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Andrzej Jeziorski

More consolidation for India's airlines

Back in November, Kingfisher Airlines CEO Vijay Mallya gave an address to the Centre for Asia Pacific Aviation's Outlook Summit, where he spoke about his company's acquisition of a substantial stake in low-cost carrier Air Deccan.

The biggest winner from a tie-up between the two carriers would be the national airline industry, he said. The country's fast-expanding industry was now suffering losses as a result of brutal fare wars between domestic start-ups and consolidation was a necessary move.

Before Deccan arrived on the scene in 2003, a flight from Bangalore to Delhi cost about 12,000 rupees (US$303) on one of three carriers that served the route. After the low-cost carrier established itself, the fare plunged to an average 2,500 rupees, stimulating demand but also creating "a lot of balance sheets splashed all over with red ink".

Now, Deccan and Kingfisher have confirmed the will complete a fully-fledged merger in April (see related story, page 7), following the merger last year of state-owned Air India with Indian Airlines and the takeover of Air Sahara by Jet Airways. Now India has three major airline groups, controlling 83 percent of the domestic market, which Mallya says will herald a return to sustainable pricing and operations.

It has been a turbulent few years for the Indian industry. Between the beginning of 2005 and mid-2006, total domestic capacity grew 48 percent, while low-cost carriers grabbed an increased share of the market – rising from 22 percent in early 2006 to more than 30 percent by the end of that year.

For Jet Airways, a shift in the ratio of full-fare to discount passengers from 65:35 to 35:65 between the second and third quarter of 2006 meant yields plunged, as fuel and other costs rose. The second quarter of that year saw 6 percent smaller yields than a year earlier – with a 9 percent drop held off only by the introduction of fuel surcharges.

"I think everyone has had about enough," Mallya said. "We are not looking to operate as cartels or exploit consumers, but we do want to make some money and insert some sanity into the industry. In a few years, I think we will see preserved business models [both low-cost and full-service], but a vastly improved bottom line."

The Kingfisher chief added that, with his airline's full-service philosophy, combined with Deccan's no-frills approach, he will be able to offer "both the lowest fares in the market, as well as the highest". Perhaps we will now see India's airline boom settling into more sustainable, steady growth. ●

Australia's air combat conundrum

According to a paper published in January by the Australian Strategic Policy Institute (ASPI), the country faces tensions between the timeframes for its air combat review, the development of a Defence White Paper and decision points for the acquisition of Lockheed Martin F-35 Joint Strike Fighters (JSFs) and Boeing F/A-18F Super Hornets.

Australia's new Labour government has initiated a review of its air defence procurement needs, including the planned JSF acquisition and the previous government's order for 24 Super Hornets as replacements for venerable General Dynamics F-111s. ASPI is now urging the government to allow the review to be run by an independent analyst with extensive aerospace knowledge.

"A 'blank sheet' approach that makes no assumptions about the types to be operated makes sense, but will consume time and resources," ASPI says.

The government's planned Defence White Paper would help in decision making for the review, but that document is not expected to be completed until late this year, at about the same time that Australia is scheduled to make a decision on its A$12-15 billion (US$11-13 billion) JSF procurement. Any further slips in the JSF development programme could leave Australia with a need for more air combat aircraft, with the current force of F/A-18s scheduled to keep flying until 2018 thanks to an upgrade programme.

The Super Hornet could provide that solution, but its capabilities have been called into question, compared with other front-line fighters in service in the region. If the country does decide to cancel the previous government's order for this aircraft, it would face substantial penalties.

"Any decision to terminate the Super Hornet contract will need to be accompanied by a plan to manage air combat capability in the period 2010-2015," ASPI says.

"There seems to be no real impediment to deferring a decision on Australia's acquisition of the JSF beyond 2008," the institute concludes. "As well as giving the review time to determine a long-term solution, additional schedule, cost and performance data from the JSF programme will be available at a later date." ●

First deliveries of the 787 are now expected to take place in the first quarter of 2009.

Boeing announces further 787 delays

Boeing in mid-January announced a further delay to the delivery schedule of its new 787 twin-aisle twinjet, to allow "additional time to complete assembly" of the first aircraft.

The aircraft's first flight will now take place at about the end of the second quarter of this year, in a third delay from the original, late-September 2007 target. The first deliveries are now expected to take place around the first quarter of 2009.

"We continue to be challenged by start-up issues in our factory and in our extended global supply chain," says Boeing Commercial Airplanes President and Chief Executive Scott Carson, adding that the aircraft's "fundamental design and technologies" remain sound.

Boeing says that, while it has made "solid progress" on the assembly of the first aircraft, "the rate at which jobs are being completed has not improved sufficiently to maintain the current schedule". The manufacturer says it will work with its customers and suppliers to assess the impact of the latest delay on the flight-test schedule and entry-into-service.

"The effort will include an assessment of supplier progress in meeting their commitments to deliver more complete assemblies on subsequent airplanes," Boeing says.

In a statement dated 16 January, the company said it would update its financial guidance for the current year at its fourth-quarter earnings press conference on 30 January as a result of the delay. "The company does not expect the impact on 2008 earnings guidance to be significant," the manufacturer said.

Thai AirAsia suffers annual loss in 2007

Thai AirAsia, the Bangkok-based affiliate of Malaysian low-cost carrier AirAsia, says it made a loss last year as costs increased and competition intensified.

However, AirAsia, which owns 49 percent of the carrier, has denied initial reports that the carrier lost 1 billion baht (US$32 million) during the year. The Malaysian company says the loss is expected as a result of "rampant undercutting" of fares on domestic routes, combined with higher fuel costs and an accounting change, bringing the carrier's maintenance accounting in line with industry standards.

Speaking to reporters in Bangkok, Thai AirAsia Chief Executive Officer Tassapon Bijleveld said the airline has faced on-off financial penalties for breaking leases on some of its Boeing 737-300 aircraft. It has also had to pay for maintenance of the aircraft before handing them back to lessors.

Tassapon predicts that the carrier will return to profitability this year.

The carrier is in the midst of a fleet revamp, adopting Airbus A320s as replacements for its 737s. The decision to make the change has come as a result of the surge in fuel prices.

Thai AirAsia now operates three A320s and twelve 737-300s, eight of which are leased. Five more A320s will be delivered by the end of 2008, with five 737s to be returned. Another five aircraft will be swapped in 2009.

THAI AIRWAYS International is to begin direct flights to the popular holiday island of Koh Samui, breaking a long-standing monopoly by rival Bangkok Airways, which owns the island's only airport. The Thai flag carrier says it has now reached a satisfactory agreement with Bangkok Airways on airport charges, and will on 15 February begin operating a twice-daily service from Bangkok's new Suvarnabhumi Airport to the island using single-aisle, Boeing 737-400 jetliners. Airlines have previously criticised Bangkok Airways for demanding excessively high airport fees at Koh Samui. Up to now, the nearest airport to the island served by Thai Airways has been Surat Thani, requiring tourists to take a ferry across to the island. Bangkok Airways operates 95 flights a week to Koh Samui.

THE INTERNATIONAL Federation of Airline Pilots Associations (IFALPA) has protested at the arrest of a Garuda Indonesia captain, who faces manslaughter charges following the fatal crash of a Boeing 737-400 at Yogyakarta in March last year. Investigations into the accident showed the aircraft was initially too high on the approach and the pilot put the aircraft into a steep descent, increasing its speed excessively. He also ignored repeated calls from the first officer for a go-around, eventually touching down too fast at 221 knots. The aircraft overran the runway, killing 20 passengers and a flight attendant. IFALPA says a criminal prosecution "may well foreclose further investigation" of the reasons for the pilot's actions, maintaining that air safety does not benefit from criminalising those involved in accidents.

India's Kingfisher, Deccan plan merger

Kingfisher's own expansion plans include the acquisition of widebody aircraft such as the planned Airbus A350.

India's booming aviation market is about to see more consolidation, with the planned merger in April of Deccan Aviation and Kingfisher Airlines.

The merger, via a share-swap that will leave a majority stake in the merged business in the hands of Kingfisher founder Vijay Mallya and his associated interests, follows on from the merger between Air India with Indian Airlines, and the acquisition of Air Sahara by Jet Airways.

Deccan says it has agreed to issue three shares for every seven held in Kingfisher, with the aim of completing the merger by 1 April. Deccan Aviation will be the holding company the will own low-cost carrier Deccan and Kingfisher, but will soon change its name to Kingfisher Airlines.

Deccan will continue to operate under its present brand. The company's charter business, which mostly provides corporate helicopter services, is being kept separate from the transaction and will be sold to a new entity jointly belonging to Deccan founder G R Gopinath and UB Group.

Mallya himself will reportedly own 8.4 percent of the holding company, while his liquor business United Breweries Group, which owns Kingfisher, will hold 60.6 percent. United Breweries already owns 49.8 percent of Deccan, having increased its stake twice since first buying into the company last year with an initial 26 percent stake.

Mallya will be chairman and chief executive of the merged company, while Gopinath will be vice-chairman.

Air Deccan was launched in 2003 as India's air transport industry was beginning to boom, while Kingfisher started up in 2005. Almost all of India's airlines are now losing money, however, triggering the recent consolidation moves.

Deccan now operates a fleet of 23 Airbus A320s single-aisle jetliners and 18 ATR 42 and 72 turboprops on domestic services. Full-service carrier Kingfisher now has 24 A320s, A319s and A321s along with 15 ATR turboprops. The airline also has a number of Airbus widebody types on order, including A350s and A380s.

Kingfisher has been pressing for the right to fly international services, but has been blocked by a national regulation requiring airlines to operate domestically for five years before extending their networks overseas.

MITSUBISHI HEAVY Industries (MHI) plans to stop producing components for Bombardier regional aircraft, to focus more on Boeing programmes. The Japanese company will stop making parts for Dash 8 Q400 turboprops by December 2009, ceasing CRJ work by March 2010. Production of parts for the Canadian manufacturer's business jets will continue. MHI says it wants to concentrate in particular on wing-box manufacture for the Boeing 787 programme. The company also manufactures components for 737, 747, 767 and 777 aircraft. MHI insists the decision is unconnected to its own development plans for the 70- to 90-seat Mitsubishi Regional Jet.

INDIA HAS negotiated new, more liberal air services agreements with Bahrain, Oman and Saudi Arabia, allowing for a substantial increase in the number of seats per week on flights between the countries. The figures have increased to 11,500 for Bahrain and 11,550 for Oman, while Saudi Arabia gets a massive increase to 20,000 from 8,500. Hyderabad has been added as a new designated destination for carriers from Bahrain, while Bangalore and Calicut have been added for airlines from Oman. All restrictions have been removed on dedicated cargo services for both countries. The Saudi agreement now allows for the designation of multiple carriers, instead of just one from each side. It also allows Saudi airlines to serve Bangalore, Calicut and Lucknow, while Indian carriers can now operate to Madina.

Indonesian government to sell 40% stake in Merpati

The Indonesian government will sell a 40 percent stake in state-owned Merpati Nusantara Airlines to private investors as part of a restructuring plan to make the carrier profitable.

According to Merpati's President and Director Hotasi Nababan, the privatisation will take place through direct placement, starting in either June or July. Hotasi says foreign investors, including airlines and leasing companies, have expressed interest in bidding for the stake. He declines to identify the potential investors.

Merpati will also offload 49 percent of its engineering unit, Merpati Maintenance Facility (MMF), which is currently wholly-owned by the carrier.

Hotasi says Merpati plans later this year to lease 15 Boeing 737-300/-400 aircraft, to reopen some routes that it suspended two years ago due to a lack of funds and a shortage of aircraft.

Merpati, which operates mainly domestic routes, has been in the red for more than a decade. The airline's losses have been mounting over the last six years due to competition from local carriers such as Adam Air, Lion Air, Indonesia AirAsia and Mandala Airlines, which has triggered a fare war. Mismanagement and corruption allegations have sunk the airline further into the red.

Last year, the government pumped in 450 billion rupiah (US$48.6 million) into the airline, to help pay off part of its 1.7 trillion rupiah of debt. A recent proposal to merge Merpati and national flag carrier Garuda Indonesia with cash-rich, state-owned oil giant Pertamina to improve the airlines' finances has now been shot down by the government for a second time.

In October 2006, the government forked out 75 billion rupiah in working capital for the airline, to cover items including initial lease payment s on five Boeing 737-300s. Eventually, the lease deal collapsed as the cash-strapped carrier failed to provide bank guarantees requested by the lessors.

Meparti and Garuda had previously both failed to meet the government's September 2006 deadline to submit restructuring plans, including dropping unprofitable routes and disposing of surplus aircraft. A Ministry of Transport official says the government has now exhausted all avenues of trying to save Merpati.

"The government does not have any more funds to bail out Merpati," the official says. "The alternative now is to privatise the carrier and hope the workers do not protest."

Any protests from the airline's workforce could delay the exercise, he adds.

Merpati is 93.8 percent owned by the government and 6.2 percent by Garuda. The airline now operates 40 domestic routes and two international services, to Singapore and Kuala Lumpur. The carrier has a fleet of 38 aircraft – two 737-300s, 10 737-200s, two Fokker 100s, three Fokker 28s, four Fokker 27s, four CASA CN-235s, six CN-212s and seven De Havilland DHC-6 Twin Otters. ●

Dennis William / Jakarta

NEWS IN BRIEF

THAI AIRWAYS International has posted a profit of 6.34 billion baht (US$192.12 million) for the year ended September 30, a drop of 30 percent from last year. The decline was attributed to substantially smaller foreign exchange gains, which fell to 1.2 billion baht from 6.22 billion baht a year earlier. Income from the sale of aircraft also dropped from 2.1 billion baht to 500 million baht. The profit fell short of the airline's 8.55 billion baht forecast. Thai's revenue was up 7.58 percent at 182.98 billion baht, helped by strong performance in the carrier's traditionally strong markets of Europe and Japan. The carrier's costs rose 5.3 percent to 179.2 billion baht, with fuel costs accounting for a third of the total. Passenger load factors increased by 1.6 percentage points to 77 percent, the highest level in the history of the carrier, as passenger numbers rose 3.1 percent to 20 million.

CEBU PACIFIC, the Philippines-based low-cost carrier, says it will establish a third hub at Davao International Airport from 8 May. The company's other two hubs are in Manila and Cebu. The carrier says it has more services to and from Davao than any other airline in the Philippines. President and Chief Executive Officer Lance Gokongwei says the third hub will come as Cebu Pacific prepares to add more routes with the expansion of its aircraft fleet. The carrier plans to launch thrice-weekly non-stop flights from Davao to Singapore from 8 May, with four-times weekly services to Hong Kong beginning the following day, using Airbus A319 jetliners. The services may be increased to daily flights as demand increases. The carrier is evaluating the possibility of making Clark International Airport its fourth hub, once it receives government approval to operate from there to Bangkok, Macau, Taipei, Hong Kong and Singapore.

Korean Air's new low-cost unit set for May launch

Korean Air (KAL) plans to launch a new low-cost carrier (LCC) in May 2008, to be based at Seoul's Incheon Airport.

The new, wholly owned KAL subsidiary will be called Air Korea and will start operations with an initial fleet of three, twin-aisle Airbus A330-300 jetliners and three, single-aisle Boeing 737NGs, flying to Shandong and Hainan provinces in China. The unit also has plans to operate to destinations in Malaysia, Thailand and Japan, as well as on other short- to mid-range routes in the region.

According to Korean Air, the parent airline will invest 20 billion won (US$21 million) to set up Air Korea, which will be managed and operated under a new company, separate from KAL. The Korean flag carrier will provide training to pilots, flight attendants and engineers, as well as heavy aircraft maintenance services.

KAL decided to establish the low-fare unit following a nine-month feasibility study, carried out in 2005. It said in June last year that the carrier would be set up within the next three years, but not earlier than 2009.

The earlier start up of Air Korea may be a response to plans by Singapore-based Tiger Airways and Incheon Metropolitan City to establish their own LCC in the second quarter. The start-up will be known as Incheon Tiger Airways (ITA) and will also use Incheon Airport as its base.

ITA has not firmed up a date to launch flights. Air Korea may beat its rival to the punch, since it will be able to lease aircraft directly from KAL.

Domestic air travel in Korea is expected to shrink significantly when high-speed train services are launched in 2009. KAL has been planning to withdraw several aircraft from operation when the bullet train service begins, and has been pondering since 2005 how best to utilise the surplus aircraft.

The airline now faces a legal hurdle, with the recent introduction by the South Korean Government of a regulation that would require new airlines to operate domestically for two years before being allowed to begin international services. KAL now says it is "working with the government" to secure permission for Air Korea to offer international flights from the start. ●

Dennis William / Seoul

Air China, Shanghai Airlines join Star Alliance

Air China and Shanghai Airlines have formally joined the Star Alliance, the world's biggest global airline grouping.

With the addition of the two Chinese carriers, Star Alliance now has 19 member airlines, operating 17,000 daily flights to 897 destinations in 160 countries. With their domestic services alone, Air China and Shanghai Airlines have added more than 40 new destinations to the Star network.

"China is one the fastest growing aviation markets in the world," says Jaan Albrecht, chief executive officer of the grouping. "With Air China and Shanghai Airlines now admitted to Star Alliance, we offer an unrivalled network of flight connections to, from, and within this market for international travellers."

Beijing-based Air China is China's national carrier and sole designated passenger airline partner of the 2008 Beijing Olympic Games. The carrier was listed on the Hong Kong Stock Exchange and the London Stock Exchange on December 15, 2004.

State-owned Air China's international services cover 39 destinations in 26 countries, using a fleet of 212 aircraft. Apart from Beijing, the carrier's other hub is Chengdu, in Sichuan province.

Shanghai Airlines is China's first commercial airline with multiple investments, and was the first Chinese airline to list on the Shanghai Stock Exchange in 2001. With a fleet of 59 aircraft, the carrier operates to 140 domestic and 11 international destinations.

The airline is one of the fastest-growing carriers in China, planning to expand its fleet to 100 aircraft by 2010. The Boeing 787 will join the Shanghai fleet later this year, and the company is now finalising plans for European and US services.

Shanghai Air has one of the fastest-growing fleets in China.

The Star Alliance network was established in 1997. The other members are Air Canada, Air New Zealand, All Nippon Airways, Asiana Airlines, Austrian, bmi, LOT Polish Airlines, Lufthansa, Scandinavian Airlines, Singapore Airlines, South African Airways, Spanair, SWISS, TAP Portugal, Thai Airways International, United Airlines and US Airways. Regional member carriers are Adria Airways (Slovenia), Blue1 (Finland) and Croatia Airlines.

EgyptAir, Turkish Airlines and Air India have been accepted as future members and are expected to join Star Alliance soon. ●

Dennis William / Beijing

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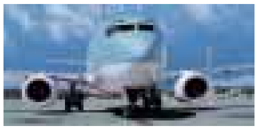

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First RAAF KC-30 completes in-flight refuelling trials

Flying out of EADS CASA's test facility in Getafe near Madrid, the first production-standard Airbus A330 multi-role tanker transport (MRTT), also called the KC-30, completed its first series of air-to-air refuelling trials in January.

Probe-and-drogue refuelling tests were conducted using a two-seat EF-18 Hornet from the Spanish Air Force's Centro Logístico de Armamento y Experimentación (CLAEX). Several hundred pounds of kerosene were transferred to the fighter from both the tanker's left and right refuelling pods.

Earlier on, the MRTT had carried out several rendezvous with an Airbus A310 MRTT test-bed, this time using the EADS CASA air refuelling boom system (ARBS) to transfer fuel.

The A330 MRTT, which is to be the first of five KC-30B tankers to be delivered to the Royal Australian Air Force (RAAF) , is outfitted with a state-of-the-art centreline ARBS with fly-by-wire controls, plus two under-wing hose and drogue pods. The latter are Cobham (FR) 905 wing mounted pods, which carry 96.6-ft. long hoses, and are designed to offload kerosene at a slower rate of up to 420 gallons per minute. One of these two pods on the aircraft is the 1,000th to be produced and delivered in early 2006 by the British company.

In late 2004, the RAAF ordered five KC-30B MRTTs, which will be operated by the service's No 33 Squadron. In addition to Australia, the KC-30 has also been chosen by the UK, to meet its Future Strategic Tanker Aircraft (FSTA) requirement, by the United Arab Emirates (UAE) and most recently by the Royal Saudi Air Force.

The tests included probe-and-drogue trials using a Spanish Air Force EF-18 Hornet.

EADS North America has also teamed with Northrop Grumman to offer the aircraft to the US Air Force, which is expected to select a new tanker in 2008 or 2009.

Further tests will now be carried out on the ARBS, with fuel transfers from the A310 test-bed's boom to a variety of receiver aircraft. The aircraft recently completed a series of successful air-to-air refuelling trials in Florida with an F-16 from the USAF's Eglin test centre, using the ARBS' 40 ft long boom, which has now completed some 200 hours of in-flight testing.

The KC-30/A330 MRTT is based on the best-selling A330 twin-engine airliner. A combined total of more than 1,100 A330s and its four-engine counterpart, the A340, have been ordered by over 80 operators and customers worldwide. To meet continuing market demand, the current A330/A340 production rate of seven aircraft per month is due to increase to eight monthly by the beginning of 2008, accelerating further to nine per month by the middle of 2009. ●

Jean-Michel Guhl / Paris

Boeing test-flies Australia-modified Wedgetail

Boeing has conducted a successful functional check flight of the first 737 Airborne Early Warning and Control (AEW&C) aircraft modified in Australia for Project Wedgetail.

During the two-and-a-half hour flight from the Royal Australian Air Force's Amberley base, on 23 January, pilot Regis Hancock and first officer Randon Stewart performed a series of tests that verified the airworthiness of the aircraft's systems and structures. The flight followed major aircraft modifications performed by Boeing Australia at Amberley, including the installation and checkout of the Northrop Grumman Multi-role Electronically Scanned Array (MESA) antenna, ventral fins and mission-system equipment.

"Aircraft No. 3 will undergo an additional mission functional check flight prior to returning [on 31 January] to Seattle, where it will begin a five-month development and type acceptance flight test program," says Scott March, Boeing's Wedgetail programme manager.

The Wedgetail will then will return to Australia to complete configuration updates and production acceptance testing prior to delivery. Boeing will deliver the first two aircraft in March 2009 and the remaining four by the end of the same year.

The programme is running two years behind schedule as a result of hardware, software and integration problems.

"Project Wedgetail is the largest and most complex aircraft modification program ever undertaken in Australia," says David Withers, president of Boeing Australia. "This project demonstrates Boeing Australia as a regional leader in aircraft modifications and will increase the company's in-country technical capability for future large-scale projects."

The Wedgetail programme covers the delivery to Australia of six 737 AEW&C aircraft plus ground support segments for mission crew training, mission support and system maintenance. Modification of four aircraft in Amberley is underway, with the first two completing modification in Seattle prior to entering the flight-test programme. ●

The first two Wedgetails are now scheduled for delivery to Australia in March 2009.


The Heron will be equipped with an Elta EL/M-2022 maritime surveillance radar.

Australian Customs delays Heron trial on sensor-integration problem

The Australian Customs Service has confirmed that delayed trials of a leased Israel Aerospace Industries (IAI) Heron unmanned air system (UAS) will now proceed in April, after original plans for a third quarter 2007 demonstration were postponed due to sensor-integration issues.

The demonstration aircraft is to arrive in Australia at the end of March and will be based at Weipa in northern Queensland. Pre-deployment flight trials will be carried out in Israel during February, to confirm aircraft and sensor-system readiness.

Customs says that the rescheduling was due to "technical difficulties in the late stages of the test-flight schedule following integration of the trial equipment".

The Heron will carry an Elta EL/M-2022 series maritime surveillance radar and a combined electro-optic and infra-red sensor suite. "The trial objectives are unchanged, but IAI have included the latest upgrades to the Elta radar, as well as an automatic identification system (AIS) for vessel tracking," the agency says.

Data generated by the UAS will be relayed direct from the vehicle to its own ground-control station for processing on site.

Contracts for the funded capability demonstration were signed in May 2006. The original trial schedule would have seen flights occur during August and September 2007, with these now set to occur during April and May. "The mid-range UAV trial is due for completion by the end of June 2008," Customs says.

Mission areas for the trial will include the Gulf of Carpentaria, Torres Strait and Australian waters in the eastern Coral Sea, including the northern end of the Great Barrier Reef region.

Customs describes the trial as an "assessment of the generic capability and what contribution a mid-altitude, medium-endurance UAV with the appropriate sensors and communications packages can make to civil maritime surveillance", adding that "it is not specifically a trial of the Heron".

The agency says the trial results "will be evaluated in the context of the overall civil maritime security requirement and capability, including the sizeable contribution made by Defence assets".

The evaluation process will include assessments by Australia's Border Protection Command – which is managed by the Australian Defence Force but coordinates multiple government agencies – for the future use of UASs in civilian managed maritime surveillance roles.

The Australian Customs Service has previously looked at acquisition of its own endurance UAS fleet to meet wide-area surveillance requirements, but is withholding further decisions "until the [trial] results are assessed".

Border Protection Command says any Customs requirements will also be influenced by the planned purchase of endurance UAS systems by the Royal Australian Air Force (RAAF), via programme ties to the US navy broad area maritime surveillance (BAMS) programme. The USN plans to make a downselect on BAMS in March with a follow-on acquisition decision due to be made by the Australian government later in 2008.

Customs already has arrangements in place to access RAAF Lockheed Martin AP-3C Orion maritime surveillance aircraft through an annual time allocation arrangement. Border Protection Command says it anticipates establishment of a similar arrangement for the BAMS aircraft once they enter Australian service. ●

Peter La Franchi / Sydney

NEWS IN BRIEF

BAE SYSTEMS is considering setting up a joint venture with Hindustan Aeronautics (HAL), which could lead to production, maintenance, repair and overhaul work for Hawk trainers sold to international customers being transferred to India. HAL Chairman Ashok Baweja has confirmed to Indian newspapers that such a venture is in the early stages of discussion. Such an agreement would mark a dramatic expansion of existing co-operation between BAE and HAL, linked to India's acquisition of 66 HAWK 132 Advanced Jet Trainers (AJTs). Under current conditions, HAL is to manufacture 42 of the Indian aircraft, with the first two scheduled for delivery in March. News of the possible joint venture comes after the Hawk 128 was eliminated last October from the competition to meet a 24-aircraft AJT requirement in the United Arab Emirates (UAE).

JAPAN HAS dropped its plan to procure a single Boeing AH-64D Apache attack helicopter in the next fiscal year because of increases to the helicopter's unit cost as production of the helicopter's Block 2 version winds down. The country has so far acquired 10 out of 62 Apaches, which are to be assembled locally from kit form by Fuji Heavy Industries (FHI). A US decision to transition to production of the advanced Block 3 version of the helicopter has reportedly caused concern among international customers of the Block 2 Apache, which is to be phased out of production by 2012. Japan wants all of its Apaches to come in Block 2 configuration, and is following a purchase plan that envisions the acquisition of only one or two aircraft per year.

FAA certificates Gulfstream synthetic vision system


Both systems have been cleared for use on Gulfstream business jets such as the G450.

Gulfstream Aerospace has become the first manufacturer to have a synthetic vision system certificated by the US Federal Aviation Administration (FAA).

The aviation authority approved both the Gulfstream Synthetic Vision-Primary Flight Display (SV-PFD) system and manufacturer's second-generation Enhanced Vision System (EVS) II at the end of 2007 and early in the new year.

The equipment is now cleared for applications on the company's G350, G450, G500 and G550 business jets. As a result of these certifications, Gulfstream has also become the first original equipment manufacturer (OEM) to provide its customers with both enhanced and synthetic vision systems.

The SV-PFD displays three-dimensional, colour terrain images derived from data stored in the Honeywell Enhanced Ground Proximity Warning System (EGPWS). The EVS II provides the pilot with real-time images from an infra-red camera mounted in the nose of the aircraft, viewed on a head-up display (HUD). Additionally, the EVS II confirms the validity of terrain and airport images shown on the SV-PFD.

"The combination of EVS with SV-PFD brings a whole new level of safety to the flight deck, " said Pres Henne, Gulfstream's senior vice-president of programmes, engineering and test. "The effect of using both systems simultaneously provides an unmatched magnitude of pilot situational awareness and a flight path that is always visible, regardless of the conditions outside the cockpit window."

Gulfstream's original EVS was first certificated by the FAA in September 2001, allowing pilots to see, via their HUD, external terrain features, runways or other aircraft and vehicles even during the darkest nights.

Gulfstream says the new EVS II is 22lb lighter, with four times the computing power and four times the memory of the original system. New features include an improved maintenance interface within the Gulfstream PlaneView flight deck.

The EVS II's hardware components are produced by Kollsman, a leading manufacturer of avionics and electro-optic equipment.

The SV-PFD is an enhancement to Gulfstream's PlaneView flight displays. It features a three-dimensional, colour terrain image, overlaid with primary flight display instrument symbology, which are arranged on the screen to create a large view area for the terrain image.

Combining previously certificated terrain data from the EGPWS with obstacle data, and using a new state-of-the-art graphics processor, SV-PFD accurately depicts terrain, obstacles, runways and approaches at locations throughout the world. The system is expected to be available to customers from the second quarter of this year.

Separately, Gulfstream is also working with Rockwell Collins on HUD-II, a Head-up Guidance System (HGS) that presents critical flight information in the pilot's forward field of view.

Compatible with EVS-II and integrated with PlaneView, HUD-II features an all-digital display that allows the pilot to see a flight information display integrated with an infrared image from EVS-II in almost all weather conditions. The modular HUD-II system uses liquid crystal display technology and a bright, light-emitting diode backlight to display real-world images and flight symbols on the HUD Combiner.

"This is the first time we are developing an advanced Head-Up Display for our entire family of Gulfstream aircraft," Henne says. "This next generation HUD design will support development of other advanced vision technologies as they become available." ●

Cessna commits to large-cabin jet

Textron's Cessna Aircraft unit has announced that it will proceed with development of a large-cabin, intercontinental business jet to add to the top of its Citation aircraft family. The Textron Board of Directors approved the Cessna programme on 23 January, during its first meeting of 2008. "The approval of the large-cabin Citation reflects Textron's confidence in this major investment," says Lewis Campbell, Textron's chairman, president and chief executive officer. "The development of this product is an important strategic step in the long-term positioning of Cessna's product line in the global marketplace and we have the utmost confidence in Cessna's ability to meet customer needs with this new jet."

Cessna unveiled a proof-of-concept mock-up for what will be the 80-year-old company's largest business jet ever during the 2006 National Business Aviation Association (NBAA) conference and annual convention. Since then, the mock-up has been displayed at events worldwide to gather feedback from potential customers on anticipated performance and features.

"We have invested a great deal of time in evaluating this concept to determine a solid business case and involved customers very early in this programme," says Cessna Chairman, President and CEO Jack Pelton. "We're confident our efforts will result in an aircraft that is right for the marketplace."

As *Asian Aviation* went to press, Cessna was planning to reveal details of the aircraft and the programme at a press conference scheduled for 6 February in Washington DC ●.

Ameco strikes new MRO agreements, expands training

Ameco Beijing has struck new maintenance, repair and overhaul (MRO) agreements with Air Finland, China Airlines and Kenya Airways, as well as starting work on a major expansion to its training school.

In early January, Ameco announced a 5-year General Terms of Agreement (GTA) with Air Finland, covering repair work on Rolls-Royce RB211-535E4 engines. The Chinese company says the deal "marks a new, opened-up engine market in North Europe, after a successful engine-market exploration in Great Britain".

The first engine was delivered to Ameco on 7 January.

In Finland, Ameco says it also still has a good long-term cooperation with flag-carrier Finnair. Since 1997, Ameco Beijing has been providing line maintenance services for Finnair in Beijing and Guangzhou.

On 22 January, Ameco and Kenya Airways signed an agreement to overhaul a third shipset of Boeing 737 landing gear, as part of the companies' long-term technical service agreement signed. The latest shipset will arrive in Beijing soon.

Ameco says the agreement is a mark of Kenya Airways' satisfaction with the MRO company's work on the first two shipsets.

On 3 January, Ameco formally announced an aviation component repair & overhaul services agreement with Taiwan's China Airlines (CAL).

The deal "is another cooperation milestone reached with the carriers from [the] Taiwan region, after the establishment of relations with EVA Air and Far Eastern Air Transport," Ameco says.

Ameco's expansion of its aviation college will increase the school's annual throughput by hundreds of students.

The MRO company has also now begun major expansion work on its Ameco Aviation College (AAC) training school, which it expects to complete later in 2008. AAC trains students to become qualified aircraft mechanics, and the expansion will increase the school's throughput by hundreds of students per year.

The 50 million yuan (US$7 million) expansion will cover 7,500 square metres south of the present school. The new building will house one main practice workshop, five electrical laboratories, two hydraulics laboratories and two composite materials workshops, as well as classrooms and a tool room.

Ameco is a 60-40 joint venture between Air China and Lufthansa German Airlines. The company was established in 1989. ●

Boeing's Shanghai MRO venture begins hangar construction

Construction work has begun on the first hangar for Boeing's new maintenance, repair and overhaul (MRO) joint venture to be based at Shanghai's Pudong International Airport.

The US aircraft manufacturer marked the start of the construction of the hangar with a ceremony in Shanghai in mid-January. The hangar will be large enough to accommodate two, twin-aisle jetliners.

The new venture, called Boeing Shanghai Aviation Services, was established in 2006 and will begin operations using the new hangar in April next year. This is Boeing's first majority-owned joint venture outside the USA, with the aircraft maker holding 60 percent of the company.

Shanghai Airlines holds a 15 percent stake, while the remaining 25 percent is in the hands of the Shanghai Airport Authority.

The second phase of the venture's construction will involve the addition of a four-bay hangar, to be completed by 2010, capable of accommodating as many as four Boeing 747s or 777s. Boeing says the hangar will provide "aircraft modification, maintenance, repair and overhaul services to help build Shanghai Pudong International Airport into an international aviation hub".

The US company has previously said the new MRO venture will offer freighter conversion work on 767 aircraft, starting in 2010. Shanghai Airlines has also made a commitment that any future conversions of its 767 fleet will be carried out by the venture.

Shanghai Airlines operates seven Boeing 767-300s and has nine 787-8s on order, which could replace the older type in passenger operations. The Chinese carrier also has a cargo unit, called Shanghai Airlines Cargo, which now operates 757F and MD-11F freighters. ●

Asia-Pacific cargo carriers face price-fixing allegations

Japan Airlines (JAL) and All Nippon Airways (ANA), Asia's two largest airlines, are among the latest carriers in the Asia-Pacific region to face allegations of illegal price fixing in their freight operations, in investigations which are expected to go on for a number of years.

Other Asia-Pacific airlines now under investigation include Air New Zealand, Cathay Pacific Airways, Korean Air (KAL), Malaysia Airlines (MAS) and Singapore Airlines (SIA).

The fresh allegations come after Australia's Qantas Airways said in November it would make a US$61 million payment to US anti-trust authorities due to its involvement in freight-price fixing.

Since 2006, US and European anti-trust authorities have been investigating an alleged cargo cartel operating between 2000 and 2006, which resulted in inflated freight rates because of added fuel and security surcharges. Other authorities around the world are conducting their own investigations, including Australia and Canada, which are expected to lead to more allegations and settlements over at least the next two years.

The investigations have included raids on airlines' freight offices, the seizure of documents by authorities and a number of personnel changes in airline cargo departments.

Qantas, KAL and British Airways are among airlines that have already been fined by the US Department of Justice over price fixing.

Qantas provision

Announcing its full-year results last August, Qantas confirmed that it was co-operating with US and European anti-trust authorities in their investigations of the alleged freight cartel. At that time the airline made a US$40 million provision for any fines from the US. Chief Executive Officer Geoff Dixon said the airline was taking the matter very seriously and was embarrassed by its involvement.

"It's something that the airlines thought was OK, but it became something absolutely not," he said, adding that the people involved in the activity are no longer with Qantas.

In November, Qantas announced that it had entered a plea agreement with the US Government to the tune of US$61 million to settle its liability in the US. The magnitude of the fine relates to the size of the airline's freight operation and its revenues, with British Airways and KAL, for example, facing much bigger fines. Qantas has a much smaller freight operation in the US than these two carriers.

Korean Air is likely to face a larger fine from the US Government than Qantas's US$61 million penalty.

Dixon says Qantas fully co-operated with authorities during investigations.

"These investigations confirmed that the practice adopted by Qantas Freight and the cargo industry generally to fix and impose fuel surcharges breached relevant antitrust laws," the Qantas chief says.

"Qantas takes its obligations to comply with the law very seriously," he adds. "We have a comprehensive competition compliance programme in place and expect all of our employees to comply with these requirements at all times. In this case, Qantas did not meet this expectation. The conduct was wrong and we apologise unreservedly for this."

Similar investigations to that conducted in the US are going on around the world, with some 30 carriers believed to be involved. At the end of last year the European Commission issued statements of objections to numerous airlines alleging that they engaged in anti-competitive behaviour relating to freight pricing. Air New Zealand, ANA, Cathay, JAL, KAL, MAS and SIA have all confirmed that they have been contacted by the EC, with some 25 airlines in total believed to be involved in the European investigation.

Studying documents

The carriers say they are co-operating with European authorities and are studying the documents in order to respond. All are required to respond to allegations over the next few months.

"The air-freight proceeding is an EC investigation into whether there were violations of European Union competition law in connection with the surcharges and rates charged by air cargo carriers worldwide," says SIA.

Carriers can respond to the allegations made in the statement of objections before the EC makes any decision on action. In addition, the statement of objections does not indicate any level of fines which would be imposed if the airline is found to have been involved in price-fixing.

"A statement of objections is a formal notification of alleged infringements, not findings," the Singapore carrier adds. "Addressees are required under EU law to maintain the confidentiality of the statement of objections. The Commission will not take a final decision in the proceeding until after it has reviewed the addressees' responses to the allegations contained in the statement of objections."

While some airlines, such as Qantas, have the financial strength to handle fines relating to the ongoing action, others have a smaller financial buffer to allow them to cope. The carriers implicated say they are co-operating fully with investigations, with admissions of guilt and providing assistance to authorities at the earliest stage in the investigation expected to result in smaller fines.

However, civil action does follow admissions of guilt, with lawsuits already filed in a number of countries by exporters and importers seeking damages from years of being overcharged. Last year, for example, Auskay, an Australian importer of vacuum systems, filed a A$200 million lawsuit in the Australian courts against Air New Zealand, British Airways, Cathay, JAL, Qantas, Lufthansa and SIA.

But the issue has wider implications for the global air cargo industry and its future format, with airlines likely to think twice before they embark on any sort of partnership or co-operation with other carriers, which could be to the detriment of the customer. ●

Emma Kelly / Perth

AAPA carriers need profit boost to fund growth

After a troubled start to the decade, airlines in the Asia-Pacific region have shown their optimism by ordering large numbers of jetliners. Now Association of Asia Pacific Airlines Director-General Andrew Herdman says his members need increased profits to pay for the new equipment, writes **Ian Goold**.

The AAPA says its member airlines need to convert strong growth in travel demand into increased profits to fund expansion plans.

Airlines in the Asia-Pacific region have recently ordered substantial numbers of new aircraft, providing clear evidence of their long-term optimism despite recent poor profitability, according to Association of Asia Pacific Airlines (AAPA) Director-General Andrew Herdman.

Speaking at the Future of Air Transport conference in London in December, Herdman told Asian Aviation: "Recent years have seen [local] operators rebound following severe acute respiratory syndrome," the epidemic that put many people off travelling to the region earlier this decade. "But [subsequent profits] have been disappointing."

A major reason has been airlines' absorption of increased fuel costs in 2005 and 2006 that were not passed on to passengers. But with the region predicted to receive more than 10,000 new aircraft by 2026, member operators must – as always – make enough money to meet future costs.

"The challenge is to convert robust growth in travel demand into revenues and, most importantly, profitability to [cover] further investments in aircraft and infrastructure," Herdman said.

According to the AAPA chief, Asia-Pacific growth prospects "remain bright", but that further progress is needed "to truly liberalise" the region's air-transport industry. The sector will in future take on an "increasingly important global role", Herdman predicted.

"[The] growing influence of Asia-Pacific needs to be matched by stronger engagement on key international policy issues," he said.

'Diverse' regulation

While the region's quarter-share of global passenger traffic will continue to grow, regulation across the region remains "highly diverse", said Herdman. "We need to work towards greater harmonisation, and speak with a common voice on wider international [issues]."

The Association comprises 17 airlines that made a US$3.4 billion operating profit on US$83 billion operating revenue in the 2006/07 fiscal year. The carriers fly almost 1,500 aircraft and transported 285 million passengers during the period, of whom 51.6 percent were domestic travellers. The group's members also carried 10 million tonnes of cargo.

The AAPA has an 18 percent share of global passenger traffic and 32 percent of global cargo traffic.

Rapid development of the Chinese and Indian markets is boosting the Asia-Pacific region's "already significant" role in global aviation, which continues to grow substantially. Herdman cites Airports Council International statistics showing that international passenger traffic to and from the region grew 9.7 percent in 2006, almost three percentage points above

AAPA PASSENGER TRAFFIC

During January-June 2007, AAPA international traffic, measured in revenue passenger-kilometres (RPK), increased 4.5 percent, compared with a worldwide 6.3 percent trend. Against a global background of 4.7 percent growth in international passenger numbers, AAPA saw passenger numbers on intra-regional routes increase by 6.7 percent.

But on routes to other regions, passenger growth slowed to 4 percent. Asia-Europe travel recorded a moderate 3 percent increase, down from 8 percent in the first six months of 2006. Growth on US routes was flat, says AAPA, after a 2.4 percent increase in the year-earlier period. By contrast, the India and Africa/Middle East sectors enjoyed "robust" growth rates of 14.2 percent and 10.4 percent, respectively.

There was strong growth in international premium (first- and business-class) traffic, which increased 8.0 percent in 2006, led by the Middle East (19.2 percent), Europe (11.9 percent), and India (11 percent). During January-June 2007, international premium traffic rose 4 percent.

On inter-regional services, traffic growth slowed in the first half of 2007, dragged down by European routes on which growth fell to 6.3 percent from 11.2 percent in the first six months of 2006. There was an improvement in the North America market, where 2007 first half-year growth was 7.1 percent.

Premium traffic within the Asia-Pacific region, which grew 7.1 percent in 2006, strengthened in the first half of last year, recording 8.8 percent growth.

The Asia-Pacific region accounted for 27 percent of the world's scheduled passenger traffic in 2006.

the 6.8 percent worldwide average rate.

Asia-Pacific accounted for 27 percent of the world's 2.1 billion scheduled air passengers in 2006, as well as 41 percent of the total 16 million tonnes of air freight. "If these trends are sustained, within the next decade, the region [will have] the largest share of passenger traffic," according to the AAPA, which is calling for further deregulation of air transport.

"Relaxation of national ownership and control rules will be an important step towards allowing airlines to compete globally," Herdman said. US-style Open Skies agreements – which typically remove restrictions on capacity, destination, frequency, and pricing – still fall "well short" of genuine liberalisation: "Almost without exception, domestic markets remain basically closed to foreign competition."

The recent EU-US agreement is a "modest step in the right direction", but includes "no movement at all" on ownership and control limits. "The US domestic market, the world's largest, remains effectively closed," according to Herdman.

Liberalisation framework

In the Asia-Pacific region, the 2001 APEC Multilateral Agreement on Liberalisation of International Air Transport, which included Brunei, Chile, New Zealand, Singapore and the USA, was "probably the most ambitious step" towards a framework for multi-region liberalisation, but has not triggered duplication elsewhere.

Subsequent local initiatives include the Association of Southeast Asian Nations (ASEAN) "roadmap" for liberalisation among capital cities by 2008, extending to all routes between member states by 2015. There have also been various agreements among ASEAN sub-regions, and separate ongoing discussions with China, Japan, and Korea.

Herdman said he welcomes the recent Singapore-UK open-skies agreement for its fresh thinking on national ownership and control, and hopes it will stimulate similar developments. "This landmark agreement is particularly noteworthy for the grant of full cabotage rights to either party's designated carriers," he said.

The 2006/07 fiscal year saw a "significant" improvement in profitability for the AAPA's member airlines. "Net income tripled, while operating profit increased 69 percent to US$3.7 billion," Herdman said.

Strong revenue growth of 15.4 percent outpaced a 14.1 percent increase in overall costs. Asia-Pacific carriers reported a collective US$2.8 billion in net profit in 2006, although profitability within the region varied widely.

"AAPA airlines earned US$3.4 billion – a profit margin of 4 percent, and a [73 percent] improvement [over FY2005/06]," Herdman said.

Low-cost carriers (LCCs) AirAsia and Virgin Blue reported "sharply improved" profitability, according to the AAPA annual report. Positive overall performance was offset, however, by marginally loss-making mainland Chinese carriers, which "faced some difficulties in translating robust traffic and revenue growth into profitability".

Rising revenue

Consolidated operating revenue among AAPA operators rose by 13.1 percent to US$83.4 billion, compared with 8.3 percent revenue growth in the 2005/06 fiscal year. Herdman attributed the gain to a 5.7 percent increase in revenue tonne-kilometres (RTKs) and a 7 percent rise in yield. In turn, operating expenses increased by a smaller 11.1 percent margin to US$80.1 billion.

At US$23.2 billion, fuel was the highest cost, representing 29 percent of total airline expenses – that's a 17 percent rise in fuel unit costs (to US$0.14 per

AAPA PASSENGER SERVICES

In 2006, some 2.1 billion travellers used global scheduled services, 4.1 percent more than in 2005. This growth was led by a 6.2 percent increase on international flights.

AAPA members carried 138 million international travellers during the year, up 4.2 percent from a year earlier. With a capacity increase of only 1.2 percent, the average passenger load factor rose by 2 percentage points to 75.5 percent.

Intra-regional Asia-Pacific passenger numbers grew by 4.7 percent in 2006 to 88 million, representing more than 70 percent of AAPA carriers' international traffic. Leading this growth was a 5.3 percent gain in traffic within north-east Asia, and a 9.2 percent increase on routes between north-east and south-east Asia.

China traffic grew 7.7 percent to 11.2 million passengers, and accounted for 12.6 percent of the Association's intra-regional traffic.

North-east Asian economies remained dominant in the region's passenger traffic flows, AAPA says, with 7.6 million passengers flying with member carriers between Japan and Korea in 2006. Services between Hong Kong and Taiwan accounted for 5.5 million passengers.

AAPA inter-regional traffic in 2006 rose by 4.6 percent from the preceding year, which in turn had supported 4.1 percent growth. Trans-Pacific routes, the largest long-haul segment among member airlines, saw a modest 1.9 percent increase, down from 3.1 percent in 2005.

By contrast, traffic to and from Europe maintained strong growth, rising 5.7 percent to 12.8 million passengers, according to AAPA. The Indian market grew 9.4 percent to 4.6 million passengers – the highest rate among AAPA's inter-regional markets.

Asian airlines have recently placed large fleet orders including many for new aircraft models such as the Boeing 787.

available tonne-kilometre) after accounting for higher traffic volume, the AAPA says. Non-fuel costs grew by 1.8 percent. Offsetting this increase, staff costs fell by 0.9 percentage points to 13.5 percent of total operating expenses, or a 3.4 percent decline in staff unit costs.

AAPA traffic growth in 2006/07 exceeded capacity gains, to increase the overall load factor by 0.5 point to 68.5 percent – driven mainly by a 1.9-point increase in passenger load factor to a record 75.1 percent. Passenger yield increased by 9.4 percent, but that from cargo rose by only 3.1 percent after "significant" capacity growth.

Overall yield grew by "a weighted 7 percent" to US$0.74 per revenue tonne-kilometre, says the AAPA. Since this exceeded the growth in unit costs, the break-even load factor improved by 0.7 points to 65.8 percent, having fallen 12 months earlier by 2.1 points.

The AAPA chief concluded that as the Asia-Pacific region demonstrates growing economic leadership, so it must be prepared to lead more actively the international debate on broader policy issues.

"AAPA will continue to engage with industry associates and other stakeholders to ensure that Asia/Pacific views are given proper weight," Herdman said. "Overall, notwithstanding [future] challenges, the industry can look forward with confidence." ●

AAPA AIR CARGO OPERATIONS

Worldwide traffic on international cargo routes, measured in freight tonne-kilometres (FTK), grew by 2.7 percent in the first half of 2007, with accelerating growth toward the end of the period. AAPA airlines' FTK growth rate was 2.5 percent, while cargo load factors fell 1.1 percentage points to 65.4 percent as a result of a 4.3 percent capacity increase.

Overall tonnage flown by AAPA members increased 5 percent during January-June 2007. Growth of 7.4 percent on inter-regional routes was offset by a lower 3.2 percent growth on intra-Asia/Pacific services. Tonnage on US routes was up 4 percent, again increasing strongly towards the middle of the year when the growth rate reached double figures.

Asia-Europe loads continued to grow strongly, up 10.1 percent compared with 8.5 percent growth during 2006's first half (relative to January-June 2005). Cargo tonnage on Indian routes also rebounded in mid-2007 after a "subdued" start, according to AAPA. But the overall half-year growth of 6.5 percent was "substantially lower" than the 11 percent growth seen 12 months earlier.

Growth in global air cargo in calendar 2006 had been "lacklustre, despite a relatively strong global economy," says AAPA. International FTKs grew 4.6 percent over 2006, compared with 3.2 percent growth in 2005 over the preceding year. Cargo on international routes, accounting for more than 95 percent of AAPA's overall cargo traffic, increased by 5 percent against capacity growth of 3.8 percent and led to a slightly improved 66.9 percent cargo load factor.

Intra-Asia Pacific cargo carried by AAPA airlines, measured in tonnes, grew 5.7 percent in 2006, up from 3 percent in 2005. An 11.7 percent increase in freight traffic to and from China contributed to an overall 7 percent increase in north-east Asia.

Inter-regional AAPA cargo traffic increased 6 percent in 2006, helped by 8 percent growth between Asia/Pacific and Europe. But traffic between the region and North America increased just 5.3 percent, compared with growth of over 8 percent in 2005.

The fast-expanding Indian market enjoyed 11.7 percent cargo traffic growth, rising to more than 300,000 tonnes.

Routes between regions for cargo traffic flow were dominated by the north-east Asian economies and the USA, the AAPA says. Korean carriers, which provide "extensive" cargo links with China, posted the highest growth rate among the top 10 "economy pairs" in 2006.

THE AAPA FLEET

In the 12 months to November 2007, AAPA members' mainline aircraft fleet grew by just 14 aircraft, or 1 percent, to 1,383. The total included 885 widebodies, including "Combi" aircraft, 372 narrowbodies, 11 turboprops and 115 freighters.

"In 2007, a majority of members increased fleet size," says AAPA. The largest fleet was operated by Japan Airlines (JAL), with 215 aircraft. All Nippon Airways (ANA) operated 155 jetliners, Qantas Airways 124, Korean Air 123, and Cathay Pacific Airways 107.

Double-digit percentage growth was reported by Dragonair (up five to 38) and Vietnam Airlines (up five to 44), while Qantas, Malaysia Airlines, and JAL reduced their fleets.

Boeing remains the dominant supplier in the region, with an AAPA market share of 73 percent, although Herdman says Airbus has been catching up. Indeed, this split is likely to have become more balanced following new orders announced very late in 2007, after publication of the AAPA annual report, which records an order backlog covering more than 440 aircraft set for 2008-12 delivery, including more than 270 Airbus A350s, A380s and Boeing 787s.

The most popular large jetliner among AAPA airlines is the Boeing 777 with 252 in service, overtaking the 747-400. The 777-300ER flies with ANA, Cathay Pacific, EVA Airways, JAL, and Singapore Airlines, while Air New Zealand, Korean Air, and Philippine Airlines await their own deliveries.

A "significant" number of older 747-400 passenger aircraft are being converted to freighters. The average aircraft age of the AAPA mainline fleet is 9.65 years. China Airlines has the youngest fleet (average age 5.4 years) as it completes a renewal programme.

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Singapore Airlines' first operational A380 flight

On 26 October, Singapore Airlines operated the first commercial flight of the new Airbus A380, the world's largest airliner, with a service from Sydney, Australia, to Singapore. *Asian Aviation* photographer **Sam Chui** was on board for the historic event.

The 550-seat Airbus A380 has taken over from Boeing's venerable 747 as the world's largest operational airliner.

Asian Aviation's Sam Chui poses, with a Singapore Airlines flight attendant, in the intake of one of the 'Superjumbo's' four Rolls-Royce Trent 900 engines.

Capt Robert Ting and Captain Gerry Peacock prepare to push back from Gate 57 and Sydney's Kingsford Smith International Airport

CHENG QIU

Singapore Airlines flight SQ380 takes off from Sydney's Runway 34L at 18:10hrs on 26 October 2007, en route to Singapore.

Our intrepid photographer enjoyed SIA's hospitality in the comfort of one of the airline's on-board Suites, which the carrier describes as "a class beyond First".

CHEW CHOON SENG

Before take-off, while waiting in the airline's Silver Kris lounge at Sydney, our photographer had the opportunity to chat with Singapore Airlines Chief Executive Officer.

The seat in each Singapore Airlines Suite folds out to make a comfortable bed, with sliding doors for privacy and enough room to change clothes and stretch.

A view of the A380's lower economy-class deck.

Australia faces pilot shortage

The fast expansion of Australia's airline industry is being hampered by a lack of trained pilots, writes **Emma Kelly**.

The Australian airline industry has been booming over the last few years, with existing carriers expanding fleets and services and a number of new entrants emerging, keen to get a slice of the market. But that growth has come at a price, with the nation's airlines increasingly facing problems recruiting enough qualified pilots to fly their new aircraft and serve their extended networks.

The country's regional carriers are suffering most, as they lose pilots and instructors to larger Jetstar, Qantas Airways and Virgin Blue, all of which are undergoing rapid expansion with new aircraft types coming on line.

Australia's largest regional airline, Regional Express (Rex) has been most vocal in its concerns, warning late last year that Australia will face a pilot shortage crisis within 12 months unless action is taken now. Rex operates 34 Saab 340 turboprops on 1,300 weekly flights to 25 destinations from Sydney, Melbourne, Adelaide and Brisbane.

"The smaller operators have no defence against such massive recruitment as they are in no position to match the salaries and conditions of the large carriers," says Jim Davis, Rex's chief of staff.

"Already some airlines are struggling to find enough pilots to crew their regular schedules and many are resorting to cancelling flights to cope with the situation," Davis says. "The Rex cancellation rate, for example, is now running at four times historical levels."

Late last year, Davis said that over a three-month period, Rex had lost more than 20 percent of its pilots to Qantas, Jetstar and Virgin Blue. During the 2007 calendar year, 31 percent of Rex pilots who left the airline went to Jetstar, with 25 percent joining Virgin Blue, 11 percent Qantas and 9 percent going to Hong Kong's Cathay Pacific Airways.

Australia's Rex says it lost more than a fifth of its pilots to Qantas , Jetstar and Virgin Blue over three months in 2007.

Lack of reserves

Although Rex currently has its full quota of pilots, 15 percent of them are undergoing training and are being phased in. As a result, when pilots are sick, Rex does not have a pool of reserve crews to call on.

Late last year the airline was forced to temporarily suspend a number of regional routes, including Brisbane-Maryborough and Sydney-Cooma, which are expected to be reinstated in March and May, respectively.

Rex predicts that the situation will get worse before it gets better. The net additional requirement for pilots in the country will be around 1,800 over the next two years, but the supply of new airline transport pilot licences every year in Australia is currently less than 400.

"It's obvious that the major carriers will not allow their brand new jets to sit idle on the tarmac," Davis says. "They will do everything they can to fill up the shortfall by raiding the regional airlines, general aviation, flying schools and specialist organisations like the Royal Flying Doctor Service – something they have already started doing in earnest."

In order to cope with its problem, Rex last year established its own pilot cadet scheme and its own pilot training school, the Civil Aviation Training Academy (CATA), at Mangalore Airport, some one-and-a-half hours from Melbourne. CATA is a joint venture with the Victorian airport and flight training provider Moorabbin Flying Services (MFS).

MFS holds a 15 percent stake in the venture, with Rex and Mangalore Airport jointly owning the remaining 85 percent. The venture has initial working capital of A$2 million (US$1.74 million), which is set to increase to A$6 million after 18 months.

Mangalore Airport features dual all-weather runways, published instrument approach procedures including non-directional beacon (NDB) navigation, VHF omni-directional range (VOR) and satellite navigation.

Increasing capacity

The school has the capacity to take 80 students a year initially, rising to 350 per annum by the third or fourth year, according to Rex. The first few intakes will be for Rex's own cadet pilots, but thereafter private students and those from other airlines will be accepted, at a cost of A$80,000 for training and accommodation.

Training is being conducted on Piper Warrior III and Piper Seminole aircraft. Students will graduate with a commercial pilot's licence, a multi-engine rating and a command instrument rating.

The airline's recently launched pilot-cadet programme will see it take on 40 trainees per annum, with the airline covering half the A$80,000 cost of the course in return for a five-year commitment to Rex. On completion of training, cadets are guaranteed a job at Rex or its subsidiaries, Airlink and PelAir.

The first batch of cadets started training at the school in December, with the 17 cadets due to graduate within 32 weeks. This will be followed by a further three months of intensive ground school, simulator and line training

Qantas has set up two new cadet pilot programmes with local universities, and is expanding its in-house training arm into a stand-alone business.

with Rex before taking up an appointment as a first officer with the airline or its subsidiaries.

Rex was inundated with applications for the cadet scheme, with the first batch of trainees selected from almost 1,000 applicants. A further 20 cadets were due to follow three months after, with CATA scheduled to accept as many as 80 cadets in the first year.

Despite its own efforts, Rex says more needs to be done by the Australian airline industry – and the government – to avert the looming crisis. Without any action, Rex predicts that in future, cities that cannot provide 30,000 passengers a year will no longer be able to support a regional air service, as the pilot shortage will force airlines to concentrate on bigger and more profitable routes. Inevitably, the shortage will also force some operators out of business, Rex believes.

"We call on the other major airlines in Australia to train their own pilots instead of simply poaching massively from the regional airlines and the pilot training schools," says Rex Managing Director Geoff Bruest. "So far, besides Rex, only Qantas seems to have made any plans in this direction."

Government appeal

Last year, the airline also called on the John Howard-led Liberal-National Coalition government to respond to the shortage by providing financial assistance to those wanting to train as pilots.

"The high cost of flying training, estimated at around A$80,000 per individual, is the main reason why there are not enough commercial pilots being produced today," Davis says. "If the government can subsidise the education of lawyers, accountants, engineers and other professionals, surely it can recognise that the piloting profession is equally worthy of assistance. Today there is not even a fee loan scheme outside of the tertiary institutions that aspiring pilots can tap into to turn their passion to reality."

The Howard government, which has since been replaced by the current Labour government, responded by helping by offering to reimburse 25 percent of a pilot's training costs, provided the pilot stays with a regional airline for at least two years.

Qantas, meanwhile, has established two new cadet pilot programmes with Queensland-based Griffith University and Victoria's Swinburne University of Technology. Both courses started in January.

The Griffith course will last three years and will result in trainees leaving the university with a bachelor of aviation degree, a diploma of flight management, a commercial pilot's licence, command instrument rating, credits for all air transport pilot's licence theory subjects, 100 hours as a pilot in command of a fixed-wing aircraft and approximately 200 hours' total flying time.

The students will then have a further two years of compulsory flying employment experience with positions secured by the Qantas Group. Cadets will then be considered for employment as second officers.

The Swinburne course gives its graduates an associate degree of technology (aviation), a commercial pilot's licence, command instrument rating, credits for all air transport pilot licence theory subjects, 100 hours as a pilot in command of a fixed-wing aircraft and approximately 200 hours' flying time. On completion of the 18-month course, graduates will have two years of flying experience with the Qantas Group, after which they will be considered for employment as second officers by the group.

Qantas expansion

Qantas is also expanding its own flight-training business, establishing it as a stand-alone company to pursue more third-party training following the rapid growth of aviation in the Asia-Pacific region.

To cope with the boom in the local industry, as well as the wider Asia-Pacific region, independent flying training providers in Australia are expanding their own operations. Flight Training Adelaide (FTA), for example, which primarily caters for the training needs of Asia-Pacific carriers, is establishing a new training school in Queensland to cope with demand. FTA's clients include Cathay Pacific, China Airlines, Dragonair, JAL Express, Vietnam Airlines, Qantas and Emirates.

Over the past three years alone the company has trebled its business, according to Chief Executive Officer Keith Morgan. Construction of the company's new Flight Training Queensland operation is set to start this year.

Meanwhile, Singapore Technologies Aerospace (ST Aerospace) will train pilot cadets in Australia under its recently launched ST Aviation Training Academy. The academy will be based in Singapore, but ab-initio flying training is being conducted in Victoria. The new venture is designed in response to growing pilot needs throughout Asia following booming aircraft orders and deliveries.

Throughout the region, training providers are having problems keeping pace with the demand for pilots. New training ventures are springing up, while the multi-pilot licence scheme has been launched in an effort to fast-track pilot training.

But a second, growing problem is that flying schools themselves are facing major problems in recruiting enough flying instructors to train new pilots in the first place. The shortage of qualified instructors is expected to be a major problem in the future, with training providers forced to recruit worldwide for their instructor needs and some, like FTA, establishing their own instructor training operation while others, such as Singapore Airlines' Singapore Flying College are launching instructor sponsorship schemes. ●

Singapore positions itself as Asia-Pacific aerospace hub

The forthcoming Singapore Airshow will once again shine the spotlight on the city-state's impressive civil aerospace industry, whose major players have their sights fixed on consolidating Singapore's status as a global maintenance, repair and overhaul hub, writes **Andrzej Jeziorski**.

Singapore is preparing to showcase its status as an aerospace and aviation hub in February, with its first major air show since the island's former showcase, Asian Aerospace, moved to Hong Kong last year.

With more than 100 aerospace companies located there, the island state claims status as a regional hub for the industry. Major local players include BOC Aviation, Asia's largest aircraft leasing company, and maintenance, repair and overhaul (MRO) specialist Singapore Technologies Aerospace (ST Aerospace), while global companies such as Boeing's Alteon Training unit, General Electric (GE), Honeywell and Pratt & Whitney (P&W) also have local branches.

Singapore has much to offer as an aerospace and aviation centre, with a world-class airport, skilled workforce and a strong technology base.

Asia's airlines have in recent years placed an unprecedented number of orders for new aircraft as travel demand booms, especially in the fastest-expanding economies of India and China. About a third of Boeing's new orders in 2006 came from Asia-Pacific airlines.

Passenger traffic in the region is predicted to expand at 6.8 percent between 2005 and 2009, compared with global growth of 5.6 percent, while freight traffic will probably grow at 8.5 percent compared with 6.3 percent globally.

This means there will be a surge in regional demand for MRO services, which Singapore's industry is well-positioned to take advantage of. In 2005, the country's aerospace manufacturing and MRO industry generated sales of S$5.2 billion (US$3.7 billion), having grown more than 12 percent per annum over 15 years.

World-class MRO

Singapore Technologies unit ST Aerospace is one of the world's largest MRO companies, with a global customer base including some of the world's most advanced air forces, as well as leading airlines and freight carriers. The company provides total aviation support systems to both civil and military customers, offering extensive capabilities in engineering and development, life-cycle maintenance, materials and component supplies, refurbishment, customised modifications and upgrades. The company has bubs around the world – in the Asia-Pacific, Europe and the Americas.

The company reported increased profitability in the first three quarters of 2007, with an 8 percent increase net income in the third quarter ended 30 September, preceded by gains of 14 percent in the second quarter and 21 percent in the first quarter. The third-quarter profit totalled S$68.4 million, while revenue increased by 0.5 percent to S$444 million from S$442 million for the three months ended 30 September and cost of sales fell 4.7 percent to S$336 million.

The results were gained by a 71 percent increase in sales at the company's engineering and materials services unit, making up for declines in the maintenance and modification division, where sales dropped by 8 percent, and the components and engine repair business, where the total slipped 0.2 percent.

ST Aerospace is becoming increasingly global, with a recently opened a new MRO facility in China adding to existing capabilities in the US, Panama and Europe.

China venture

The company announced in December that it would set up an engine maintenance facility in a joint venture with Xiamen Aviation Industry (XAICO). According to ST Aerospace, the Singaporean company is to hold an 80 percent stake in the venture, while the rest will be owned by the Chinese partner. The venture is to be called ST Aerospace Technologies (Xiamen), or STATCO.

"STATCO will initially be equipped to provide MRO and total support services for the [CFM International] CFM56-5B and CFM56-7B engines that power narrowbody aircraft," such as the Boeing 737 and Airbus A320 families of aircraft, ST Aerospace says in a statement. "The CFM56 engine family represents the largest installed base and potential after-market value globally, and has been a popular engine of choice for Chinese airlines."

STATCO will be based at Xiamen's Gaoqi International Airport in the Xiamen Aviation Industry Zone, and will be ST Aerospace's second engine maintenance facility after its own ST Aerospace Engines unit.

The Singapore company already has one other joint venture in China, the airframe MRO operation Shanghai Technologies Aerospace (STARCO).

In Europe, ST Aerospace holds a majority 71.3 percent stake in the Denmark-based component-repair operation ST Aerospace Solutions (Europe), formerly called SAS Component. The Singaporean company first acquired a 67 percent stake in SAS Component in early 2006, increasing the shareholding to 71.3 percent later that year.

The Singapore company has made overseas expansion a key element of its strategy, reinforcing its position as a leading global MRO services provider. Crucial successes have been won in the US, where the company's ST Mobile Aerospace Engineering subsidiary carries out passenger-to-freighter conversions on behalf of customers such as FedEx, which awarded the company a seven-year contract in 2007 covering the conversion of 87 Boeing 757-200 jetliners.

STAero757PTF.jpg. Caption: ST Aerospace's US unit last year won a major contract for Boeing 757 freighter conversions from FedEx.

Domestic investment

Meanwhile, investment in the company's domestic capacity continues. The company now has seven available narrowbody aircraft maintenance bays in its hangars at Seletar Airport in Singapore, and is in the midst of building another hangar, adding two more bays. ST Aerospace also has five widebody bays at its facilities at Changi Airport, and capacity for another three widebodies and four narrowbodies at its Paya Lebar site.

The company has said it will continue to invest incrementally in its facilities at home, to meet the needs of its customers.

Another major player in Singapore's MRO industry is SIA Engineering (SIAEC), a unit of flag carrier Singapore Airlines (SIA). With five hangars, company has a customer base of more than 80 international airlines and aerospace equipment makers.

SIAEC offers line maintenance as well as airframe and component overhaul on the world's most advanced and widely used passenger airliners. The company is planning to open a sixth hangar at Changi early this year, capable of handling the Airbus A380, which late last year entered operational service with launch customer SIA.

The MRO provider opened its fourth and fifth hangars in 2005, providing a 30 percent capacity boost and passenger-to-freighter conversion capabilities. The company says its decision to proceed with the sixth hangar so soon after such a major capacity boost reflects

ST Aerospace is one of the world's largest MRO service providers.

Aerospace Showcase

The Singapore Airshow, Asia's largest aerospace and defence showcase, will run from 19-24 February at the island's Changi Exhibition Centre.

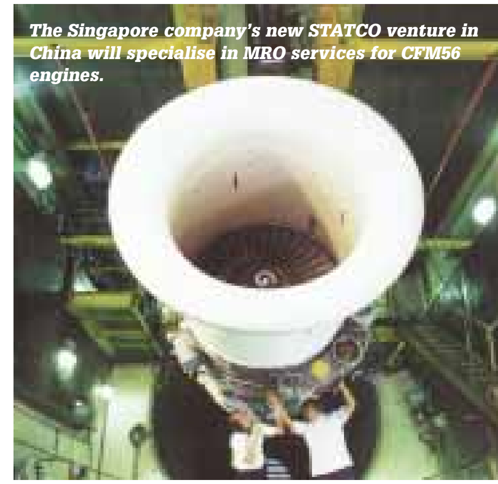
The show is a joint venture between the Civil Aviation Authority of Singapore and the Defence Science & Technology Agency. It will be the third-largest such event in the world and serves as a global market place and networking platform for the military and civil aviation community.

Singapore has hosted Asia's largest air show for 26 years, although the former Asian Aerospace event has now moved to Hong Kong after a split between show organisers Reed Exhibitions and the Singapore Government. The organisers of the new show say it has seen a 100 percent sell-out of exhibition space and will also play host to conferences covering topics such as Global Air Power, International Defence Procurement and C4I Asia.

The Singapore Airshow Aviation Leadership Summit will be the highlight of the show's conference programme, with top government and civil industry officials meeting behind closed doors with senior officials of various transport ministries to address major development challenges confronting the aviation industry. Issues addressed will include opportunities in the Asian aviation industry, managing safety and security challenges and environmental issues.

The last Asian Aerospace show in Singapore attracted a record 940 exhibitors from 43 countries, as well as 153 official delegations and 34,000 trade visitors from 99 countries. Deals announced during the show, held in February 2006, were valued at an all-time high of US$15.2 billion – four and a half times the amount announced two years previously.

With Asian Aerospace now having successfully repositioned itself as a civil-only trade show in Hong Kong, the global industry's eyes will be on Singapore's effort to prove that its show remains the most important in Asia in an increasingly crowded calendar.



The Singapore company's new STATCO venture in China will specialise in MRO services for CFM56 engines.

the company's commitment to developing a global MRO Centre of Excellence in Singapore.

At the end of January, the MRO company announced that its third-quarter financial results for the three months ended 31 December had been hurt by the weaker US dollar. Net profit for SIA Engineering in the quarter fell to S$53.6 million from S$55.3 million a year earlier. The decline came in spite of stronger sales, which rose to S$248.6 million from S$245.8 million, while expenditure rose to S$229.5 million from S$219.3 million. ●

Singapore's air force eyes future acquisitions

After buying new AEW aircraft last year, Singapore's air force is now focusing on additional fighters, new trainers and maritime patrol aircraft, writes **Andrzej Jeziorski**.

The Republic of Singapore Air Force (RSAF) is continuing to pursue acquisitions of new equipment to give it cutting-edge military aviation capabilities.

The island state last year confirmed it would buy four Gulfstream G550 airborne early warning (AEW) aircraft, replacing older Northrop Grumman E-2C Hawkeyes, and is now prioritising further fighter acquisitions, as well as advanced trainers and maritime patrol aircraft.

Singapore's Ministry of Defence initially signed an order for 12 Boeing F-15SG fighters, with eight options, late in 2005. This agreement was expanded in October 2007, with the conversion of the options into firm orders and the addition of four more aircraft, bringing the total to 24.

Singapore is expecting delivery of its first F-15SG fighters this year, and may order another batch.

The F-15SG, a derivative of the F-15E Strike Eagle, was chosen to replace the country's ageing fleet of McDonnell Douglas A-4 Skyhawks, beating competing bids of Eurofighter Typhoon, Dassault Rafale and Lockheed Martin F-16s. The first aircraft are scheduled for delivery from this year, with the second batch to arrive starting in 2010.

All of Singapore's aircraft will be powered by the General Electric F110-GE-129 engine, rated at 29,000lb thrust. Otherwise, the aircraft will come in a similar configuration to South Korea's F-15K, except for the addition of the Raytheon AN/APG-63(V)3 active electronically scanned array (AESA) radar.

All of Singapore's aircraft will be powered by the General Electric F110-GE-129 engine, rated at 29,000lb thrust.

Integration and flight testing of the aircraft began in November at Boeing's St Louis and Palmdale, California, facilities, the manufacturer says.

New fighter decision

This year, Singapore is likely to face a new fighter decision as it seeks to replace its Northrop F-5 fleet. The choice is likely to be between additional F-15SGs and the Lockheed Martin F-35A Joint Strike Fighter (JSF).

Singapore joined the JSF programme in 2002 as a "security co-operation participant" – the lowest of four possible levels of participation. The city-state is now expected to receive data on the aircraft's final configuration early this year after a two-year hold-up caused by development delays.

The RSAF is now reportedly looking at maintaining a pace of strike aircraft acquisitions at intervals of about three years.

The country has not released further details of the F-15SG's configuration, but some information emerged in 2005, from a US Defense Security Co-operation Agency (DSCA) notification to the US Congress. The document said that weapons supplied with the aircraft would include 200 Raytheon AIM-120C AMRAAM medium-range missiles, along with 200 AIM-9X short-range missiles, Captive Air Training (CAT) rounds and dummy rounds.

Air-to-ground weaponry was to include 50 Boeing GBU-38 Joint Direct Attack Munitions (JDAM) and

The Korean T-50 Golden Eagle is one of the contenders in the competition to meet Singapore's advanced jet trainer requirement.

30 Raytheon AGM-154A-1 Joint Stand-Off Weapons (JSOW), as well as 30 AGM-154C JSOWs, a variant for attacking hardened targets.

There has also been widely reported speculation that Singapore may incorporate Israeli electronics to modify and upgrade its aircraft, with that country's F-15I fighters incorporating Elisra SPS-2110 electronic warfare suites and DASH helmet-mounted sights.

Trainer competition

In July last year, Singapore issued a long-awaited request for information (RFI) for its Advanced Jet Trainer competition. The country is considering the Alenia Aermacchi M-346, the BAE Systems Hawk 128 and the Korea Aerospace Industries (KAI) T-50 Golden Eagle.

The Aviation Technology Group (ATG) / Israel Aerospace Industries (IAI) Mk 30 Javelin has also been under consideration, although that aircraft programme ran aground at the beginning of this year, when ATG halted development work because of lack of funding. Thus far, there has been no indication that IAI will step up to bail the programme out.

Singapore is likely to make a decision on the trainer in early 2009, with a planned entry into service date of 2010 or early 2011. First, however, the country will issue and invitation to tender, possibly early this year, with the pool of candidates likely to be trimmed down to a shortlist of two.

The T-50, Hawk and M-346 are all expected to be on display at February's Singapore air show.

The island state now carries out advanced jet training using a fleet of about 16 A/TA-4SU Skyhawks based in Cazaux, France. The final number of new aircraft the RSAF will need has not been announced, but it is possible the air force may acquire a larger number, to take over training missions that have hitherto been performed using fighter aircraft.

KAI, hungry for another export success after the recent selection by Turkey of the KT-1 turboprop for the country's military basic training needs, is understood to be ready to offer substantial discounts for the supersonic trainer's international launch customer. Alenia Aermacchi will also be pushing for its first export sale for the M-346.

Meanwhile, BAE suffered a recent setback to its Hawk programme when the aircraft was rejected by the United Arab Emirates, a development that was described by the manufacturer's managing director of training solutions, Mark Parkinson, as "a crossroads" for the programme. The company is now reported to be considering shifting global production of the aircraft to India in a possible joint venture with Hindustan Aeronautics (HAL).

AEW procurement

Last May, Singapore confirmed its decision on another major acquisition, announcing that it had chosen the Gulfstream G550 platform to meet its AEW requirement, replacing the existing fleet of four Northrop Grumman E-2C Hawkeye aircraft. Delivery of the first of four aircraft, equipped with a variant of the Phalcon AESA radar built by IAI's Elta Systems unit, is scheduled for late this year.

While the Singapore Ministry of Defence (MINDEF) has not revealed any details of the programme costs or mission systems, it has been reported that the aircraft will probably be configured in a similar way to those in service in Israel, which took delivery of the first of three G550 AEW aircraft in September 2006.

According to Elta, the G550 has two radar systems, operating simultaneously in different frequency bands, providing 360-degree detection capability. The Phalcon also has an integrated identification friend-or-foe (IFF) system, an electronic support measures/electronic intelligence (ESM/ELINT) system and advanced communications intelligence equipment. The radar can be used to detect ballistic missile launches using pod-mounted sensors.

Power for the aircraft's systems is produced with the help of an extra generator on each of the aircraft's two Rolls-Royce BR710 engines, providing triple the electrical power of a standard G550 business jet. The aircraft's high-altitude performance helps it detect low-flying targets at long range. Gulfstream says the G550 can cruise as high as 51,000ft and offers a range of 6,750 miles with a maximum speed of Mach 0.885.

Prior to the G550 AEW decision, Singapore had also shown interest in Northrop Grumman's RQ-4 Global Hawk uninhabited aerial vehicle (UAV). Although, senior defence officials have now said the G550 "might" cover all of Singapore's AEW requirements, a future Global Hawk acquisition has not been ruled out.

Subhead: Global Hawk pool

Singapore received a formal briefing on Global Hawk in August 2005, after expressing interest in a high-altitude, long-endurance AEW and airborne ground surveillance variant. At the time, industry sources said the country saw the UAV as a possible solution to future requirements beyond those addressed by the G550.

The US is now understood to be proposing a multinational "pool" of Global Hawks to Asia-Pacific allies, including Singapore, Australia, Brunei, India, Indonesia, Japan, Malaysia, the Philippines, Sri Lanka, South Korea and Thailand. The proposal suggests having a shared, commonly funded fleet of the UAVs based in Guam, with an alternative that each nation would acquire its own Global Hawks and then make them available to the common regional fleet.

Recent helicopter acquisitions have included the purchase in 2005 of six Sikorsky S-70B naval helicopters, along with anti-surface and anti-submarine weapons and sensors, to operate from Singapore navy 'Formidable'-class frigates. The country has now taken delivery of all 20 Boeing AH-64D Apache attack helicopters, the first, eight-aircraft batch of which it ordered in 1999.

The first Apaches were handed over to the island's defence forces in 2002, with deliveries of the second batch of 12 helicopters beginning in 2006. The second batch marked the first-ever deployment of international Apache helicopters in Asia, after the first aircraft were based at a training facility in Arizona. ●

Business aviation on the rise in Asia-Pacific

As business aircraft makers and operators gather in Hong Kong for the 2008 Asian Business Aviation Conference and Exhibition, analysts are seeing signs that the industry's efforts in the Asia-Pacific market are beginning to bear fruit, writes **Andrzej Jeziorski**.

On 14 February, Hong Kong International Airport's Business Aviation Centre will play host to this year's Asian Business Aviation Conference and Exhibition (ABACE), attracting more than 50 exhibitors who will display their latest aircraft, helicopters, equipment and services.

With Asia-Pacific countries such as China and India experiencing unprecedented economic growth, business aircraft manufacturers are hoping finally to reap the benefits of the pent-up demand for private aviation in the region.

Growth in this sector in Asia has up to now been relatively sluggish, compared with regions such as the Middle East, Europe and the USA. Regulatory restrictions in markets such as China, combined with cultural factors in countries such as Japan, have damped the sector's growth, despite the apparent demand for the speed and convenience of executive transportation that business aviation offers.

"Not only is Asia expansive, with businesses needing air travel to accomplish their objectives, but it is host to some of the most vibrant economies on the planet," says the Asian Business Aviation Association (AsBAA). "With all the apparent financial justification to embrace business aviation, Asia accounts for less than 4 percent of the total business aircraft population."

Business jet demand is being stimulated in part by the introduction of new models such as Bombardier's Learjet NXT.

However, this situation seems to be changing.

"Across the globe, there is a growing understanding of the value that business aviation brings to businesses through improved employee productivity and efficiency and increased access to new markets," say the US-based National Business Aviation Association (NBAA) and the European Business Aviation Association (EBAA) in a joint statement. They add that companies are becoming increasingly adept at using business aircraft to gain a competitive edge.

Stimulating demand

Even now, with the world's financial markets experiencing recent upsets and fears of a possible US recession, the global business aviation sector seems secure, protected as it is by substantial order backlogs for aircraft and strong demand for both new and used models. The industry can take added comfort in the fact that it less reliant on the US market now than ever before.

In 2007, business aircraft sales in international markets exceeded US sales for the first time, a trend which seems set to continue.

Demand is being further stimulated by manufacturers introducing new aircraft models and upgrades to existing types. Canada's Bombardier last year introduced its Challenger 605 large business jet and Learjet 60XR midsize jet into service, while also launching the brand new, next-generation Learjet NXT, which is positioned between the midsize and super midsize market segments.

The aircraft will offer a cruise speed of Mach 0.82 and a transcontinental range of 3,000 nautical miles (5,556km), accommodating eight passengers in a stand-up cabin. At the time of the programme's announcement at the end of October, Bombardier had already gathered more than 65 letters of intent from potential customers, saying it hoped to turn these into firm orders within months.

"Development of this all-new jet with a group of international collaborators continues to progress well, and we are on target for a public unveiling of the next Learjet business jet in October 2008, in time to commemorate the 45th anniversary of the first flight of a Learjet aircraft," said Pierre Beaudoin, Bombardier Aerospace's president and chief executive.

Dassault, which obtained US and European certification for its Falcon 7X long-range, large-cabin business jet in April last year, has now launched its own new, clean-sheet aircraft programme.

New Falcon

In January, Dassault Aviation Chairman Charles Edelstenne announced the long-awaited launch of the new super-midsize Falcon, which will have fly-by-wire controls and a glass cockpit. The company has selected the new, 10,000lb-thrust class Rolls-Royce RB282 engine to power the aircraft.

For its part, Hawker Beechcraft introduced its 900XP into service last year, a derivative of the mid-size Hawker 850XP with increased hot-and-high performance and a 6.9 percent range increase over its forerunner. This gives the aircraft the ability to make one-stop flights from New York to Honolulu 99 percent of the time, the manufacturer says.

Savannah, Georgia-based Gulfstream, which hasn't launched a new aircraft since the G550 in 2000, may reveal its own new aircraft project this year. Meanwhile, Brazil's Embraer is set to certificate its Phenom 100 Very Light Jet (VLJ) this year, and is working towards the launch of new medium-light and midsize business jets for entry into service within about five years.

Last year saw the entry into service of two VLJs, the Cessna Citation Mustang and Eclipse 500, spurring an increase in air taxi services in the US and Europe. In 2008, Austria's Diamond Aircraft is expected to deliver its first US$1.4 million, five-seat, single-engine D-Jet personal jet, while Germany's Grob is hoping to certificate its SPn light jet and US manufacturer Adam Aircraft may win certification for its A700 VLJ.

Cessna is set to complete the first flight of its Citation CJ4 light jet this year, and may launch a new, large-cabin business jet in the first quarter.

But no matter how desirable the products, substantial orders will only come when the infrastructure and regulatory conditions exist to support business aviation.

As of last year, China – the world's most populous nation and the fastest-growing major economy – was home to about 26 business jets, a number that has changed little in recent years. That number includes government and charter aircraft.

Restrictive regulations

There are only three charter operators in China, since the 2006 collapse of Shandong Airlines' Rainbow Jet unit, which failed because demand for business jet charter services never lived up to the company's expectations. The surviving companies are Air China Business Jet, Hainan Airlines' Deer Jet unit and Shanghai Airlines Business Jet.

China's business aviation market has been hurt by restrictive regulations and poor infrastructure. Up to now, local laws have been preventing companies from operating their own aircraft, while much of the country's airspace has been controlled by the military. That means overseas operators must file flight plans seven days in advance, making last-minute changes to itineraries impossible.

The flight-plan restrictions do not apply to Chinese operators – but they still represent the minority of business jets flying in the country.

Embraer is set to certificate its Phenom 100 VLJ this year.

Only about a third of China's 300 or so airfields are open to business jets, and many lack essential facilities. Only Shanghai's Hongqiao airport has a fixed-base operation (FBO) providing key ground services to date, although another has been under construction in Beijing.

By comparison, the USA has 5,500 airports that accommodate business jets, and 4,500 FBOs. This problem is being addressed, however, with an US$18 billion investment promised by the General Administration of Civil Aviation of China (CAAC) to build eight airports a year up to 2010.

China has also been charging prohibitively high, 22 percent import taxes on foreign made-business jets, as well as demanding that foreign-registered aircraft pay overflight and landing charges that can be as much as eight times higher than the fees paid by local aircraft operators.

In Japan, companies have been reluctant to accept the use of executive aircraft, though this may now be changing. Still, the country remains a tough environment, with identical requirements for obtaining and maintaining airworthiness certificates applied to business aircraft and commercial jetliners. Only a handful of business jets operate in the country, with growth further hampered by restricted access at major airports.

Subhead: Slow growth

The number of business aircraft registered in Asia has increased by more than a quarter over the past decade, but remains small. In 1993, there were 205 aircraft in the region, and that total grew to 259 by 2003. In the same period, Europe saw a 13 percent increase to 1,300 aircraft.

Still, manufacturers have remained upbeat about the region's potential, insisting that economic growth will inevitably lead to more aircraft sales. In 2007, Embraer predicted demand for 250 business jets in the Asia-Pacific region over 10 years, with an average 9.1 percent annual growth rate and a market value of US$3.8 billion by 2015.

In a speech addressing the 2007 ABACE forum, NBAA President and Chief Executive Ed Bolen highlighted the progress the business aviation sector has made in the Asia-Pacific region and the potential it has for further development.

"Consider business aviation in Japan," Bolen said. "In part through visibility events, and lobbying from NBAA, AsBAA and the Japanese Business Aviation Association, real progress has been made in preserving open access for business aircraft at Nagoya Airport.

"However, the potential exists to secure increased access at other airports," he adds. "At Narita Airport in downtown Tokyo, business aviation is limited by severe constraints on access. The adoption of more workable access policies would expand Narita's growth potential as a gateway for companies that view Tokyo as a critical business destination."

Bolen cited China as another example of progress in the region, emphasising that NBAA and AsBAA lobbying was responsible in part for the country's decision to make a substantial investment in airport infrastructure.

"However, business aircraft are restricted to certain altitudes in the airspace over China, limiting the amount of business aviation that can be accommodated," he said. "The growth potential if China were to provide more altitudes could be recognisable as early as 2008, when Beijing hosts the Olympics." ●

Viva Macau seeks to carve market niche

Viva Macau, the Centre for Asia Pacific Aviation's New Airline of the Year 2007, is targeting routes out of Macau not being served by its rivals in a bid to tap the rising travel demand, writes **Sam Chui**.

Viva Macau is the second-largest airline based in Asia's biggest casino gambling hub.

SAM CHUI

Macau-based start-up carrier Viva Macau operates services from what has become one of the world's biggest gambling hubs, rivalling Las Vegas. The Chinese Special Administrative Region (SAR) – the only place in China where casinos are legal – attracted more than 22 million people in 2006.

The airline was founded in 2004, launching its first services to Jakarta, Phuket and the Maldives in December 2006. The management's goal was to create an international low-fare airline that reflects the character of the former Portuguese colony, which was handed back to China in 1999.

Viva is Macau's second-largest airline after rival Air Macau. The company is focused on tapping plentiful capacity at Macau International Airport to offer an international network of services. Viva launched operations with one Boeing 767-200ER mid-size, widebody twinjet, and one larger 767-300ER, both acquired through operating leases with AWAS.

The carrier currently operates non-stop services to Sydney, Busan and Jakarta. New services to Tokyo's Narita Airport and Vietnam's Ho Chi Minh City were also launched in December 2007.

"When you look at Macau, unlike its neighbour Hong Kong, it is currently poorly linked to anywhere in the world," says Con Korfiatis, Viva Macau's chief executive officer. "There is so much potential and plenty of routes for us to pick."

Korfiatis insists that "Viva is not in direct competition with Air Macau," which is controlled by China National Aviation (CNAC) and flies mainly to Chinese cities and Taiwan. "Rather we're interested in medium- to long-haul [routes] that are not served from Macau currently," he says.

Between January and October 2007, 872,200 visitors arrived in the city by air, already exceeding the 861,800 visitors who flew into the former Portuguese enclave in the full year 2006.

Gambling growth

Macau's gaming industry is now experiencing rapid growth after the government ended the 42-year monopoly of casino owner Stanley Ho and allowed Las Vegas Sands, Wynn Resorts, MGM, Melco-PBL and other companies to begin building new gaming resorts in the SAR.

Visitor numbers are expected to rise even faster with the opening in 2007 of several grandiose new casino projects on Macau's Cotai strip, an area of reclaimed land that is earmarked to be the city's Las Vegas Strip.

Viva Macau was honoured with the title of New Airline of The Year by the Sydney-based consultancy Centre for Asia Pacific Aviation (CAPA) at its Aviation Awards for Excellence ceremony, held in Singapore last October. The award is given to the start-up airline that has, in the previous 18 months, had the most significant impact on the markets where it operates and on the development of aviation in the Asia-Pacific region.

"Viva Macau started up at the right time and place," Korfiatis says. "Macau, Asia's best-kept secret until recently, is now one of the hottest destinations in the world. Its rapidly developing, hotel, leisure, entertainment, conference and gaming facilities, along with its world heritage sites and architecture, make it a must to visit."

Viva Macau's shareholders, led by MKW Capital, have now increased their investment in the airline.

"Viva Macau has a uniquely strong and experienced management team, ready to lead the airline - and Macau - to the next level with international connections across the Asia Pacific region and the world," says MKW.

Shareholder funding

The carrier will lease aircraft with funds from shareholders, including Viva's President Ngan In-Leng, a well-known businessman and philanthropist in Macau and mainland China. William Ho, brother of Edmund Ho – the chief executive of the Macau SAR – is also a shareholder in Viva Macau.

Airline CEO Korfiatis was formerly head of strategy at Qantas, and has held a number of senior executive roles with Ansett Australia and Singapore Airlines (SIA). He was also the founding Chief Executive for Jetstar Asia, a Singapore based low-fare airline affiliated with Qantas's Jetstar unit.

Viva now employs 160 people, including 6 executives, 26 pilots and 60 office staff, as well as its air crews, with more than 20 different nationalities among the staff. The airline has a Maintenance, Repair and Overhaul (MRO) partnership with Guangzhou Aircraft Maintenance Engineering (GAMECO).

Airlines operating from Macau pay lower airport fees than they would at other hubs in the region, especially in neighbouring Hong Kong. These lower charges, as well as the relatively lower salaries in Macau and a higher aircraft utilisation rate enable Viva Macau to keep its costs 40 percent lower than those of the big, legacy carriers in Asia, such as Hong Kong's Cathay Pacific Airways and SIA. "If you drive fares low enough, you generate bigger and bigger volume," Korfiatis says. "Budget airlines are volume-driven, where traditional airlines are yield-driven. As a start-up airline, we expect to lose money in the first year and have projected to break even in the second year of our operation.

"As a private entity, we are not required to disclose our financial performance but we are very pleased with it so far," the Viva chief adds. "Our Boeing 767 fleet has achieved over 15 hours of utilisation per day, and we see the aircraft as a scarce commodity, [which] is vital to the company's financial performance."

Viva also offers space in its fleet's belly holds for freight consignments, an important strategic consideration, given that Macau is situated on the edge of the Pearl River Delta with its large manufacturing industry. Viva has signed a co-operation contract with Germany-based Cargo Counts, which will be responsible for cargo-related services including sales, marketing, freight-handling, accounting, IT and controlling, as well as flight data, yield and capacity management.

"Our belly-holds on the 767 can generate additional revenue for us [in a way] that narrow-body aircraft just cannot do," Korfiatis says. "The southbound [service] to Jakarta is always full and we are also getting cargo shipped from Indonesia to Sydney via Macau."

High hopes

Viva is in the process of sourcing two additional 767 aircraft, the company head says.

"We find the Boeing 767 an optimum aircraft to suit Viva's route structure and range requirements at the present moment," says Korfiatis. "It is a good, medium-sized aircraft, suitable for a new carrier like us, and provides a good amount of cargo space."

Korfiatis says that the airline is considering additional destinations including the Russian capital Moscow and cities in the Middle East and India, subject to the acquisition of additional aircraft. Frequencies to Jakarta may also be increased further.

Regarding future fleet expansion plans, Korfiatis says the airline is awaiting detailed information on the new widebody twins now being developed by Boeing and Airbus.

"We have not fully received the A350 performance figures from Airbus, and have yet to make a decision between A350 and B787," he says. "We will probably consider any future plans for the aircraft fleet in the next year."

The three main challenges the carrier now faces are "fuel price, availability of aircraft and recruitment of staff", the CEO says. Up to now, Viva Macau has not hedged against fuel price fluctuations. "To make it cost-effective, we need to establish a credit history, but we will eventually able to do that," Korfiatis says.

With the 767 in high demand worldwide, the executive says "any further growth will be subject to the availability of aircraft". "We are more confined by this rather than the capital requirement. With Macau's economy enjoying close to full employment, a lot of jobs are filled by overseas workers and we're not immune from that. It remains a constant challenge of recruiting the people with the right skill set."

Asked whether Viva Macau could go public in the future, Korfiatis says there are plans for an initial share sale.

"The shareholders would eventually like to raise more capital by going public, but it won't happen in the next two to four years, but it's a logical outcome on how business grows," he says. ●

LOW-COST AMBITIONS

With Viva Macau establishing its operations and eyeing expansion, bigger rival Air Macau has been pursuing its own plans to launch a new low-cost affiliate, to be called Macau Asia Express (MAX).

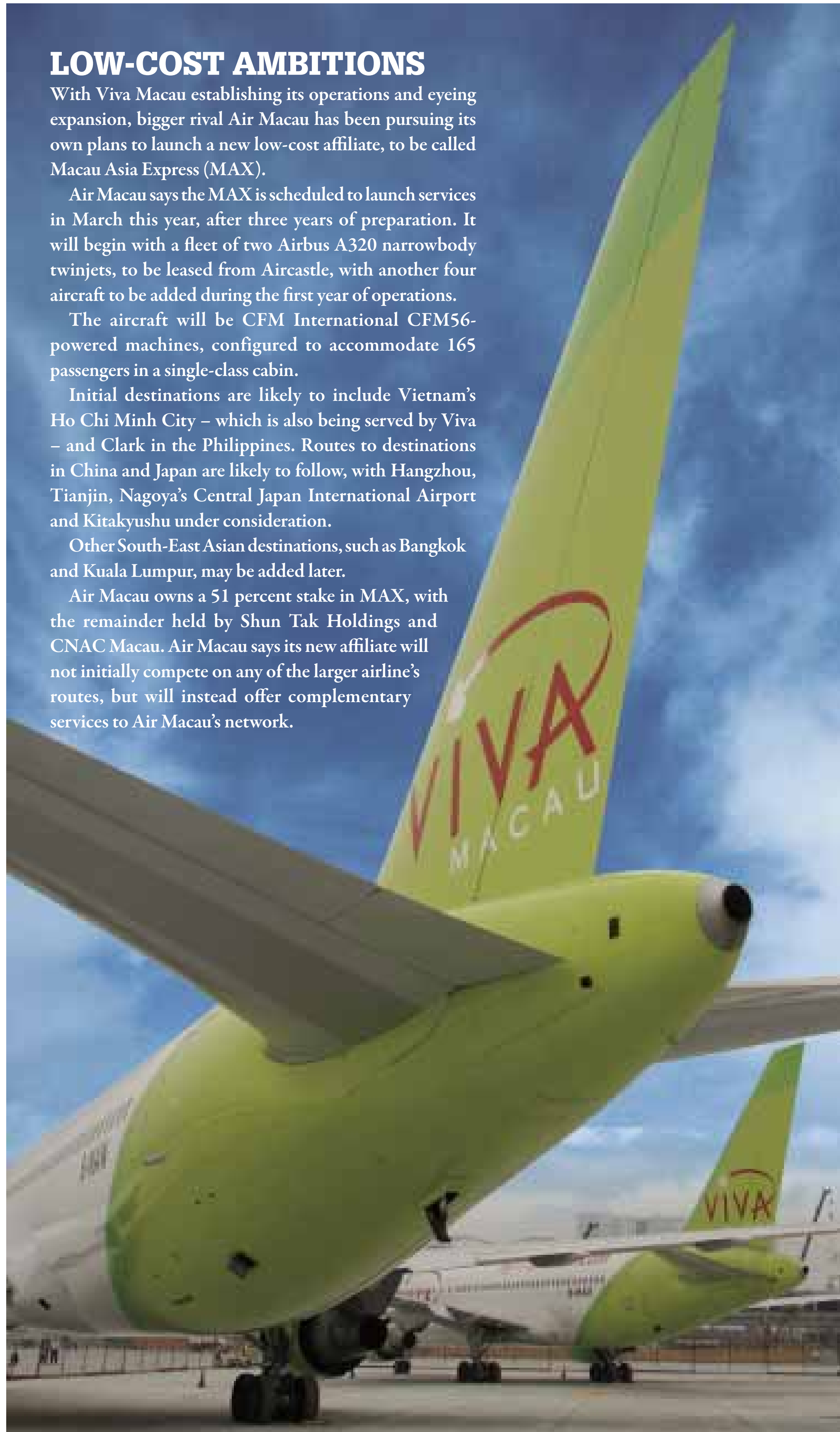
Air Macau says the MAX is scheduled to launch services in March this year, after three years of preparation. It will begin with a fleet of two Airbus A320 narrowbody twinjets, to be leased from Aircastle, with another four aircraft to be added during the first year of operations.

The aircraft will be CFM International CFM56-powered machines, configured to accommodate 165 passengers in a single-class cabin.

Initial destinations are likely to include Vietnam's Ho Chi Minh City – which is also being served by Viva – and Clark in the Philippines. Routes to destinations in China and Japan are likely to follow, with Hangzhou, Tianjin, Nagoya's Central Japan International Airport and Kitakyushu under consideration.

Other South-East Asian destinations, such as Bangkok and Kuala Lumpur, may be added later.

Air Macau owns a 51 percent stake in MAX, with the remainder held by Shun Tak Holdings and CNAC Macau. Air Macau says its new affiliate will not initially compete on any of the larger airline's routes, but will instead offer complementary services to Air Macau's network.



Asian airlines have recently placed large fleet orders including many for new aircraft models such as the Boeing 787.

Airservices tackles aviation's environmental impact

The level of CO2 emissions generated by Australia's aviation industry is forecast to grow at an annual 5 percent over the next decade.

As concern rises about aviation's impact on climate change, Airservices Australia is pursuing several initiatives aimed at reducing harm to the environment, writes **Emma Kelly**.

Australian air traffic services provider Airservices Australia has been at the forefront of numerous air traffic management (ATM) initiatives and aims to maintain that lead in the field of environmental issues.

The government-owned corporation, which administers airspace covering 11 percent of the Earth's surface and handles about 4 million aircraft movements each year, is currently testing and developing a number of new ATM initiatives designed to reduce aviation's impact on the environment.

Improved ATM can play a role in reducing the output of carbon dioxide (CO2) emissions from aviation, says Airservices Australia Chief Executive Officer Greg Russell. The Intergovernmental Panel on Climate Change, for example, estimates that improved air traffic control operations could result in a 6-12 percent reduction in emissions.

The Australian Greenhouse Office (AGO) estimates that emissions from Australian domestic aviation will remain at around 7 percent of total transport emissions over the next 10 years, or about 6 million tonnes of carbon dioxide, with international aviation estimated to have a similar impact. This output is expected to grow at a rate of around 5 percent per annum over the next 10 years, Russell says.

With flights expected to double over the next 20 years in the Asia-Pacific region, new ATM initiatives designed to limit emissions are ever more crucial for this region.

Improving pre-departure procedures is a logical first step in improved ATM initiatives, according to Russell. Airservices is using pre-tactical departure management at Sydney and Melbourne to reduce the environmental impact of delays by holding aircraft on the ground rather than in the air.

Aircraft are ideally held at the gate with engines off, although even holding on a taxiway at idle power settings uses only about a quarter as much fuel as in flight, he adds.

Negotiating delays

Airservices and its customer airlines are negotiating short delays in departure times in order to avoid delays in holding patterns and associated fuel usage. For example, a five minute delay on the ground can reduce CO2 emissions on a typical Melbourne-Sydney flight by more than 600kg, according to Russell.

At the other end of the flight, continuous descents are also contributing to reduced emissions. The service provider's continuous descent approach (CDA) trial – whereby an aircraft flies a continuous and uninterrupted descent at idle power from cruise altitude to the runway – is minimising fuel consumption, greenhouse gases and aircraft noise. The trial is showing fuel savings as much as 400kg per arrival and more than a tonne of reduced CO2 emissions.

CDAs are often not possible in congested airspace and poor weather so the service provider is now working on tailored arrival and green approach procedures that combine advanced navigation capability, datalink communications and time management to provide CDAs in all weather conditions. An initial tailored arrival trial conducted by the service provider involved about 80 flights and resulted in emissions reductions of up to 1,000kg per flight.

Green approaches are still in the early development phase and are "some way off", concedes Russell as few aircraft are equipped with the necessary avionics. "The concept is very broad indeed; nothing less than full control of air traffic flow in all four dimensions – latitude, longitude, altitude and time," he says.

Green approaches involve full tactical management of flights and will combine all of the ATM tools, including required navigation, continuous descent and ground-based augmentation systems.

RNAV development

En route, the service provider is further developing area navigation (RNAV), allowing aircraft to fly optimum routes. Airservices is running trials of RNAV-approach (RNAV-AR) at Brisbane, with improved satellite navigation systems and onboard avionics on new-generation aircraft, allowing them to fly more precise tracks, allowing curved paths.

The final visual segment of the approach is minimised, requiring less need to hold and wait for weather to improve. The Brisbane trial has demonstrated average savings per flight of 280kg of fuel and around 900kg of carbon dioxide.

The implementation of nationwide automatic dependent surveillance-broadcast (ADS-B) in upper airspace will also support more optimum trajectories. Meanwhile, Airservices' ATM long-range optimal flow tool (ALOFT) is reducing delays at Sydney by adjusting the cruising speed of aircraft en-route. Airservices is looking to extend ALOFT to Melbourne this year.

Flextracks, which are non-fixed air traffic routes that are optimised daily to take into account prevailing weather conditions, are already widely used between Australia, Asia and the Middle East by several carriers. Flextracks can lead to fuel savings of up to 8 percent, says Russell. Airservices is now examining the domestic application of Flextracks.

Further environmentally-friendly ATM initiatives are likely in the future, with the service provider working with the University of New South Wales on developing the Air Traffic Operations and Management Simulator (ATOMS) which is a high-fidelity fast simulation tool to explore advanced ATM concepts.

"We believe that with these advanced ATM initiatives, Airservices is among world leaders," says Russell. ●

MAS, Qantas to set up MRO joint venture

With airline fleets in the Asia-Pacific region set to expand, Australia's Qantas and Malaysia Airlines hope to tap rising demand for maintenance services through a new joint venture, as **Dennis William** reports from Kuala Lumpur and Sydney.

Australia's Qantas Airways and MAS Aerospace Engineering (MAE), a wholly owned unit of Malaysia Airlines (MAS), have firmed up plans to set up a new joint-venture company offering airframe maintenance services.

The new venture, which will begin operations soon, will be based at Sultan Abdul Aziz Shah Airport in Subang, 22km outside Kuala Lumpur. MAE has its heavy-maintenance facility located there.

While the partners remain tight-lipped about details of the proposed partnership's equity structure, it is understood that Qantas will acquire a stake of slightly less than 50 percent, at a price of A$300 million (US$263.4 million).

The venture is part of a strategy by MAE and Qantas to tap the rapidly growing Asia-Pacific maintenance, repair and overhaul (MRO) market, which is expected to expand to US$15 billion in sales by 2016.

With MAE leveraging its parent airline's 35 years of MRO experience, and Qantas its clean safety record and no-nonsense management approach, the partners hope to build up a world-class partnership. At the same time, the venture will become a new competitor for rival Sepang Aircraft Engineering (SAE), which has been planning to focus on the MRO market for Airbus A320, A330 and A340 and Boeing 737 narrowbody twinjets.

SAE started operations at Kuala Lumpur International Airport (KLIA) in October, with the AirAsia Group of low-cost carriers (LCCs) – comprising Air Asia, Thai AirAsia and Indonesia AirAsia – as its anchor customer, with its fleet of 737-300 and A320 aircraft.

An unidentified Malaysian businessman holds 81 percent of the company, while Kuala Lumpur-based AirAsia has the remaining 19 percent.

Qantas business review

Qantas Chief Executive Officer Geoff Dixon says the partnership with MAE will complement the airline's business review programme, which started in 2006, adding that the Australian carrier will have significant input into the management, engineering and quality systems of the new company. Qantas has identified Asia as a major growth market, having previously invested in Singapore-based LCC Jetstar Asia Airways (JAA) and Vietnam's Pacific Airlines.

The new joint venture is eyeing A380 maintenance work as deliveries of the aircraft ramp up to Asia-Pacific operators.

The new venture will give the airline an alternative source of maintenance services to its own in-house engineering unit, at a time when the company is facing possible industrial action by the Australian Aircraft Engineers Association over salaries and other benefits.

Qantas currently contracts out overflow MRO work to Lufthansa Technik Philippines in Manila, Hong Kong Aircraft Engineering (HAECO) and Singapore Airlines Engineering (SIAEC). It would not be a surprise should the carrier decide to move some work from HAECO and SIAEC to Kuala Lumpur, to keep the revenue within the venture.

Qantas says it has no plans to move work currently done in Australia to Kuala Lumpur. It has yet to make a decision where MRO work on still-to-be delivered Boeing 787 and Airbus A380 aircraft will be done.

With MAE's heavy maintenance capabilities covering Boeing 747, 777, 737, Airbus A330 and A320 aircraft, the new joint venture is set to be major MRO service provider in the region, especially for Airbus types. It is almost certain to obtain A320 maintenance work from Qantas's Singapore-based Jetstar Asia affiliate and Pacific Airlines.

Qantas owns 18 percent of the Vietnamese carrier, which is set to begin A320 operations in the second quarter.

Jetstar opportunity

Qantas's Melbourne-based subsidiary Jetstar also operates A320s and uses A330-200 widebody twinjets for its long-haul flights, which include services to Kuala Lumpur. This represents another potential business opportunity for the new maintenance venture.

Maintenance work for A380s on order by the region's airlines is also being targeted by the Malaysia-based company, which has invested US$70 million in the construction of an A380 hangar at KLIA.

Qantas is to take delivery of the first of 20 A380s this year. MAS has six aircraft on order, although the delivery schedule is yet to be finalized. Thai Airways International, which also has ordered six, is said to be considering outsourcing maintenance work, even though it has built an A380 hangar already with initial plans to do its own maintenance.

Industry observers say it would be too expensive for many airlines to carry out all their own A380 MRO work, due to the heavy investment required for tooling and equipment. Pooling resources among operators in the region could be the most cost-effective solution.

Singapore Airlines, which will eventually operate a fleet of more than 20 A380s, is not likely to outsource any work, handing it all over to its SIAEC unit.

MAS's move to spin-off its engineering unit as a separate entity is aimed at strengthening its position as a leading MRO service provider in the Asia-Pacific region, reinforcing Kuala Lumpur's role as an Asian aviation hub.

The airline's Managing Director and Chief Executive Officer, Idris Jala, says MAE is well-positioned to build a world class joint venture with Qantas.

Aggressive expansion

MAS' engineering unit has kept a relatively low profile for the past 33 years, content with supporting the Malaysian flag-carrier's fleet. The MRO unit adopted a more aggressive stance in 2006, expanding its capabilities to include the

A320, with further plans to add A340 maintenance capabilities. It now employs almost 3,800 people.

MAE also secured a contract from Lufthansa to retrofit the premium cabins of four Boeing 747-400s – a deal which came as a potent testimonial to the company's MRO capabilities. The maintenance provider says the Lufthansa contract was a tough one to win, as the German carrier insisted on completing a detailed evaluation of work done on MAS 747-400s before making its decision.

With experience in doing Quick Change (QC) freighter conversions on Boeing 737-300 aircraft, MAE is also evaluating the possibility of offering more passenger-to-cargo conversions in the near future.

To allow sufficient capacity at its Subang maintenance base for third-party jobs, MAE has moved 'C'-check work for MAS's fleet of 37 737-400 aircraft to KLIA, 60km outside the Malaysian capital. MAE has two widebody maintenance bays and one narrowbody bay at the larger airport. At Subang, the Malaysian company has five widebody and six narrowbody maintenance bays, with one bay dedicated for paintwork.

With the recent boom in global orders for new aircraft, there is a huge MRO market to be tapped over the next decade. The potential for A320 work is enormous, with the Airbus narrowbody in service with almost every low-cost carrier in the Asia-Pacific and operators expanding their fleets.

SIAEC has now abandoned plans to jointly set up a MRO company with India's Wadia Group to tap the market in the fast-expanding South Asian country. MAE could now benefit from this move, and is already doing A320 work for Indian LCCs Kingfisher Airlines and Air Deccan.

Talks between SIA and Wadia on key issues which dragged on for more than a year ended in a stalemate, resulting in their proposed joint venture being dropped. SIA was supposed to a 51 percent stake with the rest held by Wadia, which owns local LCC GoAir.

A320 fleet

In Asia alone, more than 900 A320s are now in operation with more than 36 airlines. Among the carriers operating the aircraft are AirAsia, China Southern Airlines, China Eastern Airlines, Dragonair, Cebu Pacific, Philippine Airlines and Bangkok Airways. MAS is also evaluating the A320 alongside the Next-Generation 737 family to replace its 737-400 fleet. A decision is imminent.

Apart from its airframe maintenance capabilities MAE's component workshop is equipped to carry out repair and overhaul of parts for 747, 777, 737, A330 and A320 types.

The company has 21 certifications from agencies including the US Federal Aviation Administration, the General Administration of Civil Aviation of China, the European Aviation Safety Agency, United Arab Emirates General Civil Aviation Authority and India's Directorate General of Civil Aviation. It also offers aging aircraft modifications, corrosion prevention programmes and cabin and cockpit upgrades, as well as engine pylon and Section 41 modifications for the Boeing 747.

The MRO provider says the modification demands expertise in maintaining the aircraft in zero-stress conditions throughout the work period. MAE's capabilities have been endorsed repeatedly by Boeing, which has handed the company five 'Pride in Excellence' awards in recognition of maintaining near perfect on-schedule operation of the MAS 737 fleet.

The maintenance company also offers training for technical personnel from its customer airlines, having trained 80 staff to date. MAE offers training schemes for licensed aircraft maintenance engineers, workshop engineers, technicians and mechanics.

The company is in now investing in an Enterprise Resource Planning system to integrate its engineering operations, which will cover plant maintenance, scheduling, financials and materials management. The new system will replace the existing Stacker Retrieval System and the Total Engine Reporting System.

MAE says it is confident it can compete on price and turnaround time with major rival MRO companies in the region, such as HAECO, Ameco Beijing and SIAEC. ●

Asia to lead global growth in air freight

Although Asia-Pacific airlines reported relatively modest growth in air cargo traffic in 2007, they remain optimistic that the region will lead the industry's expansion over the next few years as economies such as China and India continue to boom, writes **Andrzej Jeziorski**.

In the first nine months of 2007, growth in international air-cargo traffic for Asia's biggest airlines was outpaced by increases in capacity, reducing load factors as fuel costs rose and yields fell.

According to the Association of Asia Pacific Airlines (AAPA), which represents 17 of the largest carriers in the region, international freight demand saw "fairly modest" growth last year, with a 3.2 percent gain between January and September, while capacity increased 4.3 percent. As a result, the average load factor slipped 0.6 percentage points to 66 percent.

The figures come as a disappointment for cargo carriers, which reported a 5 percent increase in international cargo demand in 2006, following growth of just 3 percent in 2005 – a rate the AAPA described as "surprisingly subdued". Cargo volume for AAPA carriers in 2006 totalled 10 million tonnes, and their traffic figures were equivalent to about a third of total global traffic.

Air freight in 2006 generated about 18 percent of the Asian airlines' total revenue, or about US$18 billion.

Still, the association's Director General Andrew Herdman strikes a note of cautious optimism looking ahead.

"The general outlook remains reasonably good, even with oil prices hitting new highs," Herdman says. "Unfortunately, oil prices have risen relentlessly over the past three years and fuel surcharges now appear to be a permanent, if unwelcome, feature of doing business."

Oil concerns

The AAPA says that the sharp increase in fuel costs over the past few years has been of particular concern to freight operators. Fuel accounts for a higher proportions of operating costs for cargo carriers than for passenger airlines, leading to increased freight rates, often in the form of fuel surcharges.

On the positive side, air cargo demand in Asia is still expected to surge dramatically in the coming years, driven by rapidly expanding economies such as those of China and India. The AAPA predicts that the Chinese freight market will double in the next few years, from 3 million tonnes in 2006, with an estimated 10 percent annual growth rate.

In forecasts announced at the Arab Air Carriers Organisation (AACO) meeting in Damascus in October, the International Air Transport Association (IATA) predicted international freight volumes for the world's airlines will grow at an average 4.8 percent a year up to 2011. In that year, the association estimates that airlines will carry about 36 million tonnes of freight – an increase of 7.5 million tonnes compared with figures for 2006.

Growth will be driven by "economic growth, globalisation and trade", IATA says. Nevertheless, the volume growth rate will still fall short of the 6.2 percent annual increases seen between 2002 and 2006, because of intensifying price competition from other modes of transport.

Asia-Pacific growth, as expected, will be driven by the booming Chinese and Indian economies, forecast to grow at an annual 8.8 percent and 8.6 percent, respectively. Fast expansion is also forecast in Vietnam, where the economy is set for 7.7 percent growth per annum.

The Asia-Pacific region will lead global growth in freight demand, expanding at an average 5.4 percent a year up to 2011, IATA says. China will lead the boom at about 10.8 percent a year, followed by India at 8.3 percent. The Middle East is set to have the second-highest regional growth rate, with demand rising at about 5 percent a year, driven by 6.9 percent annual expansion in Qatar and Saudi Arabia's 6.2 percent growth rate.

Trade imbalance

"Freight to and from the Asia-Pacific will account for 57 percent of the 36 million tonnes of air freight volume in 2011, up from 55 percent in 2006," IATA says. The association does, however, strike a cautionary note, adding that most of the cargo volume will be outbound from Asia, raising concerns about imbalances in global trade patterns on the industry, whose profits could be hurt if freighters fill less of their cargo space on their return journeys.

Growth in China is being helped by a number of liberalisation moves by the Civil Aviation Administration of China (CAAC).

According to the AAPA, the country's aviation authority has "initiated a number of policy changes to promote the air cargo industry, including: progressively liberalising cargo traffic rights; encouraging the formation of dedicated cargo airlines; and making significant investments to expand cargo handling capabilities at the major Chinese airports". These moves have come at a time when a number of new cargo airlines have arrived on the scene in China, some in partnership with overseas carriers.

Other markets in Asia have also experienced similar liberalisation moves. China and Japan have expanded freight capacity on routes linking the two countries, while the new air services agreement between mainland China and the Hong Kong Special Administrative Region (SAR) allows for both more cargo and passenger traffic, and includes fifth-freedom rights. That agreement also allowed the designation of more cargo airlines.

From about the fourth quarter of this year, there will be full liberalisation of all-cargo services between Hong Kong and many major cities in mainland China. Two additional designated cargo carriers will be allowed on services to cities that do still have restrictions, namely Beijing, Chengdu, Dalian, Guangzhou, Kunming, Shenzhen and Shanghai. That will increase to three additional cargo carriers from the end of October.

Unlimited cargo flights are now also allowed under a new agreement between South Korea and Vietnam.

"Whilst the future outlook remains bright, the air freight industry continues to face a number of operational and business challenges," the AAPA says. "These include: higher fuel costs; increasingly complex and burdensome security regulations; and overcoming the many other hurdles that lie in the path of those seeking to streamline international air cargo flows."

The group also expresses concern about an unusually high proportion of the world's air accidents involving freighter operations – 20 percent in 2005. That figure is more than double what would normally be expected, based on the total number of flights operated.

The association says the figure reflects the "impact of a number of smaller cargo operators in undermining the overall high standards set by the industry". ●

Asia-Pacific
Air Freight directory

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ASIA AIRFREIGHT TERMINAL CO LTD

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ASPAC-AIRCARGO SERVICES PTE LTD

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BAX GLOBAL PTE LTD

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BIRKART GLOBAL (S.E.A.) PTE LTD

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BLUE LINE GLOBAL CO LTD

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CARGO EXPRESS CO LTD

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CARGO MASTER CO LTD

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CARGO SOLUTION CO LTD

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JAS FORWARDING (S) PTY LTD

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JORDAN INTERNATIONAL AIR CARGO

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K C DAT AIRFREIGHT PTE LTD

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'K' LINE AIR SERVICE (SINGAPORE) PTE LTD

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Tiger Airways expands into new markets

With a new unit operating in Australia, another planned in South Korea and more new aircraft on the way, Singapore's Tiger Airways is expanding apace. The carrier has also just completed its third straight quarter of profitability, writes **Andrzej Jeziorski**.

Tiger Airways is set in February to launch services on the Singapore-Kuala Lumpur route, long dominated by the Singaporean and Malaysian flag carriers.

SAM CHUI

Singapore-based low-cost carrier Tiger Airways has announced a third successive quarter of profitability in the three months ended December. The privately held carrier has not revealed any figures for its financial performance, but if it maintains a positive net income up to the end of March, this would mark the airline's first full business year in the black.

The quarterly result comes at the end of an eventful calendar year for the fast-expanding airline, 49 percent owned by Singapore Airlines (SIA). Late in 2007, the carrier shifted to a group structure, launched a new subsidiary airline in Australia, revealed plans for a venture in South Korea and ordered an additional batch of Airbus A320 jetliners to meet its growth needs.

According to President and Chief Executive Officer Tony Davis, the carrier has been "cash-flow positive" for more than two years. Now Tiger is also set to benefit from Singapore's recent agreement to open up air services between the island state and Malaysia's capital Kuala Lumpur to airlines other than flag carriers SIA and Malaysia Airlines (MAS).

The airline has come a long way since it began operations in 2004, with a fleet of two aircraft, operating on three routes. Within three years of its start of operations, the carrier expanded its network from Singapore to cover more than 25 destinations across eight countries in the Asia-Pacific region, including Australia, China, India, Indonesia, the Philippines, Malaysia, Thailand and Vietnam.

New markets

Tiger secured an air operator's certificate (AOC) for its new Australia-based unit in November, taking advantage of the country's liberal rules governing foreign ownership of airlines. Tiger Airways Australia, as the subsidiary is called, started operations on domestic services from its Melbourne base on 23 November, using a fleet of five A320s.

The new carrier's initial destinations included the Gold Coast, Mackay and Rockhampton, with plans to add flights to Adelaide, Alice Springs, Canberra, Darwin, Hobart, Launceston, Newcastle, Perth and the Sunshine Coast as demand developed. The initial three destinations – all in Queensland – are popular among holidaymakers.

When Tiger announced its Australian plans earlier in the year, CEO Davis publicly threw down the gauntlet to the country's established carriers Qantas, its Jetstar subsidiary and Virgin Blue.

"Fares are too high in Australia," Davis said. "Unlike other airlines, we won't be a low-cost airline selling high fares. We'll be low cost and very low fare." At the same time, Tiger referred to the Australian market as a "cosy duopoly" where fares have been allowed to rise for want of competition.

Before the new unit began operations, Tiger announced that it was adopting a new group structure, with the airlines Tiger Airways Australia and Tiger Airways Singapore placed under a holding company, Tiger Aviation Group. The reorganisation left Tiger's original shareholding structure unchanged, with SIA holding 49 percent, 11 percent in the hands of Singapore government investment arm Temasek Holdings, 24 percent with the US investment company Indigo Partners and 16 percent held by Irelandia Investments, which belongs to Ryanair founder Tony Ryan and his family.

Korean ambitions

Also in November, Tiger had announced plans to set up another low-cost unit in South Korea, this time in a joint venture partnership with the Incheon Metropolitan City Government. The new unit, to be based at Seoul Incheon International Airport, is to be called Incheon Tiger Airways, with the Singaporean partner taking a 49 percent stake.

The rest will be held by the City Government, which said it plans to reduce its stake by selling shares to South Korean investors such as financial institutions or logistics companies.

Announcing the plan, Davis said the Korean unit would begin operations within a year – possibly even before the 2008 Olympic Games, set to be held in Beijing starting in August. Initially, the carrier would have a five-aircraft fleet, with likely expansion to 10 aircraft at a later date.

The new airline is set to operate both domestically and internationally, covering destinations in China, Japan, Mongolia, the Philippines and Russia.

However, the Korean plan hit a snag at the end of November, when Seoul introduced a rule requiring start-up carriers to complete two accident-free years of domestic operations before competing with the country's two largest airlines, Asian Airlines and Korean Air (KAL), on international services. The restriction also affects KAL's own plans to set up a new domestic and international low-cost carrier, called Air Korea, to begin operations in May.

Tiger said it was hoping for a reversal of the new policy, and would engage the South Korean government in talks after the country's December election, which ended in a landslide victory for conservative presidential candidate Lee Myung-bak, who will replace President Roh Moo-hyun in February.

Amid these expansion plans, Tiger said in December that it was converting 20 existing options for additional Airbus A320s into firm orders, adding to the carriers' existing 40 firm orders for the narrowbody jetliner. Deliveries of the aircraft, all to be powered by International Aero Engines V2500 turbofans, are to continue up until 2016.

February marks the start of Tiger's new services between Singapore and Kuala Lumpur, after the government decision to open that route up to fresh competition. Tiger has obtained rights to operate one daily flight between the cities, while another will be operated by Jetstar Asia.

On the Malaysian side, AirAsia will be a new entrant on the route, while MAS's Firefly unit also wants to operate the service. ●