

## Heathrow's future

London's Heathrow Airport (LHR) has been firmly in the cross-hairs of the world's media over the past few months. The majority of the coverage has been negative, with headlines such as "Heathrow Hell", "A nightmare - the unacceptable face of monopoly capitalism" and "shaming London" highlighting the vitriol spewing out of the press. The service level deficiencies at Heathrow (nothing newsworthy in and of itself) combined with the ongoing UK Competition Commission review into monopolistic/anti-competitive behaviour on the part of Ferrovial-owned BAA are the main catalysts for the coverage.

On the topic of service levels, Heathrow has been operating at over 150% of its terminal capacity for several years following the recovery of traffic post-September 11. Passengers have long been complaining about Heathrow and the other London airports. The fever pitch witnessed this summer was aggravated by baggage handling problems experienced at LHR. During an 11-day stretch in June, the baggage tunnel between T1 and T4 at LHR failed on nine days. British Airways is so desperate to have things fixed that it is contemplating 'giving' Ferrovial £25m to address these immediate weak links. However, things could have been worse this summer. Industrial action has not reared its ugly head, a departure from the usual strike-induced chaos that has become a summer ritual in London.

The proverbial light at the end of the tunnel is getting brighter regarding improvements at LHR. T5 opens next March and promises to provide an outstanding experience for passengers, with BA set to reap the rewards. BA's move into T5 and the realignment of the other carriers will instantly relieve the pressure on terminals 1 and 3 (T2 is set to be demolished in October 2008, to be replaced by Heathrow East). Once Heathrow East is complete in 2012, LHR will have capacity for around 90m passengers.

The Competition Commission has issued its 'Statement of Issues', which spells out the scope of its continuing investigation into monopolistic behaviour on the part of BAA. In this document, it identified the key item of BAA's culpability: namely, that BAA has been insufficiently proactive in attempting to overcome development restrictions and that it has tended to await the outcome of government policy rather than trying to shape it. This negligence is the primary cause of the myriad problems Heathrow (and to a lesser extent Stansted and Gatwick) face currently. On balance, the language that the Competition Commission used in the Statement of Issues would appear to be leaning towards a break-up. Ferrovial might ultimately favour such an outcome if five separately owned London airports mean an end to CAA price regulation, thereby allowing LHR to both raise charges to market levels but also to increase the use of pricing as a tool to control demand and thereby overcrowding.

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# China's Big Three: The road to a Super PRC carrier?

The "Big Three" PRC (Peoples Republic of China) airlines - Air China, China Southern and China Eastern - have been the beneficiaries of the government-mandated consolidation process in the aviation industry over the last few years, and have absorbed almost all of the medium-sized domestic carriers. But as competition between the Big Three increases, as well as from foreign airlines eager to tap into the growing Chinese market, so has financial pressure risen on the three largest airlines in China - and it's likely that the structure of the Big Three will not remain the same for much longer.

The good news for the aviation industry in general is that the Chinese economy is continuing its unprecedented growth. GDP increased by 11% in 2006 - its biggest rise in 11 years and the fourth year in a row of at least 10% growth - and this has been the key driver for traffic growth, both domestically and internationally. Although the latest market forecasts from the manufacturers (see table, opposite) see the Chinese domestic market growing at a faster rate than international traffic (and with Boeing being slightly more bullish about both markets than Airbus), both domestic and international markets are forecast to have sustained and high increases in traffic for the next two decades.

In the short-term, Chinese aviation is being given a substantial boost by the 2008 Olympic Games, which analysts believe will increase traffic to/from Beijing by as much as 20-25% in that year, with traffic expected to jump by about 15% in 2007 as a significant pre-Olympics effect starts to appear.

For the Big Three, the short-term effect of the Olympics and the long-term forecast growth in traffic is both good and bad news, because that growth is prompting unprecedented increases in capacity in the Chinese market by domestic and foreign airlines, causing fares and yields to fall.

Although all of the Big Three are now listed, they are effectively hampered in any meaningful efforts to strengthen their balance sheets by the Chinese government, which still has effective control over virtually everything that the Big Three do. Most visibly, orders are still placed in bulk with manufacturers "on behalf of airlines" by the Chinese government, but control extends much deeper than that, into senior managerial appointments, fare levels, route choices and virtually every major operational decision at the Big Three. On fares, for example, the government sets the overall fare level and airlines are only allowed to vary prices in a band up to 25% above and 45% below the state-set rate.

However, there are encouraging signs that some of the management at the three airlines is starting to feel confident enough to challenge the control of the government. For example, the Big Three are all lobbying the government to drop the VAT it imposes on imported aircraft, while the airlines are also complaining about high airport charges, increasing air congestion and inefficient air traffic control in China, the last two of which cost the industry around RMB 5bn (\$0.6bn) in 2006, according to China Southern estimates.

The Civil Aviation Administration of China (CAAC) has promised to invest RMB 50bn over the next five years in improving the country's air traffic control system, but despite this pledge, Liu Shaoyong - chairman of China Southern - has called on the government to make a cash injection into airlines to compensate for air traffic congestion and high taxes. Shaoyong has gone further and publicly complained about China Southern's lack of autonomy in deciding its strategy, including no input on what aircraft it buys and which airlines it has had to merge with (such as Northern Airlines and Xinjiang Airlines in 2005, both of which previously made losses).

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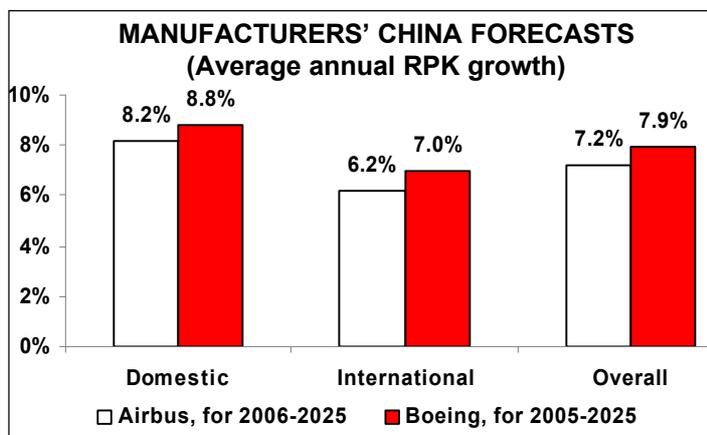
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For the moment, the Chinese government appears to be tolerant towards this growing criticism from within the domestic aviation industry, and indeed in January it was reported that the government planned to invest RMB 16bn (\$2.1bn) into the Big Three in order to help them reduce debt levels (with \$385m going to Air China, \$848m to China Southern and \$822m to China Eastern). However, with fuel prices falling over the first half of the year and the financial pressure easing slightly, the rumoured government cash boost may be postponed according to local sources - though it could be revived this autumn if fuel prices rise again.

But with or without further government cash injections - and despite other "structural" benefits of being a Chinese airline, such as the strengthening of the Yuan against the US Dollar, which significantly benefits domestic airlines - the growing competition in the aviation industry that the government has unleashed over the last few years is likely to have a profound effect on the future of the Big Three.

China Eastern is seen as the weakest of the Big Three financially, but now that a long-awaited investment by Singapore Airlines is going ahead (the two parties had been negotiating ever since July 2006), this may leave China Southern as the most vulnerable, as it will then be the last of the Big Three to find a strong, foreign strategic partner. Air China - thanks to its reliance on business traffic (accounting for 70% of all profits domestically), its equity links with Cathay Pacific and its dominant position at Beijing - is by far the strongest of the Big Three, and it may use its economic and political strength to force a merger with one of the two other airlines, and particularly before the government bows to growing external pressure to ease the restrictions on foreign investment. Currently foreign companies can own up to 49% of Chinese airlines, although no one company can own more than 25%, and if - or rather when - this is eased, foreign airlines are likely to rush into the Chinese market.

Rumours are even flying around in China that all of the Big Three may be merged into



one so-called "super" Chinese airline, and although this is denied by everyone and anyone, it's not beyond the realms of possibility that the Chinese government may see the creation of one mega-airline - which will instantly become the world's largest carrier - as a powerful symbol of the growing strength of the country.

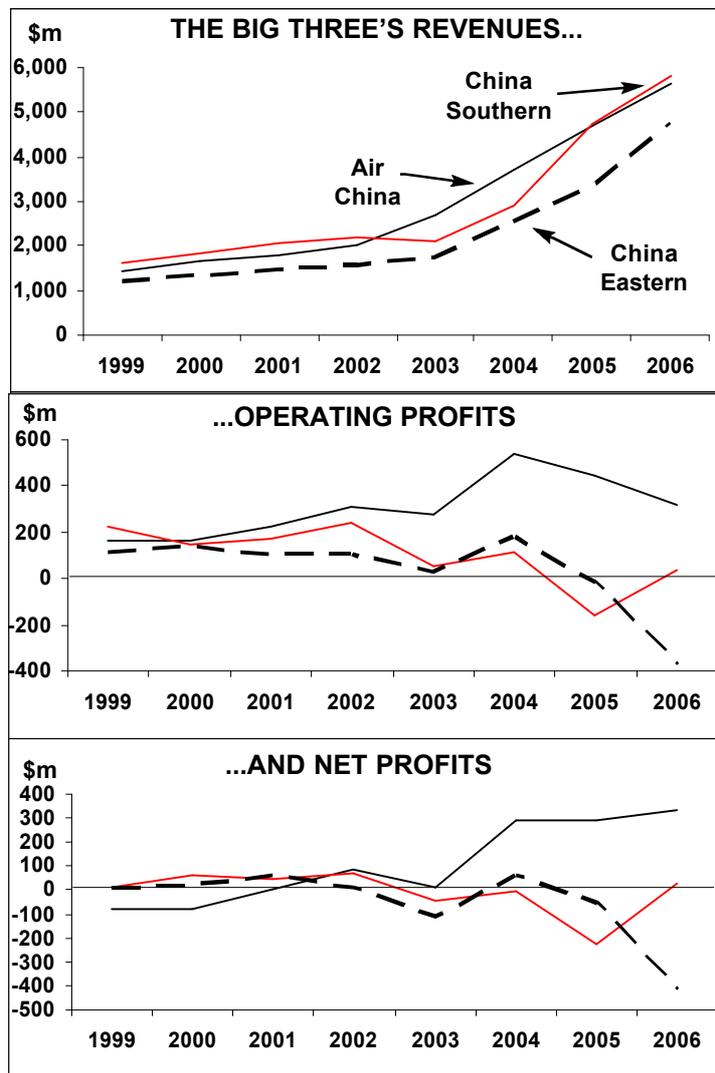
### Air China

The Beijing-based flag carrier has 32,700 employees and serves around 120 destinations (of which more than 40 are international). In January it completed the final moves in the complicated series of deals between it and Cathay Pacific, the China National Aviation Corporation (a Hong Kong-based government-owned holding company more commonly known as CNAC, which also owns 51% of Air Macau), CITIC Pacific and Swire Pacific. This entailed Air China taking 100% control of CNAC and delisting it from the Hong Kong stock exchange after buying the remaining 30% it did not previously own from minority shareholders for the sum of HK\$3.2bn (US\$0.4bn). This followed the other components of the deal:

- Air China bought 10.16% of Cathay Pacific from CITIC Pacific (an investment company backed by the Chinese government and listed on the Hong Kong stock exchange) and Swire Pacific for HK\$5.4bn (US\$694m), thereby taking Air China's direct and indirect (via CNAC) stake in Cathay to 17.5%.
- Cathay bought 1.2bn new H-shares (traded on the Hong Kong market) in Air China

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## Analysis



for HK\$4.1bn, thus doubling its stake in Air China from 10% to 20%.

- Cathay purchased the remaining 82.2% of Hong Kong-based Dragonair that it didn't own from CNAC (43.3%), CITIC Pacific (28.5%), Swire Pacific (7.7%) and others (2.7%) for a total of HK\$8.22bn (US\$1.06bn) in cash and new Cathay shares. This part of the deal was finally completed in September 2006 (when the CNAC shares were bought).

- Air China and Cathay signed a partnership agreement, including: reciprocal sales (with each airline selling flights for the other in its "home territory"); an extension of existing codesharing; the launch of joint venture routes (with profit sharing) on selected Hong Kong-mainland China destinations;

and the setting up of a cargo joint venture in Shanghai.

These deals give Air China a healthy chunk of a profitable airline (Citigroup estimates a RMB 600m/US\$77m boost to revenue thanks to the tie-up with Cathay) and - crucially - access to feed into Beijing and Shanghai from Hong Kong business travellers. In January this year Air China and Cathay also changed their arrival and departure times at Hong Kong to allow easier connectivity for passengers, so that no passenger has to wait for more than an hour for a connection.

Air China IPO-ed on the London and Hong Kong exchanges in 2004 (raising US\$1.1bn), but in August last year it also listed on the Shanghai stock exchange in an exercise that proved that not every airline listing in the Chinese aviation market is paved with gold. Air China intended to raise RMB 7.97bn (US\$1bn) by selling 2.7bn new shares, equivalent to 22.25% of the enlarged equity, but the so-called A-share issue was set at an indicative price that was simply too high (with a multiple of 8.7 times 2005 earnings). A poor reception from potential investors quickly forced the airline to scale back the domestic IPO by just under 40%, from 2.7bn shares to 1.64bn (now representing 14.8% of the carrier's equity), and thus raising RMB 4.59bn (US\$577m) from institutional and private investors - some RMB 3.38bn (US\$425m) less than it was aiming to raise originally.

After the debut day (August 18th), the share price started to drift down from the issue price of RMB 2.8, which forced Air China (via its parent, the government-owned China National Aviation Holdings - known as CNAH - which still has a majority stake in Air China) to spend many tens of millions of dollars in buying back its shares in order to shore up the stock.

Air China's troubled Shanghai float was partly a case of bad timing (it went to market after the Chinese government gave permission for domestic IPOs to restart in May after a previous year-long ban, so lots of companies floated at a time when there was a general weakness in the Shanghai market), and partly because the airline and its

advisors were just too greedy in setting a high price at a time when analysts were nervous about the price of fuel and the 2006 profit level.

In 2006 Air China's revenue (under international accounting standards, which differ significantly from the Chinese standards that the Big Three use for quarterly results) rose 21% to RMB 44.9bn (\$5.6bn), while net profits rose 15% to RMB 2,688m (\$338m). However, this was lower than some analysts expected (Merrill Lynch, for example, had forecast net profits of RMB 3.25bn), due largely to higher staff, maintenance and fuel costs. Fuel expenditure rose by 33.4% in 2006 to RMB 15.7bn, accounting for 37% of all costs, and as a result Air China is now increasing its hedging operation; it hedged 44% of fuel costs in 2006, but this will rise to 49% this year. The net profits also included a gain of RMB 1.6bn from selling the 43% stake in Dragonair to Cathay. At the operating level, profits fell by nearly one-third, to RMB 2.51bn (\$316m).

Nevertheless, Air China has consistently been more profitable than both China Southern and China Eastern over the last five years, and it expects to post strong profit growth for the first half of 2007. Its rivals point out the inherent advantages that Air China has in being the flag carrier, such as being merged with stronger domestic airlines than its Big Three rivals, or the benefits of substantial government travel out of Beijing.

Indeed, at Beijing, Air China has an estimated 44% market share of traffic to/from the airport. The flag carrier has around 130 aircraft stationed there and it will benefit particularly from the new third terminal and runway that will open at Beijing at the end of 2007. The new terminal will double the capacity of the airport, and half the new facility will be devoted to Air China and its domestic partners (Shenzhen Airlines and Shandong Airlines) and the other half for international carriers.

In 2006 Air China launched routes from Beijing to Delhi, Madrid and Sao Paulo, and among the destinations that Air China has either started or plans to launch out of Beijing this year are St Petersburg, Saipan

and Sapporo. Air China also launched a Beijing-San Francisco service in April, which joined existing routes to New York and Los Angeles, and more routes are likely following the new aviation agreement signed between China and the US in May, which will double the number of passenger flights allowed between the countries over the period to 2012 (from the current 266 flights a week).

Air China also wants to expand into more "secondary" international destinations, thereby building up Beijing as an international hub, and it is planning to build up Dubai as another hub operation from 2008, linking flights from Asia to not only Europe but to Africa and the Middle East as well, as part of what Air China calls a "twin hub" operation.

Air China's international ambitions will also be realised when it finally joins the Star global alliance, to which it was formally invited in May this year. Air China hopes to become a member before the end of the year, but the move will be accompanied by further speculation that this may lead to a merger with Shanghai Airlines, which will also join Star at around the same time (and which will enable a "dual hub" strategy for Star in China). A tie-up between the two has been rumoured for some time, and Air China is keen to boost its presence in Shanghai in a direct challenge to one of its key competitors, Shanghai-based China Eastern. Air China already stations 30 aircraft at Shanghai and has a 20% market share out of the airport, compared with the 30% of China Eastern, but it plans to considerably strengthen its Shanghai base within the next year, with as many as 1,000 employees stationed there.

Shanghai will also be the headquarters of the new cargo joint venture with Cathay, reported to be launching by the end of 2007, with 51% owned by Air China and 49% by Cathay, although first Air China may buy out its existing partners in Air China Cargo, its current cargo operation, who are CITIC Pacific (which owns 25%) and Beijing Capital International Airport (which owns 24%).

The tie-up with Cathay will be followed

by the opening of a new cargo terminal base in Shanghai, and this deal kills off any lingering hopes that China Eastern had of a cargo partnership with Air China. Both Air China and China Eastern face growing cargo competition, including Shanghai-based Great Wall Airlines - which launched in 2006 and is owned 25% by Singapore Airlines Cargo - and Shenzhen-based Jade Cargo International, which was launched in 2006 and is owned 25% by Lufthansa Cargo.

In terms of passenger traffic, Air China forecasts a 15% rise in RPKs in 2007, ahead of a planned 12% rise in capacity, and it says premium load factor should rise by 10%, thanks to booming business travel and the pre-Olympics effect. This will come on top of the 14.2% rise in passengers carried in 2006, to 34m, when a 12.7% rise in capacity was bettered by a 15.5% growth in traffic, resulting in a 1.9 percentage point increase in load factor, to 75.9%.

Air China also owns 25% of Shenzhen Airlines, which operates a fleet of 47 A320s and 737s, and has 29 narrowbody aircraft on order as it plans for rapid expansion. Shenzhen scored a coup in 2006 when it hired Li Kun away from China Southern to become its president. Kun had been with China Southern for 27 years, and was the first senior airline executive to leave one of the Big Three for a private airline (albeit one part-owned by Air China). Based in the southern city of Shenzhen, close to Hong Kong, 65% of the airline was auctioned off by the government to two private companies in May 2006 (with Air China unsuccessful in its bid to acquire a bigger stake). Air China also owns 22.8% of Shandong Airlines, which operates 30 aircraft on mostly domestic routes and which has 13 737s on order.

Air China's fleet currently stands at 187 aircraft, with 35 new aircraft added in 2006 and 24 aircraft arriving this year. Around 65% of the total RMB 16.9bn capex at the airline in 2007 will be used for fleet expansion, and Air China will continue with high levels of fleet investment for the foreseeable future, with around 25 aircraft being added every year until the end of the decade.

However - assuming that Air China does-

n't merge with one of its Big Three rivals - even this expansion will not enable the flag carrier to catch up with the fleets of its two main rivals.

## China Southern

Guangzhou-based China Southern has 45,500 employees and is by far the largest of the Big Three in terms of fleet size, with 279 aircraft operating to more than 70 domestic and 50 international destinations. In terms of RPKs, it is the largest of the Big Three in the domestic market, but has the least amount of international traffic (see chart, opposite).

In 2006 China Southern returned to profitability for the first time since 2002, thanks to rising demand, selected cost-cutting and the revaluation of the Yuan against the US Dollar, with net profits of RMB 204m (\$25.6m) compared with a \$229m net loss in 2005. Revenue rose 22% to RMB 46.2bn (\$5.8bn) in 2006 (passenger yield rose 9.1% in the year), and operating profits reached RMB 312m (\$39m), compared with a RMB 1.3bn (\$162m) operating loss in 2005.

In the first-half of 2007 China Southern's revenue rose 19% and net profits reached \$22m (compared with a \$108m loss in 1H 2006), and the airline forecasts that it will carry as many as 60m passengers this year, which would represent a 22% rise on 2006, when its passengers carried rose 11.5% to 49.2m. ASKs increased by 9.8% in 2006, and with RPKs up 12.4% load factor rose 1.6 percentage points, to 71.7%. The strongest passenger growth in 2006 came from international routes - up by 13.2% - while domestic RPKs grew 9.8% and Hong Kong traffic fell by 0.5%.

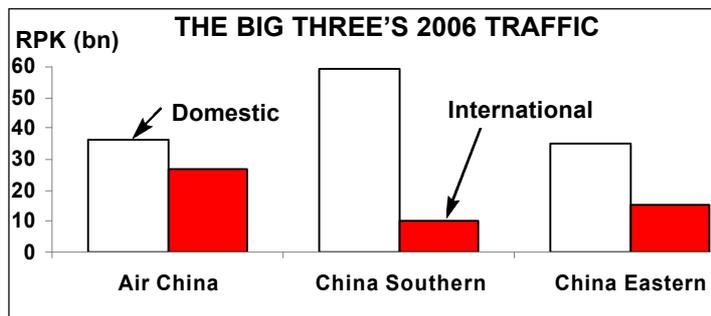
As China Southern's chairman likes to point out, in previous years the airline had been hampered by the "mandates" of the government, and losses increased in 2005 despite a 60% jump in revenue thanks largely to the integration costs of China Northern Airlines and Xinjiang Airlines, which were folded into China Southern as part of the government's consolidation plan. Despite floating on the Hong Kong and New York exchanges in 1997, the government still

owns a 50.3% stake in China Southern, and the airline may be more vulnerable to further government-mandated strategic moves as it will soon be the last of the Big Three without an equity link with a strong foreign airline. A tie-up with Air China would make sense strategically, giving the flag carrier access to a huge domestic network and giving China Southern a large international route network.

But in the absence of any such mega-merger for the moment, according to unconfirmed sources China Southern is searching urgently for an international partner of its own choice, and Air France-KLM is tipped as the most likely candidate by some analysts. China Southern is believed to be negotiating an extensive passenger code-share with Air France-KLM at present, and in any case - after many years of speculation - China Southern will formally join SkyTeam before the end of 2007. The airline signed an MoU to join the alliance back in 2004, with the intention of joining in 2006, but this timetable was not achievable, and this year China Southern has been urgently upgrading many of its IT systems and other processes in order to meet the standards required by SkyTeam.

Whether SkyTeam membership will lead to an equity tie-up with Air France-KLM is yet to be seen, but later this year China Southern will also start a comprehensive partnership with SkyTeam member Continental, including codesharing on both international and domestic flights (from November) as well as reciprocal FFPs (from September).

In preparation for SkyTeam membership, China Southern has been carrying out a major expansion of its international network this year, with at least 10 new routes either launched or due to start before the end of 2007, including routes from Guangzhou to Dubai, Phuket, Siem Reap (Cambodia), Yangon (Myanmar), Vientiane (Laos), New Delhi, Sapporo and Sendai (Japan), and from Urumqi to Jeddah (the first passenger route between China and Saudi Arabia) and flights from Shenyang to Nagoya. In December a daily service will be launched between Beijing and Paris, in competition



with Air France and Air China.

China Southern is also becoming more aggressive in its approach to its main rivals. In the summer of last year China Southern finally opened up a hub operation in Beijing, which it had long been lobbying the Chinese government for permission to do in time for the 2008 Olympics. It already has its own terminal at Beijing airport (Terminal One) for domestic operations only, and the 40 or so routes there carry around 8m passengers to/from Beijing and account for at least 10% of the airline's total revenue. China Southern is now spending around \$150m on upgrading its Beijing facilities for future 787 and A380 operations from 2008 and 2009 respectively.

After Guangzhou and Beijing, China Southern has secondary hubs at Urumqi (in north-east China) and Shenyang (in the north-west) that enable domestic coverage of the whole country, and this year is also looking to invest \$100m in setting up an airline based in Chongqing, in the south-west of China. This will be launched in partnership with the regional government, with plans initially for three A320s supplied by China Southern operating regional routes.

China Southern also holds stakes in China Postal Airlines (49%), Guangxi Airlines (60%), Guizhou Airlines (60%), Shantou Airlines (60%), Sichuan Airlines (39%), Xiamen Airlines (60%) and Zhuhai Airlines (60%). Xiamen Airlines currently operates 45 aircraft and has the largest order book of any of the second-tier carriers in China, with 30 new generation 737s on order, including 25 737-800s ordered this summer for delivery in 2011-2013. Sichuan Airlines is also a second-tier airline, with a fleet of 35 aircraft (all but five of which are

A320 family models), with 12 A320 family aircraft on order.

As with its rivals, China Southern is looking to strengthen its cargo operations in the face of growing competition, and is currently analysing a cargo joint venture with Air France. Talks with Korean Air in 2006 over a cargo joint venture came to nothing and Korean Air instead set up a Chinese cargo airline in partnership with a local logistics company, but a tie-up with Air France is seen as more likely to come to fruition. In relative terms China Southern's cargo operation has been small compared with its Big Three rivals, with most of its freight carried in the holds of passenger aircraft, and with its only dedicated cargo aircraft being two 747-400Fs. However, US-based B/E Aerospace has just begun to convert six A300s into freighters, which will be completed by the end of 2007 and be used on Asian routes.

Altogether China Southern has 98 aircraft on order. It agreed a further \$1.3bn borrowing facility from the state-owned China Construction Bank, and this will be used partly to finance an order book that includes 50 A320s placed last year, for delivery in 2009 and 2010, and a substantial order for 55 737-700s and -800s that the airline is likely to place with Boeing this autumn. China Southern has five A380s on order, and although it is a major disappointment that the first A380 will not be delivered until 2009 - after the Beijing Olympics - Chinese government sources say the airline will receive \$250m from Airbus as compensation.

### China Eastern

Shanghai-based China Eastern has 30,000 employees and operates a fleet of 207 aircraft to more than 100 destinations, with around 40 of those outside China.

In 1997 China Eastern became the first Chinese airline to list on a foreign market, when it debuted on the New York and Shanghai markets, and currently it is 61.6% owned by the government. But despite its early listing, China Eastern is financially the most vulnerable of the Big Three, as its

book value halved in 2006 after a year of heavy losses. In 2006, although revenue rose 41% to RMB 37.9bn (\$4.7bn), operating profit leapt from \$16m in 2005 to RMB 3bn (\$376m) in 2006, and its net loss rose from \$57m in 2005 to RMB 3,314 (-\$416m) in 2006. This was due largely to the integration of three airlines in 2005 and 2006 (Yunnan, Northwest and Wuhan) which resulted in large increases in costs, with fuel up 53% to RMB 13.6bn, salaries up 47% and maintenance up 91%.

With the addition of the merged airlines, in 2006 passengers carried rose 44.2% to 35m (with domestic passengers up 52.3% to 27.7m, international by 27.7% to 4.8m, and Hong Kong up 7.2% to 2.4m). RPKs grew by 38.1%, ahead of a 34.4% increase in ASKs, resulting in a 1.9 percentage point rise in load factor, to 71.3%.

In October last year China Eastern announced an unexpected change in president, with Cao Jianxiong replacing Luo Chaogeng, and although the airline says it expects to return to profit this year (it reduced its losses in the first-half of 2007), China Eastern's immediate future depends on the long-anticipated investment by Singapore Airlines and Temasek Holdings, the Singapore government's investment vehicle.

Negotiations had been taking place since the summer of 2006 over a joint purchase by SIA and Temasek of a minority stake in China Eastern. In early September the deal was finally unveiled, with SIA and Temasek agreeing to buy 24% of China Eastern for US\$916bn. China Eastern's shares had been suspended since May, and now that a deal has been agreed this gives a crucial boost to China Eastern, enabling it to reduce debt and to obtain access to more professional management. Equally, the agreement enables SIA to get into the Chinese market (although SIA has not had a great track record in previous investments in foreign airlines).

However, some analysts are concerned the deal will not create as many synergies between China Eastern and SIA as there are between Air China and Cathay, as there is relatively little overlap between the net-

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CHINESE AIRLINE FLEETS						
	Boeing Narrowbodies	Boeing Widebodies	Airbus Narrowbodies	Airbus Widebodies	Other	Total
Air China	96 (25)	36 (15)	35 (30)	15 (11)	5	187 (81)
Air China Cargo		9				9
Air Hong Kong				8		8
Air Macau			13	3	1	17
Cathay Pacific		58 (24)		45 (5)		103 (29)
Changan AL	6		4			10
China Cargo AL		1 (1)		1	6	8 (1)
China Eastern AL	59 (20)	3 (15)	82 (45)	30 (8)	33 (3)	207 (71)
China Postal AL	5					5
China Southern AL	111 (20)	12 (10)	96 (54)	11 (14)	49	279 (98)
China United AL	11				32	43
China Xinhua AL	16					16
Deer Jet	5					5
Donghai AL	2					2
Dragonair		7	15	16		38
East Star AL			3 (7)			3 (7)
Great Wall AL		3				3
Guizhou AL	1					1
Hainan AL	29 (29)	5 (8)	7 (27)		27 (100)	68 (164)
Hong Kong AL	6					6
Hong Kong Express AW	3					3
Huaxia Airlines					2	2
Jade Cargo Int'l		3 (3)				3 (3)
Jet Asia					1	1
Juneyao AL			4 (5)			4 (5)
Lucky Air	5					5
Oasis Hong Kong AL		3				3
Okay AW	4					4
Shandong AL	20 (13)				10	30 (13)
Shanghai AL	36 (15)	7 (9)	(5)		7	50 (29)
Shanxi AL	1					1
Shenzhen AL	36 (10)		11 (19)			47 (29)
Sichuan AL			30 (12)		5	35 (12)
Spring AL			7			7
Tianjin AL	14					14
United Eagle AL			4			4
VIVA Macau		2				2
Xiamen AL	45 (30)					45 (30)
Yangtze River Express	6					6
<b>Total</b>	<b>517 (162)</b>	<b>149 (85)</b>	<b>311 (204)</b>	<b>129 (38)</b>	<b>178 (103)</b>	<b>1,284 (592)</b>

works of the two airlines. That's perhaps why SIA brought in a co-investor, allowing its own investment to be less than 20% - which means that any short-term losses in China Eastern do not have to be taken onto its financials. For China Eastern however, the link with a strong foreign airline is more critical. Last year it reportedly also talked with Emirates and Japan Airlines, but no deal subsequently emerged, and if the deal with SIA had fallen through, China Eastern would have remained vulnerable.

Despite codesharing with no fewer than 18 airlines (including American and Air France), China Eastern is also the last of China's Big Three to commit to a global alliance, and with its rivals linking up with

Star and SkyTeam, the most obvious candidate for China Eastern is oneworld. Whether it needs to agree a deal with oneworld more urgently than oneworld needs an agreement with China Eastern is open to debate, but the situation is complicated by the stake in China Eastern by Star member SIA.

Although oneworld insists this will not be a problem (given that oneworld's Cathay has a stake in Star-bound Air China), unconfirmed local sources say that China Eastern could well be lured into Star after all, with the SIA investment putting heavy pressure on China Eastern executives to turn down oneworld.

If that happens, this would leave

oneworld with a substantial hole in its global network, that will not be filled by Dragonair (now owned by Cathay) which is joining oneworld as an affiliate later this year, and that's why oneworld may be hedging its bets by also talking with Hainan Airlines, the fourth largest airline in China.

The prospect of China Eastern membership of Star is all the more intriguing as it would fuel rumours about an Air China-China Eastern merger. There's little doubt that Air China is intensely interested in Shanghai (see page four), which is the financial capital of China, but on the other hand Cathay is unlikely to want its new investment to get into bed with China Eastern, particularly as Shanghai Airlines (which codeshares with Air China) is soon to become a member of Star as well, and Shanghai Airlines is a fierce competitor with China Eastern.

The wishes of Cathay may be immaterial however, because if the Chinese government wants a merger to go ahead, it will happen. Perhaps most pertinent is that fact that CNAH - Air China's parent company - has been increasing its stake in China Eastern (reaching 8.3% in May), and a full "bid" for China Eastern would involve only a domestic reshuffling of stakes held by CNAH and China Eastern Air Holding Corporation, the government-owned parent of China Eastern that will retain a 51% stake in China Eastern post the SIA/Temasek investment.

Where this all leaves China Eastern is hard to say, but in the meantime at least it is launching a counter attack on Air China via a build up of assets at Beijing, where it has formally applied to the CAAC to build a hub operation. China Eastern currently has an 11% market share of passengers to/from

Beijing, but has been endeavouring to increase its presence there in the run up to the Olympics - although it is somewhat behind the activities of China Southern, which has its own terminal. Nevertheless, it has applied to the CAAC to start a daily service from the capital to London, competing against Air China and British Airways, as well as a route from Beijing to Okayama in Japan via Dalian. China Eastern currently has a handful of routes from Beijing to Asian destinations, including Nagoya in Japan (via Qingdao), Tokyo and Delhi.

China Eastern is also increasing international routes from Shanghai, which connect with the airline's large domestic network. This year routes are being launched from Shanghai to Males (Maldives) and Johannesburg, while a non-stop route between Shanghai and New York JFK was started in December 2006, competing against a service from Air China and launched just ahead of a probable wave of new services from US airlines such as Continental, American, Northwest and United that are looking to increase direct routes into China given the recent bilateral (and which makes pressure on China Eastern to join a global alliance even more intense).

In terms of its fleet, approximately 20 aircraft will be added in both 2007 and 2008, with a total of 91 aircraft currently on outstanding order. These include 15 787-800s, to be delivered from June 2008 to 2010, while 30 more A319s and A320s were ordered in 2006, for delivery in 2008-2010. Three A300-600s are being converted into freighters by EADS this year for China Cargo Airlines, China's first dedicated cargo airline, in which China Eastern owns 70%.

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# ANA: Preparing for the Haneda "big bang"

Having staged an impressive financial recovery in recent years, All Nippon Airways (ANA), Japan's largest domestic carrier and world's fourth largest airline in terms of passengers, is now working to consolidate profitability and prepare for major post-2009 growth opportunities. The long-term mission is to become "Asia's number one airline" in terms of "quality, customer satisfaction and value creation" and attain the sort of profit margins enjoyed by the top rank of Asian carriers (Cathay Pacific, SIA, etc.). What strategies will ANA deploy to reach those goals?

2010 is an important year on the Japanese aviation calendar because that is when major expansion projects are completed at Tokyo's congested Haneda and Narita airports. Haneda will get a new international terminal in December 2009 and a fourth runway in October 2010. Narita will have an extended 2,500-metre B runway operational by March 2010. In particular, the opening of the new runway at Haneda, the world's fourth busiest airport in terms of passengers (65.2m in 2006) and the only domestic airport serving Tokyo, will be a watershed event – a "big bang", as ANA described it in its latest annual report.

Haneda's fourth runway will dramatically increase slot availability, boosting maximum annual movements by 43%, from 285,000 to 407,000. This is significant because Haneda accounts for 62% of all domestic traffic but has suffered from a chronic capacity shortage. It will mean major growth opportunities for ANA and Japan Airlines (JAL), as well as increased competition from LCCs.

ANA is expected to disclose more detail of its post-2009 growth plans in early 2008 in its next "mid-term corporate plan". However, the current plan for the 2006-2009 period, aircraft orders placed in recent years, new experimental strategies already in place or planned and comments made by the leadership give indication of where the airline is heading.

First of all, ANA's main post-2009 growth focus will be on Asian international markets, especially China. This is in contrast with JAL's plans, which primarily aim to strengthen the carrier's domestic

position (its weaker area).

It is also clear that, while ANA will continue to give priority to the high-yield segment when allocating aircraft, the post-2009 plan is to aggressively battle it out in all market segments. This will mean interesting new strategies such as business class-only flights and potentially an Asian LCC subsidiary. Will ANA set up an LCC in China or buy into an existing Chinese carrier?

Some of those strategies are already being tested. This year ANA and Asiana have taken symbolic equity stakes in each other. On September 1, ANA became the first airline in Asia to offer business class-only flights when it returned to India with Tokyo-Mumbai 737-700ER service.

A key part of ANA's post-2009 strategy will be to develop Haneda into a hub for short-haul international operations. The new runway will facilitate increased frequencies using smaller aircraft.

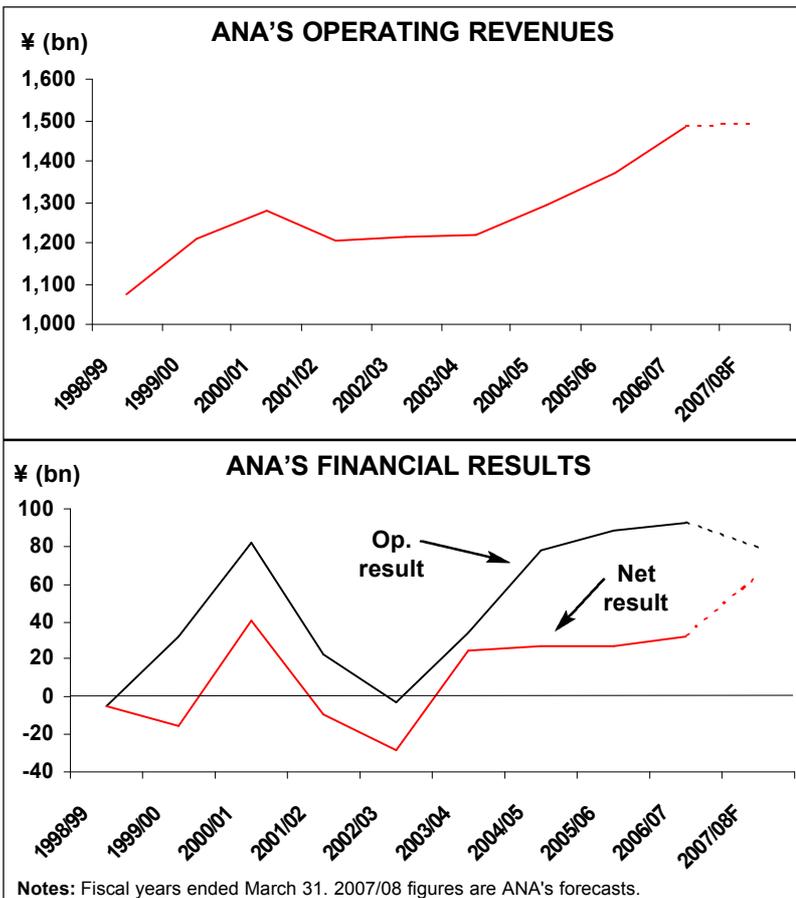
ANA is also expected to significantly grow its cargo operations post-2009, having sold its stake in Nippon Cargo Airlines (NCA) two years ago.

ANA is in the middle of a major fleet renewal and restructuring programme, which will facilitate post-2009 growth and help keep unit costs in check. Next year it will be the first airline to introduce to service the 787, which its president/CEO Mineo Yamamoto has described as "epoch-making aircraft". What are the airline's plans for the 787?

## Financial turnaround

Unlike JAL, which continues to struggle financially (see *Aviation Strategy* briefing, May 2007), ANA turned itself around in 2002-2003 and has since then achieved relatively healthy, stable earnings, with annual operating margins in the 6-6.5% range.

The airline began restructuring in the late 1990s, after realising that it had grown too rapidly without much consideration for profitability. While September 11 had negative impact, the biggest catalyst for change was actually the 2002 merger between JAL and the third-ranked Japan Air System (JAS). It was the first major realignment in



Japan's airline industry in 30 years, and it significantly strengthened JAL's domestic position.

ANA has benefited as demand in the Asia-Pacific region has strengthened and domestic business travel has bounced back, reflecting Japan's recovery from a decade-long economic slump. But the improved results also reflect a three-year ¥30bn (US\$253m) cost-cutting programme (primarily labour cost reductions) that was completed a year ahead of schedule in early 2005.

ANA has also made a formidable effort on the revenue side, introducing numerous initiatives aimed at the high-yield segment. And it has captured domestic market share, particularly premium passengers, from JAL in recent years, due to a series of safety lapses at JAL in 2005 (which did not result in fatal accidents). The shift in the high-yield segment may have been permanent, as many of those passengers have joined ANA's FFP.

The result has been strong yield and unit revenue improvements throughout the network.

Domestically, passenger unit revenues (RASK) and yield have risen by 12-13% in the past four years, as total capacity has remained largely unchanged. Internationally, ANA has almost doubled its RASK in the past seven years, while capacity has fallen 14.6%. The ASK decline actually bottomed out in 2003/04, and the following year ANA reported a profit from international operations for the first time since venturing to those markets in 1986.

For the latest fiscal year ended March 31, 2007 (FY 2006), ANA reported operating and net profits of ¥92.1bn (US\$777m) and ¥32.6bn (US\$275m), respectively, up 3.8% and 22.2% on the previous year and representing 6.2% and 2.2% margins. Revenues rose by 8.8% to ¥1,490bn (US\$12.6bn). The results reflected strong demand for both business and leisure travel and were achieved despite a 31% higher fuel bill.

The current year will see some unusual earnings variation because of the April sale of ANA's 13 hotels in Japan to Morgan Stanley for ¥281bn (US\$2.4bn). ANA estimates that, largely because of the disappearance of contributions from the hotel business, its operating profit will fall by 13% to ¥79bn (US\$667m) in FY 2007, while net profit will double to ¥64bn (US\$540m) because of the extraordinary gain.

The June quarter results (ANA's first fiscal quarter) reflected those anomalies. Operating income was ¥13.2bn, down from ¥19.5bn, while net income surged from ¥7.6bn to ¥87bn. But ANA's ¥13.2bn (US\$111m) operating profit compared very favourably with JAL's ¥8.6bn (US\$73m) operating loss.

This year is likely to be just a blip in an otherwise steady upward earnings growth trend. ANA is targeting operating income of ¥100bn and a margin of 6.5% for the fiscal year ending March 2010. Analysts consider that achievable: as of early August, Morgan Stanley, Goldman Sachs and Credit Suisse were forecasting operating income in the ¥90-98bn range for FY 2008 and ¥101-114bn for FY 2009.

The 6.5% operating margin target seems modest compared to the 10%-plus margins that major carriers in other world regions usually strive for. But perhaps it is a reasonable target in a high-cost country and for a period that will see only marginal revenue growth.

ANA's goal is to build a corporate structure that is resilient to changes in the business environment

- in other words, remain profitable even if fuel prices surge. It is aiming to cut direct costs by another ¥10bn (US\$4m) annually by FY 2009 through labour and aircraft productivity improvements and expects to achieve a similar (¥10bn) reduction in indirect fixed costs in the current fiscal year.

Unlike JAL, ANA has also strengthened its balance sheet: its total interest-bearing debt and lease obligations fell by 19% in the past three years, from ¥1,354bn (US\$11.4bn) in March 2004 to ¥1,100bn (US\$9.3bn) in March 2007, while the debt-equity ratio (including leases) declined from 6.9 times to 2.8 times. The airline is getting close to reaching its business plan targets for March 2010 two years ahead of schedule; its total debt and leases are projected to decline to ¥931m and debt-equity ratio to 2 times by March 2008 (compared to March 2010 targets of ¥898m and 1.8 times). The ROA (return on assets) target for March 2010 is 6-7%, compared to 5.2% projected for the current year.

ANA's shareholders have little to complain about. The company resumed paying dividends in FY 2003 after a six-year gap. The plan is to raise the dividend to ¥5 per share in the current year, from ¥3 last year. ANA's shares have performed well in recent years (at least in comparison with JAL's). The price rose from ¥200 in early 2003 to a peak of almost ¥500 in late 2005 and since then has hovered in the ¥420-¥480 range.

Recent months have seen a declining trend in the share price, reflecting ANA's guidance about this year's reduced operating profits and increased capital spending. Most analysts currently have a "hold" recommendation on the stock, based on valuation and the softer near-term profit outlook.

However, sentiment about ANA's longer-term prospects is near-universally positive, so the share price is likely to rise when investors start focusing on the post-2007/08 profit projections. Many will obviously jump in earlier if the price falls further. Morgan Stanley suggested in a June 18 report that there could be trading interest if the stock fell to around the 52-week low of ¥400 (the price was ¥459 on August 27).

### ANA's competitive strengths

ANA is stronger than JAL in part because of historical advantages. First, it has always been privately owned and therefore it never developed

the sort of state-carrier mentality that has plagued JAL, which was 34% government-owned until 1987. ANA was established in 1952 and the present name was adopted in 1957. The airline was listed on stock markets relatively early: Tokyo and Osaka secondary markets in 1961 (full listings in 1972), Frankfurt in 1978 and London in 1991 (the Frankfurt listing was withdrawn in 2004 due to low trading volume).

Second, despite being privately owned, ANA enjoyed near-monopoly of the domestic market until the mid-1980s. Under Japan's former "45/47 aviation constitution", ANA was the designated domestic carrier and JAL the international flag carrier, though there was some overlap in that JAL was allowed to operate trunk routes between five domestic points and ANA was permitted to operate short haul international charters (which it has done since 1971).

This division meant that ANA gained a firm foothold in a huge, lucrative, business-oriented market - Japan is the world's third largest domestic market (after the US and China), with 96m passengers in the year ended March 31. JAL, in turn, was exposed to more volatility in the international markets. It partly explains why ANA's profits have historically been higher and more stable than JAL's.

The 45/47 system was formally abolished in 1985 and ANA began scheduled international passenger service in 1986. Both JAL and ANA grew rapidly in the subsequent years, expanding into each other's territories and becoming head-to-head competitors on many routes. By 1992 ANA had a 20-point international network spanning the globe, including key cities such as Los Angeles, Washington, New York, London, Paris, Beijing, Hong Kong, Seoul and Sydney.

As a newcomer, ANA embraced international alliances, starting with one with American in the late 1980s. In 1998 it became the first Japanese airline to codeshare with a US carrier (United). ANA joined the Star Alliance in 1999 - eight years before JAL became part of a multilateral global alliance (oneworld, April 2007). ANA has reaped significant benefits from Star membership, including recognition in global markets where it was unknown, yield management programmes and know-how from other world regions.

ANA has shown itself to be more entrepreneurial than JAL, leading the way in marketing and projecting a trendier image. It has often been a leader

in introducing innovative products or strategies and harnessing the latest technologies. For example, it launched the world's first mobile phone international check-in service and was the first Asian airline to offer inflight internet access (both in 2004).

In addition to innovation, ANA believes that the words "simple" and "convenient" differentiate its service from that of its rivals. The approach is well illustrated by the "SKIP service", introduced in 2006, which enables domestic passengers to board aircraft without checking in. ANA also strives to "make short-haul international travel as easy as domestic travel from the customer's point of view".

ANA has a more modern culture and better employee relations than JAL. It has a leaner business model, having kept labour costs in check and maintained a younger, more fuel-efficient fleet.

ANA is clearly much stronger than JAL in terms of organisational structure and corporate governance, having undertaken a thorough corporate restructuring in 1998-2001 in preparation for changes in the Japanese business environment and increased competition. Among other things, the reforms reduced the size of the board and improved the management's ability to "make swift and timely decisions". ANA has continued to strengthen its internal control systems to enhance transparency and keep stakeholders happy.

The airline has a 16-member board, of which 14 are corporate executive officers. The ownership structure is diffuse; as of March 31, there were 264,700 shareholders and the largest, Nagoya Railroad Company, held only 3.69%. ANA employees had a 1.53% stake.

One of the most impressive things about ANA has been the continuity of its strategy. One mid-term plan just flows into another, making necessary adjustments but maintaining the fundamental direction of the previous plan. This reflects high-quality leadership and unusually disciplined succession policies: when a new president/CEO is appointed, the previous one becomes chairman and the previous chairman typically becomes "executive advisor".

The three latest president/CEOs have been law graduates, with lifetime careers at ANA. All have been hands-on leaders who got personally involved with staff and union issues. Kichisaburo Nomura was credited for stopping over-aggressive expansion in the late 1990s. Yoji Ohashi, who

took over in April 2001, implemented cost cuts, oversaw ANA's financial recovery and ordered the 787. Mineo Yamamoto, who became president/CEO in April 2005, has continued to implement Ohashi's policies and is overseeing the preparations for post-2009 growth.

ANA is clearly determined to remain on the cutting edge. Last year it spun off its research department into a separate subsidiary to "allow it greater autonomy in the development of ideas for new products, strategy and business models". The mission of the grandly named "ANA Strategic Research Institute" is to "explore and nurture possible new systems and structures for the Group beyond 2010".

Two decades after the abolition of the "45/47 system", Japan now has effectively a domestic duopoly. ANA and JAL are head-to-head competitors on all major domestic routes. The two have very similar domestic passenger shares: ANA 48.4%, JAL 45.8% and others 5.7% (year ended March 31). However, ANA still has higher domestic premium passenger shares and yields.

JAL and ANA have been able to continue to dominate the Japanese aviation scene not just because of the airport capacity constraints but also because over the years they have set up numerous support businesses and airline units to cater for different market niches. As of March 31, ANA had 128 subsidiaries and 44 affiliates. The ANA Group comprises four business segments: air transportation (72.6% of group revenues in FY 2006), travel services (12.1%), hotel operations (3.9%) and other businesses (11.4%).

The 38 air transport-related subsidiaries include six airlines in addition to ANA. The largest is Air Nippon, an old-established Tokyo-based unit that operates about 25 of ANA's 737-500/700s mainly on domestic medium and long-haul routes. Air Nippon, in turn, owns Air Nippon Network (A-Net), which was formed in May 2001 to operate Dash 8 feeder services to and from Tokyo and Sapporo. Air Central is a Nagoya-based turboprop operator in which ANA acquired a majority stake in 2004. There is also Air Next, a new lower-cost Fukuoka-based airline established by ANA in August 2004 to operate 737-500s on domestic routes mainly out of Fukuoka and Nagoya (operations began in June 2005). The line-up is completed by Air Japan, which was originally ANA's charter arm but was relaunched in 2001 and now operates ANA's 767-300ERs mainly on Asian

resort routes, and "ANA & JP Express", a new majority-owned cargo subsidiary that started operations in August 2006.

### Focus on Asian growth

ANA is predominantly a domestic carrier, earning 65% of its air transport revenues from domestic passenger operations in FY 2006. But its expansion efforts focus squarely on the other two segments: international passenger services and cargo operations, which accounted for 25% and 10% of air transport revenues last year.

On the passenger side, ANA is very much focused on expanding its East Asia network centred on China. Those markets are seeing robust demand growth, particularly for business travel. Expansion in Asia is being facilitated by the progressive relaxation of ASAs, and there is always a chance that the ASEAN open skies initiative will take off. One of the Japanese government's policy priorities is to achieve Asian open skies.

In contrast, the Japanese domestic market has seen no overall growth in passengers in the past five years and offers few new growth opportunities. The market is mature and air services face increasing competition from the Shinkansen bullet train (the average stage length is only 679 kilometres). ANA's domestic efforts focus on retaining high-yield market share and improving unit revenues and profits.

The current East Asian growth phase began about four years ago, following international service rationalisation that included withdrawal from markets such as Australia, India and Malaysia (late 1990s) and heavy cuts due to SARS, September 11, etc. Since 2003 ANA has added numerous new routes and boosted frequencies to East Asian cities from Tokyo, Kansai and Nagoya (where a new airport, known as Centrair or Chubu, opened in February 2005). The airline now operates 20 routes to China and has returned to the Malaysian and Indian markets.

In the past three years, ANA's Asian passenger revenues have doubled and the region's revenue share has surged by eight percentage points - largely at the expense of Europe, which has seen a five-point share decline (even though European revenues grew by 28%). The result is a nicely balanced international network, with North America accounting for 26%, Europe 24%, China 22%, other Asia 23% and "resort flights" (Guam, Hawaii,

etc.) 5% of international passenger revenues in FY 2006.

ANA is determined to grow profitably. This has meant giving priority to routes that have a high business traffic content (such as many of the Japan-China routes), rigorous revenue management, better matching of supply and demand, expanding business class sections on aircraft, introducing some all-business class flights and forging alliances with Asian carriers.

ANA's post-2009 plans centre on developing Haneda into a hub for China/Asia services and offering more frequent flights with smaller aircraft in the 150-seat category. This strategy will be possible because, when the fourth runway comes on line in late 2010, Haneda will be formally opened up for scheduled short-haul international services and the government plans to allocate a portion of the new slots to such flights.

The 737-700, which entered service with ANA on the Nagoya-Taipei route in January 2006 and will be added in stages, plays a key role in the post-2009 plans. ANA will operate it on both domestic and short-haul Asian routes. The aircraft are fitted with special economy seats that permit a quick conversion between an all-economy 136-seat domestic configuration and a 118-seat Asian layout; the latter includes a 36-seat "Premium Economy Asia" section created by converting 18 seats into centre tables.

In January 2006 ANA converted two of its 45 original 737-700 orders into 737-700ERs, which have enabled it to experiment with new service concepts aimed at the business traveller on longer-haul Asian routes. The first 737-700ER, fitted with 48 seats in two classes (24 "premium economy" and 24 "Club ANA BJ" seats with a 61-inch pitch), was used to launch daily Nagoya-Guangzhou flights in March. The second "BusinessJet", fitted with just 36 seats, was due to launch a six-per-week business class-only service on the Narita-Mumbai route on September 1.

ANA is believed to be the first Asian airline to offer business class-only flights. However, ANA will use the concept mainly as a tool for developing new business-oriented markets. The airline has indicated that the Mumbai service, which marks its return to India after a six-year gap, will be upgraded to larger aircraft with a mixed configuration if traffic builds up.

In the past couple of years, ANA has been right-sizing aircraft on Asian routes. This year has

seen some China routes down-gauged from 767s to A320s, though Narita-Beijing has been upgraded from 767s to 777s. A business class has been introduced on the A320-200s.

China continues to be the primary focus for growth in the near term because of the booming trade - mainland China became Japan's top commercial partner last year, overtaking the US - and because of the Beijing Olympics, which start on August 8, 2008.

In June, Japan and China again agreed on service expansion. The new deal also facilitated the introduction of shuttle-type flights from Haneda. As a result, ANA will start its first scheduled flights from Haneda to China, to Shanghai's Hongqiao International Airport, in October. Up to four daily flights are permitted (two from each country). Until now all of the Tokyo-China service has been from Narita. Shuttle-type service between Tokyo and Beijing is expected to follow next year.

Of course, ANA is hoping to showcase its first 787 on the Beijing route in time for the Olympics. The type will be flown exclusively on domestic and short-haul Asian routes for the first couple of years, until ETOPS approval is obtained for transpacific operations.

In addition to China, markets such as India and Korea offer good post-2009 growth opportunities. Last year Japan and India agreed to more than double the passenger flight allocation, from 18 to 42 per week. Just last month, Japan and South Korea reached an open skies agreement, though flights to Tokyo will be limited to 73 per week until 2010 due to lack of airport capacity.

ANA's efforts on its North American and European routes in the past couple of years have focused on replacing the 747-400 with the 777-300ER - a move designed to improve passenger comfort and increase profitability. Also, the airline restarted Tokyo-Chicago passenger service in October 2006.

The switch to the 777-300ER has meant an upgraded business class, with lie-flat beds, and a new premium economy class. The process began on the Japan-US routes, with New York switched in May 2005, Los Angeles and Washington DC in 2006 and San Francisco earlier this year. In May London became the first European destination to receive the 777-300ER. The move appears to be producing the desired results: ANA's North American passenger revenues surged by 27.4% last year, after recording mostly single-digit growth

in the previous three years.

ANA has said that it will probably introduce the 787 on the Tokyo-New York route in late 2009 or 2010, when ETOPS approval has been obtained. The type will be used both as a companion to the 777-300ERs and to open new US and European destinations.

Otherwise, ANA's long-haul strategy relies heavily on the Star Alliance. The airline has been expanding service to partners' hubs, particularly those that have high business traffic volumes, improving connectivity and building feed. ANA has already achieved good results at Frankfurt (Lufthansa's hub) and is seeing greatly improved feed at Chicago (United's hub), which it has designated as its strategic base for the US and Central America.

In turn, ANA's role is to provide the "Asia hub airport for Star". A significant milestone was reached in June 2006 when ten Star members moved to a new joint state-of-the-art facility at the South Wing of Terminal 1 at Narita. The move has enabled Star members to better exploit alliance synergies and has substantially reduced connecting times.

Since joining Star in October 1999, ANA has continuously added new and expanded existing codeshare and FFP partnerships with other Star members. On the long-haul front, the latest new deals have been with Swissair (June 2006) and South African Airways (March 2007). ANA has also forged an alliance with non-Star member Virgin Atlantic, initially to tie up FFPs (2003) and since April also to offer combined round-the-world fares and e-tickets - a potentially useful way to balance the JAL/BA oneworld combination, since Virgin is the UK's second largest long-haul carrier and serves Tokyo.

But Asia is the main focus also for alliance building efforts. ANA is, first of all, strengthening cooperation with fellow Star member SIA. This autumn, the two are expanding their codesharing, which began in 2004, beyond the Narita and Singapore hubs to include five cities in Japan, two in the US and four in India, plus Jakarta and Johannesburg. The main benefit to ANA is gaining access to multiple cities in India just as it begins its own operations to Mumbai.

Second, ANA is cementing its relationship with Star partner Asiana through a symbolic (fraction of a per cent) equity swap. The two airlines, which have codeshared since 2000, announced in May that they were acquiring \$12m of each other's

shares, expanding codesharing beyond the Japan-Korea routes and forging new forms of cooperation in marketing, sales and purchasing. The move helps ensure ANA future access to a major growth market.

Third, ANA can be expected to further strengthen its ties with Air China and Shanghai Airlines, which are joining Star in December. It has had alliances, including codesharing, in place with both since 2002. There has been some speculation of a potential equity investment; SIA is in the process of acquiring a 20% stake in China Eastern, and other Chinese carriers are also expected to want to sell stakes to strategic partners. Such a move cannot be ruled out, given the importance of that market to ANA.

Alternatively (and this is pure speculation), ANA might prefer to set up a new China-based LCC with the help of local partners. Its president Yamamoto has said publicly on several occasions in recent months that the airline is considering establishing an LCC to strengthen its competitive position in Asia and that the LCC could be overseas-based. Yamamoto has said that the decision may not be taken until 2010 - the earliest time competition from foreign LCCs can intensify on the Tokyo routes.

By its own estimates, ANA's unit costs are up to twice as high as those of Asian LCCs. The likelihood that there will be new Chinese LCCs is a particular concern, because those carriers could be ultra low-cost. Also, Japan and China have agreed to more than double, from six to 13, the number of airlines permitted on routes between the two countries.

If ANA decides to go the LCC route, it will be able to draw on its experience with Air Next and other subsidiaries set up for niche markets. Air Next was designed to enable more efficient operation of narrowbody aircraft domestically, though it is not an LCC.

Domestically, ANA's efforts to improve unit revenues and profitability have meant strategies such as withdrawing from less profitable markets, shifting capacity to lucrative routes, switching to narrowbody aircraft and boosting frequencies in some markets, improving revenue management, expanding "Super Seat Premium" seats and raising fares. Product improvements have included new economy class seats, the SKIP Service and enhancements to the "ANA Mileage Club". The airline has also improved connectivity and convenience by building new domestic feeder networks and

expanding codesharing with partners.

ANA has strengthened its position at Haneda in several ways. First, ANA, Air Nippon and A-Net united under a common brand in April 2004. Second, at the end of that year the ANA Group moved to a new terminal at Haneda. Third, since launching codesharing with Air Do in 2003, ANA has secured two additional codeshare partners at Haneda: Skynet Asia Airways and StarFlyer. (Skynet is a Fukuoka-based 737-400 operator launched in 2002. StarFlyer is a Kitakyushu-based A320 operator modelled after JetBlue that began flying in March 2006.)

At Narita, the airline has developed a very successful "ANA Connection" service that provides convenient connections from US and European flights to eight domestic destinations. The typically twice-daily domestic flights are operated by Air Nippon with 737s or regional partners such as Air Central and IPEX Airlines with turboprops.

New airports at Kobe, Kitakyushu and Chubu have provided some domestic growth opportunities. ANA established six domestic routes from Osaka's new Kobe Airport when it opened in February 2006.

Haneda's expansion will mean increased competition domestically but it will not be like the opening of the floodgates. First, with JAL, ANA and foreign operators all clamouring for slots, it is not at all certain that the newcomers in Japan will get enough slots to seriously eat into the JAL/ANA duopoly and achieve the critical mass they need to earn profits. Second, with JAL still struggling to turn itself around, the government may not rush to deregulate domestically. Third, new airlines in Japan face high start-up and fixed costs. Fourth, rather than constituting threats to the incumbents, many of the recent entrants have needed help; it is indicative that ANA is providing support services to StarFlyer and Skynet and has even taken an equity stake in the latter.

### Cargo development

Cargo features prominently in ANA's post-2009 plans because demand growth is expected to be strong, particularly on Japan-Asia routes. Also, ANA is relatively late in the game and therefore has modest cargo operations by Asian airline standards.

ANA only began developing own-account freighter operations in 2005, after selling its 27.6% stake in Nippon Cargo Airlines (NCA) to the ven-

ture's co-owner, shipping company Nippon Yusen Kaisha (NYK). NYK and ANA had founded NCA in 1978 and grown it into Japan's largest cargo airline that operated worldwide with a fleet of 747 freighters, but the two now wanted to pursue separate strategies.

While ANA will continue to provide operational support to NCA until 2009, it has moved quickly to implement a new cargo strategy. A new majority-owned cargo airline, ANA & JP Express (AJV), was formed in early 2006 as a joint venture with Japan Post to operate freighters for ANA and develop international express courier services. AJV, which began flying in August 2006, is 51.7%-owned by ANA, while Japan Post has a 33.3% stake and logistics company Nippon Express and Mitsui O.S.K. Lines are minority stakeholders.

It was felt that the new strategy would achieve greater operational efficiencies and enable ANA to better cater for the strong demand for international cargo services especially in Asia. The plan is to establish basic networks linking Japan with China, the US and new Asian markets. The airline wants to grow cargo operations into the "third pillar" of its business (after domestic and international passenger operations).

Two years ago, ANA had only one 767-300 freighter; the rest of its cargo was carried in the belly holds of passenger aircraft. When AJV took over a year ago, the fleet had grown to three 767-300Fs. The fourth 767-300F, delivered in October 2006, was used to launch a Centrair-Anchorage-Chicago service. The four freighters now plough 20 international and five domestic routes. Two additional 767-200Fs have been wetleased for this winter.

ANA is looking to expand its cargo fleet at a rate of one or two aircraft per year. In the medium-term, the airline will be taking 767-300ERs converted from passenger operations. Post-2009, there will also be growth from Haneda, in addition to Kansai, Centrair, Okinawa and other hubs.

### ANA's fleet strategy

ANA's fleet strategy is a key part of its efforts to further reduce its unit costs and establish a "sustainable competitive edge". The airline is in the process of drastically reducing the number of aircraft types, boosting the ratio of smaller aircraft and adding new fuel-efficient models.

The basic aim is to standardise the jet fleet on

three types: the 737-700, the 787 and the 777. However, the fleet will not actually be that streamlined at any point, because the plan will be implemented in stages, some 767-300ERs will be converted to freighters (rather than retired) and because ANA may still need an aircraft larger than the 777. The airline has not ruled out the A380 or the 747-8; its executives have said on several occasions recently that they would monitor passenger reaction to the A380s introduced by Star partners (launch customer SIA is currently expected to receive its first A380 in mid-October).

ANA has already made much progress with fleet rationalisation. Between 2002 and early 2006, it eliminated three aircraft types: the 747SR-100, the 747-200 and the 767-200. The A321-100 will be next; there were only three in the fleet in March 2007 and two of those are slated to go in the current fiscal year.

At the end of March 2007, ANA operated a 189-strong jet fleet consisting of 61 large widebody aircraft (23 747-400s - including 13 in 569-passenger domestic configuration, 15 777-300s and 23 777-200s), 63 "medium-sized" aircraft (60 767-300s and three A321-100s) and 65 narrowbody aircraft (29 A320-200s, 10 737-700s, one 737-400 and 25 737-500s).

The long-term aim is to dispose of the entire 747-400 fleet and focus on the 777-300ER as the main large aircraft on international routes until a new future widebody type has been determined. However, ANA still expects 747-400s to account for 20% of the large-widebody fleet in March 2012, with 777-300ERs and 777-200s accounting for about 40% each. By comparison, the percentages in March 2004 were: 747-400s roughly 42%, 747-100/200s 19%, 777-200s 30% and 777-300ERs 9%.

The 747-400 retirements begin this year, following the advance sales of nine aircraft in the past year. Five 747-400s will leave ANA's fleet in the current fiscal year, followed by two each in FY 2008 and FY 2009. As of March 2007, ANA had five 777-300ERs on firm order, for delivery through FY 2009.

The "medium-sized" aircraft strategy envisages the 787 eventually replacing the 767-300s in domestic and Asian operations. The 787 will also be used to complement 777-300ERs on Pacific and European routes and to open new long-haul destinations. The aircraft will have the range to operate Japan-US West Coast with a full passenger and cargo load.

ANA's 787 launch order in April 2004 was for 20 787-8s for long-haul operations (the standard 200-250 seat version) and 30 787-3s for domestic routes (the short-range, 300-plus seat version that will be available from 2010). The airline has promised a "super-comfortable" passenger experience, with bidet-toilets as standard "to refresh the parts other airlines cannot reach".

The first 787 delivery is scheduled for late May 2008, which Boeing has continued to insist is still possible even though the test flight has been delayed to mid November/mid December. ANA will receive about six aircraft per year through 2015. The airline said recently that it was considering ordering 10-20 additional 787s.

On the narrowbody front, the plan is to standardise the fleet, which currently includes many different 737 variants and A320-200s, on essentially the 737-700. ANA placed a firm order for 45 737NGs (mainly 737-700s) in June 2003 and had received ten by the end of March 2007. Deliveries are running at seven aircraft per year through FY 2012. In January 2006 ANA converted two of the 737-700 orders into ERs, becoming the long-range version's launch customer.

ANA's regional subsidiaries operate a combined turboprop fleet of 22 aircraft, including three F50s, five Dash 8-300s and 14 Dash 8-400s (plus three on order). The plan is to rationalise to one type, the Dash 8, with the 74-seat 400-series being the preferred aircraft for expanding service in many markets. There are currently no plans to add regional jets.

ANA found a very cost-effective and timely solution to expanding its freighter fleet: the 767-300ERs retired from passenger service. The airline launched the 767-BCF (Boeing Converted Freighter) programme in October 2005 and currently has five conversions on order, with deliveries beginning this December. The BCFs will increase the freighter fleet to nine aircraft by March 2010. In the longer term, ANA may consider operating larger freighters, such as 777Fs, 747-8Fs or A380Fs.

### Funding the plan

The 2006-2009 mid-term plan envisaged a total investment of about ¥700bn (US\$5.9bn) on new aircraft purchases and information systems. So far the plan has been funded mainly with operating cash flow and asset sales, though ANA also raised ¥95.8bn (US\$809m) from a share offering in

February 2006 and obtained a ¥100bn (US\$844m) credit facility with 15 Japanese banks earlier this year.

Operating cash flow amounted to ¥128bn (US\$1.1bn) in FY 2005 and ¥159bn (US\$1.3bn) in FY 2006, and the current year's forecast is ¥183bn (US\$1.5bn). Aircraft sales raised a highly respectable ¥172bn (US\$1.4bn) in FY 2005 and ¥108bn (US\$912m) in FY 2006. But all of that paled in comparison with the cash flow boost provided by the sale of 13 hotels and two property management units in this year's June quarter, which raised ¥281bn (US\$2.4bn) in gross proceeds - much more than had been expected. It was an opportune time to sell commercial property in Japan, because land prices there rose in 2006 for the first time in 16 years, and there has been considerable investor interest and liquidity, helped by tourism recovery and low interest rates. JAL and other Japanese companies have also been selling hotels and other high-value assets bought in the late 1980s.

Credit Suisse noted in early June that the hotel sale enabled ANA to "accelerate the replacement of aircraft and upgrade cabin products" and would therefore give it a "stronger competitive edge". Morgan Stanley argued in a June 18 report that in addition to improving balance sheet health, the sale would form a "buffer for management strategy from angles including availability of funds". The move was also in line with ANA's strategy of focusing management resources on air transport.

ANA is wisely striving to strengthen its balance sheet ahead of the post-2009 growth years - a period when it is likely to want to return to the capital markets to raise more debt or equity. That said, the balance sheet is already in reasonably good shape; the only unusual aspect is that cash and short-term investments on March 31 amounted to only 11.6% of last year's revenues - the norm (and what is generally considered healthy) for global airlines these days is around 20%.

An important vote of confidence came in mid-July, when Moody's upgraded ANA's senior unsecured debt rating (from Ba1 to Baa3). When airlines begin growing, rating agencies often become concerned because they fear - quite correctly - that debt levels will rise. But in ANA's case, Moody's cited its stable profitability and "strong financial profile" and noted that even though the next mid-term plan is likely to include significantly higher aircraft spending, ANA would "maintain its adequate financial flexibility going forward".

# Aviation Strategy

## Databases

		Group revenue US\$m	Group costs US\$m	Group op. profit US\$m	Group net profit US\$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group emp.
Alaska	Jan-Mar 06	735	861	126	-80	17.1%	-10.9%	8,914	6,566	73.7%	3,905	8,988
	Apr-Jun 06	710	639	71	49	10.0%	6.9%	9,389	7,440	79.2%	4,443	9,347
	Jul-Sep 06	760	789	-29	-20	-3.8%	-2.6%	9,895	7,842	79.3%	4,710	9,467
	Oct-Dec 06	790	808	-18	-12	-2.3%	-1.5%	9,261	6,828	73.7%	4,107	9,485
	<b>Year 2006</b>	<b>3,334</b>	<b>3,422</b>	<b>-87</b>	<b>-53</b>	<b>-2.6%</b>	<b>-1.6%</b>	<b>43,306</b>	<b>33,012</b>	<b>76.2%</b>	<b>24,025</b>	<b>12,933</b>
	Jan-Mar 07	759	778	-18	-10	-2.4%	-1.3%	10,652	7,552	71.0%	5,471	13,236
	Apr-Jun 07	904	827	78	46	8.6%	5.1%	10,448	8,196	78.5%	5,329	9,748
American	Jan-Mar 06	5,344	5,229	115	-92	2.2%	-1.7%	68,801	53,131	77.2%	23,642	86,600
	Apr-Jun 06	5,975	5,499	476	291	8.0%	4.9%	71,774	59,314	82.6%	25,879	86,500
	Jul-Sep 06	5,830	5,610	220	1	3.8%	0.0%	71,641	58,526	81.7%	24,977	86,400
	Oct-Dec 06	5,397	5,212	185	17	3.4%	0.3%	67,813	53,430	78.8%	23,606	85,200
	<b>Year 2006</b>	<b>22,563</b>	<b>21,503</b>	<b>1,060</b>	<b>231</b>	<b>4.7%</b>	<b>1.0%</b>	<b>280,052</b>	<b>224,423</b>	<b>80.1%</b>	<b>98,139</b>	<b>86,600</b>
	Jan-Mar 07	5,427	5,179	248	81	4.6%	1.5%	72,362	56,063	77.5%	23,299	85,100
	Apr-Jun 07	5,879	5,412	467	317	7.9%	5.4%	68,632	57,402	83.6%	23,299	85,500
Continental	Jan-Mar 06	2,947	2,936	11	-66	0.4%	-2.2%	37,070	28,996	78.2%	11,486	42,600
	Apr-Jun 06	3,507	3,263	244	198	7.0%	5.6%	45,477	37,605	82.7%	17,596	43,450
	Jul-Sep 06	3,518	3,326	192	237	5.5%	6.7%	47,091	38,691	82.2%	17,328	41,500
	Oct-Dec 06	3,157	3,137	20	-26	0.6%	-0.8%	43,903	35,036	79.8%	16,603	41,500
	<b>Year 2006</b>	<b>13,128</b>	<b>12,660</b>	<b>468</b>	<b>343</b>	<b>3.6%</b>	<b>2.6%</b>	<b>178,500</b>	<b>144,060</b>	<b>80.7%</b>	<b>67,119</b>	<b>44,000</b>
	Jan-Mar 07	3,179	3,115	64	22	2.0%	0.7%	43,853	34,519	78.7%	16,176	41,500
	Apr-Jun 07	3,710	3,447	263	228	7.1%	6.1%	47,622	39,626	83.2%	18,120	45,000
Delta	Jan-Mar 06	3,719	4,204	-485	-2,069	-13.0%	-55.6%	55,685	42,460	76.3%	25,531	53,735
	Apr-Jun 06	4,655	4,286	369	-2,205	7.9%	-47.4%	60,699	48,364	79.7%	27,221	51,700
	Jul-Sep 06	4,659	4,491	168	52	3.6%	1.1%	63,797	51,150	80.2%	27,556	51,000
	<b>Year 2006</b>	<b>17,171</b>	<b>17,113</b>	<b>58</b>	<b>-6,203</b>	<b>0.3%</b>	<b>-36.1%</b>	<b>238,168</b>	<b>186,892</b>	<b>78.5%</b>	<b>106,649</b>	<b>51,300</b>
	Jan-Mar 07	4,144	3,989	155	-130	3.7%	-3.1%	56,774	43,794	77.1%	25,325	52,260
	Apr-Jun 07***	5,003	4,513	490	1,592	nm	nm	61,358	50,818	82.8%	28,305	55,542
	Northwest	Jan-Mar 06	2,890	2,905	-15	-1,104	-0.5%	-38.2%	35,757	29,432	82.3%	15,700
Apr-Jun 06	3,291	2,996	295	-285	9.0%	-8.7%	37,743	32,593	86.4%	14,300	31,267	
Jul-Sep 06	3,407	3,041	366	-1,179	10.7%	-34.6%	38,741	33,024	85.2%	17,600	32,760	
Oct-Dec 06	2,980	2,886	94	-267	3.2%	-9.0%	37,386	30,564	81.8%	16,600	30,484	
<b>Year 2006</b>	<b>12,568</b>	<b>11,828</b>	<b>740</b>	<b>-2,835</b>	<b>5.9%</b>	<b>-22.6%</b>	<b>149,575</b>	<b>125,596</b>	<b>84.0%</b>	<b>67,600</b>	<b>30,484</b>	
Jan-Mar 07	2,873	2,672	201	-292	7.0%	-10.2%	36,845	29,964	81.3%	15,600	30,008	
Apr-Jun 07**	6,054	5,496	558	1,857	nm	nm	38,070	32,495	85.9%	17,400	29,589	
Southwest	Jan-Mar 06	2,019	1,921	98	61	4.9%	3.0%	35,532	24,591	69.2%	19,199	31,396
	Apr-Jun 06	2,449	2,047	402	333	16.4%	13.6%	36,827	28,716	78.0%	21,999	31,734
	Jul-Sep 06	2,342	2,081	261	48	11.1%	2.0%	38,276	28,592	74.7%	21,559	32,144
	Oct-Dec 06	2,276	2,102	174	57	7.6%	2.5%	38,486	27,036	70.2%	21,057	32,664
	<b>Year 2006</b>	<b>9,086</b>	<b>8,152</b>	<b>934</b>	<b>499</b>	<b>10.3%</b>	<b>5.5%</b>	<b>149,123</b>	<b>108,936</b>	<b>73.1%</b>	<b>96,277</b>	<b>32,664</b>
	Jan-Mar 07	2,198	2,114	84	93	3.8%	4.2%	38,105	25,924	68.0%	19,960	33,195
	Apr-Jun 07	2,583	2,255	328	278	12.7%	10.8%	40,204	30,606	76.1%	23,442	33,261
United	Apr-Jun 06	5,113	4,853	260	119	5.1%	2.3%	64,499	54,541	84.6%	18,228	53,500
	Jul-Sep 06	5,176	4,841	335	190	6.5%	3.7%	66,377	55,165	83.1%	18,099	53,500
	Oct-Dec 06	4,586	4,563	23	-61	0.5%	-1.3%	63,226	50,324	79.6%	16,704	51,700
	<b>Year 2006</b>	<b>19,340</b>	<b>18,893</b>	<b>447</b>	<b>22,876</b>	<b>2.3%</b>	<b>118.3%</b>	<b>255,613</b>	<b>208,769</b>	<b>81.7%</b>	<b>69,325</b>	<b>53,000</b>
	Jan-Mar 07	4,373	4,465	-92	-152	-2.1%	-3.5%	61,900	49,415	79.8%	16,350	51,500
	Apr-Jun 07	5,213	4,676	537	274	10.3%	5.3%	64,451	55,049	85.4%	18,190	51,400
	<b>US Airways Group</b>	<b>Year 2006</b>	<b>11,557</b>	<b>10,999</b>	<b>558</b>	<b>304</b>	<b>4.8%</b>	<b>2.6%</b>	<b>123,889</b>	<b>97,667</b>	<b>78.8%</b>	<b>57,345</b>
Jan-Mar 07	2,732	2,616	116	66	4.2%	2.4%	35,411	27,039	76.4%	19,935	36,000	
Apr-Jun 07	3,155	2,866	289	263	9.2%	8.3%	37,144	30,631	82.5%	22,232	35,485	
JetBlue	Jan-Mar 06	490	515	-25	-32	-5.1%	-6.5%	10,584	8,909	84.2%	4,335	9,039
	Apr-Jun 06	612	565	47	14	7.7%	2.3%	11,590	9,533	82.2%	4,525	9,377
	Jul-Sep 06	628	587	41	-0.5	6.5%	-0.1%	12,129	9,756	80.4%	4,773	9,223
	Oct-Dec 06	633	569	64	17	10.1%	2.7%	11,712	9,331	79.7%	4,932	9,265
	<b>Year 2006</b>	<b>2,363</b>	<b>2,236</b>	<b>127</b>	<b>-1</b>	<b>5.4%</b>	<b>0.0%</b>	<b>46,016</b>	<b>37,522</b>	<b>81.6%</b>	<b>18,565</b>	<b>9,265</b>
	Jan-Mar 07	608	621	-13	-22	-2.1%	-3.6%	11,861	9,562	80.6%	5,091	9,260
	Apr-Jun 07	730	657	73	21	10.0%	2.9%	12,981	10,840	83.5%	5,587	9,421

Notes: \*\* = April to May Predecessor Company, June Successor Company; \*\*\*= April Predecessor Company, May to June Successor Company - During Q2, Delta and United were emerging from Chapter 11

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 31/12.

# Aviation Strategy

## Databases

		Group revenue US\$m	Group costs US\$m	Group op. profit US\$m	Group net profit US\$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group employees
<b>Air France/ KLM Group YE 31/03</b>	Apr-Jun 05	6,257	5,982	275	135	4.4%	2.2%	57,936	46,041	79.5%	17,948	101,886
	Jul-Sep 05	6,790	6,154	636	864	9.4%	12.7%	60,472	50,961	84.2%	18,705	
	Oct-Dec 05	6,430	6,205	225	91	3.5%	1.4%	58,266	46,644	80.0%	17,120	102,291
	<b>Year 2005/06</b>	<b>25,901</b>	<b>24,771</b>	<b>1,136</b>	<b>1108</b>	<b>4.4%</b>	<b>4.3%</b>	<b>234,669</b>	<b>189,253</b>	<b>80.6%</b>	<b>70,020</b>	<b>102,422</b>
	Apr-Jun 06	7,282	6,766	516	306	7.1%	4.2%	60,839	49,596	81.5%	19,049	
	Jul-Sep 06	7,779	7,058	721	475	9.3%	6.1%	63,616	53,611	84.2%	19,600	
	Oct-Dec 06	7,593	7,260	333	302	4.4%	4.0%	60,999	48,663	79.8%	17,829	
	<b>Year 2006/07</b>	<b>30,773</b>	<b>29,129</b>	<b>1,644</b>	<b>1183</b>	<b>5.3%</b>	<b>3.8%</b>	<b>245,066</b>	<b>199,510</b>	<b>81.4%</b>	<b>73,484</b>	<b>103,050</b>
Apr-Jun 07	8,011	7,486	724	566	9.0%	7.1%	63,376	51,567	81.4%	19,325	103,978	
<b>BA YE 31/03</b>	Apr-Jun 05	3,716	3,398	318	162	8.6%	4.4%	36,706	27,768	75.6%	9,177	46,079
	Jul-Sep 05	3,887	3,427	460	301	11.8%	7.7%	37,452	29,812	79.6%	9,767	46,144
	Oct-Dec 05	3,664	3,362	301	212	8.2%	5.8%	37,119	27,499	74.1%	8,530	45,624
	Jan-Mar 06	3,692	3,530	162	144	4.4%	3.9%	36,657	26,780	73.1%	8,160	45,171
	<b>Year 2005/06</b>	<b>14,585</b>	<b>13,352</b>	<b>1,233</b>	<b>829</b>	<b>8.5%</b>	<b>5.7%</b>	<b>144,194</b>	<b>109,713</b>	<b>76.1%</b>	<b>35,634</b>	<b>47,012</b>
	Apr-Jun 06	4,208	3,825	383	280	9.1%	6.7%	38,222	29,909	78.3%	9,569	45,100
	Jul-Sep 06	4,331	4,080	251	315	5.8%	7.3%	38,727	30,872	79.7%	9,935	45,058
	Oct-Dec 06	4,051	3,798	253	210	6.2%	5.2%	36,563	27,073	74.0%	7,878	42,197
Jan-Mar 07	3,792	3,731	61	-140	1.6%	-3.7%	36,405	26,003	71.4%	7,269	42,073	
<b>Year 2006/07</b>	<b>16,149</b>	<b>15,004</b>	<b>1,145</b>	<b>578</b>	<b>7.1%</b>	<b>3.6%</b>	<b>148,321</b>	<b>112,851</b>	<b>76.1%</b>	<b>33,068</b>	<b>43,501</b>	
<b>Iberia YE 31/12</b>	Jul-Sep 05	1,439	1,368	71	53	4.9%	3.7%	16,659	13,619	81.8%	7,656	25,069
	Oct-Dec 05	1,451	1,504	-53	-7	-3.7%	-0.5%	15,864	12,082	76.2%	6,596	23,845
	<b>Year 2005</b>	<b>5,894</b>	<b>5,426</b>	<b>468</b>	<b>490</b>	<b>7.9%</b>	<b>8.3%</b>	<b>63,628</b>	<b>49,060</b>	<b>77.1%</b>	<b>27,675</b>	<b>24,160</b>
	Jan-Mar 06	1,457	1,536	-79	-54	-5.4%	-3.7%	15,689	11,876	75.7%	6,300	23,772
	Apr-Jun 06	1,816	1,753	63	44	3.5%	2.4%	16,809	13,420	79.8%	7,461	24,109
	Jul-Sep 06	1,825	1,700	125	96	6.8%	5.3%	16,846	14,065	83.5%	7,354	22,721
	Oct-Dec 06	1,811	1,750	61	-12	3.4%	-0.7%	16,458	13,132	79.8%	6,682	
	<b>Year 2006</b>	<b>6,545</b>	<b>6,391</b>	<b>154</b>	<b>72</b>	<b>2.4%</b>	<b>1.1%</b>	<b>65,802</b>	<b>52,493</b>	<b>79.8%</b>	<b>27,799</b>	<b>23,901</b>
Jan-Mar 07	1,745	1,734	16	16	0.9%	0.9%	16,104	12,798	79.5%	6,318	22,661	
Apr-Jun 07	1,829	1,752	75	83	4.1%	4.5%	16,458	13,307	80.9%	6,863	22,324	
<b>Lufthansa YE 31/12</b>	Apr-Jun 05	5,487	5,138	349	140	6.4%	2.6%	37,700	28,178	74.7%	13,583	
	Jul-Sep 05	5,798	5,411	387	501	6.7%	8.6%	38,967	30,466	78.2%	14,203	
	<b>Year 2005</b>	<b>22,371</b>	<b>21,656</b>	<b>715</b>	<b>561</b>	<b>3.2%</b>	<b>2.5%</b>	<b>144,182</b>	<b>108,185</b>	<b>75.0%</b>	<b>51,260</b>	<b>90,811</b>
	Jan-Mar 06	5,369	5,460	-91	-118	-1.7%	-2.2%	33,494	24,044	71.8%	11,442	
	Apr-Jun 06	6,529	6,203	326	142	5.0%	2.2%	37,797	28,603	75.7%	14,106	
	Jul-Sep 06	6,765	6,188	577	461	8.5%	6.8%	39,225	30,627	78.1%	14,781	
	<b>Year 2006</b>	<b>24,979</b>	<b>23,913</b>	<b>1,066</b>	<b>1,014</b>	<b>4.3%</b>	<b>4.1%</b>	<b>146,720</b>	<b>110,330</b>	<b>75.2%</b>	<b>53,432</b>	<b>93,541</b>
	Jan-Mar 07	6,258	6,184	74	593	1.2%	9.5%	35,028	26,109	74.5%	12,329	95,696
Apr-Jun 07	7,267	6,506	761	663	10.5%	9.1%	39,573	30,544	77.2%	14,629	97,067	
<b>SAS YE 31/12</b>	Jul-Sep 05	2,140	2,036	104	68	4.9%	3.2%	13,599	9,838	72.3%	9,325	
	Oct-Dec 05	2,050	1,966	84	25	4.1%	1.2%	12,880	8,646	67.1%	8,945	
	<b>Year 2005</b>	<b>4,877</b>	<b>4,796</b>	<b>81</b>	<b>-6</b>	<b>1.7%</b>	<b>-0.1%</b>	<b>38,454</b>	<b>26,487</b>	<b>68.9%</b>	<b>23,799</b>	<b>32,363</b>
	Jan-Mar 06	1,078	1,064	-150	-137	-13.9%	-12.7%	12,275	8,179	66.6%	8,532	31,528
	Apr-Jun 06	2,439	2,319	120	75	4.9%	3.1%	14,005	10,325	74.0%	10,325	32,622
	Jul-Sep 06	2,476	2,318	158	83	6.4%	3.4%	14,086	10,745	76.3%	10,141	32,772
	Oct-Dec 06	2,215	2,121	94	679	4.2%	30.7%	13,405	9,162	68.4%	9,611	25,534
	<b>Year 2006</b>	<b>5,270</b>	<b>5,010</b>	<b>260</b>	<b>169</b>	<b>4.9%</b>	<b>3.2%</b>	<b>36,971</b>	<b>27,506</b>	<b>74.4%</b>	<b>25,100</b>	<b>31,965</b>
Jan-Mar 07	1,978	2,025	-47	-7	-2.4%	-0.4%	12,844	8,543	66.5%	9,088	26,136	
Apr-Jun 07	2,383	2,247	136	89	5.7%	3.7%	15,091	10,915	72.3%	11,045	26,916	
<b>Ryanair YE 31/03</b>	Jul-Sep 05	652	409	244	208	37.4%	31.9%				9,500	2,987
	Oct-Dec 05	439	381	58	44	13.2%	10.0%			83.0%	8,600	2,963
	<b>Year 2005/06</b>	<b>2,096</b>	<b>1,639</b>	<b>457</b>	<b>380</b>	<b>21.8%</b>	<b>18.1%</b>	<b>39,070</b>	<b>30,302</b>	<b>83.0%</b>	<b>34,768</b>	<b>3,063</b>
	Apr-Jun 06	711	539	172	146	24.2%	20.5%				10,700	
	Jul-Sep 06	864	553	313	268	36.2%	31.0%				11,481	3,881
	Oct-Dec 06	651	575	76	63	11.7%	9.7%			82.0%	10,300	4,209
	<b>Year 2006/07</b>	<b>2,887</b>	<b>2,278</b>	<b>609</b>	<b>518</b>	<b>21.1%</b>	<b>17.9%</b>	<b>48,924</b>	<b>40,118</b>	<b>82.0%</b>	<b>42,500</b>	
Apr-Jun 07	934	722	212	187	22.7%	20.0%			82.0%	12,600		
<b>easyJet YE 30/09</b>	Oct-Mar 05	1,039	1,116	-77	-41	-7.4%	-3.9%	14,526	12,150	83.8%	13,500	
	<b>Year 2004/05</b>	<b>2,478</b>	<b>2,356</b>	<b>122</b>	<b>109</b>	<b>4.9%</b>	<b>4.4%</b>	<b>32,141</b>	<b>27,448</b>	<b>85.2%</b>	<b>29,600</b>	<b>4,152</b>
	Oct-Mar 06	1,095	1,177	-82	-50	-7.5%	-4.6%	16,672	13,642	81.8%	14,900	
	<b>Year 2005/06</b>	<b>2,917</b>	<b>2,705</b>	<b>212</b>	<b>170</b>	<b>7.3%</b>	<b>5.8%</b>	<b>37,088</b>	<b>31,621</b>	<b>84.8%</b>	<b>33,000</b>	<b>4,859</b>
Oct-Mar 07	1,411	1,333	-47	-25	-3.3%	-1.8%	19,108	15,790	81.2%	16,400		

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

# Aviation Strategy

## Databases

		Group revenue US\$m	Group costs US\$m	Group op. profit US\$m	Group net profit US\$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group employees
<b>ANA</b>												
YE 31/03	Year 2003/04	11,529	11,204	325	234	2.8%	2.0%	87,772	55,807	63.6%	44,800	28,870
	Year 2004/05	12,024	11,301	723	251	6.0%	2.1%	85,838	55,807	65.0%	48,860	29,098
	Year 2005/06	12,040	11,259	781	235	6.5%	2.0%	86,933	58,949	67.8%	49,920	30,322
	Year 2006/07	12,763	11,973	790	280	6.2%	2.2%	85,728	58,456	68.2%	49,500	32,460
<b>Cathay Pacific</b>												
YE 31/12	Year 2004	5,024	4,350	674	581	13.4%	11.6%	74,062	57,283	77.3%	13,664	15,054
	Jan-Jun 05	3,074	2,799	275	225	8.9%	7.3%	39,535	30,877	78.1%	7,333	15,400
	Year 2005	6,548	6,015	533	424	8.1%	6.5%	82,766	65,110	78.7%	15,440	15,447
	Jan-Jun 06	3,473	3,201	272	225	7.8%	6.5%	43,814	34,657	79.1%	8,144	
	Year 2006	7,824	7,274	550	526	7.0%	6.7%	89,117	71,171	79.9%	16,730	
	Jan-Jun 07	4,440	4,031	409	341	9.2%	7.7%	49,836	38,938	79.6%	8,474	19,207
<b>JAL</b>												
YE 31/03	Year 2003/04	18,398	19,042	-644	-844	-3.5%	-4.6%	145,900	93,847	64.3%	58,241	21,197
	Year 2004/05	19,905	19,381	524	281	2.6%	1.4%	151,902	102,354	67.4%	59,448	53,962
	Year 2005/06	19,346	19,582	-236	-416	-1.2%	-2.2%	148,591	100,345	67.5%	58,040	53,010
<b>Korean Air</b>												
YE 31/12	Year 2003	5,172	4,911	261	-202	5.0%	-3.9%	59,074	40,507	68.6%	21,811	15,352
	Year 2004	6,332	5,994	338	414	5.3%	6.5%	64,533	45,879	71.1%	21,280	14,994
	Year 2005	7,439	7,016	423	198	5.7%	2.7%	66,658	49,046	71.4%	21,710	17,573
	Year 2006	8,498	7,975	523	363	6.2%	4.3%	71,895	52,178	72.6%	22,140	16,623
<b>Malaysian</b>												
YE 31/03	Year 2003/04	3,061	3,012	49	86	1.6%	2.8%	55,692	37,659	67.6%	15,375	20,789
	Year 2004/05	3,141	3,555	-414	-421	-13.2%	-13.4%	64,115	44,226	69.0%	17,536	22,513
	Year 2005/06	3,602	3,685	-83	-37	-2.3%	-1.0%	65,099	46,122	70.8%	17,910	20,324
<b>Qantas</b>												
YE 30/06	Year 2003/04	7,838	7,079	759	448	9.7%	5.7%	104,200	81,276	78.0%	30,076	33,862
	Jul-Dec 04	5,017	4,493	524	358	10.4%	7.1%	57,402	43,907	76.5%	16,548	35,310
	Year 2004/05	9,524	8,679	845	575	8.9%	6.0%	114,003	86,986	76.3%	32,660	35,520
	Jul-Dec 05	4,999	4,626	373	258	7.5%	5.2%	59,074	45,794	77.5%	17,260	35,158
	Year 2005/06	10,186	8,711	1,475	542	14.5%	5.3%	118,070	90,899	77.0%	34,080	34,832
	Jul-Dec 06	6,099	5,588	511	283	8.4%	4.6%	61,272	49,160	80.2%	18,538	33,725
	Year 2006/07	11,975	11,106	869	568	7.3%	4.7%	112,119	97,622	80.0%	36,450	34,267
<b>Singapore</b>												
YE 31/03	Year 2003/04	5,732	5,332	400	525	7.0%	9.2%	88,253	64,685	73.3%	13,278	14,010
	Year 2004/05	7,276	6,455	821	841	11.3%	11.6%	104,662	77,594	74.1%	15,944	13,572
	Year 2005/06	6,201	5,809	392	449	6.3%	7.2%	109,484	82,742	75.6%	17,000	13,729
	Year 2006/07	9,555	8,688	866	1,403	9.1%	14.7%	112,544	89,149	79.2%	18,346	13,847
<b>Air China</b>												
YE 31/03	Year 2004	4,050	3,508	542	288	13.4%	7.1%	64,894	46,644	71.9%	24,500	29,133
	Year 2005	4,681	4,232	449	294	9.6%	6.3%	70,670	52,453	74.2%	27,690	18,447
	Year 2006	5,647	5,331	316	338	5.6%	6.0%	79,383	60,276	75.9%	31,490	18,872
<b>China Southern</b>												
YE 31/03	Year 2004	2,897	2,787	110	19	3.8%	0.7%	53,769	37,196	69.2%	28,210	18,221
	Year 2005	4,682	4,842	-160	-226	-3.4%	-4.8%	88,361	61,923	70.1%	44,120	34,417
	Year 2006	5,808	5,769	39	26	0.7%	0.4%	97,044	69,575	71.7%	49,200	45,000
<b>China Eastern</b>												
YE 31/03	Year 2004	2,584	2,524	60	39	2.3%	1.5%	41,599	27,581	66.3%	17,710	20,817
	Year 2005	3,356	3,372	-16	-57	-0.5%	-1.7%	52,428	36,381	69.4%	24,290	29,746
	Year 2006	3,825	4,201	-376	-416	-9.8%	-10.9%	70,428	50,243	71.3%	35,020	35,000
<b>Air Asia</b>												
YE 30/06	Year 2005	152	122	30	25	19.7%	16.4%	6,525	4,881	74.8%	4,410	2,016
	Year 2006	230	173	57	34	24.8%	14.8%	8,646	6,702	77.5%	5,720	2,224

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

# Aviation Strategy

## Databases

### EUROPEAN SCHEDULED TRAFFIC

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total Int'l		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
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
Jul-07	31.6	24.0	76.0	23.3	20.0	85.7	15.8	13.5	85.3	54.5	46.9	86.0	82.5	68.4	83.0
Ann. change	6.3%	6.3%	0.0	5.1%	4.0%	-0.9	0.4%	1.9%	1.3	3.5%	4.2%	0.6	4.6%	5.4%	0.6
Jan-Jul 07	199.7	136.8	68.5	138.5	112.4	81.1	106.6	87.4	82.0	350.6	286.8	81.8	525.5	408.2	77.7
Ann. change	4.9%	5.2%	0.2	4.5%	3.0%	-1.2	1.1%	3.7%	2.1	3.7%	4.4%	0.5	4.6%	5.2%	0.4

Source: AEA

### NINE LARGEST US PASSENGER AIRLINES' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total Int'l		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
2005 Q1	227.9	170.0	74.6	38.2	29.4	77.0	26.5	21.6	81.5	26.9	19.9	73.9	91.6	70.9	77.4
Q2	237.5	188.8	79.5	45.6	39.1	85.6	27.6	23.2	84.1	25.4	17.9	70.6	98.6	80.2	81.3
Q3	239.1	192.4	80.4	49.5	42.2	85.3	28.9	24.2	83.7	25.0	18.8	75.2	103.4	85.2	82.4
Q4	225.1	172.2	76.4	41.9	33.2	79.2	27.4	22.3	81.4	24.2	17.2	71.1	93.5	72.7	77.8
2005	<b>929.6</b>	<b>723.4</b>	<b>77.8</b>	<b>175.2</b>	<b>143.9</b>	<b>82.1</b>	<b>110.4</b>	<b>91.3</b>	<b>82.7</b>	<b>101.5</b>	<b>73.8</b>	<b>72.7</b>	<b>387.1</b>	<b>309.0</b>	<b>79.8</b>
2006 Q1	219.2	169.3	77.2	39.6	29.7	75.0	26.1	21.7	83.2	28.2	21.1	74.8	93.9	72.5	77.2
Q2	228.1	188.3	82.6	49.7	42.1	84.7	28.2	23.9	84.7	26.3	20.4	77.6	104.2	86.4	82.9
Q3	232.2	187.9	80.9	54.0	45.3	83.9	28.7	24.4	85.0	26.3	20.4	77.6	109.0	90.1	82.7
Q4	223.2	174.3	78.1	46.0	36.1	78.5	27.8	22.8	81.9	25.8	19.2	74.2	99.6	78.1	78.4
2006	<b>902.7</b>	<b>719.7</b>	<b>79.7</b>	<b>189.2</b>	<b>153.2</b>	<b>81.0</b>	<b>110.8</b>	<b>92.8</b>	<b>83.7</b>	<b>106.6</b>	<b>81.1</b>	<b>75.7</b>	<b>406.7</b>	<b>327.1</b>	<b>80.4</b>

Note: Legacy airlines are American, Continental, Delta, Northwest, United and USAirways. Statistics also include Alaska, America West and Southwest.

### JET ORDERS

	Date	Buyer	Order	Delivery	Other information/engines
Boeing	01 Aug	Jet Airways	3 x 777-300ER		exercised options plus 7 purchase rights conversion rights to -800s if desired plus 3 options
	02 Aug	AeroSvit	7 x 737-800		
		WestJet	20 x 737-700		
	03 Aug	Air New Zealand	4 x 777-300ER		previously listed as unidentified in 2006 plus 42 purchase rights plus 10 purchase rights, previously unidentified
	07 Aug	Cathay Pacific	5 x 777-300ER		
	23 Aug	Atlant-Soyuz	4 x 737-700		
	30 Aug	Norwegian A/S	42 x 737-800		
	03 Sep	Xiamen A/L	25 x 737-800		
04 Sep	Aviation Capital	15 x 737NG			
Airbus	27 Aug	EgyptAir	5 x A330-200		plus 3 options
Embraer	13 July	Republic A/L	13 x E175		8 previously unidentified, 3 converted options
Bombardier	08 Aug	ALMA de Mexico	2 x CRJ900		

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

Source: Manufacturers

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