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10th Anniversary Year

LIFE AFTER SARS

Recovery underway, but it will be Asia-Pacific airlines' greatest challenge

- Despair turns to hope at Air NZ
- Rough ride for China's regional jet operators
- VIP B727 Asia bound

SPECIAL REPORT: Air Traffic Management in the Asia-Pacific

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COVER STORY

LIFE AFTER SARS

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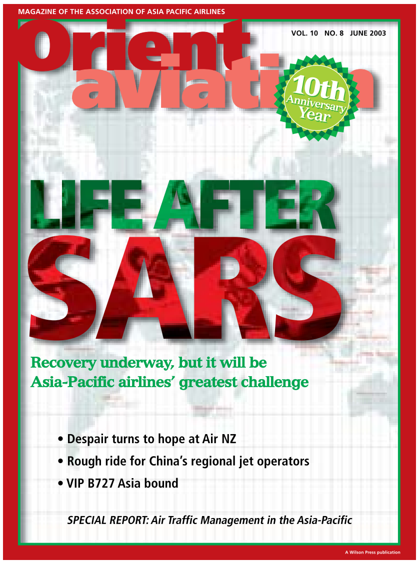
The region is starting to win its fight against SARS. How long will the aviation industry take to recover and what will be the cost?



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REGULAR FEATURES

HONG KONG SHOWS THE WAY

At the moment it's difficult to turn a page in a news paper in the region without finding stories impacted by news of Severe Acute Respiratory Syndrome (SARS). And they make grim reading, particularly for the Asia-Pacific airline industry. And none more so than Hong Kong carriers, Cathay Pacific Airways and Dragonair.

The fall-out from SARS is said to be costing Cathay Pacific up to US$3 million a day. Its passenger levels have fallen by 75% compared to this time last year. Regional carrier, Dragonair, is losing close to US$1 million a day. Both airlines have slashed services and routes, parked aircraft and asked staff to take unpaid leave. Cathay Pacific has halved its 2002 dividend.

Cathay Pacific, in particular, and the region's airlines in general, bounced back in remarkable style after the 1997-98 Asian economic crisis and the '9/11' U.S. terrorist attacks. But the general consensus seems to be that this time around, post-SARS, recovery is going to be more difficult.

That's the bad news. The good news is that in May the two carriers played an integral role in a massive campaign by Hong Kong's tourism industry to help life return to normal in Hong Kong and boost its economy. Indeed, Cathay Pacific was the instigator of the Tourist Coalition of Hong Kong's "We Love Hong Kong" campaign, which was supported by 21 international airlines, close to 80 hotels, more than 1,300 travel agents, retail outlets, catering groups, taxi associations, cinemas, banks and other entertainment outlets.

All the participants offered discount deals or related services to persuade people to travel about again, be it locally, regionally or internationally. Airlines from the Asia-Pacific, Europe and North America offered thousands of heavily discounted tickets to entice passengers back to flying.

The convenor of the Coalition, Cathay Pacific's chief operating officer, Philip Chen, said: "We have to look at our own resources to get the Hong Kong economy back on its feet."

Indeed, following widespread criticism that the Hong Kong Government had done too little, too late in the fight against SARS, the tourism and airline industries have taken the lead in trying to restore some normalcy to daily life in the city and its flattened economy.

After enduring so much in recent years, its good to see the can-do spirit of Hong Kong has not been diminished even by SARS. It is to be hoped that after all the effort, airlines like Cathay Pacific, Dragonair and other carriers ravaged by the SARS crisis in Singapore, Taiwan, China and Vietnam can once again defy the odds and bounce back to good health ahead of predictions.

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REGIONAL ROUND-UP

MINISTER SUPPORTS QANTAS, AIR NZ ALLIANCE

Australia's Transport Minister, **John Anderson**, has indicated he will personally intervene to try and win regulatory approval for the proposed US$395.8 million trans-Tasman alliance between **Qantas Airways** and **Air New Zealand (Air NZ)**. He spoke out after competition authorities in both countries issued strongly worded draft decisions rejecting the alliance, in which Qantas would purchase 22.5% of Air NZ, as anti-competitive and monopolistic.

Bob Carr, premier of New South Wales, the state where Qantas has its headquarters, also urged the **Australian Competition and Consumer Commission (ACCC)** to withdraw its draft veto on the plan because "the partnership was vital to the state's tourism industry".

The airlines are currently in the process of preparing new submissions in an attempt to turn around the **New Zealand Commerce Commission (NZCC)** and the ACCC. The carriers had hoped for a decision by mid-year, but that will now be delayed after the NZCC extended the date for final submissions.

"It is in the national interest and therefore in the public interest for this region to have a strong and viable airline group that can sustain the current volatile aviation market now and in the future. This proposed alliance is a potential first step in ensuring that this occurs," said Anderson. The Minister did not rule out new legislation to push through the alliance, but said he preferred to write to the ACCC first to request it to approve the proposal.

Separately, Qantas has announced it will overhaul its domestic fare structure with a scheme that would introduce more flexibility to the sale of one way fares as well as reduce the number of domestic fare categories by six to five. The carrier, which controls 70% of the Australian domestic airline market, also will remove its minimum stay and Saturday night restrictions on fares, a policy that will come into force on July 1 this year. ■

HONG KONG APPROVES CHINA ROUTES FOR CATHAY PACIFIC

In an April ruling handed down by Hong Kong's **Air Transport Licensing Authority (Atla)**, **Cathay Pacific Airways** was authorised to resume flights to Beijing, Shanghai and Xiamen in China from Hong Kong. Atla said the Hong Kong-based international carrier could operate up to three times daily services to Beijing and Shanghai and as many as three flights a week to Xiamen, in southern China.

Atla rejected the objections of **Dragonair**, which until now has been the sole Hong Kong carrier allowed to operate services to the Mainland, and said it had exaggerated the financial effects of opening the route to competition.

Cathay Pacific's general manager international affairs, **Andrew Pyne**, said in the company's *CX World* magazine that the carrier must now seek designation under the Hong Kong-Chinese Mainland air service arrangements to launch the services. It also needs to negotiate terms for capacity on the routes.

"Designation gives us the right not just to operate, but also to sell and market direct in the Mainland," Mr Pyne told *CX World*. He added Cathay Pacific also "has an interest" in commencing freighter services to the Mainland where capacity constraints may pose less of a problem [compared with passenger flights). Dragonair chief executive, **Stanley Hui**, said the Atla decision "was unfair" to Dragonair and that the airline would consider its options for an appeal against the decision.

CHINA SIGNS FOR 30 AIRBUS PLANES

Calling the deal a significant breakthrough, **Airbus Industrie** chief executive, **Noel Forgeard**, said the European aircraft manufacturer had signed an agreement with **China Aviation Supplies Import and Export Co.** for the sale of 30 Airbus airplanes in a deal valued at an unconfirmed US$1.7 billion.

It is planned the mix of single aisle A319 and A320 aircraft and the larger A330s will be distributed among five Mainland carriers, **Air China**, **China Eastern**, **China Southern**, **Sichuan Airlines** and **Hainan Airlines**.

France's prime minister, **Jean-Pierre Raffarin**, signed off the sales agreement, which included four A330s, 16 A319s and 10 A320s, during a weeklong visit to China in April. Deliveries are scheduled to begin in 2004.

China Aero Information reported in April that when the A330s start arriving, some of them would be flying on domestic routes, a first for the A330 on the Mainland, the newsletter said.

TERMINAL ROW COSTS FRAPORT DEAR

Only weeks after **Fraport**, the operator of Germany's **Frankfurt Airport** and the provider of most of the funds to construct Manila's airport's controversial new Terminal 3 complex, decided to write down its Euros 290 million (US$318 million) in the project, the company declared a net loss of Euros121 million for the 2002 fiscal year.

Fraport executive board chairman, **Dr. Wilhelm Bender**, said excluding the writedown, Fraport, also the operator of airports in Turkey, Peru and two German regional cities, Hannover and Saarbruecken, achieved earnings of Euros 503 million before income tax, depreciation and amortisation for the fiscal year. Terminal 3, at Manila's **Ninoy Aquino International Airport**, was built by a consortium headed by the Philippines' **Cheng** family, who controlled 60% of the venture, and a series of partners that included Fraport.

The consortium signed a 25-year contract to build and operate the new terminal when former president **Fidel Ramos** was in power. During the corrupt reign of his successor **Joseph Estrada**, the contract was amended, allegedly unlawfully, and Fraport found itself dealing increasingly with an untenable and expensive investment that was a constant drain on its cash flow.

Airlines, including the flag carrier, **Philippine Airlines**, said they would not move to the expensive new terminal while airport operators insisted they could not afford to pay the high rents at Terminal 3.

In early May, the Supreme Court of the Philippines declared the contracts signed between the consortium and the former Philippines Government null and void and the current Philippines president, **Gloria Macapagel Arroyo**, said her government would operate the terminal "until the time was feasible for its privatisation".

Undeterred, Bender said his company would pursue its legal action to receive compensation for its Terminal 3 investment, via the **World Bank**. "We are not giving the government in Manila the terminal as a wonderful gift," he said.

CHEONG BOWS OUT

Singapore Airline's (SIA) new chief executive, **Chew Choon Seng** (pictured right), took control of the carrier in June, following the retirement of **Dr Cheong Choong Kong**, who has been SIA chief executive for 20 years and SIA's deputy chairman for the past seven years.

Chew (56), joined SIA in 1972 and during the last 31 years has worked in almost every area of the carrier's operations, including posts as country manager of Italy and Japan and terms as senior vice-president of the South West Pacific, the Americas and Europe. In May 2001, he was appointed senior executive vice-president (administration) with responsibility for corporate affairs, finance and internal audit at SIA.

In March, SIA's board approved his appointment as a director of the company.

BRANSON PLANS HK LINK TO SYDNEY

Sir Richard Branson, in Hong Kong in May, said he hoped his airline, **Virgin Atlantic Airways**, would be flying from London to Australia via Hong Kong by year-end.

"I would love to fly Virgin Atlantic all the way to Australia and we have told the Hong Kong authorities the number one choice [of the route] would be through Hong Kong," Branson told Hong Kong's *South China Morning Post*. The carrier's management hoped for talks on the routing to start in Hong Kong in June although Branson gave no time frame for similar discussions with the Australian Government on the subject.

If the London-based airline won the right to fly from the UK to Australia via Hong Kong, the route would feed passengers onto its Australian carrier, Brisbane-based **Virgin Blue**.

Only **Qantas Airways** and **Cathay Pacific Airways** service the Hong Kong-Australia routes.

PAL SUES PILOTS' UNION

Philippine Airlines (PAL) is suing the **Airline Pilots Association of the Philippines (ALPAP)** for allegedly conducting an illegal 22-day strike in June 1998. The multi-million dollar damages claim was lodged with the **National Labour Relations Commission** in Manila. PAL president, **Avelino L Zapanta**, said: "The record shows the ALPAP's actions during the dispute were intended to destroy PAL and wreak havoc on an industry indispensable to the national interest.

"However long it takes, justice must be served."

The PAL pilots went on strike on June 5, 1998 because they disputed the terms of PAL's decision to retire PAL pilot, **Capt. Albino Collantes**. PAL said the strike "severely crippled its operations, helped push the carrier to bankruptcy and led to a two-week shutdown of the airline in September, 1998". PAL resumed operations, but it is still operating in receivership.

BRIEFLY . . .

AIRPORTS . . . Several major investors have expressed interest in purchasing three airports in suburban Sydney; Bankstown, Camden and Hoxton Park, presently owned by the Australian Government and estimated to be worth between A$100 million – $200 million (US$136 million -US$266.6 million). The sales are to be concluded by September this year. Despite conflicting reports from Chinese Mainland regulators, it is believed **Hainan Airlines** is considering buying into **Sanya Phoenix International Airport** on Hainan Island, a facility Hainan Air has been operating on a two-year management contract since last June. The carrier, the fourth largest in Mainland China, already operates the profitable **Hainan Meilan Airport** in the southern island province.

MANUFACTURING . . . Boeing will build a joint venture US$100 million aircraft repair and overhaul facility in Shanghai, in a joint venture with **Shanghai Airlines** and the **Shanghai Airport Group**. A spokesman for **Shanghai Aviation Industrial (Group) Corp.**, told the English language newspaper, the *China Daily* in May that the first components for the country's ARJ21 commuter jet would be produced by year-end. The ARJ21, China's own design regional aircraft, is expected to come off the production line in early 2007.

MRO . . . The engineering department of **Royal Brunei Airlines (RBI)** completed a 4C check on a Turk-menistan Airlines Boeing B767-200 in April, its third customer, after Yunnan Airlines and Vietnam Airlines, to send B767s to RBI for heavy maintenance checks.■

Rough ride for regional carriers

By Melody Su
in Beijing

The Chinese aviation authorities have made development of regional aviation* in China a priority in recent years. Indeed, manufacturers have forecast the country will require 660 regional jets by 2020-2022.

But ambitious domestic airlines like Sichuan Airlines and Shandong Airlines, the pioneers of new short-haul routes serviced by imported modern regional jets, are having a bumpy ride – for now.

Both carriers are operating with heavy losses. Taxes, high airport fees and inefficient airport procedures are being blamed for the current problems of regional aviation.

Sichuan Airlines, according to statistics, lost at least 2.5 million yuan (US$300,000) on its Chengdu-Chongqing Express service alone in the last quarter of 2002.

It operates a fleet of five Airbus A320s, two A321s, five Embraer 145s and five Y-7 aircraft.

In 2002, Shandong Airlines' profit slumped by 50%-60%. It has a fleet of nine B737-300s, 10 Bombardier CRJ200s and four Saab 340As. Most of the losses were attributed to poor returns on regional services.

Shandong vice-president, Gao Zhu, outlined the reasons for the poor performance of his regional operations:

- **Airfares:** There is no clear differential between feeder flights and mainline flights in China.
- **Check-in procedures at airports:** The procedure is the same for all flights. The regional short-haul operators want to streamline check-in and fast-track passengers to facilitate less waiting and shorten turnaround times for aircraft.
  As well, much improved road and rail networks in China are posing major threats to regional aviation's growth and profitability.
- **Airport landing fees:** Regional carriers claim fees are too high for aircraft under 100 seats compared to twin aisled jets.
- **Taxation:** As a protective measure for its own aviation industry, the Chinese Government imposes a 6% surcharge, plus value added tax of 17%, on each imported regional jet. This compares to a 1% surcharge and 5% value added tax on imported aircraft of more than 100 seats. As a result, a Chinese airline must pay an average of about 200 million yuan on top of the price of each new regional jet it buys, which is a heavy burden for small airlines.

Also, it has been estimated Shandong Airlines could pay about 100 million yuan in interest on a bank loan it negotiated to pay for two CRJ700s, to be delivered to the carrier in August and September this year.

All these factors significantly increased the operating costs of carriers struggling to make a profit on regional services – even with a 70% load factor on their routes.

A former president of AVIC, Zhu Yuli, who addressed the China Regional Aviation Forum earlier this year, warned of the pitfalls of the market.

While it had huge potential, China's regional air transport sector was like a huge iceberg, he said. When approaching the iceberg a boat must be well aware of its hidden hazards or it could sink like the ill-fated luxury liner the Titanic.

'TAXES, HIGH AIRPORT FEES AND INEFFICIENT PROCEDURES TAKING THEIR TOLL'

A turnaround in the fortunes of the regional operators could depend on the introduction of new government policy for the airlines.

In fact, from 2000, both the CAAC and the government have made changes that have benefited the sector.

Airport tax levied on each passenger travelling on a regional flight was reduced from 50 yuan to 10 yuan. Airlines were able to set their own airfares although price increases were limited to within 10% of published rates. In 2000, the State Financial Ministry offered subsidies to airlines that purchased China-made regional aircraft.

Song Chaoyi, an official from the State Reform and Development Commission, said that by 2020, the Chinese regional fleet would make up 30% of the total aircraft fleet on the Mainland. It would be difficult to achieve this by relying solely on the import of high-priced foreign aircraft, he said.

Therefore, local manufacturing of aircraft allied with international cooperation is believed to be a good solution to the problem. To make manufacturing in China competitive the government would introduce incentives including a reduction in the value-added tax, said Song.

To help airlines, the government would review various fees and taxes with the intention of relieving the cost burden for regional carriers.

In December 2002, there were 80 regional aircraft in China, 55 of them manufactured outside China. The total fleet was 19 Dornier 328s, four Saab 340As, 21 Y-7s, four MA-60s, five ERJ145s, 19 Bombardier CRJ200s, three Dash-8s and five ATR72s.

By 2020, regional aircraft in China are expected to carry 10 million passengers a year, more than three times the number recorded in 2001.

Both Chinese and foreign regional aircraft manufacturers are anxious to acquire a share in this tasty 'cake'.

Foreign regional aircraft are preferred by Chinese airlines because of their high quality and the excellent customer support service provided by the manufacturers. However, in order for China's aircraft aerospace industry to progress, various co-operative agreements have been struck that involved foreign and local manufacturers and Chinese airlines.

At the end of 2002, Embraer established a joint venture with AVIC II to manufacture and sell its ERJ145 in China. The first aircraft will be rolled out late this year.

Meanwhile, Canada's Bombardier is reportedly set to sign a Memorandum of Understanding with the Shanghai Municipal Government to co-manufacture the CRJ700 in Shanghai.

But what about the Chinese aircraft manufacturers?

Having experienced several failures over the years, the predicted bright future for regional air transport could provide them with one more chance to prove their worth on the global stage.

In November 2000, AVIC I launched the ARJ21 project, a 70-seat regional jet, which is expected to make its first flight in 2006 and enter service in 2007.

**In China, regional services are defined as short-haul domestic routes.*

SARS has devastated some of Asia's biggest airlines. Now, as the SARS epidemic shows signs of waning the major question is how long will recovery take and at what cost to the carriers? TOM BALLANTYNE reports.

LIFE AFTER SARS

As Asia-Pacific airlines took extraordinary measures to cut spending in the face of catastrophic losses produced by the Severe Acute Respiratory Syndrome (SARS) crisis – conservatively estimated to be around US$1.2 billion since March – there were welcome indications health authorities in most parts of the region were winning the battle to gain control of the disease.

In mid-May, China was still a major SARS concern. But with the global death toll over 600 and still rising, the number of new cases in the region was beginning to stabilise and the airline industry was preparing for the recovery phase. It will be the airlines' biggest ever challenge.

The lifting of World Health Organisation (WHO) travel advisories to SARS effected Asian countries will immediately accelerate travel growth, although a return to full financial health for many of the region's battered carriers will take far longer.

As *Orient Aviation* went to press, advisories against travel to Vietnam and Canada had been lifted, Singapore clearance was imminent and Hong Kong's case was said to be under consideration by the WHO as new cases in the Special Administrative Region decreased.

An International Air Transport Association (IATA) survey showed travel advisories were the main reason passengers decided against travelling to Asia. "We are beginning to see that there is light at the end of the tunnel. We are starting to feel more confident as time goes by", said Andrew Drysdale, IATA's regional director, Asia Pacific. "But many of these carriers, particularly Cathay Pacific Airways, have been dealt very severe body blows. It is going to take a long time for them to recover and return to the point where they were before SARS."

IATA regional director Asia-Pacific, Andrew Drysdale: will take a long time for airlines to recover to point before SARS

Among the steps taken by carriers in recent weeks to help cope with the downturn were:

- Radical cost-cutting across the board. Airlines have grounded aircraft, retrenched staff or asked employees to take unpaid leave, halted capital spending and stopped or reduced investment. While these steps will help improve operating performance there are likely to be yield pressures as airlines are forced to offer discount fares to woo customers back into the air.
- Moves to persuade airports to lower user charges. Some airports have responded, but others are holding out.
- Preparing a global public relations campaign to convince travellers flying to and within Asia that it is safe and they will not contract SARS on aircraft.

Philip Wickham, regional aviation analyst at ING Barings in Hong Kong was bullish about life after SARS, but he said the key to the situation was when the SARS outbreak will be over. "It should be a sharp recovery. With other crises that have confronted the airlines the recovery was always sharper than expected," he said.

"Asia-Pacific airlines have been through quite a few crises in recent years and they have done a superior job in dealing with them."

IATA's Drysdale, who also heads IATA's SARS crisis team in Singapore, told *Orient Aviation* work had begun on recovery planning and measures to re-establish traveller confidence. "There is a need for a co-ordinated approach

throughout the region," he said.

"This crisis will not be solved by the airlines alone. It will take a lot of support from people outside the industry."

Losses are difficult to define because SARS effects are intertwined with other pressures, including the Iraq war and slow global economic conditions. IATA said airlines globally would lose US$10 billion this year and pointed out SARS has had by far the biggest impact on profit erosion with Asia being the worst hit by the disease.

Privately, analysts suggested most of the region's airlines have been losing between US$1 million and $3 million a day for the past two months. Carriers which reported healthy profits just three months ago now face a calamitous reversal of those trends.

Hong Kong-based JPMorgan aviation analyst, Peter Negline, said the company has changed its forecast for Cathay Pacific from a US$256.4 million profit in 2003 to a loss of $153.8 million. This included $32 million for possible redundancies. Next year, he predicted Cathay Pacific would make a $49.4 million profit, instead of an earlier forecast of $576.9 million.

Hong Kong's second carrier, Dragonair, which focuses mainly on Mainland China routes, is losing US$500,000 a day. The *South China Morning Post* reported insiders as saying passenger numbers had slumped to 700-800 a day, compared to the 10,000-13,000 passengers it averaged this time last year. The carrier has grounded nine of its 21 aircraft and delayed deliveries of two A321s, originally scheduled to arrive in June and August, until the end of the year, and two A320s from next year until 2005.

Singapore Airlines (SIA), one of the world's most profitable airlines, also has been hit hard. Its 2003 financial year ended on March 31 so its annual results were largely unaffected by SARS. But JP Morgan has lowered its 2004 profit forecast by 74%, from US$552.9 million to $145.3 million, and slashed its 2005 forecast from US$593.5 million to $385.9 million.

"We believe the intensity of this crisis is far greater than the worst of the Asian economic crisis in 1997-98 and the weeks post 9/11," said Negline. "We think the industry also faces a protracted period when the SARS stigma will discourage travellers from visiting the region."

Qantas Airways is anticipating pre-tax income in the year ending June 30 could be 20% to 30% lower than forecast, down from US$450 million to around $320 million. After booking a first half profit of US$217.6 million, this prediction represents a second half loss.

THAI president, Kanok Abhiradee, disclosed the carrier lost US$23.4 million as a result of SARS to early May. Kanok, who offered to take a 26.6% salary cut during the crisis, said losses would be absorbed by the overall US$256.6 million profit the carrier has made in the last five months. He is confident a US$445 million cost-cutting target will be met this year.

THAI chairman, Thanong Bidaya, told media that airline revenue dropped 20% or two billion baht (US$46.7 million) in April. "SARS will certainly hit us until June", he said. Analysts are forecasting a profit decline of between 44% and 63% for the third quarter to June 30.

Earlier the chairman promised THAI would pay US$100,000 compensation to any passenger who could prove they were infected with SARS while on board one of the carrier's planes.

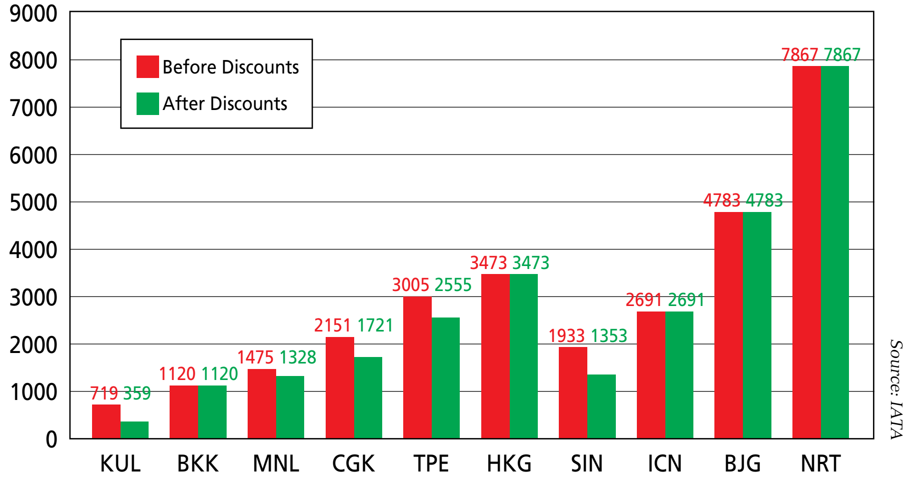
Vietnam Airlines (VNA) passenger load factor dropped 75% in April. This improved in May when the WHO lifted its travel advisory.

Philippine Airlines said in May its 2002 profit was 286 million pesos (US$5.51 million) compared to 1.7 billion pesos in 2001.PAL lost 600 million pesos in February and March.

Malaysia Airlines assessed revenue losses from flights cancelled between April 14 and May 28 at US$34.5 million. Taiwan analysts estimated EVA Air lost US$49 million in April and forecast both EVA and China Airlines will dip into the red during their second quarters (ending July 31). CAL confirmed it expected to post a US$32 million loss for the same period.

Meanwhile, IATA and the Association of Asia Pacific Airlines (AAPA), have redoubled their efforts to achieve fee reductions for airlines from airports and air traffic control providers, representing 10% of costs. "What we are saying is quite simple: You, the airports and ATC providers, cannot remain healthy for long if your customers are haemorrhaging red ink. Airlines are cutting costs wherever they can and airport/ ATC charges cannot be an exception.

Airport landing & parking charges before and after discounts



Comparison based on B747-400 aircraft (395 tonnes with 279 passengers), two hours turnaround time during normal operating hours.

KUL-Kuala Lumpur; BKK-Bangkok; MNL-Manila; CGK-Jakarta; TPE-Taipei; HKG-Hong Kong; SIN-Singapore; ICN-Incheon; BJG-Beijing; NRT-Narita

Cathay Pacific Airlines: hardest hit of the Asia-Pacific carriers

Bear your share of the burden and we will all return to health that much more quickly," said IATA director general Giovanni Bisignani.

Airports in Malaysia, Singapore, Thailand and Taiwan responded quickly with hefty reductions in charges, but carriers are unhappy with the lack of response from Hong Kong, Tokyo and Seoul. Hong Kong announced a relief package that failed to impress airlines.

AAPA director general Richard Stirland appealed to Hong Kong International Airport (HKIA) to re-examine its position and look at its own cost structure and manning levels. Stirland said the US$208 million the airport authority claimed airlines would save "has no basis in fact" and described the package as "purely cosmetic".

"Since we originally asked airports and other authorities to reduce charges, there has been a heartening response from other regional airports such as Taipei, Singapore, Kuala Lumpur and Bangkok. By attempting to give the appearance of similar concessions without in fact conceding anything, HKIA has, I'm sad to say, made itself look silly," said Stirland in a press release.

The whole cost base of the aviation industry needed to shrink as a result of the crisis and that included airports, he added. "Whether it happens on a planned, orderly basis as the result of management initiative or whether it happens as a result of bankruptcies, boycotts or legal challenges is for Hong Kong's government to decide."

In Japan, Narita Airport, which handles almost exclusively international traffic, saw a 34% drop in passenger numbers during April. The airport's operator, Narita Airport Authority (NAA) said revenue for the month decreased by 1.5 billion yen (US$12.7 million), a 15% drop from its forecast pre-SARS.

The *Asahi Shimbun*, one of Japan's major daily newspapers, reported NAA president, Masahiko Kurono, as saying IATA's request for a drop in landing fees would be impossible.

Japan's Board of Airline Representatives also has asked the NAA to consider at least a temporary reduction in user fees at Narita.

The NAA announced ongoing construction of new facilities would be slowed. Top management are taking salary cuts for three months as symbolic gestures.

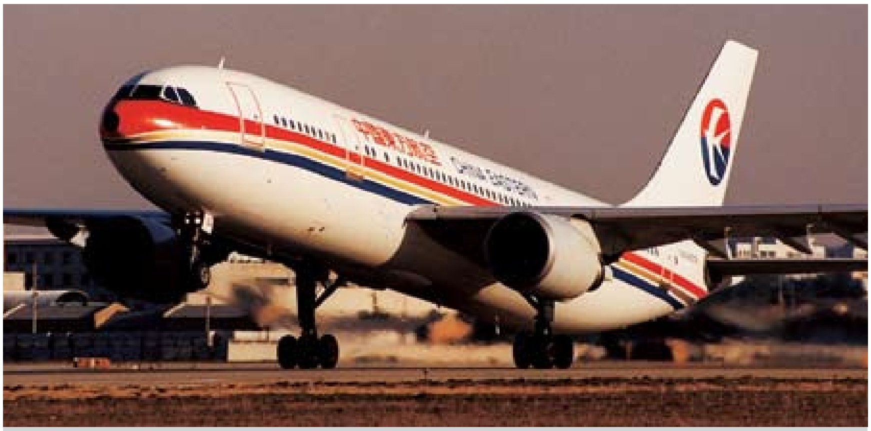
South Korea's Incheon International Airport handled 37% fewer passengers in April as SARS discouraged passengers. Throughput was 1.06 million travellers compared to 1.68 million a year earlier.

Although many carriers have postponed aircraft deliveries, major manufacturers, Airbus Industrie and Boeing, have said they will achieve their delivery targets this year. Airbus, however, pointed out its 300 aircraft scheduled for delivery in 2003 now carries "a higher degree of risk". Boeing commercial aeroplanes chief executive, Alan Mulaly, said deliveries would remain at 280 for 2003.

Cathay Pacific has asked for delivery of seven planes to be delayed and has 16 of its fleet parked. SIA is known to have sought delivery delays. China Airlines wants to postpone by six months its scheduled 2004 delivery of two of 10 B747-400s and two of 12 A330-200s it has on order.

It is understood a number of Qantas' A330 deliveries will be postponed.

THAI, however, said it would go ahead with the $1.6 billion purchase of 15 new jets. THAI vice-chairman and transport ministry permanent secretary, Srisook Chandrangsu, told local reporters the airline's overall financial status



CHINA GLOOM

China Eastern Airlines (CEA), which cut flights by 16% in May, plans to delay delivery of 12 of 18 planes due this year. The load factor is at a historically low level with almost 70% of its seats empty, according to airline spokesman Zhang Ming. CEA has cut almost 3,000 flights since March. Almost half of its "golden" routes to Europe, Japan and Southeast Asia were cut.

In May, Guangzhou-based China Southern Airlines said it was facing "unprecedented difficulties". Passenger volume fell 36.5% in April compared to the same month last year.

Revenue passenger kilometres decreased 34.1% month-on-month or 40% compared with the same period in 2002.

Air China cut at least half its flights over the May Day holidays, a traditional travel peak. Since March the Beijing-based national carrier has slashed 2,100 services. A company spokesman said Air China's losses "were considerable".■

High-tech scanning the way ahead

IATA's regional director for safety, operations and infrastructure, Asia Pacific, Dave Behrens said the aircraft was not a problem in the SARS outbreak. The weak link in the system was arriving and departing passengers at the airports. But high technology, full body scanning systems as used at Singapore Changi International Airport will help improve management of health hazards in future "whether it is a serious outbreak or a winter flu", said Behrens.

Officials with white masks sticking thermometers in passengers' ears, as occurred at Bangkok and Hong Kong airports, was not the answer, said Behrens. The way ahead was the automatic, non-intrusive scanning systems like the one used in Singapore. It detected temperature hot spots without impeding the flow of traffic, he explained.■

was still strong and justified the procurement of seven United Airlines B747-400s and eight new, long-haul aircraft as part of THAI's long-term strategy.

Cathay Pacific has seen its passenger load slump 75%. It was operating just 55% of its scheduled flights in May and June. To compensate for its multi-million dollar losses it has asked its 14,000 staff to take one month's voluntary unpaid leave from June.

The airline also halved its final 2002 dividend to shareholders, a move designed to save US$119.7 million.

Qantas chief executive, Geoff Dixon, said SARS was affecting all areas of the airline, including domestic operations, where international travellers accounted for 15% of business, and subsidiaries Qantas Flight Catering, Qantas Holidays and Australian Airlines.

"Our bookings to Hong Kong are down 64% and in Japan they have declined 30%. More recently, there has been a downturn in bookings from Continental Europe, particularly from France and Italy, of 45% and 33% respectively. Forward bookings to the UK have dropped by about 14%."

By the end of September, Qantas will have reduced its workforce by 3,500 in six months. Dixon, however, said the carrier remained well positioned.

SIA has cut capacity by nearly 30% and asked 6,600 cabin crew to take seven days unpaid leave every two months until the end of March next year, a move that will save the carrier US$56.5 million. It is negotiating a similar deal with pilots. The alternative, said SIA, would be redundancies.

SIA's regional subsidiary SilkAir is laying off eight expatriate pilots after suspending 35 weekly services to various destinations. It also has cancelled investment spending and frozen hiring plans.

In April, Korean Air (KAL) load factors dropped to 59%, 14% below normal levels for the month. Rival Asiana Airlines' load factors declined 18.6 percentage points to 57% in the same period.

KAL is asking workers over 40 years of age who have worked at the airline for more than 10 years to take voluntary retirement.

Meanwhile, VISA reported spending by foreign tourists using its cards across the Asia-Pacific region had dropped 16%, but the decline was as high as 45% in Hong Kong and Singapore. Abacus International, the Singapore-based global reservation system, has experienced a 20% to 30% drop in revenue.

Aircraft lessors are working with customers to ease them through difficulties. Said Robert Martin, chief executive of Singapore Aircraft Leasing Enterprise (S.A.L.E.): "We believe in the underlying strength of the major carriers based in the Asia-Pacific region and their ability to meet the current challenges. Based on this confidence, we are ready to offer assistance to carriers seeking to preserve or increase liquidity by entering into purchase and leaseback agreements on new or almost new aircraft."

Ansett Worldwide vice-president, Asia Pacific, Jon O'Connell, said the primary reason the lessor had recently established a new office in Singapore was to better understand the unique issues facing airlines in this region. "SARS is very much a regional issue, but it has had an immediate and dramatic impact on all stakeholders involved in the airline industry. In addition to the financial implications, the SARS epidemic adds yet another degree of uncertainty for the fleet planning departments of the airlines in the region who already are struggling to cope with the effects of the Iraq conflict, terrorism and the general global economic slowdown. This is the area where leasing companies can readily provide some assistance."■

SARS tarnishes Golden Week

By Daniel Baron
in Tokyo

The Iraq war and SARS delivered a double-punch blow to Japan's two major international carriers, Japan Airlines (JAL) and All Nippon Airways (ANA).

In a pattern resembling the aftermath of the 2001 U.S. terrorist attacks, the historically ultra risk-averse Japanese leisure traveller decided to stay at home. Premium class bookings also nose-dived as companies put a freeze on most business travel outside the country.

SARS in particular took a heavy toll on international travel up to and including the Golden Week period of April 25 to May 5, with total outbound bookings dropping by 48% at the JAL Group (comprised of the combined Japan Airlines/Japan Air System, Japan Asia Airways, and JALways carriers). China routes saw demand fall by a massive 79% over the previous year, with an average load factor of only 10.6%.

It was a similar story at All Nippon Airways, where international bookings during the Golden Week period were down 42.2%.

Golden Week is traditionally one of the top three revenue earning periods of the year.

The news is not all gloom and doom, however, thanks to Japan's huge domestic market. The JAL group's domestic operations saw passenger numbers rise 0.6% during the 10-day period, on a capacity increase of 2.9%.

As might be expected, the domestic minor leaguers within the JAL and ANA groups have weathered the storm better than the more "exposed" mainline operations of their parent airlines.

Japan Airlines: Golden Week demand on China routes fell 79% over last year

JAL spokesman Geoffrey Tudor reported fiscal 2002 figures at regional service units Japan Trans Oceanair, JAL Express and J-Air suggested relative isolation from the effects of the Iraq conflict and SARS. Regional jet operator, J-Air, in particular performed well, with capacity and passengers up 32.5% and 27%, respectively.

Meanwhile, Japan's domestic-only smaller carriers have been largely insulated by their isolation from events going on outside the country.■

Air New Zealand faced a daunting challenge to extricate itself from the financial mess that followed the failure of its wholly-owned subsidiary Ansett Australia. But after two years of heavy losses, the flag carrier will soon announce a profit – but it is far from out of the woods. TOM BALLANTYNE spoke to chief executive RALPH NORRIS in Auckland.

Despair makes way for real hope at Air NZ

When 54-year old banker Ralph Norris walked into Air New Zealand's (Air NZ) headquarters as its new chief executive 16 months ago he was under no illusion about the task ahead – he knew he was entering a disaster zone.

Six months earlier the carrier had announced the worst corporate result in New Zealand history when it unveiled a loss of US$612.8 million for the 2000-2001 financial year. This news came days after its wholly-owned subsidiary, Ansett Australia, had ceased operating with debts said to be close to US$1 billion.

In that week, just 15 months after the carrier had added News Corp's 50% shareholding to its own 50% equity in Ansett, at a cost of US$350 million, Air NZ had to face the fact that it had failed spectacularly in its bid to build a powerful Australasian airline group. Furthermore, the New Zealand Government was forced to step in to save it from bankruptcy with a US$520 million bail-out package that gave the national government an 82% controlling interest in the carrier.

In 2001-2002, Air NZ reported another hefty loss of US$175 million, a figure that did not include another US$700 million of Ansett losses which had become the responsibility of the administrators. In two years, the value of Air NZ's assets had tumbled from US$5.3 billion to US$2.3 billion. Its annual operating cash flow plummeted into the negative, from US$230 million to minus $110 million.

Norris, the former managing director of New Zealand's ASB Bank, was deemed by government leaders in the nation's capital, Wellington, to be the man to breath new life into Air NZ. A master of understatement, he described his first foray into the airline business as "very interesting and a challenge".

Debate still rages over whether Air NZ paid too much for Ansett in 2000. Analysts believe the decision to buy the remaining equity in the Australian airline was motivated by a mix of national pride and a desire to stop Singapore Airlines from buying an equal share in the carrier.

One fact is undisputed. Trying to manage Ansett between its Melbourne base and Auckland failed miserably.

Norris will not be drawn into debate about the airline's near miss with commercial disaster nor will he publicly pin blame on previous management personnel for the near collapse of Air NZ. Reluctant to dwell on the past, he said his job is to look to the future and "find a model for Air NZ that is sustainable".

Air New Zealand chief executive, Ralph Norris: developed a new business model for the airline

However, upon his arrival in the Air NZ head office he quickly discovered that staff morale was rock bottom at the airline. Also, he decided the airline product was wrong and unless a new business model could be found the outlook for Air NZ was bleak.

Within four months of Norris's arrival a leaner management structure was in place with the top tier of executives slashed from 17 to seven. Executive salaries were cut by up to 15% and the board of directors was reduced from 13 to six. Directors' fees were halved.

A staff of 10,700 in mid-2001 has been reduced to 9,500. Aircraft leases were re-negotiated and new credit lines arranged. Air NZ repaid US$266 million in unsecured debt in the first half of last year and another US$58 million was paid in April, easing pressure further on the bottom line.

The recovery under Norris is continuing. Air NZ expects to post a pre-tax profit of around $110 million for the year ending June 30. In current circumstances, it would be an impressive result. In the past 12 months, the company has slashed its debt to equity ratio from 93% to 68%.

In the first six months to December 31 2002, Air NZ's revenue was up 2% to US$1.1 billion, while costs were down 8% to $841 million. The carrier was cash flow positive again to the tune of $191.7 million.

Today, still tussling with the uncertainties of a turbulent market, including the impact of Severe Acute Respiratory Syndrome (SARS) and an awaited decision from competition authorities on a proposed alliance with Qantas Airways, Norris is maintaining his focus on ensuring the recovering Auckland flag carrier has a viable future.

He warned of possible dangers and said that one unfavourable roll of the dice could see Air NZ bow out of the international marketplace and revert to operating as a domestic carrier.

The probable exception would be to retain services across the Tasman Sea to Australia, said the Air NZ chief.

"We are in the process of building a

new strategy for our long-haul services, which is about making sure we put in place a model that is going to be more sustainable than the existing model," said Norris.

Critical to the process are pending decisions by the competition authorities in Australia and New Zealand on an alliance that would see Qantas take a 22.5% stake in Air NZ (it already has 5%), forging a strong Australasian airline partnership. Clearance is in the balance. The carriers have until September to sway the Australian Competition and Consumers Commission and the NZ Commerce Commission in their favour. In April, the bodies issued draft findings which strongly rejected the proposed equity purchase as anti-competitive.

"Our market is simply too small to enable two airlines to compete head-to-head nationally and still make adequate returns on the enormous capital investment involved in maintaining a high quality airline. Sustained competition only comes if all the competing parties can make a profit at the prices offered. If one or both parties lose money, something eventually has to give. Either prices go up or one of the competitors goes away," said Norris.

Coupled with this are other uncertainties. Have issues relating to the Iraq war now eased or will ongoing Middle East turbulence and terrorism fears dog markets? How long will SARS impact travel patterns? What will happen to fuel prices and will there be further serious Asian or global economic downturns?

So far, the impact from the Iraq conflict and SARS has been lower then anticipated, said Norris. However, the pre-tax profit forecast for the year has been recently revised from US$126.5 million to $110 million.

Asian services have been affected, but Air NZ, operating to Europe only through Los Angeles, picked up additional traffic because many travellers moving to and from Europe opted to fly through North America rather than over the Middle East and Asia during the Iraq war.

"The current world airline industry environment clearly remains extremely volatile with profit realised to date being subject to downside risk. This risk includes, but is not limited to, further decline in traffic, decline in yields, increased fuel prices and a decline in the New Zealand dollar."

Norris's skills are tailor-made for Air NZ. Having driven development of advanced information systems at the ASB Bank and with obvious financial skills, he has a track record of success in change management, highly competitive marketing and innovative application of new technologies, all highly relevant to the challenges necessary to rebuild Air NZ.

Norris has thrown tradition out of the window at the carrier. Last year, in a revolutionary move, full-service domestic operations were dumped and a new single-class Express Class service launched.

"Taking what is probably our most profitable piece of business and totally rebuilding it from scratch was saying we needed to be much more competitive domestically," he said.

"It was an expensive product. It was a two-class product on route sectors of approximately 50 minutes. We were serving a three-course meal and full beverage service and that didn't make sense. We went back to the customer and asked what they wanted. What came out was a very simple message: They wanted price, price, price, followed by frequency, frequency, frequency.

"They didn't value the add-ons so we increased the seating capacity on the aircraft by 11% and reduced the number of cabin crew from four to three per aircraft.

"We were able to completely re-engineer our Internet booking systems. This resulted in a 17% to 18% reduction in our cost of sales because a significant proportion of bookings now go directly through the Internet."

The result? Domestic operating costs have been cut 20% – up to 30% on main trunk routes – and traffic has increased 23%.

Norris said that a critical part of the

HOW SIA LOST 'A GEM'

Air New Zealand paid US$300 million to transport group TNT in 1996 for 50% of Ansett Australia. The bumpy road to fiscal disaster began in June 2000 when it paid another US$350 million to secure the remaining half from Rupert Murdoch's News Corporation.

It had done so in the face of a bid from Singapore Airlines. Analysts and industry insiders felt SIA would have been a better solution. SIA later bought 25% of Air NZ.

Indeed, in March 1999 SIA's chief executive, Dr Cheong Choong Kong, called a press conference to announce SIA had agreed to buy News Corp's shares for US$315 million. "Ansett is a gem," enthused Dr Cheong. "It is an opal we would like to help polish and build to its full brilliance."

But as half owner, Air NZ had first call on the shares, an option it took up, delighting in the opportunity to control an Australian aviation icon.

The party quickly soured. Rod Eddington, who favoured SIA as Ansett's new owner, had left in April 2000 to become chief executive of British Airways in May. For eight months Air NZ's Melbourne-based subsidiary was virtually leaderless, with managers running it between Melbourne and Auckland. Morale plummeted and performance dipped. Ansett steadily lost Australian domestic market share to rival, Qantas Airways.

By the time former Qantas chief financial officer and co-deputy chief executive, Gary Toomey, arrived in Auckland as the airline's new chief executive in January 2001, Air NZ was haemorrhaging financially. It needed to modernise its diverse fleet, but it did not have the money to do so and it continued to lose market share, including critical, high paying corporate travellers.

Ansett Australia: its shine disappeared under Air NZ

Despite Toomey's efforts, by September 2001, just 10 months after he had arrived at Air NZ, Ansett was under voluntary administration. Then, in December, came the straw that broke the camel's back: the carrier's entire fleet of B767s was grounded on the eve of the year's busiest travel season because of serious lapses in safety checks.

Desperate efforts were made to keep Ansett alive, including a failed attempt to convince SIA to step in with a big cash injection and take over. SIA decided the move would be too risky. Within weeks, Air NZ had cut all ties with Ansett. Two Australian businessmen tried to relaunch Ansett but on March 5, 2002 the carrier operated its final flight.

For Air NZ, however, the legacy of Ansett's collapse remains in its ongoing fight to recover.

restructuring programme has been fleet standardisation.

Each of Air NZ's three domestic regional airlines operate single aircraft types: Mount Cook Airlines – 10 ATR72-500s, Air Nelson – 16 Saab 340As and Eagle Air – 16 Beech 1900Ds. "That creates a high degree of simplification: pilots, cabin crew, engineers and line maintenance," said Norris.

The domestic jet fleet is following suit, with existing B737s and B767s to be replaced by Airbus A320s by next year.

"Our ideal long-haul position is to have one single family of aircraft, somewhere around a 300-seater. We see that providing us with significant cost savings," he said.

Air NZ has 20 long-haul jets: eight B747-400s, nine B767-300ERs and three B767-200ERs. While he is not setting any timetables, sources suggested a decision on replacement – with either Airbus A330/340s or B777s – will be made during the second half of this year or early 2004. The outcome may depend on whether the proposed alliance deal with Qantas is approved.

Questions remain unresolved when it comes to the carrier's offshore strategy. Air NZ flies to numerous short and medium-haul destinations in Australia and the South Pacific. It operates long-haul to Honolulu, Los Angeles, London, Tokyo, Taipei, Hong Kong and Singapore.

There also is a low-cost, no-frills leisure subsidiary, Freedom Air, operating B737 flights to Australia.

All options for these routes are being considered. They include abandoning Europe perhaps replacing onward services from Los Angeles through a code-share with a partner.

"Everything is up for grabs," said Norris. "I wouldn't discount anything as far as reshaping our long-haul services. It's about making sure what you do, you do well and that you make money out of it."

Routes already dropped include Auckland to Frankfurt, Kuala Lumpur and Bangkok and Sydney-Los Angeles.

Norris said he believed the most important development at Air NZ had been a dramatic improvement in staff morale. "There is a much stronger focus on making sure what we are doing in the business makes commercial sense. We have gone through a process of re-evaluating our business. We have been pretty ruthless in cutting excess capacity, eliminating routes that are not making money. As a result, the financial position of the company has improved."

The staff is closely involved in this re-shaping of Air NZ through a process called "Choosing Our Future", with the company giving all unions a complete insight into its financial position and the strategies necessary to reposition the airline for long-term profitability.

Norris said he was amazed by the low margins on which airlines operate. Few airlines cover their cost of capital over the medium term, he said. "In the last three years, this industry has destroyed all the profits it ever made. That's a pretty sobering statistic," he said.

"There have been tremendous productivity gains in the industry in the last three decades, but all that productivity and more has been given to the travelling public. It has not been captured in increased margins or increased levies for the airlines."

Norris is troubled by the competition authorities strong rejection, to date, of the Qantas alliance proposal and to the authorities' suggestion that even the arrival of low-cost Virgin Blue on Tasman routes would make no competitive difference to the Air NZ/Qantas "monopoly" position and a claimed 90% market dominance.

Norris believes not enough consideration has been given to the presence of fifth freedom carriers on Tasman routes, mostly operating from Asia through Australian hubs to Auckland. Air NZ and Qantas not only compete against each other, but vie for passengers with Thai Airways International (THAI), Malaysia Airlines, Garuda Indonesia, Royal Brunei Airlines, Aerolinas Argentinas, Lan Chile, Air Tahiti Nui and Polynesian Airlines.

"That is a significant number of airlines and they sell fares at what we would regard as marginal cost.

"That does have a significant impact on the cost structure over the Tasman. To say we have 90% market share between us is overstating it.

"It appears they [competition bodies] are taking a view that this is through flying, not point-to-point. We know there is a significant majority of people flying point-to-point across the Tasman on these flights."

As he awaits the developments that will affect strategic decisions, Norris told *Orient Aviation* changes in global alliance membership could lie ahead. He said membership of the Star Alliance has been a "mutually advantageous relationship" but pointed out that some of his more significant competitors – THAI and Singapore Airlines among them – have also been its alliance partners.

Clearly, a partnership with oneworld alliance member Qantas will raise serious issues. "In the final analysis our decisions must be in the interests of Air NZ and our competitors will make these decisions as well," said Norris.

"I think you can argue that alliances and the linkages could change quite significantly over the next three to five years."

Air New Zealand: staff morale recovered

He has a clear vision for the airline, seeing it as a portfolio of inter-related aviation businesses. These range from the airline divisions – domestic turboprop and mainline jet, short-haul and long-haul international – to engineering and maintenance and ground-handling services, which he believes can be taken offshore.

Engineering, in particular, has a bright future. Fifty five percent of Air NZ's work is from overseas third party contracts. It has a joint venture with Pratt & Whitney for engine maintenance at Christchurch and Norris sees big potential for future growth of the project.

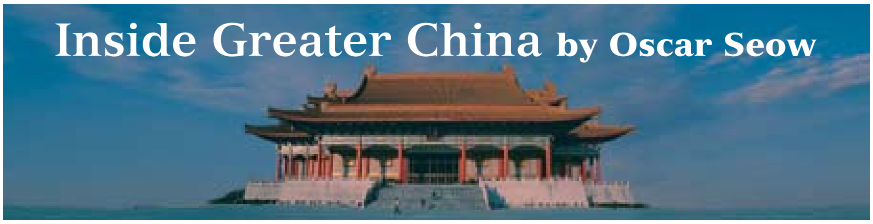
Air NZ will return to private ownership in time, but just when that will be is a government decision, said Norris.

"The government has been exemplary in the way it has handled the airline and allowed it to get on as it should do and operate commercially. Government hasn't interfered at all," he said.

And the future of Air NZ's chief executive? "I'm here to do a job and I don't see myself retiring [from Air NZ] when I'm 60. I will be gone well before [then]," he said matter-of-factly.

Improved yields and load factors the key to healthier balance sheets

China's airlines need to take stock



At the height of the region-wide outbreak of Severe Acute Respiratory Syndrome (SARS) some pundits predicted the imminent collapse of the Asian airline industry as passenger traffic in Greater China, particularly on the Golden Route between Taipei, Hong Kong and Shanghai, had, at press time, slowed to a trickle.

They had spoken too soon. In Hong Kong's case, where the disease has been brought largely under control, there is optimism in the air as the travel and retail industries looked forward to a rapid recovery.

Restaurants and shopping malls in Hong Kong are seeing customers coming back through their doors and there is no doubt this pent-up consumer sentiment will translate into a healthy rebound in air travel come mid-summer. It is hoped that Taiwan and the Mainland will follow Hong Kong on a similar path to recovery once they begin to win their own battles against SARS.

In the case of Mainland China, that recovery cannot come soon enough for China's airline managers. Since October, the national carrier groups, Air China, China Southern and China Eastern Airlines, have been hard at work consolidating their operations with the six other smaller carriers they inherited when the mergers were announced. For the most part, this integration process has proceeded smoothly, as was evidenced by China Southern's merger with China Northern Airlines and Xinjiang Airlines. In March, the three carriers announced a move to a unified flight code.

Yet the SARS crisis has laid bare a critical aspect of the consolidation process that may have not been given due attention in the immediate months after the integration – it is now clear the success of the big three airline groups is dependent on continuing passenger growth.

For all the talk of China's aviation potential, it has its blemishes. After experiencing robust expansion in the 1990s, Mainland airlines went into a tailspin during the Asian financial crisis of 1997-98 and accumulated combined losses of nearly three billion yuan (US$363.2 million) in 1998.

Since then the economics of the carriers have not been much better. They have accrued more debt in order to expand in an ill-conceived effort to grab market share. During 2000, carriers were opening more than three routes per week, which ballooned capacity and prompted cutthroat price wars.

The primary task of the October 2002 mergers was to cure this permanent hangover and set the Mainland airline industry on a path of profitable growth; a goal the regulatory authorities hope will be achieved in the next two to three years once all the airlines are fully integrated into their new groupings.

The most urgent needs for China's aviation industry are to increase overall yields and to raise passenger numbers. Theoretically, this should be achieved most easily by raising airfares, cancelling poorly patronised services and streamlining frequencies when demand does not match supply.

But there is little scope for airlines to raise airfares because consumer demand is still highly price elastic – China is a developing nation, after all – and the country's efficient rail and bus networks provide airlines with strong competition for passengers.

There is also little political advantage for Beijing if it slashed unprofitable routes to the underdeveloped parts of the country, as this strategy could widen the income gap between rural inland China and the more advantaged cities of the coastal provinces, such as Shanghai, Guangzhou and Xiamen.

Already, there are concerns that rising unemployment in rural China could spark nationwide political dissent, especially as the country's creaking state-owned enterprises restructure and shed hundreds of thousands of jobs in the process.

Airlines could also improve their bottom lines if they rationalised their fleets, thereby increasing operating efficiencies and raising the average hourly utilisation of the remaining planes. Immediately, this should reduce average costs and lessen pressures on raising yields. But again, politics can get in the way of good airline management in China.

Aircraft purchases are used as a tool to strengthen China's diplomatic ties with Europe and the U.S. In April, Beijing finally announced an order for 30 Airbus planes – four A330s, 16 A319s and 10 A320s – which most observers had expected for some time. China has long been a Boeing customer and it does seem diplomatically advantageous to diversify the nationality of its fleets, even if the balance sheets of the carriers suffer as they borrow to finance these purchases.

But given the need to clean up airline balance sheets, is this the right time to be buying new aircraft? The average age of Air China's fleet is just eight years, China Southern's is 7.8 years. At 5.8 years, China Eastern's fleet is the youngest of the three carriers. Looked at in the context of all Asian airlines, China ranks mid-range in terms of average fleet age.

The primary concern of the Mainland airlines should be to reduce lingering balance sheet headaches, not extend them. Their priority should be to strive for better yields and profitability, not capacity growth. Yet there is little doubt their hands are tied by political concerns beyond their control when it comes to this issue.

Therefore, passenger growth must be the essential ingredient in the strategies of the big three carriers. Without it the consolidation will not succeed. For all these reasons, China's airline managers must be hoping for some early relief from the SARS epidemic. ■

'LITTLE DOUBT THE HANDS OF CHINA'S AIRLINES ARE TIED BY POLITICAL CONCERNS BEYOND THEIR CONTROL'

100 YEARS OF POWERED FLIGHT - AN ASIAN PERSPECTIVE

Crazy beginnings in Hong Kong

By Barry Grindrod

A mat shed hangar and one of Harry Abbott's Curtiss aircraft pictured in 1925 at what was to become Kai Tak International airport

Belgian aviation pioneer, Charles Van den Born, may have made the first powered flight in Hong Kong, in his Farman biplane in March 1911, after performing similar feats in Saigon and Bangkok, but it was a former mercenary and the son of a circus bare back rider and record breaking balloonist – known as Crazy Harry to his friends – who was responsible for the early beginnings of commercial aviation in the then British colony.

American Harry Abbott touched down in Hong Kong in 1924 via China, where he and his team, which included his father and grandfather, had been pilots, aircraft builders and soldiers of fortune working for "the father of modern China", Sun Yat-sen.

The irrepressible adventurer rented a parcel of land in Kowloon from the Kai Tak Land Investment Company in December 1924 and set up a flying school.

Sir Kai Ho Kai and Au Tak had reclaimed the land with the intention of developing it for housing.

But the proposed project never took off. When Harry put in an offer to rent the site the cash strapped company gladly accepted and what was to become one of the marvels of the aviation world later in the century, Kai Tak International Airport, was born.

Harry had hoped to start an airmail and passenger service from Kai Tak, but when that failed to materialise and he was forced to sell what little was left of his business and return to the U.S. in August, 1925, he might well have reflected on the opening of his flying school eight months earlier.

Thousands of the Hong Kong public had flocked to Kai Tak to see a rip-roaring display of aerobatics, wing-walking and aerial acrobats exchanging planes in mid-air. But the occasion was marred by tragedy when Harry's mechanic, Reg Earnshaw, was blown into Victoria Harbour, after making a parachute jump, and drowned.

The locals had suspected the worst when Harry piloted the first plane to take off from the school after a ceremonial opening, with a tail of firecrackers. The fireworks failed to ignite, a sure sign of bad luck they said, and certainly very little went right for Harry after that.

Short of aircraft to launch a passenger service between Hong Kong, Shanghai and Manila in the Philippines and short of students at his flying school, Harry's antics in the skies over Hong Kong had also earned him a number of critics among the public. A letter that appeared in the *South China Morning Post* read: "It is all very well to amuse some of your youthful friends, but there are other people to be considered...

"To put the thing in a nutshell, Hong Kong with its surrounding hills is not suitable for flying."

Over 70 years later, in 1997, Kai Tak's last full year of operations before the opening of the new airport at Chek Lap Kok, 28.4 million passengers on 165,154 flights passed through that old, single runway airport!

Yes, Harry made his mark, but, ironically, it was lost eventually in the mists of time. So much so that the Civil Aviation Department was not even aware of Harry and his exploits until 1987 when his grandson, Dan-San Abbott, arrived in town with a photograph album under his arm and a remarkable story to tell.

He told it to me and as a result of the publicity the history books were rewritten. It had been generally accepted that Kai Tak was established around the time of the arrival of the Royal Air Force in 1927. But the unmistakable skyline of the Hong Kong Dragon's Back hills was there for all to see in Dan-San Abbott's photo album.

Before arriving in Hong Kong Harry Abbott had earned a fortune in China. He was paid US$1,500 a month in gold to build, test and fly the planes and to train local pilots. He also was injured in battles with warlords.

Having lost his fortune in Hong Kong, he returned to the U.S. and made a second one when he opened a flying school at Mills Field, later to become San Francisco International Airport.

The emblem on all Harry's planes was Felix the Cat, a famous cartoon character of the day. Perhaps he thought it would entitle him to nine lives.

On August 16, 1930, Harry's luck finally ran out. He had closed his flying school and was chief pilot of a California aviation services company. He had designed and built a small racing biplane, the "Abbott Baby".

He was showing off his new plane, which he planned to fly in races, to the American press when it stalled and crashed to the ground killing Harry. He was just 29 years old.

This is an edited and abbreviated version of a story originally published in Orient Aviation in 1998, to mark the closure of Kai Tak International airport. ■

Jet Asia acquiring VIP B727, expands to Thailand

By Charles Anderson

Macau-based Jet Asia, the executive charter and aviation management company, has opened a base at Bangkok's Don Muang International Airport and moved one of its two Bombardier Challenger 601 ten-seaters from Macau to the Thai capital.

The company aims both to tap the growing market within Thailand and increase its Southeast Asian operations using Bangkok for that purpose.

At the same time, Jet Asia is acquiring a customised VIP Boeing 727 to operate out of Macau. Normally seating over 150 passengers in a two-class configuration, the Jet Asia aircraft will carry just 32 passengers with "a VIP interior unmatched in the region", according to Jet Asia chief executive officer Chuck Woods. He declined to go into further detail at this stage.

The Bangkok expansion has been made possible through a deal with Sky Eyes Ltd, a certified Thai operator that runs turboprops and provides maintenance services.

"We can operate within Thailand as if we were Thai registered. From a regulatory standpoint we are a Thai aeroplane," said Woods, who was in Bangkok in March for the ribbon-cutting ceremony. The Challenger is the only private jet now based in the country.

"We have watched the Thai market improve at an impressive rate and polled numerous Thai and multi-national companies in Bangkok," said Woods.

A Bangkok presence will help Jet Asia push further into the region, stopping the need to dispatch a jet from Macau when customer itineraries involve countries such as Vietnam, Cambodia, Laos, Indonesia, Malaysia and Myanmar.

Jet Asia also has a marketing relationship with Philippino Subic International Air Charter through which it can call on Subic's four Lear jets (one Lear 35, two 45s and one 60) for charter and use Subic as a base. Subic has reciprocal agreements with Jet Asia. Membership of Bombardier's Flexjet Asia-Pacific network, which Woods describes as a "very nice marketing capability", rounds out Jet Asia's capabilities.

The B727 acquisition is the result of a study into lost revenue opportunities over a nine-month period. "There is such a demand for that kind of product that we just have to do it. We looked at where we could have flown and found that half could have been served by that aircraft," said Woods. The B727 will be in the region in the next couple of months.

Woods has been with Jet Asia, a privately held company owned by Macau's casino magnate Stanley Ho, his daughter Angela and her husband Peter Kjaer, for 18 months. Formed in 1995, the company acts as the corporate travel arm for Ho's STDM, Macau's largest employer and biggest private enterprise, as well as a commercial operator building a managed network of private jets.

Jet Asia's VIP service will take on a new dimension with the arrival of a customised Boeing 727

He points to the startling disparity between the 40 or so business jets he estimates are in operation in Asia and the 15,000 flying in the U. S. and the 6,000 to 7,000 operating in Europe as reasons to believe there is enormous room for growth in the Asia-Pacific.

"Our excitement and our motivation is to work, not just for ourselves, but with bodies like the Asian Business Aviation Association to decide what could be done to rectify this," he said.

Woods now sees the market returning after the 1997-98 Asian economic recession, when business jets were dropped by cost-cutting companies. "As Asian business people accept these aircraft as business tools and revenue enhancers and not simply as a toy or some display of wealth, the demand will come up," he said.

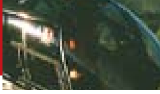
"My challenge is to educate people to take a look at how they can do their job better [through the use of business aviation]. It's an awareness challenge. Business aviation as practised elsewhere is available here.

"Somebody will put jets out there. I'd like to say we are taking a leadership role in that," said Woods, who joined Jet Asia from Northwest Airlines where he spent 10 years in airline services after 10 years with the U.S. Air Force, flying C141 fighters for some of that time.

He is keen to exploit Jet Asia's links with the U.S., where the company has an office in North Carolina, making it the only Asian private jet operator with a direct presence in America.

His latest initiative is to tap into the American Society of Travel Agents, whose 25,000 members range from American Express's corporate travel section to single-man agencies, to persuade them to include Jet Asia's capabilities in their listings.

Sixty percent of Jet Asia's customers remain North American or European where the advantages of business travel are more readily accepted. "These people already practise it. They get it," said Woods. ■



Sikorsky assembly deal consolidates China links

By Charles Anderson

Recent business licence approval by the Chinese Government for a joint venture between Sikorsky and indigenous helicopter developer Shanghai Little Eagle is the latest in a number of attempts by many of the world's main helicopter manufacturers to tap further into a market with major growth potential.

The company, Shanghai Sikorsky Aircraft, is to assemble Schweizer 300CB/CBi and 333 light helicopters at the Shanghai company's facility, with a production capability of 24 a year. The first Letter of Intent for a Shen 4T, the Chinese branding of the 333, has been signed with delivery to an unnamed customer expected by the end of the year.

"Although certain economies are experiencing difficulty, the Chinese economy continues to be a bright spot," said Mick Maurer, Sikorsky vice-president, marketing and strategic planning. "There is tremendous opportunity in the emerging Chinese market for light civil helicopters."

Sikorsky already supplies machines to government, offshore oil and airline customers in China. Its most recent sale was two S-76 coastal search and rescue aircraft to the Ministry of Communication. Changhe Aircraft Industries Corporation's (CHAIC) Jingdezhen Helicopter Group manufactures the tail section for the company's new medium-lift S-92 being assembled at its Connecticut base.

This first equity joint venture by Sikorsky puts it in the company of Eurocopter, MD Helicopters (MDHI), Enstrom and Agusta Westland in negotiating industrial cooperation deals.

Their enthusiasm is understandable. China at present has only 70 civilian helicopters in operation, with forecasts for future demand ranging between 1,000 and 2,000 within the next seven to 12 years in the civilian sector. China's National Aero-Technology Import and Export Corporation (CATIC) is the most optimistic, talking about 10,000 helicopters, with a market value of US$84 billion, being needed by 2020.

The opening of the country's western regions to economic development in particular offers opportunities for a mode of transport that can cope with rugged terrain and a volatile climate. Ongoing relaxation of general aviation rules will ease restrictions on helicopter operations, helping boost demand as China's economy continues to grow.

Sikorsky's joint venture, which has taken just over one year to set up after an initial announcement in February 2002, comes hot on the heels of MDHI's joint venture with Hongdu Aviation Industry Group under which Hongdu MD Helicopters will assemble MD 500s and 600s in Nanchang, Jiangxi Province.

The Eurocopter 120: air frames made on licence in China

Enstrom has a parts manufacturing deal with Wuhan Helicopter, with production on licence of Enstrom machines reportedly following within five years.

When it comes to indigenous manufacturing, Eurocopter, the world's largest helicopter maker, has long led the way as an overseas partner although AgustaWestland has helped with design of the 15-seater Chinese Medium Helicopter.

Eurocopter's involvement dates back to 1980 when CATIC was given a production and maintenance licence for the Dauphin model with production being transferred to Harbin Aircraft Industry (HAIG) seven years later.

More than 100 14-seat helicopters, with the Chinese Z-9 designation, have so far been produced, mainly for the military. Upgrading is now planned, with Eurocopter in regular discussion with HAIG.

Next came production through CHAIC of the Z-8, based on Eurocopter's Super Frelon. Forty helicopters are planned with 10 delivered so far. The light, single-engined, six-seat Z11-MB1, based on the Ecureuil, had a successful maiden flight in March. Also produced by CHAIC, it is expected to be of particular use in China's west and for general patrol and search work.

CATIC is a 24% partner with Eurocopter (61%) and Singapore Aerospace (15%) in the production of the EC 120 four-seater, which is marketed globally as part of the Eurocopter range. CATIC produces the airframe and markets the machine at home. Eurocopter says sales worldwide are good, but so far disappointing in China itself.

Bell and Robinson remain on the sidelines when it comes to indigenous manufacturing, although Robinson president Frank Robinson says his company is doing very well in China, without offering details. "We have no plans for foreign manufacture," he said. "It is not cost effective."

China, meanwhile, is anxious to ensure it has as much of the process in its own hands as possible, while taking advantage of foreign expertise.

"China has the capability to produce and conduct research on helicopters. In addition, China has huge market potential. We are very optimistic about the future of helicopters," the official Xinhua news agency quoted deputy general manager of AVIC II, Chi Yaozong, as saying.

AIR TRAFFIC MANAGEMENT

ATM: the way ahead

Global cooperation paramount to ease congestion and cope with future traffic growth in the skies, says Boeing report

By Charles Anderson

On June 18, a weighty document will drop on the desks of those with a stake in the future of Air Traffic Management (ATM) attending a public forum at the Paris Air Show.

The meeting will be sponsored by Boeing's new ATM division, only two years old and at present laying groundwork for its future operations rather than selling systems. The document is the final draft of its Working Together to Define the Future Global ATM System, a couple of years in the making and the result of consultations with a wide variety of stakeholders in the U.S., Europe and, latterly, the Asia-Pacific.

They include a long list of airlines, airports, aviation authorities, industry bodies, airplane manufacturers and rival systems makers – anyone, in fact, that Boeing's team thought had relevant concerns about where ATM is heading by 2020.

The "cornerstones" necessary for a future global system were identified, objectives and targets nailed down, operational concepts worked out and benchmarks for gauging future progress noted.

The resulting document, nearly 200 packed pages of diagrams and text, was signed off in mid-May and serves a dual purpose for the aerospace giant.

It believes that without global cooperation, a saturated air traffic management system will not be able to cope with the doubling of aircraft volume the company is forecasting by 2020 worldwide – a time when the Asia-Pacific is expected to triple its numbers. A top-notch overall system equates with smoother, safer traffic flow and a better market for everyone's planes and associated activities – in short, a prosperous industry that benefits everyone working in it. The global economy

Elizabeth Keck, vice-president, business development, Asia for Boeing ATM: airlines see need for more airspace modelling and redesign and increased efficiency in the use of airspace

will score, too.

It is a view shared by many, not least the International Civil Aviation Organisation (ICAO) that has its own concept of the kind of cooperation that offers the best way forward. This differs in some aspects from Boeing's idea, with the company politely arguing against ICAO's approach in its report.

Boeing also believes, at a more down-to-earth level, there is money to be made from the development and supply of ATM systems themselves. As a newcomer in an established sector, it is doing its homework first before diving in. At present it sells simulation tools and software solutions to airline and airport systems through its Australian subsidiary Preston Aviation Solutions.

Boeing ATM may be new to the Asia-

SPECIAL REPORT

Pacific – its operation here is just one year old – but its report makes particularly interesting reading when it comes to identifying detailed regional concerns.

Those consulted earlier this year agreed with the basic 25 cornerstones already identified in the areas of safety, ATM security, national security, operational performance, access, delay, predictability, efficiency, flexibility, cost effectiveness, human involvement, transition, uniformity, quality and the environment.

"What we found was everyone [globally] was interested in a safe, secure system, it didn't matter what segment they came from," said Elizabeth Keck, vice-president, business development, Asia for Boeing ATM and a former U.S. Federal Aviation Administration (FAA) senior representative in North Asia.

Cost-effective modernisation as quickly as possible and single, uniform airspace that makes the best use of resources at an affordable cost also were on all wish lists. There were, however, some differences when it came to detail.

"Air traffic service providers and regulators have a focus on balancing user needs. They have the issues of airline operators, fairness of access to airspace, particularly when you have congestion, and the need to provide cost-effective services," said Keck.

"Commercial carriers had a core interest in the areas of capacities and operational performance. They wanted predictability in the system, flexible use of airspace and so on." Access to airports and airspace topped general aviation's priorities.

But there also were some varying areas of emphasis in the Asia-Pacific, where Boeing enlisted the help of Airservices Australia whose thinking on future developments coincides with its own.

Airservices Australia assigned four senior officers to the taskforce that talked to 34 companies or organisations, including many of the major airlines based in the region, aviation authorities in China, Hong Kong, Japan, India, Korea, Singapore, Indonesia and New Zealand, as well as airport authorities and bodies such as the International Air Transport Association (IATA) and ICAO.

"There was an overall consensus on the airlines' side that there is a capacity problem in Asia," said Keck. "Another area was the need for more airspace modelling and redesign and increased efficiency in the use of airspace."

The need for an Asia-Pacific regional operational concept was highlighted. "Countries may have their own operational concept and future architectural plans and investment plans, but nothing is done cross-regionally on an over-arching basis," said the Boeing executive.

"Another interesting area was the need for traffic flow management and integrated traffic planning systems. Flow management and the level of traffic flow services have been implemented on a limited basis in this region. That's clearly going to be an area where countries will be needing to make investments in the Asia-Pacific region."

Predictability and flexibility were particular concerns. "Because of the number of long-haul flights that fly out of here, any change in routing may mean that you have to stop some place else for refuelling, increasing your costs," said Keck.

Comments on ATM security also differed in the Asia-Pacific. "In the area of communications, many countries rely on third party providers. Therefore, because they don't own their own system, these providers have to be involved in any security enhancements in future systems," she added.

Boeing is thinking globally. It believes by 2020 a worldwide ATM system is vital for the future of the industry. But, if the Asia-Pacific is struggling to cope regionally, is there any hope this can be achieved, either in the Asia-Pacific or on the world stage? Keck thinks there is.

"If you look at the progress that has happened in the area of new routings, for example, you see excellent cooperation that has taken place in the last decade. It does happen," she said. "In terms of flow management the key to the future will be building up cooperation that has happened in all the new air maps across several different flight information regions and build on that to tackle flow management issues of the future."

She points to EMARSSH, a restructuring over three regions (the acronym stands for Europe, Middle East, Asia Route Structure South of the Himalayas) and the over-Polar routes that needed cooperation from the U.S., Russia and China.

Keck also emphasises the human considerations necessary for the Asia-Pacific to operate regionally and globally. "If you are going to have more standardised systems in the future, it means you are going to have to have, for example, training available so that controllers, no matter what circumstances they work under, can attain the same standards."

Major ATM challenges ahead, particularly in Asia where air traffic is forecast to triple by 2020

With all that paperwork under its belt, what does Boeing plan to do next, apart from persuade the world to come on side?

"We have the cornerstones mapped out. We designed performance targets for these cornerstones. Then we move into operation concepts and architecture and at the same time we will be validating the benefits against your targets," said Keck. In other words, put what you can into operation and chart the difference it makes.

Keck uses safety as an example. Boeing looked at research by Eurocon-trol (the European Organisation for Safety of Air Navigation which is working to develop a single air traffic management system for the continent) and the National Aerospace Laboratory (NLR) of the Netherlands (see panel) and then dissected 164 ATM-related accidents so it could give some idea what could be achieved using nine promising ATM technologies.

These included Global Positioning Satellite (GPS) and Automatic Dependence Surveillance (ADS) applications, minimum safe altitude warning (MSAW), controller-pilot data link communications (CPDLC), ground proximity warnings, separation management monitors and airport surface movement management.

The result, Boeing says, would be a potential for impacting on 93% of Controlled Flight Into Terrain (CFIT) crashes, 67% of mid-air collisions and all runway accidents, although they stress ATM can never bring figures down to zero.

"We also looked at data collection. It is widely recognised in the industry that it is under-reported in terms of air traffic management. Another way of tackling reduction in accidents due to ATM causes would be increased reporting and consequent analysis," said Keck.

Boeing's report quotes Eurocontrol findings that 38% of those who keep mum fear individual sanctions, 31% loss of face and 16% are due to cumbersome procedures.

Away from the nitty gritty and the statistics, Boeing has a determined big-bang theory about the future. Among other things, it wants to persuade the industry to have second thoughts about ICAO's recommendations over how air traffic management can be tailored in a global context.

Boeing is at odds with the "Homogeneous ATM Area" concept put forward by ICAO, which involves states or regions tailoring their systems to their differing needs in seven core areas, merging them over time – 2025 is a suggested date – and in that way finally achieving a single interoperable global ATM system.

Boeing is keener on finding what it says is a better, quicker and more cost effective way of achieving the same end. ICAO, you can be sure, will not agree with a few of Boeing's conclusions when its blueprint hits the table in Paris this month.

ICAO did not respond to questions for this article, but Dave Behrens, director of safety, operations and infrastructure, Asia-Pacific, for the International Air Transport Association (IATA), spoke favourably overall of Boeing's report, while urging cooperation all round.

"It is a well thought out product. It has had a tremendous amount of input," he said. "If we can get the Boeing product, the ICAO product, the IATA product [through its joint development group], get them on a table, sort through our differences and come up with a common plan we would all be the better for it." ■

Asia-Pacific tops ATM-related safety list

The Australia/Pacific region had fewer ATM-related accidents per flights than any other region over the 11-year period covered in a study by the National Aerospace Laboratory (NLR) of the Netherlands. Asia came next in the list.

NLR dissected 213 accidents worldwide from 1980 to 2001, including those related to the ATM system in general as well as incidents directly caused by air traffic management. The Australia/Pacific recorded 0.11 accidents per million flights, Asia and Africa 0.40, North America and Western Europe 0.44 and 0.50 respectively, with Central and South America the worst at 0.50.

"A large number of ATM-related accidents that occurred in Western Europe and North America involved collisions in the 'taxiing to and from runway' flight phase," said NLR research scientist Gerald van Es, whose study was presented by the Flight Safety Foundation to a European Aviation Safety Seminar in Geneva in March.

"Such occurrences are more likely to take place at large, complex airports with a significant number of ground movements. Such airports can especially be found in Western Europe and North America."

He found 68% of accidents worldwide involved aircraft that struck parked ground vehicles or other aircraft during taxiing – 33% of the overall total featured aircraft simply hitting parked vehicles, 22% saw taxiing aircraft strike motionless aircraft and 21% involved collisions of two aircraft moving on the ground. Midair or near-midair collisions topped the other causes at 13%.

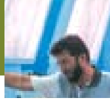
Twenty-nine of the ATM-related accidents were fatal, with 984 killed. Midair or near-midair collisions topped that list, with 14 accidents killing 620 people. Ten collisions between aircraft or between aircraft and vehicles on the ground saw 263 die and four accidents involving landing aids killed 90. None involved turbulence.

Van Es listed causal factors into four groups: flight crew, air traffic control (ATC), environment and aircraft systems.

"It is interesting to note that the most frequently identified factors belonged to the flight crew group and not to the ATC group," he said, listing 78 incidents in that category.

Twenty ATC accidents were caused by "incorrect or inadequate instruction/advice", 12 by "failure to provide separation [between aircraft] on the ground" and seven by "ground aid malfunction or unavailable".

The NLR study involved commercially operated airplanes with gross weights of 5,670 kilograms or more. Sabotage, terrorism and military accidents were excluded. ■



A brave new world awaits

By Charles Anderson

When the blueprints for a future worldwide air traffic management system have finally been drawn up and approved, it will come down to people like Greg Tunny to supply the technology that makes them work. The regional director for Thales, the giant French-based ATM technology provider, believes it is all possible, but at a price.

"I look at some of the grand visions that are being expounded at the moment and they are doable. Most of the technology, if not all the technology exists," he said. "It's spectacularly too expensive for broad deployment within the global aviation sector at the moment, but in terms of broad technology, it is a question of working out exactly what we want to do and getting the operational concepts right. Otherwise, we will put it all together slightly the wrong way, or not the most cost effective way."

As the process continues, prices will come down to a level at which these new, interoperable systems become affordable.

For Thales, a taste of this has come with TAAATS (The Australian Advanced Air Traffic System) for Airservices Australia and NESACC (Northern, Eastern and Southern Area Control Centres), part of China's modernisation of its aviation system. Both involved a number of large, integrated centres – in China's case linking Shanghai, Beijing and Guangzhou through its busy eastern corridor – with the company's Eurocat systems at their hearts.

Both are being implemented on time, allowing Tunny to make the point that all the main suppliers would doubtless echo. "That's a major one for our customers. Once there was a lot of excitement about technical advances, but now all around the world our customers are getting more commercially focused," he said.

"Better companies are not necessarily interested in the lowest price. They are interested in value for money, which is always a complex equation. But knowing you are going to get something that works, and on time, are two key elements."

Tunny pegs improved data links and ADSB (Automatic Dependence Surveillance Broadcast) as two key areas for now and the future. Using advanced forms of ADSB on longer-term flight conflict protection probes will allow

airlines to move to preferred routes, he said.

"That's where the ATC (air traffic control) operator will be delivering and adding value to airlines. ADSB provides partial replacement for radar at much lower costs. It's a sort of enabling capability so that you have data in a lot of places that used to be vacant in the past, or a lot of air space that used to be vacant."

Air traffic operators can put airplanes on user-preferred routes knowing there is no conflict with another plane, saving airlines money in operating costs. Flight conflict protection is essential. "We have to ensure that while we produce user-preferred routes we maintain the safety factory. It's not just about doing it as cheaply as possible. There can be no compromise on the safety aspect while doing this," said Tunny.

ADBS, with its ability to allow a plane to measure and transmit key information about position and altitude to the ground and to other aircraft, will change the way ATM functions.

"At the moment air traffic control is a ground-centric operation," he said. "We have centres on the ground. Radar is on the ground. ADBS starts to change this in that the aircraft is reporting its position to what is a very low-cost, relatively simple ground station."

"At the end of the day there will be some increased activity on the aircraft, self management and inter-aircraft self management. There will be a significant role for the ground systems also. So the balance will change from something that is heavily ground centric to something more balanced. Automated data flow between the ground and above will increase dramatically, so the data link issue will become very important.

"Interoperability will be an absolutely critical area. As we get to more efficient operations, the handover from one air traffic services operator to another will need to become more seamless, particularly in high density areas."

Many of the key advances, including those in the areas of trajectory transference, separation services and flexible allocation of airspace, will be interlinked making it important that the airlines, air traffic operators and the automated systems themselves work together without a hitch.

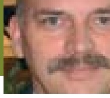
Tunny, however, points out that this brave new world will not apply everywhere, at least not for a long time. "We need to remember that we have to support legacy systems and the limitations of legacy systems in the aircraft and on the ground. Not everyone will have the money to upgrade in one hit."■

China offers most potential

Greg Tunny has no hesitation in naming China as the number one prospect for commercial growth in ATM, but there are other Asia-Pacific countries to consider, too.

Bids for a system at Ho Chi Minh City are being tendered, with Hanoi also due for an upgrade. The Philippines, which has just completed a major ATM study, will talk to potential suppliers probably in 2004, with Singapore looking to buy a new generation, Eurocat-style system to replace its older Thales system in around 2005. Thailand has plans for change within a similar time scale.

In China, joint ventures will grow in importance. "Clearly, a market as big and as important as this will not be serviced wholly from offshore. That's in China's best interests. We will look at joint ventures if necessary. We do have something in the pipeline," said Tunny, without offering further detail. "We fully respect their desire to develop stronger Chinese indigenous capability."■



Interoperability the ATM challenge

By Charles Anderson

Late last year an ambitious set of route restructures was put into place that exemplified the kind of thinking Dave Behrens, of the International Air Transport Association (IATA), believes is necessary if airlines are to profit from air traffic management implemented on a grand scale.

On November 22, carriers flying from Asia to Europe were, for the first time, able to use the EMAARSH system, created as a result of suggestions from IATA's joint redevelopment group when it was flush with success over regional initiatives to tackle the Y2K threat. Its proposal that such cooperation should be extended into the route structure area, particularly in the big picture context of Asia-Europe flights, was taken up and developed by the International Civil Aviation Organisation (ICAO).

EMAARSH's title underscores why it took 18 months of hard work to implement it. The Europe, Middle East, Asia Route Structure South of the Himalayas spans 30 countries and three ICAO regions: the Asia-Pacific, the Middle East and Europe. A certain inventiveness was necessary to make it work well.

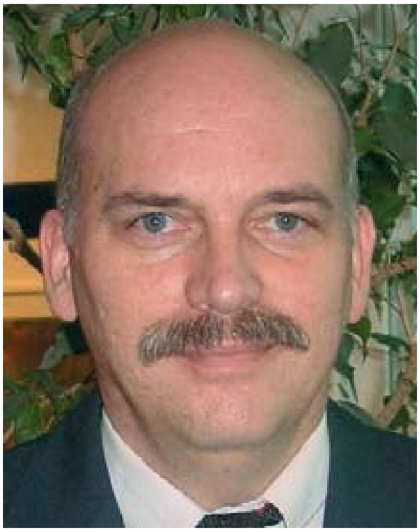
"We had tremendous success in particular with India, Pakistan and Iran in working together with the civil and the military authorities, either putting in routes that would shelf over airspace being used at the lower levels by the military, or, for example, in India and Pakistan, where some routes were for night-time use only," said Behrens, IATA's director of safety, operations and infrastructure, Asia-Pacific.

"You can fly through the air space at night time, but in the day time we have to release it for military training. Call it a coincidence, but the night-time use falls in perfectly with Asia to Europe travel."

A more efficient, more flexible way to fly to Europe is now in place, a significant development in Behrens' eyes. "Global plans and regional cooperation?" he said when asked about their importance. "In a nutshell, that's what it is really all about. Our biggest challenges today are not technical, they are not procedural necessarily and sometimes they are not even financial. We have come a long way [in the Asia-Pacific], but I'm not saying we are there yet. We still do have political challenges."

Other government bodies, for instance, have been known to restrict civil aviation authorities' freedom to act and the demands of the military can put a brake on progress.

"We obviously have challenges with the military," said Behrens. "The second you stray off traditional routes being flown today, you can bet your bottom dollar you are going to infringe on military training space.



Dave Behrens, IATA's director of safety, operations and infrastructure, Asia-Pacific: political challenges in the Asia-Pacific

"There are countries in the region where the military are not necessarily supportive or understanding of civil aviation operations. Because of that, instead of flying between point A and point B, we have to zigzag."

When it comes to the nuts and bolts of a pan Asia-Pacific air traffic management system, as opposed to the political challenges posed by 14-hour flights across more than one region, the IATA man brings technical aspects more into play. "If we could get tech all together on a common platform, all interoperable and at the same time a commitment by states on a consistent application, we could go a long, long way," he said.

Don't expect it to happen tomorrow, though. "These are not overnight projects. It takes a few years to work. But states are listening. They are taking notes," added Behrens.

First must come harmonisation of what is required. In radar control and monitoring of planes, for instance, there are variances between countries from five kilometres to 45 kilometres. Altitude standards change between the ICAO norm and what applies in Chinese and former Soviet Union airspace. China is bringing its requirements closer to ICAO's, but over North Korea, Mongolia and the airspace up to Turkmenistan, there are still different separation criteria, with vertical separation in operation as opposed to horizontal.

Interoperability between ATM systems and its components is not just an Asian problem, but a global one, which needs solving if grand plans are to come to fruition "This is one area where we are lagging," said Behrens. "We were quick to come forth with concepts and ideas, some avionics and some CNS (Communication, Navigation, Surveillance) stand-alone systems for trials and demonstrations, but it is a challenge to go to the next step, FANS (Future Air Navigation System) interoperability.

"This is where informal efforts in the South and North Pacific are a step ahead of the rest of the world. We can continue this same required interoperability approach, for instance, in China and some neighbouring countries," he said

Behrens is anxious that with FANS certified aircraft rolling off the production lines, the airlines should reap a reward for the huge investment they have made in this data-linked communications and navigational system by getting full use of it.

ADSB (Automatic Dependent Surveillance Broadcast) on the other hand is close to a global international operations standard. ADSB, which equips an aircraft to broadcast information such as identification, altitude and position to air traffic controllers and other planes, can replace ground-based radar at a much lower cost. Behrens gives a startling example, also putting it in the context of today's troubled financial times.

"A proposal has been given to us in Australia right now for ADSB, which would cover the whole continent for the price of two radars. That's significant. The problem now is there is a cost to the airlines. There are some real short-time, achievable benefits but, as we know, SARS is taking a lot of those budgets."

To Behrens, it is important the old gives way to the new and that more efficient, cost-effective advances take over from systems that are heavily ground based. "The next advances, in the short term, are going to be difficult steps because airlines are going to really scrutinise costs, but if we can find the ways and means, we can make a serious, clean break," he said. ■

STATISTICS FOR FEBRUARY, 2003

CALM BEFORE THE STORM

Compiled and presented by Kris Lim of the Research and Statistics Department of the Association of Asia Pacific Airlines Secretariat

The Association of Asia Pacific Airlines (AAPA) member carriers' international revenue passenger kilometres (RPKs) growth slowed to 5.2% year-on-year in February, compared to 13.5% in January, because of concerns about the imminent Iraq war and the timeframe in which Chinese New Year (CNY) fell.

The number of passengers carried (PAX) increased by 3.9%. Capacity, expressed in available seat kilometres (ASKs), however, showed higher growth of 12.6%. As a result, passenger load factor (PLF) slipped five percentage points to 71.1%.

February's traffic was particularly bullish for Vietnam Airlines (VN – 19.1%), Korean Air (KE – 17.9%) and Malaysia Airlines (MH – 10.8%). On the other hand, China Airlines (CI), Philippine Airlines (PR), Garuda Indonesia (GA) and Royal Brunei Airlines (BI) experienced a decline in traffic. Load factors were lower for all carriers (except Garuda Indonesia) in the month under review *vis-à-vis* February 2002.

CARGO

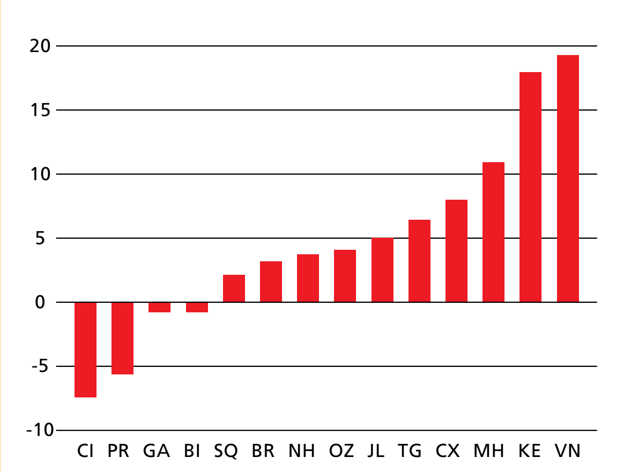
Despite the Iraq war concerns and the CNY effect, international cargo traffic measured in freight tonne kilometres (FTKs) rose by 11%. Overall capacity was up 14.1%, which resulted in a decline of 1.8 percentage points in freight load factor (FLF) to 64.7%.

Malaysia Airlines: robust cargo traffic continued in February

Malaysia Airlines' cargo business continued to expand strongly, with robust growth of 36.8% in February. The load factor averaged 66% during the 12-month period to February this year – a significant improvement compared with the past couple of years. The Northeast Asia-based carriers also saw double-digit growth in February: All Nippon Airways (NH

RPK GROWTH BY CARRIER

Percentage (Feb 03 vs Feb 02)



PAX GROWTH BY CARRIER

Percentage (Feb 03 vs Feb 02)

Garuda Indonesia: the only AAPA carrier to increase its PLF in February over the same month in 2002

– 21.1%), Korean Air (19.5%), EVA Air (BI – 18.0%), Asiana Airlines (OZ – 15.1%) and China Airlines (12.7%).

Greater increase in capacity over tonne-kilometres flown resulted in a lower load factor for the majority of the carriers. Only Malaysia Airlines (4.8 percentage points), All Nippon Airways (2.2 p.p.), China Airlines (1.8 p.p.) and EVA Air (0.4 p.p.) showed an improvement. Asiana Airlines had the highest load factor of 76.6% in February, followed by China Airlines (75.1%), Korean Air (72.6%) and EVA Air (71.8%).

RESULTS OF THE 12 MONTHS TO FEBRUARY 28, 2003

PASSENGER

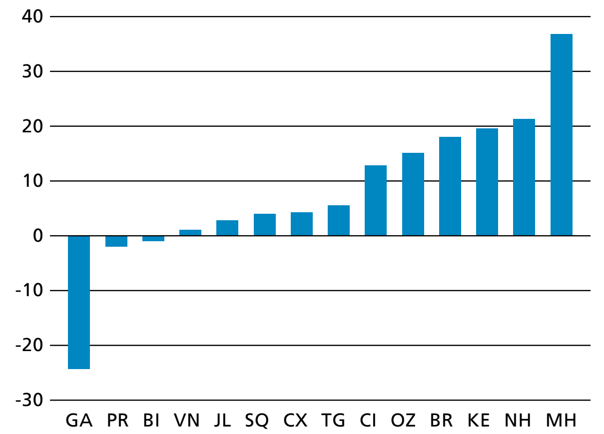
AAPA member airlines posted an RPK increase of 7.3% for the 12-month period. PAX rose 7.6% year-on-year. Seat capacity expanded 3.1%, which enabled load factor to improve 2.9 percentage points to 74.2%.

CARGO

AAPA consolidated FTKs rose 15.6% in the 12-month pe-

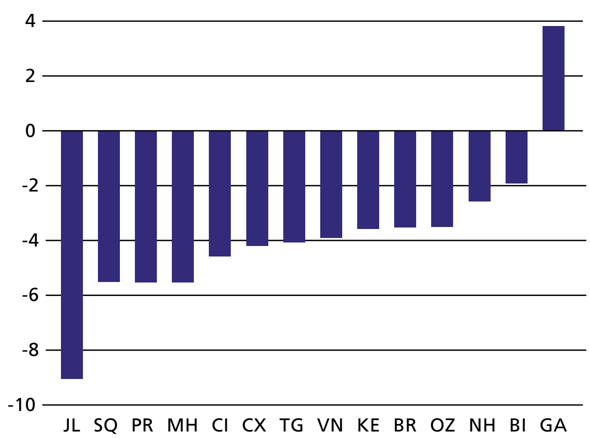
FTK GROWTH BY CARRIER

Percentage (Feb 03 vs Feb 02)



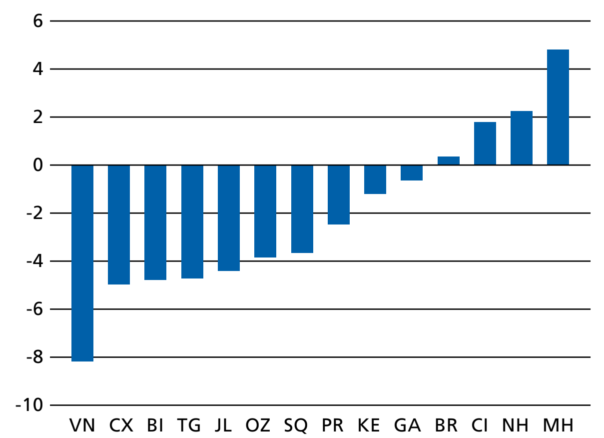
PASSENGER LOAD FACTOR GROWTH BY CARRIER

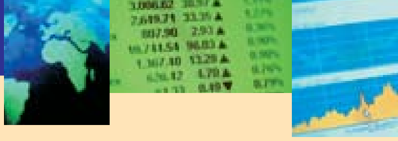
Percentage Points Change (Feb 03 vs Feb 02)



FREIGHT LOAD FACTOR GROWTH BY CARRIER

Percentage Points Change (Feb 03 vs Feb 02)





riod. Capacity increase (9.8%) still lagged behind FTK growth, which resulted in a load factor of 68.1%, up 3.4 percentage points.

SUMMARY

Year-to-date passenger figures for 2003 showed RPK and PAX grew by 9.5% and 8.2% respectively, with load factor shedding 2.1 percentage points to 72.7%. Overall ASKs increased by 12.6%. Vietnam Airlines, Korean Air, Cathay Pacific Airways, Malaysia Airlines and Japan Airlines have had double-digit RPK growth rates to date. However, Japan Airlines' traffic – despite experiencing a year-to-date growth of 10.5% over the same period last year – remained below the level reported in the first two months of 2001.

Year-to-date freight figures for 2003 show FTK growth of 12.7%.

At the time of writing, the Iraq war was 'technically' over, but Severe Acute Respiratory Syndrome (SARS) has exploded into one of the biggest crises ever to hit the Asia-Pacific and the region's carriers. According to traffic results announced by a number of carriers, March traffic showed a dramatic drop towards the end of the month. In April, market conditions worsened and, to date, a huge amount of capacity has been removed from the market. ■

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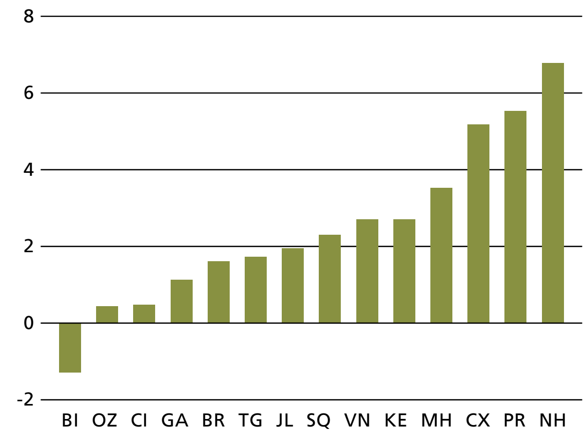
Asiana Airlines: highest freight load factor (76.6%) among AAPA carriers in February

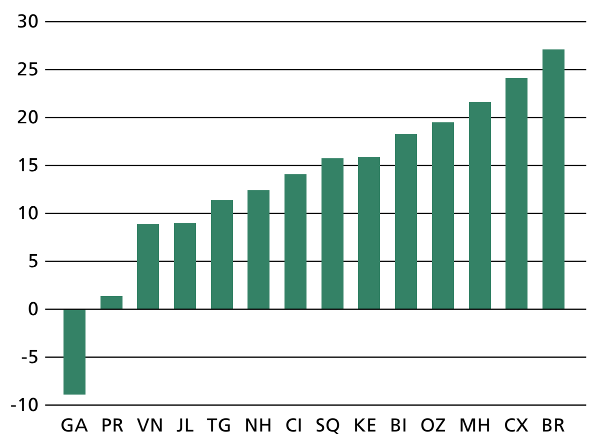
PASSENGER LOAD FACTOR GROWTH BY CARRIER

Percentage Points Change (Mar 02 - Feb 03 vs Mar 01 - Feb 02)



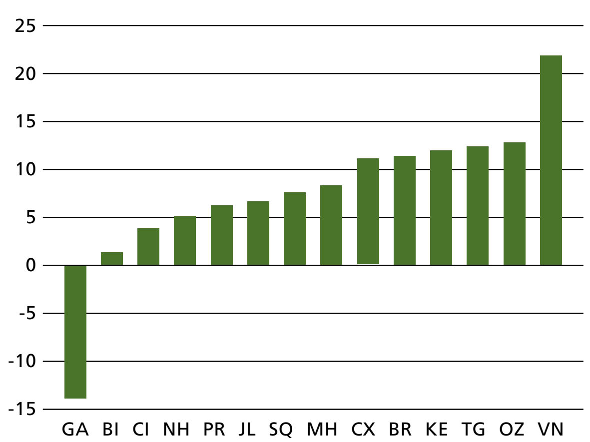
FTK GROWTH BY CARRIER

Percentage (Mar 02 - Feb 03 vs Mar 01 - Feb 02)



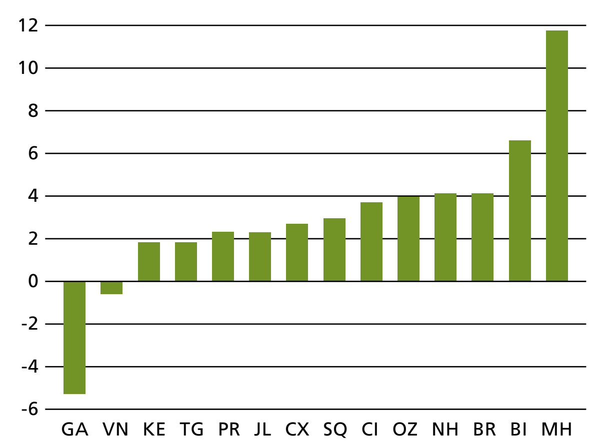
RPK GROWTH BY CARRIER

Percentage (Mar 02 - Feb 03 vs Mar 01 - Feb 02)

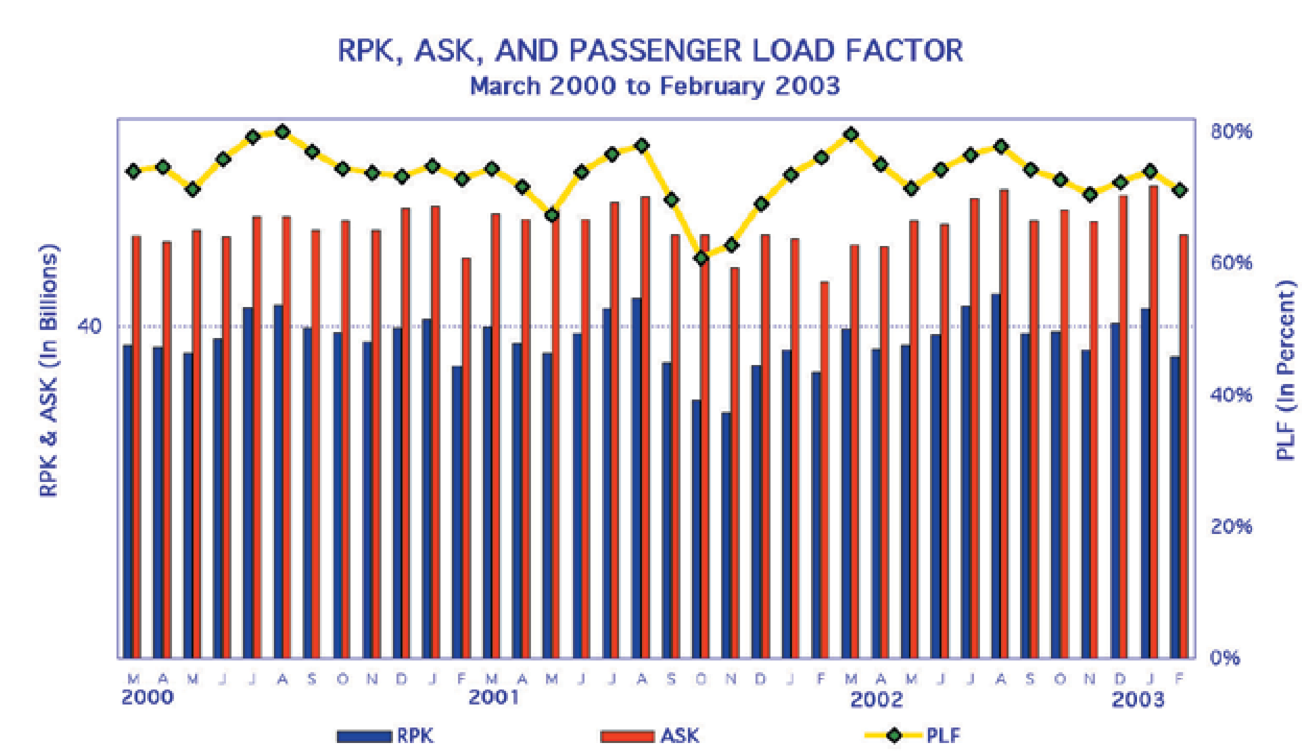


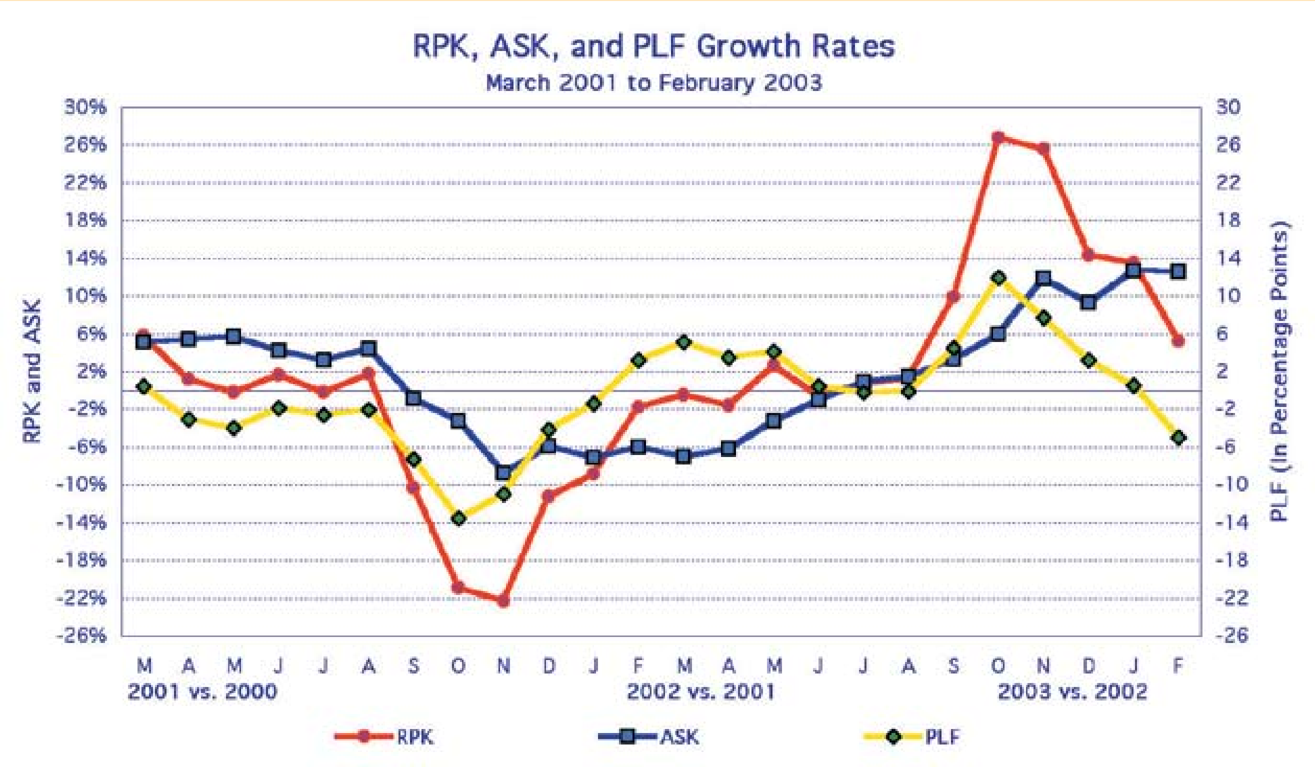
FREIGHT LOAD FACTOR GROWTH BY CARRIER

Percentage Points Change (Mar 02 - Feb 03 vs Mar 01 - Feb 02)

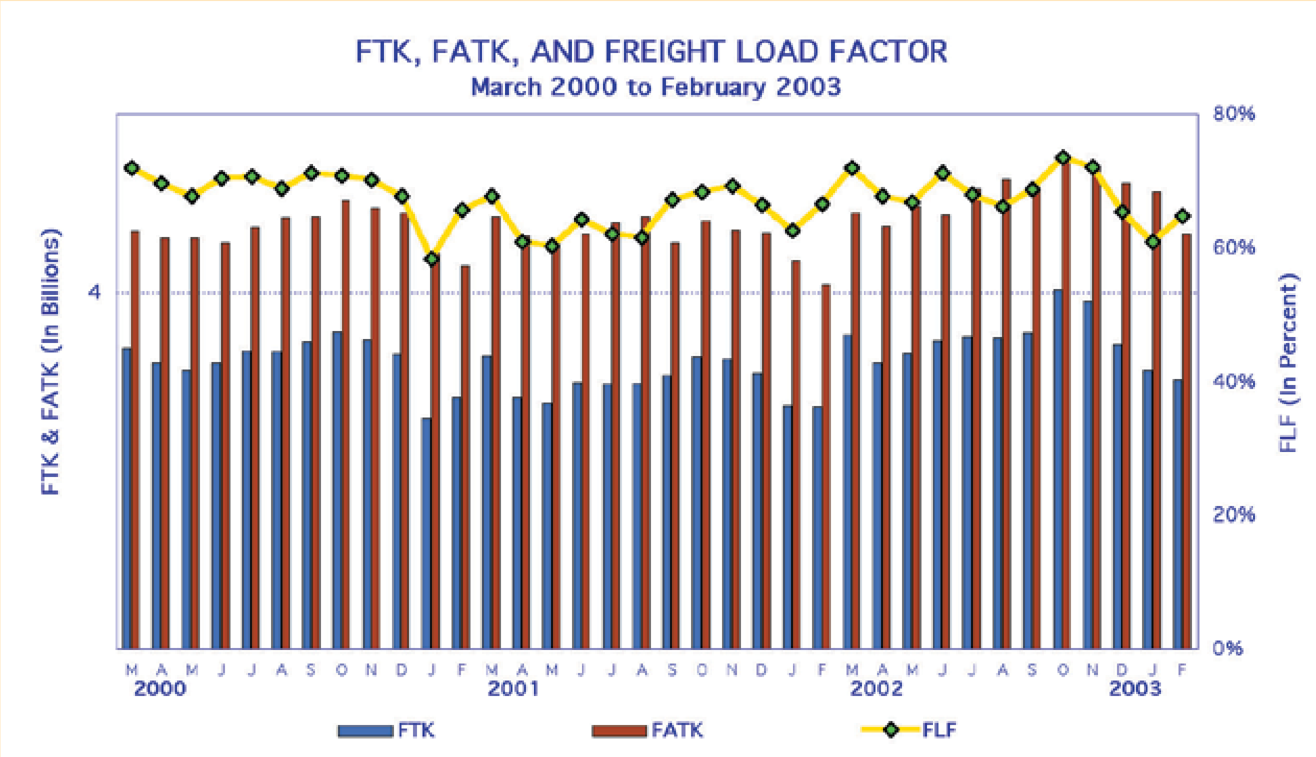


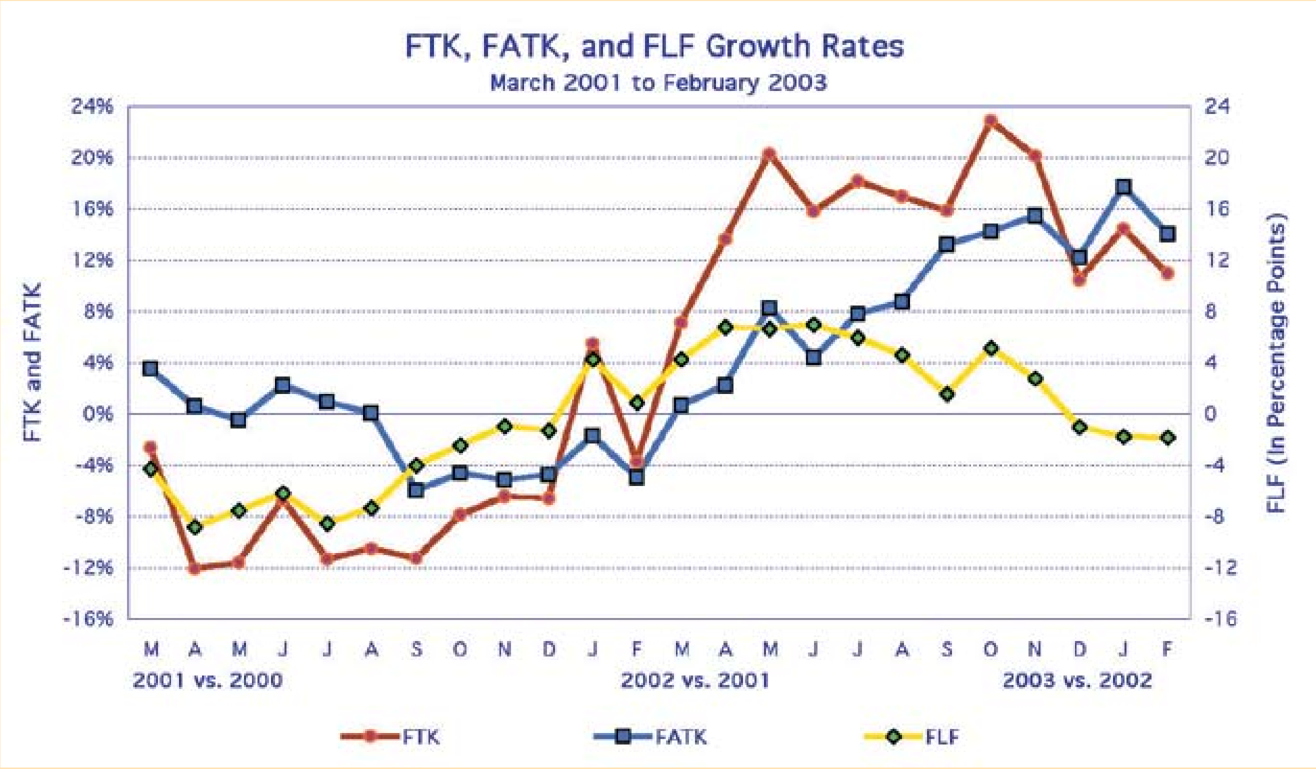
MONTHLY INTERNATIONAL PAX STATISTICS OF AAPA MEMBERS

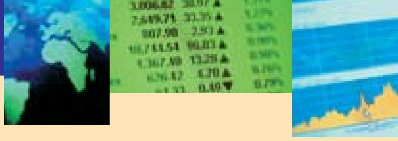




MONTHLY INTERNATIONAL CARGO STATISTICS OF AAPA MEMBERS







AAPA MONTHLY INTERNATIONAL STATISTICS SUMMARY OF CONSOLIDATED RESULTS IN THOUSANDS

2002 TO 2003

	RPK (000)	ASK (000)	PLF %	FTK (000)	FATK (000)	FLF %	RTK (000)	ATK (000)	PAX (000)
MAR-02	39,623,369	49,744,219	79.65	3,513,303	4,883,017	71.95	7,249,596	9,441,395	9,358
APR-02	37,267,797	49,595,928	75.14	3,204,320	4,739,035	67.62	6,689,838	9,269,816	8,879
MAY-02	37,666,041	52,729,527	71.43	3,316,589	4,962,379	66.83	6,858,712	9,745,368	8,832
JUN-02	38,904,838	52,318,624	74.36	3,461,160	4,861,334	71.20	7,124,174	9,640,755	8,831
JUL-02	42,398,522	55,409,545	76.52	3,500,284	5,148,358	67.99	7,456,166	10,215,620	9,714
AUG-02	43,885,864	56,363,848	77.86	3,483,972	5,263,891	66.19	7,580,274	10,409,895	10,123
SEP-02	39,155,092	52,723,895	74.26	3,547,914	5,160,898	68.75	7,204,078	9,986,464	9,014
OCT-02	39,304,575	54,021,467	72.76	4,025,748	5,476,828	73.51	7,714,662	10,424,647	9,282
NOV-02	37,133,162	52,622,659	70.56	3,896,693	5,411,113	72.01	7,431,531	10,228,207	8,765
DEC-02	40,350,605	55,780,248	72.34	3,412,854	5,224,033	65.33	7,176,043	10,322,547	9,386
JAN-03	42,164,204	56,955,320	74.03	3,117,259	5,124,585	60.83	7,065,550	10,335,595	9,547
FEB-03	36,307,917	51,036,989	71.14	3,013,600	4,656,286	64.72	6,350,839	9,361,920	8,626
TOTAL	474,161,985	639,302,269	74.17	41,493,696	60,911,757	68.12	85,901,462	119,382,229	110,358

2002 TO 2003

	RPK %	ASK %	PLF	FTK %	FATK %	FLF	RTK %	ATK %	PAX %
MAR-02	-0.52	-6.98	5.18	7.09	0.71	4.29	3.18	-2.94	2.99
APR-02	-1.63	-6.24	3.52	13.63	2.24	6.77	4.86	-2.00	1.85
MAY-02	2.60	-3.27	4.09	20.29	8.30	6.66	10.26	2.06	4.07
JUN-02	-0.54	-1.06	0.39	15.77	4.41	6.99	6.86	1.66	-0.19
JUL-02	0.67	0.89	-0.17	18.15	7.80	5.95	7.89	4.32	2.47
AUG-02	1.29	1.43	-0.10	16.96	8.76	4.64	7.79	5.05	2.97
SEP-02	9.96	3.28	4.51	15.88	13.25	1.56	12.42	8.39	9.47
OCT-02	26.73	5.95	11.93	22.82	14.21	5.15	25.40	10.42	24.09
NOV-02	25.56	11.82	7.73	20.10	15.45	2.79	24.29	13.93	21.47
DEC-02	14.39	9.29	3.22	10.43	12.18	-1.04	13.04	10.87	11.88
JAN-03	13.54	12.66	0.57	14.45	17.71	-1.76	13.66	15.31	12.51
FEB-03	5.19	12.60	-4.96	11.00	14.05	-1.81	0.10	19.33	3.88
GROWTH	7.25	3.07	2.89	15.57	9.81	3.40	10.58	6.91	7.60

CALENDAR YEAR[4]

	RPK (000)	ASK (000)	PLF %	FTK (000)	FATK (000)	FLF %	RTK (000)	ATK (000)	PAX (000)
1998	382,106,292	557,130,177	68.58	30,958,021	46,204,321	67.00	66,141,448	97,199,731	86,198
1999	416,820,106	576,253,703	72.33	35,277,459	51,519,550	68.47	74,179,615	104,437,440	94,242
2000	462,592,401	617,966,475	74.86	39,027,134	56,258,060	69.37	82,551,363	112,893,269	103,610
2001	446,371,390	627,039,303	71.19	35,863,984	55,755,572	64.32	77,654,045	112,989,919	102,847
2002	467,340,919	627,191,375	74.51	40,801,462	59,566,958	68.50	85,046,259	116,493,219	108,974
2003	78,472,120	107,992,309	72.66	6,130,859	9,780,871	62.68	13,416,389	19,697,515	18,174

CALENDAR YEAR[5]

	RPK %	ASK %	PLF	FTK %	FATK %	FLF	RTK %	ATK %	PAX %
1999	9.08	3.43	3.75	13.95	11.50	1.47	12.15	7.45	9.33
2000	10.98	7.24	2.52	10.63	9.20	0.90	11.29	8.10	9.94
2001	-3.51	1.47	-3.67	-8.11	-0.89	-5.05	-5.93	0.09	-0.74
2002	4.70	0.02	3.33	13.77	6.84	4.17	9.52	3.10	5.96
2003[5]	9.52	12.63	-2.06	12.73	15.94	-1.79	6.81	17.19	8.24

Note:

1. The consolidation includes 15 participating airlines. Consolidated results for JAN 2003 and FEB 2003 are subject to revision.
2. KA and NZ do not participate in this report.
3. AN data from JUL 1998 to JUN 2001 only. VN data from JAN 1998 onwards.
4. CY denotes Calender Year (January - December): JAN - DEC 2002. 2000, 2001 & 2002 figures have been updated with Air Nippon's traffic results. Air Nippon is a subsidiary of All Nippon Airways.
5. YTD Comparison: JAN - FEB 2003 vs. JAN - FEB 2002.