initially with one A320 based there operating on new eight routes, including to Rome Fiumicino, Barcelona and London Luton. Riga in Latvia is another potential base. WIZZ Air started flights from there in March and the airline says Riga has the potential to home up to six aircraft as the airport is the largest in the Baltic region in terms of passengers carried. Ryanair has also long wanted to open a base at Riga, although nothing yet has been agreed, so WIZZ Air might face fierce competition at the airport in the future (which also is a base for Latvian airline Airbaltic, which stations 30 aircraft there). Elsewhere WIZZ Air will probably operate from Copenhagen, which is opening a low-cost terminal extension this winter (currently WIZZ Air operates into Malmo, which it markets as a Copenhagen service).

Within all the countries it operates in, WIZZ Air has been stepping into the holes left by several of its rivals that have either folded or withdrawn from routes. For example, in 2008 WIZZ Air capitalised on the withdrawal of LOT's Centralwings from the low-fare market by launching new routes in the relevant sectors. After central European LCC rival SkyEurope collapsed last year WIZZ Air stationed extra aircraft at Prague, one of the main bases for SkyEurope, although on the other hand WIZZ Air declined to move into Bratislava after SkyEurope withdrew, due to an inability to get low enough fees at the airport. WIZZ Air also reacted to Czech Airline's recent decision to close its routes to the UK by increasing frequency on Prague-London to nine flights a week from October and launching a route between London Luton and Brno in December.

Time for an IPO?

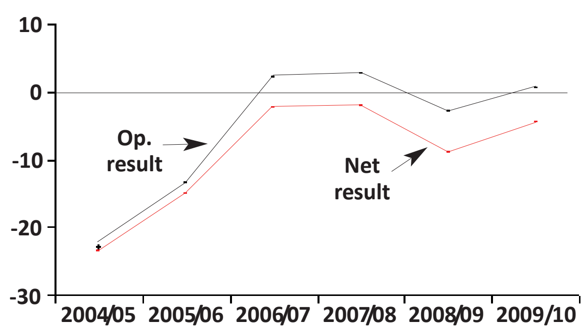
WIZZ Air says that in 2009 it has a 36% share of the LCC market in central and eastern Europe, and a 48% share of the Hungarian LCC market, and those percentages will only rise as

WIZZ AIR'S REVENUE



Note: FY ends March 31st. GAAP figures.

WIZZ AIR'S FINANCIAL RESULTS



Note: FY ends March 31st. GAAP figures.

the new aircraft come on stream. But does that necessarily translate into profitability?

As a private company controlled by Indigo Partners, little information on its financial performance is released, but figures obtained from the UK's Companies House (the Wizz Air holding company re-registered itself in Jersey in the Channel Islands in 2009) reveal that revenue rose by 12% in the 2009/10 financial year (ending March 31st) to £407m (€528m). According to this data the airline posted a £0.6m operating profit in 2009/10, compared with a £3m operating loss in 2008/09, while it made a £4m net loss in 2009/10, compared with a £9m net loss in the previous financial year.

The results reported in the UK shown that the airline has not once recorded a net profit since it was launched back in 2004, and furthermore the airline's accumulated losses since 2004 total more than €55m. Last year WIZZ Air said that while its Ukrainian and Bulgarian companies had yet to make a profit, its Hungarian airline was profitable, but it's impossible to verify this due to the lack of detailed information.

For a new airline losses of this magnitude are not at all unusual, although speculation inevitably arises when in-depth financial information is not released. The company says it has been financed by the initial investment by Indigo and cashflow ever since then, and needs no external financing at present, although pre-delivery payments for three A320s delivered this year and two A320 that are being delivered in March 2011 are known to have been arranged by Frankfurt-based DVB Bank. Also this October WIZZ Air sold and leased back (on 11-year terms) three A320s due to be delivered next year with San Francisco-based Jackson Square Aviation.

According to the figures reported in the UK, as at March 31st 2010 the group had long-term debt of £93.7m – substantially higher than the £57.8m debt of a year earlier – although it did have £75m in cash and cash equivalents.

Although WIZZ Air says it is not interested in any mergers or acquisitions, with Indigo Partners as its backers there's no doubt that WIZZ Air will undergo an IPO at some point in order to provide a profitable exit for Indigo. Based in Phoenix, Arizona, Indigo Partners was founded in 2002 by William Franke, former CEO of America West and US Airways, and owns a stake in US LCC Spirit Airlines as well as 15% of Asian LCC Tiger Airways.

Under the guidance of Indigo, earlier this year WIZZ Air relocated its headquarters and executive team to Geneva in order to save paying Hungarian rates of taxation (the Geneva corporate rate is just 7%), and it has been similarly ruthless in other business decisions, such as by switching its Bologna operation last year from the main airport to its secondary one, Forli, in order to "achieve better cost and operational efficiency", or through axing a Budapest to Paris Beauvais route in January after faring poorly against a Malev service from Budapest to Paris CDG.

According to senior WIZZ Air executives, a listing on the London stock exchange is the most likely option being considered, although the move will be framed in terms of giving the airline access to more capital in order to fund its expansion. In terms of timing all WIZZ Air will say is that a float will occur sometime "over the next six years", though it's much more likely to be earlier than later – i.e. as soon as improving economic conditions allow - in order to get returns for the private equity backers.

By Nick Moreno
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Gol: Multiple codeshares, no global alliance for Brazilian LCC

Gol Linhas Aereas Inteligentes, Latin America's leading LCC, has returned to healthy profitability, having put the Varig problems behind it and thanks to strong demand growth in the Brazilian market. But new challenges loom on the horizon, including a TAM/LAN combine that will dominate Latin America (see *Aviation Strategy* briefing, September 2010). What strategies will Gol deploy to ensure success in a changing competitive landscape?

In the past two years, following the near-disastrous April 2007 acquisition of Varig, Gol has focused on "getting back to basics" of being an LCC, rebuilding profit margins and repairing the balance sheet, while capitalising on the competitive strengths gained through the merger.

Those efforts have been highly successful. Gol's ex-fuel unit costs are almost back to the pre-Varig levels. Liquidity has improved dramatically: cash reserves amounted to a very healthy 26% of annual revenues in September, up from just 11% a year earlier. Gol has also made headway in deleveraging its balance sheet.

Gol's revenues have surged in the past 18 months, thanks to strong demand growth fuelled by Brazil's booming economy and fierce price competition among airlines. Brazil escaped the global recession relatively lightly. Domestic RPK growth picked up sharply in mid-2009, after a brief dip earlier in the year, and amounted to 17.7% in 2009, followed by 24.3% in January-November this year.

As a result of the cost reductions and the strong upturn in demand, Gol's operating margins have risen steadily and are expected to pass the 10%-mark this year for the first time since 2006.

In the past two months' round of annual investor meetings, which have included "Gol Days" in New York, London and Sao Paulo, the management has been selling Gol as a "consistent" (or safe) investment case. The executives reaffirmed that Gol's long-term strategy is to continue being the "lowest-cost airline in Latin America", that Gol is going for profitability rather than market share and that it aims for sustainable growth with a "prudent but adequate" fleet plan.

Gol's main focus is to "take advantage of the new middle class opportunity in Brazil". Brazil is one of the most attractive aviation markets in the world today because of its size and growth potential. Only 17m people currently fly in a population of 190m. Those 17m people represent around 60m passengers annually – a number that Gol's executives believe could double, triple or even quadruple in the next 5-10 years. The segment with the greatest potential is the new middle class, which has grown from 76m people in 2003 to 98m in 2009 and is projected to expand to 130m.

Gol is well positioned to tap the growth opportunities in Brazil because of its competitive advantages, including leading position in many key markets, formidable slot holdings at the main airports, cost leadership, standardised fleet of 737NGs, largest e-commerce platform in Latin America and a strong loyalty programme.

Adding it all up, most analysts consider Gol's future very bright and foresee steadily improving operating margins. However, there are some concerns.

First, analysts particularly in the US are keeping a close eye on the yield environment in Brazil. 2009 saw damaging price wars, triggered by the arrival of Azul and the growth of other small upstarts such as Webjet and TRIP. The fear is that price wars could re-emerge as significant industry capacity addition continues and the new entrants enter more markets.

Second, there are concerns about the potential impact on Gol of the planned TAM/LAN merger, which would create a dominant player in Latin America and a stronger competitor in Brazil. Will Gol lose market share? How would it respond?

Third, Gol and TAM are seeing a steady erosion of domestic market share as the new entrants expand. Could the current Gol-TAM duopoly eventually give way to a regime of three or more sizable competitors?

Fourth, will the infrastructure be there to accommodate the demand growth? Although hopes high that the major international sports events secured by Brazil - the World Cup in 2014 and the Olympics in 2016 - will ensure much-needed investment in airports, the plans announced so far are far from adequate.

Double-digit margins return

Gol has had three distinct chapters in its 10-year history. Up to and including 2006, it was one of the world's most profitable and rapidly growing airlines. It achieved annual operating margins in the 19-29% range and net margins in the 13-20% range in 2003-2006, while its ASMs almost tripled. The airline went public in 2004, listing its preferred shares in Sao Paulo and New York (though its founders, the Constantino family, still hold 64.4% of the total stock).

Gol then had two years of breakeven results or losses in 2007-2008. The good times ended in late 2006, when the Brazilian airline industry faced an ATC/infrastructure crisis that lasted through the first quarter of 2008. The situation was aggravated by two fatal crashes (a Gol 737 in September 2006 and a TAM A320 in 2007), which led to further ATC and airport restrictions.

In the middle of that turbulence, Gol acquired bankrupt Varig. The R$562m acquisition turned out to be very problematic, partly because of the delay in getting government approval to combine the two companies. Gol was not able to integrate the networks until October 2008. With losses mounting, in 2008 Gol also had to shut down Varig's remaining long-haul operation in favour of focusing on serving markets within South America.

In its third chapter which began in 2009, Gol has staged a financial recovery. It accomplished that after finally being able to reap synergies from the Varig acquisition and getting its costs in line.

Gol's results are best examined on an operating basis, because its net results have fluctuated wildly due to currency movements. In 2008 it reported a massive R$1.2bn net loss (19.3% of revenues) because of the sharp deterioration of the Brazilian Real against the US dollar after the start of the global financial crisis, which resulted in steep foreign exchange losses on Gol's dollar-denominated debt. The situation was reversed in 2009, when the Real recovered by 34%, producing a R$711m non-cash gain that boosted Gol's net profit to R$891m (14.8% of revenues).

After achieving a modest 6.9% operating margin in 2009, Gol has consolidated its financial recovery this year. In the third quarter, its revenues soared by 19.5% and it earned a R$187.2m (US$107m) operating profit, accounting for 10.5% of revenues – its highest quarterly margin since the Varig acquisition.

It has been a demand-led recovery. Gol's total RPKs rose by 23.3% in the third quarter, which was attributed to economic recovery and factors such as "dynamic fare management" (discounting to attract the emerging middle classes). Nevertheless, overall yields stabilised, reflecting a more rational competitive environment and higher volumes of business traffic.

Gol's unit revenues rose by 5.3%, while unit costs were essentially flat. The 1.3% reduction in ex-fuel CASK was driven by capacity growth, reduction in the number of grounded aircraft, higher aircraft utilisation, lower leasing costs and a stronger Real. Leasing costs fell because this year Gol has returned all 11 of its leased 737-300s as part of its fleet standardisation.

Significantly, Gol has finally shed or found profitable uses for all of the 14 767-300s that came with Varig. Having long been stuck with the remaining five 767s, which were grounded and cost a fortune in lease payments, Gol has subleased out one and introduced the other four to charter operations. The latter was possible because of the recovery of the international charter market. Reactivating the 767s required some investment, but it was still "cheaper to have the 767s flying than sending them back to the lessors". The intention is to return the aircraft when their leases expire in 2012-2014.

A key part of the "back to basics" strategy has been to restore aircraft utilisation towards pre-Varig levels. Gol is now at around the 13 hours per day mark, up from 11-12 hours in 2008, but believes that it can get close to 14 hours.

Gol has maintained a cost advantage over TAM and other Latin American peers. According to the Gol Day presentation, its total cost per passenger of US$117.5 in 2Q10 was 42% lower than its Latin American peers' and 37% lower than TAM's. Its CASK in the 12 months to June 30 was 36% below Latin American peers'.

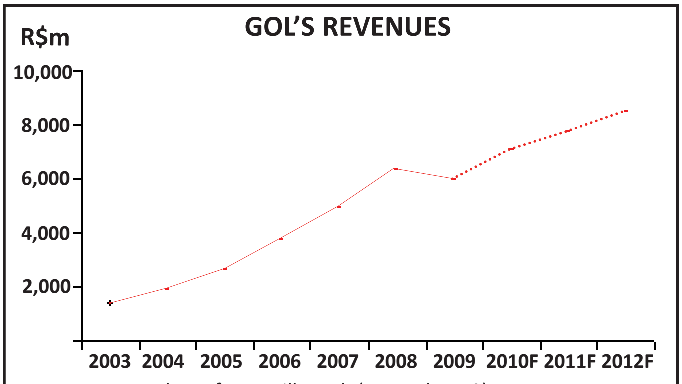
The business model

Gol's post-Varig business model is an interesting mixture of LCC economics and multi-brand operations. In the US or Europe, such a business model might be seen as too confusing and complicated for an LCC, but it is probably ideally suited to the Brazilian market.

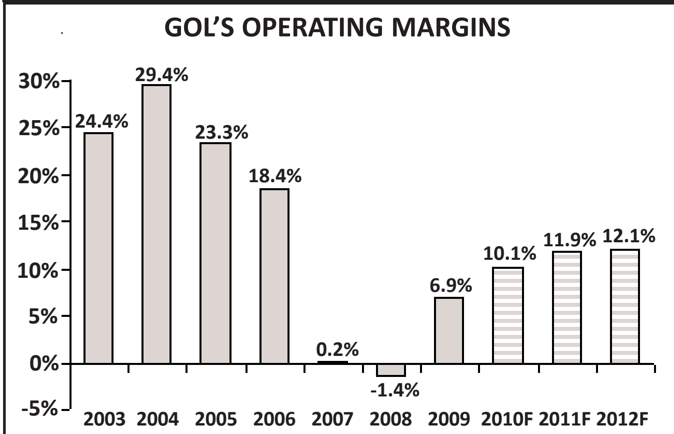
Gol has always catered for both the leisure and business segments. Its original raison d'être was to stimulate leisure traffic, to get Brazilians to switch from long-distance buses to travel by air. When it started, only 5-7m Brazilians were flying, compared to 17m today. Gol pioneered low fares in Brazil and has had tremendous positive social impact. But, because business travel accounts for some 70% of the local market, Gol has always also carried significant volumes of business traffic.

The acquisition of Varig, Brazil's former flag carrier and one of the oldest brands in Latin America, provided an opportunity for Gol to strengthen its offering to the business segment and gain high-yield market share on intra-Latin America international routes. But Gol's main focus continues to be to stimulate leisure travel by the emerging C and D classes in Brazil, because that is where the pent-up demand is.

While integrating the two companies and introducing a unified 737-700/800 fleet, Gol has maintained two airline brands. Varig offers a business class, while Gol remains single-class. Varig's role is to



Note: Forecasts by BofA Merrill Lynch (November 12)



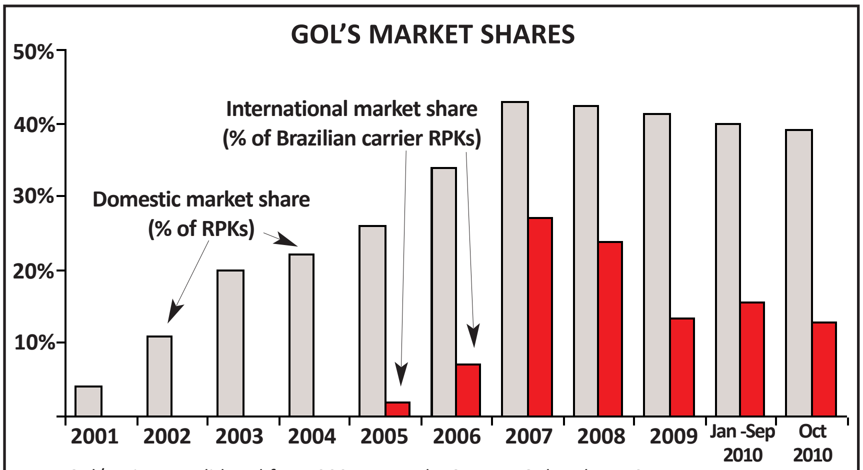
Note: Forecasts by BofA Merrill Lynch (November 12)

operate medium-haul international service to major destinations in South America, while Gol focuses on domestic service and short-haul international routes.

Thanks to Varig, Gol has significantly strengthened its position at Sao Paulo's Congonhas, Brazil's most important business hub, as well as other key airports, enabling it to offer a more consistent, high-frequency service in the main domestic business markets.

Much effort has gone into developing the Smiles FFP, which now has over 7m members and 180 commercial partners. Gol already offers a co-branded credit card and has raised funds from the programme through an advance sale of miles. A desire to generate more value for Smiles members was one of the key reasons why Gol began to forge codeshare partnerships with global carriers in 2009.

To stimulate leisure travel, Gol has come up with imaginative programmes such as VoeFacil ("Fly Easy"), which lets its cus-



Note: Gol/Varig consolidated from 2007 onwards. ***Source:*** *Gol and ANAC*

tomers finance their tickets in up to 36 monthly payments at a relatively low interest rate. VoeFacil stores have been opened at locations such as bus stations in high-density middle class areas.

So Gol is now better able to explore all segments of the air travel market. Its offerings have expanded to five brands: Gol, Varig, Smiles, VoeFacil and Gollog (cargo subsidiary).

The latest focus is growing ancillary revenues. Items such as cargo, flight rebooking and excess baggage fees and onboard sales currently account for 11% of Gol's total revenues – about the same as at JetBlue but much less than the 22-28% shares at Allegiant and European LCCs. Gol hopes to boost the ancillary percentage to 14% in 3-5 years (bearing in mind that passenger revenues are growing too). The projects include buy-onboard service, a "cost-effective" type of wireless inflight entertainment service and developing the E-commerce platform (which handles 93% of Gol's ticket sales) to facilitate sales of insurance/hotel/other bundles. Gol is also striving to grow its cargo revenues from 4% to 5% of total revenues; plans include express cargo products.

Balance sheet strengthening

The Varig acquisition brought Gol close to a liquidity crunch in early 2009: its cash reserves amounted to only 5% of annual revenues in March 2009. Although Gol was subsequently able to quickly raise funds from a variety of sources to dramatically improve its liquidity, it seems that the experience prompted it to adopt much more conservative spending and balance sheet management policies.

To start with, Gol now has a minimum cash target of 25% of annual revenues. CFO Leonardo Pereira said recently that the ideal range is currently considered to be 25-30%.

Last year's cash-raising included, first of all, Gol's controlling shareholders providing R$204m through a rights offering. The airline then issued R$400m of two-year debentures and raised R$255m through the advance sale of frequent-flyer miles to two local banks. And, amazingly, in October 2009 Gol was able to complete a major global share offering that boosted cash by R$627m.

As a result, Gol's cash reserves surged to R$1.44bn (US$735m) by year-end 2009 – a very healthy 24% of annual revenues. The latest (September 30) balance – R$1.77bn or 26.3% of trailing 12-month revenues - exceeded the 25% target set for 2010.

Gol also plans to deleverage its balance sheet in the future. This year's focus has been to reduce near-term debt obligations through refinancings. Total debt has increased (R$3.6bn on September 30, up 18% on the year-earlier level), but there is now no major debt maturing before 2014. If cash levels continue to build and cash flow remains strong, the airline will start paying down debt.

Gol has a target of reducing its adjusted gross debt to less than 4.5 times EBITDAR in the next two years. The leverage ratio in 3Q10 was 5.6 times, down from 6.6 in 3Q09 and 14.2 two years ago.

The strengthening balance sheet is already paying dividends in terms of improved credit ratings and reduced cost of borrowing. This year the three main rating agencies have upgraded Gol's credit ratings to the "BB" brackets. The airline is committed to keeping those ratings and has no plans to issue new debt. Of course, Gol wants strong cash reserves and reduced leverage so that it has more flexibility and can make the most of the growth opportunities available in Brazil.

BofA Merrill Lynch analysts suggested in a recent report that, given Gol's leverage discipline and liquidity focus, the airline might access the equity capital markets to finance fleet growth before 2013.

Conservative fleet plan

With the departure of the 737-300s, and except for the four 767s in charter operations, Gol has now completed the standardisation of its fleet around the 737-800NGs and 737-700NGs, resulting in significant cost savings. Its year-end fleet for the two types will total 111, of which 71 are 800s and 40 are 700s.

Gol is maintaining its original fleet plan, which will see 14 more 737-800s delivered in the next four years, to bring the total 700/800 fleet to 125 by the end of 2014. However, the airline recently placed a new order for up to 30 737-800s (20 firm and 10 options) for delivery in 2014-2017. This will help reduce the average fleet age to below six years.

The fleet plan seems conservative for an LCC that has access to a promising growth market. But Gol is determined to maintain capacity in line with demand; in the summer the management were talking about wanting to add capacity roughly at the rate of two-thirds of demand growth. Also, the fleet plan assumes that Gol will get more ASMs through increased utilisation and a larger average aircraft size (the 737-800s have more seats).

Gol's CFO commented in the carrier's 3Q call that it is relatively easier to bring aircraft in than dispose of them. "We'd rather bring aircraft in on an operating lease basis, if needed, than make a commitment at this stage for something that could jeopardise the company's financial results in the long run."

Gol has no interest in adding a second smaller aircraft type to the fleet. As CEO Constantino Junior has said: "Considering our model, where we want to be in a few years' time and infrastructure issues, we think at this stage the right plane for us is the 737-800".

Alliance considerations

Gol's network currently covers 53 destinations in Brazil – connecting all the important cities – and 14 major destinations in South America and the Caribbean. Although the best growth opportunities are in the domestic market, the airline is likely to continue to expand to other South American countries as the other economies become stronger.

In fact, much of the new activity recently has been in the international arena. Gol began regular service to the Caribbean in 2009 (under the Varig brand) and this year has added three new destinations there – Barbados, St. Maarten and Punta Cana (Dominican Republic). Gol has also recently boosted flights to Argentina. These services have benefited from a strengthening Real, which has boosted Brazilians' international travel.

But Gol no longer has any plans to enter long-haul international markets. This and the acquisition of Smiles FFP, which has enabled it to do reciprocal deals with other carriers, led to a change in the way Gol viewed alliances. After previously shunning them, in the past 12 months Gol has forged a large number of codeshare deals with global carriers. It has been able to link with both SkyTeam and oneworld carriers. It has agreements with American and Delta, which between them account for more than 50% of total Brazil-US traffic, and with AF-KLM and Iberia, which both have high shares of Europe-Brazil traffic. It also codeshares with Aeromexico, which has 85% of Brazil-Mexico traffic.

This strategy of forging multiple codeshares is similar to what JetBlue and WestJet are doing, except that Gol has moved a lot faster and is focusing only on the most important airlines in the long-haul segment.

Gol's leadership has said on many occasions recently that they do not see benefit in joining a global alliance. CEO Constantino Junior made the point at Gol Day that his airline does not need support from a global alliance at foreign destinations, because it does not fly long-haul. "So that creates a very interesting situation where we can position ourselves as a distributor for these alliances without any conflict."

Gol is looking to sign more codeshares in the future, in particular with airlines in Asia and the Middle East. Gol also plans to upgrade its reservations technology to permit truly reciprocal codesharing arrangements with its foreign partners.

On the domestic front, in September Gol entered into a commercial agreement with NOAR Linhas Aereas, a tiny Recife-based turboprop start-up. The management has since indicated that they are open to similar codeshares with other small carriers in niche markets.

The multiple codeshare alliances with foreign partners will help cushion any adverse impact on Gol of the TAM/LAN combination. The alliances should also help Gol reap benefits from the traffic growth that the future US-Brazil and EU-Brazil open skies regimes will bring.

As to the potential TAM/LAN impact, Gol is expected to gain in the short term as its competitors face a challenging merger integration period. In the longer term, Gol believes that it will maintain its competitive advantage because of its low cost structure and domestic focus. Its business model is very different. Also, Gol's management regard LAN as a very rational, profit-focused competitor.

While Gol will obviously look at any merger or acquisition opportunities that may present themselves, its executives believe that the business model is sustainable on a standalone basis. According to the CFO, the company's actions in the next two years will be guided by two "anchors". First, there is a clear mandate from the shareholders that the low-cost model must be preserved. Second, the shareholders want to be in this business in the long run, so Gol must not take risks that would put its survival in jeopardy.

Longer-term outlook

Gol is projecting a 10-13% operating margin for 2010 and aims to improve it steadily in the next three years towards a goal of 15-18%. GDP and demand projections certainly support strong earnings growth in 2011. Realistically, however, price wars could limit Gol's margin expansion, as well as keep its stock under pressure.

Analysts regularly voice concerns about the competitive environment in Brazil. A recent research note on Gol from JP Morgan pondered that the "cost competitiveness and growth of Azul remains troublesome", particularly when compared to the reasonably tame discounter trends in North America.

However, some of those developments are less alarming when considering the special circumstances in Brazil. First, the domestic market is so large and dynamic that there is probably enough traffic for everyone. Second, it is an untapped market that needs to be stimulated, so the airlines need to be able to offer low fares. Profit margin improvements will not come from higher yields but, rather, from higher traffic volumes and load factors. Third, slot constraints at the main airports will limit smaller competitors. With Gol and TAM controlling most of the slots, it would be tough for any newcomer to achieve competitive advantage. Fourth, many of the new entrants are aiming for different markets and do not really overlap with Gol; they use smaller aircraft and operate to smaller airports. Fifth, many of the new entrants in Brazil today have professional managements and focus on providing returns to investors; Azul is believed to be planning an IPO in 2011.

Perhaps the biggest concern is whether the aviation infrastructure will be there to support the demand growth. According to Gol, the Brazilian government has committed to spending R$6bn on airport facilities to accommodate growth through 2014-2015. But the problem is that if GDP and traffic growth continue at rates the airlines are predicting, airport capacity limits may be reached even before the 2014 World Cup.

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Freighter values and lease rates

FREIGHTER VALUES (US$m)

	New	5 years old	10 years old	20 years old
A300-F4-600R		42.6	32.7	
A330-200F	99.8			
737-300QC				6.8
747-400M			49.0	26.6
747-400F (CF6)		89.2	72.6	
747-400ERF		91.8		
757-200PF			23.0	14.1
767-300F	60.4	49.90	39.4	
777-200LRF	154.9			
MD-11C			26.6	
MD-11F			35.4	

FREIGHTER LEASE RATES (US$000s per month)

	New	5 years old	10 years old	20 years old
A300-F4-600R		360	309	
A330-200F	859			
737-300QC				120
747-400M			498	388
747-400F (CF6)		899	763	
747-400ERF		926		
757-200PF			193	182
767-300F	468	433	389	
777-200LRF	1,314			
MD-11C			313	
MD-11F			433	

Source: *AVAC*
Note: As assessed at end-October 2010; mid-range values for all types

		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 emp.
Air France/	Oct-Dec 08	7,880	8,136	-256	-666	-3.2%	-8.5%	64,457	51,255	79.5%	17,934	106,773
KLM Group	Jan-Mar 09	6,560	7,310	-751	-661	-11.4%	-10.1%	61,235	46,214	75.5%	15,727	106,895
YE 31/03	**Year 2008/09**	**34,152**	**34,335**	**-184**	**-1,160**	**-0.5%**	**-3.4%**	**262,359**	**209,060**	**79.7%**	**73,844**	**106,933**
	Apr-Jun 09	7,042	7,717	-676	-580	-9.6%	-8.2%	63,578	50,467	79.4%	18,703	106,800
	Jul-Sep 09	8,015	8,082	-67	-210	-0.8%	-2.6%	66,862	56,141	84.0%	19,668	105,444
	Oct-Dec 09	7,679	8,041	-362	-436	-4.7%	-5.7%	61,407	49,220	80.2%	17,264	105,925
	Year 2009/10	**29,096**	**31,357**	**-2,261**	**-2,162**	**-7.8%**	**-7.4%**	**251,012**	**202,453**	**80.7%**	**71,394**	**104,721**
	Apr-Jun 10	7,301	7,469	-168	939	-2.3%	12.9%	60,345	49,283	81.7%	17,623	102,918
British Airways	Jul-Sep 08	4,725	4,524	201	-134	4.3%	-2.8%	38,911	29,480	75.8%	8,831	42,330
YE 31/03	Oct-Dec 08	3,612	3,692	-80	-134	-2.2%	-3.7%	36,300	31,335	86.3%	8,835	
	Jan-Mar 09	2,689	3,257	-568	-402	-21.1%	-14.9%	35,478	25,774	72.6%	7,124	
	Year 2008/09	**15,481**	**15,860**	**-379**	**-616**	**-2.4%**	**-4.0%**	**148,504**	**114,346**	**77.0%**	**33,117**	**41,473**
	Apr-Jun 09	3,070	3,216	-146	-164	-4.7%	-5.3%	36,645	28,446	77.6%	8,446	
	Jul-Sep 09	3,479	3,507	-28	-167	-0.8%	-4.8%	37,767	31,552	83.5%	9,297	38,704
	Oct-Dec 09	3,328	3,287	41	-60	1.2%	-1.8%	34,248	26,667	77.9%	7,502	
	Year 2009/10	**12,761**	**13,130**	**-369**	**-678**	**-2.9%**	**-5.3%**	**141,178**	**110,851**	**78.5%**	**31,825**	**37,595**
	Apr-Jun 10	3,092	3,207	-115	-195	-3.7%	-6.3%	32,496	24,192	74.4%	7,013	
Iberia	**Year 2008**	**8,019**	**8,135**	**-116**	**47**	**-1.4%**	**0.6%**	**66,098**	**52,885**	**80.0%**		**21,578**
YE 31/12	Jan-Mar 09	1,436	1,629	-193	-121	-13.4%	-8.4%	15,369	11,752	76.5%		20,715
	Apr-Jun 09	1,455	1,632	-177	-99	-12.1%	-6.8%	15,668	12,733	81.3%		20,760
	Jul-Sep 09	1,667	1,744	-77	-23	-4.6%	-1.4%	16,275	13,369	82.1%		21,113
	Oct-Dec 09	1,589	1,784	-195	-134	-12.3%	-8.5%	14,846	11,759	79.2%		20,096
	Year 2009	**6,149**	**6,796**	**-647**	**-381**	**-10.5%**	**-6.2%**	**62,158**	**49,612**	**79.8%**		**20,671**
	Jan-Mar 10	1,453	1,552	-98	-72	-6.8%	-5.0%	14,360	11,605	80.8%		19,643
	Apr-Jun 10	1,502	1,498	27	40	1.8%	2.6%	15,324	12,648	82.5%		20,045
	Jul-Sep 10	1,730	1,637	93	95	5.4%	5.5%	16,834	14,404	85.6%		20,668
Lufthansa	Jul-Sep 08	9,835	9,542	293	230	3.0%	2.3%	52,487	42,437	80.9%	18,913	109,401
YE 31/12	Oct-Dec 08	8,237	7,715	522	-5	6.3%	-0.1%	47,075	36,632	77.8%	17,150	108,711
	Year 2008	**36,551**	**34,625**	**1,926**	**812**	**5.3%**	**2.2%**	**195,431**	**154,155**	**78.9%**	**70,543**	**108,123**
	Jan-Mar 09	6,560	6,617	-58	-335	-0.9%	-5.1%	44,179	32,681	74.0%	15,033	106,840
	Apr-Jun 09	7,098	7,027	71	54	1.0%	0.8%	49,939	38,076	76.2%	18,142	105,499
	Jul-Sep 09	8,484	8,061	423	272	5.0%	3.2%	56,756	46,780	82.4%	22,164	118,945
	Oct-Dec 09	9,041	9,090	-49	-109	-0.5%	-1.2%	55,395	43,110	77.8%	21,204	117,521
	Year 2009	**31,077**	**30,699**	**378**	**-139**	**1.2%**	**-0.4%**	**206,269**	**160,647**	**77.9%**	**76,543**	**112,320**
	Jan-Mar 10	7,978	8,435	-457	-413	-5.7%	-5.2%	52,292	39,181	74.9%	19,031	117,732
	Apr-Jun 10	8,763	8,560	203	248	2.3%	2.8%	57,565	45,788	79.5%	22,713	116,844
	Jul-Sep 10	9,764	8,754	1,010	810	10.3%	8.3%	63,883	53,355	83.5%	26,089	116,838
SAS	Jul-Sep 08	2,114	2,085	30	-316	1.4%	-14.9%	10,984	8,180	74.5%	7,325	24,298
YE 31/12	Oct-Dec 08	1,652	1,689	-36	-359	-2.2%	-21.7%	9,750	6,559	67.3%	6,612	23,082
	Year 2008	**8,120**	**8,277**	**-107**	**-977**	**-1.3%**	**-12.0%**	**41,993**	**29,916**	**71.2%**	**29,000**	**24,635**
	Jan-Mar 09	1,352	1,469	-118	-90	-8.7%	-6.6%	8,870	5,541	62.5%	5,748	22,133
	Apr-Jun 09	1,546	1,665	-119	-132	-7.7%	-8.6%	9,584	7,055	73.6%	6,850	18,676
	Jul-Sep 09	1,522	1,486	36	21	2.3%	1.4%	8,958	6,868	76.7%	6,245	17,825
	Oct-Dec 09	1,474	1,676	-202	-186	-13.7%	-12.6%	8,160	5,764	70.6%	6,055	16,510
	Year 2009	**5,914**	**6,320**	**-406**	**-388**	**-6.9%**	**-6.6%**	**35,571**	**25,228**	**70.9%**	**24,898**	**18,786**
	Jan-Mar 10	1,322	1,428	-106	-99	-8.0%	-7.5%	7,951	5,471	68.8%	5,735	15,835
	Apr-Jun 10	1,321	1,367	-46	-66	-3.5%	-5.0%	8,769	6,612	75.4%	6,282	15,709
Ryanair	Apr-Jun 08	1,215	1,202	13	-141	1.0%	-11.6%			81.0%	14,953	
YE 31/03	Jul-Sep 08	1,555	1,250	305	280	19.6%	18.0%			88.0%	16,675	
	Oct-Dec 08	798	942	-144	-157	-18.0%	-19.7%			71.3%	14,029	6,298
	Jan-Mar 09	623	592	31	-223	5.0%	-35.8%			74.6%	12,902	
	Year 2008/09	**4,191**	**3,986**	**205**	**-241**	**4.9%**	**-5.7%**			**81.0%**	**58,559**	
	Apr-Jun 09	1,055	844	211	168	20.0%	15.9%			83.0%	16,600	
	Jul-Sep 09	1,418	992	426	358	30.0%	25.2%			88.0%	19,800	
	Oct-Dec 09	904	902	2	-16	0.2%	-1.8%			82.0%	16,021	
	Year 2009/10	**4,244**	**3,656**	**568**	**431**	**13.5%**	**10.2%**			**82.0%**	**66,500**	
	Apr-Jun 10	1,145	992	152	120	13.3%	10.5%			83.0%	18,000	7,828
	Jul-Sep 10	1,658	1,150	508	426	30.7%	25.7%			85.0%	22,000	8,100
easyJet	**Year 2006/07**	**3,679**	**3,069**	**610**	**311**	**16.6%**	**8.5%**	**43,501**	**36,976**	**83.7%**	**37,200**	**5,674**
YE 30/09	Oct 07-Mar 08	1,795	1,772	22	-87	1.2%	-4.8%	23,442	19,300	82.3%	18,900	
	Apr-Sep 08	2,867	2,710	157	251	5.5%	8.7%	32,245	28,390	88.0%	24,800	
	Year 2007/08	**4,662**	**4,483**	**180**	**164**	**3.9%**	**3.5%**	**55,687**	**47,690**	**85.6%**	**43,700**	**6,107**
	Oct 08-Mar 09	1,557	1,731	-174	-130	-11.2%	-8.3%	24,754	21,017	84.9%	19,400	
	Apr-Sep 09	2,607	2,063	280	251	10.7%	9.6%	33,411	29,549	88.4%	25,800	
	Year 2008/09	**4,138**	**3,789**	**93**	**110**	**2.3%**	**2.7%**	**58,165**	**50,566**	**86.9%**	**45,200**	
	Oct 09-Mar10	1,871	1,995	-106	-94	-5.6%	-5.0	27,077	23,633	87.3%	21,500	

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation.

		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 emp.
Alaska	Jan-Mar 09	742	754	-12	-19	-1.6%	-2.6%	8,883	6,725	75.7%	3,573	9,021
	Apr-Jun 09	844	777	67	29	7.9%	3.4%	9,418	7,428	78.9%	3,983	8,937
	Jul-Sep 09	967	807	160	88	16.5%	9.1%	9,812	8,079	82.3%	4,240	9,002
	Oct-Dec 09	846	793	53	24	6.3%	2.8%	9,133	7,322	80.2%	3,765	8,701
	Year 2009	**3,399**	**3,132**	**267**	**122**	**7.9%**	**3.6%**	**37,246**	**29,550**	**79.3%**	**15,561**	**8,915**
	Jan-Mar 10	830	804	26	5	3.1%	0.6%	8,917	7,197	80.7%	3,641	8,537
	Apr-Jun 10	976	866	110	59	11.3%	6.0%	9,836	8,162	83.0%	4,170	8,621
American	Jan-Mar 09	4,839	5,033	-194	-375	-4.0%	-7.7%	60,804	46,015	75.7%	20,331	79,500
	Apr-Jun 09	4,889	5,115	-226	-390	-4.6%	-8.0%	62,064	50,796	81.8%	22,092	79,200
	Jul-Sep 09	5,126	5,320	-194	-359	-3.8%	-7.0%	62,026	52,064	83.9%	22,403	78,700
	Oct-Dec 09	5,063	5,453	-390	-344	-7.7%	-6.8%	59,356	48,131	81.1%	20,893	78,000
	Year 2009	**19,917**	**20,921**	**-1,004**	**-1,468**	**-5.0%**	**-7.4%**	**244,250**	**197,007**	**80.7%**	**85,719**	**78,900**
	Jan-Mar 10	5,068	5,366	-298	-505	-5.9%	-10.0%	59,296	46,187	77.9%	20,168	77,800
	Apr-Jun 10	5,674	5478	196	-11	3.5%	-0.2%	61,788	51,821	83.9%	22,166	78,300
	Jul-Sep 10	5,842	5,500	342	143	5.9%	2.4%	64,277	53,985	84.0%	22,468	78,600
Continental	Jan-Mar 09	2,962	3,017	-55	-136	-1.9%	-4.6%	42,362	31,848	75.2%	14,408	43,000
	Apr-Jun 09	3,126	3,280	-154	-213	-4.9%	-6.8%	45,072	37,281	82.7%	16,348	43,000
	Jul-Sep 09	3,317	3,256	61	-18	1.8%	-0.5%	46,562	39,616	85.1%	16,795	41,000
	Oct-Dec 09	3,182	3,181	1	85	0.0%	2.7%	42,308	34,700	82.0%	15,258	41,000
	Year 2009	**12,586**	**12,732**	**-146**	**-282**	**-1.2%**	**-2.2%**	**176,305**	**143,447**	**81.4%**	**62,809**	**41,000**
	Jan-Mar 10	3,169	3,220	-51	-146	-1.6%	-4.6%	42,350	33,665	79.5%	14,535	39,365
	Apr-Jun 10	3,708	3,380	328	233	8.8%	6.3%	39,893	33,910	85.0%	16,300	38,800
Delta	Jan-Mar 09	6,684	7,167	-483	-794	-7.2%	-11.9%	89,702	69,136	77.1%	37,310	83,822
	Apr-Jun 09	7,000	6,999	1	-257	0.0%	-3.7%	94,995	78,941	83.1%	42,050	82,968
	Jul-Sep 09	7,574	7,370	204	-161	2.7%	-2.1%	100,115	85,904	85.8%	43,742	81,740
	Oct-Dec 09	6,805	6,851	-46	-25	-0.7%	-0.4%	85,814	70,099	81.7%	37,947	81,106
	Year 2009	**28,063**	**28,387**	**-324**	**-1,237**	**-1.2%**	**-4.4%**	**370,672**	**304,066**	**82.0%**	**161,049**	**81,106**
	Jan-Mar 10	6,848	6,780	68	-256	1.0%	-3.7%	85,777	68,181	79.5%	36,553	81,096
	Apr-Jun 10	8,168	7,316	852	467	10.4%	5.7%	94,463	80,294	85.0%	42,207	81,916
	Jul-Sep 10	8,950	7,947	1,003	363	11.2%	4.1%	102,445	87,644	85.6%	44,165	79,005
Southwest	Jan-Mar 09	2,357	2,407	-50	-91	-2.1%	-3.9%	38,899	27,184	69.9%	23,050	35,512
	Apr-Jun 09	2,616	2,493	123	54	4.7%	2.1%	41,122	31,676	77.0%	26,505	35,296
	Jul-Sep 09	2,666	2,644	22	-16	0.8%	-0.6%	39,864	31,714	79.6%	26,396	34,806
	Oct-Dec 09	2,712	2,545	167	116	6.2%	4.3%	37,828	29,249	77.3%	25,386	34,726
	Year 2009	**10,350**	**10,088**	**262**	**99**	**2.5%**	**1.0%**	**157,714**	**119,823**	**76.0%**	**101,338**	**34,726**
	Jan-Mar 10	2,630	2,576	54	11	2.1%	0.4%	36,401	27,618	75.9%	23,694	34,637
	Apr-Jun 10	3,168	2,805	363	112	11.5%	3.5%	40,992	32,517	79.3%	22,883	34,636
	Jul-Sep 10	3,192	2,837	355	205	11.1%	6.4%	41,130	33,269	80.9%	22,879	34,836
United	Jan-Mar 09	3,691	3,973	-282	-382	-7.6%	-10.3%	54,834	41,533	75.7%	18,668	44,800
	Apr-Jun 09	4,018	3,911	107	28	2.7%	0.7%	57,901	47,476	82.0%	21,064	43,800
	Jul-Sep 09	4,433	4,345	88	-57	2.0%	-1.3%	59,599	50,572	84.9%	22,076	43,600
	Oct-Dec 09	4,193	4,267	-74	-240	-1.8%	-5.7%	54,121	44,273	81.8%	19,618	42,700
	Year 2009	**16,335**	**16,496**	**-161**	**-651**	**-1.0%**	**-4.0%**	**226,454**	**183,854**	**81.2%**	**81,246**	**43,600**
	Jan-Mar 10	4,241	4,172	69	-82	1.6%	-1.9%	53,023	42,614	80.4%	18,818	42,800
	Apr-Jun 10	5,161	4,727	434	273	8.4%	5.3%	58,522	49,319	84.3%	21,234	42,600
	Jul-Sep 10	5,394	4,859	535	387	9.9%	7.2%	61,134	52,534	85.9%	22,253	42,700
US Airways Group	Jan-Mar 09	2,455	2,480	-25	-103	-1.0%	-4.2%	32,884	25,239	76.7%	18,387	32,245
	Apr-Jun 09	2,658	2,536	122	58	4.6%	2.2%	35,382	29,507	83.4%	20,491	32,393
	Jul-Sep 09	2,719	2,713	6	-80	0.2%	-2.9%	36,214	29,920	82.6%	20,284	31,592
	Oct-Dec 09	2,626	2,612	14	-79	0.5%	-3.0%	32,456	25,509	78.6%	18,801	31,333
	Year 2009	**10,458**	**10.340**	**118**	**-205**	**1.1%**	**-2.0%**	**136,939**	**110,171**	**80.5%**	**77,965**	**31,333**
	Jan-Mar 10	2,651	2,661	-10	-45	-0.4%	-1.7%	31,957	24,659	77.2%	17,931	30,439
	Apr-Jun 10	3,171	2,800	371	279	11.7%	8.7%	35,517	29,461	82.9%	20,642	30,860
	Jul-Sep 10	3,179	2,864	315	240	9.9%	7.5%	36,808	30.604	83.1%	20,868	30,445
JetBlue	Jan-Mar 09	793	720	73	12	9.2%	1.5%	12,781	9,720	76.0%	5,291	10,047
	Apr-Jun 09	807	731	76	20	9.4%	2.5%	13,256	10,533	79.5%	5,691	10,235
	Jul-Sep 09	854	788	66	15	7.7%	1.8%	13,504	11,309	83.7%	6,011	10,246
	Oct-Dec 09	832	768	64	11	7.7%	1.3%	12,855	10,208	79.4%	5,457	10,704
	Year 2009	**3,286**	**3,007**	**279**	**58**	**8.5%**	**1.8%**	**52,396**	**41,769**	**79.7%**	**22,450**	**10,704**
	Jan-Mar 10	870	828	42	-1	4.8%	-0.1%	13,557	10,412	76.8%	5,528	11,084
	Apr-Jun 10	939	845	94	30	10.0%	3.2%	13,981	11,468	82.0%	6,114	10,906
	Jul-Sep 10	1,039	890	140	59	13.5%	5.7%	14,648	12,390	84.6%	6,573	10,669

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation. 1 ASM = 1.6093 ASK. All US airline financial year ends are December 31st.

		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 emp.
ANA	**Year 2005/06**	**12,040**	**11,259**	**781**	**235**	**6.5%**	**2.0%**	**86,933**	**58,949**	**67.8%**	**49,920**	**30,322**
YE 31/03	**Year 2006/07**	**12,763**	**11,973**	**790**	**280**	**6.2%**	**2.2%**	**85,728**	**58,456**	**68.2%**	**49,500**	**32,460**
	Year 2007/08	**13,063**	**12,322**	**740**	**563**	**5.7%**	**4.3%**	**90,936**	**61,219**	**67.3%**	**50,384**	
	Year 2008/09	**13,925**	**13,849**	**75**	**-42**	**0.5%**	**-0.3%**	**87,127**	**56,957**	**65.4%**	**47,185**	
	Year 2009/10	**13,238**	**13,831**	**-582**	**-614**	**-4.4%**	**-4.6%**	**83,827**	**55,617**	**66.3%**	**44,560**	
Cathay Pacific	Jan-Jun 07	4,440	4,031	409	341	9.2%	7.7%	49,836	38,938	79.6%	8,474	19,207
YE 31/12	**Year 2007**	**9,661**	**8,670**	**991**	**900**	**10.3%**	**9.3%**	**102,462**	**81,101**	**79.8%**	**23,250**	**19,840**
	Jan-Jun 08	5,443	5,461	-18	-71	-0.3%	-1.3%	56,949	45,559	80.0%	12,463	
	Year 2008	**11,119**	**12,138**	**-1,018**	**-1,070**	**-9.2%**	**-9.6%**	**115,478**	**90,975**	**78.8%**	**24,959**	**18,718**
	Jan-Jun 09	3,988	3,725	263	119	6.6%	3.0%	55,750	43,758	78.5%	11,938	18,800
	Year 2009	**8,640**	**7,901**	**740**	**627**	**8.6%**	**7.3%**	**111,167**	**96,382**	**86.7%**	**24,558**	**18,511**
	Jan-Jun 10	5,320	4,681	917	892	17.2%	16.8%	55,681	46,784	84.0%	12,954	
JAL	**Year 2004/05**	**19,905**	**19,381**	**524**	**281**	**2.6%**	**1.4%**	**151,902**	**102,354**	**67.4%**	**59,448**	53,962
YE 31/03	**Year 2005/06**	**19,346**	**19,582**	**-236**	**-416**	**-1.2%**	**-2.2%**	**148,591**	**100,345**	**67.5%**	**58,040**	**53,010**
	Year 2006/07	**19,723**	**19,527**	**196**	**-139**	**1.0%**	**-0.7%**	**139,851**	**95,786**	**68.5%**	**57,510**	
	Year 2007/08	**19,583**	**18,793**	**790**	**148**	**4.0%**	**0.8%**	**134,214**	**92,173**	**68.7%**	**55,273**	
	Year 2008/09	**19,512**	**20,020**	**-508**	**-632**	**-2.6%**	**-3.2%**	**128,744**	**83,487**	**64.8%**	**52,858**	
Korean Air	**Year 2005**	**7,439**	**7,016**	**423**	**198**	**5.7%**	**2.7%**	**66,658**	**49,046**	**73.6%**	**21,710**	**17,573**
YE 31/12	**Year 2006**	**8,498**	**7,975**	**523**	**363**	**6.2%**	**4.3%**	**71,895**	**52,178**	**72.6%**	**22,140**	**16,623**
	Year 2007	**9,496**	**8,809**	**687**	**12**	**7.2%**	**0.1%**	**76,181**	**55,354**	**72.7%**	**22,830**	**16,825**
	Year 2008	**9,498**	**9,590**	**-92**	**-1,806**	**-1.0%**	**-19.0%**	**77,139**	**55,054**	**71.4%**	**21,960**	**18,600**
	Year 2009	**7,421**	**7,316**	**105**	**-49**	**1.4%**	**-0.7%**	**80,139**	**55,138**	**68.8%**	**20,750**	
Malaysian	**Year 2004/05**	**3,141**	**3,555**	**-414**	**-421**	**-13.2%**	**-13.4%**	**64,115**	**44,226**	**69.0%**		**22,513**
YE 31/03	Apr-Dec 05	2,428	2,760	-332	-331	-13.7%	-13.6%	49,786	35,597	71.5%		22,835
YE 31/12	**Year2006**	**3,696**	**3,751**	**-55**	**-37**	**-1.5%**	**-1.0%**	**58,924**	**41,129**	**69.8%**	**15,466**	**19,596**
	Year 2007	**4,464**	**4,208**	**256**	**248**	**5.7%**	**5.6%**	**56,104**	**40,096**	**71.5%**	**13,962**	**19,423**
	Year2008	**4,671**	**4,579**	**92**	**74**	**2.0%**	**1.6%**	**52,868**	**35,868**	**67.8%**	**12,630**	**19,094**
	Year 2009	**3,296**	**3,475**	**-179**	**140**	**-5.4%**	**4.3%**				**12,000**	
Qantas	**Year 2006/07**	**11,975**	**11,106**	**869**	**568**	**7.3%**	**4.7%**	**122,119**	**97,622**	**79.9%**	**36,450**	**34,267**
YE 30/6	Jul-Dec 07	7,061	6,323	738	537	10.5%	7.6%	63,627	52,261	82.1%	19,783	33,342
	Year 2007/08	**14,515**	**13,283**	**1,232**	**869**	**8.5%**	**6.0%**	**127,019**	**102,466**	**80.7%**	**38,621**	**33,670**
	Jul-Dec 08	6,755	6,521	234	184	3.5%	2.7%	63,853	50,889	79.7%	19,639	34,110
	Year 2008/09	**10,855**	**10,733**	**152**	**92**	**1.4%**	**0.8%**	**124,595**	**99,176**	**79.6%**	**38,348**	**33,966**
	Jul-Dec 09	6,014	5,889	124	52	2.1%	0.9%	62,476	51,494	82.4%	21,038	32,386
	Year 2009/10	**12,150**	**11,926**	**223**	**102**	**1.8%**	**0.8%**	**124,717**	**100,727**	**80.8%**	**41,428**	**32,490**
Singapore	**Year 2005/06**	**6,201**	**5,809**	**392**	**449**	**6.3%**	**7.2%**	**109,484**	**82,742**	**75.6%**	**17,000**	**13,729**
YE 31/03	**Year 2006/07**	**9,555**	**8,688**	**866**	**1,403**	**9.1%**	**14.7%**	**112,544**	**89,149**	**79.2%**	**18,346**	**13,847**
	Year 2007/08	**10,831**	**9,390**	**1,441**	**1,449**	**13.3%**	**13.4%**	**113,919**	**91,485**	**80.3%**	**19,120**	**14,071**
	Year 2008/09	**11,135**	**10,506**	**629**	**798**	**5.6%**	**7.2%**	**117,789**	**90,128**	**76.5%**	**18,293**	**14,343**
	Year 2009/10	**8,908**	**8,864**	**44**	**196**	**0.5%**	**2.2%**	**105,674**	**82,882**	**78.4%**	**16,480**	
Air China	**Year 2005**	**4,681**	**4,232**	**449**	**294**	**9.6%**	**6.3%**	**70,670**	**52,453**	**74.2%**	**27,690**	**18,447**
YE 31/12	**Year 2006**	**5,647**	**5,331**	**316**	**338**	**5.6%**	**6.0%**	**79,383**	**60,276**	**75.9%**	**31,490**	**18,872**
	Year 2007	**6,770**	**6,264**	**506**	**558**	**7.5%**	**8.2%**	**85,257**	**66,986**	**78.6%**	**34,830**	**19,334**
	Year 2008	**7,627**	**7,902**	**-275**	**-1,350**	**-3.6%**	**-17.7%**	**88,078**	**66,013**	**74.9%**	**34,250**	**19,972**
	Year 2009	**7,523**	**6,718**	**805**	**710**	**10.7%**	**9.4%**	**95,489**	**73,374**	**76.8%**	**39,840**	
China Southern	**Year 2005**	**4,682**	**4,842**	**-160**	**-226**	**-3.4%**	**-4.8%**	**88,361**	**61,923**	**70.1%**	**44,120**	**34,417**
YE 31/12	**Year 2006**	**5,808**	**5,769**	**39**	**26**	**0.7%**	**0.4%**	**97,044**	**69,575**	**71.7%**	**49,200**	**45,575**
	Year 2007	**7,188**	**6,974**	**214**	**272**	**3.0%**	**3.8%**	**109,733**	**81,172**	**74.0%**	**56,910**	**45,474**
	Year 2008	**7,970**	**8,912**	**-942**	**-690**	**-11.8%**	**-8.7%**	**112,767**	**83,184**	**73.8%**	**58,240**	**46,209**
	Year 2009	**8,022**	**7,811**	**211**	**48**	**2.6%**	**0.6%**	**123,440**	**93,000**	**75.3%**	**66,280**	
China Eastern	**Year 2005**	**3,356**	**3,372**	**-16**	**-57**	**-0.5%**	**-1.7%**	**52,428**	**36,381**	**69.4%**	**24,290**	**29,301**
YE 31/12	**Year 2006**	**3,825**	**4,201**	**-376**	**-416**	**-9.8%**	**-10.9%**	**70,428**	**50,243**	**71.3%**	**35,020**	**38,392**
	Year 2007	**5,608**	**5,603**	**5**	**32**	**0.1%**	**0.6%**	**77,713**	**57,180**	**73.6%**	**39,160**	**40,477**
	Year 2008	**6,018**	**8,192**	**-2,174**	**-2,201**	**-36.1%**	**-36.6%**	**75,919**	**53,754**	**70.8%**	**37,220**	**44,153**
	Year 2009	**5,896**	**5,629**	**267**	**25**	**4.5%**	**0.4%**	**84,422**	**60,918**	**72.2%**	**44,030**	
Air Asia	Jan-Mar 09	198	84	114	56	57.6%	28.4%	5,207	3,487	67.0%	3,147	
YE 31/12	Apr-Jun 09	186	94	91	39	49.1%	21.1%	5,520	4,056	73.5%	3,519	
	Jul-Sep 09	211	145	66	37	31.1%	17.6%	5,449	3,769	69.2%	3,591	
	Oct-Dec 09	263	169	95	23	35.9%	8.6%	5,863	4,410	75.2%	3,995	
	Year 2009	**905**	**539**	**366**	**156**	**40.4%**	**17.3%**	**21,977**	**15,432**	**70.2%**	**14,253**	
	Jan-Mar 10	260	159	89	66	34.2%	25.4%	5,929	4,090	68.9%	3,700	7,500

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation..

EUROPEAN SCHEDULED TRAFFIC

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total International		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1991	114.8	65.2	56.8	120.9	84.3	69.7	80.0	53.1	66.4	267.6	182.0	68.0	397.8	257.9	64.7
1992	129.6	73.5	56.7	134.5	95.0	70.6	89.4	61.6	68.9	296.8	207.1	69.8	445.8	293.4	65.8
1993	137.8	79.8	57.9	145.1	102.0	70.3	96.3	68.1	70.7	319.1	223.7	70.1	479.7	318.0	66.3
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74.0	334.0	243.6	72.9	503.7	346.7	68.8
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73.0	362.6	269.5	74.3	532.8	373.7	70.1
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
1997	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
1998	188.3	120.3	63.9	194.2	149.7	77.1	135.4	100.6	74.3	453.6	344.2	75.9	673.2	484.8	72.0
1999	200.0	124.9	62.5	218.9	166.5	76.1	134.5	103.1	76.7	492.3	371.0	75.4	727.2	519.5	71.4
2000	208.2	132.8	63.8	229.9	179.4	78.1	137.8	108.0	78.3	508.9	396.5	77.9	755.0	555.2	73.5
2001	212.9	133.4	62.7	217.6	161.3	74.1	131.7	100.9	76.6	492.2	372.6	75.7	743.3	530.5	71.4
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
2004	220.6	144.2	65.4	224.0	182.9	81.6	153.6	119.9	78.0	535.2	428.7	80.1	795.7	600.7	75.5
2005	309.3	207.7	67.2	225.9	186.6	82.6	168.6	134.4	79.7	562.6	456.4	81.1	830.8	639.3	76.9
2006	329.9	226.6	68.7	230.5	188.0	81.5	182.7	147.5	80.7	588.2	478.4	81.3	874.6	677.3	77.4
2007	346.6	239.9	69.2	241.4	196.1	81.2	184.2	152.1	82.6	610.6	500.4	81.9	915.2	713.9	78.0
2008	354.8	241.5	68.1	244.8	199.2	81.4	191.1	153.8	80.5	634.7	512.4	80.7	955.7	735.0	76.9
2009	322.1	219.3	68.1	227.8	187.7	82.4	181.2	145.8	80.5	603.8	488.7	80.9	912.7	701.1	76.8
August 10	31.2	23.8	76.3	22.2	19.6	88.2	15.9	13.8	86.7	55.8	48.3	86.5	85.9	71.5	83.2
Ann. change	3.6%	4.6%	0.7	-0.7%	-1.5%	-0.8	-0.3%	1.4%	1.5	0.6%	1.4%	0.7	1.4%	2.1%	0.6
Jan-Aug 10	221.5	154.4	69.7	148.8	125.2	84.2	117.8	98.2	83.4	398.1	330.6	83.1	610.1	480.2	78.7
Ann. change	-1.7%	0.8%	1.8	-4.5%	-0.9%	3.0	-3.8%	1.4%	4.3	-2.4%	1.3%	3.1	-2.1%	1.4%	2.7

Source: AEA.

JET ORDERS

	Date	Buyer	Order	Delivery/other information
Boeing	30 Nov	Copa Airlines	22 x 737-800	
	08 Nov	Saudi Arabian A/L	12 x 777-300ER	plus 10 options
	08 Nov	Midwest Airlines	1 x 737-800	
	08 Nov	SpiceJet	30 x 737-800	
	02 Nov	BOC Aviation	8 x 777-300ER	
Airbus	29 Nov	Hawaiian Airlines	6 x A330-200	
	16 Nov	TransAsia Airways	2 x A330-300, 6 x A321	
	04 Nov	China Aviation Supplies Hldg.	50 x A320 family, 6 x A330, 10 x A350XWB	
	03 Nov	BOC Aviation	30 x A320 family	
	13 Oct	Hong Kong A/L	10 x A330-200, 15 x A350XWB	

Note: Only firm orders from identifiable airlines/lessors are included. **Source:** Manufacturers.

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