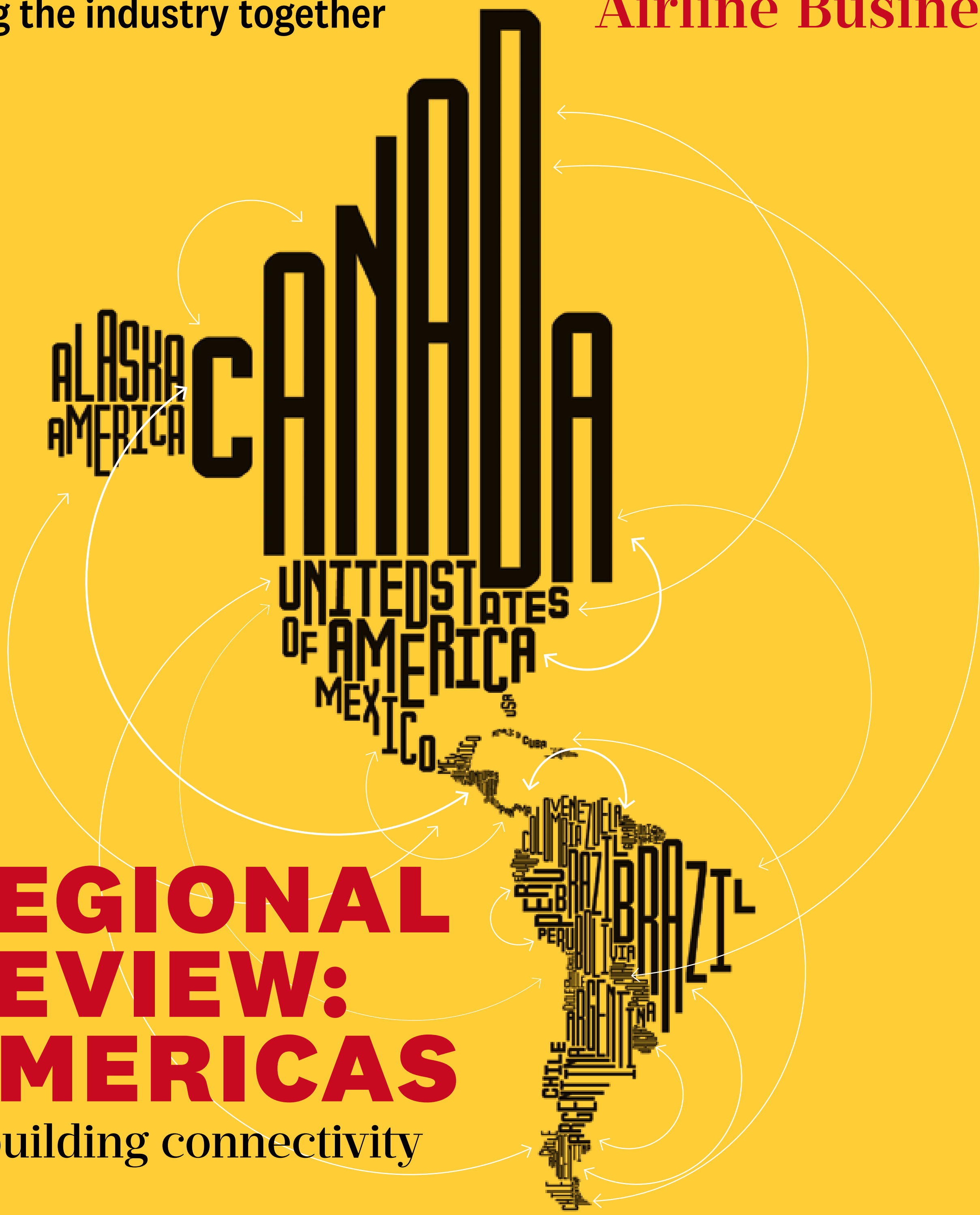
LOW-COST &
REGIONAL
Airline Business
Bringing the industry together
aviationbusinessnews.com
VOLUME 16 • ISSUE 1 • SPRING 2021



REGIONAL REVIEW: AMERICAS

Rebuilding connectivity

ATR
New opportunities for the regional aircraft sector

Sustainable growth
Pegasus Airlines CCO Güliz Ozturk discusses the carrier's bright future

Cabin crew training
Meeting the needs of a re-emerging market

Contents

SPRING 2021

REGULARS

6 **Business briefing**
The latest news from across the industry

10 **News analysis**
Rob Morris analyses the latest low-cost carrier fleet data

12 **In my view**
The role of reliable crew transfers for airline reputation and recovery in 2021

14 **Innovation spotlight**
SITA launches Health Protect

21 **Green sky**
An insight into AirBaltic's commitment to sustainability for the long term

35 **Q&A**
The ins and outs of aviation fuel storage life

42 **Career path**
Anca Mihalache, APOC Aviation's VP of Engine Trading shares her career journey

FEATURES

16 **Policy**
European aviation's new sustainability initiative, Destination 2050

18 **Airlines**
The CCO of Pegasus Airlines discusses the future plans for the Turkish low-cost carrier

24 **Cabin crew training**
Fulfilling the needs of a re-emerging market

28 **Regional review**
The Covid pandemic has caused dramatically varied effects across the Americas

32 **Aircraft**
Upcoming opportunities for regional aircraft

36 **Technology**
KLM Cityhopper's E195-E2 enters into service, powered by Pratt & Whitney's GTF engines

38 **Airports**
A look into new, innovative technologies being implemented at regional airports

40 **Digital payment systems**
The latest trends in the market

EDITORIAL TEAM

EDITOR
Satu Dahl
satu.dahl@realresponsemedia.com

FEATURES EDITOR
Melissa Moody
melissa.moody@realresponsemedia.com

ART DIRECTOR
Phil Couzens

SUB-EDITOR
Heather Ford

GROUP PRODUCTION MANAGER
Barnaby Moore
barnaby.moore@realresponsemedia.com

COMMERCIAL MANAGER
Ben Shea
ben.shea@realresponsemedia.com

CEO
Chris Pitchford
chris.pitchford@realresponsemedia.com

For subscriptions & enquiries:
Barnaby Moore
barnaby.moore@realresponsemedia.com
All enquiries
+44 (0) 20 8444 2554

Printed in the United Kingdom by Micropress.

LOW-COST & REGIONAL Airline Business

Published by
Real. RESPONSE MEDIA
Unit 4D, Cally Yard,
445 Caledonian Road,
London, N7 9BG


AJW®
Complex MRO Vendor network?
Let us be your single point of contact
AJW Group is a world-leading, independent component parts, repair and supply chain solution provider, transforming efficiency in **commercial**, **business** and **defence** aviation.
ajw-group.com

EDITOR'S LETTER

I'm excited to welcome you to the spring issue of Low-Cost & Regional Airline Business. As always, we have plenty of inspiring and insightful content for you in this issue.

Fleet strategies are diverging as carriers plan for recovery, and in our News Analysis piece (*page 10*) Rob Morris, global head of consultancy at Ascend by Cirium analyses the latest low-cost carrier fleet data. Another one of our regular pieces, Innovation Spotlight (*page 14*), looks into a new industry solution by SITA called Health Protect which aims to help airlines, airports, passengers and governments safely and securely share information on health tests and vaccinations required during travel.

In this issue, we also speak with regional aircraft manufacturer ATR's SVP of commercial, Fabrice Vautier. Vautier explains how ATR sees aviation's recovery beginning in earnest this year, with a number of factors driving the main opportunities.

Our airline interview on page 18 features Güliz Ozturk, CCO of Pegasus Airlines who gives us her insight into the ambitious low-cost carrier's route network expansion and sustainability initiatives. In the Q&A piece on page 35, Air bp's Dr Alisdair Clark explains how, just like the food you buy in shops, aviation fuel has a storage life ranging from six months to years depending on the type of fuel and storage conditions.

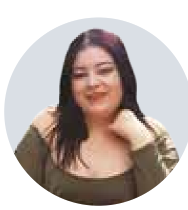
As part of our regular training feature, Paul Eden explores the latest developments when it comes to cabin crew training and in our airports coverage, features editor Melissa Moody examines whether regional airports will recover more quickly from the pandemic than their major hub counterparts.

We hope you enjoy reading this issue – and don't forget you can also find even more exclusive stories and industry insight on our aviation news website www.aviationbusinessnews.com.

Satu Dahl
EDITOR
satu.dahl@realresponsemedia.com

CONTRIBUTORS

PAUL EDEN
Contributor



MELISSA MOODY
Features Editor

CONNECT ONLINE WITH AVIATION BUSINESS NEWS

@avbusinessnews | aviationbusinessnews.com | avbusinessnews

News from across the industry

BUSINESS BRIEFING

STATISTICS

Pandemic drops UK passenger numbers by three quarters

There was an overall 75 per cent drop in passengers using UK airports in 2020 compared to 2019, a new report has revealed.

Research by travel website MyBaggage.com revealed that airlines were also estimated to have lost a "staggering" £20bn last year.

A spokesman for MyBaggage.com said the research revealed the impact of the pandemic not only on the aviation industry as a whole but also on a regional level around the UK.

He said: "The past 12 months has been nothing short of devastating for the UK aviation industry with a fall in passengers using our airports of around three quarters.

RESEARCH REVEALED THAT AIRLINES WERE ESTIMATED TO HAVE LOST A "STAGGERING" £20BN LAST YEAR

"But not all airports have seen the same impact, some have definitely been harder hit than others, with the number of people travelling down by more than 80 per cent in some locations.

"With the vaccine programme now well underway, everyone in the travel industry is hoping for a more positive second half to 2021 and for the aviation industry to recover over the coming months and years."

Researchers looked at Britain's 15 busiest airports in 2019 and compared CAA (Civil Aviation Authority) data for 2019 and 2020 to measure the impact of the pandemic.

The biggest fall was seen at London City Airport where passenger numbers plunged 82.3 per cent from 5,122,000 in 2019 to just 908,105 during 2020.

Leeds Bradford Airport saw the second largest reduction in passenger numbers, of 3,992,000 in 2019 to only 751,048 in 2020.

The UK's largest airport, London Heathrow, recently reported a £2bn loss in revenue and the new study shows passenger numbers there were down by 72.7 per cent going from 80,887,000 to 22,109,550 across the two years.

82.3%
decline in passengers at London City Airport

£2bn
loss in revenue for London Heathrow Airport

75%
drop in passenger numbers using UK airports

AIRLINES

Wizz Air becomes launch customer for AVIATAR platform

Wizz Air is the first customer for the 'Technical Logbook' solution on Lufthansa Technik's AVIATAR digital platform. The solution will enable the airline to replace the manual and paper-based process of capturing technical issues during flight/on ground, Lufthansa Technik said, and implement the "seamless digital pilot-to-maintenance collaboration application".

AVIATAR's Technical Logbook offers prefilled text blocks and automated input masks. It replaces manual entries into paper books and improves data quality.

The solution works with any hardware device and provides pilots with access to aircraft status "anywhere and anytime". It also offers back-up processes in case of connectivity issues. "Real-time data availability, directly connected with the maintenance and engineering system, ensures maintenance on arrival and enables a seamless pilot-to-maintenance collaboration – leading to decreased turnaround times and costs. In addition, the standardised data structure helps airlines to gain insights into trend analytics," Lufthansa Technik explained.

Wizz Air's head of technical services Julia Brix said the solution furthered its goal to become paperless and reduce its environmental footprint.

She added, "Due to its full integration with AMOS, meaning also live feed with both MOC (Maintenance Operations Centre) and OCC (Operations Control Centre), the solution will further enhance Wizz Air's technical and operational performance."

BUSINESS

ACS acquires Easyjet aircraft

Aircraft leasing platform Aero Capital Solutions (ACS) has announced the acquisition of 20 A320 family aircraft from EasyJet on a sale-and-leaseback basis. The deals were completed in two tranches during 2020.

EasyJet's director of strategy Shane Lord said: "EasyJet is one of the leading low-cost carriers in Europe, and is strategically well-positioned to emerge from the pandemic stronger than before.

"EasyJet is well-positioned to emerge from the pandemic stronger"

"The facilitation of sale-and-leaseback of these aircraft to our key strategic partner ACS has provided fleet planning and liquidity benefits. The ACS team have shown an ability to bring innovative and competitive solutions to minimise easyJet's cash expenditure in the medium-term.

"EasyJet will continue to review its liquidity position on a regular basis and will continue to assess further funding options, including those that exist in the robust sale-and-leaseback market," Lord concluded.

AIRLINES

AirBaltic expands operations

Latvia's AirBaltic has extended its codeshare agreement with Ukraine International Airlines, resulting in all flights to Kyiv operated by the two carriers having partner marketing codes enabling more seamless travel for passengers.

AirBaltic will continue to operate direct flights from Vilnius to Kyiv over the 2021 summer season. Initially the flights will be twice a week on an Airbus A220-300 aircraft; as of June, they will increase to three per week.

AirBaltic has established a new maintenance training organisation in Latvia

The carrier has also established a new maintenance training organisation in Latvia providing training and certification for aircraft technicians. The organisation is part of the airBaltic training centre.

Pauls Cālītis, AirBaltic COO, said: "Over the years, we have done a lot to prepare future aviation professionals in Latvia. In addition to the AirBaltic Pilot Academy, we have cooperated with local technical schools to help them offer students the most relevant education in the aviation industry."

The training will be divided into two categories, one providing basic training for professionals without previous aviation experience and the other focusing on aircraft type-related training on the Airbus A220.

ROUTES

Norwegian focuses on short-haul

Norwegian has announced it will be stopping long-haul flights and focusing on its short-haul route network.

The airline says it will be focusing on its core Nordics business, operating a European short-haul network with narrowbody aircraft.

Norwegian's CEO Jacob Schram, said: "Our short-haul network has always been the backbone of Norwegian and will form the basis of a future resilient business model."

"I am pleased to present a robust business plan today, which will provide a new start for the company. By focusing our operation on a short-haul network, we aim to attract existing and new investors, serve our customers and support the wider infrastructure and travel industry in Norway and across the Nordics and Europe."

The carrier, which recently furloughed an additional 1,600 employees, says it plans to serve these markets with around 50 narrowbody aircraft in operation in 2021 and to increase that number to around 70 in 2022. Norwegian will also aim to reduce its debt to around NOK 20 billion and raise NOK 4-5 billion in new capital through a combination of a rights issue to current shareholders, a private placement and a hybrid instrument.

Schram said, "It is with a heavy heart that we must accept this will impact colleagues from across the company. I would like to thank each one of our affected colleagues for their tireless dedication and contribution to Norwegian over the years."

Norwegian says it has reinitiated a dialogue with the Norwegian government about possible state participation based on the new business plan.

"OUR SHORT-HAUL NETWORK IS THE BACKBONE OF NORWEGIAN AND WILL FORM THE BASIS OF A RESILIENT BUSINESS MODEL"

In brief

● Ryanair has joined the "Fuelling Flight Initiative" in its commitment to support Sustainable Aviation Fuels (SAFs) as an "essential element" to achieve net-zero carbon emissions in the aviation industry. The initiative gives recommendations on the sustainability aspects of the EU's policy design to support SAFs.

● ● The UK will provide £4.3 million to fund the flight route between City of Derry Airport and London Stansted. The route offers "critical" connectivity from Northern Ireland's north-west to London. The two-year extension will be funded over the course of the contract. Loganair will operate 13 return flights a week.

● ● ● Russian carrier KrasAvia has started operating its first two ATR 72-500 aircraft. Owned by the government of Krasnoyarsk Krai, the carrier operates scheduled and charter flights on regional routes to Russia's Far North. The airline purchased the two ATR 72-500s second-hand from Swedish lessor Erik Thun.

RESULTS

Ryanair reports €306m loss

Ryanair Holdings has reported a €306m loss in Q3 when compared to the previous year's Q3 profit. Its Q3 traffic fell from 36 million to eight million, resulting in a -78 per cent reduction. The airline's Christmas and New Year traffic was severely impacted by UK travel bans imposed at short notice by many EU governments on 19 and 20 December.

The carrier expects the latest lockdowns and pre-arrival Covid test requirement to materially reduce its flight schedules and traffic through to Easter. The group's full-year traffic forecast has been reduced to between 26 million to 30 million passengers.

According to the airline, its ancillary revenue delivered a solid performance with more passengers choosing priority boarding and reserved seating. Q3 cost performance for the carrier was robust, falling 63 per cent as a result of measures implemented over the past nine months.

Ryanair projects that 2021 will be the most challenging year in the carrier's 35-year history. However, the airline expects to have a much lower cost base and a strong balance sheet, which will enable it to fund lower fares and add lower-cost aircraft to capitalise on growth opportunities.

"We will work assiduously with our airport and government partners to restore routes and recover traffic for the benefit of our airports, our customers and our people as we try to prioritise the jobs and salary recovery of our people," the carrier stated.

AIRLINES

Low-cost airlines lead travel recovery

Low-cost airlines and fintechs will lead the post-pandemic travel industry recovery, according to a report published by Bloomberg Intelligence (BI). Companies such as Ryanair, Southwest Airlines and Visa are expected to see the first benefits of a travel industry recovery in the US, with Europe lagging behind slightly.

Low-cost airlines could see the start of recovery in the summer

BI believes the post-pandemic travel industry recovery will happen but highlights a "critical distinction" between firms focused on domestic, personal and alternative travel versus those reliant on international trips.

BI's 'North American Post-Pandemic Travel Recovery Report' says low-cost airlines could see the start of recovery in the summer as leisure flying returns, helping airlines which don't cross national borders first. In the US, airlines to benefit include Southwest, Spirit, Frontier, JetBlue and Alaska, while in Europe the winners will include Ryanair, Wizz Air, EasyJet and Norwegian Air.

FLEET STRATEGIES DIVERGE AS CARRIERS PLAN FOR RECOVERY

Rob Morris, global head of consultancy at Ascend by Cirium – part of travel data and analytics expert Cirium – analyses the latest low-cost carrier fleet data

There is no doubt Covid-19 has exerted a fundamental impact on demand for commercial aviation globally. This is evident from recent results announced by Europe's premier low-cost carriers, Ryanair, easyJet and Wizz Air, which all reported a significant drop in revenues compared to 2019 – at 82 per cent, 88 per cent and 76 per cent respectively.

While the near-term outlook remains negative, vaccination progress across Europe will bring some welcome positivity with airlines hoping it will remove travel restrictions and return demand.

In their recently announced results, each airline noted they are presently operating at a capacity which is some 70-80 per cent below its 2020 equivalent. To minimise operating expenses, they have been forced to re-evaluate their fleet plans, and in aligning them to demand have temporarily removed large tranches of their fleet from service.

Each noted medium and long-term optimism, with a positive outlook on passenger booking trends and future demand. The industry knows demand will return but uncertainty remains around when – with a question mark hanging over vaccination progress and travel restrictions.

The big question

For airlines, the biggest question of 2021 is how much capacity they will need and when they will need it. They are continuing to revise their fleet and growth strategies so, when demand does return, they can quickly increase capacity and capitalise on the revenue opportunities it brings. Lack of preparation risks key competitors taking the advantage, which could lead to an immediate loss of revenue and a potentially long-term loss of market share.

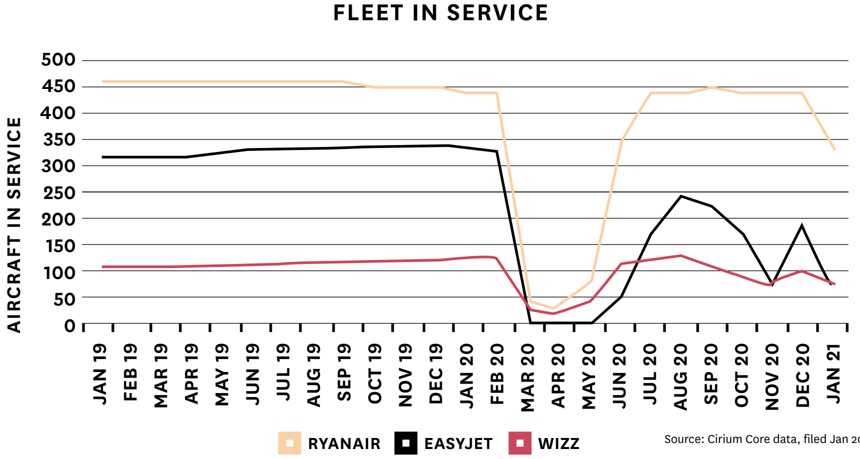
3.7

Ryanair's aircraft flew an average of 3.7 hours in January 2021, down 60 per cent compared to the 9.1 hours in January last year

So how can Ryanair, EasyJet and Wizz ensure they are sufficiently prepared? Data from the Cirium Core – the largest single source of data in the air transport industry – can help us understand how each of these airlines has been managing its fleet throughout the pandemic. Expected growth at EasyJet and Wizz Air is evident from new deliveries in 2019, while we can also see the effect of the lack of 737 MAX deliveries on Ryanair's operations.

All three airlines parked the majority of their fleets during the European lockdowns in March, April and May 2020. As restrictions eased in June, aircraft were returned to service, with Ryanair and Wizz seemingly flying almost their entire fleet from June through December, before new restrictions caused them to limit the number of aircraft in service.

By contrast, EasyJet reinstated just over half of its fleet in August 2020 but has had considerably fewer aircraft in service since then. However, even by the end of January 2021, when airlines admitted flying only around 20 - 25 per cent of their 2019 capacity, Ryanair and Wizz fleet data suggested they were operating 75 per cent of their 2019 fleet. Only EasyJet's fleet



Source: Cirium Core data, filed Jan 2021 data was consistent with their comments on capacity, at approximately 25 per cent.

Cirium's fleets data defines an aircraft as inactive (stored) only after 30 continuous days with no flights observed. Cirium fuses data from the Cirium Core together, with fleets data on scheduled and non-scheduled flights (based on data from FlightRadar24), for detailed analyses such as the above.

Another way to look at the active fleet is to specifically consider the utilisation and flight tracking data. This shows that Ryanair flew only 160 aircraft on 31 January 2021, when a total of 327 aircraft were classified as 'in service'. Throughout January, Ryanair averaged 150 unique aircraft tracked on a daily basis. In comparison, Wizz Air flew only 57 aircraft on 31 January, with a total of 76 aircraft classified as 'in service'. Over the month, this meant Wizz Air flew 51 aircraft per day on average.

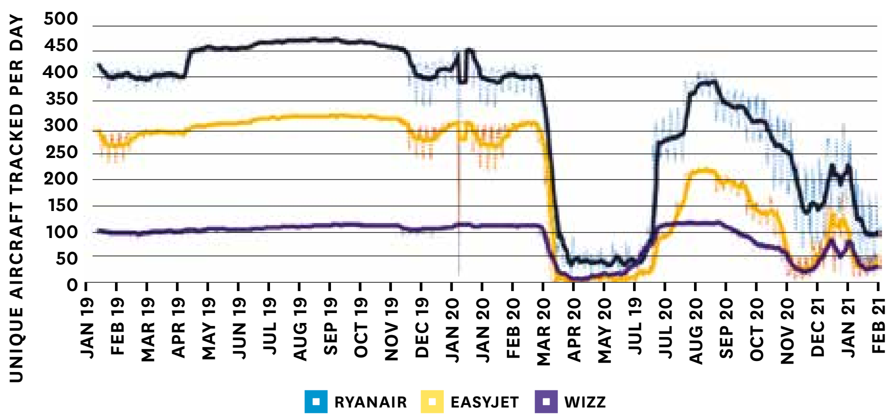
The clear conclusion is that both airlines are rotating their active fleet, with aircraft flown on only a few days each week. As a consequence, only 28 per cent of Ryanair's and 44 per cent of Wizz Air's fleet are stored – compared to an estimated 77 per cent for easyJet.

This data is further supported by an analysis of average daily utilisation for the three airlines, as illustrated below. Ryanair's aircraft have flown an average of 3.7 hours in January 2021, down 60 per cent compared to the 9.1 hours in January last year.

Meanwhile, Wizz's aircraft have flown 5.6 hours a day on average in January 2021, down 45 per cent from 10.2 hours a day in January 2020. Although easyJet's active fleet in January 2021 averaged 4.2 hours per day, the decline from 2020 was just 40 per cent.

Why does any of this matter? In this current uncertain demand outlook, airlines need to have sufficient capacity to respond to changing traffic demands in Summer 2021 and beyond as markets reopen following successful vaccination programmes.

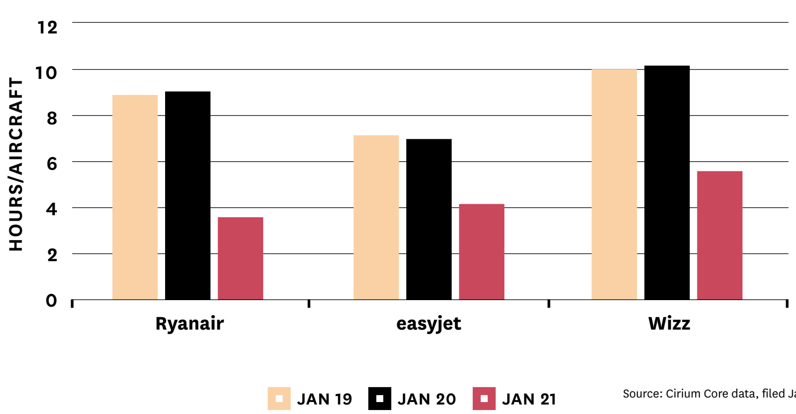
UNIQUE AIRCRAFT TRACKED PER DAY



5.6

Wizz's aircraft flew 5.6 hours a day on average in January 2021, down 45 per cent from 10.2 hours a day in January 2020

AVERAGE DAILY UTILISATION



Source: Cirium Core data, filed Jan 2021

More aircraft, less frequency

Cirium data shows Ryanair and Wizz are preparing themselves by keeping aircraft operational – flying more aircraft, less frequently. By contrast, EasyJet's approach appears to involve placing more aircraft into store. The carrier has 129 aircraft which were parked before 30 November 2020, where they will likely remain in the medium or long term.

One subsidiary benefit of operating more aircraft with a reduced frequency is that it potentially enables the airlines to retain currency in their flight deck workforce, albeit likely at a higher cost in the short term.

Finally, Ryanair and Wizz are potentially even more prepared with their OEM order backlog. The former is expected to take delivery of around 60 737-8200s each in 2020 and 2021, whilst the latter has some 40 or so A320neo family deliveries due in each of the next two years. If demand is slower to return than hypothesised, this virtue could become a vice. But for the latter at least the aircraft also represent a liquidity option which could be exploited through sale and leaseback.

Which fleet strategy is more likely to enable long-term success? Only time will tell. But for now, our Cirium Core data can help us understand how Europe's low-cost airlines are dealing with fleet planning in this most uncertain demand environment of all times.

**Ryanair includes Ryanair, Ryanair UK, Buzz, Malta Air and Lauda Europe; EasyJet includes EasyJet, EasyJet Europe and easyJet Switzerland; and Wizz includes Wizz Air, Wizz Air UK and Wizz Air Abu Dhabi.*

In my **view**

ON THE MOVE

Alexander van Deudekom, CEO and founder of Get-e explains the role of reliable crew transfers for airline reputation and recovery in 2021

The past 12 months saw empty streets, deserted capitals, eerie airport buildings and a distinct lack of aircraft overhead. In early 2021, as I write this, the airline industry is expected to experience much of the same upheaval, with continued disruption putting financial and operational pressure on airlines as they try to rebuild.

Despite current uncertainties however, pent-up demand for air travel is growing, and many in the industry believe the rollout of vaccines will put the worst of the crisis behind us and set the stage for a 2021 rebound.

For low-cost and regional airlines which rely on small margins to survive and now compete for a diminished customer base, saving time and money on every aspect of their operation will be crucial to their 2021 recovery plans. One such area that is all too often overlooked is the process of managing crew transfers and, vitally, passenger disruption.

"

Crew arriving late results in financial loss – easily avoided by airlines engaging a service provider with the expertise to manage this element for them

ALEXANDER VAN DEUDEKOM

Being able to deliver smooth and reliable crew transfers is vital to the operation of passenger flights. Crew arriving late results in delayed take-off, dissatisfied passengers and financial loss for airlines the longer aircraft remain on the tarmac. This is something that is easily avoided by airlines engaging a service provider with the expertise to manage this element for them.

Today, many airlines still rely on outdated and decentralised systems to book and manage Covid-safe transport for crews who need to be transferred to and from airports. As a result, crew managers must source multiple transport companies for the regions they are operating within and manually book taxis and hotels, which can lead to fluctuating prices, limited overview and a large number of invoices to manage each month. What's more, the guarantee of sufficient hygiene protocols may differ between providers. Ultimately, this is costly, and limits the ability to manage last-minute changes.

In addition, any disruption to a flight which causes delays or the need for passengers to be transported from one airport to another is operationally and administratively complex, with high potential costs, both monetary and reputationally. As airlines vie for customers, the way disruptions are managed will be under stern scrutiny. Avoiding such circumstances will mean staff can focus on activities that drive growth of the airline as opposed to crisis management and administration.

Airlines are set to experience a tough challenge in 2021 and beyond as they endeavour to demonstrate their capabilities to deal with heightened demand, and a customer experience that has not diminished. As the rebuilding process begins, it is also more important than ever for airlines to be able to operate with leaner budgets and resources and still provide passengers and crew with the safety and security of a timely and efficient operation, or else risk reputational harm – something that must be avoided to prevent customers being lost to rival carriers.


ESSENZA
Essentially: class!
Geven's latest response to the newest quirks of high density comfort seating.
Light and tight - Essenza's little body is all you need to carry passengers in comfort in spite of the smaller pitches.
Essential in design, but substantial in reliability.
Conceived for the short haul - its life cycle is one you can count on for the long haul.
Geven
Fly beyond expectations
www.geven.com

FUTURE PROOFING TRAVEL

SITA recently announced a launch of its new industry solution, Health Protect, which aims to help airlines, airports, passengers and governments safely and securely share information on health tests and vaccinations required during travel

Right: Health Protect can give passengers the assurance that they have the right documents to travel

Following the Covid-19 pandemic, economic recovery for many countries will rely heavily on travel and tourism and enabling passengers to share vital health information such as PCR test results or vaccination history with authorities will be increasingly important. SITA's innovative new Health Protect solution allows airlines and passengers to submit required documents safely and securely in line with government requirements.

"We're excited for the potential of SITA Health Protect to bridge the gap between airlines resuming normal operations and governments' strong focus on keeping control of Covid-19," SITA Airports and Borders CEO, David Lavorel, commented on the trial announcement. "Recovery from Covid-19 will take time and is complex but we believe that SITA can play a key role in enabling a safer, simpler travel experience for passengers."

Providing certainty

One of the key benefits of the solution is the ability to seamlessly integrate with multiple travel pass and health passport schemes, bridging the gap between these schemes and aviation and border processes. It enables authorities to make informed decisions about whether a passenger can travel at the point of check-in by incorporating advance passenger processing. SITA says this will improve the safety of all passengers and helps avoid costly return flights.

Health Protect facilitates the inclusion of health pass schemes into existing and trusted passenger processing systems, resulting in minimal operational and technical impact on airlines and ports. According to SITA, the solution combines the functionality of passenger locator forms, health attestations and travel declarations as well as Electronic Travel Authorisation (ETA), resulting in growing confidence for all stakeholders when it comes to travelling. The solution will also provide passengers reassurance that they have the right documents before departure.

According to SITA, successful trials for the solution have already taken place with travellers to the United Arab Emirates and are soon to start in Italy. Andy Smith, SITA's director of global government & industry relations says SEA Milan Airports is collaborating with SITA to pilot the innovative platform that digitises declarations on flights and manages the Covid-19 testing process at Milan Malpensa (MXP) airport, Italy's second busiest airport. Regarding whether there are any other airports in the pipeline to take part, Smith says the company is working closely with governments and airports globally. "We have other trials and solutions in place and look forward to sharing more on these soon," he notes.

Health Protect seamlessly integrates with multiple travel pass and health passport schemes

Simplifying the process

Comparing the main benefits of Health Protect with health passes, Smith says health pass schemes struggle to integrate with existing airline, airport and government processes. "Health Protect is the glue linking these processes seamlessly together. It enables verification and validation of multiple health passes and gives passengers confirmation that they have the right documentation before they arrive at the airport. This avoids queues at departure or passengers being refused entry at the destination. Passengers also have certainty they have the right documents to travel, a crucial challenge considering the rapidly changing regulations globally."

"Several health pass schemes, such as ICC AOKpass, CommonPass, and IATA Travel Pass, have emerged to re-start global travel. Though these schemes vary in nature, they commonly ensure that travellers meet the health requirements of the entry country and that test results are from an authorised source," Smith says.

"Binding a passenger's health information with their digital identity, which many of these schemes do, protects against fraudulent and counterfeit test results or certificates often associated with paper-based methods. With multiple health scheme providers operating in this space, there is great promise for the recovery of the travel industry. However, the operational challenges persist for the airline, airport and border agents."

Smith explains that elements of SITA Health Protect are already available today. SITA Health Protect is supported by SITA Global Services (SGS), which provides global business continuity through a flexible service model. "Health Protect helps enable a link between new Covid-19 testing regimes and requirements designed to keep people safe with the existing airline airport and government processes. SITA is committed to supporting the industry to recover safely and securely and will continue to work with governments, airports and airlines globally to ensure the safe reopening of borders through 2021 and beyond," Smith sums up.

DESTINATION 2050

Montserrat Barriga, director general of the European Regions Airline Association shares her insight into European aviation sector's exciting new sustainability initiative

Europe's aviation sector unveiled its flagship sustainability initiative, Destination 2050 – A Route to Net Zero European Aviation on 11 February. The initiative, which follows the climate commitments announced by the aviation industry in November in the Round Table Report on the Recovery of European Aviation, is driven by a new, independent report.

Montserrat Barriga, director general of the European Regions Airline Association (ERA) explains how the initiative provides a vision and a path for meaningful CO_2 emission reduction efforts in Europe and globally.

What are the key measures for aviation to reach net zero CO2 emissions by 2050?
Destination 2050 focuses on the opportunity to reach net zero CO_2 emissions through a combination of measures, resulting in more sustainable flying for the long-term. Specifically, it has been recognised that industry action and policies are required across four main pillars, including aircraft and engine technology, air traffic management and aircraft operations, sustainable aviation fuels and smart economic measures.

As part of this, the industry must continue to substantially invest in decarbonisation; develop more energy-efficient aircraft and bring these into operation through continued fleet renewal; develop hydrogen-powered and (hybrid-)electric aircraft and supporting

Illustration: **Phil Couzens**

> **Innovation in communication, navigation and surveillance equipment should be encouraged**
>
> MONTSERRAT BARRIGA

infrastructure and bring it to the market; and scale up drop-in SAF production and uptake.

Additionally, the report identifies several 'quick wins'; for example, better ATM, such as implementing the latest innovations in ATM and flight planning, and economic measures, such as carbon pricing and offsetting schemes that represent the biggest potential to reduce net emissions until new technologies are market-ready and deployed on a considerable scale.

European aviation is ready and committed to reach our sustainability goals. Our member companies have already been investing in ground-breaking technologies for many years and have presented clear timelines for the future.

That is why we have come up with this report: to make our case clear to policymakers and the public, and to avoid counterproductive measures that will jeopardise millions of jobs and local economies without truly tackling the environmental sustainability of the sector.

What can governments do to facilitate this goal?

To achieve net zero CO_2 aviation in Europe by 2050, while upholding international competitiveness and aviation's benefits to society, both governments and the industry must work together. Destination 2050 hopes to inspire all stakeholders in the aviation industry and governments to take action now to make Europe's climate ambitions for 2030 and 2050 a reality.

As part of this, we have recommended governments stimulate further development and deployment of innovations by funding research programmes and promoting carbon removal technologies such as Clean Aviation and SESAR partnerships.

As well as this, we believe it is important that governments work with the energy sector to ensure sufficient availability of renewable energy at an affordable cost and support the development of the SAF industry; and to contribute to the optimisation of ATM, in particular by fully implementing the Single European Sky.

55%

Single European Sky is a fundamental building block for reaching a 55 per cent net CO2 emissions cut from intra-EU+ flights in 2030, compared to 1990 levels

Both industry and the EU will have to invest, but governments crucially need to support industry investments through incentives or by reducing risk through a consistent and stable policy framework. Some of the focus areas identified, such as SAFs and aircraft technology, will require clear policy frameworks and substantial investments.

How can improvements in air traffic management contribute to a greener sky?

A more digital, network-centric ATM is essential to ensure not only a smooth travel experience to passengers but also help reduce CO_2 emissions. As part of the report, it was identified that an array of improvements in ATM and aircraft operations yields a five to six per cent system-level CO_2 emissions reduction in 2030 and 2050. This shows that better quantifying the anticipated benefits following from fuel and CO_2 optimised routing are near-term priorities.

The European Parliament and Council of Ministers are currently in the process of preparing their respective positions on the Single European Sky. We hope all parties understand the urgency of the file, and act swiftly to ensure it will become a reality. This is a fundamental building block for reaching a 55 per cent net CO_2 emissions cut from intra-EU+ flights in 2030, compared to 1990 levels, and then net zero by 2050 for all flights within and departing the EU+.

Innovation in communication, navigation and surveillance equipment and processes should also be encouraged, so that these can be swiftly put into practice. These are readily available, quick fixes that could help make a difference to contribute to a 'greener' sky.

MOVING ON UP

Satu Dahl speaks with Güliz Ozturk, CCO of Pegasus Airlines, to find out the latest news for the ambitious Turkish low-cost carrier

Despite the challenges over the past year, Pegasus started 2021 with some good news. Güliz Ozturk, CCO of Pegasus Airlines, explains that, as part of Pegasus' commitment to sustainability, the airline provides voluntary reporting to the Carbon Disclosure Project platform. In 2020, the airline's score was raised to A- from its previous B score.

"Our CEO Mehmet T Nane has also been elected as Chair of the Audit Committee of the International Air Transport Association (IATA) and he will serve as the Chair for a three-year term from January 2021," Ozturk reveals. This follows his election as a member of the IATA Board of Governors in 2019.

The carrier is also expanding its fleet and growing its route network. "In February, we took delivery of two new A320neos, our first two aircraft deliveries of 2021, which are the 44th and 45th from our 100-strong Airbus aircraft order. We're on course to receive a total of eight new Airbus aircraft from this order this year, including the deliveries in February.

"We also continue to grow our network with our latest route launch between Istanbul Sabiha Gökçen and Odessa, with twice a week flights on Thursdays and Sundays starting in March; and from April, we will be operating new direct flights between Antalya and Chisinau, Moldova's Capital City."

Ozturk explains that, in addition to the routes above, this year Pegasus has so far launched direct flights in Turkey between Izmir and Van, Ankara and Diyarbakir and Van and Trabzon. "Last year, we began direct flights between Antalya and Moscow and Istanbul Sabiha Gökçen and Karachi, each with Turkish and international connections, including London-Stansted for both routes, and Manchester Airport for Karachi."

In addition, Ozturk reveals that for the summer, the carrier is adding new direct flights to Turkey from its existing destinations in Ukraine. "From May, we'll be operating direct flights between Kiev and Dalaman and Kiev and Bodrum; these are in addition to those we currently operate between Kiev and Ankara and Kiev and Izmir. From June, we'll also operate direct flights between Bodrum and the Ukrainian cities of Lviv, Zaporizhia and Kharkiv."

As for the main drivers behind opening these routes, Ozturk says the airline's biggest growth markets are Russia, the Caucasus and Eastern Europe, MENA and Asia. "Our focus is to continue increasing frequencies and adding new destinations in these regions as fast as we can obtain traffic rights, and subject to the easing of Covid-19 travel restrictions. We are also focusing our efforts on growing beyond our main hub in Istanbul Sabiha Gökçen and therefore increasing the number of our direct flights from our other hubs in Antalya, Ankara and Izmir."

Below: Pegasus continues to add to its fleet to accommodate its growth in networks covering Russia, the Caucasus and Eastern Europe, MENA and Asia

A challenging year

The Covid-19 pandemic has affected the whole world, with aviation amongst the most impacted sectors. Regarding the biggest challenges the pandemic has brought to Pegasus, Ozturk says that, together with the massive reduction in demand, one of the major challenges has been the disparate and rapidly changing international travel restrictions which naturally reduce airlines' ability plan.

"We have been working alongside such international bodies as IATA to lobby for harmonised regulations that support a confident and safe reopening of travel," she notes, continuing that first priority for Pegasus has always been the health and safety of its guests and employees.

"We have implemented a wide range of health and safety measures across the board at Pegasus, from our offices and aircraft to the airports and ground handling, and we have also signed the EASA-ECDC Aviation Health Safety Protocol. Despite the challenges involved, all these measures have had a positive impact on both our employees and our guests in terms of gaining their confidence during the pandemic."

> **We recently tapped the corporate bond market for the first time and received strong investor demand**
>
> GÜLIZ OZTURK

On the financial front, the key challenge in the pandemic has been cash management, Ozturk notes. "Needless to say, ongoing travel restrictions have caused a significant contraction in our ability to generate cash from operations.

"We therefore focused our efforts on reducing our cash outflows through cost savings, supplier contract renegotiations and postponing non-essential investments. Meanwhile, we are also expanding our financing alternatives; we recently tapped the corporate bond market for the first time and received strong demand from investors."

The future is digital

When it comes to plans for the future, Pegasus is focusing on several different areas. The carrier launched its digital transformation strategy in 2018 and digitalisation is now central to the carrier's DNA and future vision, Ozturk says. "We have incorporated it into every aspect of our business from A-Z, to add value and enhance the customer journey, with our three focus areas for the future being alignment, disruption and big data."

Digitalisation has of course gained momentum due to the pandemic and from the perspective of the aviation industry, it has helped make travel safer, by enabling 'travelling with minimum contact'.

Right and below: Pegasus has implemented a wide range of health and safety measures across the board, with the health and safety of guests and employees as its first priority at all times

30%

Pegasus is proud to say that over 30 per cent of its total workforce is female and the airline is actively working to increase the representation of women across the company and industry-wide

"In this area, we have expanded our self-service Express Baggage kiosks into new airports, with a 500 per cent increase in usage during the pandemic," Ozturk explains.

"We have also enabled fully contactless boarding for our domestic flights with our chip-ID Project, a world and national first, meaning Turkish nationals with chip-IDs can use it to check-in, scan and proceed straight to the gate without any kind of boarding pass." The airline has also seen significant growth of downloads of its mobile app and new user-friendly online services such as Flight Assistant.

Ozturk explains that, with or without the pandemic, the carrier also sees the pursuit of environmental goals as vital to both Pegasus' and the wider industry's future and long-term sustainability. "In our own efforts to reduce emissions and environmental impact, we are achieving measurable results as our CDP A- score illustrates. We now have Turkey's youngest fleet, and one of the youngest in Europe, with an average age of 4.9 years as of January 2021.

"As part of CORSIA and EU ETS regulations, we are actively involved in carbon emission offsetting and the emissions trading system, amongst many other sustainable practices we have adopted. Looking ahead, as we work towards the goal of a carbon-neutral sector, we hope that we will have aircraft running on biofuels in the next 10 years."

Ensuring equality

Gender balance is also an important priority for Pegasus and a key part of the carrier's future vision. Ozturk notes the airline is proud to say that over 30 per cent of its total workforce is female and Pegasus is actively working to increase the representation of women across the company and industry-wide.

"Pegasus Airlines became the first airline in the world to join the Women's Empowerment Principles (WEPs) platform. In 2019, we were also one of the first airlines in the world to sign IATA's 25by2025 gender balance pledge. We raise awareness around the issues and improve access and availability of roles through a variety of CEO and ambassadorial activities, including my role as co-chair of the Women in Sales (WiS) platform for which our goal is improving gender balance in commercial departments."

Finally, how does Ozturk see the low-cost aviation market in Europe developing in the next five years? "In the short-term, the key challenge will be to navigate the growing complexity in the operating environment stemming from the Covid-19 pandemic," she notes.

"However, in many ways, LCCs are in an advantageous position, with a strict focus on costs and short-haul travel, to take greater market share from our rivals, with a window of opportunity for growth in the long-term. However, in the post pandemic period, economic conditions globally will certainly create significant pressure and we're likely to see more consolidation across the industry as a whole in the next five years."

Ozturk says that Pegasus' base scenario foresees its domestic capacity reaching 2019 levels in 2021 overall, and its international capacity catching up with the 2019 levels by the middle of the third quarter. "Of course, all will depend on the evolution of the pandemic, vaccination roll-outs and evolving government decisions on the travel restrictions.

"A small reminder on where we were in 2019: it was Pegasus' best year, on both operational and financial fronts, so there is more to us than meets the eye when we talk about 'recovering back to 2019 levels'. We remain optimistic and confident that there will be a return to this momentum as traveller confidence grows and treatments and vaccinations continue to gather pace."

Think greener, FLY GREENER

AirBaltic CEO **Martin Gauss** explains how the Latvian carrier is committed to sustainability for the long term to ensure a more environmentally friendly future for aviation

The aviation industry has been working hard towards more sustainable operations and with common efforts has demonstrated great results. We in the aviation industry were even better than others in reducing our impact; we were faster in developing modern technologies and other advancements.

Currently though the Covid-19 crisis has disrupted and affected all of us and now we are talking about surviving, mass unemployment and other crisis measures. Is there a reason to believe that sustainability is no longer important? No, in fact it is very important now and will be even more important once we overcome the crisis.

Sustainability is an integral part of our daily life and future; it is not only about clean air. At AirBaltic, we are focusing on environmental, economic and social sustainability. We are preparing our first sustainability report, which is our long-term commitment to sustainability.

We are focusing on the Airbus A220-300, which reduces CO_2 emissions by 20 per cent

According to IATA research, the impact of the Latvian aviation industry on the country's GDP reaches three per cent. There is an impact on the economy when the airline providing sustainable connectivity is not doing that anymore. It is therefore our aim to maintain and improve the connectivity of the Baltics long-term.

It is also important to mention that AirBaltic used to operate five different aircraft types. Now we are focusing on only one, the Airbus A220-300, the greenest and most environmentally friendly aircraft in the world in its category. It saves 22 per cent of fuel and reduces CO_2 emissions by 20 per cent.

In addition, in 2019 we signed the IATA gender diversity pledge. We committed to have a 25 per cent female participation across all levels in our airline. Already today 50 per cent of our managers are female, and 40 per cent of top management members are female. The industry wants to achieve these milestones only in 2025.

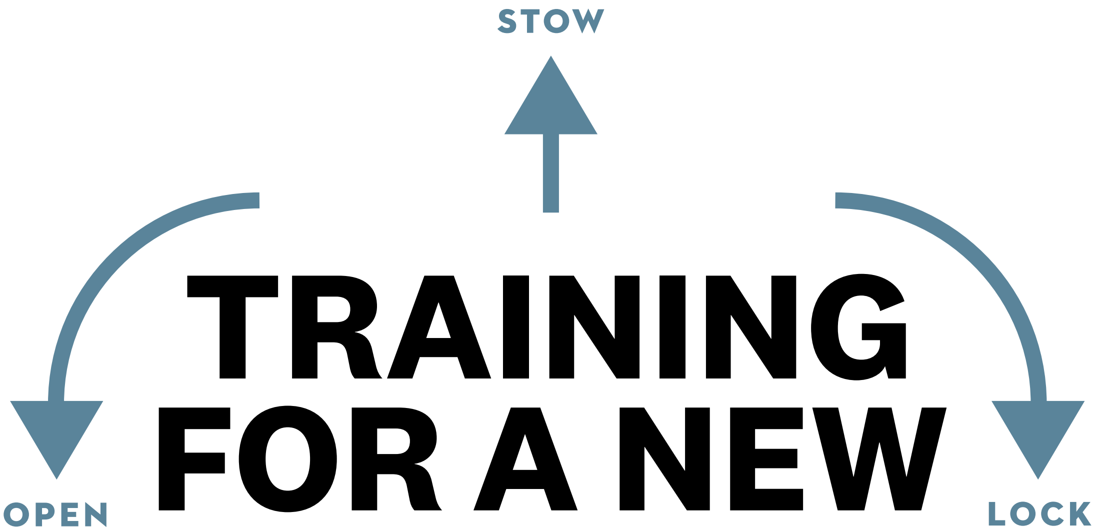
Sustainability as an issue will become even stronger. It will drive all of us for the next 20-30 years, because that is the key that helps to make our planet a better place. Airlines will have to focus on sustainability when they are coming back from the crisis.

The future winners will be those who are already working on sustainability. We want to take AirBaltic and what we do as an example of what we do in the world. We think greener, we fly greener.

MARTIN GAUSS
AirBaltic CEO


KLM
KLM Cityhopper


ECO PIONEERS FLY E2
We'd like to congratulate KLM Cityhopper on the delivery of the E195-E2, the first of 25 aircraft the carrier has on order. The KLM Group is the largest operator of E-Jets in Europe and has led the way in sustainable operations, cutting carbon emissions by 30% per pax/km since 2005. By 2030 their ambition is to reduce their carbon footprint by at least 50% per pax/km. The introduction of the E2, the cleanest and quietest aircraft in single aisle, will help to ensure this pioneering carrier achieves this ambition and strengthens their outstanding sustainability credentials.
E195-E2 ADVANTAGES
31% CO_2 EMISSIONS REDUCTION PER SEAT COMPARED TO THE E190
60% QUIETER COMPARED TO THE PREVIOUS GENERATION E-JETS
embraercommercialaviation.com
#E2sustainability
EMBRAER
CHALLENGE.
CREATE.
OUTPERFORM.



TRAINING FOR A NEW WORLD

Without highly trained cabin crew, industry recovery is impossible. *Paul Eden* discovers how two very different UK companies, Skyborne Airline Academy and EDM, are standing ready to satisfy the needs of a re-emerging, evolving market

It is a peculiarity of the Covid-19 pandemic that grounding swathes of airliners has, in some cases, provided space for service providers to take stock, look to the future and plan afresh. It's certainly true of cabin crew training, where the inevitability of the return to operations means airlines will need to refresh staff ahead of those first flights back, maintain currency for those still flying and look ahead a few years to a time when new talent is needed.

Two UK companies, Manchester-based EDM and Skyborne Airline Academy at Gloucestershire Airport, serve quite different aspects of the cabin crew training market. The former manufactures training equipment, including door trainers and complex cabin emergency evacuation trainers (CEETs), while Skyborne is a young company, to-date specialising in pilot training but now ready to expand and better fulfil its 'Airline Academy' title.

Attestation training

Ian Cooper, chief operating officer at Skyborne Airline Academy, explains the company's forthcoming cabin crew training offer. "Some years ago, EASA changed the regulations around cabin crew training, allowing it to be done by a third party provider as attestation training. It provides generic training before crew go on to type-specific training with their airline."

Some airlines still prefer to deliver a complete training package themselves but, as Cooper notes, attestation training enables them to reduce costs and streamline the training process. "It means they don't need to take senior staff away from line operations and they can pass higher volumes of crew through their training mechanism more efficiently.

"Working with a former cabin crew training manager from a major airline, we began developing a course two years ago. She wrote the course over six months and since then we've been working through the detailed approval process with the UK CAA. Now, the course content is approved, except for the need to have the CAA's inspectors come on site and view the first course being delivered."

The plan is to run an initial course with live trainees, probably taking small numbers of students selected by airlines pre-Covid and offering to deliver the package gratis. Completing the course will mean those crews are ready for

Above: EDM is known for its CEETs that offer trainees a realistic experience
Below: Hajati Treacher-Morley, Skyborne's head of cabin crew training

type-specific airline training as soon as passenger flying begins to pick up.

Skyborne already delivers pilot training from its purpose-designed building and that same structure will now also accommodate cabin crew training. The course is primarily classroom-based and completed in eight days, but Skyborne adds an additional day and a half of customer service training at the end.

There are significant exceptions to the classroom teaching, however, including fire training. Here, Skyborne has taken a surprisingly realistic approach. "We've worked with the airport fire service," Cooper says, "and developed a new training site in partnership.

"The site has a freight container mocked-up as an aircraft cabin. They'll use it to deliver smoke drills and it contains a 'galley' and 'toilet', allowing trainees to extinguish fires in both."

It's worth checking at this point that trainees will actually 'fight' live fires and Cooper confirms: "There's a mocked-up aircraft oven. When the doors are opened, flames billow out. Our trainees will use live extinguishers to put it out, whereas training usually uses water."

The other exception is life raft drill, which requires that trainees swim 25m and then climb into a life raft. Skyborne has an agreement to use the swimming pool at a private school in nearby Cheltenham for the work.

> **Covid-related layoffs meant Skyborne could choose from a large number of excellent instructor candidates**

Experienced personnel

Hajati Treacher-Morley, a former customer service manager at British Airways, is now Skyborne's head of cabin crew training, while its instructors are all experienced personnel with careers at companies including KLM UK and AirTanker behind them. Cooper makes the bittersweet admission that Covid-related layoffs mean Skyborne has been able to choose between a large number of excellent instructor candidates.

For now, the course is delivered to CAA and EASA requirements. While Cooper says Singapore and Malaysia are among the few non-European countries accepting attestation training, he expects it to become more widespread.

Meanwhile, like Skyborne's pilot training, the cabin crew training is delivered in a package that's not geographically restricted; one of the cabin crew instructors is, indeed, based in Geneva and Cooper says an airport classroom has already been selected, a swimming pool chosen and an agreement put in place with the airport fire section.

Skyborne has examined the possibility of delivering parts of the course remotely in light of Covid, but Cooper reckons perhaps as little as a day of the work

Clockwise from above: EDM's door trainers are still in demand; Ian Cooper, chief operating officer at Skyborne Airline Academy

would be viable by video link: "First aid with a mannequin, putting an arm in a sling or dressing burns really has to be done in the classroom." But what about virtual reality? "There's definitely a place for VR," Cooper says. "We aim to use VR for aircraft walkarounds in future. We have it in development and it'll definitely be part of the course."

Training devices

Lee Whittaker, head of sales at EDM, sees a very different aspect of cabin crew training. Mandatory cabin crew training demands that personnel attend recurrent training at calendar intervals, meaning EDM has seen only a marginal change, compared to business as usual, due to Covid-19. "We initially saw a downturn," he says, "during a period of around three months while the airlines decided what to do. Then orders began picking up again

EDM is working on a design combining VR with a 'handle' that can only be seen and touched with the headset on

and, although they haven't returned to pre-Covid levels, we've been reassured."

Where the business has changed more significantly is in how EDM supports its customers. A rigorous process of factory approval is undertaken before equipment is shipped, with the company traditionally sending installation teams out to customer facilities to assist in the often complex task of moving items into buildings and then reassembling them ready for service.

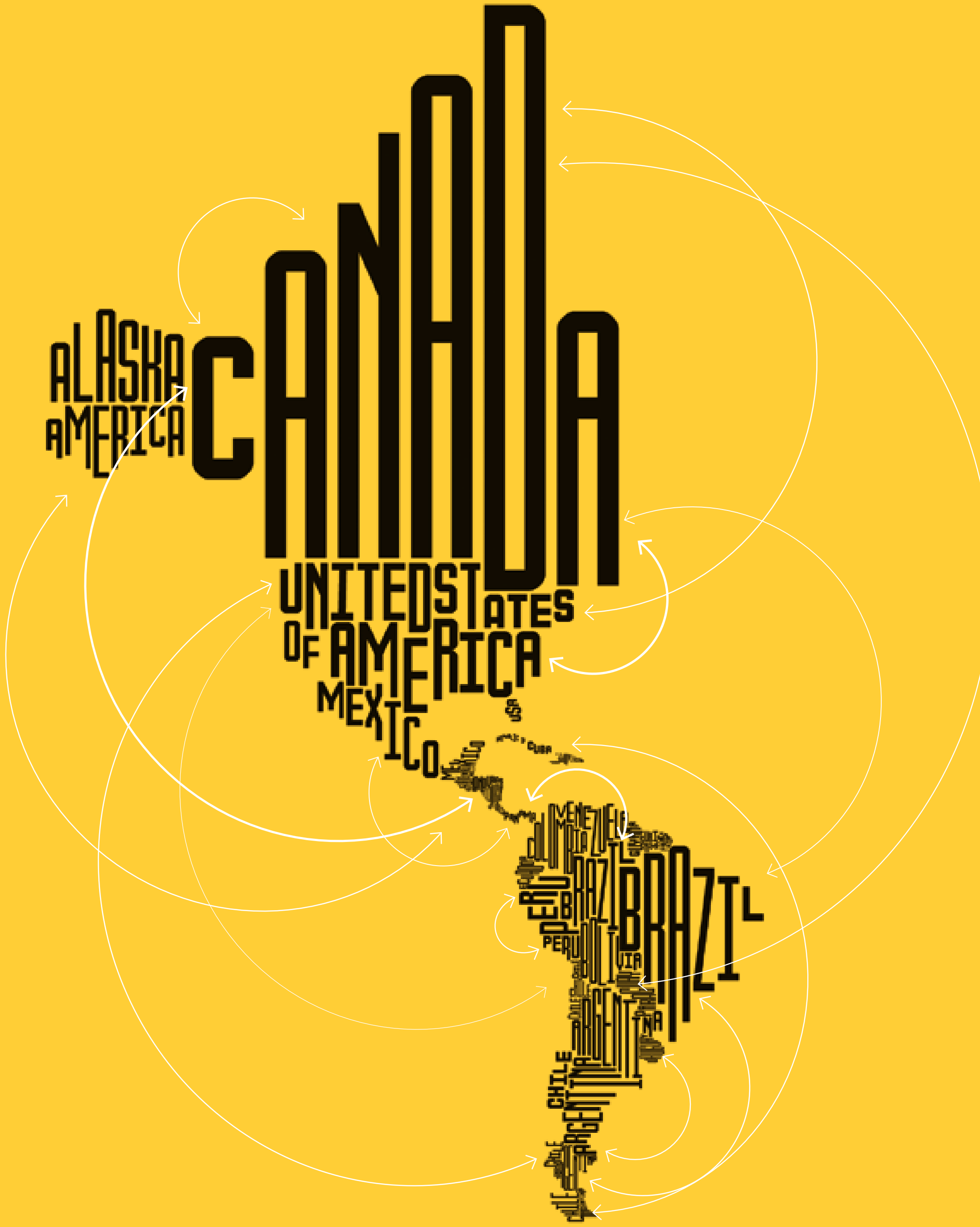
With smaller devices, including door trainers, the factory acceptance process has been taking place remotely, before the equipment has been shipped, accompanied by a detailed installation plan. Whittaker reckons a mix of remote and traditional, live inspection and installation will continue in the future, although the CEETs still need a dedicated EDM installation team.

The company is known for its ability to deliver CEETs with synchronised sound, visual and movement components for additional realism and while Whittaker believes EDM still leads in this high-end market, he says augmented and virtual reality devices are also under investigation. "We've developed a VR door trainer that allows trainees to run through scenario-based emergency training procedures and provides familiarisation with 'hotspots' displaying specific information, although it hasn't yet been industry certified, so airlines still have to rely on traditional door trainers."

Anyone who has opened an airliner cabin door will realise they are heavy items and providing an appreciation of their heft is an important, even mandated aspect of any door trainer. VR doesn't suit itself to such requirements, but Whittaker says EDM is working on a simple design for an overwing exit that combines VR with a 'handle' that can only be seen and physically touched with the headset on.

Recent customer deliveries have included a number of traditional A220 door trainers and Whittaker notes that EDM originally developed CSeries door trainers and overwing exit trainers from Bombardier data for Delta Air Lines. "That work means we've already absorbed much of the cost and done the non-recurring engineering for the A220, which means we can be really competitive when a new airline is looking for A220 devices."

EDM is well positioned to support existing customers post-Covid, especially if they are reconfiguring cabins to better suit evolving markets. It also has the expertise to supply new equipment quickly, should airlines re-equip to suit those same changing conditions. Meanwhile, Skyborne Aviation Academy's cabin crew attestation training occurs at a different point in the training pipeline but is nonetheless ready to suit the needs of a resurgent, evolving industry.



REBUILDING CONNECTIVITY

The Covid pandemic has caused dramatically varied effects across the Americas. *Paul Eden* takes a look at a most difficult year

Left: Embraer saw some deliveries postponed in 2020, but no cancellations due to Covid-19. (Photo: Marcio Jumpei Nakatsui/Embraer)

Daniel Galhardo, strategic marketing director at Embraer Commercial Aviation, considers Covid-19 among 'the determining factors of our century'. The crisis hit airlines across the US, Canada and Latin America directly and quickly, forcing significant cost reduction measures.

US domestic passenger figures fell from an encouraging eight per cent up in February 2020 compared to 2019, to a devastating 50 per cent down in March. Worse was to come, with the US domestic market ending the year 62 per cent down. Commercial flying all but stopped in much of South America, with Brazil, Chile and Mexico halting almost all domestic flying at some point.

In Canada, where the domestic network is smaller, the story is worse than in the US – a ten-day snapshot of passengers screened at Canada's 15 largest airports in February 2021 compared to 2020 shows numbers down by as much as 92 per cent. Placing this in the context of an operator, Porter Airlines hasn't operated a scheduled flight since March 2020, making temporary layoffs inevitable for approximately 90 per cent of its staff.

Low-cost Southwest Airlines, by comparison, has reduced capacity but maintained service to every market it served pre-pandemic. Thanks to the US Payroll Support Program and internal cost-saving initiatives, including voluntary time-off and separation, the carrier has avoided staff furloughs.

Both Porter and Southwest have parked aircraft. Sixty of the latter's 737-700 aircraft were in temporary storage on 31 December 2020, plus the 34 already stored 737 MAX jets. Porter's 29-strong Q400 fleet is stored in its entirety. Even parked aircraft cost money of course, with regular essential maintenance to ensure their successful and economical return to service.

Porter's director, communications and public affairs Brad Cicero says the airline is running the Q400s' Pratt & Whitney Canada engines at scheduled intervals and performing other required tasks, so that final checklist items are minimised just prior to returning to service. "The cost of treating the aircraft in this manner is relatively modest," he says, but notes, "Carriers with larger fleets and varying aircraft types may take different approaches." Southwest is following an FAA-approved active storage plan.

Aircraft deliveries

Embraer reports that new aircraft acquisitions and deliveries were an early casualty as airlines concentrated on liquidity. Its North American regional airline customers, operating the E170 and 175, took fewer aircraft in 2020 compared to 2019, although the airframer is pleased to report that it still delivered 28 jets to the market in 2020. Significantly, it saw some deliveries postponed, but no cancellations due to Covid-19.

Now, as vaccination programmes roll out across the Americas, the seeds of a tentative beginning to recovery are being sewn. Michael Deluce, president and CEO, Porter Airlines, says: "Porter will return to flying in 2021, at the right time and as conditions dictate. We have the means to weather this extended disruption and be there for an eventual recovery of travel."

Brad Cicero adds: "Flights will restart in phases, so the recall of team members will also be gradual and manageable. We estimate a four- to six-week ramp-up to ensure enough crew are ready to fly prior to a set date." Porter also plans to rebuild its network in phases, beginning with those routes expected to have the greatest passenger demand. "This is also for practical reasons," Cicero adds.

"We don't want to overburden the operation by attempting to operate a full schedule of flights on day one. Our intention is to eventually serve all former routes, but flexibility will be a key component of managing schedules for the foreseeable future. In some cases, adding flights may be necessary based on how the market reacts; other cases may

"We have the means to weather this extended disruption and be there for an eventual recovery of travel"

MICHAEL DELUCE, PRESIDENT & CEO, PORTER AIRLINES

MONTHLY US DOMESTIC PASSENGER COMPARISON 2019/2020

YEAR	MONTH	PASSENGER FIGURES	YEAR	MONTH	PASSENGER FIGURES	CHANGE	% CHANGE
2019	1	58,034,262	2020	1	61,626,465	3,592,203	6
	2	55,679,481		2	59,861,408	4,181,927	8
	3	70,234,684		3	34,417,701	-35,816,983	-50
	4	66,938,654		4	2,879,556	-64,059,098	-96
	5	71,365,660		5	8,238,757	-63,126,903	-88
	6	72,790,418		6	16,207,969	-56,582,449	-77
	7	75,281,916		7	22,878,828	-52,403,088	-70
	8	72,729,540		8	23,910,340	-48,819,200	-67
	9	63,991,365		9	23,854,435	-40,136,930	-63
	10	69,936,836		10	28,026,415	-41,910,421	-60
	11	64,827,417		11	26,290,900	-38,536,517	-59
	12	69,737,526		12	NOT AVAILABLE	N/A	
	TOTAL	811,547,759		TOTAL	308,192,774	503,354,985	-62

Source: US Bureau of Transportation Statistics

call for contraction if conditions change." Having suffered relatively less, Southwest Airlines has continued to serve every city on its established network. It expects to adjust schedule frequencies as travel demand increases.

Embraer's Daniel Galhardo reports: "We believe airlines will return leaner than before, looking for new ways back to profitability while also rebuilding connectivity." Acknowledging the uncertainty around recovery timing, he notes: "Traffic return is related to a range of external factors, including vaccine availability, disease transmission rates, quarantine policies and government incentives."

Nonetheless, he points to the OEM's latest 10-year market outlook for the 150-seat market, which predicts an earlier recovery of domestic traffic. "We see it rebounding to 2019 levels by the end of 2023, with international traffic returning to its former levels around 12 months later, by 2024. Aircraft deliveries should rebound sooner, owing to changing airline strategies and the need to replace older aircraft types."

Southwest Airlines reduced capacity, but maintained service to every market it served pre-pandemic. (Photo: Stephen M.Keller/Southwest Airlines)

Inevitably, he believes the E-Series is well placed to benefit from the demands of the recovering airlines, but he is almost certainly correct, given the family's regional pedigree and capability over longer ranges – there is likely to be value in aircraft capable of slightly longer sectors with smaller passenger numbers, right-fitting an evolving market. Indeed, Embraer claims that on a per-seat basis, the E195-E2 is as efficient as any 180-seat aircraft, while offering at least 20 per cent lower trip costs.

Martyn Holmes, chief commercial officer, Embraer Commercial Aviation, is also upbeat. "Embraer understands the challenges the aviation industry faces during and following the pandemic. However, we are very confident about the future as we continue to see airlines value more than ever the flexibility and sustainability the E-Jets afford them.

"Lower capacity aircraft with highly competitive economics provide real flexibility as they face lower demand and uncertainty. Compared to a larger aircraft offering with less flexibility, a right-sized to the market aircraft offers lower risk on trip cost, aligned with improved yields, directly resulting in improved bottom-line results.

"Moreover, we believe the E-Jets allow carriers to restore service to more cities faster and develop connectivity to flow passengers across their networks. As the headwinds ease, airlines with right-sized aircraft will recover faster and stronger."

THE RIGHT FIT

Satu Dahl speaks with ATR's SVP of commercial, Fabrice Vautier to learn more about the recovery and upcoming opportunities when it comes to the regional aircraft sector

After such a challenging year, the aviation industry is looking forward to recovery. With Covid-19 vaccine programmes accelerating around the world, the outlook and demand for air travel looks brighter. ATR's SVP of commercial Fabrice Vautier explains how the regional aircraft manufacturer is seeing several opportunities coming up in the near future.

What are the main opportunities for ATR's aircraft in the current market?
In the short to medium-term, we see that the recovery will begin in earnest this year and that a number of factors will drive the main opportunities, leading to a partial production recovery in the coming years. Firstly, the replacement market: there are more than 900 ageing 30-50 seat turboprop aircraft which are approaching retirement. These aircraft need to be replaced or the communities and economies that they serve will lose vital connectivity.

> **Regional freighters are an essential part of the growing e-commerce ecosystem**

This replacement wave already started around five years ago in countries such as Japan, then we have seen orders in Papua New Guinea, Colombia, the Caribbean and Scotland and the wave will continue in the likes of the US and Australia.

Secondly, new opportunities will arise in markets like China and Asia Pacific. The Chinese regional aviation fleet represents just two per cent of its total fleet, compared with a worldwide average of around 25 per cent. This shows the scope for the regional market and, indeed, the Chinese government recognises this as a priority.

The passenger profile may evolve in the post-Covid environment, with travellers aiming to avoid crowds by choosing smaller airports and smaller aircraft modules in order to reduce exposure in ground transportation.

One example is Buddha Air, a Nepalese operator which has reported that they have new passengers electing to pay a little extra and fly by aircraft rather than spend six hours in a bus and potentially risk exposure to infection for longer.

Finally, governments and regulatory bodies around the world want a more responsible aviation industry to emerge

Clockwise from Left: ATR is seeing several market opportunities in the future; ATR's SVP of commercial, Fabrice Vautier; The booming e-commerce market is an opportunity for ATR

Post-Covid, passengers may choose smaller airports and smaller aircaft

40%

Burning 40 per cent less fuel and emitting 40 per cent less CO_2 than a similarly sized regional jet, ATR is currently the most environmentally sustainable aircraft

from the pandemic. Burning 40 per cent less fuel and emitting 40 per cent less CO_2 than a similarly sized regional jet, ATR is currently the most environmentally sustainable aircraft.

We will continue to play a key role in the future by further improving our aircraft's environmental footprint, bridging the gap toward disruptive technology while the implementation of the necessary ecosystem and infrastructure occurs. This will also generate opportunities for us.

2020 was an exciting year for ATR with the 72-600F freighter taking flight. How much demand are you seeing for the 72-600F?

Naturally, another opportunity for ATR is the cargo market due to the e-commerce boom. The ATR 72-600 is the only line fit freighter in its category – it is truly born to be a freighter. It features a large cargo door, improved lighting and many other innovations that will make a positive impact on the operations of integrators and other logistics and cargo operators.

Our latest forecast sees a demand for 460 freighters in the three to eight ton category for the next 20 years. Consequently, we are seeing some interest, particularly in North America, Europe and certain parts of Asia, where our aircraft are very well suited to operating in the particular geographies, such as serving islands and operating on shorter runways.

These are markets where e-commerce is already growing exponentially and will consequently have the most need for short delivery times to satisfy customers that are increasingly demanding.

With the World Economic Forum reporting that the pandemic has accelerated the shift to e-commerce by five years, regional freighters are an essential part of this growing ecosystem. We see a potential for up to 30 aircraft a year, both new and converted, in the next 15 years. The ability to offer our new purpose-built freighter, conversions

With international travel particularly affected by Covid-19, domestic markets and travel corridors will support regional market recovery

85%

ATR aircraft operate principally on domestic routes, accounting for 85 per cent of operations

We have already seen examples of ATR aircraft replacing bigger jet aircraft

of legacy aircraft and quick, temporary conversions means we offer solutions, which are sure to meet the needs of operators, whatever their requirements.

It is also worth noting that the freighter could generate interest in developing countries and emerging economies such as South America, Africa and other parts of Asia, where there may be fewer alternative land and sea connections.

Can you tell us a bit about ATR's sustainability work with ECOACT?

We have set an ambitious target to make our onsite activities carbon neutral by 2030 and ECOACT is going to help us define a roadmap to achieve this vision. We want our low-carbon transformation to be aligned with climate science and, with the support of ECOACT, we will be reaching out to and engaging with our stakeholders to encourage them to reduce their emissions.

With the specific support of ECOACT, we are currently in a process of measuring emissions related to our activities and we aim to reach a high-level performance on direct emissions from operated sites.

They will also support us to ensure that our emission trajectory is aligned with a Paris-compatible pathway and help us adopt a strategy and mitigation plan to reach this objective. Secondly, ECOACT will help us define a compensation and sequestration strategy for any remaining emissions.

Another aspect of our sustainability work will see our sites in Toulouse powered by locally sourced alternative energy, starting from this year.

Will there be a lasting impact of Covid-19 on the regional aircraft segment?

It will take time to reach 2019 levels, but the regional market will recover. Regional aircraft, and in particular ATR aircraft, saw the latest and shallowest decline alongside the earliest recovery, with 71 per cent of our fleet back in service.

The reason for this is that our aircraft operate principally on domestic routes, accounting for 85 per cent of operations, and provide essential connectivity. With international travel particularly affected, domestic markets and travel corridors will support regional market recovery. We have already seen the trend that domestic flights are recovering more quickly. The lower trip cost of the ATR means it is a lower-risk platform financially so will be desirable to operators. We have already seen examples of ATR aircraft replacing bigger jet aircraft on their traditional routes.

Furthermore, though our operators on average tend to be smaller and are facing significant challenges in the current context, as we shift to the recovery phase, their size will allow them to operate more nimbly and rapidly adapt to shifting market conditions.

The world needs regional connectivity and it will be vital as we enter the recovery phase. Even during the pandemic last year, arguably the most significant crisis the industry has ever faced, ATR added nine new operators, including three new countries of operation, and opened 84 new routes. Our operators have performed truly essential operations such as repatriations, medivacs and transporting vital supplies and medicines.

Yes, times are challenging but regional connectivity remains essential and while the length of this recovery is not yet known, as long as people need to travel for business, health, education and to see their loved ones, then regional aviation will have a vital place in the world.

Q&A

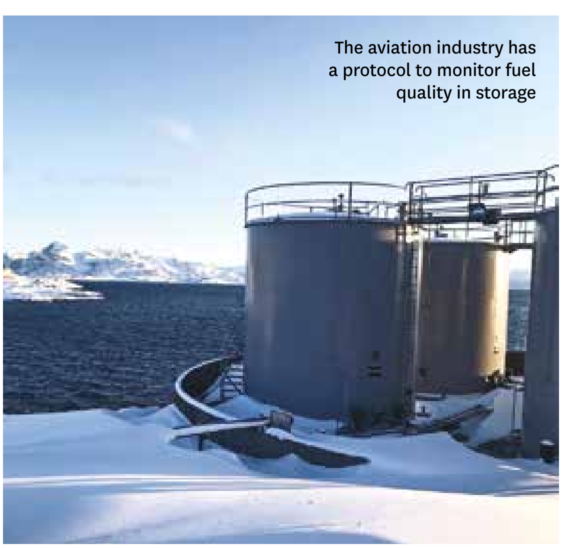
DOES AVIATION FUEL HAVE A 'BEST BEFORE' DATE?

Air bp's **Dr Alisdair Clark** explains how, just like the food you buy in shops, aviation fuel has a storage life ranging from six months to years depending on the type of fuel and storage conditions

What is the first aspect to consider regarding aviation fuel storage life?
You need to consider which product is in storage. Is it Avgas or jet fuel? Avgas, as a gasoline, must maintain a reasonable vapour pressure to perform correctly in an aircraft. Such volatility is required to ensure a fuel-vapour mixture can form to start and run the aircraft engine.

The current manufacturing specification range is 38 to 49 kPa. However, high temperatures and small, vented tanks can cause fuel volatility to be lost. This is why the industry likes to include 'Pressure – Vacuum' valves on Avgas tank vents to prevent loss of low-boiling hydrocarbons. This is good news for the environment as well as product life.

What other factors should you consider with Avgas storage?
Gum formation. This is when sticky, insoluble polymers form in the product by reacting with air. With the aviation industry mindful of such effects, the fuel must pass a strict requirement featuring 100 psi of pure oxygen/ 100°C to ensure no problems. In addition, additives called antioxidants are used to help reduce gum formation.



The aviation industry has a protocol to monitor fuel quality in storage

> **If trace water is present in a storage tank, microbes can grow at the fuel-water interface, feeding on the fuel and living in the water**
>
> DR ALISDAIR CLARK

Does jet fuel have the same volatility requirements as Avgas?
Jet fuel, as a kerosene product, does not have the same volatility requirements as Avgas. This is good news for storage stability and strategic use. Under the right conditions, jet fuel can be stored for years and sometimes in very unusual tanks such as caves underground.

Similar to Avgas, there is the risk of gum formation due to oxidation from air. To control this effect antioxidants – special chemical additives in carefully limited amounts – are used. The additives are typically 'hindered phenols' which work by capturing any reactive oxygen species in the fuel to prevent gum formation. However, once the antioxidant is used up, the fuel starts to degrade.

Are there any other factors to consider when storing jet fuel?
Jet fuel does not like catalytic metals such as copper. These, even at parts per billion concentration, can cause the fuel to become unstable when flowing through high temperature sections in an aircraft fuel system. Carbon deposits are formed, potentially impacting fuel/ oil heat exchanger performance and engine burner-feed arms. To ensure a long fuel life, brass and other catalytic metal alloys should not be used in jet fuel storage tanks.

Microbial contamination is another risk with aviation fuel storage. If trace water is present in the storage tank, microbes can grow at the fuel-water interface, feeding on the fuel and living in the water. Draining any water present in jet fuel and Avgas storage tanks is crucial.

What about quality control?
The aviation industry has developed a protocol of periodic testing to monitor fuel quality in storage. This typically involves taking a representative sample every six months for laboratory analysis to ensure the product is ready for use. If a product has not been tested for some years due to remote location or another reason, a detailed evaluation is initiated.

With our global network covering extreme environments, Air bp's aspiration is to ensure a safe, reliable aviation fuel supply is always available.

Powering regional CONNECTIVITY

When it comes to regional aviation, aircraft engine manufacturer Pratt & Whitney has had a busy year already despite current market challenges worldwide due to the pandemic

As we move further into 2021, there have been some encouraging developments in the regional aviation sector. One of these developments was demonstrated by KLM Cityhopper which celebrated the entry into service of the regional carrier's first Embraer E195-E2 aircraft, powered by Pratt & Whitney's GTF engines.

The aircraft is the first of the 25 E195-E2s the airline has committed to purchase and is the largest Embraer model in the carrier's fleet, with capacity to transport up to 132 passengers. The E195-E2 has more than 25.4 per cent reduction in fuel burn per seat when compared to the previous-generation E195.

The aircraft touched down at Schiphol Airport on 25 February. "Not only is the 195-E2 an economically attractive aircraft, it also fits perfectly within our Fly Responsibly sustainability approach," Warner Rootliep, managing director of KLM Cityhopper commented.

"This will enable KLM to make its own operations and the sector as a whole more sustainable. Now, more than ever before, we're committed to reducing the impact we have on our surroundings and our ecological footprint. At present, fleet renewal makes the biggest contribution towards reducing CO_2 emissions."

Rick Deurloo, Pratt & Whitney's chief commercial officer and senior vice president, says the engine manufacturer is proud to power KLM Cityhopper's next-generation aircraft with what it calls its game-changing technology. "Our relationship with KLM goes back to the early days of aviation, and we look forward to continuing to work together to deliver more sustainable flight for years to come," he commented.

According to Pratt & Whitney, Embraer's E-Jet E2 family is exclusively powered by the GTF engines and the manufacturer's APS2600E auxiliary power unit. This auxiliary power unit increases the altitude ceiling for extended-range twin-engine operational performance standards (ETOPS) and other operations, providing carriers with more flexibility and a significant increase in electrical power delivery.

Air France order

Another announcement made in February by Pratt & Whitney revealed that the Air France-KLM Group had finalised its order for more than 120 GTF engines to power the group's fleet of 60 Airbus A220-300 aircraft. The first aircraft is scheduled to be delivered in September 2021.

30%

Only about 30 per cent of the airports in the Philippines can accommodate a jet aircraft, and having the capability to serve smaller airports allows Cebu Pacific Air to fly to more routes

Air France's chief commercial officer Angus Clarke says that, thanks in large part to Pratt & Whitney GTF engines, the carrier expects its A220 fleet to deliver significant economic and operational benefits, together with less noise and lower emissions.

Pratt & Whitney says the engines deliver double-digit improvements in fuel and carbon emissions and produce NOx emissions 50 per cent below the ICAO CAEP/6 regulation. The A220 engines are planned to be supported by the manufacturer through a long-term service agreement and the maintenance will be carried out by AFI KLM E&M.

Far left and left: KLM Cityhopper's first Embraer E195-E2, powered by Pratt & Whitney's GTF engines, arrives at Schiphol Airport from Brazil. **Below:** Cebu Pacific Air has used the ATR 72-500 freighter to fly humanitarian goods across the Philippines

Cebu Pacific operates a large Pratt & Whitney PW127 fleet

Covid-19 relief in the Philippines

In other news for Pratt & Whitney, aircraft powered by its PW127 engine have been involved in relief missions related to the Covid-19 pandemic. One such mission was Cebu Pacific Air's relief effort in the Philippines, where the carrier used its ATR 72-500 freighter to transport medical supplies and other vital goods to locations where they were most needed.

"During the pandemic, Cebu Pacific has been able to fly humanitarian goods such as medical supplies across the Philippines, free-of-charge," Cebu Pacific Air's deputy chief finance officer Mark Cezar explained. According to Cezar, the freighters have been used to serve both government and non-government organisations.

Cezar noted that the PW127 engine combines excellent take-off capabilities on the ATR with low maintenance costs and good fuel burn. Cebu Pacific operates a large Pratt & Whitney PW127 fleet due to requiring aircraft such as ATRs which have short take-off and landing capability.

"Having a STOL aircraft in our fleet allows us versatility in where we can fly. Only about 30 per cent of the airports in the Philippines can accommodate a jet aircraft, and having the capability to serve smaller airports allows us to fly to more routes," he explained.

Pratt & Whitney says Cebu Pacific's PW127 engines have the Pratt & Whitney Event Cost Plan which is a 'pay-at-the-event' fleet management programme maintenance plan that allows airlines to pay an amount equal to a predetermined hourly rate at each maintenance visit for the coverage selected.

Cezar says that, in an archipelago like the Philippines, having multiple points of connectivity and modalities of transportation is integral to economic development. "Steady and reliable logistics is critical to move goods and people – whether for trade, commerce or tourism. Having robust air connectivity is fundamental in driving growth in the economy down to the grass roots level."

EMERGING PREPARED

Melissa Moody discovers how regional airports are expected to lead the charge as vaccines are rolled out across the globe and passengers prepare for their first taste of freedom in over a year

A year on from country-wide lockdowns imposed by the Covid-19 pandemic, the rollout of the vaccines means that passengers can start to plan ahead for holidays they were unable to take in 2020. However, the challenges don't end now.

"I hope I don't sound flippant but clearly Covid-19 has been one of the biggest challenges we have ever faced, never mind in the past year, and it is a challenge we are still facing and will continue to face for a few years to come," says Edinburgh Airport chief executive, Gordon Dewar.

As international borders remain closed, regional airports and low-cost airlines are expected to be the first to open up as people take to the skies again. To prepare for this, Edinburgh Airport has taken steps to get ready. "There are some things that everybody already knows about, such as the importance of clean hands, the need for social distancing, and the use of face coverings," Dewar explains. "We have installed sanitising stations, PPE vending machines, distance markers and reminders throughout the airport, on our website and on social media – even on emails to customers."

Regional airports will be more interested in biometric technologies that can be integrated at check-in and boarding

"We've also installed one-way colour-coded walking routes. Passengers arriving at all points of the airport will have to follow a sky-blue line to take them into the check-in hall, while exiting/arriving passengers will follow a maroon line out of the terminal and will be separated from those looking to head out of Edinburgh.

"People may think it's an unnecessary step, but we don't. It reduces cross over and any potential transmission of the virus, it keeps an orderly flow to things and is very easy for passengers to follow, even if English isn't their first language. It might be something we keep in place."

Left and right: Biometric systems that use physical contact may soon be replaced by touchfree technology; **Below left:** Edinburgh Airport's colour-coded one-way walking routes

Touchless technologies

Some airports are choosing to take a more technology-based return. According to SITA, the Covid-19 pandemic has refocused IT spending priorities for both airlines and airports. Findings found that there was accelerated investment in automated passenger processing focusing on touchless and mobile services.

"The industry has turned to technology and, in many cases, reprioritised where they invested in 2020," explains SITA at Airports and Borders CEO, David Lavorel. "The good news is that airlines and airports were able to capitalise on existing trends to automation and have made significant strides in implementing new solutions that will bring new improvements for the passenger now and into the future."

The report found that biometric technology is a significant focus for investment, with 64 per cent of airports aiming to roll out self-boarding gates using biometric ID documentation by 2023, three times as many as in 2020.

Biometrics and technology company IDEMIA believes that regional airports will be more interested in contactless biometric technologies that can be easily and rapidly integrated at check-in and boarding areas.

"These devices will play a key role in mitigating hygiene concerns and regaining the confidence of travellers. But these are not just 'simple touchless technologies' – they are touchless devices that identify travellers with their biometrics on the move, enabling greater efficiency and a better user experience while respecting their privacy," an IDEMIA spokesperson explains.

The company cites its own experience with Lyon-Saint Exupéry Airport as an example where its programme MONA has been launched, the first travel assistant that uses facial recognition technology. Passengers were able to trial a biometric journey from their home to the plane via an app downloaded onto their smartphone.

64%

Biometric technology is a significant focus for investment, with 64 per cent of airports aiming to roll out self-boarding gates using biometric ID documentation by 2023

Once at the airport, passengers use the facial recognition technology to go through the various check points – from luggage drop to boarding (with the exception of border control) – without making any physical contact, simply by showing their face.

Amongst some of the vast touchless solutions currently being offered, the use of smartphones is considered a keystone by the industry. At the kiosk, by creating a mirror image of information presented on the screen, travellers can use their smartphone to interact at distance with the airport/airline's touchpoint. There is no need to touch the actual screens.

Even passports could be digitalised so that they can be securely stored and used through the traveller's smartphone with at least the same level of security and interoperability as the physical document. This is called Digital Travel Credentials (DTC).

Be prepared

Although technologies are advancing, one of the biggest challenges going forward, says Dewar, is the lack of agreed travel protocols globally.

"There is not yet an agreed position on what travel protocols should be adopted to make it easier for people to follow," he explains. "The best example I can give is the security process that every airport in the world follows – we all know about the 100ml limit on liquids, and we follow that limit no matter if we are in Edinburgh Airport, Dubai, San Francisco or Shetland. We need something similar for Covid protocols."

An IDEMIA spokesperson adds that additional health checks coupled with an ultra-contactless biometric experience is key to enabling the air transportation industry to regain the confidence of travellers.

Getting back into the skies seems a priority for many. Dewar emphasises that it's not just about people going on holiday; instead, travel helps with business, bringing investors into areas like Scotland and connecting families.

"To minimise travel to just holidays fails to convey the services and international connections that we bring to Scotland's economy and the thousands of jobs that depend upon it, and ultimately downplays its importance to the country's recovery.

"We don't want any work to detract from the crucial job of fighting the virus and we think a recovery strategy should be planned separately so that work can carry on unhindered. But we have to get started or we will face more issues going forward," he concludes. L

Digital PRIORITIES

In the wake of Covid-19, airlines are aiming to increase cash flows and generate ancillary and additional revenue while also striving to reduce costs and ensure safety

Airline IT solutions provider Hexaware, which serves more than 100 airlines and some of the world's busiest airports, has vast industry experience. The company's software solutions cover reservations, ticketing, fares, revenue management and revenue accounting, among other areas.

Low-Cost & Regional Airline Business reached out to the company to find out about the latest trends in the digital payment solutions market and to learn how carriers can maximise their revenue and cash flows while also ensuring cost-efficiency and meeting safety requirements.

Strategic decisions

Hexaware works closely with a number of leading airlines as a development, system integration and digital assurance partner. This involves handling online and batch, complete and partial payments via payment engines whilst also handling reservation flows for flight bookings, upselling, voiding and refunds via multiple sales channels such as mobile apps, in-apps and airport desks.

The company specialises in integrations with multiple global and regional payment gateways using payment APIs, ESBs & XML Direct. Hexaware provides payment tokenisation and housekeeping services to secure credit card details and personal data, ensuring PCI compliance of the platform. According to the company spokesperson, the IT solutions provider has established credibility in implementing 3DS1 & 3DS2 payment authentications and payment authorisation of various forms of payments such as credit cards, debit cards, UATP, wallet and Messenger payments and is also involved in testing API integration and the entire airline payments flow.

Giving insight into market demand and the company's recent engagements, the spokesperson explains that these include an airline website integration with blockchain and smart ledger-based payment processing for business and corporate accounts using Metasearch

Clockwise from left: A key priority is to ensure digital-first and touchless travel to reassure customers; Hexaware has established credibility in implementing authorisation of various forms of payments including Messenger payments (right) and credit cards (below)

platforms, as well as NDC platform-related payment initiations and integrations with other partners. The company has also integrated airlines' main dotcom websites with multiple third-party merchandising platforms to increase ancillary revenues.

Diversified choices

Hexaware's spokesperson explains that meeting the multiple key targets in demand – increasing cash flow, ensuring safety, gaining ancillary and additional revenue and reducing costs – involves leveraging payments as a strategic enabler for post-Covid-19 recovery through digitisation.

One of the key priorities to make this happen is ensuring digital-first and touchless travel to reassure customers. This can be achieved through several measures, including implementing the latest payment technologies, propelling payment platform modernisation and providing customer centricity, improving cost-effectiveness, resilience, reliability, uptime and productivity. Promoting automation, bringing convenience and ease of use, efficiency, and agility reduce the time required for payments and to check out customers.

Offering more diversified payment choices and alternate form of payments, implementing new payment features and addressing customer expectations to handle multiple channels, markets and suppliers will also contribute to these targets, as do offering greater payment flexibility and faster compliance to dynamic regulatory requirements. Furthermore, real-time payment systems help to gain control of vital cash flows and reduce risk of defaults and losses linked to exchange rate fluctuations.

Understanding market challenges

When it comes to current trends regarding digital payment systems for airlines, the spokesperson explains that these include choices for increased flexibility such as "buy now, pay later" or "hold my fare", subscription options for preferential prices and additional services such as commuter flight passes, escrow account features, virtual cards and vouchers, as well as selling loyalty miles.

Real-time payment systems help to gain control of vital cash flows and reduce risk of defaults and losses

Reducing payment processing costs is of course also a consideration. Regarding technology trends, there are several areas of focus such as investment in digital and cloud technologies to mitigate fraud and enable data-driven offerings for value-added propositions. Accelerated adoption of contactless payments includes using biometric features such as facial recognition for quicker and secure payment approval, 'tap and go' payments using NFC & EMV, cloud payments, conversation AI chatbots, smart speaker-based voice-activated payments and smartwatches and wearables payments.

According to the spokesperson, other key adoptions in the current market include blockchain/distributed ledger technologies and accepting digital and cryptocurrencies for cross border payments and settlements as well as federated identity management.

"For airlines and travel companies, having a sound partner like Hexaware with domain expertise, technology capabilities and understanding of the unique market challenges to support them in their payment journey will be crucial to emerge as a leading digital enterprise," the spokesperson sums up.

Career PATH

Anca Mihalache, VP of engine trading at APOC Aviation, tells us about her career journey

Tell us how you got to be where you are today.
My father is an aircraft engineer and I have been part of this exciting world ever since I was born. In early 1990, after the revolution, when Romania became an independent democratic country, my father started working as a technical director for an American airline that started an AOC in Romania.

He would sometimes take my mother and I to different industry events with the owners of the airline and I remember those special experiences fondly. We are still friends after all these years.

What is the most interesting part of your job?
I love the busy, fast-paced, international environment. It is exciting and enables you to make friends with people from all over the world, people that you would definitely not have met otherwise. After a while, when you have spent many nights and weekends working together, your customers (or your competitors) become your friends.

I also enjoy the fact that although aviation is a global business, it is still a small world – especially the after-market and engines in particular, which is my special focus. Often when I see a plane flying overhead, I smile as I think of the people on board going on holiday or visiting their families. It is so interesting to feel part of the industry that makes that possible.

And the bit you like least?
That would be in an engine leasing transaction when the two parties don't agree and there needs to be unfriendly redelivery; and of course, this Covid-19 situation where we can't travel to meet our customers or participate in industry events.

What would be your alternative career?
I also have a Bachelors' degree in Marketing & PR (on top of my International Trade degree) and actually this is what I started to do after university. So, I would probably work in the media. I also have a blog as a part of my passion for writing and marketing.

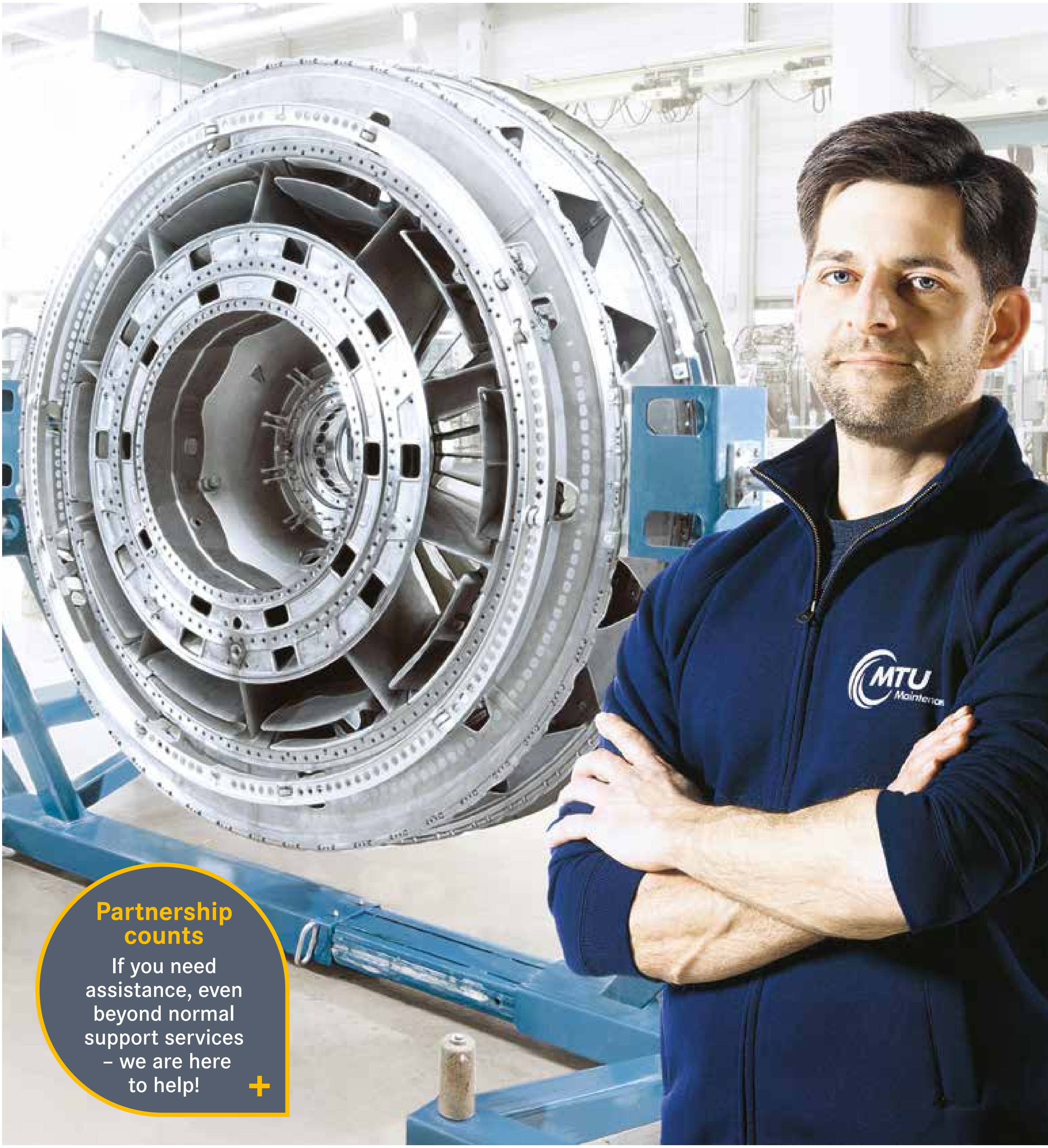
Talk us through your daily routine, or those things that can happen in a day.
I am not a morning person and I don't start working early. When I wake up, I read my emails immediately – a very bad habit I know – and this sets the tone for the day. Then I prepare for my meetings that are usually before lunchtime.

In the afternoon (when I am the most productive) I get to talk to customers, solve issues and make a lot of calls. The afternoon is my favourite part of the day.

In aviation there is never a dull moment, there is always something happening. On the plus side, projects close faster than in other industries and you have the sentiment of fulfilment more often. But on the minus side, you frequently experience a lot of stress that comes with closing an engine leasing deal successfully.

What is your favourite destination?
Italy, for sure.

How do you see the aviation market developing in the future?
I believe the pandemic has changed the aviation industry forever and the way we flew in 2019 can no longer be considered normal. Today is the new normal. Our industry will find new ways to cope because flying is, and always will be, very much part of our lives.


Partnership counts
If you need assistance, even beyond normal support services – we are here to help!
MTU
Maintenance