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RESURRECTION AT ROYAL BRUNEI?

For CEO and deputy chairman, Dermot Mannion, improving the financial fortunes of Royal Brunei remains a work in progress

Orient aviation 22 YEARS

Attracting the Google generation to the cockpit

Qantas tops region for ancillary revenue

Pacific partners first to meet new tracking targets

SPECIAL REPORT MRO Asia-Pacific update


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COVER STORY

Which aircraft best combines comfort with efficiency?

Approaching crisis point?

The fact that 30% of flights into China operated by Cathay Pacific Airways and Dragonair were delayed in the first half of this year is no news to anyone in the industry. China is a red hot congestion spot that is showing no signs of cooling in the immediate future.

But it is not the only country in the region with choked airports and airline fleets flying in confined skies. Gateways including Jakarta, Manila, Bangkok and Hanoi are operating far beyond their design capacity.

As a result, carriers are losing millions of dollars a year because they are forced to fly holding patterns and run engines on taxiways while they wait for gates to clear.

And then there are the passengers and the crews. Passengers are entitled to be annoyed when they have to sit in packed planes for hours - a common experience in China - and then often miss their onward flights because of delays.

It isn't fair either that cockpit and cabin crews and operations staff have to suffer the complaints, often abusive, of passengers outraged by delays. Or to have to constantly manage changing operating schedules.

So what to do? The present congested state of airport and air traffic management has developed because the infrastructure master plans of many Asia-Pacific governments and airport authorities have failed to keep up with demand.

There are exceptions. Singapore Changi and Kuala Lumpur are facilities that have met the challenge of servicing the world's fastest growing aviation market. However, the International Air Transport Association's (IATA) drive to have "Seamless Skies" implemented in the Asia-Pacific has been disappointing. Designed to improve air traffic flow along airways using cross-border flow management, its success is "patchy" and in some cases "very slow".

Some countries have upgraded their air traffic systems, others have not. It results, IATA said, in everyone having to operate at the lowest common denominator, which does very little to relieve the increasing air traffic congestion that costs airlines so much time and money.

Governments understand the importance of aviation to their local economies, but many of them are backing away from the multi-billion dollar decisions required to build modern aviation infrastructure. They must step up to the plate and build facilities that will keep up with the demands that increasing numbers of jets are placing on the system.

Aviation is a complex industry built on partnerships. New airports alone will not eliminate congestion. There must be a dramatic improvement in air traffic management to accompany the onground hardware.

Unfortunately, the evidence to date suggests that this is not going to happen soon and that congestion in the Asia-Pacific is going to get a lot worse before it gets better. ■

TOM BALLANTYNE
Chief Correspondent
Orient Aviation Media Group

China's Internet king, Jack Ma, invests in China's "smart" airports

Alibaba founder, Jack Ma, fabled for his rags to riches success as the founder of China's first and most popular online commerce site, has joined forces with rival, **Tencent Holdings**, and Shanghai airport to make the vast Pudong facility "smarter", reported **Hong Kong's South China Morning Post** last month. **Shanghai Airport president, Ying yiming**, said he wanted to "leverage the two groups' key advantages in big data and virtual payment systems for his airport passengers". **Shanghai Pudong International airport** opened its fourth runway last year and has embarked on a US$3.135 billion expansion of the complex to meet passenger demand. ■

Frankfurt airport victory in Manila terminal dispute

The Supreme Court of the Philippines has ruled in favour of the **Philippines International Air Terminals Co. Inc. (PIATCO)** and its joint venture partner, **Frankfurt Airport**, in a decade long dispute with the Philippines government about the ownership of terminal 3 at **Manila's Ninoy Aquino International Airport**. The judges directed the Philippines government to pay PIATCO and its partner US$510 million, which included the US$59 million the government paid to the company in 2006.

The joint venture received approval to build the much needed terminal in 1997, but in 2002, the government took over the facility, shutting out the joint venture partners and refusing to compensate them for taking ownership of the facility. The case has travelled through the Philippines Justice system for the last ten years as the facility grew to handle 13 million passengers annually and earn corresponding revenue in retail and airport fees. Frankfurt Airport said it was waiting to hear if the parties to the decision would seek further legal recourse. No deadline was specified for the compensation to be paid. ■

THAI staff resisting reforms, says the airline's boss

Walking the talk in his battle to turn around flag carrier, **Thai Airways International (THAI)**, is proving tougher than its reform minded **president and chief executive, Charamporn Jotikasthira**, expected. He told Bangkok's media last month that the majority of the airline's 25,000 strong work force does not share his urgency for the radical changes necessary for the airline's survival.

To encourage acceptance of the restructuring, which will include more executive and cabin crew redundancies by year end, he has been holding employee road shows to explain his reform programme and outline the problems created by the airline's entrenched "silo management" structure. Whatever long-term THAI employees feel about their very business-minded boss, some changes are inevitable. By year end, 1,400 more employees will leave the airline under its Mutual Separation Plan and a forecast similar number of cabin crew will be retrenched under the Golden Handshake scheme as the carrier's network shrinks.

THAI's target for recovery is a 70% implementation of the turnaround plan by January next year, with a return to profitability, and completion of the full agenda for financial reform, by 2017. ■

PAL disappointed with UAE air services deal

The big Gulf airlines didn't succeed in securing all their demands at recent air talks with the Philippines government, but they walked away with far more than local carriers wanted.

Tom Ballantyne reports

Philippine Airlines (PAL) president, Jaime Bautista, was far from happy last month after his government concluded two days of air rights discussions with the United Arab Emirates (UAE) that will allow Gulf airlines to increase their weekly flights to the Philippines by 25%.

"Frankly, we are disappointed by the results of the UAE aviation negotiations with our government," he told Orient Aviation. "There was no market justification for expanding capacity rights."

The new agreement, which was concluded without local airlines' full participation, will allow each country 35 flights a week, an outcome that had been opposed by the country's international carriers, PAL and Cebu Pacific, as well as several domestic airlines.

Before the talks began, the two airlines issued a joint statement that opposed increases in flights between the two countries. "We hope our own government will promote fair competition and support our airlines who have invested much in re-establishing air links to the Middle East and Europe," said Bautista. "We call on the Philippines panel to the UAE air talks to refrain from giving Mid-East carriers undue advantage by granting more capacity and frequency beyond the requirements of the market."

A spokesman for Cebu Pacific made a similar plea. He pointed out the existing entitlements were still not being fully utilized by Philippines carriers. Their appeals for no increases in entitlements for the Gulf carriers fell on deaf ears.

From the outset of negotiations, the Philippines carriers were at a disadvantage. When the discussions opened in Manila in late August, the UAE team included representatives from Emirates Airline and Etihad Airways, who sat to the left and right the UAE's chief negotiator, Omar bin Ghaleb. They participated directly in the talks.

In contrast, PAL, Cebu Pacific and other local carriers had no place on their country's negotiating team and were classified as observers.

Earlier, a non-governmental organization, Save Our Skies (SOS), which promotes fair and open skies, had urged the government to re-instate Philippines carriers as full members of air negotiating panels (normal practice in most countries) and pointed out their role as observers "makes no sense and is absurd".

SOS president, Robert Lim Joseph, said local carriers should be given equal opportunity to defend their positions and fight for reciprocity and fairness. "Where in the world can you see airlines being relegated to mere observers in critical negotiations concerning their business and future?" SOS asked.

According to insiders, the Gulf team opened the talks with a complaint about the public joint statement from local operators, which the UAE said was a threat and an affront they threatened to report to Abu Dhabi.

The UAE also alluded to Philippino foreign workers – more than a million - employed by Gulf airlines and by other businesses in the UAE. Some of the Philippines negotiating team believed it was a veiled threat to stop or slow down hiring from the Philippines if the Gulf airlines' air rights demands were rejected.

The new agreement is far below the 30 or more new flights the UAE reportedly sought. The Philippines also wanted Gulf carriers to operate direct flights to other destinations, particularly Clark and Cebu, in return for new slots into Manila.

The UAE's reluctance to service more domestic cities led to a watered down agreement. The Philippines Civil Aeronautics Board (CAB) executive director, Carmerlo Arcilla, announced the granting of extra flights to Manila was subject to UAE carriers operating to Clark or Cebu "within a year" from the signing of the MoU.

This condition is "in line with our open skies policy in our developmental gateways outside Manila, and forces UAE airlines to invest in our developmental gateways", he said.

Arcilla said that while this development may be "disadvantageous" to local carriers operating flights between Manila and Dubai or Abu Dhabi, the Philippines government succeeded in negotiating additional fifth freedom traffic rights to the United Kingdom, the U.S. and Saudi Arabia for its airlines.

"Our carriers can fly from Manila to UAE and onward to any country, including the UK, the U.S., and Saudi Arabia. This will improve Philippines

Gulf carriers win approval for more Philippines-UAE flights

connectivity and the commercial viability of our routes to the UAE," he said.

Arcilla said the parties have agreed to "co-terminalization", which allows an airline from one country to fly to a city in the other country and onward to another city in that country without picking up passengers on the domestic leg.

"Overall, the talks were a success for Philippines connectivity and network development. The Philippines government panel and our airlines view the exchange as more or less fair," he said.

"The increase in traffic rights for both sides, which our airlines opposed, is minimal. We also achieved unilateral concessions for the increase, in terms of subjecting the operation of the additional traffic rights by the UAE carriers for services to Clark or Cebu."

In August, before the talks began, Bautista cautioned the Philippines negotiating team "to learn from the bitter experience" of major U.S. airlines in dealing with airlines from the Arabian Gulf, including Emirates and Etihad.

The U.S. government is looking into allegations of unfair practices by Emirates, Etihad and Qatar Airways after claims by the "big three" U.S. airlines that the Gulf carriers have received government subsidies of up to $42 billion. The allegations have been strongly denied by the Gulf operators.

Being a realist, Bautista told Orient Aviation after the agreement was concluded: "while we can't expect a fair fight, PAL will fight back where it counts; in the market, day by day."

Analysts tend to agree. They think the results of the talks could have been a lot worse. ■

> Frankly, we are disappointed by the results of the United Arab Emirates (UAE) aviation negotiations with our government. There was no market justification for expanding capacity rights

Jaime Bautista
President Philippine Airlines

Pacific partners first to meet new tracking targets

The International Civil Aviation Organization (ICAO) is committed to recommendations for a 15-minute aircraft flight tracking standard, but several carriers and ATM providers are already operating systems that meet the new rules.

Tom Ballantyne reports

It will be sometime before every commercial aircraft flying across the globe will be tracked every 15 minutes, but in the Asia-Pacific, three regulators are already meeting the ICAO standard, planned for global implementation by 2018.

Passengers flying over the Pacific Ocean between Australia, New Zealand and the United States can now be secure in the knowledge that their flights are being tracked more than four times an hour, Airservices Australia has announced.

Since June, Australian, New Zealand and U.S. air traffic controllers have used existing Automatic Dependent Surveillance-Contract (ADS-C) technology to track aircraft across the Pacific every 14 minutes, more than halving the previous tracking interval of every 30-40 minutes.

As a result of the new procedures, flights in the Oceania region are among the first in the world to meet ICAO's recommendation for tracking oceanic flights every 15 minutes or less years ahead of the deadline.

To comply, the airlines use communications technologies already onboard modern aircraft, including the Aircraft Communications Addressing and Reporting System (ACARS) datalink, Automatic Dependent Surveillance-Broadcast (ADS-B) and the Automatic Dependent Surveillance-Contract (ADS-C) application of the Future Air Navigation System (FANS) that airlines use for oceanic ATC communications.

The upgraded tracking system is the product of co-operation between Airservices Australia, Airways New Zealand and the U.S. Federal Aviation Administration (FAA), said Airservices executive general manager air traffic control, Greg Hood.

"It is rewarding to see Airservices' close cooperation with New Zealand and the U.S. result in this boost to passenger

Many Asia-Pacific airlines have increased their tracking procedures to every 15 minutes ahead of the ICAO deadline of November 2016

confidence in the safety of flying over vast expanses of oceans such as the Pacific," he said.

Airservices was one of the first ATM operators to trial more frequent satellite flight tracking when it conducted an initial proof-of-concept trial last January. The 14-minute standard was extended to all Australian airspace by the end of May. Airways New Zealand introduced enhanced tracking at the same time. The FAA followed suit in U.S. Pacific airspace at the end of June. Malaysia's Department of Civil Aviation recently implemented more frequent aircraft tracking in its airspace using the same technology.

Many Asia-Pacific airlines have upgraded their tracking capabilities ahead of any formal deadlines, including ICAO's rule on 15 minute tracking. Among carriers using SITA OnAir's FlightTracker are Malaysia Airlines Berhad, Singapore Airlines, Royal Brunei Airlines, AirAsia India and Air Costa, also in India.

The FlightTracker technology was developed for airlines to meet proposed tracking guidelines without the cost of significant aircraft modifications. It uses multiple data sources, including air traffic control radar data, terrestrial and satellite feeds and an airline's flight plans to provide real-time aircraft position monitoring over remote and oceanic regions.

"By adding ADS-B, ADS-C, FANS, ACARS position reporting, along with air traffic control, the system provides clearer, more precise location of the aircraft. It also supports operators in managing flight paths for efficiencies and weather avoidance," said SITA OnAir commercial director for the Americas, Larry Thomas.

Airlines can also access information to set up parameters of their own if an aircraft deviates from its pre-determined flight path.

SITA isn't alone in introducing improvements to tracking systems. Global technology provider, Sabre Corporation, last month began offering clients enhanced capabilities on its AirCentre Flight Explorer solution, providing real-time data for accurate decision-making in flight operations. The flagship feature, Fleet Monitor, builds on existing airport and flight monitoring capabilities to give airlines a comprehensive dashboard view of their entire fleets.

"As part of our strategy and commitment to provide our customers with intuitive flight management solutions, Flight Explorer delivers actionable, real-time information at the key moment of decision making," said Kamal Qatato, vice president of Sabre AirCentre, which provides software for airline operations.

"For example, if a plane goes off route or does not report its position within a few minutes, the airline will be alerted and escalation can begin instantly," he said.

Iridium Communications plans to have 66 new satellites orbiting the planet within three years. Its NEXT constellation will be able to receive an airplane's location signal every few seconds. The company's satellites gather information from equipment in the aircraft cockpit. The satellites are monitored in Virginia in the U.S. with a second centre for emergency operations being built near Shannon Airport in Ireland.

Last month, Inmarsat launched the third of its Global Express (GX) constellation of satellites - Inmarsat-5 F3 from the Baikonur Cosmodrome in Kazakhstan, a key step towards delivering global commercial service introduction of GX services by the end of this year.

The $1.6 billion GX program is "the first and only global broadband service designed, and now deployed, for the aviation industry", said Leo Mondale, president of Inmarsat Aviation. "The successful launch and early deployment of Inmarsat-5 F3 is a huge milestone for Inmarsat Aviation. GX Aviation is poised to transform aviation connectivity. It replaces the marginal solutions adapted around infrastructures that were never intended to serve aircraft." ■

> "Airservices Australia's close cooperation with New Zealand and the U.S. to introduce 14 minutes intervals in aircraft tracking is a boast to passenger confidence when flying over vast expanses of oceans such as the Pacific"
>
> **Greg Hood**
> Airservices Australia executive general manager air traffic control

ASIA'S CONGESTION CONTAGION

Talk air traffic congestion to an Asia-Pacific airline boss and the mood will darken. A combination of timid political will at some aviation authorities, varying capital resources in emerging economies and widespread planning procrastination have created an infrastructure shortfall that is lagging far behind airline growth.

Tom Ballantyne reports

Connections missed. Flight schedules in havoc. Weary cockpit and cabin crew coping daily with frustrated passengers. Tourism in several Asia-Pacific countries taking a bottom line hit.

Welcome to the new normal at airports across the region where escalating air traffic congestion is choking up gateway hubs and confining network expansion across the region.

Cathay Pacific Airways director service delivery James Ginns, told Orient Aviation last month: "To give you an indication of the impact," he said, "about 30% of our Cathay Pacific and Dragonair flights to Mainland China were delayed during the first half of this year.

"Extensive flow controls for flights to and from Mainland China have had a significant impact on operations and the workload of our operations teams. Flight delays or disruptions are having a knock-on impact on aircraft rotation, which means that flights to non-Mainland China destinations are also being affected."

Hong Kong's problems, it has to be said, have not been

helped by the implementation problems of the airport's new Air Traffic Control system, Raytheon's Autotrac III, which was planned to be operating in 2012, but will not be fully functional until next year.

And Cathay Pacific Airways and Dragonair are hardly alone in their struggle to ensure their customers board flights that depart and arrive on time. But like their counterparts across the region, Ginns and his teams are facing the fact that keeping a commitment to on time performance is becoming tougher by the day at Asia-Pacific airports.

And China, the originator of most delays into the Pearl River Delta air traffic zone, is not the only choke point in the region's congestion chain, In Indonesia, the Philippines, Thailand,Vietnam and elsewhere, gateway airports are operating at, or well above, their planned capacity levels.

In the air too, as low-cost carriers continue their unprecedented growth, airways are becoming more clogged, leading to increased aircraft holding, reduced gate and taxi-ing capacity and the burning of more fuel.

"To put things in perspective, said Vinoop Goel, the International Air Transport Association's (IATA) Asia-Pacific regional director for airports, passengers, cargo and security, "the region is already home to one-third of global air traffic and traffic is forecast to double in the next twenty years.

"If you compare these figures with the contemporary state of aviation infrastructure, both on the ground and in the air, and the announced plans for airport and air traffic expansion, we see a significant gap.

"For us, it is a gap so big that we need governments and airports in this part of the world to really work on developing master plans and implementing them."

As examples of the problem, Goel said Manila, Jakarta and Bangkok's Suvarnabhumi airports come to mind. "But when you go down even further, to secondary airports the problem is pretty substantial across the region. That's why governments need to focus on this problem to capture the potential growth out there."

The Civil Aviation Administration of China (CAAC) has reported the average on-time rate for China's domestic airlines this year was down to 65%, from 68% in 2014. In June, it dropped below 60%. A passenger flying on a Chinese airline experiences a flight delay in one of every three trips. Chinese carriers are among the least punctual airlines in the world.

A report from Civil Aviation Data Analysis, a Chinese organization tracking the on-time performances of 103 major global carriers, found Guangzhou-based China Southern Airlines was a poor 86th with an on-time rating of 70.45%.

Beijing-based Air China was 93rd with 66.41% and Shanghai-based China Eastern Airlines was 94th, with only 64.46% of its flights on schedule. Airports in Beijing, Shanghai and Guangzhou have to deal with at least 90 take-offs and landings per hour. The average amount of traffic on the country's busiest air routes exceeds 1,100 planes a day, which is double the aircraft managed by air traffic managers in Europe and the U.S.

The CAAC has attributed some of the blame for the worsening flight delays to increasingly extreme weather conditions in the last year. Before 2009 more than 80% of flights in China were on time. Their on time performance has fallen every year since 2010 and is now at a record low.

China's chronic delays – often up to six hours at Shanghai Pudong International airport – have an impact well beyond the country's borders. "These ATC delays are not only affecting airlines such as Cathay Pacific and Dragonair," said Ginns. "Congestion, both at airports and air traffic control, is an increasingly major feature across Asia."

Particular issues, due to the extremely rapid growth of flights within, to and from Mainland China, cause even greater delays during times of bad weather, which in most of Greater China is in the summer holiday season

"Importantly, it bears a potential significant impact on Hong Kong's standing as the premier gateway to

China, a major aviation hub in Asia and, ultimately, a top tourist and business centre globally. Aviation and affiliated industries contribute about 8% of Hong Kong's GDP, and any downturn in industry will ultimately hurt the city's economy," Ginns said.

Just how much this is costing Cathay and other airlines is difficult to assess. No comprehensive data is available yet, although a recently released study by a German consultancy provided an indication of the gravity of the problem.

In April, Frankfurt-based aviationexperts published its second annual on-time performance study, which also attempted to calculate delay costs. It examined 130 carriers worldwide and found airline delays amounted to an astonishing $25 billion in 2014.

By region, the 33 North American carriers were the worst performers, with delays costing $14.4 billion. Delay costs for 34 airlines in Asia were $7.5 billion, with 38 European airlines incurring delay costs of $3.3 billion and four Middle East operators $520 million.

As long ago as 2006, an investigation of airspace congestion in the Pearl River Delta Region of Southern China was done by the Aviation Policy and Research Center at Hong Kong's Chinese University. The study found airport and ATC delays were costing airlines about $80 million a year, a figure certain to have skyrocketed in the following nine years.

"It's not only airlines," pointed out IATA's Goel. "If you look at all the costs, the cost of fuel, pilot time, cabin crew time, passenger time and the productivity lost in terms of GDP. The cost is substantial."

While many of the region's major airports have expansion plans, they are not expected to be ready in time to avoid an Asia-Pacific congestion crisis. Have governments been caught by surprise by the growth?

James Ginns, Cathay Pacific Airways director of service delivery: Initiatives are underway aimed to ensure the long-term stability of flight operations and to allow for expected continued growth

"No," said Goel. "For example, expansion has been planned at Bangkok since they opened Suvarnabhumi. There was always a plan for a mid-field terminal, a third runway and maybe a second terminal. Its necessary to develop robust master plans and actually implement them. In Bangkok we have seen plans made and revised, then revised again

"But we have seen very little action on the ground. It's the same in Manila and Indonesia. Some governments and some airports have got it right, like Changi, Kuala Lumpur and Hong Kong. Yes, they are going through their approval processes, but at least they have a plan and they are working on it."

Some budget carriers are so concerned by capacity issues at several regional airports they are willing to invest in terminal infrastructure to improve on time performance and aircraft rotation.

AirAsia Group chief executive, Tony Fernandes, told delegates at an airport conference in Bangkok last month that the budget carrier group could invest, or become a joint venture partner, in airport development.

"Such partnerships could be an answer if capital requirements are an issue," he said. "We're big enough, and I don't see why we should not have our own (passenger) terminals." AirAsia has long nurtured a desire to have its terminals, but its bids to invest in such facilities in Malaysia and Indonesia have been turned down by airports and their regulators.

At the same conference, Fernandes said Japan needed to find a solution for congestion at its airports because of the country's rising number of tourists. "Japan has to have solutions for Tokyo. Low-cost carriers don't really have a strong home there and Haneda/Tokyo airport is too full," he said.

There is a long list of airport expansion plans, but in most cases, completion is years away. Beijing Capital International Airport, the busiest airport in China, announced last month it would start building another runway to ease the heavy burden on existing facilities and improve flight punctuality.

The airport's three runways handle about 1,600 flights each day, more than their intended capacity. Luo Liang, head of the airport's planning and development department, said the runway would be completed before the end of 2017 and would increase the airport's handling from 86 million passengers a year by above eight million. Beijing's second airport, south of the city and reported to cost $13.11 billion, will open in 2109 at the earliest.

The region's most congested airport, Jakarta's Soekarno-Hatta International, recently announced it had set aside $240 million for a third runway, but it has yet to acquire the necessary land. It also intends to expand its terminal space, but no completion dates have been announced for the project. The capital city airport handles more than 60 million passengers annually, nearly three times its design capacity of 22 million.

Manila is almost as bad. The country's Department


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of Transportation and Communications (DOTC) is working with the Japan International Cooperation Agency (JICA) to plan and construct an international airport by 2025. It is still at the feasibility study stage, with estimates it will cost between $10 billion and $13 billion when, and if, it is ready in 2025.

As recently as July, IATA identified Manila's gateway airport as a high-risk airport in the region because of its unresolved safety issues. IATA said airlines routinely reported problems at the Ninoy Aquino International Airport (NAIA) due to air traffic management, including extended holding, delays and non-standard air traffic control procedures.

In Thailand, Bangkok's second airport, Don Mueang (essentially an LCC facility) is designed to handle a maximum of 18.5 million passengers annually but it is now processing 22.5 million budget airline travelers a year and the numbers are rising by the month.

Airports of Thailand (AoT) president, Nitinai Sirismatthakarn, said the first half of this year saw a 50% surge in passenger traffic compared with the same period last year. Work on a new Terminal 2 has been speeded up to be completed in November .

Meanwhile, the board of AoT has approved the construction of a reserve runway and a new passenger terminal at Suvarnabhumi airport, worth a combined $1.3 billion, with the runway to be operating in 2017 and the terminal in 2019.

Then there is the issue of efficiency. "In a lot of areas in the region we are not using the infrastructure as efficiently as we possibly could," said IATA's assistant director safety and flight operations, Dave Rollo. "Some of the processes and procedures, such as separation, are not at the best practice levels you would expect in Europe, the U.S. and Australasia. This restricts capacity as well."

To a degree, China has a special status as an ATC hot spot because of the power of its military to shut down air traffic pathways at any time. The impact of this control over ATC in the north/south corridor between Beijing, Shanghai and the Pearl River Delta was clear for all to endure when China's air force closed a large swathe of the country's air space on September 3, a special public holiday declared to celebrate the 70th anniversary of China's war time victory over Japan.

Goel said China had a "very robust" airport development plan. "But one of the issues is air traffic conditions. A fundamental cause [of these conditions] is the control of airspace that lies with the military in China," he said. "Airlines have to fly around the airspace blocks that are controlled by the military. We recognize you have to strike the right balance. In China they are investing in ATC systems but it is a work in progress. Yes, we would like to see more and we are hopeful that things will change over time."

Each country in fact has different issues to manage when building airports to feed demand. After decades of opposition from residents affected, the Australian government has approved funding to build a second airport west of Sydney, but it won't be finished for at least a decade.

Singapore Changi's three passenger terminals and runways are expected to run out of capacity in 2018 but, in contrast to many other locations, it will have opened Terminal 4 and an expanded Terminal 1 by then, increasing its handling capacity from 66 million passengers a year to 85 million. Changi has joined with British public/private partnership UK air navigation provider, NATS, to increase the number of flights it can handle in Singapore.

While airlines are increasingly concerned about the congestion situation, Goel pointed out that infrastructure development is a complicated balancing act. "Master planning to implementation can be a very lengthy process, especially in places like Hong Kong or Japan where you are looking at reclaiming land and letting it stabilize to build runways," he said.

"So if you take that into account, yes, they should have looked at doing something faster. But you don't want to build too far in advance because then you might have

ATC delays a "financial burden" for Cathay Pacific

Cathay Pacific Airways chief executive, Ivan Chu, outlined the issues choked ATC pathways and airports created for the carrier in the company's magazine, CX World, in September.

"Another key focus will be on trying to reduce the operational burden of ongoing ATC controls in the region and the disruptions resulting from congestion in our home hub," he wrote.

"These operational issues are having a serious impact on our passengers and staff as well as placing a significant financial burden on the airline."

a ghost terminal or a ghost airport that ends up costing governments, airports and passengers a lot more."

While he said there is an urgent need to develop master plans and implement projects, in the short term governments and airports need to focus on maximizing the throughput and potential of the existing infrastructure with new technologies and processes such as Fast Travel.

"Regulatory approvals need to be given for e-immigration, mobile boarding passes and home printed bag which reduce the infrastructure burden at airport," he said."

Airlines across the region stressed they are doing everything possible to minimize disruption for passengers and are working with authorities to find solutions. But Cathay Pacific's Ginns said many delays and cancellations are beyond the airline's control. "We have been consolidating flights and upgrading our aircraft, as the circumstances demand, to minimize the impact.

"However, the situation is deteriorating rapidly and requires immediate attention. We are working closely with all the concerned authorities regarding these delays. A number of initiatives are underway, which are aimed to ensure the long-term stability of flight operations in this area and, at the same time, allow for expected continued growth," he said.

Cathay believed the limited number of available slots should be put to better use by giving priority to airlines who want to launch destinations and increase frequencies to cities with major trade and business relationships with Hong Kong - to maximize the economic value of these scarce resources.

Another issue is that the industry is concerned that some governments don't understand the economic importance of aviation to their economies and the negative impact congestion has on growth targets.

Said IATA's Goel:"from our observations and discussions with governments, many see the link between increased traffic growth and the benefits of aviation. Most of them do get it.

"But we see a failure in policy in that the link does not exist in some countries. Governments say they want tourists and understand the benefits tourists bring to their countries' economies.

"But when you ask 'well OK what are you doing to increase tourism?' Are you expanding your airport capacity? Are you making the commercial environment more airline-friendly? Are you improving your facilitation processes?' You end up with a whole bunch of question marks."

To address the wide range of government responses to crowded skies and airports, IATA has developed the Value of Aviation initiative, tailored to meet the needs of different parts of the world and staffed with different teams.

"In the Asia-Pacific, we are working to link the value aviation brings to the need to invest in infrastructure and develop policy. In Africa, it is more about airline commercial freedom," said Goel.

"In Europe, it is focusing on Single Skies."

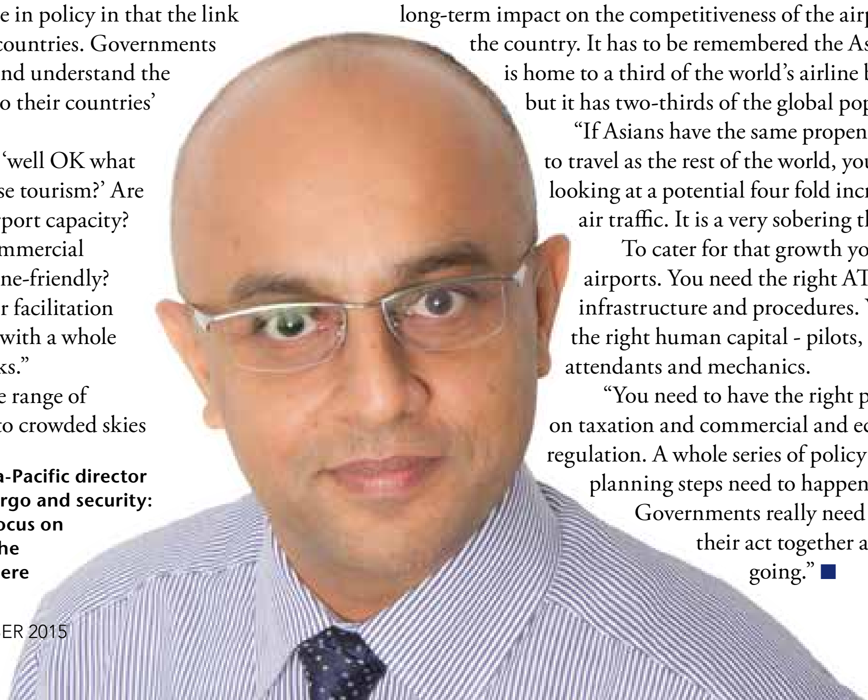
In reality, said Goel, some governments don't have the capability to make billion dollar investments. "In that case PPP (Public, Private Partnerships) or participation by private equity are options."

But there is a caveat to these funding options. "Governments must make sure they are not selling the country's "crown jewels". Secondly, to ensure they are protecting the interests of aviation, they should resist resorting to higher taxes on international aviation," said Goel.

"You can kill the goose that lays the golden egg. If you make the gateway to your country expensive, it will have a long-term impact on the competitiveness of the airport and the country. It has to be remembered the Asia-Pacific is home to a third of the world's airline business, but it has two-thirds of the global population.

"If Asians have the same propensity to travel as the rest of the world, you are looking at a potential four fold increase in air traffic. It is a very sobering thought. To cater for that growth you need airports. You need the right ATC infrastructure and procedures. You need the right human capital - pilots, flight attendants and mechanics.

"You need to have the right policies on taxation and commercial and economic regulation. A whole series of policy and planning steps need to happen. Governments really need to get their act together and get going." ■



Vinoop Goel, IATA's Asia-Pacific director airports, passengers, cargo and security: Governments need to focus on congestion to capture the potential growth out there

Asian Seamless Skies' slow progress

The International Air Transport Association (IATA has been leading a drive for several years to have "Seamless Skies" in Asia," IATA's assistant director safety and flight operations, Dave Rollo, told Orient Aviation.

Progress in implementation "has been a bit patchy and has been slow, and to a certain extent, disappointingly slow", said Rollo. IATA believed the time had passed for Asia-Pacific countries, in particular Southeast Asia and North Asia, to act in isolation if they want in management of Air Traffic Flow.

"We need to be working in groups of states, sub-regional or regional, with linked up planning and linked up thinking about managing air space and how to meet air traffic demand that is forecast for the region," Rollo said.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RESURRECTION AT ROYAL BRUNEI?

Royal Brunei Airlines (RBA) has survived several near busts in the last decade, but Dermot Mannion, the man charged with the carrier's corporate revival, is determined to improve its financial fortunes.

By Tom Ballantyne

Royal Brunei Airlines is one of the most secretive airlines in the world when it comes to financial transparency. But you don't need to be a company insider to recognize the carrier is under siege from nimble budget airlines and full service rivals with better networks.

To counter this fierce competition, RBA recently completed a restructuring and is now writing a five-year plan the company's CEO and deputy chairman, Dermot Mannion, hopes will improve RBA's long-term financial viability.

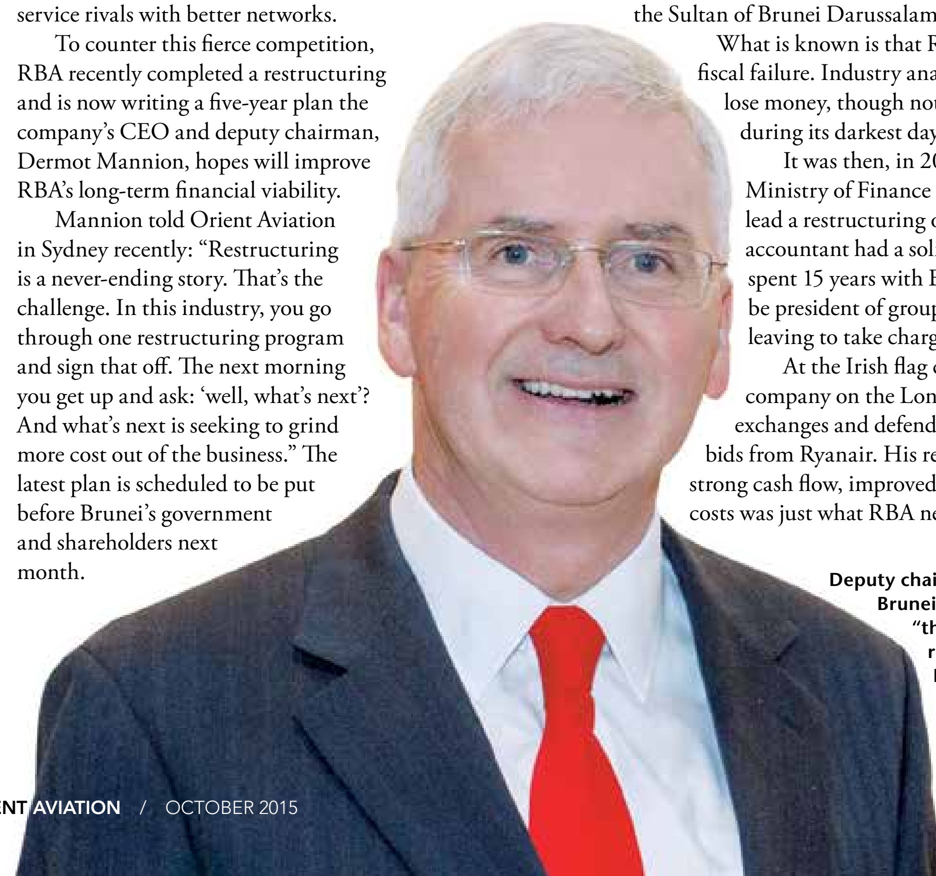
Mannion told Orient Aviation in Sydney recently: "Restructuring is a never-ending story. That's the challenge. In this industry, you go through one restructuring program and sign that off. The next morning you get up and ask: 'well, what's next'? And what's next is seeking to grind more cost out of the business." The latest plan is scheduled to be put before Brunei's government and shareholders next month.

But discussions about the new strategy don't include details of the airline's balance sheet for analysts' scrutiny. When it comes to money matters all lips at RBA are sealed. No details of the financial performance of the carrier, wholly-owned by Brunei's oil-rich government, effectively the Sultan of Brunei Darussalam, are published.

What is known is that RBA has flirted with fiscal failure. Industry analysts said it continues to lose money, though not nearly as much as it did during its darkest days after the GFC of 2008.

It was then, in 2009, that Brunei's Ministry of Finance brought in Mannion to lead a restructuring of the carrier. The trained accountant had a solid track record, having spent 15 years with Emirates Airline, rising to be president of group support services before leaving to take charge of Aer Lingus.

At the Irish flag carrier, he floated the company on the London and Dublin stock exchanges and defended two hostile takeover bids from Ryanair. His reputation for achieving strong cash flow, improved productivity and low unit costs was just what RBA needed.



Deputy chairman and CEO Royal Brunei Airlines, Dermot Mannion: "the elephant in everybody's room is the Gulf carriers. During the restructuring, the best way to compete with them was not to compete with them"

Mannion did not take long to right-size the airline. He reduced staff by 25%, to 1,500, and eliminated costs of $100 million in five years. The route network was rationalized, with services to five of its 18 destinations cancelled: Auckland, Perth, Brisbane, Kuching and Ho Chi Minh City.

The next step along the RBA road is the new business plan, designed to run from April next year to March 2021. It will build on expansion of RBA's regional network and extend to partnerships in Gulf Cooperation Council (GCC) countries.

Operating a fleet of four B787-8 Dreamliners on long-haul routes and four A320s and two A319s regionally, RBA will add up to 10 A320neo as it returns to routes it had closed when times were bad.

Mannion said: "Now we are better able to compete with the LCCs in the regional market and the full-service airlines on long haul. Sixty per cent of seats in Southeast Asia are on LCCs. Either we compete in that market or we withdraw from it altogether.

"We compete well with AirAsia and Cebu Pacific. On long haul routes, we have introduced the B787 and offer a unique B787 service between London and Australia. The challenge is identifying profitable opportunities. One has to be honest and say that in the current market that is a very, very difficult challenge indeed."

Nevertheless, Mannion sees opportunities around the region, especially in China. RBA flies to Hong Kong and Shanghai from Brunei's capital, Bandar Seri Begawan, and he said there is considerable scope to expand in both cities.

"A very important development that will soon come to fruition is a codeshare with China Eastern Airlines, which will open up many of the behind points in China. It is critically important to us. That's not a market we have had access to in the past," he said.

"We have been developing, because of the limited size of the Brunei market, a very successful two centre product. Passengers from China spend a couple of days in Brunei and go on to Kota Kinabalu, which is the fastest growing destination in Malaysia.

"We have a very big presence there, with 14 flights a week. More recently, we returned to Bali and there are very attractive passenger opportunities there from China."

RBA considers Brunei, with a population of about 400,000 that enjoys the world's fifth highest GDP per capita, is well positioned, midway between the region's north and south, to attract transit traffic.

"We also have an airport where there is little congestion and also offers growth opportunities. It's a relatively easy airport, with its refurbished terminal, at which to operate and transit," Mannion said.

Long haul, RBA has switched to Melbourne from Brisbane as part of its network restructuring. It flies Brunei-London via Dubai and directly to Jeddah in Saudi Arabia. "We made decision in 2010, early in my tenure, to focus very much on the 787," he said.

"We are probably the only airline in the world whose long-haul services are exclusively B787. So if you want to fly between London and Australia and you like the B787, we're the only ticket in town. It's been a great success.

"Previously, we used the B777-300ER. Just on fuel burn alone we are doing 30% better than we were with the 777 fleet. That's been a tremendous boost to the overall product. We have four in the fleet, with another one to come. We don't have a definite delivery date yet. It will be sometime in

Pilot and engineer shortages "biggest headache"

Royal Brunei Airways' deputy chairman and CEO, Dermot Mannion, told Orient Aviation pilot and engineer shortages were the carrier's "biggest headaches". "Managing talent and retaining the loyalty of good talent is the biggest challenge we face," he said.

"The Middle East carriers are very hungry. They recruit people wherever they can. We lost some pilots to the Middle East, but we have won some back and that is a good sign. Its a similar story with engineers because we train them very well. Some went off to the Middle East, but we are beginning to see them returning."

the next couple of years. So that's pretty modest in terms of where we are going on long haul."

RBA also is using the B787 selectively, at peak times, to increase capacity to short-haul destinations such as Hong Kong, Singapore and Shanghai.

"A challenge in China is that tourism is heavily driven by groups. There will be days when there is potential demand for a large number of passengers. To cater for it, we need a bigger gauge aircraft. Again, the B787 is a very good performer regionally and internationally. That aspect of fleet management has been a bonus," he said.

Mannion, as a former Emirates Airline senior executive, said: "the elephant in everybody's room is the Gulf carriers. During the restructuring period, we decided the best way to compete with them was not to compete with them.

"It is difficult to keep off their radar, but we certainly try. We are not ruling out anything we might do on long-haul, but we are being very cautious. The fact we have just one more long haul aircraft to be delivered is probably an indication of that."

Regionally, apart from Kota Kinabalu and Bali, RBA flies to Manila, Bangkok, Kuala Lumpur, Singapore, Jakarta and Surabaya. It returned to Ho Chi Minh City last year after a long absence.

Much of RBA's focus will be on increasing frequencies on existing regional routes. Expansion will come once the A320neos begin arriving from late 2017. He said: "Very soon we will have, long-haul and short-haul, one of the most modern and fuel-efficient fleets in the world. I think we've got it right. We're certainly very happy with the selection of the 787 and we are very optimistic the A320neo is right.

"With the A320neo you can potentially go five or six hours, which traditionally was a wide-body aircraft service. The neo gives us the potential to expand to North Asia. We could not do that with our former fleet.

"We have tended to dip a toe in the market by initially operating charter services at peak times of the year. We did this with Seoul. There is certainly potential for charters into Northern Asia. They could be a springboard for greater activity."

> The challenge is identifying profitable opportunities. One has to be honest and say that in the current market that is a very, very difficult challenge indeed
>
> **Dermot Mannion**
> CEO and deputy chairman Royal Brunei Airlines

Like many airlines, RBA is benefitting from the fuel price collapse. "The fuel situation has been positive, but in the airline industry it's never only good news," he said.

"The currency has been a challenge. The Singapore dollar, to which we are linked, has depreciated against the US dollar. The Brunei economy is heavily oil and gas-based, which has had an adverse effect in the local market.

"We don't hedge. Our view and our owner's view is that Brunei has a huge oil and gas exposure that creates a natural hedge for us. In my previous life, I have been involved in hedging strategies and it's a difficult game.

"It is very merciless if you get it wrong. When the fuel price falls the market expects adjustments almost straight away. It is very unsympathetic to long-term hedging arrangements that might be in another direction."

Freight is also very vital to RBA's recovery. "We decided early in my time here we didn't know as much about freight as we should. We outsourced that part of the business to Air Logistics, which is the fifth largest air logistics company in the world. They're doing a very good job and are very bullish about potential in China. So we are working with them to deliver that potential."

One issue that Mannion is ambivalent about is global alliances. "My sense is we probably don't have the scale to be in an alliance. For smaller carriers the costs of joining [an alliance] can be disproportionate to the benefits, especially the IT integration costs," he said.

"We work on bilateral arrangements all the time. We have very flexible code-share agreements with Thai Airways International and Garuda Indonesia. We will look at interesting and useful bilateral relationships whenever they arise. When I arrived, we had relatively few bilateral relationships. We have dramatically expanded that."

In the meantime, RBA is making progress in its goal of becoming a "boutique" full-service carrier in a region capable of taking on all comers.

As a recent report from consultancy CAPA put it: "RBA still faces huge challenges and is a long way from profitability. But the flag carrier has improved significantly in the last three years while most of its competitors in Southeast Asia have seen profitability decline." ■

Qantas tops region for ancillary revenue

Only some Asia-Pacific carriers are exploiting the benefits of this increasingly important part of an airline's business.

Tom Ballantyne reports

Many Asia-Pacific airlines are missing out on opportunities to boost their businesses from ancillary revenue, with only one Asia-Pacific airline listed in the world's top ten ancillary earners, a new study has reported.

Australia's Qantas Airways is ranked ninth on the IdeaWorks 2015 CarTrawler Yearbook on ancillary revenue, with earnings of $1.38 billion, mostly accrued from the sale of frequent flyer points. IdeaWorks is a brand development agency and consultancy based in Wisconsin in the U.S that publishes an annual report on airline ancillary revenue earnings.

However, a breakdown of the survey results reveal Asia's low-cost carriers fare well in the ancillary revenue stakes when income is calculated as a percentage of total revenue.

Singapore controlled Tigerair was sixth best, with ancillary revenues contributing 23.6% to the budget carrier's income. Jetstar ranked seventh (20.6%) and AirAsia X (19.2%) was ninth. The study also showed Qantas earns an average of $50.16 in ancillary revenue from each passenger. At loss-making AirAsia X, it was $43.22 and at Korean Air $39.28.

The Qantas group leads the region in ancillary revenue income

IdeaWorks 2015 CarTrawler Yearbook of Ancillary Revenue is the result of an examination of the financial filings of 130 airlines across the world. Only 63 of the airlines studied listed an ancillary revenue breakdown in their financial reports in 2014.

The airlines, made up of the Asia-Pacific (14%), the Americas (56%), Europe and Russia (29%) the Middle East and Africa (1%), reported ancillary revenue of $38.1 billion in 2014 compared with 23 airlines reporting $2.45 billion in ancillary revenue in 2007.

Most of the big earners were the major U.S. and European carriers although their expanding ancillary revenue earnings are a modest contributor to their total incomes. United Airlines earned $5.7 billion in ancillary revenue in 2014, American Airways collected $2.5 billion followed by Delta ($2.1 billion), AirFrance/KLM and Ryanair ($1.7 billion) and Southwest Airlines ($1.6 billion).

The average ancillary earnings per passenger across all the airlines examined was $17.49, which was 8.5% more than in 2013. "By every measure, ancillary revenue continues to grow," said the report. "For the eighth consecutive year, airlines tracked by IdeaWorksCompany reported substantial increases in revenue gained from retail activities and the sales of a la carte services and frequent flyer miles."

One surprising aspect of the report is the significant difference in ancillary revenue income among LCCs. Ancillary revenue at Australia's Jetstar ($673.2 million) is 20.8% of its total income. It earns $30.17 in ancillary revenue per passenger. At the AirAsia Group, the $556.9 million it collects in ancillary revenue is 18.5% of its revenue, or $13.19 per passenger.

Tigerair earned $118.4 million, 21.8% of its revenue and $23.03 per passenger, in 2014. AirAsia X 's bottom line

Ancillary revenue reported by Asia-Pacific airlines in 2014

	Ancillary revenue	As % of total revenue	$ per passenger
Qantas Airways	$1.38 billion	12.1%	$50.16
Korean Air	$919.24 million	7.8%	$39.28
Jetstar	$637.23 million	20.8%	$30.17
AirAsia group	$556.86 million	18.5%	$13.19
China Eastern	$491.2 million	3.4%	$5.86
Virgin Australia	$218.2 million	5.2%	$10.91
Japan Airlines	$202.94 million	1.7%	$5.15
AirAsia X	$182.85 million	20%	$43.22
Cebu Pacific	$131.7 million	11%	$9.18
Tigerair	$118.4 million	21.8%	$23.03
Spicejet	$97.9 million	9.3%	$7.23
All Nippon Airways	$83.73 million	0.5%	$1.66
China Southern	$81.9 million	0.5%	$0.81
Spring Airlines	$66.8 million	5.7%	$5.84
Nok Air	$28.2 million	7.4%	$3.70
PIA Pakistan	$11.4 million	1.1%	$2.72
Garuda Indonesia	$10.2 million	0.3%	$0.35
Air Astana	$9.3 million	1%	$13.19
REX (Regional Airlines)	$218.2 million	5.2%	$10.91

collects 20% of its revenue from ancillaries ($182.8 million) at $43.22 from each passenger.

Other Asia-Pacific airlines are not achieving such good results. Cebu Pacific receives $131.7 million, or 11% of its total revenue in ancillary earnings with spending averaging $9.18 per passenger. In India, Spicejet earned $97.9 million, or 9.3% of its revenue, at $7.23 per passenger.

Non-core passenger spending at China's Spring Airlines was 5.7% of its revenue last year at $66.8 million or $5.84 per passenger. Thailand's Nok Air gets $28.2 million, 7.4% of its revenue from ancillaries at $3.70 from each passenger.

There also is a significant disparity in ancillary revenue collection among full-service carriers . Qantas' $1.3 billion in ancillary earnings is 12.1% of its revenue and Korean Air's $919.2 million is 7.8%. China Eastern collected $491.2 million, just 3.4% of its revenue and $5.86 per passenger, and China Southern earnt $81.9 million, 0.5% of its revenue and US$0.81 cents per passenger. Garuda Indonesia took in $10.2 million in ancillaries, 0.3% of its total revenue at US$).35 cents per passenger. ■

Attracting the bedazzled google generation to the cockpit

Airlines and manufacturers must forge different partnerships to meet the region's crew and maintenance requirements said Boeing in its latest Asia-Pacific training forecast.

By Tom Ballantyne

We're not moving fast enough, says Boeing's vice president flight services, Sherry Carbary, of the industry's commitment to training the 226,000 new pilots and 238,000 new technicians needed to fly and service the Asia Pacific fleet in the next two decades.

Speaking after the release of Boeing's 2015 Pilot & Technician Outlook for the Asia-Pacific last month, when the company announced a 5% increase in demand for pilots and technicians over last year, Carbary said the giant aerospace company could not do it alone when it came to meeting the region's airline personnel training targets.

"This has to be a partnership. All the airlines, aircraft manufacturers and simulator manufacturers must work with governments, high schools and universities to ensure we have a robust pipeline of aviation professionals to serve this growing market," she said.

"The ability is there, but we are probably not moving fast enough," she said. She advocated a public-private partnership (PPP) approach that ensured flight schools were more locally based, had global quality standards and focused specifically on meeting future Asia-Pacific demand.

Several challenges exist for airline crew training in the region, Boeing believed. They included standardization of training and pilot and technical licencing, managing the imbalance between supply in first world centres such as Singapore and emerging Indonesia, building more physical flight schools that offer, where possible, cadet *ab initio* training, and attracting talented young people to aviation in the world of Google, Facebook and Apple.

"The major airlines in China do all of their own training and have significant training facilities. But there are insufficient numbers of flight schools and ab initio training in the region, which is why so many Asian cadets have to go to the U.S., Europe or Australia for their training," Carbary said.

In the Asia-Pacific budget airline sector, the airlines are following the Southwest Airlines [in the U.S.] model, which looks to others to help them train crews and maintenance engineers. "This is a role Boeing wants to fill. That's where we (Boeing) intend to be there for them," Carbary said.

The plane manufacturer recently forecast 38,000 new aircraft worth $5.6 trillion worldwide would be needed to 2034, with nearly 40% of these airplanes bound for the Asia-Pacific. About 70% of deliveries will be single-aisle jets, which underscored the continuing rapid growth of LCCs.

To keep them flying and maintained, Carbary said 100,000 pilots and 106,000 technicians would be needed in China alone. Southeast Asia will require 57,000 pilots and 60,000 technicians; South Asia (principally India) 40,000 pilots and 37,000 technicians; Northeast Asia (mainly Japan and Korea) 17,000 pilots and 22,000 technicians and Oceania (Australia, New Zealand and the Pacific Islands) 12,000 pilots and 13,000 technicians.

> "There are insufficient numbers of flight schools and ab initio training in the region, which is why so many Asian cadets have to go to the U.S., Europe or Australia for their training"
>
> **Sherry Carbary**
> Vice president Boeing flight services

Carbary said recruiting more women into the industry would be one way of meeting training targets. "In the U.S., only 6% of pilots are women. Statistics only exist for the U.S., but I think it's even lower around the world," she said.

"We should be looking a lot more at women and what they can bring to the industry. It's a tough business. You have to invest more than a year to become a pilot. In some cases, women are raising families and can't travel as much as their male colleagues. But that's a false barrier. Women can provide a huge role in the industry by becoming short-haul pilots."

Another issue for aerospace is the allure of social media companies and their hi-tech partners. "We are competing for kids who are growing up with smart phones and tablets. They are looking at Google, Microsoft and Apple and high tech industries like Samsung for their careers," said Carbary.

"We can do a great job in marketing and branding the aviation industry as the most high tech industry there is. Building and engineering the planes that Boeing and Airbus are producing won't get any more high tech than that.

"When you look at a flight deck of a B787 and you're a pilot there's nothing more exciting than to be flying that airplane. As a [B787] mechanic you're no longer working on the mechanical part of the airplane, you're basically a software engineer as well troubleshooting on what's going wrong with the systems on the airplane.

"So it is a really cool place to be if I'm somebody starting out and looking at a career."

A separate obstable to cross region training flexibility is the imbalance in pilots and engineers between countries because of disparate regulations and licence requirements. There is an oversupply of pilots in Singapore, yet in India the authorities are considering a reduction in the time required for foreign pilots to receive licences to fly because of a shortage of commanders.

It takes more than 60 days to be granted a Foreign Aircrew Temporary Authorisation (FATA) licence in India, mainly because foreign pilots must receive a security clearance before they can crew an airline.

Boeing is expanding its training school network in the region, including the planned installation of a B737NG (next generation) simulator at its Shanghai campus by year end, to meet the demand for pilots for China's expanding low-cost carrier business. ■

ANA's Thailand flight academy addresses pilot shortage

Thailand's first joint flight training academy is building its reputation as a regional centre for high quality dry time pilot training at its university-based centre in Bangkok.

An ANA Holdings subsidiary, Pan Am International Flight Training Academy, is a response to the demand for thousands of new pilots needed in the Asia-Pacific in the next two decades as well as a considered investment by the Japanese aviation holding company.

Opened in September 2013, after ANA Holdings bought the Pan Am Flight Training Academy business, it has established its school in partnership with Thailand's Assumption University's department of aviation, the first time Pan Am training has had a training partnership with a university.

Bangkok's Pan Am flight Training Academy has attracted several third party airline customers

The academy operates from Assumption University's Suvarnabhumi campus, near the city's major international airport. It is equipped with one Level D A320 and one Level D B737NG simulator and, at this stage, offers dry time training. Three more simulators, another A320 and two B737NGs, are planned to be added to the facility as its enrollments expand.

An academy spokesman, Capt. Greg Darrow, said the Bangkok facility trains up to 10 crews per day. Worldwide, the Pan Am flight training facility has an estimated 3,000 training cycles a year. Apart from providing training for partner airlines, ANA and Nok Air, the centre "has become a preferred training location for six different airlines", said Darrow.

The academy's plans for the curriculum include ab initio cadet pilot, cabin crew and airline maintenance training as well as aviation English and air traffic control courses.

"We agree that cadets should experience a traditional flight training ab initio course," Darrow said when asked by Orient Aviation if he agreed with Boeing's view that ab initio courses are important for training pilots.

Along with simulator and classroom training, "nothing can substitute for actual cockpit time for initial students", Darrow said.

Pan Am Flight Training Academy was originally the crew training school for the U.S.'s iconic airline, Pan American World Airlines, which closed in 1991 after 64 years of flying. Under its new ownership, it operates two flight training facilities in Tokyo, the Panda Flight Training Academy and the ANA Flight Training Centre, and Pan Am Flight centres in the U.S, including Kissimmee in Florida. ■

IATA boss objects to "runaway aftermarket agreements"

In a blunt reference to the aviation OEMs of the world, the director general of the International Air Transport Association said his airline membership was concerned OEMs' aftermarket agreements limited MRO competition.

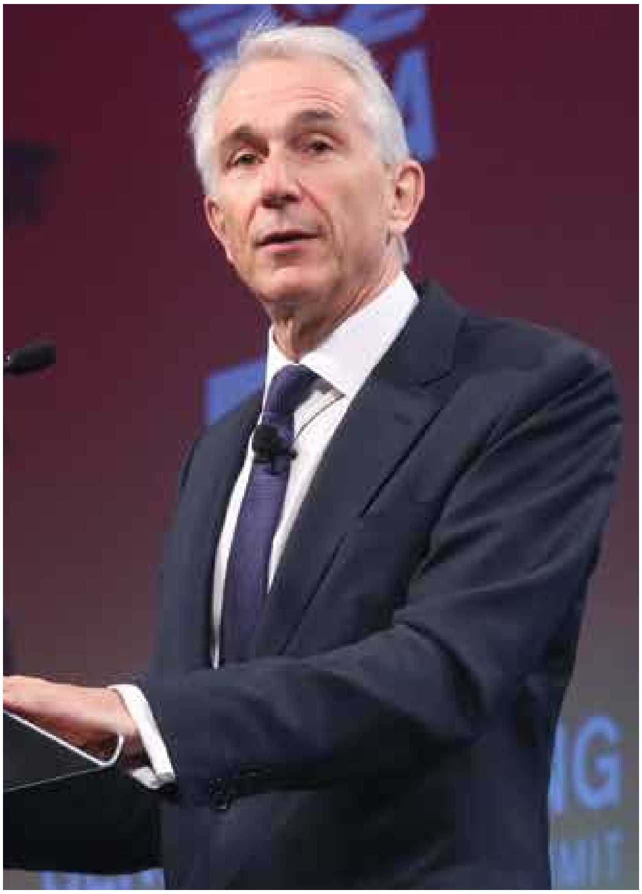
Orient Aviation reports

It was a good week for the world's airline MROs in mid-September, when they acquired a powerful new ally in their battle to defeat OEM dominance of their industry - the International Air Transport Association and its director general and CEO, Tony Tyler.

Delivering the opening address at the association's second World Finance Symposium, held this year in Barcelona, Tyler said: "IATA is examining commercial, legal and economic options where we may be able to contribute to efforts to rein in runaway aftermarket-related costs.

"Unfortunately, certain OEM business practices drive up costs by blocking new entry into the market for maintenance repair and overhaul services. As a result, airlines often have little alternative but to sign onto long-term OEM maintenance and parts agreements containing

HAECO Hong Kong complex: Fighting to contain the success of OEMs in winning MRO contracts



pricing escalations that are often above the inflation rate."

Tyler's sentiments might be music to the ears of MROs, but it will be a battle to contain the assault on aftermarket services by OEMs when many of them are restricting availability of the parts and technology necessary to maintain the new generation fleets of airlines today.

At the Airline E&M China and East Asia conference in Hong Kong in September, speakers generally agreed that airlines are still outsourcing their MRO and component business to third party providers, but that more and more of their business is being won by OEMs, especially in the engine sector.

At the conference, pessimism prevailed among several airline and third party MRO providers as they outlined the challenges MROs face in spite of the fast paced growth of aviation in the region.

"The engine MRO market is largely lost to non-OEMs. Unless an MRO has a partnership with GE, Rolls-Royce and Pratt & Whitney. You have no chance," said AAR's senior vice president and managing director Asia-Pacific, Middle East and Africa, Rahul Shah.

He identified the main issues as higher costs for airlines for inventory for new aircraft and the costs this imposes if an airline does not have a power by the hour agreement, OEMS becoming more active in the aftermarket sector, which is increasing costs for airlines and the cost of maintaining new generation engines.

Additionally, well capitalized OEMs are going after the components sector, which is one of the sectors that is profitable. Some MROs see the day when the only business left for them will be base maintenance because OEMs do not to maintain the large labour forces required to service this sector of the industry . But even this sector has issues, with the market generally in surplus in airline parts.

Shah said: "Fifty per cent of engine maker's profits are in the aftermarket and 80% of orders have an aftermarket contract on the purchase order. The engine market is clearly going towards consolidation. How do you combat the threat the OEMs present to MROs?"

Seabury Group executive director and head of the group's maintenance advisory practice, Frank Martin, said the shifting dynamics of the MRO industry in the Asia-Pacific meant a large portion of future MRO contracts will be for narrow body aircraft, which will represent up 71% of the region's fleet by 2020. Airline and third party MROs must adjust to this trend if they are to make money, he said.

He forecast healthy growth of four per cent for MRO in the Asia-Pacific to 2020, because

> **The engine MRO market is largely lost to non-OEMs. Unless an MRO has a partnership with GE, Rolls-Royce and Pratt & Whitney , you have no chance**
>
> **Rahul Shah**
> AAR senior vice president and managing director Asia-Pacific, Middle East and Africa

Aftermarket strategies of engine OEMs

GE / cfm

* Allows airlines and third party MROs to compete for maintenance of new-gen LEAP and GENx engines
* Airlines can choose to sign maintenance agreements with OEMs or licensed third party MROs
* Has committed to keep the maintenance cost of LEAP engines at a level similar to the CFMN56

Pratt & Whitney

* Geared Turbo Fan (GTF) engines to be maintained at selected engines centres including MTU's mx centre and Japanese Aero Engine Corporation's (JAEC)s overhaul centre. MTU and JAEC were partners in the engine program.
* Percentage of GTF engines under the company's Fleet Management Program (FMP)is expected to be higher than PW4000

Rolls-Royce

* Captures most of the after-market share of its own engines, as demonstrated by its huge aftermarket services revenue
* Controlling the engine aftermarket by offering its comprehensive TotalCare and TotalCare Flex services

Presentedy by Seabury executive director and head of Maintenance Advisory Practice, Frank Martin at AirlineE&M: China and East Asia Hong Kong 2015 of the forecast fleet expansion. The forecast was in line with the global industry trend, but he cautioned there are several factors at play that are re-shaping the industry when economic instability is emerging in the region.

MROs will have to adapt to expanding OEM involvement in the airframe after market, adjust their product offerings to an increasing application of composite materials in new generation aircraft, revise their business plans to increased intervals between checks for new platforms and train and retain a skilled labour force, he said.

Airline MROs and third party MROs will have to build closer partnerships with engine and component OEMs and demonstrate they have the financial and technical capabilities to compete in the new market environment.

Martin said that independent engine MROs are the most disadvantaged in the sector because OEMs have tight control over repair data, which limits the scope of work the shops of independent MROs can perform and labour costs in the Asia-Pacific continue to rise.

The trend of Independent MRO and airline MROs also losing business to the OEMs is continuing. They are finding it necessary to co-operate and/or form partnerships with OEMs because new aircraft types require new product agreements, investment in workshops and equipment and new time frames for checks on the latest airliners being put into service.

Lufthansa Technik's corporate product manager, Carsten Wortmann, said successful integration of next generation fleets into an independent MRO's structure required understanding new technologies surrounding electrical structure networks, software management, hydraulic power, prognostics and composite materials.

Lufthansa said that by participating in the A350 Customer Focus Group, the MRO gained experience in planning maintenance for the new aircraft type even altho the plane had not yet been flown by an airline and had almost no commonalities with other Airbus aircraft.

This collaboration with Airbus allowed Lufthansa Technik to learn the behaviour of the airframe carbon fiber/composite technology, the XWB engine and the strengths and weaknesses of the unique systems of the A350.

To win business from airlines for the new generation aircraft, third party MROs must have six major packages to offer customers: materials, engines/APUs, engineering, logistics, cabin and maintenance, Carsten said, and have the in-house ability to respond rapidly to MRO and to component requests.

He said Lufthansa Technik has 116,500 components available in its pool, an investment not every independent MRO can afford. ■

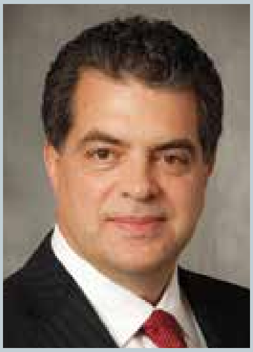
Satair does yuan deals

Managing director Satair Group China, Yongdong Hu, said the company's policy to sell its aircraft parts in local currency to customers in China unable to pay in US dollars has grown the Satair Group's customer base by 10%. The Satair Group, now a wholly-owned subsidiary of Airbus S.A.S., set up in China in 1995. It has more than 100 airline, MRO and aircraft manufacturing parts clients in the Chinese aftermarket.

PEOPLE

Andreas Meisel, the former managing director of Lufthansa Technik Logistik Services has moved to China as the **Chief MRO Operations Officer at Ameco Beijing**, a joint venture between the German company and Air China. His successor is Dr. Christian Langer, who was most recently the founding managing director of Lumics GmbH & Co KG, a joint venture between Lufthansa Technik AG and consultancy McKinsey & Company.

Spairliners, an A380 components spares supplier jointly owned by Air France and Lufthansa Technik, has promoted the company's CFO, **Sven-Uve Hueschler, to CEO**. His successor as CFO is Benoit Crombois, the former procurement director at AFI KLM E&M.



Global parts supplier and inventory manager, AAR, has appointed Timothy Romenesko vice chairman of the U.S. headquartered company and strategic advisor to CEO and chairman, David Storch. The AAR chief has added the role of AAR president to his duties. **Randy Martinez is AAR's new corporate vice president of strategy and business development**, who will also report to Storch.

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