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Surviving the worst perfect storm

They are the biggest items on airline balance sheets: the cost of new aircraft and the price of the jet fuel needed to fly their

And right now, as the global airline fleet is progressively returning to service, the cost of one of these items is shooting through the roof. At press time, the average price per barrel of jet fuel had climbed above \$170, a 14-year high.

The main reason is Russia; a major exporter of oil and the aggressor in a war with Ukraine. The resulting combination of shattering circumstances has cratered fuel supply chains across the world. The timing of this global crisis could not have come at a worse time for airlines, particularly in long-haul markets such as the Asia-Pacific.

Many airlines have absorbed some of the pain of the fiscal bombshell of doubling jet fuel prices with placed hedges, but these contracts have a limited life.

No one expects the price of oil to begin a correction any time soon so new hedging contracts will inevitably come at a higher price. For passengers this means higher fares at a time they already are upset with COVID-caused increases in air tickets. But in the present global economic environment, airlines have little choice but to pass on the cost of higher fuel to their customers. Some carriers already have introduced new fuel surcharges.

Will higher air fares hold back recovery in the airline sector? It remains to be seen. But it is another challenge airlines seeking to return to pre-pandemic passenger levels must overcame.

In the meantime, there is some good news. Airlines are ordering new-generation jets that will use less fuel.

Aircraft lessors also have been extremely flexible with their clients during the crisis by deferring payments and rearranging agreements. But in the end, the airlines will have to repay that patience.

Leased aircraft in the global fleet, now at 47%, will continue to increase in numbers because for many carriers leasing is the most economical means of acquiring aircraft. Additionally, in the Asia-Pacific, historically a very strong bank debt market, Boeing notes regional banks have been supporting their hometown airlines, a key to surviving these challenging times.

What has become clear is governments recognize the importance of airlines and their supporting industries to the economies of all nations. As a result, there is optimism funding to build or re-build the fleets of airlines, whether be it sale-leasebacks, bank or investor financing or even airline equity raisings, will be available to support the airline industry's return to pre-pandemic operations.

TOM BALLANTYNE

Associate editor and chief correspondent Orient Aviation Media Group

A trusted source of Asia-Pacific commercial aviation news and analysis

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Asia-Pacific carriers to reach 90% of pre-COVID capacity in 2022

Asia-Pacific airlines, as a result of "strict and enduring travel restrictions, notably in China, along with an uneven vaccine rollout, have seen the region lag the in the recovery to date", the International Air Transport Association (IATA) said in its updated financial outlook for the industry, released on the eve of its 78th annual general meeting and world transport summit, held in Doha mid-month.

The pace of recovery has quickened, the forecast stated, with losses narrowed to US\$9.7 billion from an October 2021 forecast of \$11.6 billion.

"Industry-wide profitability in 2023 appears within reach, with North America already expected to deliver an \$8.8 billion profit in 2022," IATA predicted.

"Efficiency gains and improving yields are helping airlines reduce losses even with rising labour costs and a 40% increase in the world oil price and a widening crack spread this year.

"Strong pent-up demand, the lifting of travel restrictions in most markets, low unemployment in most countries and expanded personal savings are fueling a demand resurgence that will see global passenger numbers reach 83% of pre-pandemic levels in 2022.

"Additionally, cargo volumes are forecast to hit a record high of 68.4 million tones for the year."



By next year, most markets should see traffic reach or exceed pre-pandemic levels, IATA director general, Willie Walsh, said in his keynote address to delegates and media at the Doha AGM.

In a fiery criticism of the management of the pandemic by governments worldwide, Walsh said: "COVID-19 was catastrophic. It robbed our world of millions of people - family, friends and colleagues. The responses of governments dismantled connectivity, destroyed jobs and inflicted misery on people, justified by politicians around the world that 'their actions were driven by science'. George Bernard Shaw once observed that 'science never solves a problem without creating ten more'. How true that is."

Urging optimism for the industry, Walsh said that during the Global Financial Crisis [2008], travel patterns changed but passenger numbers held steady, with a quick return to growth from 2010.

"And the decade that ensued delivered aviation's strongest financial performance ever," he said. "History repeats itself. We already see strong demand that will grow in the months and years ahead."

In the IATA financial outlook, the importance of the China market, still largely closed to the world, was highlighted.

China's domestic market accounted for 10% of global traffic in 2019. IATA's forecast assumes a gradual easing of COVID-19 restrictions in the second half of 2022.

"An earlier move away from China's zero-COVID-19 policy would, of course, improve the outlook for the industry. A prolonged implementation of the policy will continue to depress the world's second largest domestic market and wreak havoc on global supply chains," IATA said.

IATA vice president Asia & Pacific, Philip Goh, speaking at a regional briefing in Doha, said momentum is gathering pace in the Asia-Pacific, but many of the region's governments were not keeping up with this "huge surge" for air travel.

"Japan is not opening as fast we would like," he said, but added the industry has been advocating eased restrictions for entry into Japan and hoped the Japanese government will open the market in coming months.

People in the region learn quickly, Goh said. "Japan, Australia, New Zealand and Singapore are noted for preparing for a future industry that will be different from pre-pandemic times. Singapore in particular, has been at the forefront in the last half year of adapting to new customer expectations," he said.

"There is a need to raise awareness about changes in the industry, most importantly more widespread implementation of faster processing of passengers.

"The Asia-Pacific should plan





for the huge upsurge ahead in pent-up demand and learn from Europe's recent experience," Goh said. "The industry must adopt more contactless travel to process passengers more quickly through airports. We need to speed up."

IATA deputy director general, Conrad Clifford, said the airline association is urging governments to learn from the pandemic so "future global health threats can be effectively managed without closing borders".

After two years of crisis, Clifford listed three lessons governments should take on board from COVID-19. Evidence confirms border measures are not an effective global strategy to control a pandemic, he said.

Although total border closures and quarantine rules mostly have been removed and the world is increasingly open, complicated paperwork, COVID testing and compulsory mask wearing while travelling are still required in some jurisdictions, despite them being lifted in domestic life, he said.

Secondly, governments should conduct research to balance health measures with social and economic impacts "with a view to agreeing a global set of recommendations for handling future health crises", he said.

Thirdly, "public confidence is adversely affected by arbitrary rules and poor and contradictory information", Clifford said.

IATA recommends governments simplify, standardize and digitize travel bureaucracy and paper work and introduce mutual recognition of digital health credentials. There also should be clear guidance about the dismantling of public health measures after their introduction. Clifford said.

In a sobering conclusion to his keynote address, Walsh said:

"the recovery from COVID-19 is coincident with a tectonic shift in geopolitics.

"The Russian invasion and subsequent war in Ukraine have shaken the foundations of globalization to which aviation has contributed, and that, in turn, enables so much of our business. ... And the stakes in Ukraine could not be of greater consequence. That is why, even for our apolitical business-focused association, there cannot be any ambiguity in condemning what is happening in Ukraine. I am sure I speak for all participating in this assembly in calling for peace." ■

Indonesia biggest Southeast Asia air travel market

In its latest analysis of Southeast Asia's airline traffic, OAG reports Indonesia's airlines had 9.6 million seats available in June and that Hanoi-Ho Chi Minh City is the region's busiest domestic



route and also the second busiest domestic route in the world.

At June 2022, Southeast Asia's forecast airline capacity was 40% behind June 2019 levels, but domestic capacity, mainly due a strong recovery in air travel demand in Vietnam and Indonesia, was only 12% below 2019 numbers.

Eight of the top 10 busiest

international routes into the region start or end in Singapore, OAG's report said, "reflecting the degree of recovery taking place there".

Other highlights of the OAG report are a 45% increase in airline capacity out of Bali and an almost 100% capacity recovery at Don Mueang, Bangkok's second, and budget carrier focussed, airport.

Greater Bay Airlines boss appointed to Hong Kong government's new cabinet

Algernon Yau, most recently the CEO and a board director of Hong Kong start-up, Greater Bay Airlines (GBA), has been appointed secretary for commerce and economic development in the Hong Kong Special Administrative Region (HKSAR) government under the leadership of new HKSAR chief executive John Lee. Yau, along with other members of Lee's cabinet, will take up office on July 1.

Yau, 63, and the Greater

Bay Airlines team have worked through the regulatory processes necessary to launch the Hong Kong-based carrier, but have been held back from inaugurating services by the zero-COVID border closure policies of Hong Kong and Mainland China.

Earlier this month, GBA announced the planned operation of two charter flights between Hong Kong and Bangkok in early July and one scheduled service, also to Bangkok, in the second half of the month. GBA was awarded its air operator certificate in October last year and intends to fly with a fleet of 737s.

Yau joined GBA in January 2021 after 38 years with Cathay Pacific and several subsidiaries of the Swire-controlled aviation group. His most recent senior executive roles have included head of Cathay Dragon from 2015-2017, director of service delivery at Cathay Pacific and membership of the airline group's board of directors. ■



IndiGo braces for turbulence ahead

Change is the only name in the game for India's IndiGo as it prepares to go big on the region's network stage. Anjuli Bhargava reports.

n May 18, IndiGo finally confirmed the rumors circulating in the corridors of the LCC for several months: Ronojoy Dutta, the CEO and full-time director of India's most successful airline, will exit the airline after his contract runs its course. On October 1, he will be succeeded by the very popular president and CEO of KLM, Pieter Elbers, aged 52. IndiGo is wholly-owned by InterGlobe Aviation Limited.

Septuagenarian Dutta's departure, although regarded as a given by many because of his age, is but one of many events that have rocked the airline and its staff in recent months. On February 19, following a bitter fall out between the LCC's co-founders, one of them, Rakesh Gangwal, resigned from the airline's board and said he would offload his equity in the carrier in the next five years.

A few weeks later, the airline's parent appointed Gaurav Negi as its new chief financial officer, the fourth person to hold the position in the short span of three years, an unusual amount of churn in the once steady IndiGo ship. This announcement was followed by the resignation of Willy Boulter, the chief commercial officer, who has been with the LCC since 2018.

Then in May, the airline revealed its new chairman would



be Venkataramani Sumantran. The 2022 changes at the top followed IndiGo's farewell in 2021 of two other senior employees, legal counsel, Priya Mehra, and the head of the company's investor relations, Ankur Goel

This new team will be

contending with a radically re-shaped commercial airline environment in India.

IndiGo will have to breast competition from new low-fare carrier, Akasa Air, which is preparing to fly India's skies in July this year and also deal with a newly privatized Air India that includes full ownership of AirAsia India

Additionally, if reports are correct, Jet Airways, grounded since early 2019, will be returning to the market in coming weeks after being awarded its air operator permit. It is certain to be offering ultra-low fares to attract people back to the former full-service carrier.

At Air India, now 100%-owned by Tata Sons (Tata's), it is believed AirAsia India is being subsumed into the national carrier and will emerge as a new entity under the Tata umbrella. The group's new CEO is the highly regarded Campbell Wilson, founding CEO of Scoot, a member of the SIA Group's senior management and until his move to India, in the midst of his second stint at Scoot as the LCC recovers from the pandemic.

In a separate sector of the market, it is assumed Vistara, the joint venture between Singapore Airlines and the Tata's, also will be absorbed into the Air India group.

When Tata's consolidates its strategy to resuscitate the faded former flag carrier, it is predicted it could develop into a strong competitor for IndiGo, an LCC that transports more than 50% of India's airline passengers.

If domestic competition is about to become more challenging for India's airlines, the macro environment will be no easier to navigate in the months ahead.

IndiGo and its rivals are dealing with a depreciating rupee as fuel prices are doubling as well as contending with weaker balance sheets and the nerve wracking uncertainty of the pandemic's life.

"IndiGo may be on a stronger wicket overall, but when the tide turns, the losses are bigger than others as are gains," a SpiceJet source told Orient Aviation, and added the larger the airline the greater the need for rationalization in the competitive environment that is developing at India's airlines.

The financials tell the story. IndiGo's losses at March 31, 2022 for the three months were US\$216 million

The airline's consolidated loss had widened to Rs 1.682 crore for the three months with higher fuel costs more than offsetting a rebound in air travel demand. It reported a consolidated loss of Rs 1,147 crore in the year-ago period as the raging global pandemic shut borders and kept people at home. Fuel prices in Q4 2021-2022 increased by 61% compared with the previous matching months, although a recovery in air travel has improved the company's recent revenue position.

There is another factor driving the changes in the top leadership at IndiGo. As the pain of the pandemic eases, the LCC is returning to its ambitious pre-pandemic plans of building a bigger international network supported by its existing fleet, but critically by new A321XLRs that facilitate developing regional and long-haul networks.

In the meantime, April and May were testing times for the carrier, especially for the C-suite. After the airline's commanders and other cockpit and cabin crew



became fully cognizant of the generous employee stock options (ESOPs) the company handed to senior management at a time when the airline's employees had taken deep pay cuts or been furloughed, uproar broke out.

Some of the pilots - especially those who joined IndiGo from Jet Airways – have been enduring a far longer period of economic pain than in the life of the pandemic alone. To learn upper level managers had doled out benefits to themselves and not the staff at large had a very negative impact on company morale.

IndiGo reacted to the pilot's protests by offering crew a salary increment of 8%, an action that added fuel to the fire. The management looked at the hike as an increment, viewing the present salaries and contracts as the "new normal" in a changed reality from the pre-COVID

world. The pilots and crew dismissed the 8% restoration of their old pay packages as paltry and asked the management to take a hike, so to speak.

As pilots voiced their ire in various internal and external platforms, the management cracked down on the protests. Five pilots were suspended and have since resigned as they await their no objection certificates to clear them to work elsewhere. The Directorate General of Civil Aviation (DGCA) is investigating allegations seven pilots used abusive language against the airline over an emergency frequency, further angering pilots who view the DGCA action as intimidation. Many pilots contacted the Airline Pilots Association of India (ALPA) for support. The association in turn has written to the civil aviation minister, Jyotiraditya Scindia, to spotlight the high-handed manner of the company's HR department and sought his intervention.

The airline does not support establishment of a crew union.

IndiGo insiders told Orient Aviation the biggest change at the airline is the amount of time and involvement IndiGo's remaining founder and managing director, Rahul Bhatia, is devoting to the airline group.

Since Gangwal has exited the carrier, and even before his departure according to some observers, Bhatia is far more active in the day-to-day running of IndiGo.

Although Elbers will lead IndiGo, sources are of the view the reins of the airline, for now, will remain firmly in Bhatia's hands

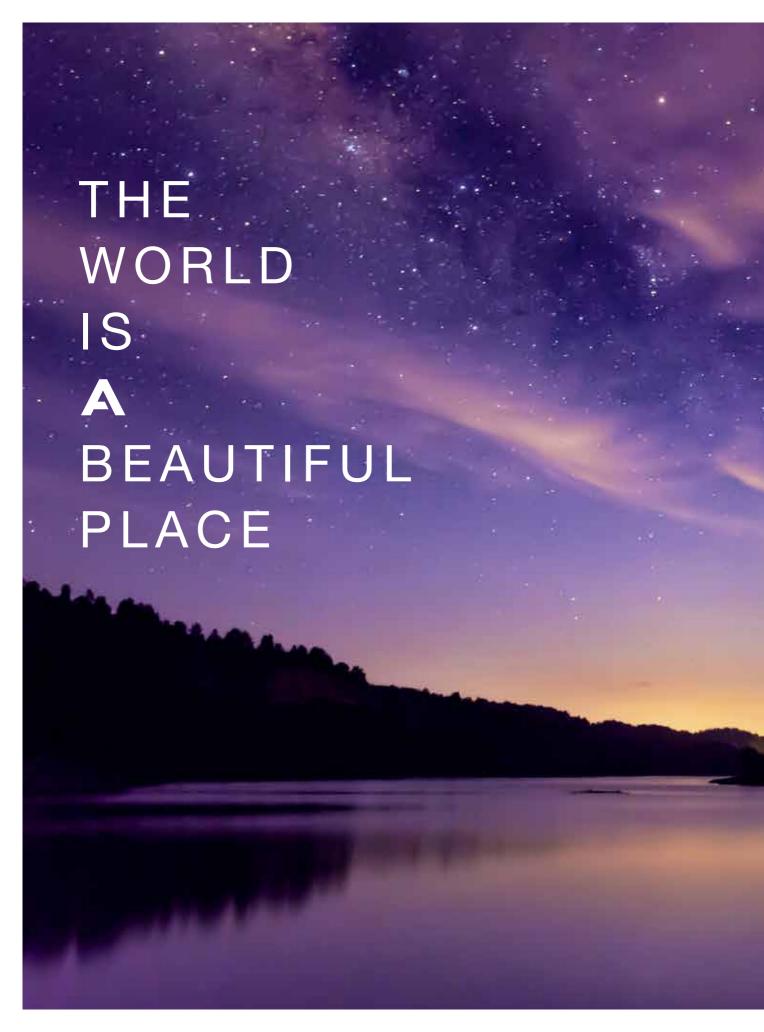
It is obvious InterGlobe Aviation wants to inject younger blood, introduce fresh thinking and reduce the average age of the top team at IndiGo. Both Dutta and Willy Boulter are well over 60. With their departures, the airline's COO, Wolfgang Prock Schauer, is the only member of IndiGo's C-Suite over 65. In general, the team that will take on the new Tata airline will be "leaner and meaner", said sources.

Roles within the airline's upper echelon have been redefined. Sanjay Kumar, the airline's chief of strategy and revenue is taking charge of international operations, including network planning, revenue management, sales and distribution.

Boulter's responsibilities have been split among the existing top management team, barring a new chief commercial officer, Mahesh Malik (also over age 60), brought in to handle cargo. "The new team faces increased competition as the Tata's and other players gear up to increase their shares of the market, no matter how one looks at it," said a senior management source at the airline.

Will this help the airline fly higher and stronger? It is too early to tell.





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RECORD JET FUEL PRICES THREATEN ASIA-PACIFIC AIRLINE RECOVERY

As Asia-Pacific airlines fight their way back to financial health post-pandemic, their bottom lines are being battered by another drain on cash burn - the accelerating cost of jet fuel. Associate editor and chief correspondent, Tom Ballantyne, reports.





t's a no-win situation. As the region's airlines rebuild their networks and work towards restoring capacity to pre-pandemic levels, the more flights they are adding to their networks, the more fuel they need. And, mostly due to the war in Ukraine and market concerns about energy sources over which they have no control, the price of jet fuel has skyrocketed in the last six months with no end in sight to the spike.

Just how serious is this fuel price jump? While it has not yet come to such drastic action in Asia, OAG analyst Becca Rowland, in a report this month drew attention to the story of Nigerian airlines which announced the cancellation of all domestic flights in May due to the increased cost of jet fuel. A spokesperson for Airline Operators of Nigeria said: "No airline in the world can absorb this kind of sudden shock from such an astronomical [price] rise over a short period."

With fuel being the biggest percentage of operating costs for airlines, the near doubling of jet fuel will inevitably result in higher air fares and consequent dampened demand. "Almost certainly we will see more (fuel) surcharges and levies may rise," Rowland wrote. "Partly this is a function of rising demand for air travel as recovery gets underway. Therefore there is more demand for jet fuel, but also it is a result of supply side issues."

"Refineries, which have not had to produce the quantities of jet fuel that were required before the pandemic, must now increase production in an environment with competing calls on their capacity.

"While fuel surcharges are not welcomed by passengers, they remain largely hidden as travellers are presented with the all-in price. For airlines, fuel surcharges are an effective means to address the sharp increase in fuel costs [this year] and, rather than face yet more challenges to their financial recovery, allow them to offset the extra cost and help them return to financial health."

The statistics tell the sorry story. The International Air Transport Association (IATA) has predicted global airlines this year will spend \$132 billion on fuel, accounting for 19.5% of operating expenses at around \$67 per barrel of Brent. Last year, their total fuel bill was around \$100 billion, up from \$78 billion in 2020.

At the beginning of June, the cost of a barrel of Brent was \$124 and the price of jet fuel rose above \$170 a barrel, a 14-year high. According to IATA, the jet fuel price average for 2022 (year to date) is \$138.3 bbl and the impact on the global airline fuel bill this year will be an additional \$125.4 billion. While the average cost of jet fuel varies between regions, in Asia and Oceania at June 1 it was \$162.33 a barrel, 116.8% higher than a year earlier.

The impact on airlines of fuel doubling in price in such a short space of time was underlined in a recent IATA Airlines Financial Monitor. It warned the sharp increase in jet fuel prices was boosting operating costs and represented a risk to a recovery in profitability. It said the average monthly jet fuel price and Brent crude oil price continue to climb higher and are well above pre-crisis 2019 levels. "Many airlines have been voicing concerns about the impact of rising fuel costs – their



29 April 2022	Share in World Index	cts/gal	\$/666	Smit	Index Value 2000 ~ 100	vs. 1 week ago	vs. 1 month ago	vs.1 yr ago
Jet Fuel Price	100%	415.19	174.38	1377.06	476.69	8.7%	7.9%	149.4%
Asia & Oceania	22%	346.84	145.67	1150.00	416.22	3.4%	3.0%	111.9%
Europe & CIS	28%	419.57	176.22	1390.38	474.79	11.0%	7.7%	154.4%
Middle East & Africa	7%	367.65	154.41	1219,17	461.12	6.2%	4.7%	128.9%
North America	39%	459.47	192.98	1524.52	513.03	10.5%	10.6%	170.5%
Latin & Central America	4%	412.60	173.29	1369.02	400.05	4.1%	10.1%	142.4%

largest operating costs - on their financial recoveries."

A report by market researchers, Mordor Intelligence, suggests fuel costs could be a factor in restraining airline growth in the Asia-Pacific. "The Asia-Pacific aviation fuel market is expected to grow at a CAGR (compound annual growth rate) of more than 10% in the forecast period of 2020-2025," it said.

"The growth in the Asia-Pacific aviation fuel market is mainly driven by the increasing number of flights and the increasing number of air passengers, on account of the cheaper air fares of recent times, stronger economic conditions and increasing disposable income. However, the effect of the COVID-19 pandemic, concerns related to carbon emissions and volatile crude oil prices are expected to restrain the growth of the Asia-Pacific aviation fuel market."

The impact of this volatility is showing up in airline financial results. In the first quarter of this year, Korean Air's fuel bill more than doubled from the year-ago period. The SIA group has reported group expenditure in its latest financial year increased 38.6%, or \$967.5 million, to \$3.5 billion. It said there was a \$413.6 million increase (+70.2%) in net fuel costs, a \$495.7 million increase (+25.1%) in non-fuel expenditure and \$80 million from the half-on-half impact of the fair value changes on fuel derivatives. Net fuel costs rose to \$1 billion, mainly on higher fuel prices (+\$187 million) and an increase in volume uplifted (+\$235 million), which was partially offset by a higher fuel hedging gain (-\$83.6 million).

Looking ahead, SIA said inflationary pressures, in particular on fuel prices, remain a concern. "In comparison with the average jet fuel price of \$90.31 per barrel (before





hedging) for fiscal year 2021-2022, spot prices have moved up by more than 50% and were close to \$150 per barrel, at early May. The Group will maintain appropriate cost discipline, even as operations expand in line with demand," it said.

Some Asia-Pacific carriers have eased their pain with fuel hedging. Hong Kong-based Cathay Pacific Airways has various hedging levels in place until next year. Singapore Airlines has 40% of its fuel hedged at \$60 per barrel for the next five quarters. Air New Zealand had hedged 1.34 million barrels of oil in the six months to June 30 and 707,500 barrels in the following half-year period. Qantas Airways had 90% of its jet fuel hedged through to June 30 and 50% covered across the following three months.

Analysts say hedging strategies provide some short-term relief. But with oil prices not expected to come down anytime soon, once existing hedging contracts run out, a now well-hedged airline will face the same cost pressures as an unhedged airline.

There is another reason why the price of fuel is ballooning for many carriers, especially Asia-Pacific long-haul airlines. The Russian invasion of Ukraine has led to sanctions on Moscow, barring airlines from many countries from using its airspace. Even carriers not banned are playing it safe and avoiding Russian skies. This is a circumstance particularly critical for Asian carriers because many of them routinely flew through Russian skies.

Japan Airlines Flight JL43 from Tokyo to London, for example, uses a B777-300ER aircraft that burns roughly 2,300 gallons of fuel per hour. The flight to Europe, much of it over Russia, typically took around 11 hours 45 minutes from

gate to gate. The new route, over the North Pacific, Alaska, Canada and Greenland, adds around three hours of flying in each direction. This pushes the journey time to almost 15 hours when bound for the UK. The rerouted JL43 flight -- which now heads east, adds 2.4 hours of flight time and burns around 5,600 gallons more fuel, a 20% increase.

Qantas Airways is not banned by Russia but it has ceased using the route as "a precautionary measure". Its nonstop 787 Darwin-London service previously took 16.5 hours. The journey is now an hour longer. Rather than take its previous route north over China, through Mongolia and across Russia, Qantas to London now tracks northwest, flying across Singapore and India, through the Persian Gulf, across Iraq and Turkey and over continental Europe to the UK.

With a hub in Helsinki and with Finland bordering Russia, Finnish airline, Finnair, is feeling the impact of avoiding Russian airspace. On its flights between Singapore and Helsinki, Finland's flag carrier previously could fly west in around 11.5 hours. But with new flight paths avoiding not only Russia but also Ukraine, each flight now takes up to 14 hours. That's 2-2.5 hours longer each way. Flights between Tokyo and Helsinki are causing even bigger headaches for Finnair. What took 9.5-10 hours before Russia invaded Ukraine, takes 13.5 hours. That's an extra eight hours of flying on every return trip!

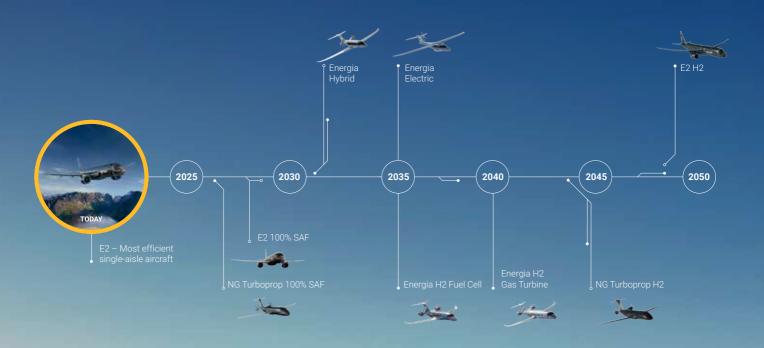
As for fuel surcharges, their imposition is not universal. Some countries, such as the Philippines, have banned them altogether. When airlines include them in ticket prices, the percentage of the surcharge is higher on long-haul international routes, understandable given more fuel is used.

OAG gives the example of an Etihad Airways flight from Singapore to Abu Dhabi on July 23, returning on August 6, that will have a fuel surcharge of 24%. On the other hand, a Malaysia Airlines return flight between Kuala Lumpur and Bangkok has a surcharge of only 8%.

OAG's Rowland cited Japan as an interesting example of a changing situation. "Once upon a time, fuel surcharges were banned in Japan, but in 2017 they were allowed again but there was a cap on what could be charged, initially set at US\$80. As pressure grew, the cap has moved up and may no longer exist. Japan Airlines publishes its fuel surcharges online and for April and May 2022 they range from a low of \$14 for short international flights to a high of \$157 for the longest flights. It appears that every two months they are revised based on the price of jet fuel. With rising fuel prices, they will increase to \$32 up to \$285 for June and July.

"The new higher fuel surcharges in Japan are interesting because in general the highest fuel surcharges are on routes that can bear them. In other words, airlines can successfully impose fuel surcharges where demand is sufficiently high that the effective increase in fares will not put off all travellers.

"Japan, however, has not seen demand recover, especially not in international markets. It remains almost closed for international tourists despite more than 80% of the Japanese population being vaccinated. Some non-tourism international travel is taking place but it is limited and international capacity from Japan remains 84% below May 2019." ■



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mid-2030s we are planning to introduce the sustainable Energia family of aircraft, powered by revolutionary propulsion architectures. 2045 will likely see the flight of our first hydrogen-powered turboprop and finally, in 2050, a hydrogen-powered E2 or similar sized aircraft will take to the skies.

Undoubtedly these are bold and ambitious steps, but with over 50 years of market knowledge and expertise behind us, we are confident that we will deliver what we set out to do, transforming the way we all fly.

Taiwan's EVA Airways is a member of an exclusive club. It is one of the few airlines in the region that reported periods of positive revenue during the pandemic. Now it has to do it all again, this time in a post-pandemic world where its commercial airline rivals are back in the market share fray. Tomasz Sniedziewski reports from Taipei.

aiwan's EVA Airways, sufficiently nimble to record periods of profit during the global COVID-19 pandemic, now must overcome another monumental challenge - maintaining profitability in a region that has been the slowest to re-open as global restrictions against COVID ease.

"Like many other Asia-based airlines, we had no choice but to focus on cargo to survive the pandemic. Now, post-pandemic, most countries where we operate have ended border restrictions and have allowed normal life to resume. A few, such as Taiwan, are exceptions," EVA Airways president, Clay Sun, told Orient Aviation last month.

'The next challenge we face are the hurdles we will have to overcome to catch up with the global recovery in passenger demand.

"But the good news for the airline, as we speak in May 2022, is Taiwan has abandoned its zero-COVID policy, setting in motion the gradual opening of the EVA schedule.

"Taiwan recently adopted a strategy of coexisting with COVID-19. We expect Taiwan to lift border restrictions in the second half of 2022. In anticipation, we are adjusting our passenger and cargo ratios.

"We have a recovery strategy to serve projected passenger demand and are on track to optimize improving market trends.'

The task ahead is the latest in a series of challenges for Sun, a company veteran promoted to president in early 2018. This time it is keeping the airline group in profit beyond the

"My first pandemic challenge was the steep slide in passenger demand. The obvious countermeasure was to ramp up EVA Cargo's business," Sun said. "Prioritizing cargo had

immediate consequences.

"My second challenge was our limited number of freighters and capacity. We offset these challenges by creating "preighter" or cargo-only passenger flights and, at the height of the pandemic, re-configuring as many as 33 of these aircraft.

"In addition to optimizing belly hold space, we carried air freight on cabin floors and, when needed, removed seats to increase capacity."

The preighters used for transporting cargo "were not the only option available to EVA" when cargo capacity was in high demand, Sun told Orient Aviation.

"In August 2020, we successfully adjusted an agreement with Boeing and replaced an order for seven 787-10s with four 787-9s and three 777Fs. The three new 777F freighters were delivered in 2021, giving us eight B777Fs, boosting our cargo capacity and making us even more competitive in today's strong cargo market."

But the strong focus on cargo did not mean EVA Air abandoned passenger operations, Sun said. "We have supplemented freighter operations with passenger flights that have carried cargo only, maximizing both our airfreight network and capacity," Sun said.

"At the beginning of the pandemic, when COVID-19 was still an unknown feared disease and the vaccine was not yet available, EVA Air adopted safety measures that are in place until this day.

"Early on, we employed COVID-19 prevention best practices, including a single tray meal service and disposable inflight amenities in all cabin classes, minimizing physical contacts. Inflight, all our cabin crew members wear face masks and protective gear,



reinforcing passenger confidence in air travel with EVA."

As the pandemic persisted and then variants of COVID-19 spread worldwide, EVA's management negotiated lower fees and charges with the gateway airports it served in its international network.

It also pared contract prices and preferential payment terms with suppliers. "We have suspended non-essential system development, equipment procurement and repair projects," Sun said.

"We also have paused non-essential commercial campaign promotions and sponsorship activities. At the same time, the company generated new, sometimes unorthodox sources of income.

'We boosted passenger revenue by creating 'Flights to Nowhere' and initiating 'Corporate Business' and 'Repatriation' charters, meeting pent-up demand and travel needs. Accommodations on these flights included offering options to block extra seats, zones or cabins.

"Also, as a special treat for air travel fans, we scheduled behind the scenes tours of the EVA Training Center, not only giving our passengers a glimpse of the hard work that goes into the exceptional inflight services they enjoy, but also promoting flight safety and brand awareness."

In 2020, EVA Airways annual revenue was TW\$79.6 billion (US\$270.07 million) with passenger revenue of TW\$24.5 billion, an annual drop of 76%. But cargo revenue hit a record high of TW\$50 billion, an annual increase of 97%.

> The 2020 cargo revenue result was insufficient to compensate for the carrier's drastic drop in passenger revenue. The imbalance translated into an overall net loss of TW\$3.36 billion

EVA's results were a relatively narrow number when compared with the huge losses recorded by carriers worldwide, validating its pivot to prioritizing cargo in the depths of the pandemic.

In 2021, the company increased year-on-year cargo revenue by 70.3%, to TW\$85.2 billion. Overall, EVA Air's revenue increased 20% in 2021, to TW\$95.3 billion. The company declared a net income of NT\$6.6 billion (US\$232 million) for the

At press time, the beginning of the 2022 peak summer travel season and when many parts of the world are lifting pandemic restrictions, EVA Air remains constrained by some pandemic regulations still in place in Taiwan.

COVER STORY



Sun said: "My third challenge is balancing pilot and crew rotations with Taiwan Center for Disease Control (CDC) quarantine regulations. Pilot and crew limitations affect flight operations and restrict utilization of available cargo space. Additionally, as with much of the industry, EVA Air must manage rising costs.

"My latest challenge is skyrocketing jet fuel prices, now devouring a sizeable chunk of profits," Sun said. "Finally, being located in Asia places EVA Air at a major disadvantage compared with our American and European airline peers. Asia is slower to re-open to international air travel."

In May, the International Air Transport Association (IATA) urged Asia-Pacific nations to ease border measures to accelerate recovery from COVID-19. The region's international passenger demand for March was 17% of pre-COVID levels, after hovering below 10% for most of the

"This is far below the global trend where markets have recovered to 60% of pre-crisis levels. The lag is caused by government restrictions. The sooner they are lifted, the sooner we will see a recovery in the region's travel and tourism sector and all the economic benefits that will bring," said the International Air Transport Association director general, Willie Walsh, at the Changi Aviation Summit in May.

Sun wholeheartedly agrees. "More countries are gradually lifting entry restrictions and most mainstream airlines in the Asia-Pacific are gradually restoring passenger flight capacities.

"But Taiwan's entry quarantine requirements and transfer service prohibitions continue to affect EVA's operations and significantly. Before the pandemic, we built a dense trans-Pacific network with 142 weekly flights across Southeast Asia and to eight gateways in North America," Sun said.

"In the meantime, we are using this period to fine tune our product, airport operations and inflight services."

There are good reasons to take EVA Air seriously when it declares it is improving its product. For many years, it has been recognized for its service. It has received countless awards from rating organizations and travelers for offering one of the best air travel experiences in the world.

Its high standards of safety and comfort made it relatively easy for the airline to adjust its product to pandemic times.

"EVA has been committed to safety and excellence with all our products and services from the day we made our maiden flight. We have never lost sight of this deeply ingrained commitment. We continually upgrade hardware, software and services so that from the time passengers book flights until they arrive at their destinations and claim their luggage, we deliver passenger experiences that remain among the best in the world," Sun said.

"While the pandemic has dramatically changed how people travel, we hold fast to our promise to provide passengers with safe, comfortable flight experiences and



EVA does not believe it will escape the challenges of recovery. The Russia-Ukraine war and skyrocketing jet fuel prices are impeding profits. Prolonged pandemic impacts have eroded consumer confidence in air travel and restoring it is a challenge. Labor shortages may cause efforts to rebuild networks and resume operations to stall. In the meantime, we anticipate Taiwan will lift border restrictions and loosen quarantine mandates for air crew so we can return to offering passengers excellent travel experiences from check-in to baggage claim

Clay Sun EVA Airways president

more, even when we employ COVID-19 preventive measures," Sun said.

When flying with EVA Air compared with pre-pandemic times passengers will have a more digitally streamlined experience. "We accelerated the development of digital service applications, automated other services and streamlined airport operating procedures to reduce person-to-person contacts and give both our passengers and staff safer, more convenient interactions," Sun said.

"It boosted confidence in air travel and has prepared for the resurgence of business and leisure travel post-pandemic at the same time," Sun said. "Another important direction in EVA's product development is that air travel becomes sustainable.

"We have adopted the latest eco-friendly alternatives and replaced many single-use plastic inflight service items. We have introduced digitized inflight reading materials, including our wine lists and menus, eliminating tons of paper waste."

Many travelers will be happy to learn Sun's insistence that the gap in flying during the pandemic will not erode their status with EVA Air's loyalty program:

"We are sustaining passenger loyalty and preferences by extending validity periods for membership status, mileage balances and reward tickets. We have upgraded our membership ecosystem for loyalty program members," Sun said. "For our Infinity MileageLands members, we have introduced an exclusive shopping platform and diversified access channels."

Restoring EVA Air's passenger services from its present skeleton network to pre-COVID full-scale operations will follow a carefully plotted path.

"During stifling pandemic impacts, EVA maintained the structural core of our network and continued to meet the restricted needs of travellers," Sun said.

"Operating from our Taoyuan International Airport hub, trans-Pacific service recovery is a priority, recognizing our unrivaled transit connections are critical to success.

"We also expect to be cooperating even more closely with our Star Alliance members to optimize the economic efficiencies of extending services across the networks of other [alliance] members.

'As global commerce rebounds and business sectors gain momentum, we will develop passenger potential and cargo destinations in Europe, focusing on routes such as Milan and Munich. The addition of these routes will strengthen the competitiveness of our global network."

EVA's strategists have the benefit of the carrier's young fleet. "At April 2022, EVA operated 90 aircraft: 82 passenger jets and eight freighters. We fly single and twin-aisle aircraft from Airbus and Boeing. The addition of new generation models has lowered the average age of our fleet," Sun said.

One of the aircraft at EVA Air's disposal is the 787.



"From 2018, EVA began to take delivery of 787 Dreamliners. We operate 10 787s: four B787-9s and six B787-10s. By 2024, we will have 21 787s in our fleet," Sun said. EVA Air is Taiwan's only operator of the 787 and the airline group is closely watching the latest developments in the 787 program, he told Orient Aviation.

"We ordered 11 more 787s that are delayed. We expect Boeing to deliver them by 2024. From 2020, airlines worldwide canceled or deferred aircraft orders. At the same time, travel demand to and from Taiwan plummeted and has not begun to recover [until now] so the 787 delivery delays have not significantly affected our fleet deployment," he said.

"We are optimistic Boeing can ramp its 787 production schedule to deliver the aircraft we have ordered so we can meet air passenger traffic as it builds towards projected full recovery in 2024."

EVA Air is evaluating its fleet decisions. "The first of the leases we have for our narrow-bodies will begin to expire in late 2022. We are evaluating replacement of the 24 A321-200s we are operating with next generation narrow-bodies that will be at least 15% more fuel efficient," Sun said. "In a few years, EVA also will welcome a new generation of wide-body jets to its fleet.

"We serve our major long-haul North American routes with 777-300ERs. We plan to begin to replace them in the second half of 2025. Possible successors are the 777X or A350."

Equally important are plans for EVA's freighter fleet. "With demand for air cargo forecast to continue to be strong and to expand, we ordered one more 777F, for delivery by year-end 2023," Sun said.

"We also have contracted Israel Aerospace Industries (IAI) to convert three 777-300ER passenger aircraft to freighters, starting in mid-2025."

The freighter fleet expansion suggests EVA sees more potential for air cargo. "Both cargo and are vital for EVA, but implementation and deployment must be carefully balanced. The two distinct services are complementary in seasonality," he said.

"Balance reduces risks during global events. In addition to our freighters, our wide-body passenger aircraft, including 777s, 787s and A330s, gives us supplemental space in the belly hold of passenger flight routes.

"Operations are being buffeted by geopolitical conflicts and global supply chain disruptions, but air cargo retains a strong market outlook and will be an important and proportionally larger EVA revenue source into the future."

During the pandemic, cargo has been confronted with interesting competitive developments. "This year, shipping groups such as Maersk are setting up their own airlines or investing in existing airlines. An example is CMA CGM investing in Air France-KLM," Sun said.

According to statements of the parties involved, reported in the media, combining different modes of transport will allow the shipping companies and partner airlines to offer end-to-end solutions that might attract Beneficial Cargo Owners (BCOs).

EVA Air is an affiliate of one of the world's most important shipping companies, Evergreen Marine, so some market observers wonder if EVA will follow this trend, offering end-to-end solutions.

Sun told Orient Aviation: "Different business models do not all have the same costs. Each business model, no matter how new or innovative, must be evaluated on its own merits. EVA is not considering the implementation of an end-to-end cargo transport solution now."

Sun sees opportunities for the airline he is leading. "Climbing vaccination rates have encouraged countries around the world to end border restrictions at an accelerated pace, unlocking pent-up passenger demand for air travel," he said.

"We look forward to keeping up with the pace of this demand for international flights as we prepare for the market to recover and resume EVA's growth."

> Unlike some pundits forecasting business travel will be stuck in decline post pandemic, Sun is generally positive about the return of this sector of the cabin.

"The pandemic and geopolitical conflict have altered the global landscape, leading to reorganization of the supply chain, creating new business models for partnerships and opening doors to fresh opportunities," he said.

"While technology can minimize geographical barriers and great distances, solid relationships continue to be critical to mutual understanding and building the trust that encourages good business relationships.

"Face-to-face meetings and interactions are an eventual necessity. We expect business travel to rebound in the post-pandemic era though some are likely to be traveling less frequently." **=**



Singapore leads region in airline recovery strategies

Location. Location. It was the reason why, among the world's carriers, Singapore Airlines has been one of the hardest hit by the pandemic. Yet throughout the crisis, the company's CEO, Goh Choon Phong, has been determined the group will emerge stronger from COVID. Associate editor and chief correspondent, Tom Ballantyne, reports.

ast month, reflecting on the shattering impact of the global pandemic on the Singapore-headquartered carrier, SIA Group CEO, Goh Choon Phong, said: "The pandemic has been devastating for the airline industry, but even more so for an airline like SIA because we have no domestic market and are completely dependent on international operations."

Speaking at an investor and media briefing in March, Goh recalled how the world quickly closed its borders when the COVID-19 pandemic emerged in late January 2020. "By April, we were operating at 3% of pre-COVID capacity. Worse was that our passenger carriage dropped from 3.4 million in January to a mere 11,000 people by April. Huge. Drastic. At that point in time, it was survival mode," he said.

In a detailed and frank briefing Goh conducted after the release of the airline's results for the fiscal year to March 31, he described the corporate tightrope the airline group has had to walk not only to survive the pandemic but to grow beyond it.

The group's losses for its latest fiscal year narrowed by 78%. The company also recorded a second half operating profit as passenger numbers leapt six-fold

as travel restrictions were eased. An operating cash surplus of \$600 million was achieved for the reported year.

While the group was still in the red for \$444 million for the year, it was better by \$1.38 billion (+75.7%) from the \$1.8 billion loss in the year-ago period, with passenger revenue up by \$1.5 billion, to \$2 billion, for the 12 months. Cargo delivered a record \$3.2 billion to SIA coffers for the year, driven by strong pricing in a period when air and shipping freight capacity could not meet demand.

Times may still be challenging, but the results were a dramatic turnaround from the dark days of 2020 when SIA was burning cash of up to \$400 million a month - and that was before paying for aircraft scheduled for delivery to the group.

Goh, who took charge at SIA in January 2011, said the steep drop in passenger numbers and revenue was an extreme stress to the company in cash requirements, especially as the pandemic emerged just as SIA was completing a three-year transformation program.

Only months later, the group was faced with identifying sufficient sources of liquidity to fund basic operations.

"Fortunately," Goh said,
"we had strong support from our
shareholders. We raised \$10.9
billion from them. After that,
and also from a strong statement
of support from the Singapore
government, we were able to
go to many different sources
of financing for additional
funding. Accumulated funds

raised since April 2020 amount to \$16.3 billion, which gave us one of the strongest balance sheets among all airlines."

The fund raising exercise was a learning experience. "We had never had a need to reach out to so many different sources of funding. In the process, we learned a lot about how best to actually organize the process of getting those funds," he said.

"What are the preparations we need to make? How do we make assessments of the viability of those funding sources? This learning [curve] helped us. One of the results of it is we are much stronger and more resilient.

KrisShop highlighted how SIA pivoted from pre-COVID to the present. Before COVID, most KrisShop sales were onboard sales. In fact, above 60% of revenue came from onboard sales. In the year just past, with very little flying, even without very many onboard sales, revenue for KrisShop sales in 2021-2022 was actually higher than pre-COVID

Goh Choon Phong SIA group CEO



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"Not that we want another crisis of this nature. Should something happen of a similar nature that would demand a lot of cash in the short term, we are equipped with the necessary knowledge to respond even more effectively."

But it was not all about funding. Goh said. "We took rapid and practical steps to reduce our expenditure. Part of this was working with the OEMs to defer some of the payments we had to make," he said. "Again, we were one of the earliest airlines to reach out to our major OEMs to negotiate the deferral of aircraft deliveries. As a consequence, we moved out more than \$2.9 billion of aircraft capital expenditure in the immediate term."

SIA group staff also had to make sacrifices. "Besides taking pay cuts, we had to go through a very painful exercise to reduce our staff strength. We have consistently said our people are our greatest and most valuable asset," Goh said.

"It's the reason why, in this area of letting go staff, we were probably among the latest [to do sol among airlines."

SIA, realizing it would be difficult for people to find new jobs, essentially seconded 2,000 staff to public and private sector organizations in Singapore where they worked, on full pay,

as "ambassadors" in areas such as hospitals, transport and safe distancina.

"This pandemic, like all the crises we have gone through, will pass at some point. We need the ability to bounce back as quickly as possible when that happens.

"At the same time, these people were contributing to the efforts to deal with the pandemic and that generated a lot of good will. Also, they were learning new skills. They know they can come back to SIA when we see a recovery. From a company point of view, we are getting back skilled people who have actually acquired new skills."

Goh said SIA has become more innovative because of the pandemic. "We have had to be. We know health and safety have become such important considerations for everyone. People wanted to reduce contact so we quickly leveraged on the investment we had made before

the pandemic," he said.

"The digital investment introduced ways our customers could interact with us without necessarily having physical contact. Inflight reading can be done on personal devices. Similarly, passengers could use their own devices to control IFE on board

"We were in a situation where nobody was flying, but we had to continue to engage with our customers. Our people found novel ways to do this such as the A380 restaurant experience. It had an overwhelming response. We planned two sessions and ended up having to organize 15.

"We also introduced a scent from flowers indigenous to Singapore that we sold on the airline's online KrisShop site."

Onboard, the group launched a catering product. the Bento service, which uses recyclable paper products. It not only cuts weight, but reduces

annual carbon emissions by 2.000 tonnes.

Fleet development is another part of SIA's strategy, particularly sustainability. The average age of the SIA group fleet at May 31 was six years and two months compared with the average global fleet age of 15 years and four months.

Some 63% of the SIA group's aircraft are new generation and the airline company has firm orders for 107 more, including seven A350Fs scheduled for delivery from the fourth quarter of 2025. The new airplanes will replace the 747-400F fleet and burn up to 40% less fuel. SIA is on track to be the first airline company to operate the type.

Goh continued: "When we compare ourselves with other airlines in Asia, we have been driving up capacity way ahead of our peers, especially in this part of the world, bearing in mind we are talking about international operations."

He also stressed SIA is continuing to transform. "This is the second year of our new transformation exercise. The focus is on teaching our people to be even more productive, to reskilling, to up skilling and to introduce more innovation and workflow adjustments to make us more effective.

"We will continue to improve our products. All the A380s operating today are fitted with the latest A380 product. We have introduced new product on our



narrow-bodies and the 737 MAX and will continue to invest in making the customer experience better."

In the final quarter of the reported year, SIA took delivery of one A350-900 in January and three B737-8s that are to enter service with the group.

Additionally, 100% subsidiary, Scoot, has accepted the A321neo type into its operating fleet. At March 31, the full-service SIA operating fleet was 123 passenger aircraft and seven freighters. Scoot had 53 passenger aircraft at the same date.

For the reported year, the group's passenger network served 93 destinations in 36 countries and territories, up from 85 destinations at December 31, 2021. In pre-COVID times, the group was flying to 137 destinations in 37 countries and

At the end of 2019, we were coming out of a three-year transformation exercise with all cylinders firing. We were achieving in that quarter - October to December 2019 - record revenue, record passenger carriage, one of the highest load factors we had ever had and one of the best operating profits for the quarter

territories - SIA to 69 destinations and Scoot to 43 destinations. The cargo network has expanded to 100 cities, up from 98 at year-end last year.

Based on published schedules, the Group has forecast passenger capacity will reach 61% of pre-COVID levels in the first quarter of 2022-2023.

As travel demand recovers, the SIA group expects passenger capacity to achieve around 67% of pre-COVID levels by September 30 and serve more than 70% of its pre-pandemic destinations in the same time frame.

It also will continue to focus on its network and increase connectivity. As well as expanding its codeshare agreement with United Airlines and collaborating more deeply with All Nippon Airways, SIA Group has written

new agreements with Malaysia Airlines Berhad and Garuda Indonesia

If there is a concern for SIA going forward it is inflationary pressure, in particular the impact of rising fuel prices on its cost structure. In fiscal year 2021-2022, the average jet fuel price was \$90.31 per barrel (before hedging). Since then, spot prices are more than 50% higher and were close to \$150 per barrel early last month.

In the past year, net fuel costs at the SIA Group increased by \$853.4 million, or 115.5%, to \$1.6 billion.

But for Goh the path ahead is a lot brighter than it was two years ago. "The SIA Group will remain agile and leverage opportunities to reinforce its leadership position in the airline industry," he said.



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IN THIS BATTLE **TOGETHER**

One of the world's leading aircraft engine lessors believes the airline industry is returning to normal, but not as quickly as many hope. Austin C. Willis told associate editor and chief correspondent, Tom Ballantyne, the percentage of leased aircraft and engines in the global airline fleet, now at 47%, should continue to increase.

hen asked the lessons the industry is learning from the pandemic, CEO of major aircraft engine lessor, Willis Lease Finance Corporation, Austin C. Willis, does not hesitate in his reply. "It goes back to the same question we had following the 2008 (Global Financial Crisis) crisis. It's a Black Swan question," he said.

The engine lessor's response is specifically relevant to the aviation industry's pandemic experience. A Black Swan event is a catastrophe that may or may not happen. If it does, the precise pathway and the timing of its occurrence are near impossible to predict. Like a global pandemic.

"We have to consider how we price our leases," Willis told Orient Aviation. "Often times, we commercial aviation lessors price in lease and financing rates indicative of the risks they know, not necessarily the risks they don't know.

"Perhaps we could take a more conservative approach on that? Perhaps not. Ultimately, it goes back to a partnership approach with a lot of our customers and then trying to work through major economic downturns and issues with them rather than working against one another."

In fact Willis, who served as a Green Beret in the U.S. Army's 20th Special Forces Group, makes the point that working with airline customers, not against them, was a key part of finding a way through the pandemic. "We became de facto partners. We discussed it early on. Historically, when it comes to collections, we are pretty forward leaning. When somebody owes us money, we do what we can to make sure they pay us," he said.

"This was different. This was not airlines, generally speaking, taking advantage of the situation. They genuinely were in dire straits so to go in there aggressively when they are on their backs would have been the wrong approach. We worked with them. We did not get taken advantage of in the crisis.







Long-term positive growth in Asia-Pacific

Like most global companies, Willis Lease Finance Corporation sees the Asia-Pacific as an increasingly important part of the business. "Historically, the lion's share of our revenue was generated from Europe and the Americas, but that has been changing and continues to change. We see long-term positive growth trends in the Asia-Pacific. It's going to be interesting to see what happens post-pandemic when China finally comes out of the lockdown. We are cautiously optimistic that things will return as strongly there again and be a long-term region for growth."

Willis Lease Finance Corporation CEO, Austin C. Willis

"I will add there were certain airlines that did take advantage of the situation and used it as an excuse to exploit circumstances and renegotiate contracts. But they were very, very few and far between."

Willis Lease Finance Corporation, headquartered in Florida, was founded by Willis's father, Charles F. Willis, more than four decades ago. It specializes in leasing spare commercial aircraft engines and other aircraft-related equipment to commercial airlines, aircraft engine manufacturers and maintenance, repair and overhaul facilities worldwide. Willis was appointed CEO on April 1 this year after a long and diverse aviation career, most recently as the lessor's senior vice president corporate development and since 2008, a member of the lessor's board of directors. A graduate of the London School of Economics and Political Science, in 2004 he founded and led J.T. Power LLC, a privately held aviation parts and leasing company.

"Judging where the industry is in terms of recovery is a tricky question," he said. "I wrote a letter to our shareholders recently and what we came away with from 2021 was continued instability. Every time we thought things were starting to normalize and improve, something new would hit the industry like the Delta variant, then the Omicron variant and now political instability in Europe with Russia's invasion of Ukraine."

Russia's invasion of Ukraine is having an impact on the lessor sector. "We have and manage a limited number of assets in Russia," Willis said.

"We have been working diligently to recover them and actually had some asset recovery during the military incursion. We continue to pursue different angles both internally within Russia among the Russian airlines as well as pursuing our claims with the insurance companies."

In May, Willis Lease reported first quarter revenue of US\$68.8 million. For the three months to March 31, aggregate lease rent and maintenance reserve revenues were \$53 million and spare parts and equipment sales were \$6.6 million. The company reported increased total revenues in the first quarter compared with a year ago primarily from higher lease rent revenue and short-term maintenance revenue.

Quarterly performance was negatively impacted by the Russian-Ukraine war and related sanctions. In the first quarter of this year, the lessor recorded a \$20.4 million impairment on two engines in Russia expected to be unrecoverable and wrote down \$0.9 million of receivables associated with Russian leases. Through its joint venture, Willis Mitsui & Company Engine Support Limited (WMES), the lessor recorded an additional net impairment of \$2.4 million, presented through losses, from joint ventures.

"The recent events in Ukraine are tragic and they have impacted us commercially through asset seizures in Russia," Willis said. "However, proactive measures were taken early on to reduce exposure and recover assets, helping to mitigate potentially greater impairments."

Despite such blows to the bottom lines of many aviation lessors, Willis is confident the percentage of aircraft and engines leased by airlines should continue to grow beyond the sector's current up to 50% market share.

"It will, for a few reasons. On the aircraft side, airlines have become accustomed to leasing airplanes for a fixed period of time to benefit from a particular maintenance window. From an engine perspective, there are two principle reasons: fleet planning and the overall expense of engines," he said

"If you look at the list price of a CFM56 or a V2500 [engine] not that long ago, it was in the \$7 million to \$9 million range. You look at the list price of a new LEAP or a new GTF high-thrust [engine] today and they are knocking on the door of what an aircraft cost only a few years ago. The engines have become so much more expensive so it is harder now for airlines to own them outright.

"Combine that with the trend we have been seeing for a few years of airlines trying to move away from a lot of the maintenance function internally and instead outsourcing it. The combination of that outsourcing and the finance side from a leasing perspective has lent credence to the leasing market in general.

"We have our Constant Thrust program where we do sale and lease backs on airplanes and when an engine becomes unserviceable, we replace it with another engine. Programs

While the pandemic has certainly increased online communications and digitalization with suppliers and customers, Willis said, this trend started before COVID. I look back at the past decade when we would send a team of record inspectors to India or Pakistan or elsewhere in the world. For the most part. we now conduct nearly all of these records audits electronically

like that where we combine the maintenance aspect and the financing aspect could have a long runway."

From a personal perspective, Willis shared that the pandemic has meant he went from travelling 50% of the time to spending a lot more time with his family. "The flip side to that coin is the stress of trying to manage a company where many of your customers have gone to zero revenue at the same time. It was incredibly difficult. You saw various ways different people managed through the crisis. From a lessor perspective, there were some that played hard ball, so to speak," he said.

"Ultimately, they did not really gain from it in many respects and they alienated their customer base. We found it was very much a case that we were heightened partners to the airlines. We preferred not to take back these assets, but airlines were generally not in a position to pay what they owed.

"So, we worked in a pretty collaborative format to find deferral and rental agreement restructurings that protected our shareholders but also enabled the airlines a degree of flexibility with liquidity and payments.

"For the most part, most of those contracts have run their course and our engines are back on more traditional lease structures. But we definitely made a real effort to work with the airlines.

"Looking at the bigger picture, from our perspective our approach validated our business model in the sense we are different from a lot of the other lessors because we were and are much, much more hands on.

"Unlike a lot of aircraft lessors and even some of the other engine lessors, we do a lot more short-term leasing.

"It means we are interacting with the airlines all the time. That interaction really enables us to find collaborative solutions with the airlines."

While the pandemic has certainly increased online communications and digitalization with suppliers and customers, that had been the trend before the pandemic, Willis said. An example is video borescope reviews.

"They can be sent electronically now. Where historically you would have to do engine test cell runs after a lease we

are now doing on-wing MPA (Maximum Performance Assurance) runs and acquiring performance data," he said.

"The pandemic has probably accelerated them, but a lot of those technical functions already had become remote and these trends will continue.

"Digitalization has been scaled up during the pandemic more as a way to replicate the face-to-face interaction we had historically. I think Microsoft Teams and other collaboration apps were a big part of that.

"We were fortunate we actually implemented a new ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management) system some months before the outbreak of the pandemic. The data we gathered made us far more reactive, agile and better equipped to deal with issues as they came up."

What makes Willis Lease unique, its CEO said, are the customized solutions it offers clients. "There are a number of parties that can do just money over money leasing and lending. We offer ways to essentially enable customers to better budget and reduce costs and expenses as they come out of the pandemic," Willis said.

"Through our Constant Thrust program and similar products, we essentially offer power-by-the-hour on engines, where we do a sale lease-back on an aircraft and the airline just pays maintenance reserves and we recycle engines on and off wing. These offerings should be a real value to customers as they come out of the pandemic and (a) are trying to budget effectively for engine costs and (b) are unsure about the longevity of the particular fleet and when they are going to replace it with something newer. That provides them with a lot of flexibility." ■

Benefits of lessors for airlines

Aviation's lessors "play an important role in the industry and are vital in maintaining a fully functioning aircraft finance ecosystem. At the onset of the pandemic, lessors provided critical capital to airlines through sale leaseback transactions", an industry forecast released in May said.

"As air traffic recovered, lessors provided airlines with flexibility to adjust capacity to meet customer demand. In 2021, lessors were responsible for more than half of delivery financing volume," Boeing has reported.

In 2021, the industry-wide fleet, both in service and parked, was divided between owned aircraft at 53% and leased aircraft at 47%.

Boeing's outlook, compiled with Cirium, reports aviation trends marked 2021 as a year commercial aviation required about US\$64 billion in delivery financing, an increase from \$59 billion in 2020.

Last year, lessors shifted from negotiating lease deferrals to bidding for new business. "Capital markets gave a vote of confidence [to the sector] by providing issuers with pricing near to pandemic levels," the outlook reports.

Where there were shortfalls, export credit and institutional investors provided the necessary financing to support airlines, the forecast said.

Lessors on a roll as aviation rebuilds beyond COVID-19

The last two years have been as traumatic for commercial aviation lessors as for their airline customers. But it is generally agreed the sector has remained resilient during the pandemic and played an important role in supporting carriers to the other side of the crisis. Associate editor and chief correspondent, Tom Ballantyne, reports.

ight now, Boeing confirms, there are 193 aircraft leasing companies worldwide, up from 117 in 2002. They are operating in a market valued at \$167.8 billion, reports Businesswire, a Berkshire Hathaway company. From this year to 2026, this very large number will reach \$247.41 billion, representing an annual growth rate of 7.8%.

These bottom line billions might surprise given lessors are servicing an industry burdened with massive losses and huge debts accumulated from the worst crisis in the life of commercial aviation.

The basis for this forecast growth is that most big lessors have worked with their customers, helped them adjust their fleets and negotiated payment deferrals as the COVID crisis has ground on.

Now, as the recovery progresses and airlines rebuild their fleets, mainly with more efficient new generation aircraft, it is forecast leasing will be the best means for carriers to acquire new heavy metal. Leased aircraft in the global fleet, now at 47%, will inevitably continue to rise,

AerCap CEO, Aengus Kelly, who leads the world's largest aviation lessor, puts it this way: "The pandemic has shown the leasing business is a good business. Well managed lessors with global platforms that are able to move assets around the world and manage the interactions with the customer base and manufacturers during times of great stress have proven the resilience of the aircraft leasing business. It is why we are seeing so much capital interested in the sector."

Recently, KPMG Ireland analysts quoted Air Lease Corporation (ALC) CEO, John Plueger, when putting forward the reason lessors have proven to be a bastion of capital in this period of COVID-19 crisis. "As evidence of this shift, in 2021 lessors took delivery of 60% of all Boeing and Airbus aircraft orders, all placed under some form of lease, be it sale-leaseback, order book or finance lease. Clearly, the leasing component is a capital star of industry," he said.

"During this period of airline financial and balance sheet recovery, airlines have looked to leasing in a much more significant way, which I see continuing in 2022 and probably 2023 and beyond."

The KPMG report continued: "Lessors have supported airline customers in myriad ways, from providing aircraft from their order books, enabling airlines to defer their orders without significant penalties and offering



combinations of sale-leasebacks and renegotiated leases to assist airline cash flow."

This optimism about the sector's prospects is shared by Boeing. Recently, it released its 2022 Commercial Aircraft Financing Market Outlook (CAFMO). It outlined improving financing stability for the industry as it recovers from the pandemic.

"Sale-leaseback deals freed up a lot of capital, which has been great for the industry," Boeing Capital president, Tim Myers, said. "Lessors have played a tremendously important role, providing support that has benefitted the entire industry. We think there will be a much more balanced recovery going forward.

"A number of new lessors have set up, backed by new private equity and hedge funds, which will strengthen the leasing market. The investment



community really likes the lessor models. Investment grade lessors have performed extremely well throughout the pandemic and have put pressure on the rating agencies to upgrade their ratings.

"Overall, the lessor share of the market will stay in that 50% range and continue to be a major player going forward."

For the second consecutive year, 100% of Boeing deliveries were financed by third parties with the top sources of delivery funding in cash, capital markets and sale leasebacks, CAFMO said.

Capital markets continue to play a key role in shoring up liquidity for the sector, with the market close to pre-pandemic levels for most issuers as spreads tightened throughout the year.

Boeing predicts export credit supported financing for Boeing aircraft contributed about 5% of total funding last year, primarily from the U.S. Export-Import Bank and also one deal supported by UK Export Finance. The Boeing 2021 Commercial Market Outlook, a separate annual 20-year forecast addressing the market for commercial airplanes and services to 2040, predicts there will be demand for more than 43,500 new airplanes, valued at US\$7.2 trillion, in the next two decades

Boeing Capital Markets & Outreach managing director, Ben Faires, told Orient Aviation: "When you look at 2018 the

Top ten aircraft lessors (by portfolio value)

Manager	Total Portfolio	On Order	Est Portfolio Value (US\$million)
AerCap	1,970	473	43,561
SMBC Aviation Capital	528	199	17,216
Air Lease Corporation	472	304	17,023
Avolon	596	226	16,858
BOC Aviation	418	109	14,543
BBAM	117	441	13,572
ICBC Leasing	457	95	13,162
Aviation Capital Group	355	47	8,473
DAE Capital	377	10	8,077
Bocomm Leasing	262	30	7,421

industry delivered about \$126 billion in aircraft". "When you go to 2020, the number drops to \$59 billion. Last year it went up, but it is still about half of the peak level at around \$64 billion," he said.

"To put this in perspective, in 2018 the industry delivered more than 1,700 aircraft. About 80% were narrow-bodies and the remainder wide-bodies. In 2021, airline customers accepted about 1,000 aircraft; 87% were narrow-bodies and 13% wide-bodies. We saw a pretty dramatic reduction in deliveries. This has created a unique environment. There are a lot of players out there looking for transactions and the volumes are not where the industry was pre-pandemic."

Faires told Orient Aviation: "when we look at the next decade the industry will need about 19,000 aircraft and the majority of those aircraft will be replacing old technology leaving the fleet with new technology coming in.

"In 2020 and 2021, 100% of our deliveries were financed by third parties. It was a testament to the products over the last couple of years, considering the uncertainty in the marketplace, but aircraft financing markets still are very healthy.

"North America has been a very heavy capital market focus," Faires said. "Historically, the Asia-Pacific has been a very strong bank debt market. Regional banks [in the Asia-Pacific] are supporting their home town airlines. It has been really great to see and has been critical to surviving these challenging times. We see a region in which there is very strong banking support for customers."

Broad-based bank appetite for aviation leasing continues to be cautionary, with loans extended mainly to stronger credits and strategic customers in their respective home markets. That said, there are signs bank debt availability is improving.

When 2020 arrived; Faires said the sector was "probably as healthy as we have ever seen it". "That changed pretty quickly. There was a lot of stress, as expected, early in the pandemic," he said.

"But pretty much across the board we have seen improvement. In 2021 a couple of factors stood out. Leasing activity was very active. Lessors went from early in the pandemic doing a lot of customer workouts and restructuring and then went back to doing their core business and competing for new transactions.

"We observed some very attractive opportunities for airline customers. The capital markets, both in 2020 and 2021, were record years for airlines with more than \$120 billion in borrowings.

"The third area was institutional investors. Several sovereign wealth funds, equity funds and different pools of capital interested in aviation started to set up platforms, whether leasing platforms or new debt funds.

"When others pulled back, and primarily I am talking about commercial banks, these [players] came in and filled that void."

And, as Boeing's Myers puts it, financiers and investors remain committed to the long-term fundamentals that make aircraft a valuable asset class. "Despite the changing landscape since the outbreak of the pandemic, the industry remains resilient. There continues to be sufficient liquidity in the market for our customers and increasing opportunities as traffic recovers," he said.

In 2021, the top three sources for paying for aircraft were: cash, or I like to think of it as equity our customers are putting into a transaction, followed by the capital markets and then lease-back transactions.

Commercial bank debt for aircraft deliveries does remain constrained but different regions do fund differently

Ben Faires

Boeing Capital Markets & Outreach managing director

Spare engine leasing sector has "room to grow"

ustomer engagement is the best way to manage a crisis such as the COVID-19 pandemic, elfc CEO, Tom Barrett, told Orient Aviation last month, but added customers must honor their side of deals.

"As an engine lessor operating across all industry cycles since 1990, we have learned the very best way to manage a crisis is by engagement with your customers," he said, speaking from the lessor's Ireland headquarters.

"In doing so, elfc has sought to be flexible so we can support our lessees through the crisis. In return, as we enter a period of recovery we are working with our customers to see how obligations that have built up can be honored.

"In the future, it will be important the airlines can do this so past relations can be maintained and we can support them again in whatever lies ahead in the industry."

Barrett said elfc believed, "based on the two largest markets to experience sustained recovery, namely North America since 2021 and Europe in summer 2022," that short-haul domestic focused airlines will recover much faster than longer haul carriers.

"The distinction that the short-haul sector is leading the recovery is more important than the distinction between the rate of recovery of LCCs and full-service airlines," Barrett said.

"In the U.S., full-service airlines also experienced a strong recovery in 2021 and it seems to be continuing into 2022.



In terms of a very long-term percentage of leasing for the spare engine market, I think there will be a natural ceiling in or around 60%, but it will take a few more years before we see these levels

Tom Barrett elfc CEO

"It appears to be the same for European full-service carriers that provide short-haul services.

"I think the same will hold true as the recovery takes hold in the Asia-Pacific.

"But for long-haul carriers, most of the recovery will be, with some notable exceptions such as North Atlantic routes this year, delayed until 2023.

"The catalyst will be greater relaxation of travel restrictions in the various regions."

Barrett continued: "the engine leasing sector has always lagged the aircraft leasing sector by several percentage points. "Therefore the spare engine leasing sector has room to grow.

The fact is well capitalized and funded engine lessors such as elfc can access cheaper flexible funding sources that allow us to offer extremely competitive lease rates.

"The fact we have built our business by doing this through various cycles is why airlines will need us in the future.

"For us, we have traditionally invested more money, because we are comfortable with the assets, in the downturns.

"It means we will have a place supporting airlines with their required liquidity as they seek to recover from the damage done in the last two years."

Barrett acknowledges launching an airline is tempting at the moment and said it was expected the industry would see new entrants as the recovery takes hold. He believed it will be a very challenging market to conquer.

"The low interest rate cycle seems to be at an end so the funding costs for aircraft and equipment providers, i.e. lessors and financiers, will increase and will have to be passed on," he said. "Fuel costs are rising rapidly and as has been seen in Europe, staff shortages present problems as the recovery takes hold. I expect the same dynamic will prevail in the Asia-Pacific as it recovers in 2022.

"Therefore, the long-term fate of many of these start-ups either will be collapse or being absorbed in some consolidation."

Service providers also face challenges as the COVID crisis fades, he said. "The challenge for every service provider to the

A lessor's perspective

- Mixed fates for pandemic dated start-ups: either collapse or be absorbed by larger businesses
- Lessors been patient with customers during the pandemic but now airlines must find the means to honor pledges to pay
- Short-haul domestic carriers, either full-service or low fare, to recover fastest from the pandemic
- Recovery for longer haul airlines, with the notable exception of the North Atlantic, will be delayed until 2023
- Well financed lessors have built inventory to supply airlines with the resources they need to restore their flying networks

airlines is can they provide the services needed.

"As airlines take aircraft out of storage and experience technical issues, including long turnaround times for MRO and repair work, it is incumbent on the lessors to offer flexible solutions around short-term leasing and shop visit avoidance if this is what our customers require.

"For the first time, elfc can, because of a buildup of inventory during the pandemic, market and offer engine programs of scale to the airlines. This has been a very welcome development as we deepen our relationships with key strategic customers exiting the pandemic. It is to be expected this will remain a part of our business for the long-term."



Engine Lease Finance Corporation unveiled its new branding, elfc, on June 6 with a new logo, corporate colours and website.

"Since our foundation in 1989, elfc has undergone continuous growth and development as a trusted partner in the aircraft engine leasing industry," an elfc statement said. "We continue this evolution and growth with our new brand identity." Parts shortages will be a major factor in holding back the recovery, Barrett agreed, but said its subsidiary parts company, INAV, has invested substantially in the last two years in having parts fully repaired and the USM (Used Serviceable Materials) are available on the shelves as MRO customers require them now their shops are full again. This was one of the more significant developments for elfc in this crisis.

"It was the first time we had a downturn with an in-house parts subsidiary. Though early days, it seems the strategy has proven correct as demand so far in 2022 is ahead of expectations," he said.

"The most significant lesson from the pandemic for everyone in the industry was that liquidity and access to funds is crucial. This was true for the service providers as well as the airlines, many of whom had to rely on government support if available," Barrett said.

"For our airline customers, it was critical we had the structures in house to respond constructively to airlines asking us for forbearance with their obligations. This flexibility and the relationships maintained in this crisis will be vital to our business growth.

"As a lessor and an asset investor, rather than a financier, elfc has been comfortable about investing through the crisis.

Our record investments in 2021 will provide returns and more opportunities for many years to come."

Aviation CO₂ intensity declining in 2022

atest data from international aviation appraiser and consultancy, IBA, and KPMG, reports CO₂ emissions from commercial aviation declined 2.5% year-on-year in April.

"April saw global air traffic expansion remain steady since March, with month-on-month growth reaching 2.2%, driven by a 13.5% increase in international flights originating within Europe and CIS (Commonwealth of Independent States)," IBA said.

About "75% of these flights used high density narrow-bodies, operated by the top three LCCs in Europe, helping to drive down overall CO_2 intensity per seat per mile", the consultancy said.

IBA calculates the global share of emissions in April shifted slightly with the A320-200ceo recording a 0.4% increase over March while the B777-300ER had a decrease in its monthly emissions share.

Spotlighting lessors' emissions efficiency, IBA said Jackson Square Aviation topped the lessor list, followed by CDB Aviation Lease Finance (2), Air Lease Corporation (3), SMBC Aviation Capital (4) and BOC Aviation (5). Of the remaining lessors in the top ten in terms of less CO₂ emissions achieved, two of the five companies, Goshawk Aviation Limited and Avolon Aerospace, are majority controlled by Asian investors.

At the same time, the transition of airline fleets to more



fuel efficient aircraft is offsetting the increase in CO₂ emissions that is occurring as the recovery from the pandemic is boosting air traffic demand.

KPMG director global strategy group, Christopher Brown, said: "We don't yet see the impact the narrow-bodies and the wide-bodies [will have] until the 2030s, however there are two risks here.

"Firstly, sustainable aviation fuel (SAF) is immaterial at present and needs to rapidly ramp up. Already, the demand is there, even at existing price premiums. Investment attention needs to turn more to power-to-liquid technologies of scale that will have captive markets.

"Without this supply side investment, expect increasingly harsh scrutiny for conventional aircraft.

"Secondly, if hybrid, fuel cell and other technologies accelerate and become commercially viable for retrofits, then regional, narrow-body and even wide-body assets will face mid-life decisions not previously factored in."

MRO Asia-Pacific: an update Orient Aviation August-September 2022

Don't miss our next edition of Orient Aviation that will report the progress to recovery of MROs in the Asia-Pacific airline sector.





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TO AIRLINE DEMANDS FOR MORE EFFICIENT
AND CHEAPER SERVICES

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ASIA-PACIFIC AIRLINES NAVIGATE A CAUTIOUS
RETURN TO THE SCHEDULED NETWORKS
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