

Fiyat: 120 TL - Price: US\$ 5,99

VOLUME 5 - ISSUE 20 - YEAR 2023

ISSN 2667-8624

AVIATION TURKEY

 **DUBAI**
AIRSHOW

An Exclusive Interview
with Jean Botti, CEO and
Chief Technical Officer of
VoltAero

“Mankiewicz”
One-Stop-Shop for
Coating Solutions

SunExpress Carried 10
Million Passengers
Year-to-Date

Air Transport Leaders
Discussed the Most
Pressing Topics Related
to Air Transportation **at**
the ATLC in İstanbul



UPS Continues to
Contribute to **Türkiye's**
Exports for 35 Years

Nevra Onursal
Karaağaç; “Türkiye
remains an incredible
growth market and has
already proven itself as
a significant market.”

beyond the horizon



AVIATION TURKEY



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50 *years*

AVIATION TURKEY

VOLUME 5 - YEAR 2023 - ISSUE 20
ISSN 2667-8624

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Basım Tarihi

Ekim-Kasım 2023

Yayın Türü

Süreli

c o n t e



"Exclusive
Interview with
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CEO and
Chief
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One-Stop-
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"Türkiye remains
an incredible
growth market
and has already
proven itself as
a significant
market."



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Pegasus Takes
Delivery of its
100th Aircraft,
"Cumhuriyet"

Dubai Airshow 2023

The biggest edition

This 2023 edition will showcase an impressive lineup of the latest commercial, business, and military aircrafts, along with an exciting selection of eVTOLs and helicopters from both industry leaders and emerging players.

Dubai Airshow 2023 will host 1400+ world-class exhibitors 180+ of the most advanced commercial, private and military aircraft on display, 9 conference tracks featuring 300+ industry experts and speakers, 20 Country pavilions featuring the most innovative products and Technologies, 390 Senior military and civil delegations and 80+ startups at VISTA Start-up hub.

At the static display the show will showcase more than 180 commercial private and military aircrafts covering Airbus A380-800, A321neo, A321-211 P2F, Airbus

A330-800 (NEO), ACJ TWOTWENTY (A220-100/BCS-1), Boeing 777-300ER, 787-9,

Bombardier Challenger 3500, Bombardier Global 7500 (BD-700-2A12), Falcon 6X, Falcon 2000LXS, Gulfstream G500 and G700.

With 300+ regional and global experts across 9 tracks featuring some of the most renowned speakers and companies in the aviation industry, Dubai Airshow will present an exceptional gathering of trailblazers who will lead thought-provoking sessions and actively participate in exclusive networking opportunities. Comprehensive conference agenda will cover space, advanced aerial mobility, air traffic management, passenger experience, sustainability and diversity

Lead by the UAE Space agency, Space at Dubai Airshow 2023 will be showcased through

initiatives including the Space Experience which presents a carefully selected space delegation programme with a 2-day content conference focusing on key topics including Space & Climate Change, Space & Security, Communications & Connectivity, Space Tourism and more.

The Aviation Mobility

stage will gather all decision makers to discuss the latest trends and challenges across the broader aviation spectrum. Whereas, the Aerospace 2050 stage features dedicated topics from driving sustainable aviation operations to space exploration and the future workforce.

Bringing together ANSPs, regulators,





airports & airlines across the MENA region, the Air Traffic Management conference will return for its 4th edition to discuss the region's comprehensive aviation infrastructure and use of innovative ATC technologies to enhance efficiency and safety in commercial aviation.

With the industry embracing the disruptive future


methods of aerial transportation, Advanced Aerial Mobility conference will explore technologies that will transform how we travel, as well as the regulations and infrastructure required to integrate AAM into existing and modified airspace operations.

On ground and in-flight passenger experience is being transformed

by new technological advancements. The inaugural track will gather aviation industry's tech leaders to reimagine passenger travel and discuss how technology is shaping tomorrow's passenger experience.

With President His Highness Sheikh Mohamed bin Zayed Al Nahyan declaring 2023 as the "Year of

Sustainability" and the nation hosting COP28 this year, the Sustainability conference will cover some of most pressing sustainable challenges and opportunities across two days.

Enjoy the issue... 

Ayşe Akalın
Editor in Chief



© Dominique Fontenat

Jean Botti, CEO and Chief Technology Officer

“ Exclusive Interview with Jean BOTTI, CEO and Chief Technical Officer (CTO) of VoltAero. ,,”

Ayşe Akalin: First of all, thank you for sparing time for our readers. Can we start our interview by taking a brief summary of your personal journey to the VoltAero after leaving Airbus in 2016?

Jean Botti: First of all, Thanks to all you readers and I am happy to share my personal journey since the creation of VoltAero in September 2017.

We have been going through an incredible journey with the team. We went from 3 co-founders to more than 30 full time people today. We have created multi-national partnerships around the world and we have also created two beautiful and efficient aircrafts the demonstrator Cassio S who flew recently with a 100 % electric/Biofuel made of grapes waste, and

the Cassio 330 the first of our future aircraft family

Ayşe Akalin: How would you best describe VoltAero, which is headquartered at the Aérodrome de Royan-Médès in southwest France?

Jean Botti: It is a spin off of the original Airbus team, that was working under my direction at the time when I established the Electric Roadmap for



by Ayşe Akalin

Airbus. We look like the movie the “expandables” ! Very happy to have a diversified team, mixing senior people with 80 years of expertise combined in electric aviation with very young new comers.

Ayşe Akalin: Could you please provide some key facts about the company for our readers?

Jean Botti: Well here are some Key facts:

1. First to fly a 600Kw parallel Hybrid Aircraft in the world in 2020
2. Won the prestigious Award for best technology of the future at the German Aero Airshow in Germany in 2023
3. Just received the Janus price in France for best Design all categories included.
4. Labelled by Solar impulse foundation in September 2021
5. Elected as a partner by Air New Zealand in 2022
6. Price of best Engineer by the prestigious French industrial Magazine in 2021
7. Selected by Netherlands to be a partner in the Power-Up consortium (major Dutch Airports) in order to develop the electric aviation for tomorrow

Ayşe Akalin: Can you inform us about VoltAero's current final assembly line at Rochefort Airport in France's Nouvelle-Aquitaine region and its annual production capacity?

Jean Botti: On October 3rd we had the ground breaking of the production plant in Rochefort France. The plant will be ready in August 2023. Production of 150 Airplanes in steady state operations within the next 4 years.



Ayşe Akalin: VoltAero has been developing an all-new airplane family, dubbed 'Cassio' and is claimed to set the standards for electric aircraft. Can you describe the Cassio electric-hybrid aircraft family with three sizes - the Cassio 330, 480 and 660, for our readers?

Jean Botti: VoltAero is taking electric aircraft to an entirely new level. Benefitting from 80-plus years of combined pioneering expertise, VoltAero is developing a truly unique general aviation airplane with electric-hybrid propulsion for safe, quiet, efficient and eco-friendly flight. VoltAero's proprietary

Cassio design is based on a sleek, aerodynamically-optimized fuselage, a forward fixed canard, and an aft-set wing with twin booms that support a high-set horizontal tail. Seating from five to 12 persons, Cassio will have a flight duration of at least 3.5 hours – providing a highly-capable and reliable general aviation platform for private owners, air taxi/charter companies, commercial flights for point-to-point regional travel, and for use in other utility-category (cargo, postal delivery, Medevac) applications. It will be certified to Europe's EASA CS23 certification specification as a single-

engine, general aviation category aircraft, and is designed from the start for a low cost of ownership.

Cassio will be offered in three versions, each sharing a high degree of modularity and commonality:

Cassio 330, a five-seat configuration with propulsion from a combined electric-hybrid power of 330 kilowatts;

Cassio 480, configured with six seats and an electric-hybrid propulsion power of 480 kilowatts;

Cassio 600, with a 10-12-seat capacity and electric-hybrid propulsion power of 600 kilowatts.



The industrial site for VoltAero's Cassio family aircraft at Rochefort Airport has been designed with a focus on sustainability.

INTERVIEW

The VoltAero flight demonstrator, the Cassio 1 aircraft, is validating Cassio's powertrain configuration, de-risking it for airworthiness certification.

Ayşe Akalın: At Airbus, as Airbus' Chief Technical Officer, you led the Electric Cri-Cri and E-Fan programs. To what extent were you able to transfer your electric aircraft experience from Airbus to VoltAero? Can we get an assessment of the reflections of the knowledge you gained from the years of working on E-Fan Project on the Cassio Project and the gains it has provided?

Jean Botti: It is clear that experience is crucial in this business. But I have to say that for the Cassio Family we came with all new ideas that in fact are even Patented. What we gained the most out of the past experiences was the possibility of scale up. In 2011 we flew the small electric acrobatic Cri-cri with 20Kw of power, then In 2015 we crossed the Channel in an historical flight with the E-fan, a 60 Kw power aircraft, still in pure electric mode.

In 2020 we flew the Cassio 1 demonstrator in Hybrid mode at 600 Kw power. We have multiplied by 30 the power on board in the last 12 years!

Without the accumulated knowledge, it would have been very difficult to do.

Ayşe Akalın: The Cassio 330 electric-hybrid aircraft, that unveiled for the first time in June 2023 just before Paris Air Show is the first member of this family. Where do you see the strong points of Cassio 330 CTOL aircraft that features five seats and powered by the 330-kilowatt electric-hybrid propulsion system and how does it differ from its competitors?

Jean Botti: Why the Cassio Hybrid is superior to a Full Electric propulsion system?

- Hybrid allow a better batterie management which reduced the impact of current battery system limitations (stability, temperature management).
- Hybrid allow a better balance between range and battery weight (by an order of magnitude)
- Infrastructure readiness (hybrid aircraft are ground infrastructure agnostics). Not all airports will be equipped with electric chargers immediately. VoltAero with its Cassio Airplane will always be able to take off in any field
- Improves safety (dual source of energy that can be used independently or in combination)
- Better overall performance and operating cost, with a significant improved range compared to a full electric aircraft (800 NM or 1200Kms). By consequence, it is more



suited for the regional aviation market.

- High level of recyclability (> 80%) thanks to the Aluminum airframe. The VoltAero Cassio Airplane has been conceived with this in mind. Contrary to composites that are very difficult to recycle. Eviation, Lilium, Joby and Pipistrel are composite made.
- Eviation, Joby, Lilium made the choice of of several propellers whereas VoltAero has selected a very specific unique propeller in order to minimize the noise an allow 24/7 operations

For all these reasons stated above VoltAero made the choice of the hybrid, half electric, half thermal.

The Cassio airplane – thanks to its modularity – possesses the building blocks that will enable it to include the future advancements in batteries, bio-fuels or hydrogen technologies. The research conducted in exclusive partnership with Kawasaki will allow us to quickly stay at the forefront, should hydrogen technology become reality.

Ayşe Akalın: Displayed for the first time during Paris Air Show 2023 the first prototype of Cassio 330 CTOL aircraft was announced to be used to validate the overall airframe configuration. When do you plan to perform first flight



VoltAero's Cassio 480 will be configured with six seats, with propulsion from a combined electric-hybrid power of 480 kilowatts.

with Cassio 330 first prototype?

Jean Botti: We plan the first flight to happen second half of 2024 in order to open the flight domain and truly understand the Aerodynamics.

Ayşe Akalın: Can you elaborate on the parallel electric-hybrid propulsion concept utilized on Cassio Family? What makes it unique?

Jean Botti: Safe, efficient and eco-friendly: these are the keywords for VoltAero's electric-hybrid powertrain.

Equipped with VoltAero's proprietary propulsion module – which combines electric motors and an

internal combustion engine – Cassio aircraft will have propulsive power ranging from 330 to 600 kilowatts, corresponding to the aircraft's versions with four, six and 10-seats.

In its application on the mid-sized Cassio version – which has six seats – the hybrid power module combines 300-kW of internal combustion engine power with three electric motors of 60 kW each, delivering a total power of 480 kW. These multiple sources of energy ensure very safe modes of operation by utilizing one source of power (electrical or mechanical) – or both – depending on the usage scenario. In a typical flight,

the electrical motors would be used for nearly-silent takeoffs and landings, with the internal combustion engine serving as a range extender. It is patented and we extend its validity to 62 countries

Cassio propulsion: key characteristics

- *Unique patented series/parallel hybrid design: from full electric to full rechargeable hybrid, depending on the flight profile and mission requirement*
- *The dual source of power provides unmatched safety*
- *4 dBa lower noise than comparable aircraft during operations, and no noise during ground taxi (with an electrically-driven nose wheel)*
- *20% lower emissions than comparable aircraft in the full hybrid mode and 100% in full electric*

Ayşe Akalın: Since 2020, VoltAero's electric-hybrid propulsion system has undergone extensive airborne evaluations with the full-power 600-kilowatt version installed on the company's Cassio 1 (a modified Cessna 337 Skymaster) demonstrator airplane, making it the world's first parallel electric-hybrid powertrain to fly. Can you elaborate on the structural modifications performed on the Cessna 337 Skymaster airframe to convert it electric-hybrid airplane and testing/certification campaign carried out

so far with the Cassio 1 demonstrator airplane?

Jean Botti: Almost everything has been changed:

1. Batteries in the wings
2. Two added electric motors support in the front of the wings
3. Completely new digital cockpit instead of the old analog one
4. Complete removal of the front and rear engines with replacement in the front nose of the engine by 3 battery packs and in the rear fuselage we installed our parallel hybrid power module
5. Total installation of 5 electric motors (Safran and Emrax) and one thermal engine (Nissan) for a total power of 600 Kw (300 Kw Thermal + 300 Kw electric)

Basically the only thing kept was the Aluminum structure, but we made significant modifications to it.

The Demonstrator Cassio 1 is an experimental and will not be used for certification purpose.

Ayşe Akalın: What stage are you at with testing? How many flight hours have been accumulated with the Cassio 1? What is the most challenging aspect of the Cassio's testing program? When do you expected to secure AESA certification for the Cassio Family of CTOL aircraft?



Jean Botti: For Cassio 1 we have now accumulated more than 215 flights and 157 flight hours

We keep flying it in order to Test:

1. Bio-fuels
2. New low noise propeller

Everything is challenging for the Cassio 330 certification because this not a conventional Airplane and we need to make sure that EASA and later FAA will be comfortable with our approach. We hope for Type certificate by 2025

Ayşe Akalın: The second Cassio 330 prototype is expected to have its maiden flight in the second quarter of next year and expected to be used for the airworthiness certification program. Will there be any difference between the first and second prototypes in terms of propulsion system and cockpit layout?

Jean Botti: Yes there will be. The first aircraft is only validation the flight domain of the new aerodynamic design and

the newly developed propeller. It will fly on thermal mode only and it will not be part of the official certification program

The second aircraft will be fully hybrid and will be integral part of the certification process.

Thanks to this approach it is better to validate step by step the technology bricks of our Cassio 330.

Ayşe Akalın: What can you tell us about the target markets and applications (such as air taxi/

charter companies, private owners, postal delivery and medical evacuation) you foresee for the Cassio family?

Jean Botti: We see a mix of applications and this is a huge market of more than 22 billion/year for the General Aviation. We would be happy to take 10% of this market with our new technology.

Ayşe Akalın: When do you plan to start delivery of electric-hybrid Cassio aircraft to customers?



The Cassio 330 will be VoltAero's first aircraft to enter production. Equipped with a 330-kW electric-hybrid propulsion unit, it will accommodate five seats.

race to develop electric aircraft?

Jean Botti: When there is new technology, there is always a race to bring it to market. The first to market are the ones that can better conquest the market. It is true in every industry.

✈️ Ayşe Akalın: What other projects do you think are close to Cassio in terms of progress in the global electric-hybrid eVTOL aircraft market?

Jean Botti: They are many projects of electric aviation in the world, the list is too long, but a very few that really fly and have more than 3 years of true flying tests real scale as we do.

✈️ Ayşe Akalın: Does Cassio Family electric-hybrid eVTOL Aircraft Project is a company funded Project?

Jean Botti: First of all we are not an EVTOL company, we are a fixed wing Electric Hybrid aircraft mainly a CTOL.

✈️ Ayşe Akalın: How did you solve the funding issue?

Jean Botti: Funding issue is nether solved, you always need funds to pursue your industrialization! Seriously, we have been raising funds both from public and private sectors so far. Now we are looking at raising even more private funds.

✈️ Ayşe Akalın: Can you elaborate on the strategic investors and industrial partners of the Cassio Family?

Jean Botti: We have two main industrial investors : Kawasaki in Japan and Tesi in Italy. We are discussing with others. They are very strategic for us in order to support the construction and certification of our first Cassio 330 Aircraft. Other partners like Safran, Avidyne, EPS , Aeroport de Paris, Electricity of France and Total Energies are very key for the Aircraft but also

for the entire infrastructure.

✈️ Ayşe Akalın: Do you believe that biofuels/ sustainable aviation fuels will have an important role to play in aviation?

Jean Botti: I would like to believe so. They will be key IF their cost will become competitive in the near future .It is not the case today.

✈️ Ayşe Akalın: Would you like to add anything in the way of a message for our readers?

Jean Botti: In this business it is important to make the revolution by evolution, to say what you do and do what you and NOT to overcommit and under deliver. It goes for the credibility of the entire electric aviation industry reputation. We see too many fake news, just for the sake of attracting investors. The physics are true for everybody 🌱

Jean Botti: By second half of 2025

✈️ Ayşe Akalın: When will people first use an electric-hybrid Cassio Family aircraft?

Jean Botti: End of 2025

✈️ Ayşe Akalın: As VoltAero, how many sales figures do you predict for the Cassio Family?

Jean Botti: We want to have in steady state 150 Aircrafts per year to be built.

✈️ Ayşe Akalın: Do you think there is a



The industrial site for VoltAero's Cassio family aircraft at Rochefort Airport has been designed with a focus on sustainability.



Gulfstream to Debut G700 Alongside G500 at Dubai Airshow

Gulfstream Aerospace Corp. will exhibit two of its award-winning next-generation business jets at the Dubai Airshow on November 13-17: the ultralong-range Gulfstream G700 and the class-leading Gulfstream G500.

"Gulfstream has a longstanding history in the Middle East and surrounding regions," said

Scott Neal, senior vice president, Worldwide Sales, Gulfstream. "Recently, we announced a host of increased capabilities across the fleet, and we look forward to meeting with customers and guests at the Dubai Airshow to showcase The Gulfstream Difference with two of these aircraft, firsthand."

Gulfstream recently announced the G700's

range has increased to 7,750 nautical miles/14,353 kilometers at Mach 0.85 or 6,650 nm/12,316 km at Mach 0.90, gaining 250 nm/463 km at OK both speeds over original projections. The G700's maximum operating speed has also increased to Mach 0.935 from Mach 0.925, giving it the highest speed in the Gulfstream fleet.

Built for performance and

efficiency, the G500 holds nearly 60 city-pair speed records and can fly 5,300 nm/9,816 km at Mach 0.85 and 4,500 nm/8,334 km at Mach 0.90. It was the first aircraft certified to use enhanced vision to land and was recently certified for steep approach by the Federal Aviation Administration, unlocking access to even more destinations worldwide.

Saudia Group, with Its New Identity and Era, Participates in Dubai Airshow 2023

Saudia Group has announced its participation at the upcoming Dubai Airshow 2023, held at Al Maktoum International Airport Dubai from November 13th to 17th. The Group will take over the largest pavilion at the event marking its first international presence following the recent rebrand, which signifies a new era for the group.

Through this participation, Saudia Group reinforces its position as a prominent global aviation leader, underpinned by its ever-expanding capabilities



and an array of enhanced services and products dedicated to catering to the needs of the MENA region across the aviation industry spectrum, encompassing manufacturing and comprehensive training.

Visitors and aviation enthusiasts can expect a world-class experience

at the Saudia Group's interactive pavilion, where it will showcase its industry-leading aviation services and solutions that ultimately contribute to the realization of Vision 2030. This includes demonstrating the Group's efforts around the localization of services in the Kingdom, as well as Saudia Group's plans to

capitalize on its Jeddah Hub. The Group will also highlight its latest digital transformation services and introduce the world to an AI ChatGPT, named 'Saudia,' a groundbreaking innovation in customer service.

The Group is set to display two aircraft that visitors will have the opportunity to explore; a Saudia Boeing 787-10 featuring the new brand livery and a flyadeal Airbus 320neo. The B787-10 aircraft will showcase Saudia's latest amenity kits and offer food samples that reflect the essence of the rebrand.



Embraer Displays C-390, Super Tucano, E195-E2 & Praetor 600 at Dubai Airshow

Embraer will present its capabilities in defense and security, commercial and business aviation, technology and innovation at the Dubai Airshow, one of the largest aerospace exhibitions in the world, taking place November 13 through 17 in the United Arab Emirates. The company's chalet will be at A38/A39 area of the biannual event, held at Al Maktoum International Airport.

Among the main highlights of the static exhibition will be the E-195-E2 commercial jet, which makes its public debut with an exciting new livery - the Tech Eagle livery, reflecting high-technology characteristics, excellent performance, efficiency, and low noise. Additional aircraft on display include

the Praetor 600, the most technologically advanced executive jet in its category, the C-390 Millennium multi-mission military tactical transport aircraft and the A-29 Super Tucano training, aerial interception and surveillance aircraft.

Eve Air Mobility will also display the full-size model of the electric vertical

take-off landing (eVTOL) vehicle cabin in the pavilion dedicated to advanced air mobility. Eve will be offering visitors a virtual reality experience of the eVTOL cabin at booth #87.

"Our strong presence at the Dubai Airshow reflects the Middle East's growing interest in Embraer's products, services high-

technology solutions," said Francisco Gomes Neto, President and CEO at Embraer. "Our constant expansion in the region, as well as in other regions of the world, is a direct result of our increasingly competitive innovation and our ability to satisfy the most diverse customer needs."



UPS Continues to Contribute to Türkiye's Exports for 35 Years

by Ayşe Akalın



UPS celebrated the 35th anniversary of starting its operations in Turkey, which has a privileged place in its global organization. With the participation of UPS Turkey Country Manager Engin Kolat , a special press tour of a held to its Air Hub in Cologne. A select group of media members, including Ayşe Akalın, Editor in Chief of Aviation Turkey had the opportunity to see Airhub operations and visit UPS Integrad, training center.

Starting its operations in Turkey in 1988 with the aim of connecting export shipments with international markets, UPS Turkey, with over 2,000 employees, now operates in 81 cities across the country. Engin Kolat, the Country Manager of UPS Turkey, announced that they have invested more than US\$ 2 Billion in the European Region, which includes Turkey, in the last 5 years. He stated, "By strengthening our operational network in Türkiye and continuing our investments, we are committed to providing our customers with the speed, reliability, and expertise they need."

In addition to providing high-quality logistics services to its customers, UPS Turkey also contributes to Turkey's international trade. UPS, a logistics company that offers both domestic

and international cargo services, uses sea, air, and road transportation, and provides warehouse services. To expand Turkey's export potential and support its growth, UPS has developed various programs and projects such as the Export Academy and the Women Exporter Program. Through the Export Academy program initiated with the Ministry of Trade, UPS has provided training to 8,000 SMEs and entrepreneurs to help them discover their export potential. The UPS Women Exporter Program, aimed at empowering women entrepreneurs and expanding their businesses into global markets, has supported the empowerment of more than 8,500 women by offering training and mentoring opportunities.

As part of its customer-centric strategy and global fleet expansion efforts, UPS is preparing to add



eight Boeing 767-300F aircraft to its fleet by 2025, which were ordered last year. When the deliveries are completed, the total number of aircraft in the fleet will reach 263. These new orders represent UPS's commitment to meeting its customers' needs at

the highest standards while enhancing efficiency, sustainability, and reliability, and maintaining the most modern fleet in the industry.

Engin Kolat, Country Manager of UPS Turkey, stated, "We are committed to Turkey's growth and



ARTICLE

exports. In this regard, we completed our Izmir Transfer Center project in 2016 and our Istanbul European Transfer Center project in 2021, continuing our investments to promote trade, e-commerce, and e-export." UPS's investment in Istanbul Airport, as part of a 25-year agreement signed with IGA management in 2018, strengthens its commitment to being a bridge between global markets, contributing to the country's growth goals.

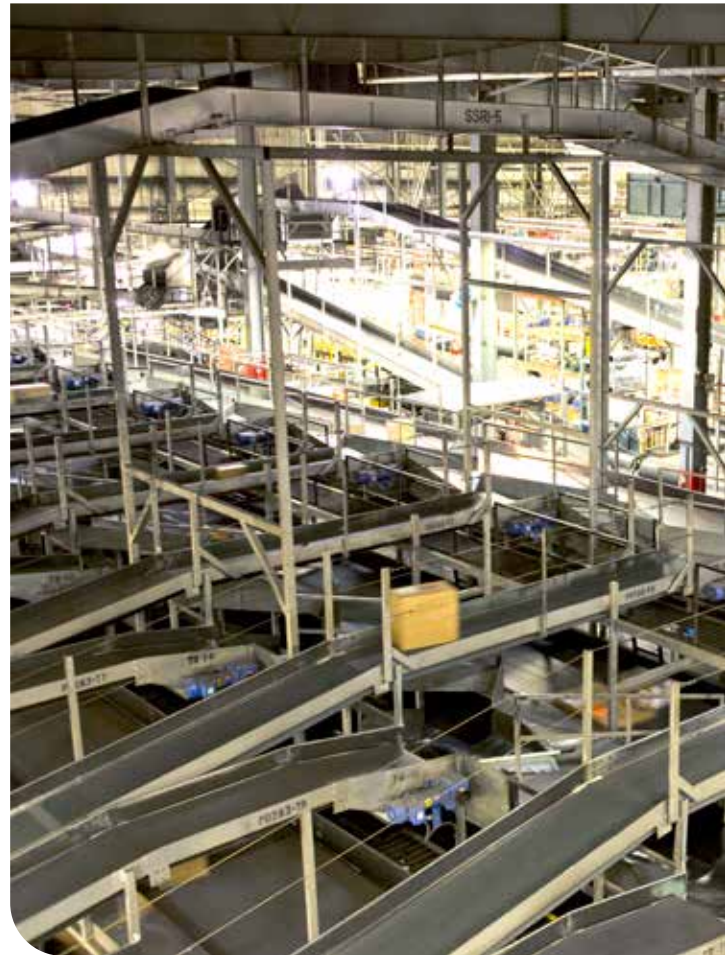
Kolat added, "Türkiye holds a valuable place in our smart global logistics network due to its strategic location and diversified export sectors. With Türkiye's production capacity and robust infrastructure, we are proud to send products from Türkiye around the world. Türkiye has the potential to further strengthen its exports by making use of its unique location, talented workforce and accessible

production costs. As UPS, we will continue to strengthen our network, invest in our people and our communities, provide our customers with reliable advice and trusted solutions, and contribute to improving Türkiye's export performance."

UPS Cologne Airhub

UPS's air hub at Cologne/Bonn has been the main European gateway for our ever-growing global network since 1986 along with the Worldport facility in Louisville, Ky., and Asian hubs in Taiwan and the Philippines. Cologne/Bonn plays a crucial role in optimizing the package sorting process and provides on-time delivery to destinations worldwide.. It allows to connect Europe to Asia, Europe to Europe and Europe to the United States.

With its 105,500 m² operations area, Cologne Airhub which is one of the 11 UPS airhubs worldwide,



is operating between 23.00 – 02.30 with 3450 employees by loading and unloading of approximately 300 Trucks and Vans and

49 Aircrafts. 190 thousand packages per hour are handled at Cologne Airhub. Once packages are unloaded from an arriving plane, they traverse a world of automated belts, scanners until they are ready to be loaded into containers on an outbound flight.

Digital Transformation at UPS

UPS is helping its customers optimize their business processes through investments in technology. UPS's smart logistics





solutions and customer-focused digital services enable customers to track their shipments faster, more efficiently, and in an environmentally friendly manner. Describing itself as a technology company, UPS has developed an integrated logistics management portal, UPS Smart, allowing businesses to manage all their logistics services under one digital roof. Additionally, the "Import Assistant" application introduced this year offers customers a faster, easier, and seamless digital import experience.

Kolat said, "With tools like these, we are moving many manual processes to

digital platforms, reducing error rates and making it easier to do business. This allows us to respond to our customers more quickly and effectively, increasing customer satisfaction. We will continue to focus on technology investments to lead in digital transformation and offer unmatched speed and reliability to our customers."

Carbon Neutrality in Global Operations by 2050

UPS is taking significant steps towards sustainability practices and the use of electric vehicles both globally and in Turkey. Globally, UPS, a long-time leader in environmental sustainability, announced a new set of ESG targets in 2021. These include a commitment to achieving carbon neutrality in Scopes 1, 2, and 3 emissions in global operations by 2050.

Among the environmental sustainability goals set for 2035 are reducing carbon emissions per package delivered in global small package operations by half, ensuring that all facilities run on renewable electricity, and having 30% of the fuel used in the global air fleet be sustainable aviation fuel. Additionally, the fleet of more than 13,000 alternative fuel and advanced technology vehicles is part of UPS' commitment to have 40% alternative fuel in ground operations by 2025.

UPS people are also committed to delivering social impact through volunteering and charitable donations through The UPS Foundation. The goal is to positively impact the lives of 1 billion people by 2040. Planting 50 million trees by 2030 to create a healthier, cleaner, and more sustainable world is also among the company's goals 🌱





One-Stop-Shop for Coating Solutions

An Exclusive Interview with René Lang, Mankiewicz Executive Managing Director

✈️ **Şebnem Akalın:** First and foremost, thank you for taking the time to speak with us today. Established in 1895, Mankiewicz has evolved to become a global leader with

over 1,500 employees across 16 international locations. Could you please elaborate on your company's historical trajectory, organizational structure, and core capabilities?

René Lang: Since our foundation in 1895, Mankiewicz has been a family-owned and operated business. We value healthy growth and long-term relationships and continue to develop

together and in partnership with our customers in many industries, always with the aim of being a process-oriented partner and not just a coatings supplier.

After all, paint should not be seen as just a product, but as part of the overall coating process. The coating must be perfectly matched to the customer's requirements. This starts with the setup of the paint shop, includes the climatic coating conditions, and extends to the operating



by Şebnem Akalın

conditions and required resistance of the finished component during harsh and long-term flight operations.

Thanks to this "paint as a process" approach, we can call many renowned



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OEMs our partners, far beyond the aviation industry. Mankiewicz has been innovating in a wide range of business areas for decades. These include the wind power industry, machinery, heavy equipment, automotive, appliances, yacht coatings and many more.

Global availability and good local technical support are key factors in all industries. With 16 locations on three continents and a worldwide network of application engineers, we can respond quickly and are close to our customers.

As Mankiewicz Turkey, we have been active in the Asian part of Istanbul for 13 years, serving local and global companies in the automotive, railroad, wind power, medical, white goods, and many other application areas.

Our branch office offers local and uncomplicated delivery of our products to our customers. Our Customer Care Department handles delivery and related import arrangements for our clients. According to received orders and forecasts, we also offer our customers local stocking in our warehouse and can guarantee swift deliveries within the whole Turkey. We also have a local technician team on site, which can help our customers with problems, tests, and commissioning new projects competently and quickly. In addition to that, we regularly offer our customers workshops in our facilities; all our employees in Türkiye are multilingual trained and speak German or English.

Şebnem Akalın: Mankiewicz is renowned for its high-quality coating systems across diverse industries, including general manufacturing, aviation, and automotive. In the context of this broad

portfolio, could you inform us about the scope of your aviation-related production and operations network?

René Lang: Mankiewicz has been serving the aviation industry with coating solutions since the early days of commercial aviation. They have grown with the industry to meet the ever-increasing challenges and demands for safety, durability, appearance and sustainability, and have developed innovative generations of coatings. Qualifications for safe and high-performance products are a wide-ranging subject, especially in the aerospace industry, and Mankiewicz is qualified by all major OEMs for interior, exterior and structural parts.

"With our comprehensive product portfolio in all three segments, we highlight our claim to be a one-stop-shop for coating solutions for our customers. And this applies to both the OEM and the Refurbishment business"

In the exterior sector, Mankiewicz has often led the way in innovating coatings. The BaseCoat/ ClearCoat system is renowned for its robust and efficient application and outstanding long-term performance. Recently,

the paint manufacturer has revolutionized wing coatings. ALEXIT WingFlex replaces two products and offers the MRO simplified and shortened processes and the airline a perfect finish for a significantly extended lifespan. The product is also highly flexible and chemical resistant, meeting the specifications for both upper and lower wing surfaces.

Şebnem Akalın: Your company offers an array of innovative systems, extending beyond exterior coatings to also include interior solutions. Could you outline the specific systems you offer in this realm and explain their advantages to your clientele?

René Lang: In fact, Mankiewicz's roots in aviation are in aircraft interiors. Above all, cabins have to be light and safe. Both have implications for coatings. Lightweight means avoiding heavy materials such as metals. Instead, super-light materials are used, such as honeycomb, which would not inspire confidence if uncoated. Coatings can simulate various materials, such as metals or frosted glass, to meet the airlines' desire to offer their passengers a high-quality interior.



less-publicized facet of your operations?

René Lang: Coatings for structural parts, which are usually invisible after manufacture, have particularly high-performance requirements. Reliable corrosion protection over 30 years is essential for metal aircraft and a truly mammoth task for a paint system. Mankiewicz structural primers ensure that this very safety-relevant area is covered and also guarantee adhesion for subsequent exterior coatings.

If you think that with the popularity of composite aircraft, the requirements for paint are over, you'd be wrong. Aluminum was much smoother than composite today. However, the high-gloss exterior finishes of aircraft act as a magnifying glass for surface imperfections. This means that the substrate must first be prepared with fillers. Depending on the defect, different fillers are used, which in turn add as little weight as possible and can be sanded well, leaving only filler in the defect areas. It is important that the customer has the right product for the paint equipment and defect to ensure a lean process. To get the most out of these processes, Mankiewicz is proud to have helped many customers with its process experts.

The second ever-present topic is safety. FST and heat release are the magic words here. These requirements apply to all interior materials. Mankiewicz has an extensive product portfolio ranging from standard finishes to sophisticated design effects and from fillers and primers to clearcoats. A lot of potential for airlines to differentiate themselves.

In addition, the surface has to look like new for many years, so it has to be very durable and easy to clean, despite the low level of passenger care in this shared space. Interior coatings therefore have a very diverse property profile, combining design, function and smart features. For example, coatings can also contain antimicrobial additives,

such as ALEXIT FST PUREGuard.

Şebnem Akalın: While Mankiewicz is widely recognized for its excellence in exterior and interior coating systems, it also boasts significant achievements in the specialized area of coating structural components. Could you provide insights into this



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A General Dynamics Company



Şebnem Akalın: Among your 16 global locations, one is strategically situated in Istanbul, Türkiye. Could you share details on collaborations or partnerships you have with Turkish aviation companies?

René Lang: We have been closely involved with the aerospace industry in Türkiye for decades. Our waterborne systems are used by the large TIERS that produce parts for Airbus and Boeing, particularly in the important area of structural parts. Sustainability and process efficiency with high quality results are convincing in this demanding area and, together with the expertise of the local TIERS, meet the high requirements of the OEMs.

In addition, local MROs and airlines rely on our expertise for efficient interior and

exterior maintenance. Customers can access our full portfolio locally and have their cabin and exterior maintained sustainably and efficiently.

In addition to our strategically located office in Istanbul, which offers local customer proximity, production and service, we are represented by an agent with extensive aviation experience. In this way, all our strengths come together for the benefit of our customers.

Şebnem Akalın: Aviation and environmental sustainability have gained increasing prominence in recent years, prompting companies to take action in this direction. Could you elucidate the initiatives or practices that underscore Mankiewicz's commitment to sustainability within its production processes?

René Lang: Indeed, sustainability is an important subject that has been at the top of our customers' and our own agendas for many years. For example, our customers in the interior and structural parts sectors are already making extensive use of environmentally friendly waterborne coatings. Another aspect is our strong focus on optimal application processes. Fewer layers means less emissions, less weight, etc.

The most important sustainability benefit of our coatings is their ability to substantially prolong the life cycle of coated substrates and extend maintenance intervals. This is known as the green handprint. Without coatings, the lifespan would simply be much shorter and parts would have to be

scrapped or recoated sooner. One example of this is the ALEXIT BaseCoat/ClearCoat system, which has been proven to double the life of exterior coatings. Even the harshest conditions have not affected the gloss, color and technical performance, even after 13 years.

As a chemical company, we have a huge responsibility to the environment. Right from the manufacturing stage, we optimize all parameters to ensure that our production is as environmentally friendly as possible. For example, we use green electricity. Other examples include recycling 90% of our cleaning solvents after distillation and recovering 70% of our heat. The fact that we have production facilities on three continents also helps to shorten the supply chain ➡



A NEW JOURNEY FROM TURKISH CARGO

THE LONELY KOALA

We carried koala Yani, in danger of extinction and alone in her current setting, to her new friends to ensure the continuation of her species.



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SunExpress Carried 10 Million Passengers Year-to-Date

by Ayşe Akalın

In the press meeting held in Antalya, SunExpress CEO Max Kownatzki and Deputy CEO Tuncay Eminoglu announced the carrier's up to date 2023 performance and winter season plans.

During the meeting, it was noted that SunExpress carried approximately 10 million passengers since the beginning of the year and increased capacity for the post summer period to meet the ongoing demand. The additional capacity created for the September-December period amounted to more than 2,000 flights.

2023 set to be another record-breaking year in terms of passenger numbers

SunExpress CEO Max Kownatzki stated during the meeting: "In the first three quarters of 2023, we achieved a load factor of 88%, carrying nearly 10 million passengers and setting a new record. We have exceeded our targets in passenger traffic and anticipate surpassing our goal of 12 million passengers



by year-end. To meet the ongoing demand for Türkiye following the summer season, we have increased our capacity and planned more than 2,000 additional flights by the end of the year. We will continue to contribute to the country's goal of welcoming 60 million tourists this year."

He also stated expectations on 2024: "Bookings for Summer 2024 are very positive. For the end of this season we have added more than five hundred fifty five thousand seats more than last year... For Summer 2024 advance bookings are %20 higher than last year."

Additional capacity and 15 new routes for the winter season

Kownatzki emphasized that SunExpress, as Türkiye's tourism ambassador, is investing in the winter season, set to transform the country into a year-round destination by leveraging Türkiye's history, nature, cuisine, and sports.

"To extend tourism throughout the year, we have increased our winter capacity and added 15 new routes to our winter network. This winter, we will connect beautiful new destinations such as Skopje, Abu Dhabi, Sharm

El-Sheikh, Sofia, Krakow, and Cyprus to Antalya and Izmir."

33 of 42 Boeing MAX-8 Aircraft orders are coming until the period of 2028 to 2029

Max Kownatzki stated during the meeting: "We have ordered 42 Boeing Max 8 aircrafts, which will help us to renew and grow our fleet. There is 33 more to come and these 33 are coming until the period of 2028 to 2029. For the new orders we are in discussions and looking at the market for different aircraft types. MAX-8 is doing a fantastic job. We

have seen reductions in the fuel, over 60% in noise, in emissions. It is more comfortable plane flying, it is quitter plane, it is cheaper plane and more environmentally friendly plane. We are looking into the MAX 10. We also have looked into Airbus' 320/321 Neo; we are not closing our eyes to different market opportunities. But to be a realist in these matters, you need to look at the delivery schedules of these aircraft. I think Boeing has early delivery as of 2028. Airbus has deliveries as of late 2030. So, on top of that, we have engine issues with Pratt & Whitney."

Extending expertise to South Africa

Kownatzki mentioned that they have taken additional actions to manage fleet growth in a sustainable manner, including mitigating seasonality effects. As part of this strategy, SunExpress signed a damp lease agreement with South African Airways.

Under this agreement, two Boeing 737-800 aircraft in SunExpress's fleet will operate on South African Airways' Johannesburg-based flights. The first aircraft

will start operations in mid-October, and the second in November. The flights will continue until April 2024.

Continuing to generate employment

Kownatzki stated, "With over 30 years of experience in the industry, we continue to contribute to Turkish aviation and create jobs as a company that has been awarded the "Great Place to Work" certificate by its employees. Since 2018, we have been running the multi pilot license training program to train the Turkish pilots of the future, providing job guarantees for program graduates. In the next five



years, we plan to enroll 160 people in the program, which currently has 60 trainees. Furthermore, we

will employ more than 160 pilots and 400 cabin crew members for the 2024 summer season.

Winter Season New Routes

Route	Weekly Frequency
Lefkosia-Ercan – İzmir	4
Sharm El-Sheikh – Antalya	2
Sofia – Antalya	2
Dusseldorf – Balıkesir-Edremit	1
Stuttgart – Elazığ	1
Stuttgart – Trabzon	1
Beirut – İzmir	2
Skopje – Antalya	2
Skopje – İzmir	2
Basel-Mulhouse – Kayseri	1
Krakow – Antalya	1
Abu Dhabi – Antalya	3
Abu Dhabi – İzmir	3
Erbil – Antalya	2
London-Stansted – İzmir	3



Air Transport Leaders Discussed the Most Pressing Topics Related to Air Transportation at the ATLC in İstanbul

Sponsored by Airbus, Embraer and JetMate, the Air Transport Leaders Congress (ATLC) has gathered the air transport professionals in Türkiye, Central Asia, and South Europe at the Hyatt Regency Ataköy Hotel, in İstanbul on October 11, 2023 for an intense day of discussions and meetings.

Executives of airlines, airports, aviation industry, service companies, and government regulators have discussed the most pressing topics related to air transportation such as; pilot shortage, pressures on operating costs, global supply chain, global recovery after COVID, passenger load factors,

important regional hubs for connecting flights, traffic growth in the region, new opportunities for the region in post pandemic era, why airlines need flight support company and where should we fly? Aviation Turkey Magazine was among the Media Partners of the ATLC.

One of the differential elements of this international conference is its strong focus on Southern Europe, Caucasus, Central Asia and the Middle East, with some of the key airlines and airports in those growing regions represented in the speaker and attendee list.

In the three sessions at the ATLC following topics were discussed:

- Prospects for Eastern Europe and Central Asia. Business opportunities
- Expanding horizons. The future of civil aviation
- Green Agenda for Aviation
- Connecting Europe with Asia: Routes, Hubs and Efficiency
- The view of aircraft manufacturers on aircraft of the new generation. Production plans
- Airlines: Business models, strategy, efficiency and profit
- Keeping pace with the leaders: distribution, sales and payments



by İbrahim Sünnetçi

As an authoritative and independent discussion platform the Air Transport Leaders Congress was conducted in three thematic sessions, first one titled with 'The New Reality and Visions for the Air Transport Market' and took place in the morning. Second and third sessions titled with "Connecting Europe with Asia: Routes, Hubs and Efficiency" and "Technology, Innovation and Digital Transformation of Aviation" respectively took place in the afternoon.



During Session 2 a panel was also organized under the moderation of Alen SCURIC, CEO of ZAMAAero. Emre PEKESEN, SVP Sales and Network Planning at Pegasus Airlines, Mehmet KEYVAN, CEO & Chairman of KEYVAN Group, Mehmet ATIN, Airport PPP Expert at Turkish State Airport Authority Antalya, Herbert KEFFEL, Head of Competence Center ORAT, Operations & IT at Munich Airport International and Mustafa Cem ARTEKIN, Founder of ARTEKIN Law Firm attended the panel as speakers. Panelists have discussed about whether the Countries of West and Central Asia, the Persian Gulf and India become a New Global Aviation Center and exchanged their views and opinions on what are the main challenges the industry is facing now and What

are the main challenges they see and solve in their companies.

Titled with 'The New Reality and Visions for the Air Transport Market' the opening session of the conference was moderated by Boris RYBAK, Founder and CEO of Mark Comm LLC. He welcomed the participants and thanked the sponsors of the conference by underlining that without their support these conferences would not be possible. RYBAK also disclosed that they would organize two more conferences in 2023 the first one, a strategy conference, will take place on November 23 and the second one, a financial conference, will be held on December 12 in Dubai.

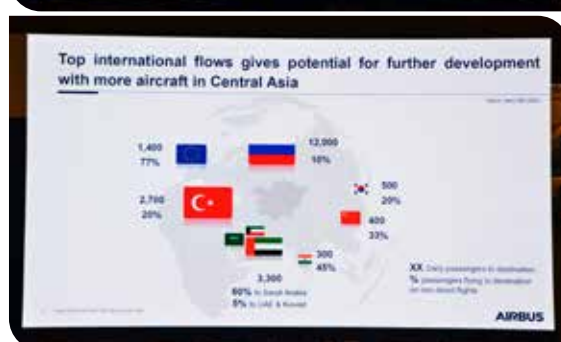
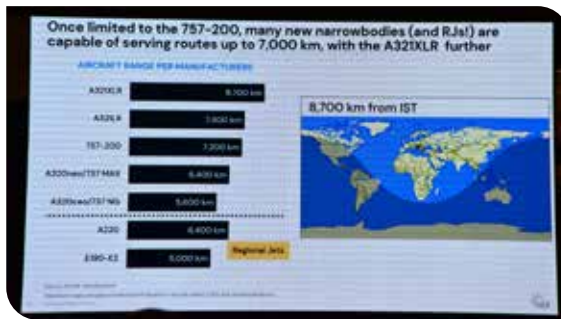
After the opening remarks by RYBAK, Jared HARCKHAM, Vice President and Managing Director of ICF took the floor and provided a high-level view of the current state of global aviation industry. HARCKHAM started off by saying that besides being a historical and beautiful city, Istanbul is also one of the most important aviation routes on the planet. At the beginning of his comprehensive presentation titled, "Development of the Air Transportation Network: Global Overview", HARCKHAM underlined that high post-pandemic

demand continues in the industry in many places, not everywhere, but since the capacity is not fully restored everywhere, this resulted in high load factors and high fares in many parts of the world. "Good news for airlines. Maybe not so good for the customers," he added. He pointed out that according to IATA figures Europe and the Asia Pacific (APAC) are expected to fully recover by 2024, while North America and the Middle East will reach recovery in 2023. He also pointed out that in many places airlines and airports are understaffed, may be due to the timing issue or the salary issue, and this caused delays and traveler frustration, which is not good for the industry. At his address HARCKHAM stressed that there is a pilot shortage in the sector and it is causing disruptions. According to HARCKHAM there are

actually a lot fewer pilots working in our industry than there were 30 years ago. HARCKHAM pointed out that while there were 574.000 active pilots in 1990, this figure downed (18%) to 470.000 in 2021.

He continued his speech as follows, "There may be many reasons for that partially better crew scheduling more efficiencies. You know, some older craft require three pilots that's down to two all that passed away quite a while ago. So, the supply has been declining, fewer students entering in the pipeline to become pilots. This is because the training costs quite high and there's also a high flight hour requirement to be considered by commercial airline and retirement accelerated during the pandemic. So, we have an unmet demand which is resulted in schedule cancellations and flight cancellations.





However, the good news is pilot salaries are being increased, at least in the US. Several of the mainline carriers have recently negotiated agreements with increases of 30 and even a 40 percent for the pilot work group so that the motivator. Apprentice programs which means in house training are being restored by carriers. They used to do that and they eliminated that during their hard financial years, so that will certainly be an incentive for younger people to reconsider this. And finally, although it may be controversial and you know maybe someone believe that it will ever happen. But the operation of the air by single pilot instead of two back in the discussion back on the table, don't know when it would happen, but some are viewing that as a solution to the pilot shortage. This chart will attempt to illustrate that issue by region. And if you look at the green line, if you can see that, you'll see a pretty strong downward slope in the last few years that North America, the region most familiar with. But you'll see that other regions are expected to have a decline coming up so North America, Asia and the Middle East are likely to see the biggest shortages- Europe, Africa and Latin America are more stable. But it is a global workforce and people can move around globally.

So, another issue that our industry had confronted and does confront in other regions is airport infrastructure enough to handle the growing demand. The growing flight demand here. A couple of my favorites that are on the plus side of the equation. New airports in India, Navi Mumbai Airport, where I actually visited the construction site a few weeks ago, and the Goa Mopa Airport appears ready to open the terminal. We have this obviously in Istanbul the big story. There is a marvelous new airport here. So, despite the complaints about airlines, about a lack of infrastructure around the world, there are also some good success stories. Another thing that is good is that in many cases financial results are good for the carriers. I said earlier the high fares may not be to the liking of customers, although they seem to be willing to pay them right now. The Europe and North American carriers reported good results last year, many regions and many carriers expecting good results this year. Fuel prices stabilized, at least for the moment, folks seem optimistic. Companies seem optimistic that even a recession or economic slowdown will not slow down the surge in air travel. Although I did hear a quote recently from the CEO of one of the large

banks in the US and he said that he thought American consumers are on the sugar high in terms of their spending. You know at some point it has to come crashing down. So, let's see if traveling discretionary travel is part of that.

This is a history and forecast of airline profitability by region. Again, it's from my office so I will leave that to our industry colleague to talk about more. But if you look at the black bars there you can see what I mentioned before. The Europe and North America achieve profitability last year and part of the Brown Bar and the black is expected to do well this year. the only exception being Asia Pacific, the slowness in the Chinese opening and one thing I wanted to mention is in Asia Pacific. These regions are kind of big and that region includes India and India as you probably know is booming in terms of its aviation sector and so in India Indigo, the large Low-Cost Carrier (LCC) reported a profit last through the year through March of this year of over 300 Million Dollars. So, even though that Asia Pacific shows a slower recovery, there are bright spots even in that region. Aircraft in the fleet, the global fleet. This is a nice forecast. What we've seen is that total aircraft in the global

fleets basically returned to 2019 numbers this year will obviously continue to see growth coming in all the categories of aircraft except one and on the right side. You can see that white body jets are expected to grow roughly two percent turboprops, the only negative, with a slight decline of one percent regional jets with a nice growth of 2.3 and the largest growth category would be narrow bodies over three percent. We'll hear more about I'm sure from the Airbus and Embraer later. But because of the change in profiling capability of these narrow bodies they can do more things than they could before and therefore they can fly missions that white bodies previously did not surprising that they would grow at a faster clip. This is kind of whether it is a piece of artwork or chart, but the big left-hand side. You can see that as a result of the pandemic and all the changes that went on in fleet, we still have a smaller percentage of the registered commercial fleet in the world in service than we did before. and this has to do with long term storage. Short term story still and retired aircraft have been replaced. The right-hand side of this chart is a forecast and the good news there is that you see the black bar on the right-hand side. That's showing that by 2030 almost 16

percent of the global fleet will be efficient, next generation aircraft. More fuel efficient, less emissions, all the good things, the industry and the planet want and then declining obviously percentages of older types of aircraft. From a commercial standpoint these are game changer aircraft. Whether it's the Airbus A321LR/XLR, the A220 and the 737MAX aircraft and even longer range smaller widebody (787 and A350) are doing things that were not possible by narrow bodies previously which is all good. This is a whole bunch of stuff ranges of those aircraft as stated by the manufacturers, but the interesting part, if you look at the map on the right you can see the range that A321XLR (8.700km) can reach. So, if it is flying from here, Istanbul, and literally it could reach almost New York and Tokyo. Once limited to the 757-200, today many new narrowbodies are capable of serving routes over 7.000km, with the A321XLR further. It shows the flexibility these aircraft will provide the airlines...

There are other technologies coming down the pipe, Supersonic Aviation as you know raised its head again. Some people claim that this is really not going to happen. There is a

company called 'Boom' one of the companies actually with supersonic passenger aircraft in development. Boom company has begun its FAA certification this month, so it's serious. Japan Airlines have invested in Boom, other carriers, with a serious interest, also working on those aircraft. The inaugural supersonic flight by Boom is anticipated in 2026. The other thing that is real at this point is the eVTOL, Electric Vertical Take-off & Landing Aircraft that use electric power. These are small, they probably really more air taxis and aircraft, but this is just the beginning and both the United Airlines and American Airlines have ordered these mostly to fly from city center to their hub, airports that are outside of those cities where they operate. And that's only two years away. So, there's a lot of interesting fun stuff that's going to mix up the aircraft.

In terms of capacity and route networks, this is just what I call fun facts 2019 versus 2023. To see what business model is gaining and losing in terms of share of the industry. Looks like the full-service carriers are declining further as a share of the industry operating eight percent fewer seats right now, then 2019, whereas the global low-cost carriers are operating seven more



seats and have increased their share of the global industry just a bit. I don't think it is surprising and I don't think it really has to do with the pandemic. It's a trend been going on for a long time...

So, the final big topic to touch on sustainability, its everywhere you know we have to address as an industry. This chart I find interesting, it's from the EU and its greenhouse gas emissions by industry set and if you can see the wiggly lines that are more or less horizontal. Those are other industries, agriculture, commercial industry and waste. And they mostly stayed about flat in terms of their share of you know whether they've grown or not in the last 30 years in terms of producing emissions, some of them have actually began decline. Our industry (commercial aviation) because of its robust growth over the

years is actually double where we were 30 years ago in terms of emissions, not in terms of the percentage of emissions that are reported, but certainly in terms of the actual emissions. So, what we need to do is get back on track to reach the reduction targets (95%) set by many entities around the world by 2050 of the solutions there as I'm sure you've been reading SAF, Sustainable Aviation Fuel, which is a fuel that can be used by engines and aircraft as they exist today. So that's very good news. There are two difficulties, one is the cost of producing it. It is still significantly higher than other traditional AvGas. So, how do we deal with that? You know could be government incentives or incentive support for the producer of the SAF could be support to the airline as they purchase it. So, there are there are ways to deal with that, but we

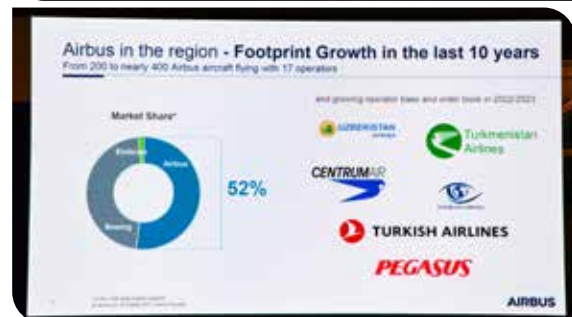
want to be sure they have. And you know, airlines are getting the news quite a bit for their use of SAF routes headlines all the time. But we also want to be careful that there is an expression called greenwashing that you know airlines or any other users are not getting the news because they flew a route with SAF. You know what we need is significant progress in terms of the use, but there's another obstacle and that's the ability to produce SAF. You know it is expensive. It requires facilities, refineries to be built and in 2020 the industry were only producing about a 0.05 million tons of SAF. In 2030 industry would need 11.4 Million tons (US 3 Billion gallons) of SAF. By 2050 the scale of SAF production will be increased by 8,000 times (around 400 Million tons). So, imagine the capacity that needs to be built to meet that demand. It is

going to be tough, so we need government support. We need a whole bunch of things, but we need to look for other solutions as well. And again, this may be a little bit more of the real future science fiction almost but it is actually being developed now about electric and hydrogen propulsion aircraft. The electric has started with the eVTOL that I mentioned, but we do see other larger electric aircraft being tested. There is a company called Heart Aerospace and they develop a regional aircraft and it is expected to enter service in five years and a number of full-service carriers expressed interest in that. And then you know, the real elusive magic bullet is hydrogen, there's also there are a couple of companies actually testing hydrogen aircraft. Actually, ATR-72 is flying and testing configuration with hydrogen. But, hydrogen itself has a lot of difficult things to overcome. The actual costs and well the emissions created producing hydrogen fuel and transporting it to air airports can be you know significant so maybe offsetting a good bit of the benefit of having hydrogen fuel instead of carbon fuel. But the good news is that these things are being developed, they're being worked on and you know our industries, an industry of innovation

and meeting needs and fully believe that you know these technologies will eventually come to help us reduce carbon footprint and do our part..."

The program continued with the presentation of Rachel Yuting FAN, Senior Economist at the International Air Transport Association (IATA). In her presentation titled "West and Central Asia, the Persian Gulf and India: Region Outlook", FAN first underlined that according to IMF World Economic Outlook the macro economic content is returning to normal and it is expected that the world to slow down from 3.5 percent in 2022 to 3 percent in 2023 and 2.9 percent in 2024. Commenting on the pressures on operating costs of the airlines she underlined that both labor cost and fuel cost are huge chunk of operating cost for airlines. According to FAN, fuel cost takes about 25 percent to 30 percent on average and it decreases the profit space of the airlines. "Since the Russian invasion into Ukraine, oil price has been increasing sharply and even recently between June and September, global crude oil prices increased by 25 percent due to extended supply. Just very recently yesterday (October 10, Tuesday), price increased by 5 percent due to the new conflict in the Middle

East. Hopefully the good news is that the market is still expecting the crude oil price to converge to the equilibrium price at around 75 Dollars per barrel by the end of the 2026. In the meantime, the credit spread between the jet fuel price and a crude oil price has also reached the 40 dollars per barrel recently that also add pressure to the operating costs. In that sense, the European Airlines have relatively good advantage compared to the rivals in the America because many Europe airlines had against the oil price so they are relatively more protected from the volatility in oil price," she added. At her address FAN pointed out that according to recent figures the global inflation has been decelerated recently and the core inflation excluding energy and food price, has also decelerated more gradually. According to FAN, the global economy has returned to normal and global supply chain is recovering as output slows. She stressed that recovery remains on track despite headwinds. She also pointed out that global passenger load factors reached pre-pandemic levels in 2023. She shared following information on the global passenger load factors via slide number 12: "Load Factor is another indicator that we monitored closely and as you can see in this chart 2019 is represented



by the blue line, 2023 is represented by the red line. You can see that even the orange line in 2022 has already close the gap between the pre-pandemic at the end of the 2022 and starting this year we're closely following the path of 2019 and the load factor globally averaging to around 85 percent."

She underlined that according to air traffic data based on the first half of 2023 there is a uneven recovery globally and added, "We are expecting the air passenger traffic in the

ATLC region to increase from 577 Million number of passengers to almost triple by the end of 2040. Among one of the biggest increase comes from India. This is driven by the demographic growth and income growth we are expecting India to more than triple between 2019 and 2040. For Türkiye to increase at 3.3 percent annual rate, it will almost double for the next 20 years and for Persian Gulf countries also, we're expecting it to almost double between now and 2040."



Rachel Yuting FAN concluded as follows: "So, to sum up, I hope I have brought you some inside of the industry development and outlook. We see that the world economy has returned to normal. The air passenger traffic has almost fully recovered, even across different regions and demographic shifts, we're expecting it to shift the industry gravity center to Asia, especially India, we're expecting and would be interesting to observe how our ATLC region play a more and more important role in connecting the world. So, it's a very exciting time to be in this location at this time in this industry. Thank you very much."

At the Question and Answer (Q&A) Session responding to a question whether as a senior economist, does she

forecast a new scenario where things can be even worse in the Middle East after an armed conflict between Hamas-led Palestinian militant groups and Israel Armed Forces broke out on October 7, 2023. FAN underlined that it is early to assess the impact and how long it will, how long it will last and added, "We already observe the increase in oil prices which will add cost industry and according to the research the area will add to inflation on the world and will also be a factor in driving low of the growth rate in the near future. And as we all know that the growth rate will be, the economic growth rate will also be reflected in the inner passenger traffic that will be a negative driving, but we don't have any quantitative result at this point."

Then the floor was opened to the sponsor keynotes, which were delivered by Johan PELISSIER, Vice-President Sales Airbus Commercial Central/Eastern Europe and Central Asia and Pawel SKUTELI, Regional Director Airline Marketing, Embraer Commercial Aviation.

In his presentation titled "Airbus Market Outlook: Supporting traffic growth in the region", Johan PELISSIER first shared some facts to show the growth of İstanbul in terms of the carrying capacity for passengers (ASK) and said, "In less than 15 years, İstanbul has been going from 50th and now today is number 7 in the world. In only the past five years we have seen a growth of 33 percent in ASK (Average Seats Kilometers). I think when we are reaching İstanbul

and we are welcome by saying welcome to the meeting point of the world, cannot be a better definition for qualifying İstanbul." PELISSIER noted that İstanbul is not only a major route as of today, but is also designed in order to actually welcome much more traffic capacity. "When you look at the infrastructure of the airport it is really designated in order to welcome much, much more capacity," he added. He stressed that as Airbus they see some big growth and big plans and ambitions from the carriers in İstanbul, including Turkish Airlines (THY) and also low-cost carriers such as Pegasus, which was indeed performed a big growth in the very just past few years. Pegasus Airlines took delivery of its 100th aircraft, an Airbus A321neo, which landed at İstanbul's Sabiha Gökçen Airport on September 30, 2023. Named Cumhuriyet ('Republic') in honour of the Turkish Republic's centenary, the aircraft, bearing the tail sign TC-RDP, is the ninth of the 16 new aircraft scheduled to join the Pegasus Airlines fleet in 2023, marking the 100th aircraft so far and the 75th aircraft to be delivered as part of the Airbus order signed in 2012, which, through additional agreements over the years was extended to a total of

150 aircraft. In July 2023 Pegasus Airlines signed an agreement to purchase 36 new A321neo model aircraft, in addition to the existing aircraft orders placed under the 2012 Airbus order. The delivery of the 36 newly ordered aircraft, in addition to its existing orders, is planned to be completed by the end of 2029. As a result, the original order for 100 A320/321neo family aircraft, placed by Pegasus with Airbus in 2012, has now been extended to a total of 150 aircraft. Among these, 108 are A321neos.

PELISSIER underlined that showing a lot of resilience to this market, to COVID and to the crisis Türkiye has a very high level of growth and recovery and Airbus is continuing its journey into selling this region. "I'd like also to mention the very first of the recovery which was done also by the airline in Türkiye, which is Pegasus" he added. Airbus is supporting the traffic growth in Türkiye in 2023. In this context, Airbus recently secured +10 A350-900 order from Turkish Airlines. 14 A350-900 already in THY service since 2020 and 16 already in backlog. PELISSIER went on saying, "So, we are very part of being a partner here in Türkiye of the two main airlines operating but also in Central Asia. I think the growth that we



Johan PELISSIER, Vice - President Sales Airbus Commercial Central/Eastern Europe and Central Asia

have seen the next years is quite amazing. In the past 10 years we've been going from 200 aircraft to nearly 400 aircraft in the region, the region here on Türkiye and Central Asia. To be clear we have a market share which is actually 52 percent in this part of the world. So, very proud of the trust that all the airlines are putting into Airbus."

PELISSIER continued his speech as follows:

"Let me now focus also on Central Asia we have in our outlook on 46 percent as of today in Central Asia, which shows that this increased capacity is really a sign of confidence in this market, but also affection of the booming economy and resilience in terms of trade in those countries. We have noticed that the top 10 airlines flying to Central Asia of having a

lot of capacity to name a few; THY 70 percent capacity if I compare 2019 to 2023, Fly Dubai 73 percent and Pegasus more than 200 percent in this part of the world. So, we are foreseeing more and more traffic in this region and we surely, I think, will prepare for this social growth. When we look at the top international flows from Central Asia to other parts of the world. Obviously, Türkiye and Russia are only increased following the situation in Ukraine, but also we see a significant growth in the Middle East and I think what is striking here and we had got to crated in the presentation just before is the fact that there are actually a lot of connecting paths from Central Asia to other parts of the world and this missing somehow

direct flights are again an opportunity to develop and move air transport capacity in Central Asia.

We will need more hubs and we need to increase the capacity and to develop the connection between Central Asia and the world. Moving into Airbus possibilities would say still lots and markets which are not yet addressed from the start of the world. I'd like to focus number one probably from Istanbul to Australia or to Americas with the A350 -1000 which is ideal aircraft in order to perform these flights. Thanks to the reaching capacity of this aircraft, we can definitely unlock new markets from Istanbul or from Central Asia to very far countries.

Growing number of low-cost carriers (LCC) which



Pawel SKUTELI, Regional Director Airline Marketing, Embraer Commercial Aviation

definitely stimulated demand which are taking now a big part of the traffic between Central Asia and from Central Asia to the rest of the world. We are currently 60 airlines operating in Central Asia and the top airlines include many locally based carriers but also some major operators such as Turkish Airlines. And the low cost carriers definitely contribute to the growth from Türkiye. We can mention A-Jet, Pegasus and SunExpress... So, those LCC's growth is definitely also a driver of the demand stimulation in this region just to give you some facts. 10 years ago in 2013 there were 70 LCC aircraft out of a fleet of around 500 aircraft. As of today out of 800 aircraft in this part of the world we have more than 220 LCC aircraft. So, definitely a big growth and that's a

stimulus, but also a way to address the demand."

In concluding, Johan PELISSIER stated: "I think as Airbus we are very pleased as the others to be involved in such a booming region when you look at facts and figures as of today, but also in the next 10 years we see this region being very resilient and with a lot of long term growth and we believe that as Airbus we have the right portfolio to address such a growth and obviously we are also partnering with various airlines and countries in this part of the world in order to keep up the future and new generation aircraft, which is to really address the sustainability targets together."

After PELISSIER, Pawel SKUTELI, Regional Director Airline Marketing, Embraer Commercial Aviation

took the floor and shared Embraer's perspective on market and market developments in the region today. In his presentation titled "The Outlook of the Region: New Opportunities in a New Time", SKUTELI underlined that the Middle East has been growing very dynamically over the last about 20 years and aviation in the Middle East is contributing a lot to the economies, it is creating a lot of jobs, it facilitates tourism, attracts trade and for some countries it really became a pillar of the development of the economy of the economic model of the growth. He also stated that the Middle East region as a whole was one of the fastest growing growing regions in the world over the last two decades. According to SKUTELI, the airlines in the Middle East, with a global reputation for service and

excellence, have left an important and permanent mark on the aviation industry in general. He pointed out that Emirates, the biggest international airline in the world by Revenue Passenger Kilometres (RPK), Qatar Airways ranked the 4th and the THY ranked the 5th. He underlined that the aviation center of gravity is moving eastwards, "It's not a surprise. I mean air traffic is fueled by two factors by population and first and foremost by money," he said.

SKUTELI continued his speech as follows:

"Despite all the successes and all the all the achievements by the airlines in the region, Middle East is still an emerging market. You can say, leading emerging market. Maybe because the propensity to fly is above the trend. And of course, there are many policies of looking at the averages, especially when you are looking at the regions of diverse Middle East. You have some of the wealthiest countries in the world here, but you also have a lot of countries that are relatively poor, underdeveloped right. But all in all, the Middle East is an emerging region. So, the question is, how do we transfer? How do we transition from this to a fully developed fully mature market like the US or North America or Europe?"

So, is there a need to change anything in the Middle East? Because when you look at the pace of the traffic growth, we can see that some signals of the growth potential running out of steam were visible already before the COVID pandemic. So, there was a steady decrease in RPK growth rates in the region, and it happened even at times when the economy was growing. Which is something rather unusual because there is a correlation between the RPK growth and the GDP growth. And naturally, the economic geopolitical situation didn't help. We've seen a lot of turmoil, a lot of disruptions in the region. It was the only reason one of the defining features of the success of the developments in the Middle East in recent years with the development and appearance of the big hubs, especially the three big Gulf Hubs. And after a period of very rapid growth from 2011 to 2016, when the traffic almost doubled, we reached the point that looked may be as a limit, but we could notice that for three consecutive years there was a traffic decline and it happened already before the COVID pandemic. And then we have the Pandemic hitting the whole industry and the hubs like Dubai and Doha, they were particularly hard because of the reliance on the long-hauled traffic. They

didn't have the domestic traffic to compensate and also when you look at the pace of the development of different segments, we know of course, that the first traffic to recover from the domestic and the regional and then the long-haul is the traffic flow that is going to recover. So, even after the end of the pandemic there will be more headwinds in the market...

So how can you transfer from this emerging market to fully mature market? I want to use as a benchmark as a comparison, the US market or more precisely the continental US market. And when you look at the US and the Middle East and Türkiye. You can see that those regions have roughly the same or similar geographical area and similar population. Of course there is a big difference in the level of the economic development. This is also somehow compensated by the fact that Middle East has a bigger population. But what I want to focus on is the fact that they are also using the different business models and different models to serve the regional markets. And when you look for instance of the infrastructure coverage, you can see that it looks completely different, especially in the US. We really have a lot of very, very big hubs but

also smaller airports and what is important to those big hubs with more than 25 Million passengers per year, they are very often focused on the domestic traffic. You can notice that the mature hubs in Western Europe and especially in the US are serving more destinations and the bigger frequencies compared to the ones in the Middle East and Türkiye. And also coming back to the point that I made in the beginning that maybe you see too many big aircraft in the Middle East. When you look at the average size of the aircraft flying in the Middle East, serving the intra Middle East routes, it's about 180 seats, which is almost 50 percent more than an average base for the aircraft serving the domestic flights in continental United States and intuitively, this is not something you would expect right because if you have a market it is not as mature. Most of the markets are finer. You would expect that it will be reflected in the smaller size of the aircraft. This is also reflected by the number of airports serve and the number of city per. The connectivity to get in the end because you have access to the smaller aircraft that can serve more routes than the big aircraft because of the difference in the cost for three. Historically no other region will so dependent

on the intercontinental traffic as the Middle East. It's almost 90 percent of the traffic. The regional traffic was relatively very small and this became a challenge during the COVID Pandemic. But because of the impact of the COVID pandemic and general transformation of the market, we expect those headwinds to persist even in the post COVID era."

During his address SKUTELI also underlined that they are seeing an appearance of at least an interest in ultra-long-haul point to point flight. So new aircraft that will be in a position to serve the markets like Australia to UK directly without the necessity of connecting hubs. "So, there will be a lot of challenges. And also important thing is that the Middle East has been under performing financially when comparing to other regions" he added.

Paweł SKUTELI concluded his presentation as follows: "Slowdown of global hub strategy was already a challenge, the pandemic further weekend demand and is promoting development of new strategies. Future growth lies within: Over-exposure to long-haul, intercontinental traffic is a liability for the future. Fleet flexibility will be essential to explore underserved short-to-medium haul markets" 🌐

Routes World Gathered Aviation Leaders in Istanbul to Define Future Global Air Connectivity

Airports, and destinations to collectively define the future of global air connectivity in Istanbul.

Marking its 28th edition, the event has been attended by vice presidents and heads of network planning from more than 260 leading airlines, who engaged in over 10,000 meetings with airport and destination representatives to identify new route opportunities. Carriers in attendance included Air France, easyJet, Delta Air Lines, Emirates, IndiGo, Japan Airlines, JetBlue Airways, Qantas, Turkish Airlines and Wizz Air.

This was also be the first event that all of China's largest carriers attend following Beijing's decision to remove most of the remaining Covid-related travel restrictions earlier this year. Having held a considerable share of global air passenger demand prior to the pandemic, Air China, China Eastern, China Southern, Hainan Airlines and Shandong Airlines will be evaluating proposals from airports at the event to ascertain which markets to prioritise in their recovery.

Routes World 2023 gathered

more than 50 association and airline leaders, government ministers and expert suppliers to participate in the The line-up of CEOs includes:

- Turkish Airlines' Deputy Chairman and CEO, Bilal Ekşi, who defined outline the carrier's future growth strategy
- Pegasus Airlines' CEO Güliz Öztürk, who outlined how she is building an airline focused on digital transformation, sustainability, diversity, equality, and inclusion—and is taking firm steps towards its environmental and social goals
- Royal Jordanian's CEO Samer Majali, who discussed the carrier's fleet renewal strategy as it continues to broaden its international footprint



Aviation Turkey Magazine Editor in Chief Ayşe Akalın and Editor & News Director Şebnem Akalın attended Routes World 2023 Istanbul

This year's event was hosted by iGA Istanbul Airport. Often seen solely as a transit point, iGA Istanbul Airport is seeking to alter perceptions by attracting new carriers and increasing inbound traffic to Türkiye's largest city. The airport handled some 64 million passengers in 2022, making it the seventh busiest in the world. It has a handling capacity of 90 million passengers at the present time but will eventually be able to accommodate 200 million.

Selahattin Bilgen, interim CEO of iGA Istanbul Airport, comments: "At iGA Istanbul Airport, we welcome everyone in our beloved city, the global cultural centre where modernity and tradition flourish together in harmony. We are delighted to be the host of Routes World 2023, a globally renowned event bringing together airlines, airports and aviation stakeholders from around the world. This event is a platform to define the future of the aviation industry for years to come, and we are thrilled to be chosen as the centre of it. Routes World will be a world-class event and I look forward to meeting with CEOs and other influential figures in the aviation industry, to align on exciting new projects and opportunities of the future.

Routes World officially Handed Over to 2024 Host – Gulf Air Group Holding

The 29th edition of Routes World is expected to bring together more than 2,500 key aviation industry professionals from around the world.

Routes World, which brings together decision makers from airlines, airports and destinations to define the world's air route networks, is heading to the Kingdom of Bahrain from 6-8 October in 2024.

As the 2023 edition of the event drew to a close, iGA – Istanbul Airport handed over the hosting responsibilities of the event to Bahrain International Airport, in the presence of a special Bahrain delegation led by Chairman of Gulf Air Group Holding (GFG), H.E. Mr. Zayed R. Alzayani and Bahrain Airport Company (BAC) Chief Executive Officer Mohamed Yousif AlBinfalah and members of BAC's Airline Marketing and Route Development teams, Economic Development Board of Bahrain (EDB) and Bahrain Tourism Authority (BTEA).

With its strategic location in the heart of Gulf and proximity to major destinations across Asia, Europe and Africa, Bahrain serves as an important trading link between the East and the West. Its diverse economy, excellent business environment



supported by world-class aviation infrastructure, make it a perfect destination for businesses and airlines to launch or expand their operations. Routes World 2024 will showcase Bahrain's long-standing aviation history, strong infrastructure and thriving tourism industry and will result in attracting business opportunities and partnerships with international airlines and aviation stakeholders.

By consistently uniting decision-makers from the global route development community on an international platform, Routes World has made a real impact on the world's air services – over half of the world's new routes are connected to meetings at the event. VPs and Heads of Network Planning from 250 carriers are expected to attend the event.

Speaking at the handover ceremony, Steven Small, director of Routes, said: "Bahrain's Economic Vision 2030 aims for a productive, robust economy that is sustainable, globally competitive and fair. Routes World will be a critical event for the Kingdom to achieve this aim. By uniting decision makers from the route development community in the Kingdom of Bahrain, the destination will be at the centre of conversations driving growth in global air connectivity."

"We are honored that the Kingdom of Bahrain will be hosting this prominent global event, and we'd like to congratulate Team Bahrain for their efforts in contributing to hosting the 29th edition of the conference that will bring together global leaders from the aviation sector under

one roof. The conference will support the objectives of the Bahrain Economic Vision 2030, with an aim to position the Kingdom as a global, competitive and sustainable economic hub." said H.E. Zayed R. Alzayani, Chairman of Gulf Air Group Holding (GFG).

At Routes World 2023, Istanbul, Bahrain had a successful participation where it joined the ranks of international key aviation stakeholders to facilitate conversations around the future of global aviation sector. The country marked its presence at Routes World 2023 under the theme, '100 years of Bahrain', showcasing Bahrain as a prominent tourism destination, its rich heritage, cultural diversity and renowned hospitality at one of the world's most important aviation events.

Paris Charles de Gaulle Airport Named Routes Awards Overall Winner

Paris Charles de Gaulle Airport has been crowned the Overall Winner of this year's Routes Awards, as well as taking home the over 20 million passenger award.

Paris Charles de Gaulle Airport's '2025 Pioneers' strategy aims to develop a new airport model geared towards sustainability and performance, in line with societal and environmental expectations. This innovation from CDG has enabled the airport to operate new generation aircraft on 24% of flights this year. With a core focus on increasing direct connectivity and promoting competition between key markets, Charles de Gaulle added 71 new routes and 23 new destinations to its map in 2022, and the airport has now recovered 88% of 2019 passenger traffic levels.

David Dufros, aviation development director at CDG, said: "Paris CDG Aviation Development team is very proud to have won the 20mpax Routes World award this year! We would like to thank our airline partners for this achievement! This is the result of passionate and dedicated work initiated many years ago, for the benefit of our clients. This award encourages us to continue developing air connectivity in a sustainable way."



In the under 5 million passenger category, Newcastle International Airport was named the winner. Providing cost-effective, tailored and comprehensive marketing and travel trade exposure for their airline partners, Newcastle has welcomed four new airlines and 30 new routes in the last year.

Leon McQuaid, director of aviation development at NCL, said: "We are absolutely delighted to have won this prestigious Routes World award. A big thank you to all of

our airline partners for nominating us, which is great recognition for all of our teams' dedication and hard work to deliver for our airlines."

The 5-10 million passenger category was won by Larnaka International Airport. Having introduced a new airline incentive scheme in 2022 that focused on new routes, market penetration, and winter operations, LCA has since welcomed nine new airlines and introduced 28 new routes across 2022 and 2023.

Maria Kouroupi, senior manager aviation development, marketing and communication at LCA, said: "It is a great honour to receive this award today. This recognition strengthens our commitment to our airline partners, our stakeholders, and our industry. We are confident that together we will be able to face any challenges and create value for everyone."

Brussels Airport, winner of the 10-20 million passenger category, provides extensive marketing support for

their airline partners, with campaigns over the last year including 10 online activation contests, 16 social media campaigns, and 12 on-airport giant display opportunities. The airport's traffic has now returned to 90% of 2019 levels, supported by a passenger growth incentive scheme.

Léon Verhallen, director aviation development at BRU, said: "We are delighted that our strategy of 'have seats, will travel' is highly appreciated by our airlines. We successfully launched new initiatives to rebuild the network and regain passenger traffic. Five new airlines, 15 new destinations, and a passenger traffic recovery up to 90% of traffic in 2023 are clear evidence of the success of Brussels Airport in our very competitive catchment area."

Cape Town Air Access was named the winner of the destination category. Collaborating with both public and private entities to enhance air connectivity, Cape Town Air Access has consistently exceeded international passenger recovery rates, achieving 106% of 2019 levels in the year-to-date, with the addition of seven new international airlines and routes in the past year.

David King, project manager at Cape Town Air Access, said: "We are

honoured to be recognised for the second year in a row with the Routes World Destination Award. This achievement underscores our belief in the power of passion, creativity, and innovation and the positive results that can be achieved with a small, dedicated team. This award is a testament to the resourcefulness and commitment of all the Cape Town Air Access partners in promoting Cape Town International Airport and the Western Cape province as a destination of choice for airlines and passengers alike and a must-visit place for travellers worldwide."

Spanish low-cost carrier Vueling secured the airline award. The airline's focus is on building a sustainable future for the carrier and its partners, putting emphasis on a long-term approach to partnerships. As a result, around 85% of its services stretch beyond the three-year mark, and the airline operates a higher frequency per route than its competitors.

Daniel Johan Reus, Vueling's network development manager, said: "Vueling is extremely proud to have won the prestigious award for best airline in terms of sustainable growth at the Routes World conference. Our commitment to lasting impact is a testament to the power of perseverance, thoughtful planning, and dedication. This award is not

just a recognition of our past successes, but a promise to continue our journey towards a sustainable future."

The rising star award was won by Tatamo Rakotozafy, head of aviation marketing at Ravinala Airports. Tatamo has been instrumental in improving air connectivity for the airport operator, with achievements including lobbying government authorities to facilitate new routes and the reopening of borders, forming committees to build strong relationships with aviation and tourism stakeholders, and establishing the first financial incentive programme for airports in the country.

The individual leadership award was won by Vicki Jaramillo, chief development officer at Orlando International Airport. Vicki has dedicated her career to connecting the world to Orlando. Her passion for promoting air service stems from her own personal travel experiences, driving her to play a key role in the launch of multiple international routes with major carriers including Emirates, Lufthansa and many more. These achievements have been the product of perseverance, creating strategies unique to each airline's needs, and developing an expert knowledge in both the quantitative and qualitative data behind a route proposal.

Following the win, she said: "It is a great honor for me to receive this Individual Leadership Award for lifetime achievement in route development. This accomplishment is the pinnacle milestone in my air service development career which has been my passion. I extend my heartfelt gratitude to the entire Routes team and all that enabled me to achieve this recognition."

The full list of winners:

Overall Winner

Paris Charles de Gaulle Airport

Under 5 Million Passengers

Newcastle International Airport

5-10 Million Passengers

Larnaka International Airport

10-20 Million Passengers

Brussels Airport

Over 20 Million Passengers

Paris Charles de Gaulle Airport

Destination

Cape Town Air Access

Airline

Vueling

Rising Star

Tatamo Rakotozafy, Head of Aviation Marketing, Ravinala Airports

Individual Leadership

Vicki Jaramillo, Chief Development Officer, Orlando International Airport

Vantage Airport Group & JFK Millennium Partners Showcased Latest Airport Projects at Routes World 2023

Vantage Airport Group, an industry-leading airport investment, development, and management company has returned to Routes World 2023, the leading global annual air service development conference, to advance air service discussions and showcase its latest airport transformation projects. These include LaGuardia Terminal B, named Best New Airport Terminal in the World by Skytrax in 2023, and the new \$4.9 billion international Terminal 6, now under construction at New York's John F. Kennedy International Airport (JFK Airport).

JFK Millennium Partners (JMP), the Vantage-led company selected by the Port Authority of New York and New Jersey (Port Authority) to build and manage the new Terminal 6, is meeting with more than a dozen international carriers at Routes about its plans for the new Terminal. These meetings come as JMP prepares to mark its first full year of operations following financial close of the project and lease commencement in late 2022.

The Lufthansa Group has already announced it will make its home in the new Terminal when the first gates open in early 2026, operating flights from several gates and creating a world-class lounge experience



for guests travelling on its airlines, including Lufthansa, SWISS, Austrian Airlines, and Brussels Airlines. Advanced discussions with several other carriers are underway.

Terminal 6 will help transform JFK into a world-class global gateway. The redevelopment project is part of the Port Authority's \$19 billion modernization of JFK Airport. When fully complete in 2028, Terminal 6 will also connect to JetBlue's Terminal 5 to offer seamless transfers for connecting passengers.

"With bright and airy check-in and arrivals areas, NYC-inspired shopping and dining, curated public art and state-of-the-art passenger technologies, Terminal 6 aims to become one of the best airport experiences in the world," said Steve Thody, Chief Operating Officer, JFK Millennium Partners.

T6 airlines and their

passengers will enjoy a boutique-style, world-class new terminal that is digital first, operationally efficient, and full of the latest passenger conveniences, technology, and amenities, including; A1.2million square foot terminal complex, with 100,000 square feet of innovative shopping, dining, and amenities, 10 gates, including nine to accommodate wide body aircraft

o State-of-the-art automated baggage system, customs/border control facilities, and the latest TSA screening Technologies, The longest departures curb at JFK, with airline-branded passenger drop-off zones, Opportunities for up to five airline lounges, in addition to a new arrivals lounge, Digital concierge services, New ground transportation center and shared taxi

stand with Terminal 5, A curated collection of NYC-inspired, inspirational custom artwork, featuring local and international artists, curated by Public Art Fund in partnership with JMP

and the Port Authority, Sustainably sourced building materials, roof top solar power, and energy efficient systems and operating practices throughout the new terminal, Pursuing sustainability certifications for LEED (Silver or Gold), Envision, and SITES

Elsewhere across the Vantage network, LaGuardia Terminal B also earned Skytrax prestigious five-star terminal ranking in 2023, and Vantage also successfully launched a new locally inspired concessions program at Kansas City International Airport's new single terminal when it opened in February 2023.



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“Türkiye remains an incredible growth market and has already proven itself as a significant market.”

İbrahim Sünnetçi: Founded in 1994 by two female executives Hitit is today positioned as Türkiye's first airline and travel technology company and the 3rd largest Passenger Service Systems (PSS) provider in the world. Can we please start with an analysis of 2023's first 9 months from Hitit's perspective? Could you elaborate on [the] major milestones [that] you achieved during this period?

Nevra Onursal Karaağaç: First of all, thank you for

an engaging conversation. As I reflect on Q4 2023, my leading emotion is one of deep satisfaction. We have really made the most of this year and it has been one of significant milestones for Hitit. Turning our attention to our expanding partner ecosystem, it is worth noting that we also made critical acquisitions both in Türkiye and abroad during 2023.

Hitit now serves 47 countries, and we have 67 partners. One of the most important achievements

of this year was the agreement we made with the AJet, a Turkish Airlines brand. It was an agreement for the use of Hitit's software solutions, especially the Passenger Service System (PSS). AJet is one of the few airlines, still using their own in house system and we are excited to start a journey with a subsidiary of our flag carrier in their digital transformation. In addition to AJet, we extended our agreement with Pakistan International Airlines for another five years. We



by İbrahim Sünnetçi

also achieved significant success in the America's by entering Canada and expanding in middle and south America and continue to grow in Europe and Africa.

Certainly, these successful partner acquisitions naturally had a positive impact on our financial reports. We



achieved sales revenue of USD\$12.5 million in Q2, 2023, and increased sales revenues by 59% in the first half of 2023, and number of passengers served, which forms the basis of SaaS revenues, increased by 59%.

Incidentally, Hitit's departure control system, which exchanges data with 84 countries' border and customs systems worldwide, is currently being used in over 700 airports. Last year, the sales volume realized by airlines and travel companies through Hitit's infrastructure reached USD\$4.5Bn.

Another striking aspect of 2023 is that it stands out as the year in which we won the most awards annually, both in Türkiye and internationally. The extensive scope of these awards signifies that others have recognized our accomplishments at Hitit on multiple fronts: firstly, as an aviation



technology company, then as a publicly traded entity, as a champion of gender equality, and finally – but no less importantly, as a company that is dedicated to social responsibility.

- Best IPO in CEE Mid-Market of 2022
- "Best Team to Join" in the technology category
- Silver Award for Pioneering Digital Transformation in Airline IT Sector.

We also won awards that were rightfully earned by the entire Hitit team, although they were formally presented to specific individuals. Personally, I was honored with this year's prestigious Leadership in Sales Award (LiSA). Nur Gökman, Chairwoman of the Board of Directors and CEO of Hitit, was awarded the Special Jury Award in the Category – Inspiring Role Model for her contributions to the aviation industry, at IATA's

Diversity and Inclusion Awards. Additionally, Ms. Gökman was listed among the Fortune Türkiye's 50 Most Powerful Women.

Also, "Rockets Up" – Our CSR project – received the "Creating Wonders with Optimum Budget for Sustainability and CSR" Award at The Hammers Awards.

İbrahim Sünnetçi: How is the balance of legacy carrier and low-cost carrier working at Hitit's global airline industry portfolio? Do you see changes in this balance in the near future?

Karaağaç: At Hitit, our primary advantage and distinguishing factor within the industry lies in our ability to serve to airline companies of any size and business model. Presently, we maintain a consistent standard of service for major flag carriers, well-established legacy airlines, and emerging start-ups and low-cost carriers LCCs. Furthermore,

it's worth noting that some companies, as they expand in size, find conventional business models inadequate.

With the increasing diversification of needs and capabilities, we are witnessing the emergence of various business models, ranging from ultra-low-cost carriers (ULCCs) to full-service carriers (FSCs) and hybrid carriers. Throughout this differentiation, all our Partner airlines also share a common goal: To become and then stay dynamic, continuously transforming their businesses and keep one step ahead of their peers. This inevitably pushes both ULCCs and FSCs towards the agility and dynamism of the hybrid airline model, for which Hitit is the world's leading technology provider.

Returning to the essence of your query, we can assert that the traditional differentiation between legacy carriers and low-cost carriers has blurred

INTERVIEW



over the past decade due to the growing prevalence of the hybrid model. In recent times, we have observed a growing number of airlines adopting what we term the hybrid model. To be honest, we at Hitit have always been big proponents of the “hybrid” airline approach, the blurring of the lines between full-service and low-cost business models, as this allows airlines great leeway in how and when they want to introduce new ideas or change their existing practices.

I take pride in affirming that Hitit fulfils a crucial role by offering cost-effective, cutting-edge

solutions that can seamlessly adjust to the distinctive needs of each airline, granting them the flexibility to align with their chosen business model.

İbrahim Sünnetçi: What are Hitit's core capabilities and technologies that are focused on the global airline technology market?

Karaağaç: In fact, our story is widely known, but it's worth revisiting. Our first step into the sector started with the Crane FF (Frequent Flyer) product. Over time, our Crane FF software has evolved and expanded, eventually becoming the most widely used loyalty system in the

world as of 2012. In parallel with this success, we have established a strong global presence through our PSS solutions and made advancements in various areas that even many major corporations have yet to explore.

Our suite of software solutions – Crane - has grown over the years. Hitit's renowned and award-winning solutions - Passenger Service Systems - encompass all the essential components required by airlines. These include Reservations and Passenger Service (Crane PAX); Internet Booking Engine (Crane IBE); Mobile Application (Crane MA); Allotment Manager (Crane ALM);

Departure Control System (Crane DCS); Weight & Balance (Crane WB); Baggage Reconciliation Itinerary (Crane BRI) and Loyalty Layer (Crane LL). These solutions – all scalable – are available both as stand-alone and as a complete suite.

Crane PSS has been designed to fill the gap between traditional airline practices and the latest digital trends and capabilities. This makes it possible for Crane to easily adapt to an airline's business model or market specific needs.

In addition to Hitit's Crane PSS solutions, Hitit also provides operational functions which cover the entire crew and airline operations management – from rostering to both manual and automatic pairing, crew tracking, schedule and capacity planning, strategic planning and operations control. Furthermore, it is important to highlight that we also provide solutions for accounting, merchandising, travel services, and air cargo. Currently, there is no other airline technology company globally that offers such an extensive range of software solutions.

İbrahim Sünnetçi: Can you briefly inform our readers of the major

local and international programs that are keeping Hitit busy these days?

Karaağaç: I can summarize some key areas that have been keeping us busy recently, such as better customer experience, operational excellence, revenue increasing activities, and Artificial Intelligence (AI). We have transferred our experience in the field of AI to other investments. To switch to dynamic pricing, we have integrated with two different AI suppliers apart from our own solution, and two of our Partners switched to dynamic pricing using different methodologies. I would also like to bring up our efforts related to the Offer & Order Management System (OOMS).

The initial phase of the OOMS solution has been finished. This phase was designed using the latest IATA data standards, utilizing Hitit's market analysis. The system is expected to play a crucial role alongside PSS in the global market soon. Further phases have also received a favorable opinion from the airline consortium headed by IATA, consisting of 27 airlines, including the world's 10 largest carriers. This demonstrates how important a role Hitit will play in shaping aviation's future trends.



İbrahim Sünnetçi: Demand for air travel is rebounding after Covid-19, but there are disruptions, flight cancellations and delays, and chaos at airports across Europe. How can this happen? Did the industry fail to forecast the right traffic recovery or fail to properly prepare?

Karaağaç: Disruptions and irregular operations continue to be a worrying problem in the industry. This is an undeniable fact and, unfortunately, it is likely that we will continue to face such undesirable disruptions in the foreseeable future. Therefore, instead of focusing on the reasons, it is essential that we foster a spirit of cooperation in all areas

of the aviation industry. To navigate these challenges effectively, seamless collaboration and cooperation among airlines, airports, and government authorities are the keys to unlock a viable solution. Moreover, I have to emphasise the importance of preparedness in addressing irregular operations. Aviation professionals must be well-equipped to respond effectively during disruptions. Also, effective communication is essential in providing passengers with clear and timely information, reducing their frustration and uncertainty – that could otherwise adversely impact their loyalty to a given carrier.

As a representative of a technology company,

it's essential for me to underscore the significant role that technology plays as a critical element in the quest for solutions. Proactive measures, empowered by AI-driven solutions, have the potential to avert disruptions and streamline operations when those disruptions occur. At Hitit, we are also focusing on exploring how AI and optimization technology can elevate both airport operations' predictability and efficiency. We are actively advancing significant technological innovations for our partner Pegasus in this domain.

İbrahim Sünnetçi: Thank you for sparing your valuable time to our readers 🙏



Pegasus Takes Delivery of its 100th Aircraft “Cumhuriyet”

Pegasus Airlines' 100th aircraft, called Cumhuriyet ('Republic') in honour of the Turkish Republic's centenary, has landed at Istanbul's Sabiha Gökçen Airport. The new Airbus A321neo features the silhouette and signature of Türkiye's founding father Mustafa Kemal Atatürk on its tail.

Continuing to expand its fleet with new generation engine aircraft, Pegasus Airlines has taken delivery of its 100th aircraft, named Cumhuriyet ('Republic') in honour of the 100th anniversary of the Republic of Türkiye. The new Airbus A321neo, bearing the tail sign TC-RDP, completed its inaugural journey from Hamburg, Germany,

landing at Istanbul Sabiha Gökçen Airport on Saturday, 30 September 2023, at 6pm.

Mehmet T. Nane, Chairperson of the Board at Pegasus Airlines, and Güliz Öztürk, CEO of

Pegasus Airlines, took delivery of the aircraft in person at the Airbus facilities in Hamburg, Germany. The aircraft was specially designed to pay tribute to the centenary of the Turkish Republic, featuring the

silhouette and signature of Mustafa Kemal Atatürk on its tail. Cumhuriyet is the ninth of the 16 new aircraft scheduled to join the Pegasus fleet in 2023, marking the 100th aircraft so far and the 75th aircraft to be



delivered as part of the Airbus order signed in 2012, which, through additional agreements over the years was extended to a total of 150 aircraft.

In her statement, Güliz Öztürk, CEO of Pegasus, expressed great pride in receiving the airline's 100th aircraft during the Republic's centenary: "We've now reached our 100-aircraft milestone with our new A321neo aircraft, Cumhuriyet. We are taking strong steps into the future with an extensive international network spanning Europe, the Middle East, Africa, the Caucasus, and across Türkiye from north to east to south and west. With our innovative, rational, principled, and responsible approach, we aim to be one of the industry's leading low-cost airlines that streamlines air travel while offering affordable fares.

"We are committed to continuing the transformation that we started in Turkish aviation 18 years ago."

Güliz Öztürk emphasised that all aircraft deliveries from 2021 onward consist of A321neo aircraft: "The A321 is widely recognised in the industry as a game-changer, featuring a distinct configuration compared to standard short-to-medium range commercial aircraft. These aircraft offer more capacity through a longer fuselage while maintaining an operational process that aligns well with our current structure. In essence, this allows us to provide higher-capacity services without complicating our operational setup. In this regard, we are yielding high value efficiencies." She continued: "We are committed to continuing the transformation that we started in Turkish aviation 18 years ago and remain dedicated to excellence. With our aircraft that make up Türkiye's most modern fleet, we will continue to work with all our strength for our country, our industry, our stakeholders, and our guests."

As of 25 September 2023, Pegasus' fleet consists of 100 aircraft, including 15 Boeing B737-800s, six Airbus A320neos, 46 Airbus A321neos, and 33 Airbus A321neos, making it the youngest fleet in Türkiye with an average age of 4.5 years.



Aviation Service Exports to China: Celebrating the Türkiye's 100th Anniversary of the Republic

An agreement was signed between Keyvan Aviation, which provides the first and only approved aviation and navigation database service in Turkey and the fourth in the world, and China's commercial aircraft manufacturer COMAC, aiming to provide better customer services, products and digital solutions to aircraft operators. Keyvan's cooperation with COMAC, which has an important position in the Chinese aviation industry, has paved the way for new projects in the Turkish-Chinese aviation and space industries.

Keyvan Aviation, which offers innovative solutions in the field of data analytics and flight operations within the scope of aviation databases, has implemented a new international cooperation. Within the framework of the cooperation, Keyvan Aviation and COMAC Shanghai Aircraft Customer Service Co., which is responsible for the Main Line Civil Aircraft Project in China. A signing ceremony was held between Ltd (SACSC). Keyvan, which enabled the Turkish aviation industry to gain a competitive advantage in the international arena with the historical agreement signed to provide better customer services and digital solutions to airlines and aircraft operators in China, continued to create added value for the sector in the 100th anniversary of the Republic.



Southwest Airlines Orders 108 Additional Boeing 737 MAX

Boeing and Southwest Airlines announced the carrier is increasing its commitment to the fuel-efficient 737 MAX family with an order for 108 737-7s. The new deal supports Southwest's modernization strategy and provides flexibility to expand its fleet.

"We have a long history with Boeing, dating back more than 50 years to the day we commenced service with three Boeing 737 aircraft serving three cities," said Bob Jordan, president & Chief Executive Officer of Southwest Airlines. "They're part of our history and part of our future as we continue to recognize the many efficiencies and cost savings of a single fleet."

The 737 family has long served Southwest by helping fuel the airline's continued growth. Southwest has placed over 300 orders for the 737-7, growing its orderbook to more than 500 737 MAX jets. Once certified, the 737-7 will join the carrier's all-Boeing 737 fleet.

"With the world's largest all-Boeing, all-737 fleet, Southwest is counting on the exceptional efficiency and reliability of the 737 MAX family," said Stan Deal, president and CEO of Boeing Commercial Airplanes. "The 737-7 is pivotal to Southwest's long-term fleet modernization strategy, and we are honored to have the airline's continued trust in us to deliver its future fleet."

The 737-7 has the longest range in its class, capable of flying up to 3,800 nautical miles and carrying up to 172 passengers. The enhanced environmental performance of the 737 MAX allows carriers to reduce fuel use compared to the previous generation of airplanes. The 737 MAX is also quieter, creating a smaller noise footprint than older jets it replaces.

ACJ partners with Eutelsat OneWeb to Provide an Unrivalled Satellite Connectivity Experience Onboard, ACJ Connect Link

Airbus Corporate Jets (ACJ) has signed a Memorandum of Understanding with Eutelsat OneWeb in order to offer an advanced inflight connectivity to the ACJ customers. This will be possible thanks to OneWeb's Low Earth Orbit (LEO) satellite constellation and a dedicated electronic flat antenna.

The signature took place at NBAA Business Aviation Convention & Exhibition (NBAA-BACE) in Las Vegas.

"Through this ground-breaking agreement, ACJ is ensuring that current and future discerning owners and passengers will experience unrivaled high-speed internet in the air, no matter where they are flying" commented Regis Broutee, VP ACJ Services & Customer Support

Furthermore, "The low latency and higher speed that is inherent in OneWeb's latest generation Low Earth Orbit network, will facilitate a broad range of applications for passenger productivity and entertainment that to date have been out of reach while inflight." added Jason Sperry, Head of Business Aviation at Eutelsat OneWeb.

This unique satellite connectivity solution onboard aims at improving the connected passenger experience. The passenger will feel at home with bandwidth and latency ten times faster than the current Ka/Ku solutions allowing multi devices high quality streaming, live TV and video conferencing.

The new flat antenna will also allow drag reduction. ACJ Connect Link will be offerable on all Airbus Corporate Jets platforms from November and some operators have already shown interest in the solution to become early adopters.

Dassault Aviation Introduces FalconWays A Route Optimization Tool to Reduce Carbon Emissions

Dassault Aviation has unveiled a new flight planning tool that allows Falcon pilots to select the most fuel efficient route and reduce excess fuel carried using updated global wind data, optimization and performance model-specific algorithms.

The new tool, FalconWays, will be offered as a flight app on Dassault's FalconSphere iPad electronic flightbag and is compatible with Jeppesen and Universal flight planning tools. FalconWays was evaluated over a campaign of long flights between the U.S. and Europe and across Asia, as well as in numerous simulations. During actual flights using FalconWays, crews were able to reduce fuel consumption up to seven percent.

"Our new FalconWays flight app is part our company's broader commitment to



sustainable flying" said Chairman and CEO Eric Trappier. "It will help Falcon customers reach a new level of operational efficiency while reducing aviation emission levels."

The new application allows pilots to download worldwide wind information and combine it with imported operational flight plans, in-house performance tools, and vertical, lateral and mach number optimization data in order to recompute the flight plan. Falcons equipped with

SATCOM can update the database en-route on long flights to further optimize the trajectory. Vertical and lateral trajectory optimization can be carried out before or during the flight.

The company will first roll out FalconWays on the new Falcon 6X extra widebody twinjet, set to enter service in the coming weeks. The app will be available on the Falcon 8X early next year, on the 7X before the end of 2024 and Falcon 2000LXS/S by

early 2025.

FalconWays is a pilot dedicated application, designed in-house by Dassault Engineering and flight operations teams. Their efforts have generated seven patents and led to the creation of a number of advanced algorithms for improving flight efficiency. Implemented across the Falcon fleet, the app will permit significant—fuel savings, thousands of tons of CO₂.

K9 Jets: Flying the World with Your Four-Legged Family Member

It's heartwarming to hear about K9 Jets, a charter company that allows pet owners to travel with their beloved four-legged friends on private jets. The bond between humans and their pets is truly special, and being able to travel together with them can make vacations and trips even more enjoyable.

Traveling with pets, especially larger dogs like Golden Retrievers, can be

challenging on commercial flights due to space and weight restrictions. K9 Jets seems to offer a convenient solution for pet owners who want to ensure their pets are comfortable and safe during travel. The fact that you can have your dog travel on your lap or next to your seat on these private jets is certainly a great feature, making the experience more enjoyable for both you and your pet.

Having multiple routes, including destinations like London, New Jersey, Paris, Dubai, Lisbon, Frankfurt, and various locations in the United States, provides flexibility for pet owners to travel to different parts of the world with their furry companions. This can be a great relief for those who want to include their pets in their travel plans.

It's wonderful to see businesses that cater to

the needs of pet owners and offer them the opportunity to have their pets travel with them. This can make vacations and travel experiences more memorable and enjoyable for the whole family, including the four-legged members. Hopefully, such services will continue to expand, allowing more people to share their adventures with their beloved pets.

TAV Airports Announces €982 Million Revenue in Nine Months

TAV Airports, a member of Groupe ADP, served 50 million international and 24.6 million domestic passengers during the first nine months of the year. The international traffic of the group increased by 27% compared to the same period last year.

TAV Airports CEO Serkan Kaptan stated “Turkish tourism continued to be sought after in the third quarter of 2023 and we are observing a longer season, especially in Antalya. Across our portfolio of airports, most of our major markets are above 2019 traffic. The number of our guests from Germany is 24%, UK is 48%, Poland is 78% and UAE is 29% above 2019 levels and Russian traffic is at 55% of 2019 level. We are also very pleased to welcome close to one million Kazakh travelers into our airports with a growth of 101% versus 2019. Starting with September, we started welcoming Russian travelers again into our Georgian airports and have observed that a partial recovery has started in Russian traffic.

International traffic in Almaty is booming with the growth of the middle class, increased business travel and growth in inbound tourism.



TAV Airports CEO Serkan Kaptan

Situated strategically between China and Europe, Almaty also enjoys strong cargo traffic, supported by e-commerce.

In addition to our ongoing investments in Antalya, Almaty and Ankara, our service companies are always actively looking for opportunities to grow their portfolio with TAV Operation Services having grown its portfolio to 86 lounges in 19 countries. Among its most notable lounges we can count lounges in Charles de Gaulle, Orly, Barcelona, Madrid, Ibiza, JFK and Dulles airports.

With very strong operations we had an EBITDA of €321 million in 2023 with a growth of 20% vs 2022. During the quarter, we completed the sale of

24% of TIBAH Development shares for USD 135 million resulting in a one-off gain of €83 million. Including this gain, we had a net profit of €176 million in 2023 which constituted a 37% growth over 2022.

As we approach the end of the year, we are reaffirming our 2023 guidance which we expect to materialize near the higher end in passenger numbers and EBITDA, and near the lower end in net debt/EBITDA.

I would like to use this opportunity to express my most heartfelt gratitude to our employees, shareholders and business partners for having created together a global brand in airport operations.”

Singapore Is Operationally Ready for Sustainable Aviation Fuel But More Is Needed to Support Adoption

The Civil Aviation Authority of Singapore (CAAS), GenZero, and Singapore Airlines (SIA) have completed a 20-month Sustainable Aviation Fuel (SAF) pilot, which commenced in February 2022, in partnership with Temasek¹. The SAF pilot supports one of the key recommendations of the International Advisory Panel (IAP) on Sustainable Air Hub² to create a long-term secured SAF supply ecosystem for Singapore. The pilot found that while Singapore is operationally ready to supply SAF, more is needed to support adoption. CAAS will incorporate the lessons learnt in the development of the Singapore Sustainable Air Hub Blueprint.

There were three aspects to the SAF pilot:

First, operational readiness. The pilot validated the end-to-end process needed to bring SAF into Changi Airport, including procurement, blending of neat SAF with conventional jet fuel in Singapore facilities, safety certification and delivery of the blended SAF to Changi Airport. The pilot affirmed that SAF can be safely deployed to Changi Airport and uplifted onto flights without any modification to existing airport infrastructure.

Second, the generation of SAF credits. The generation of SAF credits for sale to corporates and air cargo companies looking to



decarbonise their carbon footprint, is a way to crowd-in financing to share SAF's higher costs. Under the pilot, SIA purchased 1,000 tonnes of neat SAF which generated 1,000 SAF credits, corresponding to approximately 2,500 tonnes of carbon dioxide reductions. These SAF credits were generated through a trusted industry standard, the Roundtable on Sustainable Biomaterials (RSB) Book & Claim System³. The pilot validated that transactions in SAF credits could be conducted in a trusted and transparent manner which lays the foundation for a global marketplace for SAF credits.

Third, market readiness. About two-thirds of the 1,000 credits generated were sold during the pilot. The pilot validated market demand for SAF credits but also showed that more is needed for wide-scale SAF adoption, including through education, outreach and corporate and government policy support.

Mr Han Kok Juan, Director-General, CAAS, said, "SAF, which the International Air Transport Association estimates to account for 65% of the carbon emission reduction needed by aviation to reach net-zero in 2050, will be a key component in Singapore aviation's decarbonisation efforts. CAAS is developing a structural offtake mechanism to support SAF adoption. This will take into account developments elsewhere in the world, including discussions at the upcoming third International Civil Aviation Organization Conference on Aviation and Alternative Fuels."

Ms Lee Wen Fen, Chief Sustainability Officer, Singapore Airlines, said, "SAF is a key decarbonisation lever for the SIA Group to achieve our net zero carbon emissions goal by 2050. This pilot has laid the foundation for a tangible pathway towards SAF adoption in Singapore. SIA will continue to collaborate closely with our partners to promote and

scale up the adoption of SAF in Singapore."

Mr Frederick Teo, CEO of GenZero, said, "SAF is widely acknowledged as a critical lever to decarbonise aviation. Ensuring that SAF can be operationally deployed in Singapore will help position Changi as both a regional and global sustainable aviation hub. The pilot is a demonstration of the community's ability to mobilise the aviation ecosystem for the operationalisation, deployment and usage of SAF. Through this pilot, GenZero also worked with partners like Climate Impact X and the RSB to launch SAF credits. This allowed us to develop the methodology and processes needed to test the extent to which corporates were willing to offset their travel emissions. It provided useful insights on how we can crowd in additional carbon financing to offset the price premium and support the adoption of SAF."



Leonardo: AW169's Skidded Capabilities to Grow Further with 5,100 kg Increased Gross Weight and 11-Seater Configuration

The 5,100 kg Increased Gross Weight (IGW) will meet the evolving needs of the military and civil markets delivering higher weight category performance and capabilities with lower weight category costs.

An 11-seater configuration and modular fuel tank will address rigorous requirements, particularly in the energy sector in terms of payload, range, and compliance with the latest standards.

The latest enhancements and kits being developed leverage on the inherent growth potential of the successful latest generation AW169 helicopter.

The AW169 light intermediate twin engine helicopter's operational capabilities and range of options will grow further with the launch of a 5,100 kg (11,243 lb) IGW kit and an 11-seater configuration fully compliant with

the IOGP (International Association of Oil & Gas Producers) Report 690. Both will be made available for the aircraft version with skid landing gear.

The 5,100 kg (11,243 lb) kit for the AW169 skid version, originally conceived to meet government and defence requirements for missions like troop transport and combat operations, will also respond to evolving

civil and public service market needs leveraging multiple operational and performance benefits. Key factors to this capability expansion are the inherent growth potential of the type not requiring modifications in the design of critical components, and the performance increase packages, delivering greater engine and transmission power as well as improved aerodynamics



in all conditions and for all applications. Compared with the standard 4,800 kg (10582 lb) Maximum Take-off Weight, the extra 300 kg (661 lb) available with the 5,100 kg IGW kit allows the embarkation of three more passengers or the addition of fuel for approximately one hour of operations. Existing operators of the type's version with skids will be able to retrofit the 5,100 kg IGW kit to enhance their aircraft's capabilities.

As an additional option, the 11-seater configuration, fully compliant with the IOGP Report 690 (Offshore Helicopter Recommended Practices), will introduce a new modular fuel tank system and two additional Type IV emergency exits in the cabin, increasing

the total number from four to six. The 11 seats configuration will be available for the skid-fitted version in combination with the 5,100 kg IGW kit. This solution will allow the type to satisfy even more demanding offshore transport requirements in terms of payload, range, and compliance with IOGP latest standards.

This configuration will allow a radius of action of up to 75 nm with 11 passengers, therefore offering capabilities typically achievable with types with a MTOW exceeding 5.5 tons (intermediate class) at a light intermediate class cost of operations as well as granting latest safety standards compared with legacy helicopters.

It will also deliver greater sustainability versus ageing types in the relevant weight category thanks to a more efficient powerplant, advanced navigation, modern support and maintenance approach, among other solutions. The Certification of the IGW increase is expected in 2024 while the 11-seater configuration with new modular fuel tank is planned for certification in 2026.

These latest operational capabilities will add to the EASA (European Aviation Safety Agency) certifications of the skid undercarriage and unique IFR, single pilot, Advanced Search and Rescue (SAR) Modes, both achieved in late 2022. With the skid configuration certification, the AW169 became the only modern CS29-certified aircraft able to offer all undercarriage solutions, further demonstrating the versatility by design of the type. The AW169 is also the only helicopter in its weight category that features Advanced SAR Modes. The performance increase packages previously developed had already enhanced engine performance and capabilities, transmission ratings and available payload through engine software updates and aircraft aerodynamics modifications, making the type the helicopter with the best power-to-weight ratio in its class.

The introduction of the AW169 has expanded Leonardo's presence in the emergency medical service market and added more operators for law enforcement, disaster relief, and fire-fighting duties. It further reinforces the company's leadership in the multi-engine VIP market providing operators with one more option fitting between the popular AW109 series and the bestselling AW139 models. It also adds one more solution for shorter-range operations supporting the energy sector and allows Leonardo to play a growing role in the new wind farm support field. Moreover, its dual-use design has responded to a range of government, homeland security and defence requirements for missions like surveillance, troop transport, combat operations, disaster relief and emergency response, fire-fighting, training, mountain rescue, and medevac.

Over 320 AW169s are on order today, with around 170 units delivered from the Vergiate final assembly line (Italy) to operators in over 30 countries. The global fleet has logged in excess of 170,000 flight hours in all kind of operations and conditions. The fleet leader has exceeded 3,700 flight hours in EMS operations in Sweden.



Etihad Airways and Scandinavian Airlines Enter Codeshare Agreement

Etihad Airways and Scandinavian Airlines (SAS) have signed a strategic codeshare agreement.

Arik De, Etihad's chief revenue officer said: "Our strategic bilateral agreement with SAS, coming after the start of our flights to Copenhagen, allows more seamless travel for our guests from Northern Europe to enjoy Abu Dhabi, and to connect with our growing global network, including our expanding destinations in the Indian Sub-Continent, East Asia, Middle East, and Africa.

"The tie-in gives our guests one-stop access across Scandinavia to destinations including Oslo, Stockholm, Helsinki, Gothenburg, Bergen and Aarhus.

"This agreement is just the latest in our mission to strengthen Abu Dhabi's cultural and economic growth by welcoming more guests to our home enjoying enhanced travel benefits and greater treasured experiences."

SAS Executive, Vice President and Chief Commercial Officer Paul Verhagen, said: "We are happy for the opportunity to introduce a new codeshare agreement with Etihad Airways.

"This partnership expands the choices available to SAS customers for journeys to Abu Dhabi and beyond, with connections to India, the Seychelles, Sri Lanka and more. We will continue to enhance international connectivity and remain committed to our promise of providing seamless travel experiences to our customers."

Turkish Technic Becomes the World's Biggest ACT Suite Customer

A long-standing user of Airbus Maintenance Training Software, Turkish Technic is now operating seven Airbus Competence Training (ACT) Suite equipped classrooms at Turkish Technic's Ataturk Airport facilities in Istanbul, Turkey.

The new contract has been signed for a third A320 ACT Suite to add to previous agreements for A320, A330 and A350 classrooms. Turkish Technic's total capacity of seven (7) ACT Suite classrooms will enable qualification and continuous training of up to 600 mechanics each year. The ACT Suite classrooms actively contribute to sustaining the growth of maintenance activities in the region by delivering high quality training on short & long range platforms for Turkish Airlines.

ACT Suite offers state of the art maintenance training through virtual 3D training experience.

The tool is an operationally oriented, scenario-based programme focused on a 'learning by doing' approach, allowing for both theoretical and practical troubleshooting. It brings realistic experience by introducing simulation at the very early stages of training and develops suitable skills in a safe environment while reducing on-aircraft practical training and associated costs.

"Thanks to our classrooms equipped with ACT Suite, we offer our technicians a visually engaging training process and prepare them for the challenges of maintenance work. Thus, we aim to offer our passengers a safer flight experience thanks to the maintenance performed by our competent technicians." said Zekeriya DEMIR, Chief Finance Officer of Turkish Technic.

"We appreciate the confidence Turkish Technic places in Airbus Services and we are pleased to mark yet another milestone of our successful collaboration. With this seventh ACT suite, Turkish Technic showcases an impressive set-up and solid preparedness for future growth." said Charbel YOUZKATLI, Head of Europe Commercial Services, Airbus.

With a need for more than 700,000 aircraft maintenance technicians and engineers forecast over the next 15 to 20 years, Airbus Services offers a comprehensive portfolio of training solutions for airlines, MROs and academies.

GKN Aerospace and GE Sign Major Agreement on Industry-leading Aero Engines

GKN Aerospace and GE have deepened their long-term partnership on a series of industry-leading engines including the GEnx programme, the fastest-selling high-thrust engine. The new agreement focuses on three key areas: new technology insertion, fan case production and assembly, and repair of high volume, complex engines structures.

The ground-breaking technology insertion programmes on the

GEnx will focus on alternative material solutions, providing a more sustainable manufacturing footprint for several products currently flying. GKN Aerospace will provide component design expertise as well as its latest technologies, to help drive the GEnx programme towards its targets on carbon emissions reduction targets and cost reduction. Upgraded components are expected to go through

development, validation and insertion from 2024 to 2030.

GKN Aerospace has also secured life-of-programme contracts under the new agreement. It will now deliver 100% of GEnx, CF6 and GE90 fan cases, as well as 50% of GE9X fan case assembly for the duration of the programme.

The final element of the enhanced partnership sees GKN Aerospace join GE Aerospace's repair network, supporting the GEnx with specialised repair content. GKN Aerospace will deploy its expertise in structural design-and-make of advanced fabrications to repair high volume, complex structures across its global repair network.

Ascendance Flight Technologies to Participate in the Dubai Airshow

Ascendance Flight Technologies (Ascendance FT) the French start-up leader in aircraft decarbonization, is announcing today its participation in the Dubai Airshow on November 13, 14 and 15, 2023 at the Dubai World Center - Dubai South - Dubai, as well as running a booth in the pavilion "New Mobilities".

This will be a great opportunity to meet with Ascendance FT's leadership and connect on topics such as; Hybridization of aircrafts and helicopters propulsion systems, the process of building hybrid aircrafts; the decarbonization transition of the aviation industry toward more sustainable alternatives.

Ascendance FT will also be part of a Panel on November 16, 2023, at 12:10pm: Infrastructure capabilities: Creating an urban airspace with Ascendance FT's Co-founder and Chief Customer Officer, Thibault Baldivia and a scale model of the plane created by Ascendance will be displayed

And also it will be able to meet the start-up's CEO, Jean-Christophe Lambert on booth 81 in the "Advanced Air Mobility" area.



Corendon Airlines will Fly PanathInalkos BC

Corendon Airlines, the "Airline of Firsts" connecting Europe to Turkey and the most preferred holiday destinations, continues to make a name for itself with the support it provides to sports and athletes. Corendon Airlines, which offers direct flights from Europe to the Greek Islands, is increasing its support for sports with its latest collaboration with Panathinaikos BC, one of Europe's leading basketball teams, which has written its name in basketball history with the trophies it has won.

Panathinaikos BC, which has flown hundreds of athletes to medals and cups so far, fly with Corendon Airlines to the FC Barcelona match, which will be played on November 3 at 20.30. The historic cooperation, which will start with the away match against Barcelona, will continue in various European destinations throughout the 2023-2024 basketball season.



Beond Airlines Takes Flight as the World's First Premium Leisure Airline

The new airline unveiled its first aircraft in the unique Beond livery and perfectly appointed cabin with events in Malé and Dubai. Passenger flights begins in November from Munich, Zurich and Riyadh. New routes were announced to Milan and Dubai.

A new airline Beond — the world's first premium leisure airline — unveiled its sophisticated and unique aircraft livery. With events in Malé, Maldives attended by dignitaries, investors, supporters and

employees, and at a global media event broadcast online and in-person in Dubai, the airline showcased its first aircraft, an Airbus A319 seating 44 passengers in a luxurious all lay-flat configuration.

"Welcome to Beond. Our aim is simple: to fly our customers to the most unique and unspoiled destinations where they can release their inner explorer on the most memorable vacation of their lives," said Tero Taskila, CEO of Beond, and a founder. "Today

is but the beginning of our vision for our customers, embodied by this beautiful aircraft — inside and out. We could not be more pleased to showcase it in Maldives, our home, and Dubai. We wish especially to thank the government of Maldives and our supporters there, the Maldives Civil Aviation Authority, and SIMD Group — each of whom believed in our vision for a new airline in Maldives. Our team will do its best to bring tourists to this beautiful nation."

Beond's inaugural flights are scheduled for November 2023, with the Riyadh inaugural departing November 9, the Munich inaugural departing November 15, and the Zurich inaugural departing November 17. Between today and the scheduled service launch, early bird customers have chartered the aircraft to experience the Maldives. In addition, the airline announced new routes from Dubai and Milan, beginning in late March 2024.

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