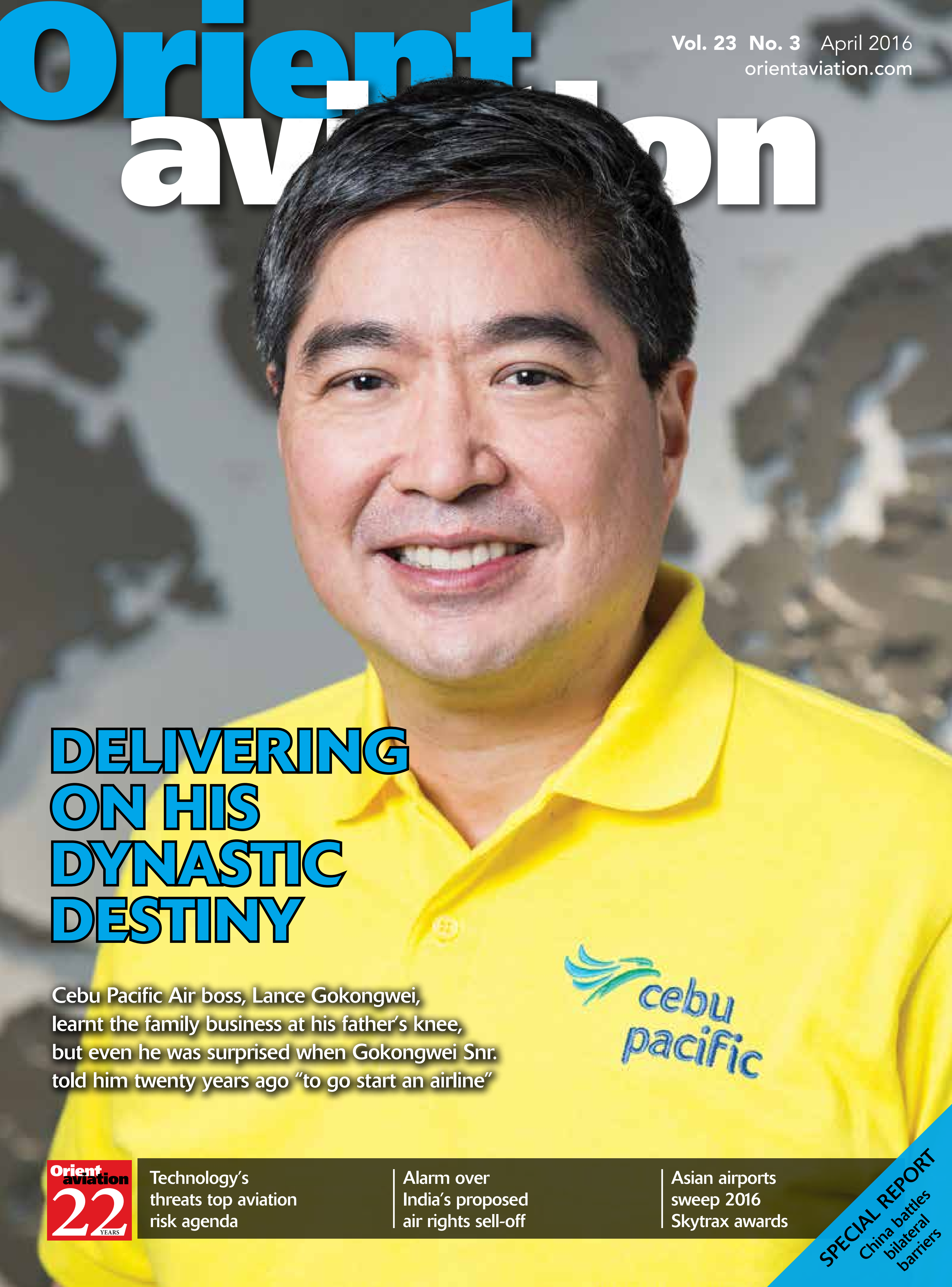
Orient aviation

Vol. 23 No. 3 April 2016
orientaviation.com



DELIVERING ON HIS DYNASTIC DESTINY

Cebu Pacific Air boss, Lance Gokongwei, learnt the family business at his father's knee, but even he was surprised when Gokongwei Snr. told him twenty years ago "to go start an airline"

Orient aviation 22 YEARS

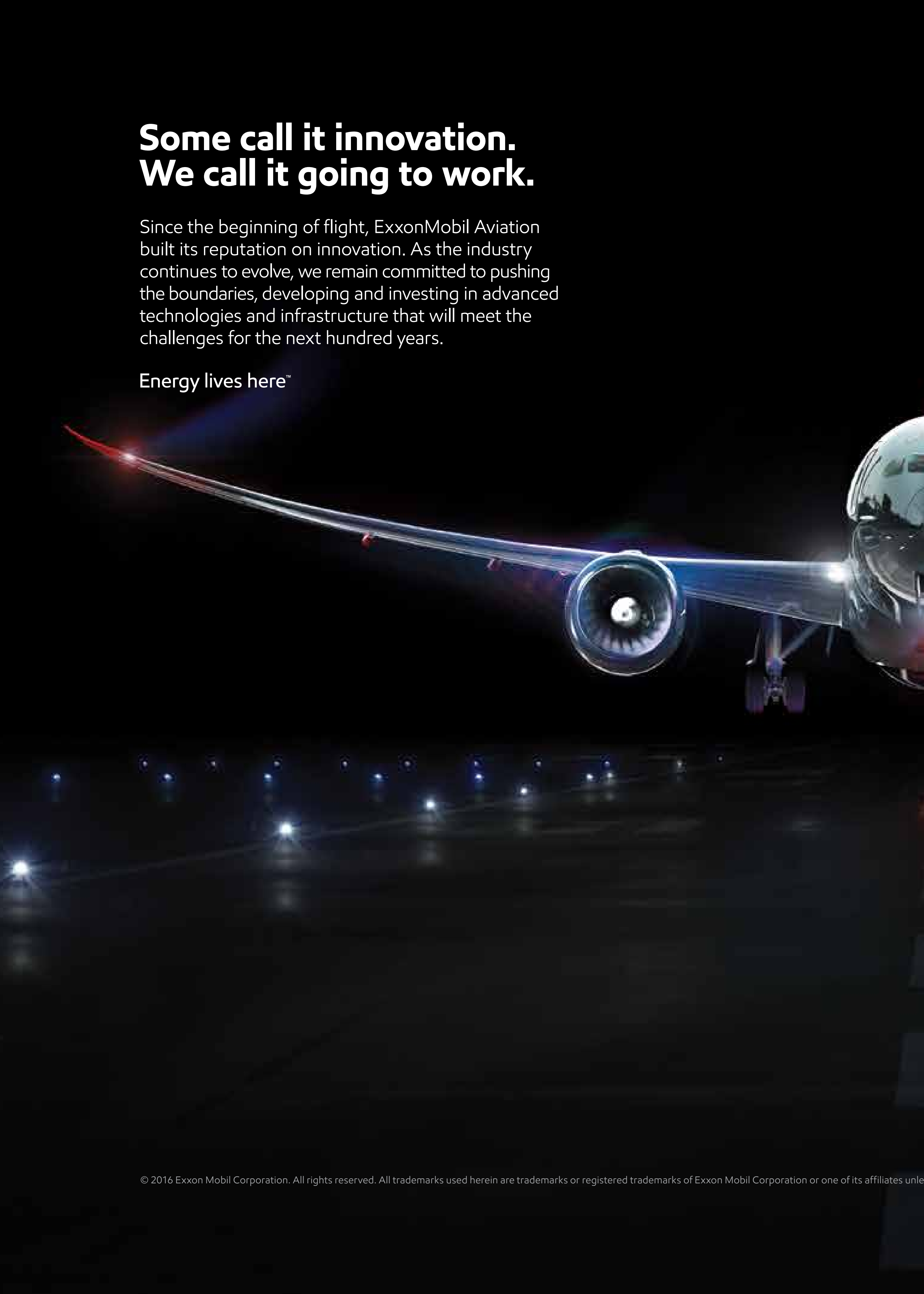
Technology's threats top aviation risk agenda

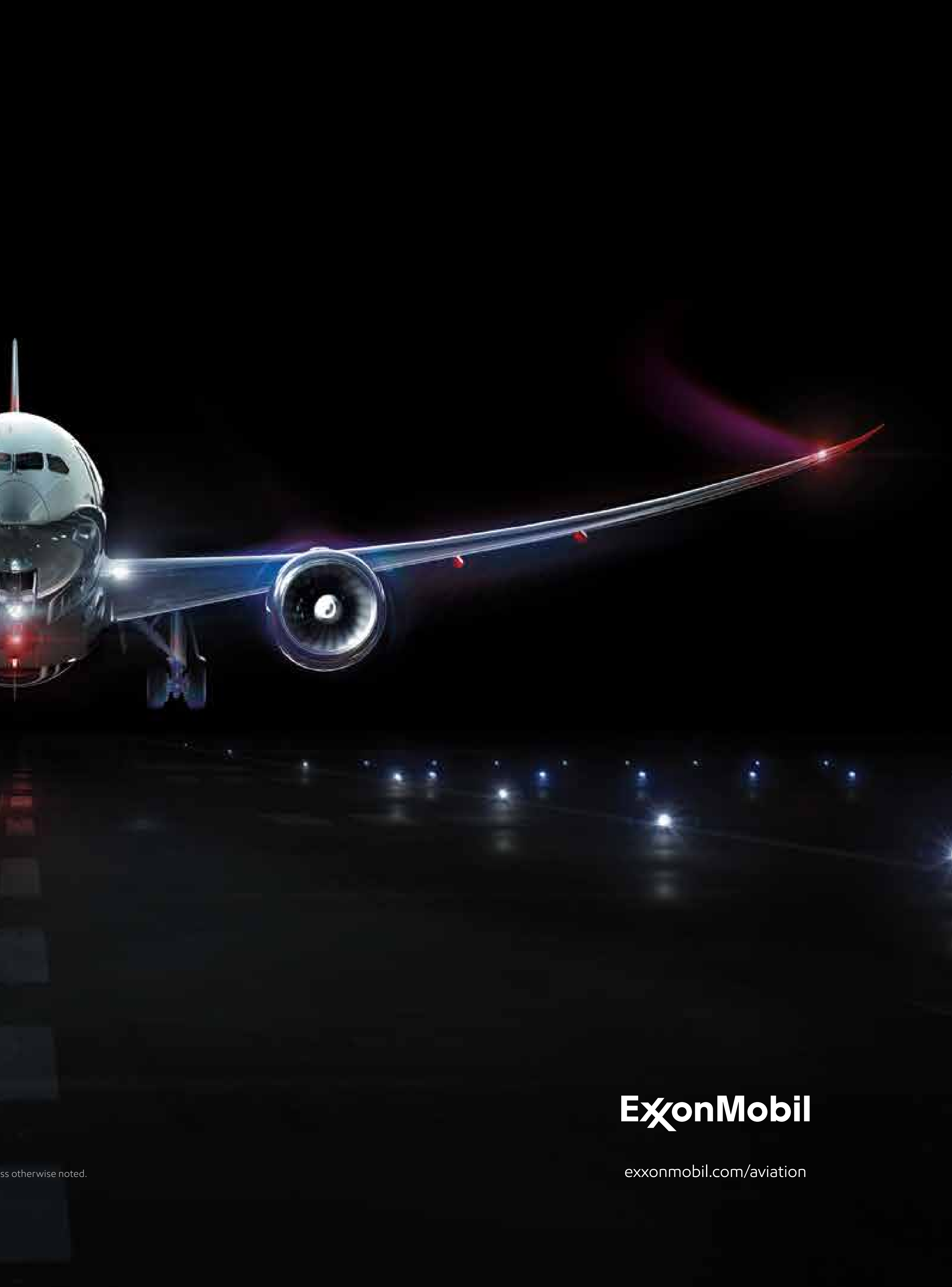
Alarm over India's proposed air rights sell-off

Asian airports sweep 2016 Skytrax awards

SPECIAL REPORT China battles bilateral barriers

Thinking about the future
for the past 100 years.


Some call it innovation.
We call it going to work.
Since the beginning of flight, ExxonMobil Aviation built its reputation on innovation. As the industry continues to evolve, we remain committed to pushing the boundaries, developing and investing in advanced technologies and infrastructure that will meet the challenges for the next hundred years.
Energy lives here™
© 2016 Exxon Mobil Corporation. All rights reserved. All trademarks used herein are trademarks or registered trademarks of Exxon Mobil Corporation or one of its affiliates unle



ss otherwise noted.

Orient aviation 22 YEARS

PUBLISHED BY

ORIENT AVIATION MEDIA GROUP
Mailing address:
GPO Box 11435 Hong Kong
Office:
17/F Hang Wai Commercial Building,
231-233 Queen's Road East,
Wanchai, Hong Kong
Tel: Editorial (852) 2865 1013
E-mail: info@orientaviation.com
Website: www.orientaviation.com

Publisher & Editor-in-Chief
Christine McGee
E-mail: christine@orientaviation.com

Chief Correspondent
Tom Ballantyne
Tel: (612) 9638 6895
Fax: (612) 9684 2776
E-mail: tomball@ozemail.com.au

Greater China Correspondent
Dominic Lalk
Tel: (852) 2865 1013
E-mail: dominic@orientaviation.com

North Asia Correspondent
Geoffrey Tudor
Tel: (813) 3373 8368
E-mail: tudorgeoffrey47@gmail.com

India Correspondent
R. Thomas
Tel: (852) 2865 1013
E-mail: info@orientaviation.com

Photographers
Rob Finlayson, Colin Parker,
Graham Uden, Ryan Peters

Chief Designer
Chan Ping Kwan

Printing
Printing Station(2008)

ADMINISTRATION

General Manager
Shirley Ho
E-mail: shirley@orientaviation.com

ADVERTISING

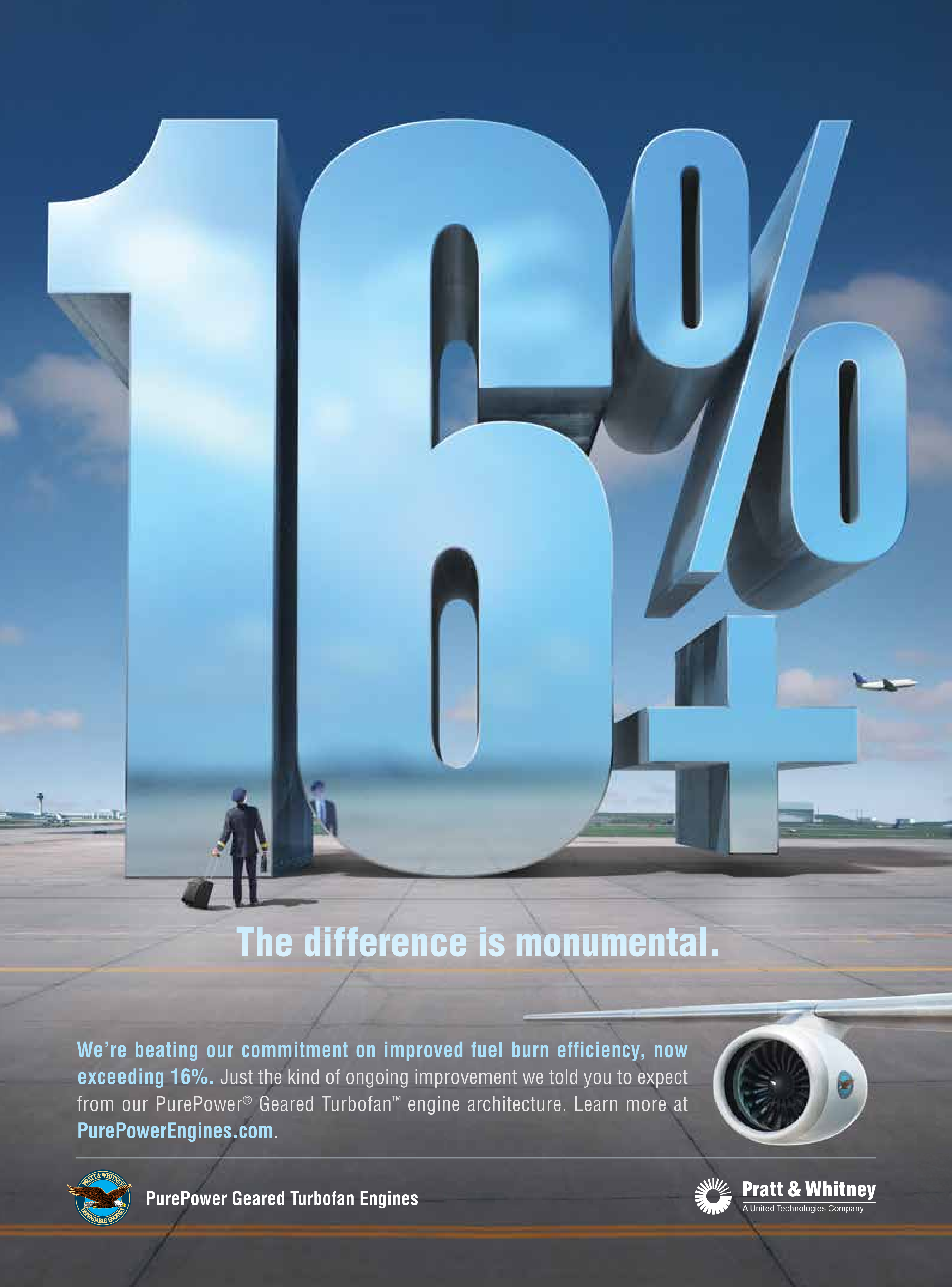
Southeast Asia and the Pacific
Tan Kay Hui
Tel: (65) 9790 6090
E-mail: tankayhui@tankayhuimedia.com

The Americas / Canada
Barnes Media Associates
Ray Barnes
Tel: (1 434) 770 4108
Fax: (1 434) 927 5101
E-mail: barnesrv@gmail.com

Europe & the Middle East
REM International
Stephane de Rémusat
Tel: (33 5) 34 27 01 30
Fax: (33 5) 34 27 01 31
E-mail: sremusat@rem-intl.com

CONTENTS

Volume **23**, Issue **3**


16%+
The difference is monumental.
We're beating our commitment on improved fuel burn efficiency, now exceeding 16%. Just the kind of ongoing improvement we told you to expect from our PurePower® Geared Turbofan™ engine architecture. Learn more at PurePowerEngines.com.
PurePower Geared Turbofan Engines
Pratt & Whitney
A United Technologies Company

COMMENT

The risks of technology's advance

Asia-Pacific airlines are no strangers to the multitude of potential risks to their businesses. They range from terrorism and social unrest to health pandemics, severe weather events and volcanic eruptions. For the industry, it is not a matter of if but when these crises will occur.

Risk management puts in place financial systems to cope with the unexpected events that are part and parcel of airline management. But a new study by global advisory, broking and solutions company, Willis Towers Watson, has revealed is not the known risks of past experience that most concern the occupants of aviation C-Suites.

They say the greatest risks to the operation of their businesses is keeping up with the explosive pace of technological change and protecting their company from the increasing threat of amoral worldwide cyberattacks.

Staying ahead in the IT game is a constant challenge as multi-million dollar systems upgrades can become obsolete very quickly. A cyberattack is a different sort of threat: it can cause total, instant disruption, financial losses and often huge brand damage.

WTW said the survey showed the parameters of risk have shifted for aviation but that insurers have not kept up with the times.

It's no longer the case that the one size fits all package offered by insurers against risk can meet the requirements of airlines in the 21st century.

Generic offerings against risk are not sufficient, WTW said.

They may compensate for direct cash losses caused by disruption but do they, for example, take into account the damage such an event can have on an airline brand?

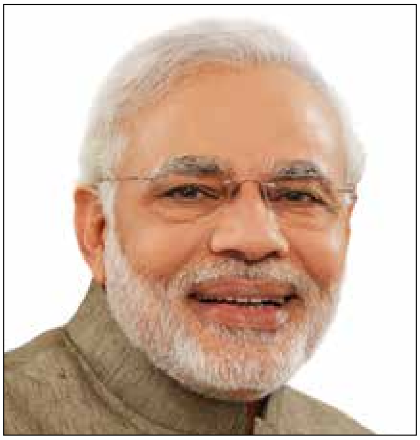
To answer that question, airlines, their representative bodies and other aviation sectors need to collectively discuss all aspects of these new threats with their insurers.

It is clear that like hull loss or cover for war, insurance against cyberattacks must have a high priority presence in the insurance portfolio of airlines, airports and their partners.

Insurers must recognize that the raised priority of these technological and security risks requires it to produce risk management tools that match the demands of the aviation industry of today – and not yesterday. ■

TOM BALLANTYNE
Chief Correspondent
Orient Aviation Media Group

Pie in India's sky as government touts nation as global hub



No one questions the fact that India is one of the world's fastest growing aviation markets, despite its reputation for being somewhat chaotic. But a global aviation hub? That's the plan, declared **Anil Srivastava, joint secretary** at **India's Ministry of Civil Aviation**, in a speech in March. It also will be one of the top three aviation markets in the world by 2020, he said, with passenger traffic at airports expected to increase to 450 million in the next four years from 159.3 million in 2012-2013.

In India's 12th Five Year Plan, investment in aviation is forecast to be $12.1 billion, with private investment contributing $9.3 billion to the total sum. Elements of the aviation strategy have been questioned, particularly the construction over the next two decades of 200 low-cost airports at tier 2 and tier 3 cities across the country. India already has several "ghost airports" that are virtually empty because passenger demand does not justify airlines servicing them. Minister Srivastava said $1.3 billion is planned to be spent on non-metro projects from 2013-2017, mainly on modernizing airports.

Becoming an global hub will depend largely on the content of New Delhi's new aviation policy, now being finalized. It must promote a regulatory and tax environment that will allow airlines in India to flourish. ■

Boeing's 787-10 roaring to rollout

It is unusual nowadays that the building of a new passenger jet is running on schedule, but that is the case with Boeing's latest offering to the marketplace, the **B787-10 Dreamliner variant**. Given the vagaries of a complex global supply chain it's definitely an achievement. Major assembly of the first -10 started last month when Boeing partner, **Kawasaki Heavy Industries Ltd**, began installing the circular frames into the mid-forward section of the fuselage on March 14, two weeks ahead of schedule.

"Beginning major assembly early underscored the commitment, discipline and performance of the entire Boeing and partner team worldwide," said **Ken Sanger, vice president of B787 Airplane Development at Boeing Commercial Airplanes**. "We are taking all the right steps to ensure we integrate the B787-10 into the production system smoothly."

As a straightforward stretch of the B787-9, which entered service in 2014, Boeing designed the B787-10 for superior efficiency and maximum commonality. Ninety-five percent of the design and build of the B787-10 and B787-9 will be identical, reducing complexity, cost and risk across the entire production system and providing operational benefits to customers. The -10 is the largest version of the Dreamliner family, which will typically carry more than 320 passengers compared with 210 on the original -8 and 250-290 on the -9.

The -10 will undergo final assembly at Boeing South Carolina in North Charleston with deliveries to begin in 2018. With a capability to cover more than 90% of the world's twin-aisle routes, the B787-10 will deliver 25% better fuel use than the planes it will replace. Boeing said the aircraft is at least 10% better than airplanes being offered to the market by rivals. To date, the B787-10 has 153 orders from nine customers and accounts for 13% of all 787 orders. ■

Asian airports sweep Skytrax awards

*Six of the world's top ten airports in 2016 are from the Asia-Pacific, **Skytrax World Airports** announced last month, with Munich Airport, Zurich Airport, London Heathrow and Qatar's Hamad International Airport filling the remaining four slots. **Singapore Changi** was voted the world's best airport for the fourth consecutive year and also was the winner of the Best Airport for Leisure Amenities.*

*The runner up was **Seoul Incheon International Airport** with **Munich Airport** following in third place. The seven other top ten winners were **Tokyo Haneda (4), Hong Kong International Airport (5), Chubu Centrair Nagoya (6), Zurich Airport (7), London Heathrow (8), Japan's Kansai International Airport (9) and Hamad International Airport (10).** ■*

Rich versus poor divide haunts emissions negotiations

Remember the furore over the **European Union's (EU)** unilateral imposition of a carbon emissions trading scheme for airlines in 2012, only called off after the **International Civil Aviation Organization (ICAO)** agreed to work towards a global plan of achieving carbon neutral growth for aviation from 2020?

Well the hard work to agree on a global market based mechanism (MBM) for payment of the industry's emissions is not done yet. Word from ICAO's headquarters in Montreal is that negotiations, aimed at finalizing an MBM for presentation and approval at the organisation's triennial meeting in September, have hit some road bumps.

The elephant in the room, and not for the first time, is the challenge of developing a formula that takes into account the "common but differentiated responsibilities" of developed and developing nations.

Developing countries with fast expanding aviation sectors, such as China and India, are demanding more latitude to produce emissions than developed countries, which are now growing more slowly but were responsible for generating the bulk of aviation's historic greenhouse gases.

When a landmark global climate accord was signed in Paris last December, aviation

was excluded from it and the issue was resolved by treating wealthy and poor nations differently.

The problem is that a similar agreement for aviation could violate ICAO's own principle of non-discrimination in its founding treaty, the Chicago Convention. In March, **Reuters** news agency quoted an unnamed EU official who said the ongoing gap between developed and developing countries on the issue would be a "very big problem, especially with China".

Differentiation also would risk giving a competitive advantage to airlines that have significant global market share but are registered in "developing countries", legal experts argued.

European Commissioner for Transport, Violeta Bulc, said countries were struggling to fairly divide responsibilities for aviation emissions obligations. "The proposal on the table at ICAO aims to take care of that by sharing the burden of de-carbonization across all the actors," the EU said.

Bulc confirmed global leaders are working behind the scenes to resolve the dispute and suggested ICAO examines EU's handling of burden sharing as a guide. With burden sharing, richer member states take on different responsibilities to poorer countries like Greece. "In Europe we also learned that you have to take the specifics of certain countries into consideration," she said.

At ICAO accord on the issue remains elusive. Senior government officials from Europe, the U.S. and China, along with other representatives, are desperately seeking a solution to the issue. A special meeting will be held this month to agree to a consensus plan that can be presented to a meeting of ICAO's governing council in May.

If these efforts fail, there is a risk the EU will re-impose its own emissions scheme, a decision that would undo years of work in building a global aviation emissions reduction scheme. ■

Blind faith or insider's knowledge?

Is he being over-optimistic? **Saif Mohammad Al Suwaidi, director general of the United Arab Emirates (UAE) General Civil Aviation Authority (GCAA)** has declared the frequently bitter war of words between the major U.S. airlines and their Gulf rivals over alleged subsidies at the Middle East carriers should be resolved by the end of this year.

"I am sure our operation is within the agreement that we have with the United States. We haven't broken any article in that agreement," he told media in Dubai. Despite his comments, there is no evidence of a breakthrough in the dispute. In 2015, the three major North American carriers, **American Airlines, Delta Air Lines and United Airlines**, submitted a White Paper to the U.S. government that argued **Emirates Airline, Etihad Airways and Qatar Airways** had received $42 billion in subsidies from their governments.

The three Gulf airlines mounted fierce rebuttals of the claims. They insisted their businesses were run fairly and without government subsidies. In their counter attack, the Middle Eastern carriers said U.S. airlines have benefitted unfairly from sheltering behind Chapter 11 bankruptcy protection when they were in trouble. As for an agreement, 2016 could prove a difficult period to iron out matters given the political environment in the U.S. in this contentious election year. ■

Global traffic through Dubai accelerating

Dubai International Airport (DXB) recorded record monthly traffic in January, of 7.3 million passengers, slightly ahead of its previous best of 7.2 million passengers last August.

North America traffic produced the highest growth, with passengers up 19.9%, boosted by **Emirates Airline's** new Orlando route and the airline's increased frequencies to Boston, New York and Seattle.

Into Dubai, traffic from the **Gulf Cooperation Council (GCC)** was up 11.6% with Saudi Arabia registering double-digit growth from a surge in demand from Jeddah. The Indian sub-continent was the third largest source of traffic, up 8.7%, mainly propelled by traffic on routes to the traditionally strong markets of India and Pakistan.

In January, India remained the top destination country, with 989,819 passengers, followed by Saudi Arabia (606,730 passengers) and the UK (488,819 passengers). London was the number one destination for passengers using Dubai with Doha and Jeddah in second and third places, respectively.

DXB also is bucking the general air freight trend, with cargo tonnage up by 8.2% compared with the same month in 2015. "The record passenger numbers in January confirmed that the growth trend from last year has continued into 2016. We are on course to meet our projection that 85 million passengers will pass through our airport this year," said **DXB chief executive Paul Griffiths.** ■

Leadership shifts at Boeing

Under fierce competitive pressure from rival **Airbus**, **Boeing** last month announced its biggest program management reshuffle in years, undertaken to significantly reduce its overheads.

Details of the revamp, which consolidated five commercial jet programs into four production units, were outlined in a note to the company's employees from **Boeing Commercial Airplanes president and CEO, Ray Conner**.

"The changes were being made "to lean out our structure from the top down while continuing to perform on our development programs and keep our delivery commitments to customers", he said.

The decision followed Boeing's announcement in January that the production rate of the **B747**, now built almost exclusively as a freighter, would be further reduced. From last month, the aircraft type's production rate dropped from 1.3 per month to one per month from last month. A further slowing, from September, will reduce the production rate to 0.5 per month, or six aircraft a year.

"Global air passenger traffic growth and airplane demand remain strong, but the air cargo market recovery that began in late 2013 has stalled in recent months and slowed demand for the 747-8 Freighter," Conner said. "While we remain confident in the 747-8's unique value proposition and an upcoming replacement cycle for late-model 747-400 freighters, we're taking the prudent step to further align production with current market requirements."

Boeing insiders said the management re-organisation was widely expected as pressure within the company to reduce costs across all sectors of the business has been intensifying in the last year.

As part of the reorganization, **Boeing's senior vice president of airplane programs, Pat Shanahan**, will join the executive council of **The Boeing Group, led by chairman, president and CEO, Dennis Muilenburg**, on April 4. He will not be replaced at the commercial airplane division. Shanahan is now responsible for supply change management and manufacturing operation for the whole company.

He will be joined on the council by **Scott Fancher** who has moved to Chicago to oversee **defense, space technologies and commercial airplane development programs company-wide**.

Mike Delaney will succeed Fancher as **head of new airplane development at Boeing Commercial Airplanes**.

Fancher and Shanahan will split the duties previously handled by **Chief Technology Officer John Tracy**, who will retire in July after 35 years with Boeing.

The general managers of each commercial program will report directly to Conner to "strengthen ties between the manufacturing and operations parts of the business," the Boeing Commercial Airplanes CEO wrote.

Boeing's two oldest and lowest volume twin-aisle jet programs, the B767 and B747 are being consolidated under the oversight of **Elizabeth Lund, vice president and general manager of the long-range B777 program. The B767 general manager, Brad Zaback**, will serve as Lund's **deputy on the B777 program. Bruce Dickinson**, who ran the B747 program, will work under Lund on the consolidated **B747 and B767 programs**.

"Given the competitive environment we face, it makes sense to realign our leadership in a big picture way instead of making piecemeal adjustments," Conner said in his memo. "This new lineup will give airplane programs a more direct link to the leadership team and strengthen ties between the manufacturing and operations parts of the business." ■

TECHNOLOGY'S THREATS

A recent industry survey revealed rapid technological change and the threat of cyberattacks have moved to the top of the risk agenda in aviation's C-Suites.

Tom Ballantyne reports

An inability to keep up with technological change is the number one risk for airlines, the preliminary findings of a survey of senior aviation executives by global advisory, broking and solutions company, Willis Towers Watson (WTW) has revealed.

Social unrest, involuntary migration and terrorist threats also ranked highly on the risk gauge at airlines, particularly in the Asia-Pacific, the survey reported.

Released in March, the survey polled 147 industry leaders of which a quarter of respondents were from the Asia-Pacific. Most of those surveyed managed companies with revenues of more than US$1.5 billion.

The results underscored earlier evidence that information technology and cyber security are two of the major challenges of the region's fast-growing aviation industry and therefore its insurers.

Last year, the International Air Transport Association (IATA) warned that as one of the most complicated and integrated systems of information and communications technology in the world, the global aviation system is an attractive target for a large scale cyberattack or for a targeted assault on its most critical systems.

"While we cannot eliminate cyber risk, we must manage it. This can be done, but it would require a deeper collaboration between authorities, industries and the academic world through an information sharing program that leverages the collective power of the aviation industry," IATA's director general and CEO, Tony Tyler said.

> ***'Cyber insurance was worth US$2.5 billion last year with the sector's market across all industries forecast to be worth $25 billion by 2025'***

That message was echoed by WTW's global head of transportation industry, Mark Hue Williams, who addressed the company's aviation conference in Singapore last month. The aviation industry is at an inflection point, he said.

"Regulation and technological advancements are demanding new operating models. Simultaneously, the industry faced the growing problem of both physical and digital attacks from hostile parties that are targeting the sector's strategic position in the movement of people, products and ideas," Hue Williams said.

"This is set against an unstable macro geopolitical and economic backdrop and an ultra-competitive global labour market."

He said it was a community problem that demanded and

'New and evolving risks, combined with older risks such as weather, have produced a very complicated landscape. The importance of risk and its management at board level is very different today than it was in the recent past'

Willis Towers Watson

deserved a community-led response from government, expert third parties, insurance companies and regulators. Last year was probably the safest year for aviation on record but the industry has to protect this result to the best of its collective ability."

WTW has compiled a series of industry specific risk indices. The aviation survey sector drew its information from airlines, airports, aircraft lessors, aerospace manufacturers and general aviation leaders.

Hue Williams said fifty three per cent of respondents expected the impact of digital vulnerability and rapid technological advancements to increase significantly in the next 12 months.

"Private asset-owners, governments and the public at large are growing wary of the potential for cyberattacks that disable critical infrastructure, imperil national security and threaten the global economy," the survey found.

"In the private sector, they also threaten hard won corporate reputations and consumer confidence. Intangible digital assets are at risk from economic espionage while privacy breaches cost money and loss of business. On top of the commercial and reputational consequences, cyberattacks threaten to topple a company's leadership. No wonder then that we see more evidence that cyber security is at the top of boardroom agendas and not just in our own research."

Hue Williams said six priorities should be on every company's integrated "cyber risk check-list". They are: ensure that enterprise-wide governance is in place, assume hackers are already inside, invest in making the entire workforce cyber-smart, consider technology as one of several lines of defence, insure against cyber threats that can't be mitigated and allocate enough capital to the right cyber defences to protect your crown jewels.

"We are in the middle of a technological revolution that is changing the way we live and do business. It's a very young revolution, with amazing opportunities and substantial risks," said the survey's authors.

"Some argue the solution lies in technology. Some that it lies in institutions. Some that it lies in human behaviour. Some that it lies in insurance. We think it's all of these things in concert."

To WTW, the survey responses indicate the gap between industry needs and the responses of the insurers. "This is a generalization, but there is a rush to insurance from the C-Suite because new risks are front and centre of their minds. But insurers' responses have been generic."

For example, Hue Williams said, there needs to be a more tailored response from risk insurers to the non-physical business interruption experience that costs a lot of money, in many different areas, to defend against a cyber breach.

He said rogue digital actors have clearly cast a shadow over both global politics and commerce. "They have instilled fear in the markets by threatening logistics and transport systems to cyberattacks and/or data breaches," he said.

Added to that fear is the impact of the social media revolution where everyone has a voice and the challenge of defending your brand intensifies. "In the digital world, technological progress moves fast, keeping the risks of digital vulnerability and rapid technological advancement on any board's radar," WTW said.

Another area of risk is the complex supply and logistics chain which has emerged. "Using local and overseas suppliers may reduce costs and time to market, but it increases exposure to risks such as weather, inadequate infrastructure, industrial action and currency shifts, to name only a few," said Hue Williams.

Talent management and the complexities of a global workforce are yet another trend. "As middle classes emerge around the globe, so does the promise of social mobility. Where workers once stayed loyal to one employer for most of their working lives, globalization has given them access to more and better opportunities. A dearth of highly skilled labourers is further complicating successful workforce recruitment," the survey predicted.

Williams said the growth demand in the Asia-Pacific over the near and medium term requires airlines and other aviation players "to do some simple stuff" to attract, retain and hire talented people and reward them well to make sure an employer is responding to generational change as well reflecting the changing needs and requirements of a more mobile workforce.

"There is a common thread and that is digital vulnerability and how to change that to technological advancement, but the grouping is so narrow. It is in that difficult to manage and severe in potential outcome sector that leaders must navigate," WTW said. ■

Five mega-trends with a disruptive impact on the global aviation industry:

* ***Geopolitical instability and regulatory uncertainty***
* ***complex operating models in an interconnected world***
* ***digital vulnerability and rapid technological advancement***
* ***talent management and the complexities of a global workforce***
* ***changing market dynamics and business model insecurity***

China races to keep ahead of passenger demand for a 'smart' travel experience

By Tom Ballantyne

Chinese airports and airlines are outspending the rest of the world in bringing the latest information technology to their customers, reports air transport communications and information specialists, SITA.

Nearly three quarters (72%) of China's airports are investing in new technology compared with 58% globally. As well, China's airlines are spending 38% of their information technology budget on innovation against a global average of 32%. The investment program is a response to passenger demand that the latest technology be onboard as part of the travel experience.

In its latest analysis, SITA said China has the world's fastest-growing domestic flight market and international travel is soaring. Passenger numbers are forecast to climb above 1.3 billion annually by 2034, an increase of 856 million from 2014.

The exponential growth is exerting relentless pressure on existing airport infrastructure, especially as 93% of passengers have smartphones and are keen to use them and other personal technology.

SITA believed passengers' attachment to their smartphones and tablets would produce a major shift to "off airport" check-in, mainly because passengers want less face to face contact at the check-in stage of their journeys.

Only 28% of passengers in SITA's survey preferred an airport counter for check-in. More than half of all passengers (59%) said they would prefer to use their own technology to check-in for their flights. In addition, 67% wanted to use their smartphones for identification and access, including boarding the aircraft and entering airport lounges.

"Our global IT surveys cover trends from the perspective of passengers, airlines and airports," said SITA vice president and general manager, China, May Zhou. We work with airlines and airports across China to identify opportunities that can exceed the expectations of travelers. This is particularly challenging, and rewarding, during these times of fast rising passenger numbers."

As the aspirations of Chinese consumers become more sophisticated so do their expectations for a different airport and boarding experience. "Change does not happen overnight, it is going to take time for the industry to deploy infrastructure and services in a way that enables mass adoption by passengers," Zhou added. "One area is the development of 'Smart Airports' where new technology such as sensors, beacons and business intelligence are used to deliver efficiencies."

In the next couple of years, 85% of airports will have sensor technology projects while 82% of airports will have business intelligence strategies in place to monitor passenger flow and behaviour, SITA said.

Additionally, 62% of airports use social media to provide real-time information and notification of delays or other service information to their passengers.

Baggage management and delivery is under pressure to change. Passengers want to know where and for how long they will have to wait to collect their bags after they arrive at an airport. Some 72% of passengers want more detailed information about their luggage, including the carousel and waiting time for bag collection.

A minority of airlines and airports provide this information, mainly in the Asia-Pacific, but SITA said that in a relatively small number of years, 86% of airlines would provide baggage tracking notification and 57% of them would offer baggage collection information to passengers. ■

Alarm bells triggered as India debates air rights sell off

By Tom Ballantyne

An Indian government policy change that would allow auctioning of air traffic rights, an initiative that would create a precedent in the global industry, has drawn flak from the International Air Transport Association (IATA).

Last month, IATA's director general, Tony Tyler, warned India's Civil Aviation Minister, Ashok Gajapathi Raju, and Aviation Secretary, R N Choubey, in a letter, that if the proposal was approved, it could be anti-competitive and put the industry in the hands of those with the deepest pockets.

"They (countries) don't do it for very good reasons. If you auction traffic rights the consequences will be very hard to predict, but one of them would be the concentration of the market in a few powerful hands," he said. "The only people who will be able to afford to buy traffic rights will be the ones already making lots of money."

The auctioning of air traffic rights is part of the Indian government's new draft aviation policy, which is in the final stages of review. But it was not the only aspect of the policy Tyler questioned in his correspondence with India's aviation policy makers.

He also raised concerns about a proposed 2% levy on air tickets, which is intended to fund regional air connectivity, and a plan to use a dual or multiple till for setting airport charges.

India is a very expensive place to operate, said Tyler, and the proposed 2% levy for funding regional connectivity will add about US$350 million to the running costs of local airlines. "In the end, the airlines will pay because of the competitive market. Fares are set in the market. The amount the passenger pays is set in the market. It will be a real drain, and a financial strain, on airlines in India."

IATA also objected to a proposed new system for setting airport charges, the dual till model.

Under the dual till model, the airport operator adds a part of non-aeronautical revenue from duty-free shops, hotels, restaurants, among other sources of income, and the total revenue from landing, parking and ground handling fees to determine total earnings. The aeronautical rates are then assessed on these total earnings.

A single till system assesses an airline's total revenues from non-aeronautical operations. Shops, real estate development and car parking are taken into consideration when determining user charges for passengers and airlines.

On the dual till approach for deciding airport charges, Tyler said the Airports Economic Regulatory Authority (AERA) and not the government should decide which till system should be used.

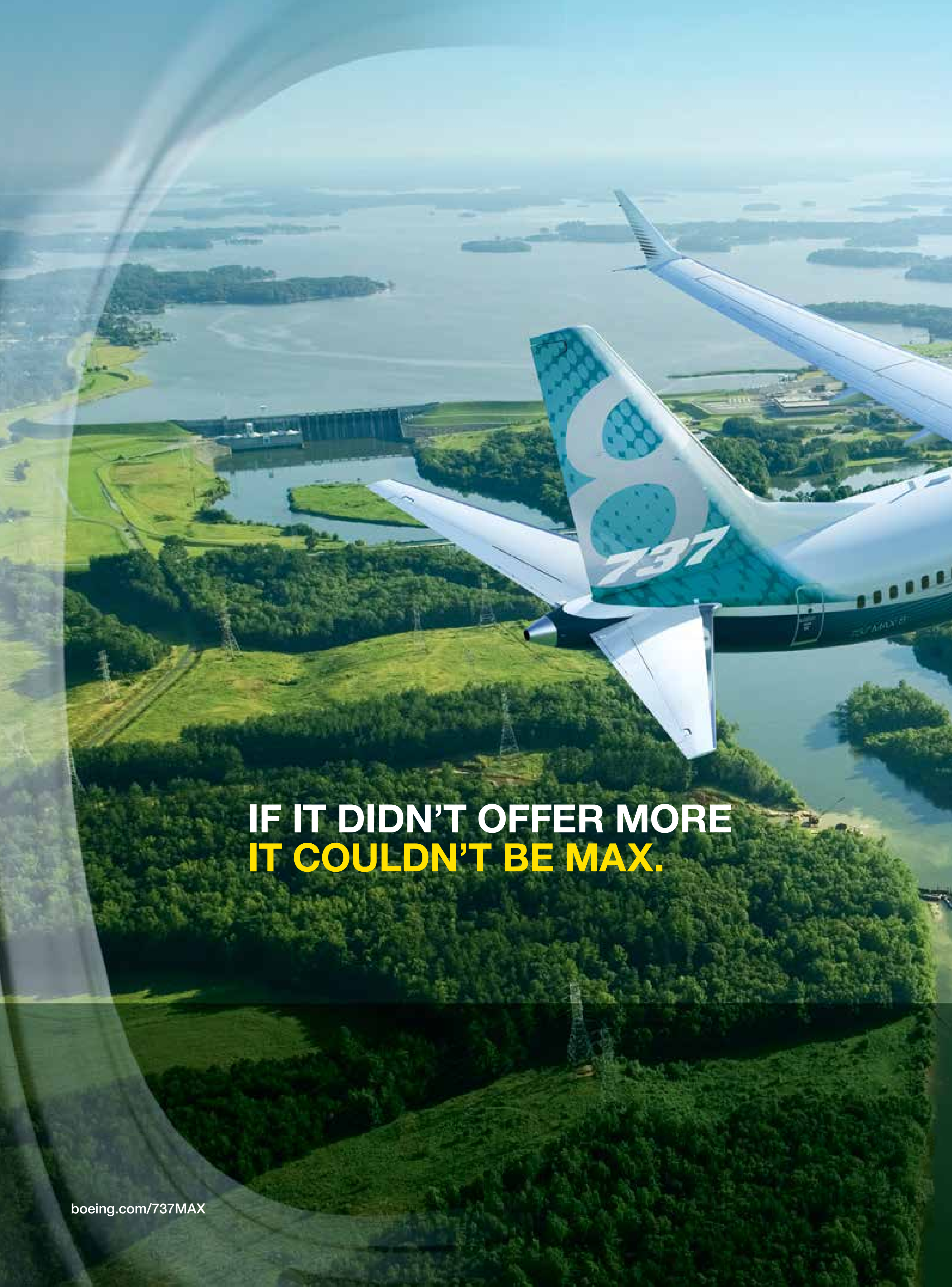
"The AERA and the Ministry of Finance itself support a single till approach, which is certainly the one IATA believes is the correct way to move forward in this area," said Tyler.

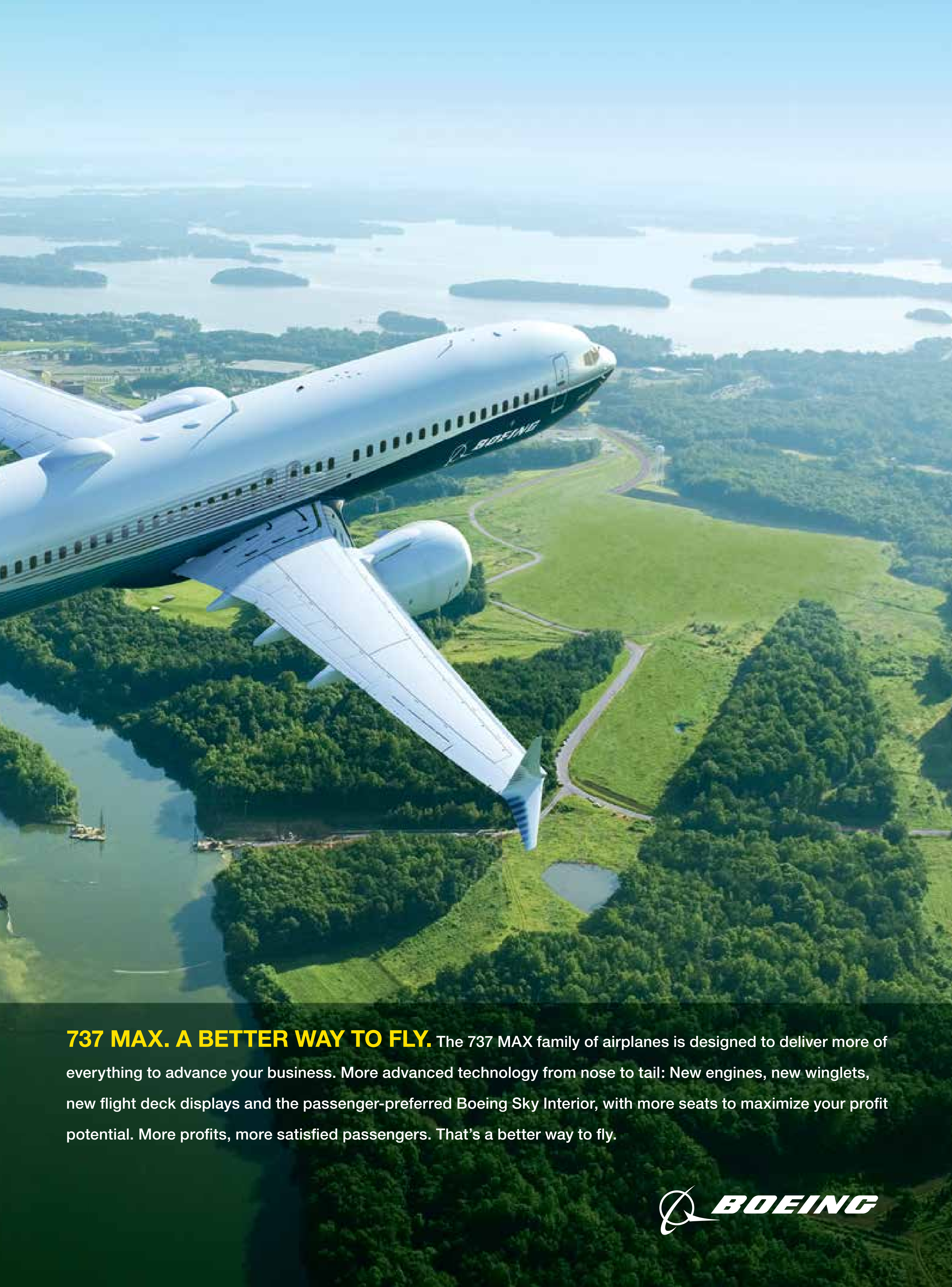
He said airport regulation is a very complicated issue and involved several factors including rate of return, the sort of till used and the amount of investment required. "There are a lot of different elements in there and it is wrong just to take one of them and regulate it," he said.

Despite IATA's criticisms about some elements of the proposed aviation policy, Tyler said he was excited about the prospects for Indian aviation and praised the government for a new aviation strategy that was headed in the right direction.

"We see the potential for 350 million passengers in the Indian market by 2034. We see enormous potential for airlines and for aviation in connecting the Indian economy within India and the world," he said.

"But to do that the government needs the right policy approaches, which are to embrace partnerships and deep consultation with the industry. We all want the same thing in the end. If the government can consult with the industry and talk to the experts, we can do this together." ■


737
IF IT DIDN’T OFFER MORE
IT COULDN’T BE MAX.
boeing.com/737MAX


737 MAX. A BETTER WAY TO FLY. The 737 MAX family of airplanes is designed to deliver more of everything to advance your business. More advanced technology from nose to tail: New engines, new winglets, new flight deck displays and the passenger-preferred Boeing Sky Interior, with more seats to maximize your profit potential. More profits, more satisfied passengers. That's a better way to fly.
BOEING

DELIVERING ON HIS DYNASTIC DESTINY

Cebu Pacific Air started life in 1996 with four mature aircraft that flew 24 times a day between Manila, Cebu and Davao. This year, as he celebrates the carrier's 20th anniversary, the airline's founding president and CEO, Lance Gokongwei, is in charge of the biggest airline in the Philippines.

By Tom Ballantyne in Manila
Photos: Ryan Peters

Twenty years ago, Philippines tycoon, John Gokongwei, bought four DC9 passenger jets and told his only son Lance, then aged 28, "to go start an airline". Two decades on, Lance Gokongwei has done exactly that – and then some. Cebu Pacific Air is one of the region's most successful low-cost carriers and is now the largest airline in the Philippines. In March, the publicly listed company celebrated its 20th anniversary.

"We have continued on our growth path," Gokongwei told Orient Aviation in an exclusive interview at the carrier's headquarters overlooking Manila's Ninoy Aquino International Airport (NAIA). "We are one of the 20 largest LCCs in the world. We carried more than 18.4 million guests last year. We have a fleet of 57 aircraft with an average age of below five years."

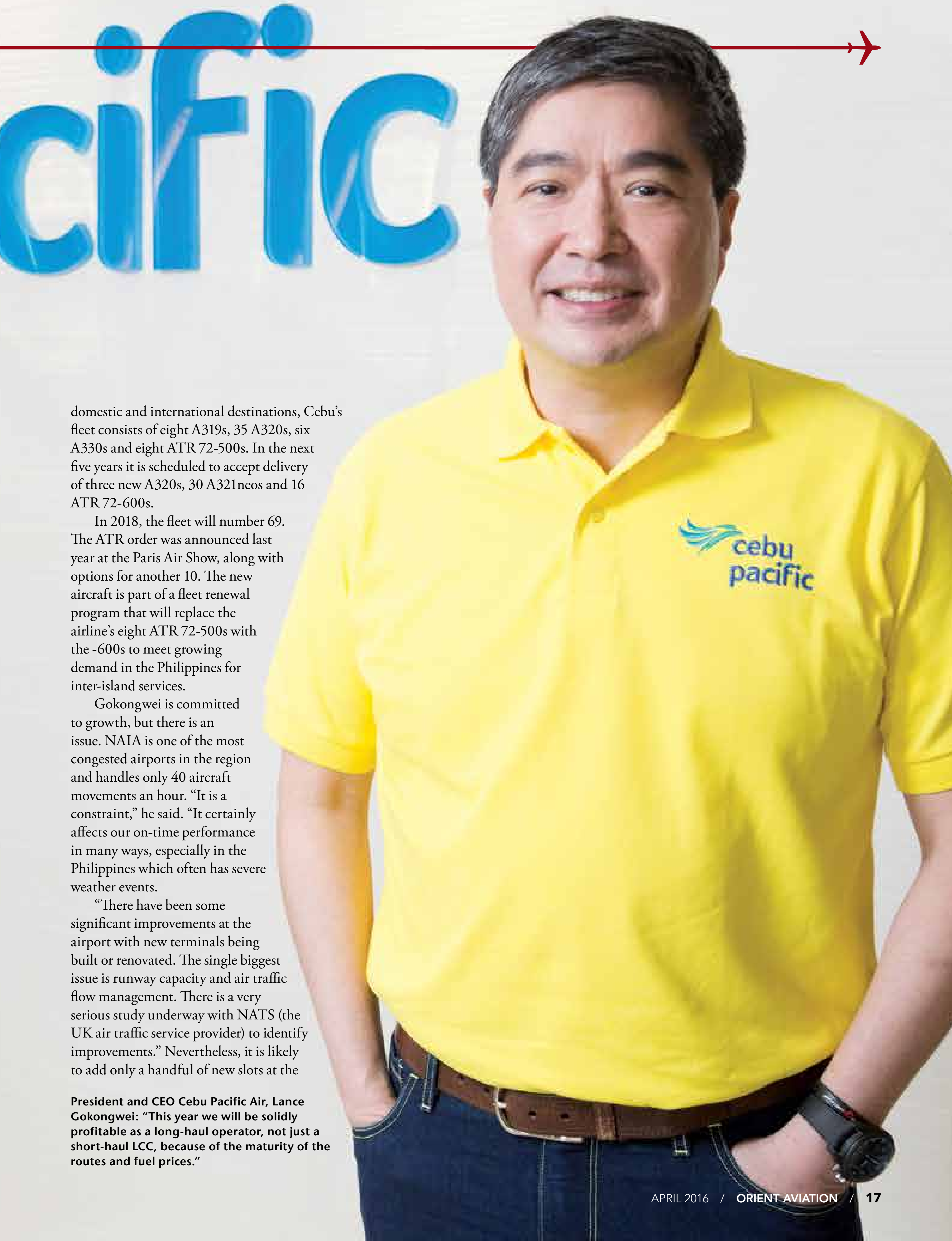
The highlight of 2015, he said, was the successful expansion of Cebu's long-haul network with the addition of routes to the Middle East and Sydney. "We are now the largest carrier on the Manila-Sydney route, with about 40% of the market share. Overall, last year was quite a successful one financially, barring some hedging and foreign exchange losses that we experienced."

In a fiercely competitive market, Cebu has reported a net profit of $76.5 million for the first nine months of 2015, up 71% from a year earlier. Revenue increased by 10%, to $909.4 million, with the carrier's full year results to be announced at press time.

Cebu's net margins of more than 8% are well above the industry average and its load factor has hit 86%. Growth in passenger numbers, which increased 9% in 2015, was driven largely by the carrier's low-cost long-haul services, launched in 2013, and increased frequencies in key domestic markets. Cebu has 59.5% of the Philippines domestic air market.

Passengers flown on long-haul routes grew by 146% year-on-year, on the back of its increased presence in Australia and the Middle East. Its Manila-Gulf network is to Riyadh, Kuwait, Dubai and Doha, of which the latter was launched in June. The carrier also reported notable passenger growth in international destinations including Hong Kong, Tokyo (Narita) and Nagoya in Japan and Beijing and Shanghai in China.

Now operating a network of more than 90 routes to 64



domestic and international destinations, Cebu's fleet consists of eight A319s, 35 A320s, six A330s and eight ATR 72-500s. In the next five years it is scheduled to accept delivery of three new A320s, 30 A321neos and 16 ATR 72-600s.

In 2018, the fleet will number 69. The ATR order was announced last year at the Paris Air Show, along with options for another 10. The new aircraft is part of a fleet renewal program that will replace the airline's eight ATR 72-500s with the -600s to meet growing demand in the Philippines for inter-island services.

Gokongwei is committed to growth, but there is an issue. NAIA is one of the most congested airports in the region and handles only 40 aircraft movements an hour. "It is a constraint," he said. "It certainly affects our on-time performance in many ways, especially in the Philippines which often has severe weather events.

"There have been some significant improvements at the airport with new terminals being built or renovated. The single biggest issue is runway capacity and air traffic flow management. There is a very serious study underway with NATS (the UK air traffic service provider) to identify improvements." Nevertheless, it is likely to add only a handful of new slots at the

President and CEO Cebu Pacific Air, Lance Gokongwei: "This year we will be solidly profitable as a long-haul operator, not just a short-haul LCC, because of the maturity of the routes and fuel prices."

airport, observers said.

There is one benefit from the congestion at Manila. Gokongwei's rival LCCs in the region may have huge numbers of aircraft on order "but they can't fly them to Manila", he said. "Given the opportunity we would like to grow a lot faster, but we face this constraint so we have to develop elsewhere.

"One way is to up-gauge all our capacity to the A321neos from 2017. The A320 seats 180 while the neo seats 220 in a single class configuration. We also are beginning to use our A330s on shorter haul routes to add incremental capacity into the slot constrained airport.

"The second strategy is not to be totally dependent on Manila. You have to build hubs outside of Manila and I think that will mean Cebu, Davao, Clark and elsewhere eventually. It will have to happen. As we receive more aircraft we will be able to put more resources behind those new hubs."

The airline operates a substantial hub in Cebu and it has begun developing its other hubs. Last year it launched Kalibo-Hong Kong, Cebu-Narita, Cebu-Taipei and Davao-Singapore.

But congestion or not, the market is fiercely competitive. When Orient Aviation was in Manila, AirAsia announced it would put three million one peso (US$0.02) tickets on sale. It did not phase Gokongwei. "We started the one peso fare here so in fact today if you look at the newspapers we have a one peso fare ongoing," he said.

"In the passengers' minds it's an expectation. The passengers' first choice for travel is Cebu Pacific Air. If they are looking for a good deal they check our site first."

He pointed out average yields in 2015 were eroded relative to previous years, but he said that is primarily because fuel surcharges have been removed. "On average, the industry has been fairly disciplined here. I don't think we have – I hope not anyway – the beginnings of a disastrous price war," he said.

"There will be capacity constraint and with the economy continuing to grow, there is a supply balance. It's very hard to add a huge amount of capacity when ultimately it will be disruptive to the yields.

"I've always believed that as an industry either you all make money together or you all lose money together. It's very rare to see a situation where one airline is making lots of money and the other airline is making no money because the one that makes no money will go bankrupt and will be replaced by somebody who knows how to compete. So for me the growth of industry capacity is still the single most important factor [at Cebu Pacific Air]."

Gokongwei is comfortable with the financial situation. "Our assets are long term assets and they have been financed in mainly US$. The peso has weakened in the last year by 7%-8%, but fortunately the currency has not suffered as much as our neighbouring countries like Malaysia and Indonesia where they have had a 15%-20% devaluation against the US dollar.

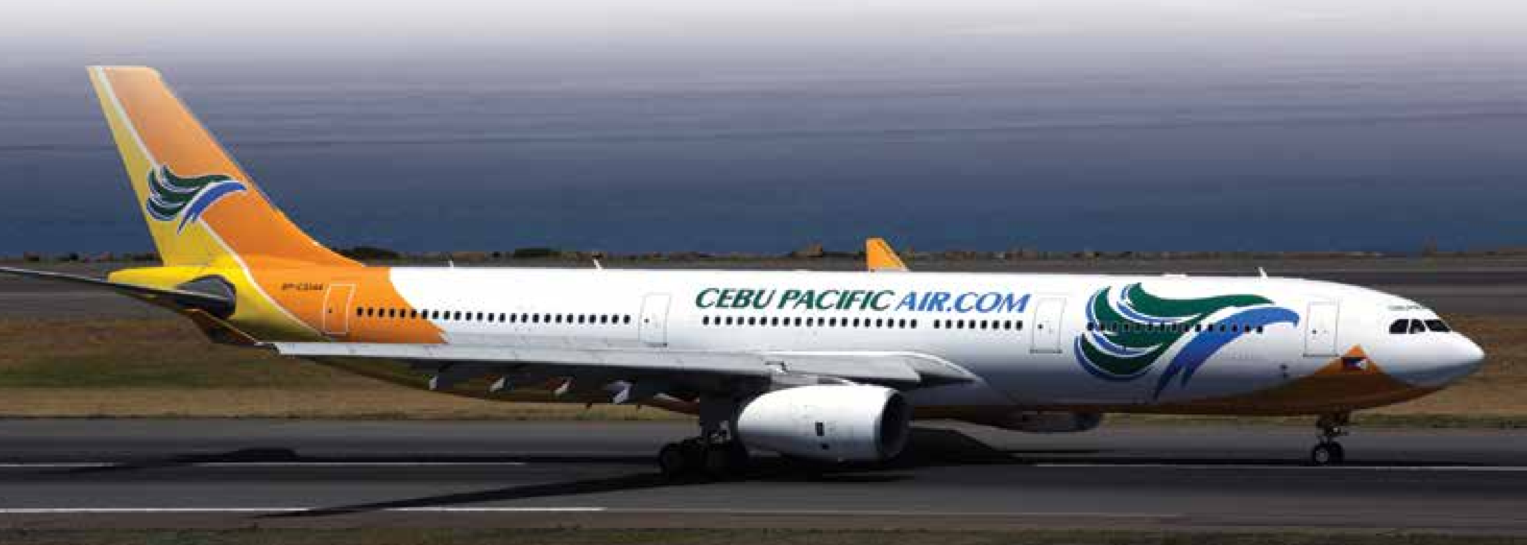
"Historically, we have hedged about 30% of our fuel. Last year I guess was very reminiscent of 2008-2009 when oil went from $110 to $40 per barrel in the year. We would have locked in maybe 25%-30% of our fuel last year at the higher prices and we had to bear those hedging losses.

"But we continue in that vein. We have hedged about 25% of our fuel this year at low $70s jet price, so not that bad, and about 30% at low $60s for next year. We really don't know where the fuel price is going.

"Most analysts predict the price should normalize around the $50s so jet would be about $60. If that is indeed true – and you take these forecasters with a grain of salt because nobody ever forecast a drop of $100 to $40 – then we will be in good shape.

"We are risk managing by getting some certainty for the future regarding the level we will be paying. Our airline is built to be profitable, even at $100 for fuel and we have benefited, so anything below that is really a blessing."

In the next 12 to 24 months Cebu Pacific Air will consider more fleet replacement. It has no wide bodies on order and its six A330s are leased. "over the next 12 months,



we will probably have a process to renew our long-haul fleet and this time we will probably purchase the aircraft," he said.

"The reason we did not buy the aircraft the first time around was that we expected there would be a change in technology and did not want to invest in the asset. We thought leasing was the best proposition at that time," he said.

"The current long-haul network requires four to four-and-a-half of the six A330s, with the remainder being used on shorter haul routes. The long-haul destinations on the radar are Melbourne and Honolulu, which can be handled by the six A330s. Additional aircraft can be leased if necessary."

When the time comes, Gokongwei said Cebu will have "a complete process to anticpate the structure of the network five or ten years from now" before making a decision. The airline will evaluate the A330neo and the B787 Dreamliner.

Ultimately, Cebu wants to fly to the U.S. Mainland to cities including Los Angeles or San Francisco, but it won't do it one-stop through Hawaii.

"My experience of one-stop is that it is probably not the best thing to do, especially with Philippine Airlines there. They have pretty modern aircraft, the B777, and they have ordered A350s," he said.

"You really have to think it through. What kind of competitive advantage do you have? You may just end up splitting the route and that doesn't help anyone. Scale is important in driving cost and efficiencies, but market share in itself doesn't do anything.

"It's not market share in itself, but how profitable [a route] is. That is my fundamental belief. You need a certain market share to drive economies of scale and we don't enter a market just because the other guy is there."

As for competition between Cebu and Philippine Airlines (PAL) Gokongwei said: "we have a healthy respect for each other, but we compete like hell in the market place. They still dominate the corporate end of the market, but in several ways they have had to adjust their product, especially in the domestic market, to copy us. In many of the shorter haul markets they have had to duplicate our product."

There has been one unusual outcome from their competition. "I noticed this trend over the past 10 years," Gokongwei explained. "If you look at the total traffic 10 years ago, there were about 11 million international passengers and the Philippine carriers share was only four million, or about 40%.

"In the most recent year, because PAL and Cebu Pacific Air are aggressively re-fleeting and competing hard, Philippine carriers have more than half of the international traffic. It's very rare to find countries like that. It's really private sector ownership and competitive tension that has enabled this to happen."

One market, however, has not taken off for Cebu. "The Philippines is not experiencing a boom in Chinese visitors. Cebu's Chinese traffic accounts for only 2% of its passengers, he said. "Chinese tourists are the main drivers of growth in most other markets, particularly Thailand, whereas in the Philippines it's still Koreans and Japanese."

"The reason is the delicate political situation between the two nations over the Spratly islands in the South China Sea. While there is no "official" bar on Chinese travelling to the Philippines, there is a perception that the Mainland government does not encourage its tourists to visit the country."

There is, however, huge potential in Southeast Asia. In February, the Philippines finally ratified the ASEAN (Association of Southeast Asian Nations) open skies treaty. "It is a big win for the aviation industry," said Gokongwei. "It's a big win for the customer. Now there are basically no constraints on capital city to capital city flights.

"Instead of spending management time negotiating air rights, we can spend all our time developing new routes. That is going to be great for tourism throughout ASEAN. The first opportunity is to increase capacity on certain routes which can take more capacity, such as Bangkok and Bali, assuming

Man of many talents

Unlike many airline chief executives, when Lance Gokongwei's budget carrier, Cebu Pacific Air, launched its first route to a U.S. destination, Manila to Guam, in March, he was not aboard the inaugural flight. "I was too busy and just had a lot of other stuff to do", he explained to Orient Aviation.

It's hardly surprising. The 48-year-old Gokongwei is the chief executive of seven thriving businesses owned by JG Summit Holdings, the multi-billion dollar conglomerate founded by his father, Chinese Philippine taipan, John Gokongwei. They range from the airline to food and beverages, real estate, hotels, banking and petrochemicals as well as core investments in telecommunications and power distribution. Combined, the businesses turn over some US$4 billion annually. How does he do it? "You find very good people to work for you," he said.

Gokongwei, who is the only son in a family of six, graduated double sum laude in Economics, Applied Sciences from the University of Pennsylvania's School of Engineering and the Wharton School of Business in Finance. He completed his studies at the Ivy League institution in three and half years and was working as his father's executive assistant at 21.

In 1990 he was appointed senior vice president of the family owned conglomerate, JG Summit Holdings and in 1996, in his late twenties, with the four DC9 aircraft the group had bought, was told to start an airline. The low-cost carrier, Cebu Pacific Air, was born.

He is chairman of the board of Robinsons Savings Bank and holds several directorships and active C-suite roles at JG Summit subsidiaries. Juggling the complexities of all these businesses doesn't seem to affect his ability to run Cebu Pacific Air, now a profitable short to long-haul budget carrier.

Gokongwei Jnr. is a reader and a runner. He came to the sport in his late 30s and has competed in the Hong Kong and New York marathons, among other races, since he took to the track in 2008.

you can get slots. And given the situation in Manila, to talk about more direct flights to these places from other Philippine hubs."

If there is one aspect of Cebu's long-haul flying that has raised industry eyebrows it is that unlike other budget long-haul operators such as AirAsia X and Jetstar, it has not introduced a "premium" cabin on its aircraft to attract corporate customers.

Typically, an A330 with a two class configuration carries around 300 passengers. Cebu's A330s are single class with 436 economy seats, an extremely high density in anyone's language.

Gokongwei stressed the airline has been flying long-haul for two years. "Last year our losses significantly diminished [on long-haul] because we have been on these routes longer and the brand is better known to distributors. We are up to speed and oil prices in the back half really helped," he said.

"This year we will be solidly profitable as a long-haul operator and that is because of the maturity of the routes and fuel prices." But he said people needed to look at the offering and where Cebu is flying. "This is all worker traffic to the Middle East. Sydney might have room for some premium seats, but I am not going to have one aircraft just for Australia and all the other aircraft for the Middle East. So we stick with the model," he said.

"A lot of this business is saying no to these little changes which add a lot of complexity to the business. The conditions might be different if you were doing a San Francisco or a Los Angeles route because the plane may be too heavy and you'd probably put in some lie-flat beds. You would have the scale to have some of your aircraft in a two-class configuration. But there is no immediate need."

Given Cebu's market strength has Gokongwei given thought to doing a Virgin Blue, the Australian budget carrier

> Looking back, I am very proud of the way we pull together, always with our mission in mind, which is to make flying affordable for all Filipinos. So far, we have stayed true to that mission. We have changed people's perceptions and lives in a way
>
> **Lance Gokongwei**
> President and CEO Cebu Pacific Air

that has transformed into full service Virgin Australia. "The plan is working, why change it? In other words, if it's not broke, why fix it? Per capita income here is $3,000 a year, not $30,000. I am perfectly suited for 99% of the market. They are happy to take Cebu Pacific Air."

There has, however, been transformation. In 2015, the airline introduced a new livery and last month, new cabin crew uniforms. "It just signifies the change in the Philippines in the last 20 years. The country has become much more cosmopolitan and vibrant and much more international because of our IT economy boom. Our brand had to change with the times and portray a more confident Philippines brand," he said.

There may be many challenges ahead, but Gokongwei said one of them, as Cebu expands, is to stay disciplined and committed to the model while maintaining the airline's corporate culture.

"As you get larger and larger it gets harder and harder to do things and keep that underdog fighting spirit going. Looking back, I am very proud of the team. I'm very proud of the way we pull together, always with our mission in mind, which is to make flying affordable for all Filipinos. So far, we have stayed true to that mission. We have changed people's perceptions and lives in a way." ■

Cebu Pacific Air and Tigerair Singapore enhance connectivity

In September last year, the Competition Commission of Singapore (CCS) approved a strategic alliance between Cebu Pacific Air and Tigerair Singapore. The latter LCC is now close to full ownership by Singapore Airlines and is being prepared to be taken private by its parent airline.

The two budget carriers, which have complementary networks, had an interline agreement that the alliance has deepened. Cebu Pacific Air passengers from the Philippines have seamless connections on Tigerair to Southeast Asia and India and Tigerair customers can choose from the Philippine carrier's domestic and North Asia networks.

Embraer's new jet will build markets in the region

Embraer believes its new series of jets will appeal to Asia-Pacific budget carriers as they expand their networks beyond large city pairs.

Tom Ballantyne reports from San Jose dos Campos in Brazil

It's the regional jet that's not a regional jet, Embraer said when it rolled out its E190-E2 jet at the company's headquarters in Brazil on February 25. And the Brazilian manufacturer believes it could win big sales in the Asia-Pacific.

To date, Embraer's Irish-born chief commercial officer, John Slattery, told Orient Aviation, budget airlines have remained true to single aircraft type fleets of either Airbus or Boeing planes.

Slattery agreed it would be a hard sell to alter this traditional fleet acquisition model, but said a new trend would emerge in Asia's aviation market. Full service network carriers and budget airlines alike would begin to add smaller narrow body jets to their fleets. Embraer calls it "right-sizing".

There is a shift away from that thinking, said Slattery on the day the company rolled out its E190-E2 jet at its San Jose dos Campos headquarters, midway between Rio de Janeiro and Sao Paulo.

At a list price of US$58.2 million, the E190-E2 is the first of three new generation jets that offer big fuel and maintenance cost savings to customers. The 97-seat aircraft, with a two class configuration, and 106 in single class, has a range of 2,800 nautical miles. It will make its first flight later this year and enter into service in 2018.

The E190-E2 will be followed a year later by the $65.5 million E195-E2. It seats 120 in two-classes or 132 in a single class and will enter service in 2019. The third member of the new family, the E175-E2, costs $50.8 million. It will have 80 seats in two classes and 88 in a single class and will be available to airlines from 2020.

All three of the new jets will be powered by Pratt & Whitney's new geared turbofan (GTF) engine: the 175-E2 with the PW1700G (equipped with a 56 inch (1.4 m) fan blade and the two larger planes with the PW1900G, which has a 73 inch (1.9 m) fan blade.

On the face of it, the argument that budget carriers such as AirAsia, Jetstar, Lion Air, Tigerair and other Asia-Pacific LCCs would introduce a second, smaller aircraft type into their fleets seems unlikely.

Embraer thinks differently. "It's fair to say our penetration of the LCC market has not been as robust as we might have liked," admitted Slattery. "However, with the capabilities of the E2 platform, particularly the 190 and 195, I believe the economics of these aircraft will be very attractive to LCCs."

Why is that? "I am not advocating that LCCs operating A320s today move to 195s," said Slattery. "As these LCCs grow, I am seeing trends where they are looking at joining city pairs outside the larger cosmopolitan areas. In some cases, they are operating very successfully with B737s or A320s on these routes.

"But if you go to a secondary city and you want to join two smaller cosmopolitan areas, which the LCCs would want to do to grow, you can only serve those smaller city pairs profitably with smaller gauge equipment.

"This is why we think, over the next five, 10 to 15 years, there will be an enormous amount of growth at these LCCs to join city pairs that would not be city pairs if the traditional one aircraft type only strategy was applied. We want to be there to address that with our 190 and 195."

Embraer's argument is that Asia-Pacific LCCs will make their money from these secondary and tertiary cities. "For sure it's a hard sell, said Slattery. "But there are a lot of LCCs in Asia and the profitability of some of them is not as robust as they would like it to be. They have to right-size to profitability."

It is a message pressed home by Embraer president and chief executive, Paulo Cesar Silva. "The Asia-Pacific market will become more affluent, competitive and open, further stimulating airlines to seek system efficiencies, brand differentiation and improved

service levels," he said. "In this context, the 70 to 130-seat jet segment will play a key role in supporting the intra-regional development in Asia-Pacific. We are showing airlines the benefit of moving from 'red oceans' to 'blue oceans'. That is to move away from a crowded marketplace and seek opportunities in markets that are currently underserved or not served at all and where yields are moving from single to double digits."

Silva said there are "untapped opportunities" in Asia-Pacific, where more than 250 markets, or 30% of narrow-body exclusive markets, are served with less than one daily frequency. These markets would be better served with 70 to 130-seat jets, the manufacturer said, based on the average number of passengers per departure.

At the Singapore Air Show in February, Embraer forecast Asia-Pacific carriers would take delivery of 1,570 new jets, valued at US$75 billion, in the 70 to 130-seat range in the next 20 years, which represents 25% of the global demand for the market sector.

Silva said the rise of LCCs in the region was "a direct and natural response to the surge in demand for air travel", but "the large inflow of capacity has influenced ticket prices and created a new dynamic: a vicious cycle of lower yields forcing lower unit costs. These economics lead to larger aircraft that add capacity, which lowers load factors and promotes more fare discounting. Embraer said smaller, more versatile and economical aircraft will provide the circuit breakers for this profit eroding pattern.

The manufacturer also sees a market for its new jets in fleet replacement. There are more than 250 jets in the 50 to 150-seat category older than 10 years in the Asia-Pacific.

The E-Jet family, both the first generation aircraft launched in 2004 and the latest, next generation models have produced 1,700 orders and more than 1,200 deliveries. The aircraft are in service with 70 customers in 50 countries.

Budget carriers are not Embraer's only targets. Network carriers in the U.S. and Europe, including British Airways, Air France/KLM, Alitalia and Delta Air Lines, operate Embraer jets in their mainline fleets.

The company predicted the same pattern will emerge in Asia, a proposition gathering some credibility. Philippine Airlines (PAL) president, Jaime Bautista, said he would consider buying smaller planes because demand for regional connectivity is quickly gathering momentum.

He said PAL is in discussions with manufacturers of smaller jets, including Embraer. Garuda Indonesia also is in talks with smaller jet makers and would consider having sub-100 seater planes in its fleet to meet demand for domestic and regional connectivity. Japan Airlines will introduce the E190 into its fleet from next month.

Not surprisingly, Embraer thinks it has the jets to meet demand. Slattery said the E190-E2 and the E195-E2 are not "regional jets", but smaller narrow bodies. "The E2 is much more than a re-engined plane," said chief operating officer, Luis Carlos Affonso. "It has new engines, completely redesigned wings, new landing gear to accommodate bigger engines, full fly-by-wire, new empennages and stylish interiors."

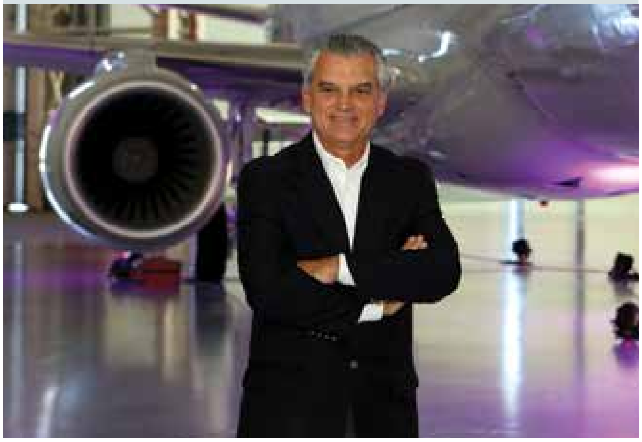
It also offers big operating savings. The E195-E2 has a 24% fuel burn improvement over the first generation E jet. The E190-E2 and the E175-E2 provide a 16% reduction. Maintenance costs on the 195 are 20% lower, 15% on the 190 and 25% on the 175.

Embraer targets Asia's LCCs

Embraer is present in 11 countries in the Asia-Pacific, where it has some 20 customers and more than 200 aircraft flying in the region. In the 70 to 130-seat segment, it holds 51% of orders globally and 62% of deliveries since 2004.

In Asia, it has an 80% share of all aircraft under 130 seats. Last December, it delivered two of its first generation E195 jets to HNA-group carrier, Tianjin Airlines, the launch customer for the model in China.

In 2014, Tianjin ordered 20 E195s and 20 E190-E2s when Chinese President, Xi Jinping, visited Brazil. Ten-month-old Mainland LCC, Colorful Guizhou Airlines, has ordered seven E190s with options for another 10. The first two jets were delivered in December and are in service. "China's regional aviation industry has taken off. It will be the most robust in the world in the next decade," said Embraer president and chief executive, Paulo Cesar Silva.



Crews can complete the transition course to the new generation jets in three days without any simulator time, said Affonso. "We are improving on a cost-per-seat and cost-per-trip basis. What is really remarkable is that the E195-E2 is about at the same level of cost-per-seat of a much bigger aeroplane like the A320neo.

"How can we do that? Because they are changing only the engine and we are investing much more, such as the wings etc. On a relative basis we have become closer to the narrow bodies because they are investing less in their new generation airplanes," Affonso said.

By moving up to the 130-seat level is Embraer afraid it may face competition from Boeing and Airbus, which both have jets available below that level?

"It is not our strategy to compete with Boeing and Airbus. Our strategy is to address the market that is below Boeing and Airbus and to maintain a market leading position," said Slattery. "Our space is clearly defined from 70 seats to 130 seats. So we have an anchor and a hook in that clearly defined space.

"I don't think Boeing and Airbus consider Embraer a threat and I rarely if ever come across Boeing or Airbus in a (sales) campaign."

Best of all, pointed out Silva, Embraer has not experienced the delays or modifications that larger manufacturers have had with their new jets and variants. The E2 schedule is precisely as it was announced at the Paris Air Show in 2013. ■

A330neo to debut "Airspace by Airbus"

By Dominic Lalk in London

Airbus unveiled its "Airspace by Airbus", "based on ambience, comfort, services and design" in the cabin before global aviation media in London last month.

Inspired by the A350's Xtra Wide Body (XWB) passenger satisfaction surveys, the "Airspace" brand will debut on the re-engined A330neo in 2017 and flow on to the A380 and the A320 Family.

Head of architecture and industrial design, Paul Edwards, told Orient Aviation that many "Airspace" design principles were mapped out on the A350, but that the A330neo's entry into service in 2017 provided the perfect lead-in to support "Airspace".

Major features of the cabin vision include LED panels offering "60 million different colours" on aircraft walls and ceilings, a 50%, or three decibels, noise energy reduction compared with the B787 and storage bins with 66% more space and doors with better locking, illumination and handles.

Airbus executive vice-president of strategy and marketing, Dr. Kiran Rao, said changing the galleys' size and shape would allow toilets to be moved to the back of A320 and add one inch in seat pitch and up to six extra seats per aircraft.

Airbus also is considering moving the galleys and lavatories on the A330, A350 and A380 below the passenger deck.

The manufacturer confirmed it would offer a 280-tonne maximum take-off weight (MTOW) variant from 2020, which will increase the -900's range by 500 nautical miles in a standard three-class configuration. Dr. Rao said Philippine Airlines' (PAL's) incoming A350-900s from 2018 would have their MTOW extended to 278 tonnes. ■

Bilateral barriers

The rapid growth of Chinese airlines on intercontinental routes is almost as impressive as the expansion of the the Gulf carriers. But do Mainland airlines, with their huge fleets, have the freedom they want to expand worldwide? *Chief correspondent, Tom Ballantyne,* examines the issues that curb the global ambitions of China's carriers.

At the latest count, China's four largest airlines - Air China, China Southern, China Eastern and Hainan - had a combined fleet of 1,440 passenger jets and another 457 aircraft on order. Not surprisingly, given the rapid growth in domestic and short-haul regional traffic, the majority of them are single-aisle A320s and B737s.

But the Mainland carriers also are operating more than 230 wide bodies, ranging from the A330 and the A380 to the B777, B787 and B747, and have more than one hundred large aircraft on order, including the A350.

As these long haul jets come on line Chinese carriers will look for destinations for the aircraft to service either by new routes or frequency enhancement.

But congested airports mean slot constraints and, with many of China's bilateral air service agreements already closing in on their limits, negotiations to extend and expand air rights agreements are complicated and lengthy.

From July 2013 to July 2015, flight capacity between China and North America increased by around 60%, according to consultants CAPA and figures from OAG. By 2034, the International Air Transport Association (IATA) estimated one in five passengers worldwide will be traveling to, from or within China, a prospect that is making Chinese and non-Chinese carriers alike excited. However, there are serious doubts that Chinese carriers will be able to take full advantage of expanding traveler demand.

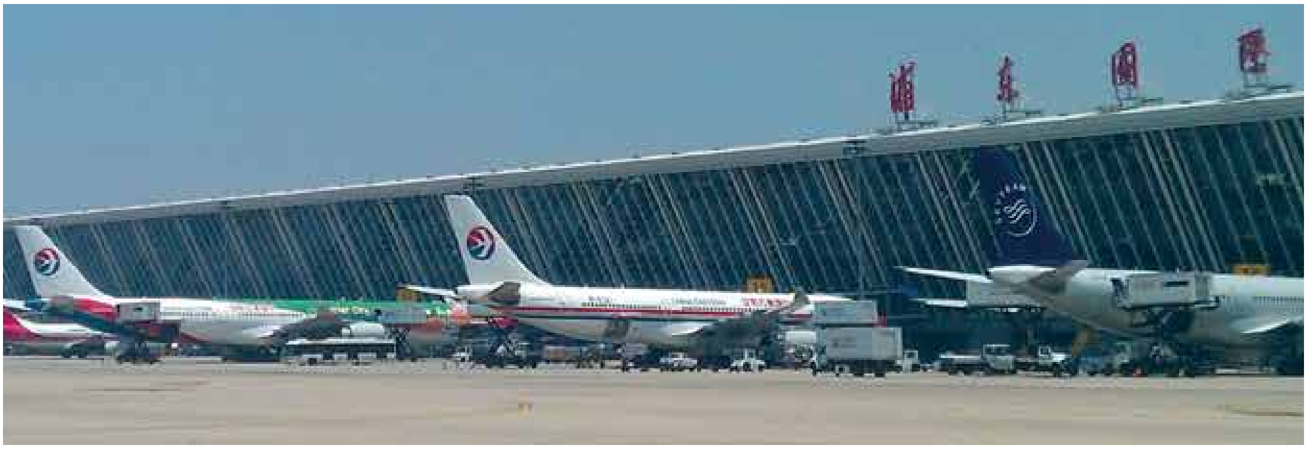
One market in particular, the U.S., is critical of Chinese airlines' offshore market penetration. So far, despite months of negotiations, there is no indication that China-U.S. open skies, or even an expansion of the existing bilateral, are on the horizon.

Under the existing agreement, dating back almost a decade, Chinese passenger airlines are limited to 180 round-trip flights per week between the two countries. U.S. passenger carriers are allotted 160 weekly round-trip flights between the U.S. and three of China's mega cities.

According to aviation data and analytics company OAG, in 2015 the top four Chinese airlines averaged 148 round-trip flights per week while their U.S. rivals hit 128 weekly round-trips.

With growth in passenger traffic between China and North America booming, and forecast to continue to expand every year, it is developing into a major challenge for airlines. Chinese airlines now operate more flights across the Pacific than their U.S. counterparts and want to grow. Their ambitions will be stymied if the politics involved in negotiations are not addressed.

Exploratory talks aimed at easing flight restrictions began in Washington in May last year. By August, they came to an abrupt halt after U.S. officials refused to pursue formal negotiations unless Beijing presented plans to reform what the U.S. called "an opaque allocation system". The U.S. negotiators claimed this system gave Mainland state-owned airlines better time slots than the U.S. carriers. China said the U.S. is "dragging its feet" and Washington said "the ball is in China's court".



How concerned are Chinese airlines about the situation? While most airlines will not comment publicly on the issue, one senior executive spoke out at an industry conference last September. Attending the International Aviation Forecast Summit at Squaw Valley in the U.S., Dr. Zhihang Chi, Air China's vice-president and general manager for North America, presented his company's growth strategy. He said it started slowly and took nearly 30 years for the carrier to gain a foothold and stabilize it in the U.S. through services to New York, Los Angeles and San Francisco.

But once the company "flipped the switch" things took off in a hurry. The carrier now serves seven North American cities and plans to add two in the coming year. But Dr. Chi said growth would not be as great as the airline wanted it to be.

Air China's was being "artificially stunted" by the limitations of the current bilateral treaty, he believed, and observed that his airline was "bumping up" against the limits of U.S. rights.

He lamented that the most recent round of negotiations at the governmental level between the U.S. and China had failed to raise the existing flight caps.

Interestingly, while he said it was hard to pin the lack of action on one factor, he suggested the dispute between the big three U.S. airlines and their Middle East counterparts could be contributing to a political climate that made expansion of international air rights into the U.S. hard for domestic politicians to support.

A thirty-year veteran of U.S. aviation, Dr. Chi said there were concerns the treaty would not be amended in the near future. Other Chinese airlines are understood to hold similar views. However, any agreement reached will be a long way from producing open skies between the world's two largest economies.

When it comes to air service agreements China faces the same issues as many other nations. Airlines may want to expand but governments needed to face the reality of infrastructure constraints to facilitate that expansion.

China's three major hubs at Beijing, Shanghai and Guangzhou are extremely congested. As well, a new air rights agreement requires concessions on both sides. In China, Beijing has opened more access to many of its secondary cities where populations match major cities in most other countries. There are an increasing number of flights being operated from these cities to international destinations but access to key markets remains restricted.

Nevertheless, both U.S. and Chinese airlines are increasingly taking advantage of access to secondary Chinese cities. Examples include China Eastern Airlines' 2015 launch of services between Nanjing and Los Angeles, China Southern Airlines' Wuhan to San Francisco flights and Sichuan Airlines' Shenyang – Vancouver route.

In 2010, there was an average of one long-haul flight a day to a Chinese secondary city. By the end of last year the number had reached 11.

While it is clear China largely is shying away from a bilateral that might involve full open skies, outside the U.S. it has opened markets for its airlines. In late 2014, it agreed a deal with Britain that allocated more passenger flights from China to the U.K.

"In China, Beijing has opened more access to many of its secondary cities where their populations would be major cities in most other countries. There are an increasing number of flights being operated from these cities to international destinations but access to key markets remains restricted"

The previous agreement, last updated in 2011, limited both countries' passenger airlines to a maximum of 31 return services per week in each direction to six destinations in each country.

The new agreement increased the weekly maximum to 40 direct flights in each direction. It also allowed more flexibility in allocating destinations served by flights. UK carriers now can serve up to three more Chinese cities than previously permitted.

Early last year, the Mainland signed a new deal with Australia, which also is a big target market for Chinese carriers. It will allow a tripling of services between the countries by the end of this year. There has been debate about the winners in this agreement.

Virgin Australia does not fly to China and Qantas' only Mainland destination is Shanghai. As a result, Chinese airlines operate more than 90% of the seat capacity between the two countries. But in the end, China's airlines are happy. So is the Australian government. A Chinese tourism boom is bringing billions of dollars annually into Australia's domestic economy.

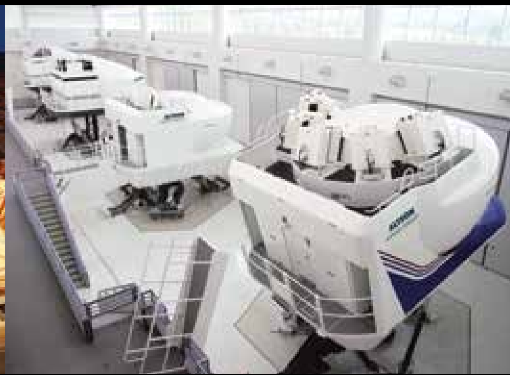
As recently as December, an expanded agreement was announced with Canada. It increased the numbers of cities Canadian and Chinese airlines can serve from 12 to 18 in the other partner's territory.

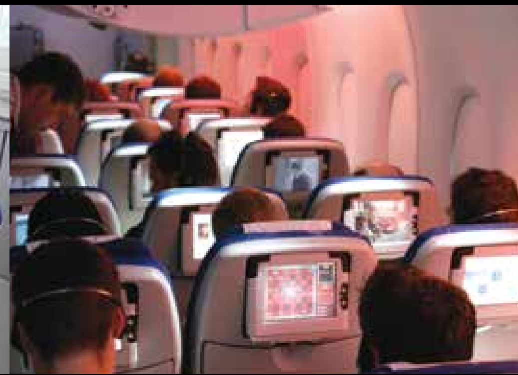
These arrangements allow for incremental growth rather than sudden leaps into totally liberalized skies and are expected to be the norm in coming years. For Chinese airlines, eager to place their increasing numbers of new long-haul jets onto new routes, they will undoubtedly put the brakes on some of their expansion.

With the amount of cash Beijing is investing in airport expansion, including its massive new facility at Beijing, it may take several years, but China ultimately will join the open skies club. ■

Orient aviation

No.1 Asia-Pacific commercial aviation magazine





ORIENT AVIATION SPECIAL REPORTS 2016

MAY

DEVELOPING A REGIONAL AIR TRAFFIC MANAGEMENT NETWORK

BONUS DISTRIBUTIONS:
Civil Air Navigation Services Organisation (CANSO) Asia Pacific Conference, *Queenstown, New Zealand*

JUNE

ASIA-PACIFIC AIRLINE DOMINANCE EXPANDS

BONUS DISTRIBUTIONS:
International Air Transport Association AGM and World Transport Summit, *Dublin, Ireland*; The 5th Shanghai International Aviation Services Trade Fair, *Shanghai, China*

JULY/AUGUST

INNOVATION IN GLOBAL AEROSPACE

BONUS DISTRIBUTIONS:
Farnborough Air Show, *Farnborough, England*

SEPTEMBER

MRO AFTERMARKET BATTLE IN THE ASIA-PACIFIC

BONUS DISTRIBUTIONS:
MRO Asia, *Singapore*

OCTOBER

AIRCRAFT LEASING IN CHINA

BONUS DISTRIBUTIONS:
Japan International Aerospace Exhibition, *Tokyo, Japan*; The 5th Shanghai International Aviation Services Trade Fair, *Shanghai, China*; Asia-Pacific Air Finance Conference, *Hong Kong*

NOVEMBER

AVIATION TRAINING IN THE ASIA-PACIFIC: AN UPDATE

BONUS DISTRIBUTIONS:
Air Show China, *Zhuhai, China*; Airline E & M Asia-Pacific, *Kuala Lumpur, Malaysia*; Association of Asia-Pacific Airlines Assembly of Presidents, *Bangkok, Thailand*

DECEMBER/JANUARY

YEAR IN REVIEW: AVIATION WINNERS & LOSERS IN 2016

BONUS DISTRIBUTIONS:
Orient Aviation Person of the Year Awards Dinner, *Hong Kong, SAR*

Orient aviation 22 YEARS

ADVERTISING ENQUIRIES TO ORIENT AVIATION MEDIA GROUP SALES DIRECTORS:

The Americas / Canada
RAY BARNES
E-mail: barnesrv@gmail.com

Europe & the Middle East
STEPHANE DE RÉMUSAT
E-mail: sremusat@rem-intl.com