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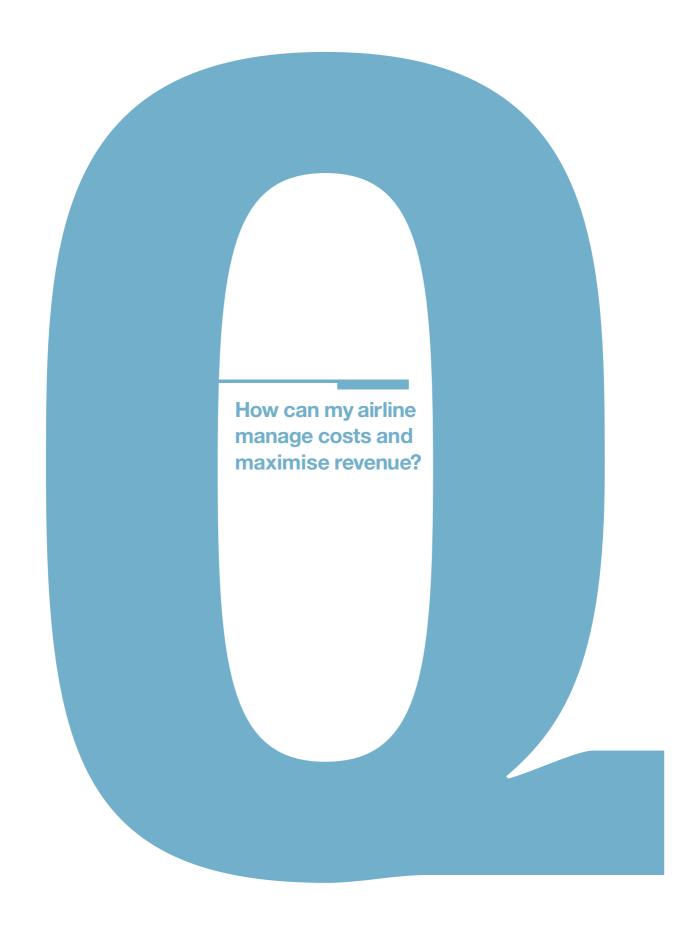
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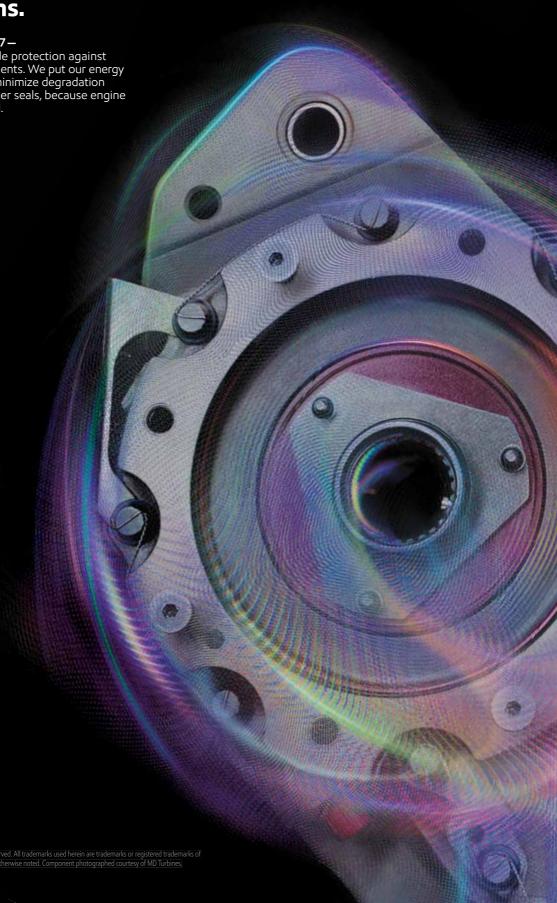
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### **Thwarting Cyber attacks**

Protecting the enormous amount of data airlines hold in their IT systems is a major security issue for the aviation industry.

International Air Transport Association (IATA) director general and CEO, Tony Tyler, told delegates at a recent Singapore security conference that in one recent month alone, the association identified and blocked an average of 80,000 suspicious connections per day, detected and cleared 891 viruses and resisted five 'brute forcing' attempts (overpowering a computer's defences by repetition) to connect to IATA accounts.

The first line of attack to come to mind is that terrorists could hack into airline data bases and play havoc with airline systems. Security experts don't discount this threat, but they cautioned in Singapore that the possibility of terrorists bringing down aircraft was remote.

Airlines also are most mindful of the damage hackers could do to their businesses. The IT systems that interlink an airline's various departments are not stand alone systems. They are interconnected to the systems of airline partners, including GDSs, airports and a host of other service providers.

Hackers can gain access to airline systems through these "back doors". If they succeed, fraudsters will find a pot of gold: the personal and credit card details of hundreds of millions of airline customers.

Hackers with malicious intent also could cause systems

to crash, check-in counters to freeze and ground handling operations, flight planning and other aspects of operations to grind to a halt.

Attacks on external services, such as electricity grids or communications networks, would have a similar impact on airlines that would create chaos as well as financial losses and reputational damage to the airlines attacked.

Experts and industry insiders have told *Orient Aviation* it is not a matter of if an attack will happen but when. LOT Polish Airlines has already been a victim of hackers. It was forced to cancel flights after a hacking attack.

Asia-Pacific carriers know the issue must be addressed with priority. IATA's Tyler has red flagged it, but has said the industry can't counter hackers with one arm, metaphorically speaking, tied behind its back.

Industry cooperation, while an absolute necessity, will not get us where we need to be, he said in July. "Governments have resources and access to intelligence that the private sector cannot achieve. They also have a responsibility to use these resources to support industry efforts. We have an example of this approach in the decades of successful government-industry cooperation on safety. Unfortunately, we have not achieved this level of cooperation in security," he said.

Let's hope we won't have to wait until a major Cyber Security breach happens for this government-industry relationship to change.

#### **TOM BALLANTYNE**

Chief Correspondent
Orient Aviation Media Group

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#### Qantas looks happily north after Jetstar Hong Kong is vetoed

August was a winning month for Qantas. A day after announcing a dramatic turnaround in profitability, to US\$713 million for the latest fiscal year, the airline group's CEO, Alan Joyce, received some news that put an even bigger smile on his face.

Australia's competition watch dog, the Australian Competition and Consumer Commission (ACCC), announced its approval of an alliance, for the life of five years, between Qantas and Shanghai-based China Eastern Airlines (CEA). The ACCC said the two airlines must boost capacity between the countries by 21% over the 60-month period and report fares on both carriers each month.

Chinese visitors are predicted to contribute up to \$9 billion annually to the Australian economy by 2020, with analysts forecasting the alliance has the potential to match the benefits of the Flying Kangaroo's partnership with Dubai's Emirates Airline.

For Joyce, the news was especially sweet.

Earlier this year, the ACCC said in a draft report that it would not approve the alliance. Its backflip is believed to be the result of lobbying from the Australian and Chinese governments.

The two airlines already have a reciprocal codeshare agreement on 17 flights a week between Australia and China and several onward domestic destinations in both countries. The alliance will enable the partners to deliver expanded services, better departure and arrival schedules, shorter transit times at Shanghai, increased frequent flyer benefits and a wider range of onward connections, Qantas said.

"The joint venture with China Eastern allows us to increase capacity between

the two countries by linking to key hubs and offer connectivity to each carrier's behind and beyond networks," said Joyce. The business alliance was originally announced last November alongside the signing of the Australia-China Free Trade Agreement in Canberra.

> A few weeks earlier, Joyce was not so happy. Speaking at an Australasian aviation summit in Sydney in August, he vented his anger at Hong Kong's July decision to reject Jetstar Hong Kong's application for an air operator's certificate.

The decision to refuse Jetstar Hong Kong a licence to operate raised the real threat of governments "interfering in the markets and taking away fair competition", he said. ■

#### Fernandes pondering career change?

Are the demands of the airline business wearying AirAsia co-founder and chairman, Dato Tony Fernandes? It seems unimaginable, but when he was asked in an interview last month if he would consider moving on from AirAsia, the 51-year-old serial entrepreneur told the Bangkok Post "my time is coming. Maybe in the next two years".

In the interview, done in Jakarta, Fernandes did not say what he might do after AirAsia, but expressed a keen interest in leading the Asean (the Association of South East Asian Nations) Secretariat. Fernandes

has criticized the body, which oversees a 10 nation regional bloc, especially in relation to standardizing airline oversight, crew qualifications and safety regulations between member countries.

Fernandes has said "good leadership is to know when to go and to refresh the organization with young and energetic leaders". He would not talk specifics about a successor, but said the appointment of Aireen Omar (42) as chief executive of AsiaAsia in 2012 was part of the process of bringing new people to the airline's

leadership and preparing for his departure.

AirAsia has had a difficult year. Last month, its Malaysian arm reported a second quarter profit of 243 million ringgit (US\$64.3 million) compared with a 367.2 million profit for the same period a year ago. Fernandes said the low fuel price had helped counter the decline in the ringgit for the quarter. "The Group has hedged 50% of its fuel at US\$88 per barrel this year. We remain unhedged for 2016," he said. See Born to lead, AirAsia CEO, Aireen Omar, page 20. ■

#### Yes, another bureaucrat to lead Air India

A former India railways boss, mechanical engineer Ashwani Lohani, is to succeed Rohit Nandan as chairman and managing director of flag carrier, Air India. Reaction to Lohani's appointment has been cautious. With no aviation experience, critics wonder how he can turn around a chronically enfeebled carrier that only exists because of government beneficence. Lohani, who will move to Air India later this month, is the chief administrative officer of the Indian

Railways Organisation for Alternative Fuels. His reputation shone bright in his previous job, where he rejuvenated the failing Madhya Pradesh Tourism Development Corporation.

With years of losses behind it, reviving Air India is a colossal task for Lohani, especially as Etihad Airways' investment and management involvement in Jet Airways is steering the Mumbai-based carrier towards sustainable profitability. Air India's on time performance, product offerings and

customer and cabin service range from adequate to woeful by any global measure.

Lohani's predecessor, Nandan, who will move up to the ladder to secretary to the national government, tried but failed to contain the carrier's growing debt and staffing problems. As a result, the national government is reviewing the terms of its funding support for the flag carrier's current restructuring/turnaround plan, which was approved in 2012. ■

# Shocked by Thailand's failure to fix oversight lapses

Says regional airline association director general

#### By Tom Ballantyne

sia-Pacific's leading airline association said it is shocked by the failure of Thailand to correct shortcomings in the country's safety oversight procedures identified by global industry auditors.

The director general of the Association of Asia-Pacific Airlines, Andrew Herdman, said Thailand is facing bans or restrictions on its airlines because it has been slow to respond to International Civil Aviation Organization (ICAO) and U.S. Federal Aviation Administration (FAA) demands to improve air safety management and inspection systems.

The FAA and ICAO issued recommendations for air safety improvements in Thailand after separate audits of Thailand's Department of Civil Aviation (DCA) exposed serious flaws and shortcomings in its operations.

"Thailand was a shock because it has a huge travel and tourism sector, a huge aviation history and yet it has been caught out because they've have insufficient resources," said Herdman. "If it was Cambodia or Myanmar, who may have a plan but are struggling to implement it, you might understand the situation.

"But aviation and tourism is a critical part of Thailand's economy so its leaders don't need to be persuaded that this is an important issue that must be fixed. Even when the shortcomings were highlighted the response was not sufficiently quick. They had sixty days and asked for more time. It's very frustrating because it is jeopardizing the reputation of Thailand's airlines," he said.

"People don't distinguish between the fact that this is a commentary on regulatory oversight. It doesn't mean the airlines or the airports are unsafe."

The most recent audit, by the FAA in July, found several flaws in Thailand's air safety systems, including a serious shortage of qualified staff to conduct safety inspections of airlines. It gave the DCA 65 days to rectify its problems.

If it fails to meet the deadline the FAA will likely downgrade Thailand's status from Category 1 to Category 2, which would mean any Thai-registered airline now operating to the U.S. can continue to fly there, but cannot add destinations or change aircraft types.

Ironically, that would have little impact in Thailand. Thai Airways International (THAI), which is the only Thai airline operating to the U.S., announced last month that it would terminate its only U.S. service, Bangkok-Los Angeles, from October as part of its latest restructuring.

More serious would be bans imposed by Europe. If Thailand fails to meet ICAO demands, the



Association of Asia-Pacific Airlines director general Andrew Herdman: 'People don't distinguish between the fact that this is a commentary on regulatory oversight. It doesn't mean the airlines or the airports are unsafe'

European Union will place Thai operators on a black list, halting any services into Europe. THAI flies to Brussels, Copenhagen, Oslo, Frankfurt, London, Stockholm, Zurich, Madrid and Rome, although it has announced plans to drop Madrid and Rome.

As a result of the audits, many countries in Asia and Europe have increased inspections of Thai-registered aircraft when they arrive at non-Thai airports.

Thailand's situation has shone a spotlight on safety oversight in several Asian countries. With airlines in Indonesia still on the European black list (State-owned Garuda Indonesia is exempted) and the Philippines only recently restored to Category 1 by the FAA, the negative results in

Thailand present a grim picture of air safety standards in the region.

Herdman said the industry is actually "extraordinarily safe", even when the regulator does not keep up with the airline industry. "You can have a very safe industry with lax regulatory oversight, but it's not desirable," he said.

"It would [probably] be heresy to say it, but there's a grain of truth in the fact that regulatory oversight could be non-existent and you could still be absolutely fine. But you are more comfortable if you have regulatory oversight to make sure it stays that way. It deters anyone from thinking they can take shortcuts."

Earlier in the year, after the safety auditors published their findings, Indonesia banned Thairegistered airlines from increasing their flights or changing the types of aircraft that fly into the country.

Thailand's Minister for Transport, ACM Prajin, said the decision would not impede Thai Airways International (THAI) as the flag carrier did not plan to increase flights to Indonesia.

THAI operates seven flights out of Suvarnabhumi airport to Bali weekly and 10 flights to Jakarta each week.

The Indonesian Transport
Ministry said it would also ask
to check airlines' operation
certifications for chartered flights
to determine if they are in line
with required standards. No Thai
carrier operates chartered flights
to Indonesia.

# India disappoints aviation reformers

Buoyed by the election of prime minister, Narendra Modi, India's airline industry expected the new government would quickly modernize the country's aviation oversight and planning. Twelve months on, reformists are fighting a rear guard reaction from airlines who prefer the old ways.

#### TOM BALLANTYNE reports

nternational Air Transport
Association (IATA) director
general, Tony Tyler, did
not hold back in his
keynote address at a recent
conference in Delhi.

"While demand growth is robust and some airlines are generating profits, sector-wide losses for India are still expected to exceed \$1 billion this year," he said. "Onerous regulation and processes, debilitating taxes and expensive infrastructure are holding up the industry's ability to deliver greater economic benefits to India," Tyler said.

Speaking at Aviation Day India, organized by IATA and India's Ministry of Civil Aviation and the Confederation of Indian Industry, he said India needs smarter regulation. "If we can work together to build regulations that meet the public interest, are consistent with global standards and can be implemented efficiently then we are all winners. And we will avoid the angst involved in unwinding mistakes," he said.

Disappointingly, it emerged a

few days after Tyler's public plea that the long awaited reforms to aviation policy promised by Narendra Modi won't be arriving anytime soon. "We are completely rewriting the draft aviation policy. We are working on a sensible policy," said Civil Aviation secretary, R N Choubey, who added the revised strategy would examine reducing fleet acquisition costs and airport regulation.

the much debated 5/20 rule, which requires airlines to operate for five years and have a least 20 aircraft before they can fly internationally. Once the policy is revised it will be put up for public comment, expected to be a lengthy process, he said.

It would include removal of

Coincidentally, the announcement was made as a new report was released that criticised the slow pace of aviation policy change in India. Written by global aviation data specialists, OAG, it said a year after the new government

announced

it would

Getting in step with global industry

Reducing the tax burden: Service taxes should not be applied outside India for overflight charges, global distribution systems, extra baggage fees and international tickets

Competitive fuel pricing: fuel pricing and the supply chain to deliver fuel at airports should be open and market competitive

Cease cost gouging by airport operators: Support the Airports Economic Regulatory Authority (AERA) in its ruling that Delhi airport charges be reduced by 78%, allow proper and transparent procedures to assess the proposed privatization of Jaipur, Kolkata, Ahmedabad and Chennai airports and airport charges at Hyderabad Airport

Smarter regulation: revise industry regulations so they are consistent with global standards and ensure they are subject to rigorous cost benefit analysis and are in the public interest

embark on a range of significant reforms "the Indian media are speculating that Modi has so far failed to deliver India from its 'morass of red tape'. It brings us to the question of what evidence is there that real change is taking place in aviation"?

OAG said it was not the first time India was perceived as being close to a breakthrough in air travel. "Last time, the boom times led to bust as excitement about market potential meant the sector lost focus on the business basics," OAG said.

With more capacity than demand and fares lower than costs, the industry stagnated and several airlines fell by the wayside.

Said OAG: "The question is, are we there again? Is anything different this time around? "Will Modi's government be able to change the operating environment so that the most competitive airlines thrive, or will policy be determined by protecting special interests?"

Tyler said aviation and aviation-related tourism supported seven million Indian jobs and \$23 billion of India's GDP. "The healthy growth of the sector has the potential to expand these benefits tremendously. But there are immense challenges which must be overcome, as demonstrated by sector's financial performance," he said.

IATA's priorities included reducing the industry's taxes and airport charges, competitive fuel pricing and lower provincial fuel taxes.

"Regulation is holding back the development of the sector," said Tyler. "Well-intentioned regulations, but which are inconsistent with global standards, make doing business in India very difficult for airlines. India imposes rules and requirements that are not seen anywhere else," he said.

The OAG report described Indian airlines as riding a roller coaster in the past decade, but added they had still recorded average annual growth of 12% a year since 2005 and averaged 10% annual growth in the international market during the same period.

India has a vision of becoming the third largest civil aviation market by 2020. Ambitiously, the India Brand Equity Foundation forecast it could become the largest Asian market by 2030, a statistic that most serious analysis forecasts for China.

In IATA's latest 20-year forecast, India is expected to grow by an additional 266 million passengers, to reach 367 million by 2034, making it the third largest market by 2031, after the United States and China.

"Having said all this, the propensity to fly in India is still very low. In 2014 there were 63 airline passengers to, from and within India for every 1,000 of the population. This compares with 242 in China, or 1,689 in the U.S. While the Chinese propensity to fly is four times that of India, in many ways this shows why there are such expectations for the Indian air transport sector," said OAG.

In their manifesto, the BJP [government] party promised modernization of existing airports and the development



India has invested more than US\$50 million since 2009 building eight domestic airports that do not receive scheduled flights, Reuters news agency reported last month. The report said the ghost terminals, built largely by the previous Indian government, were planned as part of a grand scheme to construct 200 "no frills" airports across India to encourage air travel in remote provinces.

To compound the issue, the Indian Prime Minister, Narendra Modi, approved funds of US\$413 million to build four new airports in another remote province, Bihar, which will hold elections later this year.

Reuters said more than half of the 100 domestic airports operated by the Airports Authority of India (AAI), had not received a scheduled flight this year because of insufficient demand.

"Every state government wants to have a big airport, but you have to look at it from a national perspective and ask where are airports needed and where is the growth? the CAPA consultancy

Meanwhile, India's main airports, particularly Delhi and Mumbai, can barely cope with passenger growth, now forecast to exceed 20% annually.

of low-cost airports to promote air connectivity. A draft civil aviation policy was released in November 2014 for consultation. It prioritized the development of six airports as the country's major international hubs. The policy has been strongly opposed by many of India's states who believe they will be excluded from direct international air services as a result of the new policy.

Approval of the policy, expected to be ratified in the first half of the year has not materialized, OAG said.

It also was hoped the 5/20 rule would be abolished by now. While this still appears to be the plan, there's been no movement yet, said OAG, especially as some airlines are lobbying to maintain

For India's home-grown carriers such as IndiGo, Spicejet and Jet Airways, the policy change would remove part of their competitive advantage. They have had to wait to gain international air service rights. It is possible too that some states are lobbying hard to delay changes to fuel tax policy, as fuel tax income is a rich source of funds for provincial governments. But the government should stick to its original plan – encourage competition among airlines, open international access and focus on infrastructure, OAG said.

Speaking at the IATA Aviation Day, G. Asok Kumar, a joint secretary at India's aviation ministry, said "thrust areas" in the new policy would include setting up low-cost airports. He said the country needs about 200 to 300 airports. At present, there were around 93 operational ones and scheduled carriers were operating to a little more than 70 airports.

The government had planned to implement the proposed new aviation policy from January this year, he said, but it could not reach a consensus on the changes with stakeholders so it had to be deferred.

He said his ministry was working with states to bring down Aviation Turbine Fuel taxes, which can be up to 50% of an airline's operating costs. Moderate fuel prices are a key component to making the industry competitive," Choubey told the conference.



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"This is a new and dynamic threat and we will likely always be on a steep learning curve. And it is such an important and urgent issue that we need to climb that curve fast," said IATA director general and CEO, Tony Tyler.

"Industry co-operation, while an absolute necessity, by itself will not get us where we need to be. Governments have resources and access to intelligence the private sector can never achieve.

"They also have the responsibility to use these resources to support industry efforts.

"We have an example of this approach in the decades of successful government-industry co-operation on safety. Unfortunately, we have not achieved that level of co-operation with security.

"A key component of risk is information sharing. Today, constraints on national classification systems and ambiguities around the legal rights and mechanisms for sharing information across borders are particularly challenging. However, the significant risks of not sharing information demand more progress in this area."

For everyone at the conference, organized by the Singapore government, the sensitivity of the subject was clearly evident. The gathering was hardly publicized and invitation only. The Association of Asia Pacific Airlines' (AAPA) director of regulatory and industry affairs, Beatrice Lim, was a moderator at the conference.

"Some governments think Cyber Security is only about terrorist threats and hacking into planes' systems, but Cyber Security for airlines also has a commercial dimension," Lim told Orient Aviation.

"You are talking about credit card fraud, identity fraud, frequent flyer fraud and the breaching of airline data bases. There is concern that a hacking threat exists and that personal information, passenger information and credit card details can be stolen."

For the most serious issue of all: taking down an aircraft, airlines are talking very closely with governments and security service providers, Lim said. "The nature of the threat is not fully understood. Generally, the security experts at the conference thought the possibility of bringing down an aircraft was fairly remote."

In his address Tyler said: "Each day seems to bring fresh news of a security breach or data theft.

"Damage from such attacks can run into hundreds of millions of dollars and leave a company's reputation in

#### MH370 investigations attacked by hackers?

Hackers allegedly stole information about MH370 investigations a day after the aircraft went missing on March 8, 2014. Malaysia has been investigating the alleged hacking of computers and email accounts of officials involved in the search for MAS flight MH370. Apparently, the hackers siphoned off classified information and transferred the data to a location in China. The Malaysian government said 30 computers belonging to those involved in the international search for the jet were infected by malware disguised as a news article about the disappearance of the plane, which the hackers sent to ranking officials. The hacked emails "contained confidential data from the officials' computers, including minutes of meetings and classified documents".



tatters. A successful Cyber attack

on an airline could paralyze operations and result in thousands of stranded passengers."

IATA, which operates a global financial system that handles some \$388 billion annually in air travel related revenues, has upgraded protection of its systems against an ever-growing threat of Cyber assault.

"In March, for example, we identified and blocked an average of 80,000 suspicious connections per day, detected and cleared 891 viruses and resisted five 'brute forcing' (over powering a computer's defences by repetition) attempts to connect to IATA accounts," Tyler said.

"No business is immune, but aviation is a specific target for those intent on doing cyber mischief and theft, or worse. Airlines are the highest value target for fraudsters and close to fifty percent of all phishing attempts are made against airlines and airline passengers, according to one Cyber Security firm with which we work." Phishing is a fraudulent attempt to steal personal information, usually via email.

Tyler continued: "I imagine this level of activity is probably fairly typical for a major financial institution or retailer. Cyber attacks are a fact of modern life. But aviation



presents a special target for those who seek to damage or disrupt the integrated air transport network upon which the global economy depends."

The AAPA's director general, Andrew Herdman, told *Orient Aviation* the issue has been on the association's security committee agenda for some time. "But that's not sufficient because it can't just be compartmentalized. It's on a list of emerging threats along with a few others.

"But now there is a realization it's a business risk management issue and that there must be analysis of how these risks are managed. It is receiving more attention and it is being discussed at a higher level."

Airline IT systems are linked with the systems of partner airlines, global distribution systems (GDS), airports and service providers. The information they can store is vast, including the personal details of hundreds of millions of passengers.

It is not only aviation's own systems that need greater protection. Airlines are dependent on electricity grids and communications networks. Attacks on these basic services have the potential to cause chaos for airlines, produce huge financial losses and damage an airline's brand.

Herdman said no-one should think Cyber attacks, whose victims have included Target, Sony, J P Morgan and the U.S. Defence Department, are isolated incidents that can't happen to airlines, but he is not aware of specific attacks at any of the region's carriers. "Airlines are like banks. They don't talk publicly about sensitive issues," but he added he would not be surprised to learn that incidents had occurred.

There have been attacks on carriers elsewhere. The most recent known incidence was in June at LOT Polish Airlines. Hackers caused the cancellation of 10 domestic and international flights. Some 1,400 passengers were stranded at Warsaw's Chopin airport when the hackers attacked the ground computer systems

Close to 50% of all attempted email frauds (phishing) are made against airlines and airline passengers

IATA July, 2015

that controlled the carrier's flight plans. It took five hours to repair the damage.

One of the issues also to emerge in the heightened debate is that airline IT system failures are being headlined as hacking attacks, even if they are not. In July, a computer router error that grounded hundreds of United Airlines flights in the U.S. was widely reported to be have been a hacking incident. Instead, it was an internal system failure.

"Stories that wouldn't have been given the Cyber label in the past are now being labelled as hacking attacks. You have to be very careful about assigning the

word cyber to faults or malfunctions at airlines," Herdman said.

The AAPA is advocating a mindset change to deal with Cyber threats. "The development of firewalls has resulted in a attitude that persuades us we are protected and can keep out hackers," said Herdman.

"The new thinking is that there is no immunity from attacks so these threats must be detected. It's a bit like the old physical security. It's no good saying we've have a fence and we have a wall.

"They have to be monitored to determine if there have been break ins or theft or if there has been systematic stealing over a long period. In terms of Cyber threats you have to ask is it smart to have a single button that can download 75 million names and addresses of customers? Is it smart to keep credit card details unencrypted?"

AAPA's Lim believed part of the problem was the ivory tower mentality that often exists among IT professionals. They must be a able to move away from regarding IT departments as places where staff speak their own language, don't talk to anyone and stare at a screen all day thinking nobody understands them.

"IT people have to talk across departments. They have to understand the business as well. Their job is not just updating the virus scan," Lim said.

"One question that needs to be asked is who takes ownership of the risk?" said Herdman.

"We have done away with paper tickets, but now we have e-ticket fraud and frequent flyer fraud. There are fraudulent attacks that tend to involve finance departments.

"Cyber threats that might be from terrorists go to the security department. There are also other areas of airline operations where Cyber breaches could occur. Do the IT people take the risk? Or is it the responsibility of the security people?

"The answer has to be a combination of these departments. Policies have to be developed to address the range of issues from all Cyber threats."

It has been suggested that airlines employ expert hackers to test their systems. "Forget the idea we are impervious to attack," said Herdman. "Think about it: OK, if they do get in how do you stop them running off with a whole load of

"The military has been doing it for years. They employ people to attack you. Test you out. Role-playing to understand weaknesses. There is a bit of that going on."

In July, United Airlines confirmed it had awarded millions of frequent fly miles to hackers who uncovered gaps in its web security. It paid out two awards, worth one million miles each, that could provide dozens of free domestic flights on the airline. The Chicago-based carrier hopes to take the lead in airline web security by offering "bug bounties" for uncovering Cyber risks.

Herdman said one of the weaknesses of airline IT is its interconnectedness to third party systems. "We outsource the frequent flyer program, or our distribution system means that our reservation systems are by definition interlinked with GDSs, alliance partners and so on," he said.

"IT people say your weakness from network penetration is always at the outside. The hackers don't go through your front door, they go for the side door, which is a permanent connection to some other business in which an airline has a partnership. Understanding the mindset of the people who are looking for weaknesses in airline systems is important because everything is interconnected now."

One of the AAPA's concerns is how the government will define Cyber Security and how it will regulate to avert attacks. "Thou shalt do this, thou shalt do that and will that be helpful or otherwise?" asked Herdman. "That's why the

> industry is talking to other sectors, talking to governments about

> > the problems we need to

Whether it is terrorism. plain and simple criminal activity or someone with malicious intent, Cyber Security has emerged as a major topic of discussion

> **Tony Tyler** Director general and CEO, International Air Transport Association

IATA acts on Cyber threat

Last year IATA launched an Aviation Cyber Security toolkit. It also has developed a three pillar strategy to address Cyber threats to aviation. They are:

- Working to understand, define and assess the threats and risk of a Cyber attack.
- Raising awareness of Cyber Security issues and identifying reporting and information sharing mechanisms.
- Advocating for appropriate regulation and mechanisms for increased cooperation in the industry and with governments.

"IATA's role in this regard is to assist airlines in developing a robust Cyber Security strategy and to help drive co-ordination of global efforts to address Cyber threats to aviation," said IATA director general and CEO, Tony Tyler.

address. ere. If you disagree on the definition of the problem then you won't agree on what should be done"

He said a lot of the people thinking of using Cyber attacks as a weapon aren't terrorists. "One of our concerns is that governments will use Cyber attacks as a weapon themselves. They may be as much part of the problem in terms of what governments are trying to do," he said.

"As an example, look what governments have done to banks by demanding back doors to the Swift payment system, their reactions to the Snowdon revelations and all the rest of it." Governments, he added, want your systems to be secure but not invisible to them.

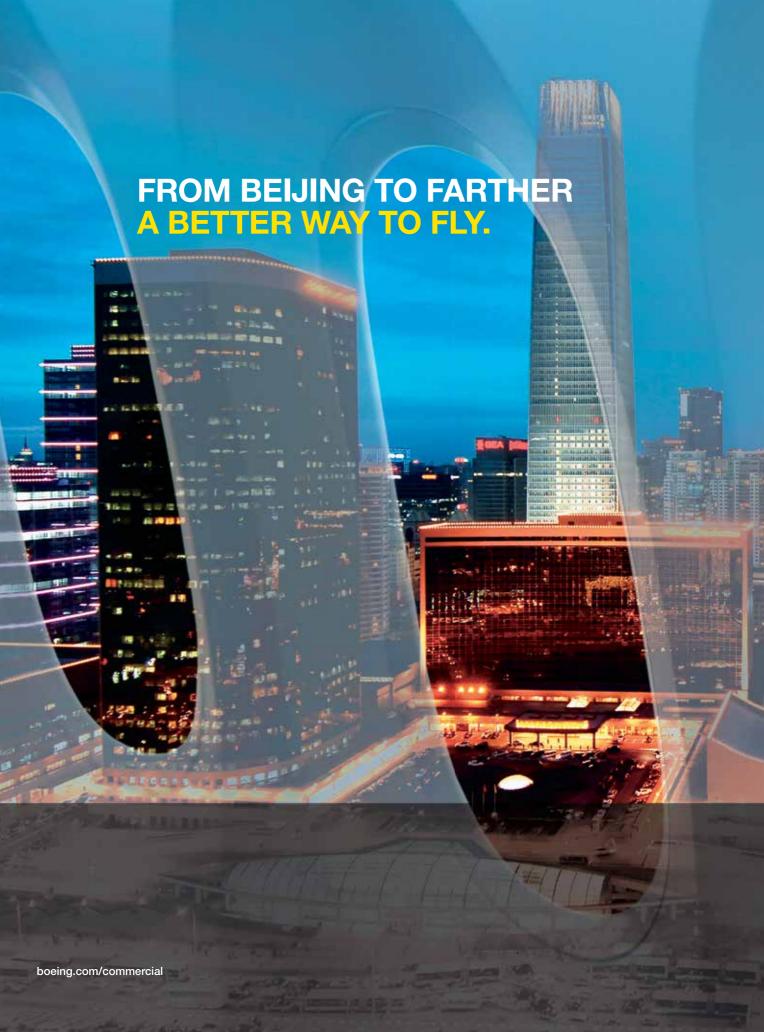
One aspect of cyber threats that has been largely dismissed is someone hacking into an aircraft system and taking control of a flight. The possibility arose earlier this year when a United Airlines passenger, Chris Roberts, claimed to have hacked into the plane's Wi-Fi system on a flight to New York, over-writing code that enabled him to direct the aircraft to climb.

He claimed to have done this 15 to 20 times since 2011. Roberts was questioned by the U.S.'s Federal Bureau of

> Investigation, but there was no proof his claims were true. Boeing (Airbus has similar separation of systems) said its entertainment systems are "isolated from flight and navigation systems" and that its planes have more than one navigational system, "multiple security measures" and "flight deck operating procedures that help ensure safe and secure airplane operations".

> > While the industry

focusses on defining exactly where the cyber threats lie and what needs to be done to protect against them, everyone agrees airlines need to continue working on making their IT systems as robust as possible and be prepared to act quickly when an attack happens.

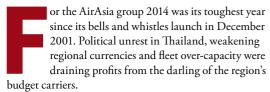




Boeing builds and delivers the most complete fleet of long-range commercial airplanes, enabling airlines to offer nonstop, point-to-point service to virtually anywhere in the world. What's more, Boeing's long-range airplanes are renowned for their efficiency and comfort, and consistently ranked first by frequent flyers. Going farther to make travel easier. That's a better way to fly.







Adding to the group's troubles was loss-making AirAsia X, struggling franchises in the Philippines and Indonesia and start-up costs of a franchise in India last year.

Then, the worst of all happened. On December 28, an Indonesia AirAsia A320 fell out of the sky over the Java Sea, killing all 162 passengers and crew onboard.

AirAsia co-founder, Tony Fernandes, and his team were rightly praised for their handling of the QZ8501 tragedy, but from the outside, AirAsia, run by CEO, Aireen Omar, and its subsidies, looked decidedly shaky.

But if anyone believed the company was crumbling, they should think again. Sitting at the heart of operations at AirAsia Berhad in Kuala Lumpur, the graduate of the London School of Economics with a Masters in Economics

We are particularly optimistic

about AirAsia Japan and

very enthusiastic about the

value it will add to our network.

It allows us to go further.

From North Asia you can go

as far as Russia. Who knows?

Maybe there is potential for A330s

to go further, to the U.S

from New York University, sets you straight.

She said the problems in the Philippines and Indonesia will be resolved despite market skepticism. Some analysts believed the extra millions of dollars in loans extended to the two unprofitable airlines won't be recovered for years – if ever.

Omar begs to differ. Speaking to *Orient Aviation* in temporary offices at the capital's newest airport facility, Kuala Lumpur International Airport 2 (KLIA2) last month, the global financier turned airline CEO

said finding a resolution to the problems in the Philippines and Indonesia is being driven personally by Fernandes.

"He is very focused on it. I am quite confident that eventually the debt will be repaid. Thailand used to be in that position, but it has recovered. It has recovered very quickly (Omar spoke to *Orient Aviation* before the Bangkok bomb attack on August 17)," she said.

"We believe the same can be done with the Philippines and Indonesia. It will take a little bit longer and it may take more assets because each country is unique, but I am quite confident Tony will turn it around."

It isn't the only battle AirAsia has on its hands. The carrier is in disagreement with the Malaysia airport authority about the impact of its forced move from the low-cost terminal at KLIA to a new facility, KLIA2. It claims the airport authority's terminal was not ready to accept the carrier. It has also taken legal action to be compensated for a runway that AirAsia said is poorly built and damaging the airline's aircraft that use it.

In the case of the hasty transfer to KLIA2, AirAsia was

given little more than two months to move. Normally such a re-location could take nine months or more. The airline group said it has suffered, and continues to suffer losses, as a result and has sought \$100 million in compensation from the airport operator.

Omar believed the issue would take some time to resolve. She is so exercised by the situation the airport operator has imposed on her carrier that she hinted the group could move its main hub beyond Malaysia.

It may seem unthinkable, but Omar said decision-making at Malaysia Airports has been slow and meetings to resolve issues have been repeatedly deferred. "They need to start thinking more commercially, more competitively. Otherwise, they will lose out to other airports in the region, which are just dying to get more airlines to hub at their airport," she said.

AirAsia has been thinking about its position at KLIA for more than a year as a result of its forced move to KLIA2. Her reasons? "Number one, it's not fit for a low-cost carrier operation and, number two, it's an airport that is not ready

to be opened because of the poor conditions", she said.

"If you look at Senai airport in Johor (the state borders Singapore) that's a privately run airport and they are so commercial. They know what it takes to bring in revenue to the airport. They know who they need to work with to make sure the airport continues to have that traffic support," she said.

Pressed to say if the airline group could actually move elsewhere, Omar told *Orient Aviation*: "Well, if they continue to be like this you never know."

She laughed and added: "Maybe there will be more aircraft deployed in Thailand. The Thai airport authorities, especially at Don Mueang (Bangkok's LCC airport), are very open,"

Aireen Omar

CEO AirAsia

"Indonesia airport authorities also are clearly keen to attract more LCCs and they understand what is needed to facilitate that. For me, it will be sad for that day to come because we started in Malaysia. We grew in Malaysia. The brand grew from Malaysia."

Of more immediate concern to Omar is controlling costs so the airline can deliver low fares, improve operational efficiency and expand the network across the region.

The AirAsia group's operating model is not always understood, either by the industry or the flying public. It requires each affiliate airline to be majority owned by local investors. Each of the subsidiaries has its own CEO, but Omar said no-one acts independently of the interests of the total group.

The heads of each airline gather regularly at meetings usually chaired by Fernandes. Said Omar: "That's really



important. All the CEOs report to him. He sets the immediate goals and the strategy for the next five years. We decide if we need to update our technology, locate new destinations and market the new routes. It's a joint effort of the whole group."

The regional heads of all key roles, from chief commercial officers, route revenue managers and maintenance and branding, also meet regularly to synchronise operations and avoid network cannibalisation in overlapping countries.

AirAsia branded carriers operate a fleet of 188 Airbus A320s: 82 in Malaysia, 44 with Thai AirAsia, 29 at Indonesia AirAsia, 18 with AirAsia Zest (in the Philippines), 10 with Philippines AirAsia and five with AirAsia India.

There also are 21 A330-300s with long-haul LCC AirAsia X and its offshoots in Thailand, Indonesia and the Philippines. The group order book has 41 current model A320s to be delivered and 300 A320neos on order, which are to begin arriving with AirAsia carriers late next year.

AirAsia X has ordered 55 A330-900neos and 10 A350-900s. All of these are not only for growth, but to replace ageing aircraft. To address over-capacity, AirAsia has deferred some deliveries and will take only five new jets this year. They will go to its Thai and India subsidiaries and new brand, AirAsia Japan. The Japan carrier, born out of a failed short term joint venture with All Nippon Airways, is awaiting approval of its operating licence and has plans to start flying next year.

The decision to defer deliveries was made, explained

Omar, when it was realized "potentially that there may be some excess capacity in the market. We thought it might not be a good idea to take all the deliveries that were scheduled. But over capacity is not a problem in every market".

Operating as a group, AirAsia is extremely flexible. It can move aircraft from one group member to another depending on market conditions and demand. "It's all about timing. Lion (Indonesian LCC Lion Air) is dumping capacity everywhere. That's probably not the right way of doing it,"

One benefit of the controversial airport move was that if forced AirAsia to streamline operations. Working round what Omar called "the airport's deficiencies" meant spending more time on ensuring passengers were transferred efficiently.

"I can't believe how many aircraft hours I have been able to retrieve, so we can introduce even more routes. We are operating more efficiently by improving aircraft utilization and scheduling," she said.

Omar said AirAsia is waiting keenly for single ASEAN (Association of Southeast Asian Nations) skies to be fully introduced because it would bring more efficiency to the group. ASEAN Open Skies officially began this year, but so far, it does not include regulatory standardization between member countries.

As a result, when aircraft are moved between countries, airline groups' fleets have to meet different regulatory standards for licensing, training and all other aspects of their

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operations across national borders.

"I am eager to see Open Skies being 100% open, but it won't come overnight. It may not be in the next two, three or four years, but they will eventually arrive where Europe is today," she said.

Omar said AirAsia's playground is ASEAN and beyond. "We want to offer the most frequency to any of the destinations that we fly and connect, not just between capital cities in the region, but also secondary cities to capital cities and secondary cities to secondary cities," she said.

"That has always been the aim. With our other affiliates growing and with AirAsia X expanding we will reach into markets we have been unable to reach. We are feeding each other within the group. That has stimulated a lot of the population in Asia to travel more. It has triggered demand even from the second tier cities which people had never thought of doing."

Delivery deferrals or not, the network keeps expanding with a growing number of hubs across the region. They include Kuala Lumpur, Penang, Kota Kinabalu, Johor and Kuching in Malaysia; Jakarta, Medan, Bandung, Surabaya and Bali in Indonesia; Bangkok, Phuket, Krabi and Chiang Mai in Thailand; Manila and Cebu in the Philippines and Delhi and Bengaluru in India.

The opportunities are endless, Omar said. "We are very excited that we can go to more places that are uncharted. There is demand for international air travel. Even in this region, there are destinations where there is demand for international connectivity, but no airline is able to meet that demand because of cost," she said.

We will be able to do it because we have created that demand. It's a matter of linking up the points. We have created so many destinations and hubs that we can do it."

She is particularly optimistic about AirAsia Japan. "We are very enthusiastic about the value it will add to our

China is very, very important. We have a commercial team of about 100 people across the country. We don't only fly to the primary cities like Beijing or Shanghai or Guangzhou. We fly to secondary cities such as Chengdu, Xiamen and Wuhan and we will continue to grow. Within a four hour radius there are so many cities in China you can try to capture, whether from Kuala Lumpur, Penang, Johor and Kota Kinabalu or any of our other hubs

> Aireen Omar CEO AirAsia

#### AirAsia is Tony's "baby"

AirAsia CEO, Aireen Omar, quickly dismissed the notion that AirAsia co-founder, Tony Fernandes, has let his various non-airline interests distract him from AirAsia.

"Obviously, he has his own personal interests in other areas, but his heart has always been with AirAsia," she said. "This is his baby. He created it from scratch. I think he beats us up more than any of his other businesses because it is important for him to see AirAsia do well.

"He is very driven in his vision of where AirAsia should be in the next 20 years or so. Not just what to do today or this year or next year, but what we need to do now to continue to be the world's best low-cost carrier. Its how we should embrace technology in the business and which markets we should be focusing on as a group," she said.

network. It allows us to go further. From North Asia you can go as far as Russia.

"Who knows? Maybe there is potential for A330s to go further, to the U.S.," she said.

"It's a big market that we can capture. There are many possibilities you can play with there by deciding to utilize A320s or A330s in the region. But even with the A320 we can reach points in Korea, China, Russia and the Philippines from Japan.

"Within the four hour radius you can fly to Malaysia, Thailand, Indonesia and the Philippines and their established networks, so for AirAsia Japan it is easy to connect the dots. Everything else is already set up. Because we work as a group each destination is shared within the group and the cost also is shared within the group. The unique cost of operating into a certain destination is further reduced because it is shared."

Like all airlines, AirAsia places great emphasis on expansion in China, where it already operates more flights that any other non-Chinese carrier, either in the budget or full-service categories.

"Everybody wants a piece of Chinese tourism growth," said Omar. "We have more than 20 destinations in China. This year we are introducing more routes in the Mainland. We are linking our destinations directly with the hubs we have created in Malaysia, Thailand and Indonesia.

"China is very, very important. We have a commercial team of about 100 people across the country. We don't only fly to primary cities like Beijing or Shanghai or Guangzhou. We fly to secondary cities such as Chengdu, Xiamen and Wuhan and we will continue to grow. Within a four hour radius there are so many cities in China you can try to capture, whether from Kuala Lumpur, Penang, Johor and Kota Kinabalu or any of our other hubs."

Omar does not see the emergence of a growing local Chinese LCC sector as a threat. "We will be competing with them, but we have a very strong base and they are just starting. It will probably stimulate more travel because they will be strongly based in China and we are strong in ASEAN. Their passengers may end up feeding our networks



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and vice versa. It's another growth opportunity," she said.

Financially, AirAsia's Malaysian arm is improving after a rocky 2014, when it recorded its first quarterly net loss since 2008. It reported a \$105.5 million loss for the three months to December 31. In its first quarter this year, ending March 31, it was in the black with a net profit of \$40.8 million.

Omar said the airline hedges about 50% of its fuel and the lower fuel price has been a big help in improving profitability. Fuel accounts for 40% of the airline's costs. She expected the continuing lower fuel price will bring greater benefits this year, although she is concerned about the Malaysian currency, the ringgit, which has been depreciating since last year. Thai affiliate, Thai AirAsia recently announced a 26% surge in revenue to June 30, and a net profit of \$36.6 million.

It is a different story at Indonesia AirAsia, which lost \$69.9 million last year and is facing another dip this year, following the December crash into the Java Sea of its Flight QZ8501. In the wake of the accident, Indonesia AirAsia experienced 26% fall-off in passengers and a 19% decline in capacity, although Omar said the carrier has recovered quite quickly.

"Because of the way we handled it, a lot of loyal customers supported and encouraged us to come out of it and be even better. We are committed to becoming a much better airline and grow even better." AirAsia India lost \$3.5 million in the first quarter of this year. The

Philippines brand is also



Now Everyone Can F

The biggest headache for Omar is AirAsia X, whose net loss has widened to \$135 million dollars compared with a \$23 million loss a year earlier. It reported a second quarter loss, to June 30, of \$32.4 million. Analysts forecast it will have net losses of \$96.3 million and \$28.2 million, respectively, this year and in 2016. It will, however, continue to seek out new routes, including Hawaii.

Omar has no doubt that despite the issues the group has had to overcome in the last year, its future is bright. "I am confident we will do well this year. Oil prices have come off quite considerably, although the ringgit has depreciated. The benefits of the lower oil price will be dulled for us and not totally be enjoyed," she said.

"We have created new routes this year without having additional aircraft. The team was able to achieve this by being more efficient in scheduling, aircraft utilisation and in improving operations.

"We have linked up to new markets and strengthened all our hubs. The routes we will introduce later this year will

#### From flowers to flying

Aireen Omar, 42, the CEO of AirAsia since mid 2012, said her family played a big role in her choices of study

"My father was a businessman and my mother owned a flower shop,' she told Malay media when she was announced as the new AirAsia boss. "Being exposed to business at a young age made me want to learn more about the aspects of trade. The best way to do that was to study economics," she said.

The young Omar moved to London, where she graduated from the London School of Economics and Political Science. She went onto New York where she earned a Masters in Economics at New York University. Her first iobs were as an associate at Deutsche Bank Securities in their New York and London offices, from 1997 to 2000. She moved up the ranks at the bank's trading division, where she was involved in international equities, equity derivatives and equity linked products before she returned to Malaysia in 2001 to work for Maybank.

Omar joined AirAsia in 2006 as the director of corporate finance where her remit was extended to treasury, fuel procurement and investor relations by 2009. Her star shone brighter at the airline after she negotiated an Islamic financing deal that provided the airline group with half a billion ringgit. The innovative financing was a great

> leap forward for AirAsia, at a time when financing was hard to come by after the Global Financial Crisis fractured the world's economy. Today she runs an airline group that employs 7,000 staff. AirAsia operates 16 hubs across Malaysia, Thailand, Indonesia,

the Philippines and India, with a fleet 78 A320s serving 62 destinations.

Omar is not afraid of a fight, even if it is with the Malaysian government. Last year, the AirAsia Group was publicly critical of Malaysia Airports Holdings' management and construction and systems standards at the new Kuala Lumpur International Airport terminal (KLIA2). She published an open letter in which she made it clear AirAsia had "many concerns [about the new terminal] especially its functionality, safety and security systems". She is still fighting that battle.

Omar is an executive director of the AirAsia group and also a director of Tourism Malaysia.

be very exciting. Maldives is one of them, as well as many parts of China. On the Mainland, we are launching flights not just from Kuala Lumpur, but from Johor, Kota Kinabalu and Penang. And we will introduce a new hub at Langkawi. That is where we are going to create more international connections, directly into Langkawi." ■

money by year end.

## ANA tempted by Skymark's valuable Haneda slots?

By Geoffrey Tudor in Tokyo

ill Skymark be able to maintain its independence now that Japan's biggest air transport group, ANA Holdings, is a shareholder?

That is the question interested parties in Japan are asking since the deal to rehabilitate Skymark was approved last month.

Before its recent bankruptcy, Skymark was regarded as Japan's truly independent airline. It was domestic aviation's "Third Pillar", operating in the market between the oligopoly of All Nippon Airways (ANA) and Japan Airlines (JAL) and the emerging force of Japan low-cost carriers (LCCs).

The first of the independent airlines to be established in Japan, in 1998, Skymark offered cheaper fares than ANA and JAL and more service than the newer low-cost carriers.

To many in Japan, Skymark had demonstrated liberalization of aviation in Japan was possible.

Since the 1990s, there have been several airline start-ups in Japan, all them encouraged to fly by the country's Ministry of Land, Infrastructure, Transport and Tourism (MLIT).

After running into trouble. three of the newcomers were rescued by ANA via cash investments, code share services, use of the distressed carriers' slots at the much prized down town Tokyo Haneda airport and the appointment of ANA staff to top management positions at the rescued airlines

ANA's shares in the 'rescued' domestic airlines are Air Do 13.6%. Solaseed 8.56% and Star Flyer 17.96%. Through codesharing, using the smaller carriers' Haneda slots, the ANA Group has boosted its domestic slot share at the airport from 37% to 52%. JAL has a 40% share.

Under the terms of the rescue package, ANA Holdings has acquired 16.5% of Skymark. The other providers of fresh capital are: Japanese equity company

slots will increase ANA's potential domestic slot share to 60%.

Skymark's new top management takes over this month. Nobuo Sayama, Integral's representative director on the Skymark board and the airline's chairman from September 3, last month pledged that the carrier would maintain its policy of setting fares lower than market leaders ANA and JAL.

"We will never allow ANA's intervention in Skymark's management", he told the Nihon competition in the aviation industry. Firstly, they supported the first wave of start-ups in the 1990s. More recently they were enthusiastic backers of the establishment of low-cost carriers in Japan, which have been operating since 2012.

Many MLIT officials were wary of ANA's involvement in Skymark's rehabilitation. They feared it would erode competition and initially favored a five-year limit on ANA's participation in the recovery programme.

Reassured by pledges of maintaining competitiveness, the government softened its position, but warned it would keep a close eye on the aviation market.

To improve its market appeal, Skymark is negotiating with in-flight entertainment and IT companies to provide better quality and expanded Wi-Fi onboard. It may also introduce a mileage programme.

The airline returned to the black in the northern summer and bookings for September exceed forecasts. The carrier should report a profit for the current year to March 31, 2016. Taking a bullish stand, Sayama said the rehabilitated airline could relist in three years.

He sees his mission as a protector of Skymark's position as the "Third Pillar" in Japan's domestic aviation market. That said, some industry analysts wondered if his pledge to remain independent under the ANA umbrella, which has sheltered so many other carriers, is feasible.



Integral (50.1%), and a joint fund owned by the Development Bank of Japan and Sumitomo Mitsui Banking (33.4%).

Another revival plan, which involved Delta Air Lines and lessor, Intrepid, was rejected. At the last minute, ANA persuaded major creditor, Airbus, to support its plan and not the Delta proposal.

Apparently, Japan's biggest airline didn't want Skymark's Haneda slots going to another carrier, hence the last minute deal

Access to Skymark's Haneda

Keizai Shimbun, Japan's top business newspaper.

Sayama's comment that ANA would stay away from the airline was echoed by ANA director, Toyoyuki Nagamine. At an August press conference, he said: "Skymark's independence is ensured through contracts with shareholders. ANA won't become involved in Skymark's setting of air fares and routes."

This was welcome news for the bureaucrats at the MLIT. For most of the last 20 years they have been encouraging

# VIRGIN ATLANTIC SEEKS STRONGER ASIA-PACIFIC PARTNERSHIPS

Virgin Atlantic's Asia-Pacific network has been shrinking as competition and rising costs forced the closure of several routes. It believes stronger alliances with its partners will keep Virgin Atlantic flying – and profitable – in the region.

#### **Dominic Lalk reports**

hen Stephen King, 35, took charge of Virgin Atlantic Airways' Asia-Pacific operations in October 2014, the iconic UK carrier was in the midst of downsizing, and it hasn't stopped since. Thirty-one-year-old Virgin Atlantic Airways hopes to return to profitability this year, with a projected £50 million (\$78.5 million) to feed its bottom line, King told *Orient Aviation* in Hong Kong.

King is a Virgin Atlantic loyalist. Before he took up his Hong Kong-based position with the carrier, he held several senior management positions at the airline, where he started as an analyst at its London headquarters. Before his move to Hong Kong he was country head for India, based

in Delhi. In his new job, he oversees Virgin Atlantic's regional operations and revenue, which some might say is an easy task, given Virgin has pruned its Asia network to one daily service each to Delhi, Dubai, Hong Kong and Shanghai out of Heathrow London.

Sydney and Tokyo had to go last year as costs were cut, following five years of episodic performance that resulted in accumulated losses of £249 million (\$391 million).

King said his new turf was "a tough market" and the only way to expand market share was to forge stronger partnerships with local carriers. King wants to deepen Virgin Atlantic's partnership with Air New Zealand (Air NZ), which is its primary codeshare

partner for flights from Shanghai/Pudong to the Pacific. He also wants to strengthen ties with Virgin Australia in which both Virgin and Air NZ have equity.

Shanghai serves as Virgin's gateway to the Mainland. From Pudong, the carrier relies on partner, Air China, for onward journeys into China. King said "logistical challenges" at Pudong, including a three-hour minimum connecting time between flights, deterred some passengers, as well as China's strict visa regulations. Beijing was on Virgin Atlantic's radar, he said, but access and over capacity were issues as Air China flies double daily between London and Beijing and British Airways has a daily Heathrow London-Beijing service.

As it stands, Virgin has no plans to branch out further in the Asia-Pacific. "We've got to focus on what works for

us, and give up what doesn't," said King. Numbers from Tokyo just "didn't add up anymore toward the end" and so the Narita link, in service since 1989, was axed last year.

Hong Kong, however, is profitable with the numbers during the peak summer season looking better than 2014. King is working to change the departure of Virgin Atlantic flights to Hong Kong so they arrive in Asia mid-afternoon, which would allow passengers to transit to more Mainland-bound flights.

Virgin Atlantic is carrying out a complete overhaul of its long haul fleet. It is replacing its eleven A340-600s with Dreamliners. The first B787-9 arrived at the airline last October and there are now six of the aircraft in the

Virgin Atlantic rebuilding in the region via airline partners fleet. Another eleven are on order with five options. The options are likely to convert into firm orders, said King.

"I've received a lot of emails congratulating us on the 787 since we introduced it to Hong Kong in early July," King said. Virgin's B787s have 234 seats: 31 in Upper Class, 35 in Premium Economy and 198 in Economy. Virgin was the world's first airline to offer a "wander wall" in Premium Economy. Developed to reflect the design of the Upper Class bar, the social space offers a mini fridge, a water fountain and a self-serve area where passengers can help themselves to snacks and refreshments. "It gives passengers a destination, someplace they can go that's not the bathroom," said King.

With more B787s coming into the fleet, Virgin will phase out its B747 operations at Heathrow by 2018. If any B747s remained by then, King said, they would be transferred to the airline's Gatwick hub.

Interestingly, 2018 is the year the carrier is scheduled to receive six-on-order A380s, already deferred once from 2017. King was cryptic when asked if the order would be fulfilled. He said a final decision would be made by the end of this year.

"It's hard, but not impossible, to see a world where we want to take the aircraft," Virgin's chief executive, Craig Kreeger, said in 2014.

King stressed to *Orient Aviation* that Virgin Atlantic operated a point-to-point business model. Perhaps that was a hint about Virgin's A380 inclination, given the super large aircraft is marketed as most suited to airlines with extensive hub systems such as Dubai's Emirates Airline.

He was reluctant to comment on the Gulf versus U.S. carriers Open Skies dispute. However, he conceded Mumbai loads and yields were no longer sustainable after Middle East airlines increased capacity into India. As a result, Virgin Atlantic followed Delta's lead and exited from Mumbai in

That said, Delta Airlines remains Virgin's most significant partner. Delta bought 49% of the British carrier after Singapore Airlines, who had been looking for a buyer for four years, sold its 49% Virgin Atlantic holding in 2012.

The Virgin Atlantic-Delta Airlines transatlantic joint venture, which has been in service since January 1, 2014, contributes more than four million passengers a year to Virgin's manifests. It is a significant number given that Virgin Atlantic carried of 6.1 million travellers last year.

No wonder Virgin Atlantic founder, Sir Richard Branson, said last June that his carrier would "be in real trouble without the strategic support from Delta".

As Delta expands its sphere of influence in the Asia-Pacific region, especially through its growing links with Shanghai's China Eastern Airlines, Britain's second international carrier would benefit from the U.S. airline's expansion. ■



# Boeing fights to re-instate "crucial" U.S. Ex-Im bank

The U.S. airline industry has reacted fiercely to the failure of the U.S. congress to renew the charter of the U.S. Export-Import Bank and is lobbying hard for the bank's re-instatement. Boeing's rivals still have access to their own Ex-Im funds that put U.S. aerospace manufacturers at a disadvantage, said Boeing.

#### By Tom Ballantyne

hen Ray
Conner, Boeing
vice-chairman
and president
and CEO of
Boeing Commercial Airplanes,
recently handed Vietnam
Airlines the keys to its first B787
Dreamliner in Seattle, he had
more than the delivery of a new
aircraft to Asia on his mind.

The hot topic of the day was the U.S. Congress' refusal to renew the charter of the U.S. Export-Import Bank, effectively putting it out of business.

Ex-Im financing has been a crucial industry trade tool for decades, helping airlines around the world buy new aircraft at reasonable interest rates. For Boeing in particular, the news was bad.

The U.S. bank is in limbo, but its counterparts in Europe and elsewhere continue to operate their own Ex-Im banks. And that, said Conner, put Boeing "at a huge competitive disadvantage". Its rivals - he did not name names but he meant Airbus in particular - have access to such financing support.

"We absolutely need the Ex-Im Bank to compete on a level playing field," Conner said. "Some competitors were capitalizing on the situation by highlighting the possibility

that Boeing's customers would no longer have access to trade credits," Boeing said.

Last year, U.S.Ex-Im financing supported 11% of Boeing commercial aircraft deliveries. European Ex-Im financing funded 8% of Airbus sales. A 2014 report from the U.S.bank said it was an essential resource for American exporters and workers in an increasingly competitive global environment.

"The past year has seen Ex-Im continue to support U.S. job growth, which allowed American businesses to create or maintain 164,000 jobs, generating a \$675 million surplus for taxpayers," the report said.

Director general of the Association of Asia Pacific Airlines, Andrew Herdman, said: "Ex-Im financing is used by many of the region's carriers, including big airlines. "It's a significant source of funding. I can understand why Boeing is concerned because Airbus has similar arrangements.

"So do all the other manufacturers. There's a lot of commercial funding available, but that's something additional. Ex-Im is part of the market place and the loss of it is a concern, especially as it's a political issue."

"It was another source of financing that kept the market

honest in terms of the various options. It is part of the mix", said Herdman. He, too, hoped the bank's charter would be renewed by Congress. "Congress may rethink and the bank could be reinstated. If not, airlines will have to shop around for the best financing they can get," he said.

Is it really the end of the bank? Conner hoped Congress, in summer recess at press time, would reinstate the bank's charter. But he conceded that the fact it was allowed to lapse created doubt about its future.

Democrats and moderate Republicans plan to restore the bank to full operations by attaching its charter renewal legislation to a "must-pass" highway and rail transit funding bill. U.S. Deputy Secretary of Commerce, Bruce Andrews, said the Obama administration is concerned about the lapse of the bank's charter and hoped it could be restarted soon.

"By unilaterally disarming and shutting down the Export-Import Bank, an advantage

Boeing vice-chairman and president and CEO Boeing Commercial Airplanes, Ray Conner: Boeing is at a huge sales disadvantage without Ex-Im support was created for our competitors from countries such as China, Germany and Japan," Andrews

U.S.Ex-Im chairman,
Fred Hochberg, told Reuters
news agency the bank's
staff was proceeding with an
orderly liquidation plan and
was completing approved
transactions. The bank will stay
open to service its \$112 billion in
existing obligations. Its operating
budget has been approved until
the end of this month.



# Only way is up for China's airlines

As investors worldwide nervously monitor the impact of China's slowing economy on world markets, the airline industry is bucking the downward trend.

#### **Tom Ballantyne reports**

haken by a housing slowdown, uncertain foreign and domestic demand and, most recently, a sudden stock market slump and a currency devaluation, China is having a difficult year. With growth at 7% in the first six months of 2015, a figure that could change in coming months, 2015 is shaping up as the nation's worst 12 months in economic performance in a quarter of a century.

China's central bank, the People's Bank of China (PBOC) said in its second-quarter monetary policy report in August that China's economy may face headwinds in coming months due to its reform efforts, with monetary policy blunted by a lack of growth drivers and a lukewarm appetite for new investment.

For airlines, whose growth and fortunes are traditionally tied to national economic performance, the report should be bad news. But not so.

Carriers have reported healthy profits to date for the year. In August, the Civil Aviation Administration of China (CAAC) said income for its airlines reached a historic high in the first half of 2015 and already had surpassed the full year results of

CAAC's latest figures, to May

31, reported 12.9% year-on-year overall passenger growth for China's carriers, with domestic travel accounting for 10.1% of the increase and international passengers contributing a stunning 47%.

Even cargo traffic, which has been in the doldrums for several years, is on the up, with 5.2% year-on-year growth, comprising a 2.1% expansion in the domestic sector and 13.4% growth on international routes.

Guangzhou-based China Southern Airlines (CSA) is

forecast to announce net income of between \$544 million and \$587 million for the first half of this year, reversing a \$164 million loss in the same period twelve months ago.

Shanghai's China Eastern Airlines (CEA) announced a profit of \$556 million for the same period, up from a meagre \$2.3 million profit in the same six months of 2014. In Beijing, Air China is looking at a half year profit of \$787.5 million, an 82% increase over the 2014 half.

The country's "Big Three"

carriers are not the only winners in 2015. Hainan Airlines' profit has quadrupled in 2015. Juneyao Airlines' first half income climbed 170% and the country's first low-cost carrier, Spring Airlines, launched in 2005, said its interim profit will increase by between 130% and 150%.

There are solid reasons for this remarkable performance. Despite the economic slowdown, domestic market demand has remained robust. At the big carriers, international expansion is gathering pace. Most importantly of all, a lower fuel price has underpinned improved profitability by dramatically reducing operating costs.

As oil dropped towards \$40 a barrel, Chinese carriers became winners in the industry, almost by default. After suffering substantial losses during the 2008 Global Financial Crisis. China's airlines stopped hedging fuel as it climbed above US\$100 a barrel.

And then there was the August 2% devaluation of the yuan. Most analysts and industry observers believed the impact of the recent devaluation of China's



#### **INSIDE CHINA'S AIRLINES: AN ORIENT AVIATION UPDATE**

currency had been overstated by the media. Director general of the Association of Asia Pacific Airlines (AAPA), Andrew Herdman pointed out the US\$ has been strengthening for 18 months, and particularly in the past six months when many Asian currencies devalued.

"The Chinese currency has been strengthening for a decade, said Herdman. "It is worth commenting that we don't obsess about such movements in other currencies whether it's the US\$, the Euro, British Sterling or the Yen. We are used to their changes. Next week it will be a different story."

Domestically, the market is expanding as more budget carriers are set up, with the encouragement of China's central government, which is keen for a genuine low-cost carrier industry to be established.

Internationally, China's airlines are entering a new phase. For years, they were regarded by the industry as being in development because their management processes were not as sophisticated as their western rivals and their service levels were below par.

But not anymore. The big Chinese airlines have emerged as major players internationally, operating big fleets of new jets and constantly expanding their medium and long-haul networks to match rivals elsewhere in Asia, Europe and the U.S.

A key report by consultants, McKinsey & Company, said more than 97 million Chinese traveled overseas in 2013 and spent \$129 billion while abroad.

Last year, the number of Chinese travelling overseas jumped to an estimated 112 million with Chinese official data estimating the group spent a record-breaking \$164.8 billion.

China Eastern, China Southern and Air China are linking secondary Chinese cities with the world. China Eastern recently launched a Chengdu-Nanjing-Los Angeles service. Air China started Chengdu-Colombo in February, Hangzhou-Osaka in March, Tianjin-Dalian-Sapporo in April, Beijing-Minsk-Budapest in May, Beijing-Melbourne in June and Beijing-Hakodate in July. Addis Ababba will be added in October, as will Beijing-Johannesburg, making Air China the first Chinese carrier to fly directly between Mainland China and South Africa. China Southern will launch Shanghai-Pudong -Chicago in October.

Head of the CAAC, Li Jiaxiang, said due to growth and reduced operating costs, Chinese

the carrier was considering a wide-body order to add to its growing fleet of 20-on-order B777-300ERs. "We are looking closely at options and studying their compatibility with our networks. We may have a decision to announce by the end of this year or early next year," he said.

In the meantime, China Eastern announced last month it will acquire 15 A330s for about \$3.6 billion to meet booming

The Shanghai headquartered airline, which operates a fleet of more than 400 aircraft that flies close to 2,000 flights a day, signed a purchase agreement

In another development that underscored the growing importance of China's airline market, Delta Air Lines in the U.S. announced in July it had agreed to buy 3.55% of China Eastern for \$455 million, which made it the first U.S. carrier to invest in a Chinese airline. Delta said it will have an "observer" seat

on the China Eastern board

carriers introduced 158 aircraft into their fleets in the first-half of 2015; 24 wide bodies and 134 narrow bodies. These included 28 aircraft to China Eastern, 22 to China Southern, 17 to Air China and 16 to Hainan Airlines.

China recently ordered 75 A330s, worth \$11 billion, with Airbus. The French headquartered company is setting up an A330 completion and delivery facility in Tianjin to take advantage of the partnership between Airbus and the Mainland following the successful establishment of an A320-family final assembly line in 2008, also in Tianjin.

China Eastern chairman, Liu Shaoyang, said last month in early July with Boeing for an additional 50 B737-800s for its wholly-owned Nanyuan-based budget carrier, China United Airlines, as well as other subsidiaries.

Deliveries are scheduled between 2017 and 2019. In June last year, the airline announced a similar deal with the U.S. manufacturer for 80 B737s, made up of -800s and MAXs, set to arrive at the carrier between 2016 and 2020.

Spring Airlines, based at Shanghai's second airport, Hongqiao, plans to raise \$725 million in private share placements to fund upgrades to its IT infrastructure, including fitting its 50 current A320s with Wi-Fi connectivity, as well as fleet expansion.

It intends to buy an additional 21 A320s. SkyTeam alliance member, Xiamen Airlines, has ordered four additional B787s, with talks continuing about the acquisition of another ten. It has taken delivery of five of the six Dreamliners it originally ordered and is operating them to Amsterdam, where the service connects with partner Air France-KLM. Xiamen has plans to launch services to Australia in the near future

An insight into Chinese airline thinking about international expansion was provided in a recent Chinese interview with Hainan Airlines chairman, Xin Di. He said the carrier expected its international business to account for 40% of its total revenue by year end.

In 2014, offshore flying accounted for 13% of Hainan's revenue (now at 16%.) compared with Air China, which earned 37% of its revenue internationally. Xin, made chairman of Hainan last year, attributed the expansion of the country's carriers into global markets to government policies and market demand.

He said the government has been encouraging more enterprises to go abroad under "The Belt and Road Initiative", a development strategy proposed by President Xi Jinping in 2013. It refers to the Silk Road Economic Belt, which will link China with Europe via Central and Western Asia, and the 21st Century Maritime Silk Road, which stretches from eastern and southern China to Southeast Asia, South Asia, Africa and Europe. Xin said he anticipates a huge surge in international business on the back of this strategy.

Hainan, China's fourth largest carrier, has been expanding rapidly this year with new services



from Beijing to San Jose in the U.S., and Rome, as well a more flights from Shanghai to the U.S. This year it intends to add services to Tel Aviv in Israel and Prague in the Czech Republic.

Xin said rising competition from high-speed rail in China is prompting carriers like Hainan to find more opportunities internationally. As a result, Hainan has been on a shopping spree abroad. Its leasing unit, Bohai Leasing, in July announced it will acquire a 20% stake in Irish lessor Avolon Holdings for \$429 million, with recent reports it has offered to acquire the remainder of the Dublin-based lessor.

In May, it purchased a 6.2% stake in South Africa's Comair and is negotiating acquisition of ground handling company, Swissport International.

In another development that underscored the growing importance of China's airline market, Delta Air Lines in the U.S. announced in July it had agreed to buy 3.55% of China Eastern for \$455 million, which made it the first U.S. carrier to invest in a Chinese airline. Delta said it will have an "observer" seat on the China Eastern board.

The buy-in could allow
Delta and China Eastern to seek
approval to co-ordinate pricing
and flight capacity. United
Airlines chief executive, Jeff
Smisek, said he would be "keenly
interested" in exploring a Chinese
joint venture once the United
States and China negotiate an
Open Skies agreement that
would ease air route restrictions.

Profits aside, China's airlines do face challenges. Despite huge investment in airport infrastructure, congestion is a major problem, particularly at the hubs of Beijing, Shanghai and Guangzhou.

Flight delays have led to an inordinately high level of air rage incidents. Last month the CAAC ordered South China's Shenzhen airport not to add flights and routes, or submit charter flight applications, because the airport was ineffective in handling flight delays. The suspension, started on August 1, will remain in place until year end.

In May alone, several mass disturbances occurred, including angry passengers forcing open cabin doors and fights erupting between airline staff and incensed passengers. The administration criticized Shenzhen Airlines and China United Airlines for their poor management after flight delays and cancellations caused by heavy rain angered passengers.

In July, the CAAC banned privately owned Okay Airways from buying more aircraft and ordered it to reduce flying hours, accusing it of overworking its

pilots. It said there had been 21 instances this year in which crew did not take enough time off and another 65 instances of pilots working overtime. Okay has a fleet of 30 aircraft - B737s and Chinese MA60s. Its main hub is Binhai Airport in Tianjin. It flies mainly domestic routes although it added a few Asian destinations in the last quarter of 2014.

The McKinsey China consultancy said China's "Big Three" carriers and their subsidiaries have been a bright spot in the airline industry globally, averaging until recently annual returns of 15% compared with the global industry average of below 5%.

"China is moving ahead with reforms in state-owned enterprises, designed to promote efficiency and profitability. Regulations on new entrant airlines and the speed of growth of private airlines are being relaxed.

Overall, McKinsey considered China's major airlines face "significant but surmountable

Overall, McKinsey considered China's major airlines face "significant but surmountable barriers" in the coming years. "Competition is increasing, putting downward pressure on the price of airline tickets, it said. With yields per kilometer of around 9.5 U.S. cents, China's domestic fares rival those of the U.S., where travelers have more disposable income

Hainan Airlines B787: Rising competition from highspeed rail in China is prompting carriers like Hainan to find more opportunities internationally

barriers" in the coming years. "Competition is increasing, putting downward pressure on the price of airline tickets, it said. With yields per kilometer of around 9.5 U.S. cents, China's domestic fares rival those of the U.S., where travelers have more disposable income.

This contrasts with carriers in adjacent markets, notably Southeast Asia, where new budget airlines are selling very low fares. By offering lower fares on domestic travel, the Chinese incumbents can awaken latent demand, stimulate consumption and reduce exposure to any new entrants, McKinsey said.

Presently, distribution is disproportionately centered around direct sales and traditional travel agencies, with little e-commerce.

McKinsey's research on the Chinese millennial traveler (20-30 year-olds) revealed a more globally minded generation that is confident, independent and looking forward to traveling.

They are Internet-savvy. Fifty eight per cent of the respondents said they liked to book online.

Like airlines everywhere,
China's carriers will likely be
confronted with new problems
and unexpected crises on the
road to greater growth. But most
analysts agree that Mainland
Chinese carriers will soon take
their place among the leading
airlines of the world.

## Going global from Guangzhou

hina Southern
Airlines (CSA) is a
perfect example of
the rise of China's
airlines on the
world stage. Speaking in Sydney
last month, the carrier's sales
division senior vice president, Li
Dongliang, said the company
went through a strategic
transformation in 2009 when it
was facing fierce competition on
primary domestic routes from
high speed rail.

"At the time, the international percentage of our flights was just 20%. After some deliberate thinking, we concluded that if we wanted a brighter future, CSA must change its strategy. In 2009, our company began to transform itself from being domestic



orientated to international orientated," Li said. "Our aim is to go global and to have Guangzhou airport as a world class hub."

Now operating a fleet of more than 600 planes, the transformation has been dramatic. CSA has 64 overseas offices around the world. With 14 million safe flying hours behind it, the Guanghzou-headquartered airline was the first Chinese carrier to operate both the A380 and the B787. It carried more than 100 million passengers last year. In the first half of this year, CSA transfer passengers on international flights accounted for nearly 40% of the airline's business.

Li said his airline had used the Australasian market to test its new strategy. The airline operated seven flights a week to Australia in 2009, but it now operates 43 and has plans to increase services into Australia to 60 a week in the next few years.

From this base, the carrier expanded into Europe, creating a new "Silk Route", which linked Australasia through Guangzhou to the European cities of London, Amsterdam, Frankfurt and St. Petersburg. In the U.S., CSA has gone from operating a daily flight to Los Angeles to services to New York, San Francisco and Vancouver. The carrier commenced flying to Nairobi last month.



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