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TOP OF THE WORLD'S AIRPORT CLASS

A self-described "adrenline junkie", Dubai Airports CEO, Paul Griffiths, was first out of the blocks in the global dash to post-COVID recovery

Orient aviation 30 YEARS

Demand stampede ahead at Asia-Pacific airports as V-shaped passenger revival takes hold

Government funded sustainable aviation fuel production essential to reach industry's target of net-zero emissions by 2050

China's airlines gradually boost international networks to counter impact of Mainland's zero-COVID strictures

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More SAF and more government investment in SAF

The commitment at the International Civil Aviation Organizations 41st Assembly in Montreal to work towards net-zero emissions for aviation by 2050 is a milestone on the long road to turning the industry green. Transforming an "aspirational" goal into a physical reality will not be easy. Net-zero emissions from aviation by 2050 won overwhelming support from the 167 member States at the assembly - ICAO has 193 member States – but not everyone was happy with it.

China has remained steadfast in its goal of net-zero emissions by 2060. India is sticking to 2070. Many emerging nations are worried the development of their aviation industries will be constrained if they have to meet the heavy cost of achieving sustainability.

Most concerning of all is that reaching net-zero by 2050 very much relies on building the global infrastructure necessary to produce sufficient sustainable aviation fuel (SAF). The International Air Transport Association (IATA) estimates around 65% of the mitigation needed for net-zero emissions by 2050 will come from SAF.

Most airlines, including carriers in the Asia-Pacific, have been flying with SAF on a miniscule scale, mainly as test flights or blended with conventional aviation kerosene. Until SAF production reaches scale, flying with SAF will be far more expensive than operating with convention fuel, a disincentive to operating flights, let alone networks, with SAF.

Investment in SAF production must increase exponentially. For this to happen, the civil aviation regulators at the ICAO Assembly who voted for net-zero by 2050 must convince their governments to get serious about SAF production.

Some airlines have signed agreements with manufacturers for SAF supply and also have invested in the sector. But they alone cannot reach the output levels of SAF required to fly global airline networks.

Just as importantly, developed nations must extend a helping hand to emerging economies in any way they can to support the path to net-zero 2050.

Following the conclusion of the Assembly, IATA director general, Willie Walsh, said: "Governments must work with industry to implement an effective global policy framework capable of attracting the financial resources necessary to put aviation on an unstoppable track to net-zero by 2050. There is lots of work to do and not a minute to lose."

Walsh is on the money. It is up to everyone across the aviation spectrum to play their part in reaching aviation's net-zero goal.

And if EVERYONE does play their part, there is a chance the net-zero "aspirational" goal will be reached well before 2050. ■

TOM BALLANTYNE
Associate editor and chief correspondent
Orient Aviation Media Group

China remains stubborn outlier as neighbouring nations re-open international borders

At press time, China's international flights were 6% of their pre-pandemic capacity, although there were signs Mainland airlines might soon be cut a break by Beijing.

Various digital media is reporting China's biggest airlines will add to their international route networks in coming weeks, a decision they would not take unless they expected a thaw in the nation's policy of sudden and extended lockdowns, mass testing and compulsory quarantine for visitor entry to the country.

From the end of this month, China's "Big Three" state-owned carriers, Air China, China Eastern Airlines (CEA) and China Southern Airlines (CSA), are rebuilding their networks with scores of international flights.

CEA is adding 108 international flights a week to 42 destinations including Dubai, Seoul and Tokyo, up from 54 services and 25 routes in September.

China's largest airline, CSA, is soon to resume operations to multiple regional destinations, including Bangkok, Dubai, Jakarta, Manila and Tokyo. Flag carrier, Air China, is now serving these same cities as well as Athens, Los Angeles and Vancouver from several domestic airports.

In June, when the rest of the world was near to abandoning inbound quarantine for travellers, China did ease entry restrictions for inbound travellers. Compulsory hotel quarantine was reduced to seven days and the Civil Aviation Administration of China recommended international flights in and out of China should be resumed "in a safe and orderly manner".

But then the process of border relaxation and eased quarantine stalled. Several Mainland cities were locked down mid-year after outbreaks of COVID-19 variants. As a result, Mainland domestic capacity went into free fall and passenger load factor flamed out.

In its latest passenger and traffic report, issued on October 6, the International Air Transport Association (IATA) said: "Asia-Pacific airlines recorded a 449.2% rise in August traffic compared with August 2021. Capacity increased 167% and load factor was up 40.1 percentage points, to 78%.

"While the Asia-Pacific experienced the strongest year-on-year growth among the regions, remaining travel restrictions in China continue to hamper the overall recovery of the region.

"The Mainland of China was the last major market retaining severe COVID-19 entry restrictions," IATA director general, Willie Walsh said.

And it still is. ■

Sovereign wealth fund acquires Etihad Aviation Group; former TAP CEO moves to Gulf carrier

After a very expensive and failed attempt at establishing Abu Dhabi as a major Middle East airline hub, followed by a resuscitation of the Etihad Aviation Group in the last four years, the carrier is embarking on the next stage of its development.

In early October, the aviation company announced its full ownership had been transferred to sovereign wealth fund, ADQ. It also named former TAP boss, Antonoaldo Neves, as successor to Tony Douglas at Etihad. As Etihad Aviation Group CEO, Douglas has been leading the recovery of the group since January 2018.

Douglas has decided to pursue "an opportunity elsewhere", he said, but will serve as an advisor to the board of ADQ Aviation and Aerospace Services Company during his transition period.

Etihad Aviation Group chairman, His Excellency Mohammed Ali Al Shorafa, said: "Tony has led Etihad through some of its most challenging times and has successfully turned the airline into a profitable and sustainable business as part of its initial transformation program.

"As we enter our next stage of sustainable growth, we are confident Antonoaldo will build on Tony's legacy."

Etihad entered 2022 with a record breaking interim operating profit of US$296 million," a result of a restructuring accelerated by the pandemic and increased air passenger demand", the airline group said.

Neves ran TAP Portugal and also was a board member at the carrier. A former McKinsey and Company consultant, when president of Brazil's Azul Airlines he successfully led the airline's IPO in the NYSE. ■

New frontiers at India's top airlines

In recent months, the helms of India's two most important airlines took on a very different public and leadership face. At IndiGo, former KLM CEO, Pieter Elbers, (52) succeeded Ronojoy Dutta as CEO, a responsibility that requires maintaining the LCC's position as India's largest and most profitable airline and developing a trustful relationship with its board and importantly, it's most influential shareholder, Rakesh Gangwal.

The parent company, Interglobal Aviation, was so anxious for Elbers to be the heir apparent it paid Dutta to bring forward his departure from IndiGo.

Elbers, famously from the engineering shop floor of the Dutch flag carrier, possessed a dream CV as far as Interglobe was concerned. He gets on well with his people and most importantly, he had turned the fat cat flag carrier to profit within four years of his appointment. He also was available after he did not sign a new contract with KLM in at the break of 2022.

At Air India, former SIA executive star, Campbell Wilson, is deep into his plan to return Air India to its former glory. He looks forward to "new frontiers" for the international airline while simultaneously working through the plans of his employer, Tata Group, to absorb AirAsia India and joint venture Tata-SIA carrier, Vistara, and transform the airline into a more unified company.

He has the "ambition", he told India media, to triple the carrier's fleet in five years but cautions "it will take a while" so the most exciting thing is Air India's "potential", the very marketing savvy Campbell said earlier this month.

New Zealander Campbell (51) had returned to Scoot from SIA's top management ranks, after the airline hit rock bottom in the first brutal months of the pandemic, when Delhi called.

It is easy to understand why. Air India is the country's very diminished and shabby flag carrier and Campbell has deep industry experience necessary to transform it.

At SIA he had worked with success across the region. He had set up LCC Scoot, so he gets where AirAsia India – and IndiGo - want to be. He has worked in top management at one of the most outstanding airlines in the world so he understands the mental knitting of the owners of joint venture Vistara, Tata's and SIA Group.

These heavy hitters create successes. India could be their best ever. ■

Willis Lease Finance rebrands after significant growth

Florida-headquartered Willis Lease Finance has united its multiple businesses under new branding, WLFC, to demonstrate its offerings that now extend to 120 countries and have a portfolio value US$2 billion.

WLFC CEO, Austin C. Willis, whose father Charles F. Willis is WLFC founder and executive chairman, said: "given the growth and breadth of our offerings, we feel it is time to make sure our industry, customers and partners know WLFC does much more than leasing.

"This new brand is a message to our valued partners and customers that they can turn to WLFC for industry expertise, MRO, advisory services and more."

WLFC was founded 45 years ago by Willis senior, a pioneer

in establishing engine aircraft leasing and engine sales as vital and profitable sectors of the aviation industry.

In 2022, the service offerings of WLFC range through aircraft and engine trading and leasing, engine service centres, including Part 145 engine MRO, aircraft line and base maintenance, aircraft disassembly, parking and storage, airport FBO and ground handling. ■

SIA Group leads tributes to airline's late founding managing director Lim Chin Beng

The first Singapore Airlines managing director, Lim Chin Beng, who passed away aged 90 on October 21. He has been hailed by industry leaders for his leadership in the first 10 years of SIA, his outstanding contributions to the carrier's development as deputy chairman of its board and later in his career, as an advisor to the

Changi Airport Group as it built to its present status as a global airport.

"Mr Lim's visionary leadership and eye for detail shaped much of what is synonymous with the SIA brand today," SIA Group said in a statement. "He will also be remembered for his mentorship of several generations of SIA employees, many of whom now hold senior leadership positions in the company."

A Changi Airport Group statement said: "During the earlier years of our internationalism, Mr Lim provided leadership on the board and gave guidance to the management in navigating international markets." ■

ON THE MARCH TO NET-ZERO 2050

Agreement at the 41st Assembly of the International Civil Aviation Organization (ICAO) earlier this month to strive for net-zero emissions by 2050 was universally welcomed by the industry. But arriving at the target will be a long journey, reports Associate editor and chief correspondent, Tom Ballantyne.

Adoption of a collective long-term global aspirational goal (LTAG) of net-zero carbon emissions from aviation by 2050 took 2,500 delegates from 184 member States and 57 organizations two weeks of intensive diplomacy to formulate. But the commitment, announced in the closing hours of the 41st International Civil Aviation Organisation Assembly, held in Montreal earlier this month, was exactly what the industry wanted.

Airlines already had committed to their own net-zero emissions by 2050 target at the International Air Transport Association (IATA) Annual General Meeting in October last year. However, the significance of the LTAG agreement cannot be under-estimated, IATA director general, Willie Walsh, said. It was "a milestone day", declared executive director of the Air Transport Action Group (ATAG), Haldane Dodd.

Airports also joined the cavalcade praising the LTAG. "As a voice of 127 airport members operating 118 airports, ACI Asia-Pacific welcomes the support of governments in adopting the 2050 net-zero carbon goal for air transport," regional director general, Stefano Baronci, said.

Member countries voted overwhelmingly in favour of the LTAG, but it was by no means a unanimous decision. It was a "compromise" said some European countries wanting a more ambitious target while China, backed by Russia and Eritrea, questioned the feasibility of the goal without more evidence and said developed countries must provide financial support to nations still growing their aviation markets.

As well, there are no guarantees all member states will adhere to the agreement. China has always said its target is net-zero emissions by 2060, as has Saudi Arabia. India's timeline has been to 2070. ATAG's Dodd said: "It does not mean China opposes sustainable aviation growth. But it wants to do it at its own pace and in its own way." "States' adoption of this new long-term goal for decarbonised air transport, following similar commitments from industry groups, will contribute importantly to the green innovation and implementation momentum which must be accelerated over the coming decades to ultimately achieve emissions free powered flight," ICAO Council president, Salvatore Sciacchitano, said.

Tempering the enthusiasm greeting the LTAG announcement were warnings the target will not be easy to achieve. "The aviation industry's commitment to achieve net-zero CO_2 emissions by 2050 requires supportive government policies," stressed Walsh. "Now that governments and industry are focused on net-zero by 2050, we expect much stronger policy initiatives in key areas of decarbonization such as incentivizing the production capacity of Sustainable Aviation Fuels (SAF).

"The global determination to decarbonize aviation that underpins this agreement must follow delegates home and lead to practical policy actions enabling all states to support the industry in the rapid progress that it is determined to make," Walsh said.

It was a point underscored by Dodd. "The spirit of global cooperation has been on show at ICAO in the past year with governments making the most of the benefits of multilateralism. But setting a goal is one thing. Making it a reality is where the hard work begins. We need to continue – and accelerate – the efficiency improvements and energy transition underway across the industry," he said.

Many States will need to help their countries implement a net-zero path way. "Financing the transition will be a priority for governments, industry and the investment sector. The energy industry must be serious about the build-up of SAF.

Non-CO_2 emissions responsible for 66% net aviation impact on climate

A recent University of Bristol report argues revised air traffic control procedures and aircraft operations could reduce the climate impact of aviation by as much as 20% in the next five to 10 years. Lead author of the report, Kieran Tait, said aircraft non-CO_2 emissions are responsible for more than 66% of aviation's net climate impact, but due to a policy focus on decarbonization, mitigation of these emissions often is overlooked.

"Flight route climate optimal routing, to avoid climate sensitive regions, and formation flight, where two aircraft separated by two kilometres fly one behind the other, could hold the key to drastically reducing aviation's climate impact."

The two main contributors to aviation's non-CO_2 climate impact – aircraft condensation trails (contrails) and emission of nitrogen oxides (NOx). The warming effect of non-CO_2 emissions strongly depends on the chemical and meteorological state of the atmosphere at the instant they are released.

Contrails account for 51% of aviation's total climate impact, the study said. Where the air is very cold and humid, the water vapour in the contrails condenses around particulates to form ice crystals trapping heat and producing a net warming effect.

Similarly, emissions of NOx react with chemicals in the atmosphere to generate ozone and reduce methane. However, the generation of ozone tends to outweigh the methane reduction, leading to a net warming effect.

"While climate optimal routing may require a longer flight, and therefore an additional 1%-2% fuel burn, avoiding climate sensitive areas could reduce the overall climate impact of a flight by around 20%," Tait wrote.

In formation flight, the follower aircraft flies in the wake of the leader aircraft, receiving an up wash reducing required lift and resulting in a 5% - 8% decrease in fuel burn. It has the additional benefit of the overlapping of aircraft exhaust plumes and the accumulation of emissions contained within them.

"The next step is to analyse global air traffic data to identify high density airspace hotspots, for example along flight corridors, where implementation of the formation flight concept would be most appropriate," Tait said.

Associate Professor of Aerospace Engineering at the University, Dr. Steve Bullock, said "aviation had a lot to gain from adopting these findings, making small but crucial changes to air traffic control and aircraft operations that will have such a significant impact."

The Department of Aerospace Engineering at the University of Bristol has several links with industry leaders including Airbus and Rolls-Royce.

Being cool

Taking the heat out of Sustainable Aviation Fuel flying is an important part of airlines becoming greener, global aviation's Honeywell Aerospace, believes. Recently, the U.S.-headquartered conglomerate agreed with British aerospace company, Reaction Engines Limited, to jointly develop thermal management technologies to reduce emissions, regardless of the fuel used by the aircraft.

The two companies will adapt the micro tube heat exchanger technology of Reaction Engines and apply it across Honeywell's systems for sustainable aviation thermal management solutions.

The UK company calculates the development of the heat exchange technology will reduce aircraft weight by more than 30%.

Heat exchangers are important components of the many aircraft mechanical systems Honeywell manufactures. They are installed on flying machines ranging in size from extremely compact spacecraft to wide-body commercial aircraft.

They are critical in assisting aerospace heating and cooling and have a direct impact on aircraft fuel efficiency. Future generations of aircraft powered by sustainable fuels will require much more efficient and lightweight thermal management systems than available today.

"At Honeywell, we are proud to work on projects that have the potential to improve the future of aviation," Honeywell Aerospace. Air and Thermal Systems vice president, Michelle Drage, said.

"Building on our relationship with Reaction Engines applies our combined expertise on new thermal management and heat exchange technology that will make an impact on global sustainability goals."

Net-zero aviation is fully achievable if we work together across industry, government, the energy sector and finance communities."

Convincing the broader general public aviation is playing its part to save the environment is challenging but Asia-Pacific airlines are driving hard to achieve the 2050 target.

Recent examples are SIA selling SAF credits since July, Cebu Pacific and Malaysia Airlines flying their first SAF flights and a US$200 million Airbus/Qantas Group joint investment to accelerate an SAF industry in Australia.

On November 18, Japan Airlines will fly a net-zero CO_2 A350-900 passenger service between Tokyo Haneda and Okinawa Naha. The charter flight will be powered by SAF and the in-cabin service will focus on reducing its environmental impact. Cathay Pacific has concluded an off take agreement with Aemetis for the supply of 38 million [US] gallons of blended SAF, to be delivered from San Francisco Airport from 2025 for the next seven years. The SAF purchased will reduce more than 80,000 tonnes of lifecycle carbon emissions, equivalent to the carbon sequestered by more than 1.3 million tree seedlings grown over 10 years.

Air New Zealand has reached the next stop on its "Flight NZ0" journey to net-zero carbon emissions by 2050. The carrier's first shipment of Neste MY Sustainable Aviation Fuel to help power the airline's fleet is being landed at press time. The SAF is being imported into New Zealand in partnership with Z Energy. The 1.2 million liter (937 tons) of neat SAF is equivalent to fueling around 400 return flights between Auckland and Wellington.

Robo wash

Sustainable Aviation Fuel is critical to aviation's drive to be greener but there are countless other measures that contribute to making airlines, airports and others in the sector environmentally friendly. Among them is cleaning aircraft exteriors. As standard practice, cleaning aircraft exteriors requires hundreds of litres of water, massive amounts of chemical cleaning liquids, large equipment and a lot of manpower and aircraft downtime.

To make this process more sustainable, European manufacturer, Nordic Dino Robotics, advocates semi-automatic robots as the way forward in saving natural resources and reducing labour costs and human error.

Nordic Dino Robotics CEO, Jan Brunstedt, said: "The industry is frantically looking for the 'perfect solution' so to speak. The post-pandemic period has not been kind to many [in aviation] so interest in innovative, eco-friendly solutions is very high. Lots of ground handling providers, MROs and even airlines are searching for options that will tick all the necessary boxes."

Critically, semi-automatic cleaning robots, said Brunstedt, reduce on the ground aircraft downtime, a key

factor for MROs and carriers striving for a speedier return to flying of their airliners post-pandemic.

"We see the interest in semi-automatic solutions is growing," Brunstedt said, "especially when sustainability is playing such a major role in shaping aviation. We have taken this a step further with the development of semi-automatic washing robots and now a second generation electric robot for aircraft washing".

The company's latest electric semi-automatic washing robot has one versatile chassis for all three aircraft body types – narrow-body, wide-body and extra wide-body - and enhanced operational safety mechanisms.


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Singapore Changi Airport holds steady on 2030 emissions goals

Despite the increasing numbers of passengers Singapore's Changi Airport expects to pass through its terminals in the years ahead, it remains committed to achieving zero-carbon growth by 2030, capping absolute carbon emissions at 2018 levels and achieving Net-Zero emissions by 2050.

A sustainability report covers Changi Airport Group's (CAG) activities across its four passenger terminal buildings, the Changi Airfreight Centre and its aircraft operating areas.

An assessment has been completed on the impact of evolving climate factors on aviation, including rising ambient temperatures and greater rainfall intensity. "Climate risks are mapped to 2050 for airport-wide adaptation and solutions are being developed to address them. For instance, in response to increased rainfall, CAG has expanded Changi's drainage network and installed sensors linked to a real-time data dashboard for better flood risk management," the report wrote.

Already, the airport group has recorded a 5.9% decrease in water consumption. "Apart from improving chiller condensate and wastewater recycling capabilities, CAG continues to save water. It has reduced potable and non-potable water use from toilets and building cooling systems to irrigation and cleaning," it said.

CAG optimises waste management by cutting waste at source, encouraging good recycling practices and implementing effective waste collection systems. "Close collaboration and communication with licensed contractors, airport partners and cleaners have identified opportunities to use resources more efficiently. Projects commenced in the last year are the up-cycling of building materials and diverting of 11% of waste from incineration.

Alliances are playing their part. SkyTeam has launched "The Sustainable Flight Challenge" to identify the airline operating most sustainable flight or generating the most significant innovation to reduce aviation's impact on the environment. It also opened a revamped alliance lounge in Sydney, redesigned with greater sustainability eliminating single-use plastic straws and stirrers, installing water-saving cisterns and shower heads in showers and bathrooms, operating movement sensor smart technology to save energy and reduce emissions and participation in the airport's waste recycling program.

States at the ICAO Assembly collectively underscored the importance of viable financing and investment support to meet the new CO_2 emissions goal's attainment and fully supported the new ICAO Assistance, Capacity-building and Training for Sustainable Aviation Fuels (ACT-SAF) program to accelerate SAF use. A third ICAO Conference on Aviation and Alternative Fuels will be held in 2023.

IATA also upped its emissions reducing ante. The association agreed to stabilize emissions of international aviation at 85% of 2019 levels. In agreeing to this, many governments emphasized CORSIA's role as the only economic measure to be applied to manage the carbon footprint of international aviation.

"The Assembly's agreement strengthens CORSIA", said Walsh. "The lower baseline will place a significantly greater cost burden on airlines. So, it is more critical than ever that governments do not chip away at the cement bonding CORSIA as the only economic measure to manage the carbon footprint of international aviation. States must now honor, support and defend CORSIA against any proliferation of economic measures. These will only undermine CORSIA and the collective effort to decarbonize aviation."

The single most important tool in the emissions reduction battle is SAF with the industry forecasting it to play the largest role in decarbonizing aviation. IATA estimates around 65% of the mitigation needed for net zero emissions in 2050 will come from SAF. The industry purchased 100 million liters of SAF available in 2021. The supply remains limited and the price far higher than conventional jet fuel.

"With LTAG in mind, state efforts should be focused on incentivizing an increase in SAF production capacity and thereby reducing its cost," Walsh said. "The tremendous progress made in many economies from the transition of electricity production to green sources such as solar power and wind is a shining example of what can be achieved with the right government policies, particularly production incentives."

IATA also emphasized the criticality of effective implementation. Walsh said governments must not lose the momentum that has driven the outcomes of the assembly. "The costs of decarbonizing aviation are in the trillions of dollars and the timeline to transition to a global industry is long. With the right government policies, to SAF could reach a tipping point in 2030 that will lead us to our net-zero goal," he said.

"By the next Assembly, the 'aspirational' characterization of LTAG must be transformed into a firm goal with a clear plan of action. Governments must work with industry to implement an effective global policy framework to attract the financial resources necessary to put aviation on an unstoppable track to achieve net-zero by 2050. There is lots of work to do, and not a minute to lose." ■


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DU

TOP OF THE WORLD'S AIRPORT CLASS

The world's biggest airport megahub, Dubai, has made a remarkable recovery from the pandemic, well ahead of its rivals. How did it return to serious business so quickly? An optimistic Paul Griffiths, CEO of Dubai Airports Corporation, explains the strategy driving the airport group's success to associate editor and chief correspondent, Tom Ballantyne.

For Dubai Airports Corporation, which operates the UAE's two airport complexes, Dubai International Airport (DXB) and Dubai World Central (DWC), the onset of the pandemic was no different than it was for everyone. It was an absolute shock, the airport group's CEO, Paul Griffiths, told Orient Aviation earlier this month. "We went from hero to zero in virtually no time at all. We were closed for 45 days. In May 2020, we had the same amount of passenger traffic through the airports in the month than we had in four hours in the previous May. It was just cataclysmically bad," he said.

DXB and DWC closed to international passenger traffic on March 26, 2020, although the facilities continued cargo operations and flew more than 4,000 repatriation flights for around 450,000 passengers needing to return home, including UAE residents.

Restoration of scheduled operations was surprisingly quick. Emirates Airline restarted flights on June 21 and citizens were permitted to return to Dubai from June 22. Travel from Dubai to overseas destinations was opened from June 23 and international tourists were welcomed to the emirate from July 7.

DWC did not reopen until May this year, but it operated for a period to support the closure for refurbishment of one DXB runway. It will see action as it gears up for shuttle flights between Dubai and Doha for the FIFA World Cup in the final 10 days of November to December 18.

A little after two years of shutdown, "we have managed to achieve some amazing statistics," Griffiths said. "At the moment, the only factor holding us back is that transit markets are negatively affected by closed border protocols.

"Obviously, we are missing a lot of the Chinese traffic because the borders are still closed there," said Griffiths. The Chinese market is incredibly important, providing about 3% or 2.6 million passengers a year to Dubai. "It is a very significant number. It will help getting back to the Chinese market," he said. "Asia in general has been slower than the rest of the world. But everything is really quite significantly better than it was."

At press time, weekly passenger numbers through the emirate's airport are around 1.34 million or 84% of 2019 levels. Direct demand, that is passengers flying into Dubai and not transiting, is about 94.2% of overall 2019 levels. Transfer passengers have climbed to 72.4% of three years ago. "Those [closed] borders are a challenge and not every airline has put the amount of pre-pandemic capacity back into the market," Griffiths said.

'We are hoping the transfer market will pick up. Our forecast for the year is 64.3 million passengers, about 85%-90% of pre-pandemic numbers. By the end of 2023, we will probably be back at overall pre-pandemic levels if those transfer markets continue to recover."

Historically, Dubai's traffic has been 50/50 and up to 60/40 in favour of transfers. Now it's 60/40 in favour of direct traffic, which Griffiths describes as "an amazing turnaround and an amazing endorsement" of Dubai's popularity.

Just how rapidly recovery is gathering pace was revealed in the airport's latest official statistics. In the first half of 2022, to June 30, DXB traffic was 27.9 million passengers, up 161.9% year-on-year, or 67.5% of 2019 levels.

Interim passenger volume was near to full-year 2021 traffic at 29.1 million passengers. It is a milestone achieved despite a significant reduction in capacity from the 45-day closure of the airport's northern runway in May-June. The annual passenger forecast for 2022 has been revised up to 64.2 million travellers, although it is still way short of the 86.4 million passengers the airports processed in 2019.

How did Dubai beat the rest of the airport world in turning disaster into opportunity? "We were making decisions and moving forward far quicker than anyone else," Griffiths said. "For a start, the government embarked on a vaccination program for the entire country that was the most ambitious in the world.

"I think it was us and Israel that led the way on everyone in the country being vaccinated very, very quickly. Initially, we took fairly draconian measures to control the spread of the virus. We had curfews. We had mask wearing. We closed all restaurants. We did all of those things, but they were short and sharp, which was good.

"Within the airport we did masses of different stuff. We took immediate steps to protect our customers and our staff: PPE (personal protective equipment) and cleanliness of surfaces; initiatives to resolve problems and the perceptions people had about the transmissibility of the virus."

A key factor in the turnaround was reassuring people that travelling to and through Dubai was safe. "We said we do this at Dubai. We have vaccination programs. We have PPE.

We have all these things. We will cover your medical expenses if you come here and you get sick. We have really good medical care with a rapid PCR test for everyone.

"We set up the world's largest PCR on site-testing laboratory to process the tests we had administered. I don't think there was any other airport in the world that coped with the testing regime. We tested on arrival. We tested on departure. We had enough capacity to do that and contrary to everywhere else in the world, all of the arrivals testing was free.

"Where lots of people were bandits and charging US$150 to US$200 for a PCR test, we were offering them free of charge on arrival. These measures gave us a reputational boost. We have seen that because traffic to and from the city has come back stronger than ever before. We are at 111% of our pre-pandemic numbers in visitors to the city. It's regarded as a safe haven now."

The airport worked very closely with its airline customers, its suppliers and staff to cope with the crisis. "We had to acknowledge we were not alone. Everyone was together in this crisis," Griffiths said.

"We established a simple principle with our customers, our suppliers and our staff. It was "that we were not going to transfer the financial and social pain we are all suffering. We are not going to transfer it from us to you. Nor are we going to accept the transfer of pain from you to us. What we will do is work very hard and very diligently to share the pain with you'."

Contracts with suppliers were renegotiated, removing nearly a billion Dirhams (around $272 million) from supply chain costs. "We have not put lots of those costs back in. They have been negotiated at the height of the crisis and we have retained the benefits from them which is really good," he said.

"We quickly reached agreements with airlines to waive landing and parking charges, scaling the costs of the business so it was affordable and relevant to operations. With staff, the airport took a large majority of its customer service staff, cleaning staff and maintenance staff and agreed long-term contractual arrangements with third party contractors.

"Basically, we said to third party contractors take these people and put them onto a contract we can stretch out over a long period of time. Use the down time to train them and when the airport bounces back, which we knew it would, we want them back quickly and better trained.

"We did stand down some employees. We took the opportunity to scale back, particularly at management level. We did reduce quite dramatically – about 34% of our staff - but the large majority of them went to third party contractors."

Griffiths said the structures the airport put in place during the crisis were a big risk. "We did not have all the data to make the rational decision, but we came to the point where we just had to make the decision and hope that it would have a good outcome." he said.

"I believe it has been a good outcome. We ended up in a situation where we could react quickly and with scale as soon as the recovery came. We knew it would be strong. We just did not know when it was going to happen.

"We had exactly the right structure to react appropriately when traffic did come back. We have had no resource problems, no shortages and no shortcomings in customer service. We have been able to reactivate the airport and take the operation back to scale incredibly fast. Compared with a lot of airports around the world, everyone was wondering how we did it. How did we manage it? It was because we structured the success in the future and managed the problem of the day."

"Customer needs were changing. Staff needs were changing," Griffiths said. "People needed reassurance they were not going to become ill if they travelled. Before, it was about Wi-Fi speed, the quality of duty free shopping and the price of the food at outlets," he said.

"All of those disappeared. Number one, it become can you reassure me that travel rules, which were being revised all the time, will allow me to take this trip and return home safely as scheduled.

"Secondly, can you guarantee I will not get sick when I travel? It became all about that. So we were able to put the testing in place. We were able to reassure people Dubai was a safe, clean and medically safe city to visit. We made the travel journey as seamless as we possibly could. Recognizing customer needs had changed was absolutely fundamental to making everything else work effectively."

"What have we learned from the crisis? Firstly, the hope that governments will work together to establish common standards for safe global travel is unlikely. I was highly sceptical of it from the word go and my scepticism was well-placed."

"What we saw, and it was probably one of the most difficult issues of the entire pandemic, because it made the

pandemic last a lot longer, were the ever-changing travel restrictions governments imposed on travel. Largely, they were not based on medical advice. They were whimsical political statements plucked out of the air, more to sustain fragile democratic majorities than to protect the travelling public and make travel possible again.

"That was the very lamentable realization quite early on that persisted pretty much all the way through the pandemic. The second lesson we learnt was a crisis always favours the bold, the innovative and people who see and do things differently."

Griffiths dismisses suggestions from some quarters that video conferencing will replace flying and that new high technology aircraft, able to fly longer distances, will result in overflying Dubai rather than landing there. On the latter, he points out the same forecasts were made when the B747-400 was launched. "Everyone was thinking, 'oh well that's the end of the Middle East as a transport hub'. In fact, the Middle East then evolved its own aviation model, becoming a hub in its own right. We have been very adaptable at moving forward," he said.

Also, the view that point-to-point traffic on longer haul routes will displace the importance of hubs is not a logical extrapolation of route networks, Griffiths insists. "Let's take a city pair out of the air. Chiang Mai to Nairobi. Could you ever imagine there would be enough people in Chiang Mai or Nairobi wanting to travel between those cities in a single hop? And even if this was so, what size airplane would you put up?" he asked.

"The answer is (a) demand would be small, and (b) you would never have enough traffic for the route to be sustainable or profitable. However, if you put people on a service from Chiang Mai to Singapore and from Singapore to Nairobi you can easily sustain a daily service because the number of connecting opportunities people arriving from Chiang Mai and people arriving from Nairobi would have through Singapore are considerable.

"The same applies to Dubai. If you offer it as a hub you

Dubai Airports CEO concedes he is an adrenaline junkie

Paul Griffiths is a maestro in more ways than one. Not only does he oversee the complex task of running the world's biggest aviation megahub, he is an organist who has performed in venues around the world including Westminster Abbey and St. Paul's Cathedral in London. In February 2019 he was at the organ's keys in Abu Dhabi for the Papal Mass marking the visit of Pope Francis to the Arabian Peninsula, the first Roman Catholic pope to do so.

It seems a long way from the 65-year-old's other passion, fast cars. He collects motorcycles and cars and is a regular participant in motorsport events in the UAE and overseas. Griffiths has even driven a Lotus Formula 1 car around the Hungarian Grand Prix circuit.

Organ playing and car racing? Not so far apart, Griffiths told Orient Aviation. "Basically, I think my life is full of adrenalin. The adrenalin of running a very complex airport. Having been on both sides of the track in the airline business and now in the airport business, the airport business is far more complicated than running an airline. I can tell you that," he said.

"So I think the complex job is based around adrenalin. And if you actually look at the music I play, that's also full of adrenalin. Some of the repertoire I perform is quite demanding.

"It needs a huge amount of energy and adrenalin as well. And my motor racing interests are similarly filled with adrenalin. That adrenalin is the common drug that joins them altogether."

Married to composer Joanne Marsh, the father of three told Orient Aviation he has four quadrants in his life: his hobbies, his professional life, his music and, most important of all, his family. "I'm happiest when the crosshairs of those four quadrants are exactly in the centre."

A confessed "transport junkie" and interested in "anything that moves" he has a restored Hawker Sidley GR1 Harrier (Jump Jet) which is on display at Brooklands Museum in the UK.

"Restoring that jet fighter was one of the most rewarding things I have done. I did not do it personally, but the people I employed and the project I managed was just incredible," he explained.

Neither is there any thing hobby-like about his music. "I have an organ in my house in the UK and an organ in Dubai. I play concerts all over the world. I fixed a date yesterday for New York. I will be going to do that next April. I have, hopefully, a concert series in Australia and New Zealand I will try to fit in next year," he said.

Professionally, Griffiths entered the travel industry in 1977 as a contracts executive with the OSL/Wings travel group, which was owned by the Rank Organization. He moved to Hong Kong in 1986 and became Marketing Manager of the then start-up airline, Dragonair. In 1989, he returned to the UK and established a software company that developed proprietary information management systems for the airline industry. One of his contracts was with Virgin Atlantic. In 1991, Richard Branson asked him to join the airline as its executive director, commercial.

In his ten years with Virgin, he was responsible for the strategic growth of the airline and many of its notable commercial successes, including the sale of 49% of Virgin Atlantic to Singapore Airlines in 2000. In 2001, he became a board director of the Virgin Rail Group.

Three years later he joined BAA (British Airports Authority) and in 2005 became chairman and managing director of London's Gatwick Airport. He was appointed by Sheikh Ahmed bin Saeed Al Maktoum as the first CEO of the new Dubai Airports Corporation in 2007.

can bring people to the hub and then disperse them to literally thousands of different unique city pairs never available on a point-to-point route.

"I just don't buy the argument hubs are dead and point-to-point traffic will replace them. It's never going to happen."

As for the challenges ahead, Griffiths said if we could all move in lock step towards the same point, it would be easy. "Obviously, markets are recovering at different rates. The difficulty we have is some markets are slower to recover than others. We have the capacity and the aircraft to serve more markets than are commercially viable at the moment," he said.

"The second issue is a worldwide shortage of cockpit and cabin crew. So many of them have left the industry and pursued new careers. Replacing them and recertifying aircraft that have been in storage are obviously big challenges. Actually, we have to look at this."

Griffiths said many airlines and airports made huge cutbacks in staff during the pandemic and are struggling to remobilize. "If you look at BA (British Airways), Heathrow and some of the American carriers, their traffic has rebounded and demand is there. But they are having huge problems recovering their operations to satisfactory levels. It has been a real problem," he said.

Carriers that were more resilient during the pandemic – he counts Emirates and FlyDubai among them – will fare better post-pandemic, he said. At press time, FlyDubai is operating at 144% of pre-COVID capacity.

"It shows how strongly they recovered from the pandemic. The competitive landscape has changed. We have to do more to reassure our customers about the quality of service we are providing. We have to make absolutely sure people want and choose to fly a combination of Emirates and FlyDubai and use our airports rather than going through Istanbul, Doha, Abu Dhabi, Frankfurt or other places.

"We have to offer them an end-to-end journey so compelling that people will only want to fly with us and people will continue to want to use the service we provide."

While the pandemic held back growth at Dubai's airports, Griffiths is confident about their potential because planning for expansion has begun. "In fact, I have a proposal on the table for the consideration of our board by our chairman. It advocates significant investment in aviation infrastructure in the next few years planned to get us to the traffic numbers we were seeing originally," he said.

People "can't get enough of flying"

"I will paraphrase Newton's third law: for every action there is an opposite and equal reaction. We knew for every downturn there was going to be an equal and opposite upturn.

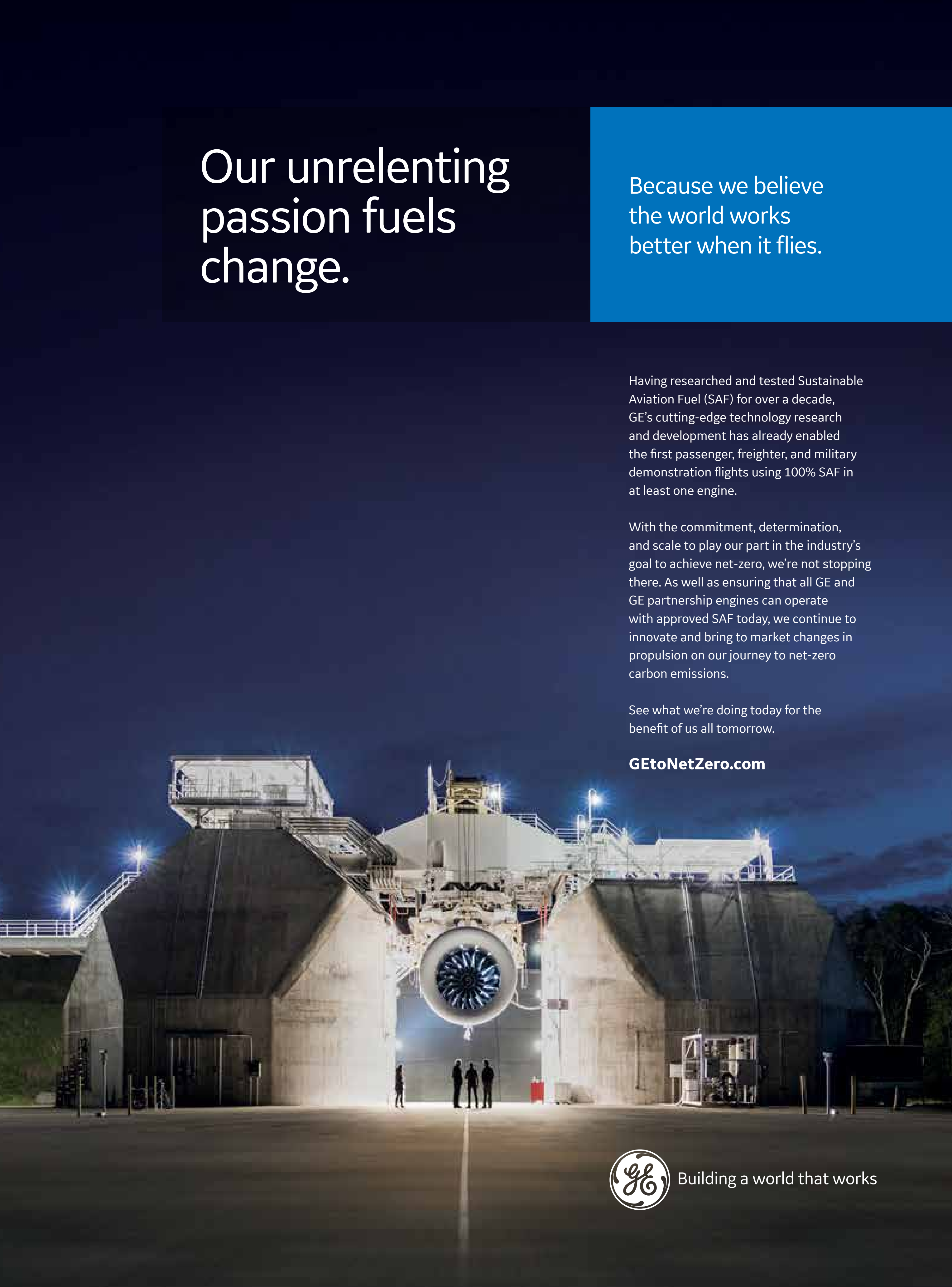
"I have been in this business long enough to know every crisis is followed by a pretty strong and immediate rebound. Travel is an aspirational commodity. Everyone loves to travel and I think it has become almost in Maslow's hierarchy of needs (essentially what needs people have that take precedence over others) pretty close to the top now. In most people's agenda the freedom to travel has become a phenomenon over the last 50 years that people can't get enough of."

"People really missed it and they could not get enough of it when it became possible to travel again".

Dubai Airports CEO, Paul Griffiths

"Of course, it is dependent on lots of other factors: growth in aviation based on global GDP, the availability of aircraft necessary to support that level of growth and our ability to provide the appropriate airport infrastructure to support it.

"There are many things that will have an impact [on Dubai airports] in the next few years. But we remain optimistic. Maybe it will not be at quite the scale we saw [pre-COVID], nonetheless you can rely on Dubai being a very influential and pre-eminent global hub for some considerable period of time." ■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Stampede ahead as airlines rebuild networks

Asia-Pacific airlines are rebuilding their networks as the region's travel restrictions ease. Restoring grounded capacity and reopening routes remains complicated for carriers, associate editor and chief correspondent, Tom Ballantyne, reports.

It's a stampede. Almost daily airlines across the Asia-Pacific either are announcing the re-introduction of routes suspended during the pandemic or launching destinations from changing market conditions. But returning airline networks to pre-crisis scale still has some way to go, analysts unanimously agree.

As of July this year, international traffic recovery in the Asia-Pacific was at 35% of 2019, a far cry from other global regions now achieving upwards of 90% of seats occupied pre-COVID, points out the International Air Transport Association's (IATA) regional vice president Asia-Pacific, Philip Goh. "The recent acceleration in border reopening in the Asia-Pacific will force more airlines to ramp up passenger capacity but returning airliners and flight crews to the skies will take some time. For Southeast Asia, international seat capacity at September 2022 was 48% of 2019 levels and North Asia was 20%," he said.

There is, however, some light at the end of the tunnel as a number of risk-averse governments are lifting entry restrictions that have put the brakes on regional and international recovery. On September 26, Hong Kong shortened hotel quarantine for inbound travellers. The welcome breakthrough immediately sprung Cathay Pacific Airways into action. It will add more than 200 city pair flights to regional and long-haul destinations in October. Japan has removed quarantine requirements for inbound travellers and restored visa free travel for international visitors from October 11. Taiwan followed suit on October 13.

There remains one critical missing piece in the regional network puzzle. China, vital to the networks of many Asia-Pacific airlines, is holding fast to tough entry restrictions for inbound travellers. However, there is hope China may start easing its zero-Covid-19 strategy by the end of October after the Communist Party of China holds its 20th National Congress in Beijing on October 16.

Unfortunately, the damage has been done by China and Japan if forecasts that the Asia-Pacific has been toppled as the world's biggest civil aviation market turn out to be correct.

It is predicted the region will drop to runner-up status passenger share, behind Europe and about level with North America, the latest figures from Airports Council International (ACI) show. China and Japan, the largest contributors to the region's overall traffic, are predicted to be around 55% of pre-pandemic levels by year-end, ACI calculates.

ACI Asia-Pacific director general, Stefano Baronci, said the region's traffic will not fully recover to 2019 levels unless all countries keep their borders open to facilitate freedom of movement.

"Although the latest ACI forecast predicts 22% growth for 2022 over 2021, the share of passenger traffic in the Asia-Pacific is likely to drop to second globally, with an estimated 1.84 billion passengers, a decline of 45% compared with 2019. We are urging states to take a measured approach to facilitate the recovery in a more sustainable manner and without causing significant impact on their healthcare system," he said.

IATA's Goh said along with the gradual reopening of international borders in the region, there has been strong uptake and sustained increases in passenger demand since the


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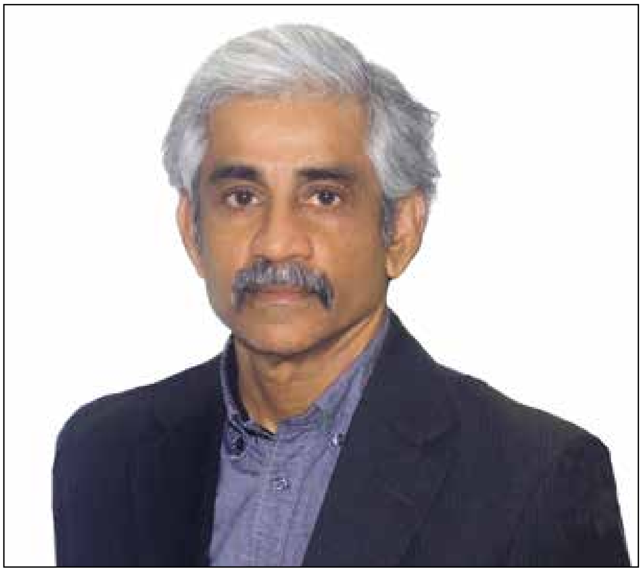

second quarter of 2022. "The pace and strength of the recovery differs across the region. On routes between countries that have reopened fully, such as between Australia and Singapore, the restoration of seat capacity is swift and in tandem with the strength of the rebound in passenger demand as travel restrictions were rolled away," he said.

"Capacity reinstatement in countries slower to reopen and slower to shed stringent travel restrictions is muted. For example, on routes serving Hong Kong, Taiwan and Japan, capacity is still way off the 2019 levels, as demand is underwhelming.

"Japan's recent announcement to lift visa requirements and arrival caps will pave the way for acceleration in capacity restoration in and to and from Japan to meet the expected strong interest for travel there."

With recovery looking more robust, airlines and aviation stakeholders like ground handling agents and airports must be fully prepared for the traffic upswing that will come, Goh said.

"We must work to avoid the disruptions and problems experienced in major hubs in Europe and the U.S. by being prepared and being anticipatory. The entire aviation value chain has to be adequately resourced to handle the expected surge of air travelers taking to the skies again in the Asia-Pacific," he said.

Association of Asia Pacific Airlines (AAPA) latest traffic figures, actually for July, show the strong recovery in international air travel is continuing. The region's airlines carried 11.3 million passengers in July, the first time monthly numbers were above the ten million mark since February 2020.

Comparing July 2021 to July 2022, passengers carried climbed from 1.5 million to 11.3 million, and load factor increased from 32% to 80%. In the first seven months of this year, AAPA airlines carried 42.84 million passengers and had a load factor of 65.4%. These results compare with 2021 numbers of 8.78 million passengers transported and a 28.7% load factor. Tellingly, in July, revenue passenger kilometers rose by 546% year-on-year, significantly outpacing the 157% expansion in available seat capacity.

AAPA director general, Subhas Menon, said travel markets continued to accelerate in July with the 43 million air passengers carried in the first seven months of 2022 almost five-fold more than the nine million flown last year. "However, full recovery remains a long way off, with traffic in July averaging only 34% of the corresponding pre-pandemic month," he said.

Another promising sign in the region's recovery is major airlines beyond the region are restarting routes suspended during COVID. For example, British Airways (BA) will resume non-stop London Heathrow-Tokyo Haneda from mid-November, a flight put on hold in November 2021. United Airlines (UA) is resuming non-stop Melbourne-Los Angeles from late October, initially with three flights a week before increasing the service to daily from December 1. UA's three times weekly Melbourne-San Francisco rotation will become daily from October 28.

United Arab Emirates (UAE) carrier, Etihad Airways, will launch Abu Dhabi to Guangzhou in October, its third destination to China after Beijing and Shanghai. UAE rival, Emirates Airline, has confirmed its iconic A380s will resume flights from Dubai to Auckland and Kuala Lumpur from December 1. KLM Royal Dutch Airlines, which suspended Amsterdam to Kuala Lumpur and Jakarta two-and-a-half years ago, will return to the Asia-Pacific destinations four times a week from October 31.

Finnair and Qatar Airways have decided to work closely to improve connections from Scandinavia to Asia via Doha. Finnair was particularly hard-hit by the COVID-19 pandemic and the closure of Russian airspace after the invasion of Ukraine in February.

These incoming long-haul routes are being matched by a gradual expansion of flights outside the region by local operators. A few examples are Japan Airlines (JAL) increasing Tokyo Haneda-Chicago O'Hare to daily after October 31. It will add frequency on Osaka Kansai-Los Angeles, to three times weekly, in December. Air New Zealand has started flying the fourth longest nonstop flight - Auckland-New York JFK – in the world. Korean Air will launch Seoul- Budapest on October 29 and is returning to Dubai. ■

"When hundreds of global airline network experts, including many from Asia-Pacific, meet at Routes World 2022 in Las Vegas late in October there will be plenty to discuss. Even more important for the region is Routes Asia 2023, to be held in Chiang Mai, Thailand next February.

As the only route development event dedicated to Asia-Pacific, it will provide a platform for the region's airlines, airports, tourism authorities and aviation stakeholders to meet, share best practice and come together to develop network strategies and ensure future air service development across Asia Pacific."

East Asia slows recovery at region's airports

For Asian airlines desperate to see one of their key markets, China, reopen after a long pandemic winter of restrictions, 2023 should deliver some relief. According to a leading regional aviation analyst, the Mainland could begin easing its lengthy ban on international arrivals in four months.

"I am hearing – obviously this is information from contacts in Mainland China – China is looking at the Lunar New Year holiday early next year [to ease entry restrictions]. The Year of the Rabbit starts on January 23," founder of Malaysia-based Endau Analytics, Shukor Yusuf, said.

"The opening will be gradual, incremental. Not letting all the horses out at once. That would cause huge logistical difficulties for many Asian countries."

Speaking earlier this month at an OAG webinar organized by the provider of digital flight information, intelligence and analytics for airports, airlines and travel tech companies, Yusof said there will be pent-up demand for travel from middle class Chinese, whose numbers have not shrunk despite almost three years of the pandemic.

"These are people who have stashed away a lot of disposable income away in the past two-and-a-half years. They will want to be travelling somewhere and spending," he said.

Chinese airlines will be better placed than their regional rivals to benefit from eased restrictions because of two factors: they kept flying during the pandemic and

they did not shed staff.

OAG chief analyst, John Grant, said "there are lots of small steps that are going to help recovery. But until China reopens, the region is going to lag behind the rest of the world because it is China dependent."

The OAG presentation revealed the world's 50 global megahubs table had been radically reshaped by the pandemic with Asian hubs in particular operating at a fraction of pre-crisis levels.

Delhi's Indira Gandhi International Airport is the highest ranked airport outside the Americas, at 13 in the top 50 listings, with Tokyo Haneda International Airport at 14, Bangkok's Suvarnabhumi Airport (34 from 14 in 2019), Kuala Lumpur (39 from 12 in 2019) and Singapore Changi (48 from nine in 2019). Hong Kong International Airport, which was ranked at 10 pre-pandemic, has dropped out of the top 50 list altogether as has Shanghai, formerly at 25 in the table.

In 2022, 11 of the top 12 airport hubs were in the U.S. American hub domination represents a unique snapshot of pandemic times because it was a less restricted market relative to elsewhere.

However, Grant said reports Asian hubs are badly diminished long-term were premature. "It might be longer than a year. It might take two years. It could even take three years. But the fundamentals of geography and the base carriers these particular airports have will return them to the positions they occupied in 2019," he said.

"If you take Hong Kong as an example, its access to China is the best. It was and will be the gateway to China. Initially, Cathay Pacific will operate lower frequencies to long-haul destinations but it will return to five a day to Heathrow. It will be back to three daily to Los Angeles or whatever it has to be.

"It will take time to build out. It might not happen quickly. In some cases, airlines may be forced to move slightly quicker than they might prefer to protect slots at hubs like Heathrow because the use it or lose it rule will kick in unless they can lend excess slots to other airlines short-term.

"Already we are seeing it. Despite all that has happened the airports that were big airports and the airlines that were big airlines are coming back to prominence. The list of the top 20 airlines has a much more normal feel and size to it. Same for the airports. Normality is being restored."

Ultimately, Grant said, "the elephant in the room" for Hong Kong and China is the inability of European carriers to fly through Russian airspace, an issue that will continue for some time.

"Some European carriers will not be that bothered about it because the market is in a recovery phase and they will have found other ways to use their fleets. It is interesting to note British Airways is returning to Haneda and Hong Kong from mid-November. It will take more circuitous routings to make these journeys.

"Until the Russian overflight issue is resolved, the only net winner will be Cathay Pacific and the Chinese airlines – when they reopen - because European carriers will have to avoid that space."

As recovery gains momentum for Asian hubs and their airlines, there may well be new opportunities. The closure of India and China has had a huge impact on the region, Yusof said, but the losses are being partially compensated by an influx of visitors from the Middle East and even Central Asia, Yusof said.

"We are still seeing Russians, I am told, in some parts of Malaysia."

It is quite sad because it is people walking across the borders from Russia into Uzbekistan, Turkmenistan, Kyrgyzstan and Kazakhstan and then flying to the UAE. Equally, it seems to be a market with a lot of activity, Grant said.

"Turkish airlines have nearly doubled their capacity into Central Asia in the last 18 months. Destinations we probably did not know are appearing on network maps with connecting traffic to the U.S. and Europe." ■

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