MRO BUSINESS TODAY

Oct 15th, 2023

AMP Aero Services acquires CFM engine inventory from ST Engineering Aerospace

AMP Aero Services, announced the successful acquisition of a substantial inventory package comprising CFM56-5B and CFM56-7B engine components for the Airbus A320 jets.

AMP Aero Services, a global leader in aftermarket aircraft parts supply and asset management, has announced the successful acquisition of a substantial inventory package comprising CFM56-5B and CFM56-7B engine components. The inventory package, obtained from ST Engineering Aerospace Pte. Ltd., includes over 600 line items of technology insertion LLP (Life Limited Parts) inventory. These components are in overhauled (OH) condition and include sections of the engine fan, high-pressure compressor (HPC), high-pressure turbine (HPT), and low-pressure turbine (LPT).

This acquisition is a strategic move by AMP Aero Services to meet the increasing demand for MRO (Maintenance, Repair, and Overhaul) services supporting the Airbus A320 aircraft family. The A320 family is one of the most widely used and successful commercial aircraft in the world, with a substantial global fleet. As these aircraft continue to operate, the need for quality aftermarket

parts and components becomes crucial to ensure their continued airworthiness.

"We see new demand and strong rebound from global MRO's that are supporting the A320 aircraft family. This acquisition is critical to support our growing customer base," said Managing Member, Ambalik Agarwal.

The availability of this inventory is expected to be a significant asset to AMP Aero Services' global operations. With its headquarters in Miami, Florida, and offices in various strategic locations including Kansas City, New Delhi, India, Dubai, and Hong Kong, AMP Aero Services has positioned itself as a key player in the aviation aftermarket materials industry.

As a materials solutions provider for aftermarket aircraft and engine materials, AMP Aero Services places a strong emphasis on quality and holds several certifications and approvals, including ISO:9120, ISO9001:2015, ASA-100, TAC2000, and accreditation from the Federal Aviation Administration (FAA) AC00-56B.

The acquisition of this CFM56 engine inventory package represents a significant step forward for AMP Aero Services, enabling the company to meet the needs of MROs and operators worldwide. With the global aviation industry recovering and commercial aircraft returning to service, having a reliable source of high-quality parts and components is paramount to ensuring safety and efficiency in aviation operations.

EngineStands24 to open latest engine stands hub in Singapore

Scheduled to open in September 2023, the EngineStands24 hub will cater to the growing demand for engine stands and support aircraft operators and lessors across the region.

EngineStands24, a subsidiary of the renowned global aviation solutions provider, Magnetic Group, has announced its upcoming expansion with the launch of a new engine stands' hub in Singapore. This strategic move, in partnership with Singapore logistics company TALA Singapore Powered by Global Airfreight Int'l Pte Ltd, is set to enhance EngineStands24's presence in the Asia-Pacific region and reinforce its commitment to serving the aviation industry.

Scheduled to open in September 2023, the hub will cater to the growing demand for engine stands and support aircraft operators and lessors across the region. Singapore's central location and reputation make it the ideal choice for EngineStands24's expansion. This move aligns with the company's long-term global growth strategy and will allow it to efficiently serve its valued customers in the Asia-Pacific area.

Daiva Žemaitė, the Head, EngineStands24 said, "Singapore is undoubtedly a strategic location for us, and we are thrilled to finally bring EngineStands24 to this dynamic market. With the support of our esteemed partner, TALA Singapore, we look forward to enhancing our local presence and accelerating our engine stand deliveries, benefiting our customers and the aviation industry as a whole."

The new hub will initially stock engine

stands for narrow-body aircraft engines, including models such as CFM56-5A/B, CFM56-7B, and V2500. EngineStands24 plans to expand its offerings to include a comprehensive range of wide-body aircraft engine stands in the near future. This expansion marks a significant milestone for EngineStands24, as it will be the company's sixth location and its first in the Asian region.

William Chong, Deputy Chairman and Senior MD, TALA Singapore said, "TALA Singapore is honoured and highly values the opportunity presented by EngineStands24 to embark on this journey of partnership in developing and growing the Singapore hub for the Asia-Pacific region and beyond. As a leading freight forwarding and logistics player, TALA Singapore stands confident in support of this exciting endeavour for years to come as we are ever-ready to serve the needs of EngineStands24 and our mutual valued customers."

EngineStands24, a subsidiary of Magnetic Group, specializes in the supply and maintenance of engine stands for the aviation industry. With a global presence and a commitment to excellence, EngineStands24 provides Total Technical Care for aircraft operators and lessors, offering top-quality solutions for aircraft engine transportation and storage.

TALA Singapore is a leading logistics company specializing in aerospace logistics solutions, including routine logistics, critical and AOG delivery, and customs clearance services. As a member of TALA, TALA Singapore is part of an international alliance of independent freight forwarders, providing tailored logistics solutions to the aerospace industry.

Lufthansa Technik to support Cebu Pacific enters CFM56-5B engine powering A320ceo fleet

Under the contract, Lufthansa Technik will provide MRO services for three Cebu Pacific CFM International CFM56-5B engines, Cyclean Engine wash and ATS for two Airbus A320ceo jets.

Lufthansa Technik AG and Cebu Pacific, one of the leading low-cost carriers in the Asia Pacific region, have recently signed an Engine Maintenance Services contract. Under the new contract, Lufthansa Technik will provide Maintenance, Repair and Overhaul (MRO) Services for three of Cebu Pacific's CFM International CFM56-5B engines, alongside Cyclean Engine wash and Aircraft Transition Services (ATS) for two Airbus A320ceo aircraft.

Shevantha Weerasekera, Vice President of Engineering & Fleet Management at Cebu Pacific said, "Lufthansa Technik has given us the confidence that our aircraft will be well taken care of by the world's best engine repair service provider. With the robust expansion plan, we need a trustworthy partner to achieve the milestones for success together. We look forward to being fully supported through this partnership."

This collaboration underscores Cebu Pacific's commitment to investing in world-class maintenance services to ensure the highest level of safety and operational efficiency for its passengers. Cebu Pacific, the largest low-cost airline in the Philippines, currently operates flights to 35 domestic and 23 international destinations across Asia, Australia, and the Middle East.

Konstantin Stathopoulos, Vice President Corporate Sales Northeast Asia at Lufthansa Technik said, "Cebu Pacific recognizes us as a strategic partner in their growth plan. We are committed to providing exceptional support and are eager to meet their needs. Furthermore, we are actively exploring opportunities to expand our collaboration with Cebu Pacific by offering component support, digitalization, and other customized cutting-edge solutions upon Cebu Pacific's operational need."

Lufthansa Technik is one of the leading providers of technical aircraft services in the world, offering a full range of services for commercial, VIP, and special mission aircraft. Their services include maintenance, repair, overhaul, and modification of airframes, engines, components, and landing gears, as well as the manufacture of innovative cabin products and digital fleet support.

Image Courtesy :asdnews.com

TEARING DOWN AN AIRCRAFT

Introduction

Fortune Business Insights research says that the global market size was USD 5.95 billion in 2021 and is projected to reach USD 14.35 million by 2032. And that, the market will exhibit a CAGR of 7.85% during the forecast period 2022 – 2032.

In aviation too, a gigantic bird can end up as scrap! However, for an aircraft's 'end-of-life' stage, comes an afterlife, post a teardown or and/or disassembly thereof. There is a thriving aftermarket parts market out there, where the useable parts retrieved from an aircraft are recycled or disposed of. The end-of-life status of an aircraft then has commercial value and businesses have flourished on account of this teardown process and demand for same.

Approximately 600 commercial passenger and freighter aircraft are withdrawn from service annually, with some mothballed for storage, and the rest undergoing the teardown process. Asset owners and operators continue to gain returns on their investments by harvesting a range of torn-down aircraft.

Studies have shown that the demand for USMs is highest in the market due to airlines looking more and more towards paring operational costs.

The second stage includes the technical acceptance which commences when a letter of interest is received upon a successful bid for an aircraft. Documentation and inspection then commence of the constituent parts of the airframe. Parts that are to be returned and those to be kept must be logged, and this process is vital for ensuring asset value and acceptability at the point of sale after teardown and recertification/repair as required. The aircraft is also thoroughly inspected as are its records.

Once the purchase of the aircraft (third stage) is complete, the fourth and final stage is the teardown itself. Whatever be the selection of partner specialists, all must be Aircraft Fleet Recycling Association or 145 compliant.

What does an aircraft teardown entail?

An aircraft flies to its destination and


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is 'readied' for teardown. The process is carried out in carefully planned stages, and the standard operating procedures are strictly adhered to. Experts follow component maintenance manuals available for each aircraft type, part, and serial number as appearing on the aircraft equipment list. Nothing is left to chance when removing parts.

An aircraft is earmarked for teardown once it is ascertained that its

The selected aircraft for teardown is given a landing slot approved by that particular airport authority. The process begins with the aircraft's engine inlets, exhausts, ports, and Auxiliary Power Unit (APU), all identifiable markings like the logo and livery are covered up with paint.

Each removed part is tagged with a signed removal parts tag and its details are entered into an inventory list. According to the work -scope, parts like the removal of the engines and APU, disassembly, and disposal of the hull, and the disposal of all residual hydraulic fluids, fuel, and hazardous materials are carried out.

Phase one consists of removing the easily accessible components such as avionics (flight deck and avionics bay), and safety equipment including slides and lights; as these tend to be quick and easy to remove.

The second phase involves the removal of flaps and which consequently enables the removal of the hydraulic systems, with the task of removing the air conditioning LRUs along with the brakes and replacing the wheels to continue with the ability to move the airframe.

Finally, with the airframe stripped of all required LRUs comes the removal of the landing gears and wheels. If there is a requirement to remove the landing gears before the final stage it would require access to a roll-around set of gears to allow access and movement of the airframe as required.

Next in line are the control surfaces like flaps followed by the hydraulic systems. Once the removal of components like the air conditioning and brake systems are done, access is available to remove smaller components.

The list goes on to include nearly 1,500 to 2,000 parts that include the flight data recorder, electrical devices, probes and tubes, antennas, and transmitters. Components from the cockpit include gauges and control panels, control yokes, crew seats, and cockpit doors.

The landing gears and wheels are nearly the last to be removed and all parts removed are picked up from the airframe. The aircraft type will indicate the time taken for a teardown process to be completed, typically the process takes around three to five weeks.

Parts removed from an aircraft are first re-certified before a set of components are released as per a customer's specifications. These re-certified components also need to be in demand in the aftermarket parts market. This is how the parts resold through the aftermarket parts market, offer value for such business owners.

Aircraft Engines have priority over other parts in terms of removal, and the service provider needs to adhere to this service request as mandated in the contract or agreement signed by the two parties.

Image Courtesy :iMccourier.com

Post Teardown/Part out

All parts are harvested in 'as is' condition and need to be recertified/repaired or overhauled through authorized vendors.

Remanufacturing injects sustainability in the way used products are developed to perform as per specifications previously stated by OEMs, and these

Global Commercial Aircraft Disassembly, Dismantling and Recycling Market Share, By Aircraft Type, 2021

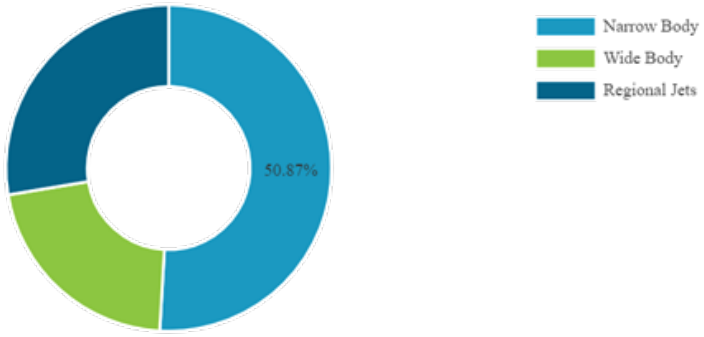

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Image Courtesy :fortunebusinessinsights.com

come with a warranty. Remanufacturing helps reduce the costs of parts/components at lower cost. Every item remanufactured is put through stringent inspection and testing.

Technological advancements such as additive manufacturing when applied result in cost and energy savings, and are nearly 80% more energy-efficient.

As per the pie chart released by fortunebusinessinsights.com, the narrow-body aircraft segment is most readily available for teardown due to an increase in the early retirement of single-aisle aircraft.

The wide-body segment will see a northward shift due to the retirement and increasing demand for dismantling and recycling services for wide wide-body and jumbo aircraft. For instance, in 2021, British Airways, the world's largest operator of Boeing 747s, grounded its entire fleet of jumbo shortly due to the COVID-19 pandemic.

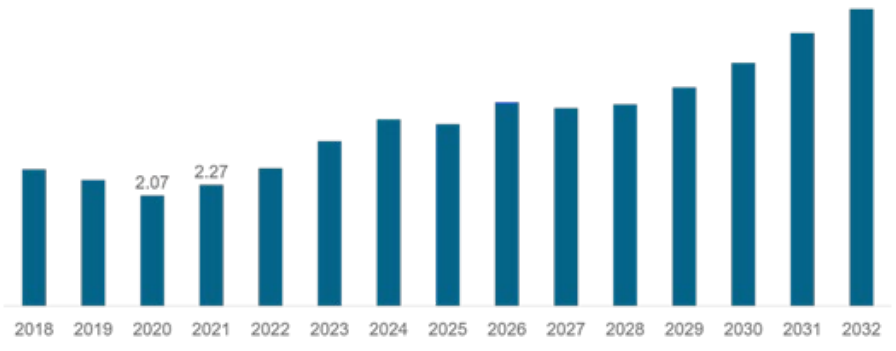
The regional jet segment is expected to grow moderately during the study period of 2018-2032. However, the growth of regional jets in the past resulted in high retirement rates during the forecast period.

Region wise, North America dominated the market in 2021 and was valued at USD 2.27 billion in 2021. This region has always shown a high number of retiring aircraft fleets and a well-established USM market.

However, with modern fleets introduced in the market have replaced and has resulted in the early retirement of mid-generation conventional aircraft. This will again lead to a market boost. As an example, in 2020, Delta retired over 200 aircraft, which were a mix of both mainline and regional aircraft.

The market in Asia Pacific is one of the major emerging markets of commercial aircraft disassembly, dismantling, and recycling. With the increase in the expansion of airlines in India, significantly in recent times, as also in China. The growing aftermarket/USM industry in emerging economies such as India and China will drive the growth of this market in the Asia Pacific region. Incidentally, India is one of the biggest importers of aircraft aftermarket parts, which will add to the growth.

North America Commercial Aircraft Disassembly, Dismantling and Recycling Market Size, 2018-2032 (USD billion)



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Conclusion

It has been over 200 years of cumulative experience in teardowns, and given the time span, this expertise and such businesses have evolved with time, especially in the past 25 years. It has also influenced how aircraft are parted out and a set structure has been developed for implementing business plans for this process that creates value ultimately.

With the world's aircraft fleet growing five-fold to over 25,000 in the thirty years leading up to 2020 with an increase in air travel, so did ownership and financing options for aircraft. Fleet and financing options increase has led to the increase in several aircraft available for harvesting. This is happening increasingly with aircraft with a younger average age, and that is seen as a boon, as it provides better options for leading aircraft component and engine suppliers, as well as their customers. Such business owners of components must constantly review the market and engage with lessors and airlines.

Key Companies

Aircraft End-of-Life Solutions (AELS) BV (Netherlands); Air Salvage International Ltd (Gloucestershire); Aerocycle (Canada); CAVU Aerospace (Germany); China Aircraft Leasing Group (China); Ecube (U.K.); Eirtrade Aviation (U.K.); GA Telesis LLC (U.S.); TRAMAC Aerosave (France); and Vallair (U.K.).

Some Highlights

December 2022– Air France continues the retirement of its Airbus A318 fleet. This retirement has been ongoing since August 2021. The F-GUGA was the firA318 to go and was scrapped in Kemble

August 2022– Russian Airlines started stripping jetliners to secure spare parts for their aircraft, which are not available due to the sanctions owing to the Russia-Ukraine war conflict.

Reference Credit:
www.ajw-group.com
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The first batch of E190-E2 aircraft will be delivered to Scoot in 2024.

Embraer to provide component support for Scoot's E190-E2 fleet

The agreement provides Scoot with access to a Pool Program offering component exchanges and repair services for more than 300 parts required to maintain Embraer's E190-E2 fleet.

Embraer has entered into a Pool Program services agreement with Scoot, an airline based in Singapore. This agreement is designed to support Scoot's incoming fleet of nine E190-E2 aircraft. The agreement provides Scoot with access to a Pool Program that offers component exchanges and repair services for more than 300 repairable parts required to maintain Embraer's E190-E2 aircraft. This allows Scoot to reduce upfront investments in high-value repairable inventories and resources while leveraging Embraer's technical expertise and component repair service provider network.

The first batch of E190-E2 aircraft will be delivered to Scoot in 2024. These aircraft are recognized as the world's most efficient and quietest single-aisle aircraft, offering modern and fuel-efficient options for airlines. Scoot's operations will benefit from advanced maintenance features, including the AHEAD (Aircraft Health Analysis and Diagnosis) system, which enables early detection of critical systems issues, reducing technical interruptions and avoiding flight cancellations. The eSight system provides real-time fleet performance monitoring.

Ng Chee Keong, COO, Scoot said "This strategic arrangement with Embraer will minimise maintenance delays for the E190-E2, essentially boosting operational readiness."

The E190-E2 and the E195-E2, part of the E-Jets E2 family, are known for having the longest maintenance intervals in the single-aisle jet category. With 10,000 flight hours for basic checks and no calendar limit for typical E-Jet operations, these aircraft can be operated with minimal downtime.

The E-Jets E2 family, including the E190-E2, builds upon the success and reliability of the first generation of E-Jets, with over 20 million hours of accrued experience. The first-generation E-Jet continues to be a popular choice for airlines worldwide, with over 80 airlines across 50 countries operating more than 1,700 units.

Carlos Naufel, President & CEO, Embraer Services & Support said "Working hand in hand with Scoot, we are gearing up for the E190-E2 entry into service next year. We are leveraging on Singapore's solid aviation ecosystem and we look forward to Embraer's modern, fuel-efficient E190-E2 take the skies in Scoot's livery."

Singapore serves as the central hub for Embraer's services and support in the Asia Pacific region. Embraer has a Regional Distribution Centre within Changi Airport's free trade zone and recently announced plans to establish a state-of-the-art E2 full flight simulator and pilot training program in Singapore, starting in 2023.

This agreement reflects Embraer's commitment to providing comprehensive support to airlines in the Asia Pacific region and underscores the advanced capabilities and efficiency of the E190-E2 aircraft.

Fokker Services Group to provide nose-to-tail program support for Albastar Boeing 737NG fleet

Under this program, AlbaStar becomes the launching customer for FSG's Boeing 737NG nose-to-tail (NTT) component maintenance and availability program.

Fokker Services Group (FSG), a global leader in aircraft maintenance, modifications, completions, and conversions, has entered into a component support program with AlbaStar S.A., an on-demand flight services provider based in Spain. Under this program, AlbaStar becomes the launching customer for FSG's Boeing 737NG nose-to-tail (NTT) component maintenance and availability program.

FSG will provide component maintenance and support for AlbaStar's fleet of five Boeing 737NG aircraft. This includes a wide range of components such as IDGs (Integrated Drive Generators), engine accessories, hydraulic actuators, valves, cockpit controls, and instruments. By engaging in this NTT agreement, AlbaStar can focus on its core business while delegating component availability and maintenance responsibilities to FSG.

"With the introduction of this new program, we are fully committed to continue to drive excellence in the B737NG aftermarket, leveraging our design, production and maintenance expertise. We take pride in having been selected by Albastar as their partner of choice for this platform", said Menzo van der Beek, CEO, FSG.

FSG has a long history of providing NTT programs, dating back to 1992 when the company developed the first component maintenance and availability program for Fokker operators. Over time, the program expanded to include other aircraft types, such as the Dash-8 and CRJ series. FSG has also expanded its in-house repair capabilities, aiming to achieve up to 70% in-house repair capability for the Boeing B737NG platform. Expanding this expertise to a full nose-to-tail program is a natural progression for the company, allowing it to maintain control over costs, turnaround times, and reliability.

Jaime Bestard, COO and Executive Technical Director, Albastar said, "having access to extensive pool stocks and nearby repair capabilities, FSG has proven to be the reliable, versatile partner we sought to ensure an efficient aircraft operation. We're thrilled to have shaped a bespoke agreement that fits our needs as a medium-size company, and we eagerly anticipate seeing how FSG's support contributes to our expansion plans, including doubling the size of our Boeing 737NG fleet in the following years".

Fokker Services Group is an independent aerospace service company with a global presence, offering comprehensive solutions for various aerospace platforms in the commercial, VIP, cargo, and defense markets. Their services include modifications and engineering services, component and material services, airframe services, and aircraft completion and conversion services.

AlbaStar S.A. is an independent Spanish operator that has been operating Boeing 737 aircraft since 2010, primarily from Italy and Spain, serving an average of 160 airports per year. The airline has become a reference point for tour operators, brokers, the Italian Ministry of Defense, and top sports associations, offering flexible business models and connections for various types of travel, including religious tourism.

Lufthansa Technik Malta strengthens European presence completing 20 years of services

The expansion marks a new era for Lufthansa Technik Malta, with millions of Euros earmarked for training its technical experts, acquiring necessary tooling, and securing materials.

Lufthansa Technik Malta (LTM), which recently celebrated its 20th anniversary, is set to become the European center of excellence for the overhaul of widebody aircraft. As part of its expansion strategy, LTM will diversify its portfolio to include base maintenance services for Boeing 787 aircraft. This exciting development marks a new era for the company, with several million Euros earmarked for training its technical experts, acquiring necessary tooling, and securing materials. The first Boeing 787 is expected to arrive at LTM's premises in Spring 2024.

This strategic decision underscores LTM's commitment to excellence and innovation in the aircraft maintenance industry. By broadening its capabilities to include the Boeing 787, LTM will further solidify its standing as a center of excellence for modern widebody aircraft maintenance in Europe. This expansion will enhance the company's ability to meet the diverse needs of its customers, leveraging LTM's remarkable efficiency and reliability.

Maria Cilia, Head of Base Maintenance Services and the CEO, Lufthansa Technik Malta said, "It is a pleasure to start my position as the new CEO of Lufthansa Technik Malta with such an important investment in our company. With the expansion of our portfolio, we will not only become the center of excellence for widebody aircraft overhaul in Europe to serve our Boeing 787 operators in the region, but we will also strengthen our presence in the Maltese community and create new opportunities for current and future employees."

Lufthansa Technik Malta has come a long way since its establishment in 2002 as a joint venture between Lufthansa Technik and Air Malta. Situated at Malta International Airport, the company initially focused on providing a broad range of line and base maintenance services for short-haul aircraft, including the Airbus A320 and A320neo, as well as long-haul aircraft such as the Airbus A330, A340, and A350. With a workforce of approximately 500 aviation experts, LTM serves a diverse clientele of international customers.

Alexander Feuersaenger, Vice President & COO Aircraft Maintenance Services, Lufthansa Technik said, "Building on the significant role that Lufthansa Technik Malta has had within our base maintenance network over the past two decades, our investment in enhancing capabilities with a dedicated overhaul line for Boeing 787 aircraft will further solidify the company's standing as center of excellence for modern widebody aircraft. This development will allow us greater flexibility in meeting our customers' needs, leveraging LTM's remarkable efficiency and reliability."

Over the years, LTM's portfolio has expanded to encompass extensive base maintenance services, reflecting its commitment to evolving alongside the aviation industry's changing landscape. The company has been a trailblazer in innovation, hosting the Lufthansa Technik Innovation Bay. This unique facility has played a pivotal role in testing groundbreaking technologies, ranging from drone-based inspections of aircraft fuselages to mobile 3D scanners and exoskeletons.

Lufthansa Technik Malta's journey to becoming the European center of excellence for widebody aircraft overhaul underscores its dedication to advancing the aviation industry, serving its clients with cutting-edge technology, and contributing to the growth and development of the Maltese community. As the company continues to reach new heights, it remains a shining example of excellence and innovation in the world of aircraft maintenance.

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Israel Aerospace Industries handovers P2F Boeing 767-300ER jet to Challenge Airlines MT

The P2F conversion of the Boeing 767-300ER, took place at IAI's conversion site facility in Belgrade marking the first of four such converted planes under a contract signed in 2021.

IAI's Aviation Group has a well-established relationship with Challenge Group, particularly in aircraft heavy maintenance and engine overhaul.

Israel Aerospace Industries (IAI) has successfully delivered a converted Boeing 767-300ER aircraft to Challenge Airlines MT. The conversion, which transformed the aircraft from a passenger configuration to cargo, took place at IAI's conversion site facility in Belgrade. This delivery marks the first of four such converted planes under a contract signed in 2021. The agreement also includes the conversion of four Boeing 777-300ER aircraft.

Challenge Airlines MT is part of the Challenge Group, a global air cargo conglomerate that provides tailored solutions for the air freight industry. The group offers a wide range of services, including handling, air and ground logistics, aviation services, and more. With operations spanning multiple airlines, logistics divisions, and maintenance services, Challenge Group is a significant player in the air cargo sector.

IAI's Aviation Group has a longstanding partnership with Challenge Group, primarily in aircraft heavy maintenance and engine overhaul. The decision by Challenge Group to select IAI for the conversion of multiple aircraft underscores IAI's reputation for product quality and effective solutions. It highlights IAI's strong position in the aviation industry, particularly in the field of maintenance, repair, and overhaul (MRO) and passenger-to-cargo conversions.

Many airlines have explored cargo conversions as a means to adapt to shifting market dynamics. This conversion expertise positions IAI as a valuable partner in supporting airlines' efforts to optimize their fleets and meet evolving cargo transportation needs.

IAI's Aviation Group has a well-established relationship with Challenge Group, particularly in aircraft heavy maintenance and engine overhaul. Challenge Group's decision to collaborate with IAI for the conversion of multiple aircraft underscores IAI's reputation for product quality and effective solutions. The selection of IAI for this project reflects IAI's prominent position in the aviation industry, especially in areas related to maintenance, repair, and overhaul (MRO), and passenger-to-cargo (P2F) conversions.

P2F conversions have gained prominence in the aviation industry in recent years. These conversions involve transforming retired or underutilized passenger aircraft into cargo aircraft. Converting passenger aircraft to cargo configurations allows airlines to adapt to shifting market dynamics and cater to the growing demand for freight transportation.

IAI's expertise in P2F conversions has made it a sought-after partner for airlines looking to optimize their fleets to meet evolving cargo transportation needs. This successful delivery to Challenge Airlines MT is part of IAI's commitment to providing innovative solutions in the aviation industry, supporting airlines in improving their operations and addressing changing market demands.

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Air India procures India's first Airbus A350-900 jet with GIFT IFSC transaction

Air India has achieved a significant milestone in its modernization journey by acquiring its first Airbus A350-900 jet through a finance lease transaction with HSBC, from GIFT City.

Air India, India's flagship carrier, has achieved a significant milestone in its modernization journey by successfully acquiring its first Airbus A350-900 aircraft. This achievement comes through a finance lease transaction with HSBC, marking the commencement of Air India's aircraft leasing business from Gujarat International Finance Tec-City (GIFT City). This transaction is not only a momentous step for Air India but also a historical one for the Indian aviation industry.

In this historic deal, Air India becomes the first scheduled carrier globally to acquire an aircraft from an entity registered in GIFT City, India's first International Financial Services Centre (IFSC). Furthermore, this marks the first-ever leasing of a widebody aircraft through an IFSC in India. The transaction was facilitated by AI Fleet Services Limited (AIFS), a wholly-owned subsidiary of Air India and a finance company registered in GIFT IFSC.

Nipun Aggarwal, Chief Commercial & Transformation Officer, Air India said, "This landmark transaction marks the beginning of our aircraft leasing business from GIFT IFSC, as AIFS will be the primary Air India Group entity for widebody aircraft financing, playing a pivotal role in the future aircraft financing strategy for us and our subsidiaries. It is also a shot in the arm for the development of a robust aviation ecosystem in India. As a flag-bearer of the country, Air India is happy to support the Government of India's efforts to develop an aircraft leasing hub in GIFT IFSC."

This achievement is the result of concerted efforts by various stakeholders, including the Government of India and the International Financial Services Centre Authority (IFSCA), which have taken initiatives to develop the aircraft leasing ecosystem at IFSC in India. Dr. Dipesh Shah, Executive Director of IFSCA, emphasized the importance of these steps, noting that they would contribute to the development of IFSC as a preferred destination for aircraft leasing and financing, not only in India but also on a global scale.

Air India's Airbus A350-900 is set to arrive in India by the end of this year, with five more aircraft scheduled for delivery through March 2024. In addition to these six Airbus A350-900 aircraft, Air India has firm orders for a whopping 470 new aircraft, comprising various models such as A350-1000, Boeing 787 Dreamliners, Boeing 777X widebody aircraft, Airbus A320neo, Airbus A321neo, and Boeing 737MAX narrowbody aircraft. These orders were secured by Air India during the Paris Air Show held in June 2023.

"Govt. of India has taken several initiatives to develop the aircraft leasing ecosystem at IFSC in India. IFSCA has been working with the stakeholders to develop regulatory enablers for aircraft leasing and financing. The steps taken by Air India by establishing a finance company for the purpose of aircraft leasing and financing at IFSC will go long way in developing IFSC as a preferred destination for aircraft leasing and financing in India as well as globally," said Dr. Dipesh Shah, Executive Director, IFSCA.

Founded by the legendary JRD Tata in 1932, Air India has played a pioneering role in India's aviation sector. Over the years, it has established a robust domestic network and operates non-stop flights to numerous international destinations, connecting India with the USA, Canada, UK, Europe, Far East, South-East Asia, Australia, and the Gulf. After 69 years as a government-owned enterprise, Air India and Air India Express rejoined the Tata group in January 2022.

Air India is currently undergoing a comprehensive five-year transformation roadmap known as Vihaan.AI. This initiative aims to transform Air India into a world-class airline with an Indian heart. The first phase of this transformation, the "taxi phase," focused on addressing fundamental aspects such as returning long-grounded aircraft to service, talent acquisition, technology upgrades, and enhancing customer care initiatives.

As a member of the Star Alliance, the largest global airline consortium, Air India offers seamless connectivity and top-notch facilities to passengers worldwide. This historic aircraft acquisition reaffirms Air India's commitment to modernizing its fleet and strengthening its position as a leading global airline.

Airbus introduces PioneerLab as the new twin-engine H145 flying laboratory

The PioneerLab's flight campaign has commenced at Airbus Helicopters' Donauwörth site in Germany, with the testing of a rotor strike alerting system.

Airbus Helicopters has unveiled its PioneerLab, a twin-engine technology demonstrator based on the H145 platform, focused on testing technologies to reduce emissions, enhance autonomy, and integrate bio-based materials in helicopters. The PioneerLab's flight campaign has commenced at Airbus Helicopters' Donauwörth site in Germany, with the testing of a rotor strike alerting system. The next phase will involve assessing an automated take-off and landing system.

The PioneerLab aims to achieve a fuel reduction of up to 30% compared to a conventional H145 through a hybrid electric propulsion system and aerodynamic enhancements. Additionally, the demonstrator will incorporate structural components made from bio-based and recycled materials, aiming to reduce the environmental footprint throughout the aircraft's life cycle. Airbus Helicopters plans to produce these components using processes that reduce material and energy consumption while improving recyclability.

"With PioneerLab, we continue our ambitious strategy to test and mature new technologies on board our helicopter demonstrators," said Tomasz Krysinski, Head of Research and Innovation Programmes at Airbus Helicopters. "PioneerLab, which is based in Germany at our Donauwörth site, will be our platform to test technologies specifically dedicated to twin-engine helicopters," he further added.

Incorporating the latest digital technologies into the flight control system and related sensors is another research focus, aiming to increase autonomy and safety during critical flight phases such as take-off and landing.

The project is partially funded by the Federal German Ministry for Economic Affairs and Climate Action through its national research program LuFo. Airbus Helicopters' FlightLabs serve as agile and efficient test beds for technology testing and innovation, contributing to incremental improvements in current products and technology readiness for future platforms.

RECARO Aircraft Seating receives seating contract for LOT Polish Airlines Boeing 787 fleet

RECARO Aircraft Seating has secured a contract to supply over 2,000 seats for LOT Polish Airlines' eight Boeing 787 jets through 2030 with deliveries scheduled to begin in Q3 2026.

The production of economy class seats will take place at RECARO's facility in Świebodzin, Poland.

RECARO Aircraft Seating, a renowned leader in aircraft seating solutions, has secured an exclusive seat supply contract with LOT Polish Airlines (LOT) for its widebody fleet through 2030. This significant award encompasses eight Boeing 787 aircraft and includes the installation of RECARO's CL6720, PL3530, and CL3810 seats in the business, premium, and economy classes, respectively. The delivery of over 2,000 passenger seats is scheduled to begin in Q3 2026, marking the first collaboration between RECARO and LOT on a widebody project. The production of economy class seats will take place at RECARO's facility in Świebodzin,Poland.

The CL6720 business class seat is designed to provide passengers with a luxurious and comfortable travel experience. It offers a spacious design, premium amenities, and ergonomic features, ensuring travelers can relax and unwind throughout their journey. Its sleek aesthetics complement any cabin interior, while its lightweight structure contributes to fuel efficiency and environmental sustainability.

"We are honored to partner with LOT, a renowned leader in the aviation industry, and we are committed to delivering excellence in service and innovation to enhance the passenger experience across the entire cabin," said Dr. Mark Hiller, CEO, RECARO Aircraft Seating and RECARO Holding. "In addition to our production facility in Poland building the economy class seat, this is an especially exciting milestone for our award-winning business class product," he further added.

The PL3530 in the premium class sets new standards in passenger comfort and innovation. It boasts cutting-edge features and a unique design, providing ergonomic cushioning, adjustable recline, and an intuitive control panel. Passengers can stay connected with integrated entertainment options and USB charging ports throughout their flight.

The CL3810, designed with meticulous attention to detail, combines cutting-edge technology with a sleek and modern aesthetic in the economy class. Passengers can enjoy spacious seating with ample legroom, a six-way adjustable headrest, lumbar support, and recline options of up to six inches, ensuring a comfortable experience on long-haul flights.

"In selecting RECARO Aircraft Seating as the exclusive seat supplier for our widebody fleet through 2030, we have prioritized passenger comfort and innovation. The partnership represents a milestone for both LOT Polish Airlines and RECARO, marking the first time we embark on this widebody project together," said Izabela Leszczyńska, Product Director, LOT Polish Airlines. "With production of the economy class seats to be based in Świebodzin, Poland, we embrace a synergy of excellence and craftsmanship. The CL6720, PL3530, and CL3810 series epitomize our commitment to providing a luxurious and comfortable travel experience across our business, premium, and economy classes. We believe this collaboration sets new standards in aviation and reflects our dedication to enhancing the journey for our valued passengers," she further added.

LOT Polish Airlines prioritizes passenger comfort and innovation through its partnership with RECARO Aircraft Seating. This collaboration reflects the commitment of both companies to providing a luxurious and comfortable travel experience across all cabin classes. The decision to produce the economy class seats in Poland underscores a synergy of excellence and craftsmanship.

Founded in 1929, LOT Polish Airlines has grown to become a prominent carrier not only in Europe but also on a global scale. With a fleet of 80 aircraft, LOT serves approximately 10 million passengers annually.

This partnership between RECARO Aircraft Seating and LOT Polish Airlines signifies a significant step forward in enhancing passenger comfort and innovation in aviation. The selection of RECARO's state-of-the-art seats for LOT's widebody fleet is expected to provide travelers with a comfortable and enjoyable flying experience, aligning with LOT's commitment to delivering exceptional journeys for its valued passengers.

Air India inaugurates vast Spare Parts Warehouse at Delhi, India

Situated in close proximity to Terminal 3 within the Cargo complex of Delhi Airport's Air Cargo Logistics division, the Air India centralized warehouse spans a vast 54,000 sq.ft, approximately.

Air India, India's premier global airline, has unveiled a state-of-the-art mega warehouse facility in Delhi designed to store over 1,000,000 essential engineering spares crucial for aircraft maintenance, checks, and repairs. This significant development is set to further enhance Air India's operational efficiency and contribute to the growth of India's thriving aviation ecosystem. Situated in close proximity to Terminal 3 within the Cargo complex of Delhi Airport's Air Cargo Logistics division, this centralized warehouse spans a vast 54,000 square feet, approximately. It is poised to substantially expedite the turnaround time for Air India's flights operating out of Delhi.

Distinguished as the first-of-its-kind facility for any airline in India, this integrated warehouse will serve as the cornerstone of Air India's engineering operations. It offers a comprehensive solution for storing a wide array of aircraft spares, tools, and ground support equipment, ranging from basic hardware to sophisticated avionics, hydraulics, structural, pneumatic, and mechanical components.

Campbell Wilson, CEO and MD, Air India said, "The warehouse is a major milestone for Air India and a reinforcement of the

BAA Training inaugurates new French €30 Million Pilot Training Center

The latest BAA training center near Paris will offer simulator WET (Wet) and DRY lease services and is expected to train at least 2000 pilots annually on average.

BAA Training on September 28th 2023, celebrated the grand opening of its new pilot training facility in France, located in close proximity to Paris-Orly Airport. This expansion project, driven by a collaboration with Transavia France, required a substantial investment of 30 million EUR. The training center will offer simulator WET (Wet) and DRY lease services and is expected to train at least 2000 pilots annually on average. BAA Training welcomes the opportunity to onboard more customers to train at BAA Training France and to offer its global partners a wider range of training locations.

The strategic location of the center near Paris-Orly Airport, the second-largest airport serving Paris, and the 11th busiest airport in Europe, presents BAA Training with excellent networking opportunities with airlines and other aviation-related businesses. This positioning is expected to lead to potential partnerships and clients, in addition to catering to Transavia's training requirements.

Marijus Ravoitis, CEO, BAA Training said, "Today marks a milestone in the BAA Training journey as we proudly open our new, already fourth simulator training center. Amidst the aviation industry facing the challenges of a pilot shortage, the timing couldn't be better for us to establish this facil-

quality, professionalism, and investment that we are now committed to make. This worldclass facility will not only boost Air India's fleet and operational efficiency but will also strengthen India's aviation ecosystem. The warehouse will offer us more proximate access to and better control over our aircraft spares enabling us to meet any engineering requirement promptly – leading to improved punctuality of flights."

This warehouse will centralize the engineering resource requirements for the maintenance and servicing of the Air India, Air India Express, and AIX Connect fleets, consolidating 16 dispersed and sub-scale locations across Delhi and Mumbai. It will operate as a hub and feeder network for operations throughout India, streamlining airline functions and enhancing inventory control. Situated in close proximity to Air India's aircraft hangars at Terminal 3 of IGI airport, the warehouse will facilitate swift material movement of spares to address technical issues.

This integrated facility represents a significant enhancement of the airline's engineering warehouse infrastructure in India, as Air India continues its transformation into a world-class airline.

Founded by the visionary JRD Tata, Air India has been a pioneer in India's aviation sector. Since its inaugural flight on October 15, 1932, Air India has developed an extensive domestic network and offers non-stop flights to cities worldwide, including the USA, Canada, UK, Europe, Far East, South-East Asia, Australia, and the Gulf. After 69 years as a government-owned enterprise, Air India and Air India Express rejoined the Tata Group in January 2022.

Under the Vihaan.AI initiative, Air India is undertaking a five-year transformation roadmap with the ambition of becoming a world-class airline with an Indian heart. The first phase of this transformation, the "taxi phase," recently concluded, focusing on fundamental improvements such as bringing grounded aircraft back into service, talent acquisition across flying and ground functions, rapid technological upgrades, and strengthening customer care initiatives. As a member of Star Alliance, the largest global airline consortium, Air India offers seamless connectivity and world-class facilities to passengers worldwide.

In summary, Air India's new mega warehouse facility in Delhi marks a significant step forward in enhancing the airline's operational efficiency and contributing to the growth of India's aviation industry, solidifying Air India's position as a world-class airline.

ity. We remain confident in our commitment to meet and exceed industry needs, shaping the future of aviation."

The facility currently accommodates three full-flight simulators (B747-400 and two B737 NGs), with the fourth simulator for A320neo expected to be ready for training at the beginning of November. In 2024-2025, two additional full-flight simulators will be added. Other training equipment includes the A320/321 and B737 Door Trainers, A320/321 Cabin Crew Emergency Evacuation Trainer, A320/B737 Slide, Real Fire Fighting Trainer, and B737 FTD (Flight Training Device). Moreover, A320 FTD Level 1 and B737 NG Level 2 are scheduled to be installed by the end of the year.

Olivier Mazzucchelli, CEO, Transavia France, said, "BAA Training and Transavia France share the same DNA: safety first and efficient operations with a fast-growing, entrepreneurial, and agile mindset. BAA Training demonstrated its understanding of our needs from day one to support our growing and challenging training plan on B737NG and from Q3 2023 – on A320neo."

BAA Training, a part of the Avia Solutions Group, has training facilities in Lithuania, Spain, and Vietnam and is actively pursuing ambitious global expansion projects. The BAA Training consultancy center in India, New Delhi, is already operational, with a dedicated team and operations underway. Additional locations are under consideration for future expansion.

Vytautas Ledakas, Managing Director, BAA Training France said, "I want to thank Transavia France for the trust placed in us as an organization and for recognizing our dedication to excellence in training. This partnership underscores our shared values and commitment to setting new benchmarks. Together, we will continue to innovate, adapt, and lead in this dynamic industry."

Avia Solutions Group is the world's largest ACMI (Aircraft, Crew, Maintenance, and Insurance) provider, boasting a fleet of 192 aircraft. The group offers a comprehensive range of aviation services, including MRO (Maintenance, Repair, and Overhaul), pilot and crew training, ground handling, and various associated services. With the support of 11,500 highly skilled aviation professionals, the group operates in 68 countries worldwide.

BAA Training, one of Europe's leading independent aviation training centers with a global presence. We have the experience, skills and know-how to offer a full scope of aviation training solutions to individuals and companies worldwide, from pilot training to ground handling courses.

Embraer to open Authorized Service Center in the Philippines with SIAEP MoU

Embraer has taken a significant step toward enhancing the MRO services for its advanced E2 jet family by formalizing a Non-Binding Memorandum of Understanding (MoU) with SIA Engineering Corporation , a subsidiary of SIA Engineering Company Limited.

SIAEC's MRO services extend to more than 30 airports across eight countries, encompassing a wide range of aircraft maintenance, including fuselage, engine, and component services.

Embraer, a leading global aerospace company, has taken a significant step toward enhancing its maintenance, repair, and overhaul (MRO) services for its advanced E2 jet family by formalizing a Non-Binding Memorandum of Understanding (MoU) with SIA Engineering Corporation (SIAEP), a subsidiary of SIA Engineering Company Limited (SIAEC). This collaboration represents a strategic move aimed at expanding and enhancing the support network for Embraer's E2 jet family within the Asia-Pacific region. SIAEP currently operates as an Authorized Service Center for the first generation of Embraer E-Jets and has been offering its MRO services in the Asia-Pacific region since 2017. Over the years, this partnership has played a vital role in supporting the operators of Embraer's E-Jets in the region, fostering strong relationships and trust among the operators and service providers.

"We would like to recognize the years of dedication and support provided by SIAEP to Embraer E-Jets operators in the region", says Frank Stevens, Vice President of Global MRO Centers, Embraer."With the Memorandum of Understanding, we have a basis to discuss expanding support for the growing fleet of E2 jets in the region beyond the already established presence of E-Jets in Asia-Pacific," he further added.

"We look forward to exploring with Embraer the possibility of extending the existing partnership with SIAEP to include the provision of efficient and quality maintenance services to support the E2 fleet in the Asia-Pacific region," said Jeremy Yew, Senior Vice President, SIAEC Maintenance.

Embraer's E-Jets and E2 jets have gained significant popularity in the aviation industry and are trusted by more than 80 airlines operating in 50 countries worldwide. With over 1,700 deliveries of E-Jets and E-Jets E2, these aircraft have proven their capabilities and versatility. Notably, in 2023, both Scoot (Singapore) and SKS Airways (Malaysia) announced their selection of E190-E2 and E195-E2 aircraft to complement their operating fleets, highlighting the continued appeal of Embraer's aircraft in the market.

SIA Engineering Company (SIAEC), a prominent aircraft maintenance, repair, and overhaul (MRO) service provider, holds a leading position in the Asia-Pacific region. With a portfolio of more than 80 customers, including international airlines and aerospace equipment manufacturers, SIAEC is known for its comprehensive and high-quality MRO services.

SIAEC's MRO services extend to more than 30 airports across eight countries, encompassing a wide range of aircraft maintenance, including fuselage, engine, and component services. The company is particularly well-equipped to handle the most advanced commercial aircraft globally, thanks to its extensive presence and capabilities.

Furthermore, SIAEC has strengthened its service offerings through a network of 23 subsidiaries and joint ventures, collaborating with original equipment manufacturers and strategic partners in multiple countries. This network spans regions such as Singapore, Hong Kong, Indonesia, Japan, Malaysia, the Philippines, the United States, and Vietnam. Additionally, SIAEC holds authorizations from 29 aviation regulatory agencies, enabling it to provide MRO services for aircraft registered in regions like the United States, Europe, China, and various other countries.

The collaboration between Embraer and SIAEP/SIAEC reinforces their commitment to delivering world-class MRO services for Embraer's E2 jet family, enhancing the operational efficiency and reliability of these advanced aircraft in the Asia-Pacific region.

Pratt & Whitney to build a 48000sqft extension for Singapore GTF MRO facility

This latest Pratt & Whitney expansion, covering 48,000 square feet, will allow ESA to accommodate a two-thirds increase in its current facility capacity.

Pratt & Whitney, a business under Raytheon Technologies, is set to expand the capacity of its Singapore-based engine center, Eagle Services Asia (ESA). This expansion, covering 48,000 square feet, will allow ESA to accommodate a two-thirds increase in its current facility capacity. Pratt & Whitney's move to expand ESA reflects its commitment to supporting the global Geared Turbofan (GTF) fleet. The expansion project includes plans to increase staffing levels and provide extensive training to ensure that ESA is well-prepared to meet the growing demand for GTF engine maintenance.

Eagle Services Asia began its journey in 2019 when it inducted its first PW1100G-JM engine for overhaul. ESA is a joint venture between SIA Engineering Company and Pratt & Whitney and is a member of the Pratt & Whitney GTF MRO network. This network comprises some of the industry's leading MRO (Maintenance, Repair, and Overhaul) companies.

"Pratt & Whitney is investing globally to support the GTF fleet. As part of the expansion, we will increase staffing and provide extensive staff training so that we are well equipped to meet the increased demand," said Shangari Meleschi, vice president, Aftermarket Operations – Asia Pacific and Turkiye, Pratt & Whitney. "We are dedicated to maintaining our customers' trust as we work through the impacts of the GTF fleet management plan," he further added.

The GTF MRO network has experienced significant growth since 2019, more than doubling in size. Presently, there are 13 active GTF MRO engine centers worldwide, with an additional six expected to be operational by 2025. These centers are a crucial component of Pratt & Whitney's EngineWise® solutions, which provide engine operators with a range of aftermarket services designed to deliver long-term, sustainable value.

Pratt & Whitney's expansion of Eagle Services Asia underscores the company's commitment to supporting its customers and the broader aviation industry. By increasing ESA's capacity and capabilities, Pratt & Whitney aims to provide enhanced maintenance services for its GTF engines, contributing to the reliability and longevity of these engines in service.

Lufthansa Technik to provide AVIATAR for Austrian Airlines Technical Logbook

The Lufthansa Technik AVIATAR Technical Logbook, referred to as "eTAL" by Austrian Airlines, will replace traditional paper logbooks with a modern digital interface.

Austrian Airlines pilots found the AVIATAR Technical Logbook intuitive and user-friendly, with a design akin to modern smartphone applications.

Lufthansa Technik has announced that Austrian Airlines is set to become the first airline within the Lufthansa Group to introduce the AVIATAR Technical Logbook, a digital solution designed to improve cooperation between the airline's Technical Operations, pilots, and maintenance teams. This move toward digitalization not only enhances operational efficiency but also contributes to sustainability efforts by reducing paper usage. The implementation of the AVIATAR Technical Logbook is an example of how digital solutions are reshaping operations and processes within the aviation sector, ultimately contributing to a more efficient and sustainable industry.

The AVIATAR Technical Logbook, referred to as "eTAL" (electronic Technical Aircraft Logbook) by Austrian Airlines, will replace traditional paper logbooks with a modern digital interface. Pilots can use tablet devices to input technical issues and other relevant information about the aircraft during flights and while on the ground.

"The AVIATAR Technical Logbook is the perfect solution for Austrian Airlines' needs", said Wolfgang Ramminger, Project Manager for the introduction of the Technical Logbook at a recent IATA conference in Vietnam, Lufthansa Technik. "At Austrian Airlines, we call it the 'eTAL' for electronic Technical Aircraft Logbook. Our pilots tested the innovative solution and agreed: the intuitive design makes it as easy to use as modern applications on smartphones. Especially the innovative OnePageView, which was developed for us by the AVIATAR team, is benefitial for our flight crews. It clearly displays all relevant information for the Captain on one screen. In addition to a user-friendly design, the Technical Logbook of AVIATAR also offers open interfaces for many different types of data sources, which allows flight crews and technicians to access related data within the application. Our streamlined and optimized processes allow us to save 2.5 metric tons of paper each year, which is also a key benefit for me personally and it illustrates how we benefit from the digitalization," he further added.

Austrian Airlines pilots found the AVIATAR Technical Logbook intuitive and user-friendly, with a design akin to modern smartphone applications. The "OnePageView" feature, specifically developed for Austrian Airlines, displays all pertinent information on a single screen for easy access by the Captain. The adoption of this digital solution is expected to lead to a significant reduction in paper usage. The streamlined processes enabled by the Technical Logbook will save approximately 2.5 metric tons of paper annually for Austrian Airlines.

The digital logbook offers prefilled text blocks and automated input forms, enhancing data quality and transparency compared to manual paper entries. It also provides real-time access to aircraft status for pilots, even when offline. The system is directly connected to the Maintenance and Engineering (M&E) system, enabling seamless collaboration between pilots and maintenance teams. This collaboration results in reduced turnaround times and costs. The standardized data structure allows airlines to gain insights through trend analytics.

"I am proud to be part of the joined Austrian Airlines and AVIATAR Technical Logbook team for the introduction of the next generation eTLB (electronic technical logbook). It's the most modern solution and ready for implementation, which makes it an easy choice for airlines around the globe looking for an eTLB today. It was great to work with the agile Austrian Airlines team and to be able to further develop the application with innovative ideas from our new customer. Like all other solutions on our AVIATAR platform, October 9, 2023 Hamburg Page 2 of 2 our Technical Logbook is open to be used with any maintenance & engineering system and can be used independently of aircraft types, MRO providers and other systems," said Dajana Kunz, Senior Manager Digital Products at AVIATAR, the digital platform of Lufthansa Technik. "In order to maintain our competitive advantage,

we will continue working with all our customers in our AVIATAR Community to ensure our digital solutions will be first choice for airlines also in the future," he further added.

The AVIATAR Technical Logbook is designed to be flexible and can be used with various maintenance and engineering systems. It is not limited to specific aircraft types or MRO (Maintenance, Repair, and Overhaul) providers.

AVIATAR, launched in 2017 by Lufthansa Technik, serves as an independent platform for various digital products and services related to aviation maintenance. It offers predictive maintenance and automated fulfillment solutions, catering to airlines, MRO companies, OEMs (Original Equipment Manufacturers), and lessors.

This move by Austrian Airlines represents a broader trend in the aviation industry towards digitalization, which offers advantages in terms of efficiency, data accuracy, and sustainability. The adoption of the AVIATAR Technical Logbook is expected to enhance Austrian Airlines' operations and support its sustainability initiatives by reducing paper waste. The platform is designed to accommodate various airlines and their specific needs, aligning with the aviation industry's digital transformation efforts.

Spirit AeroSystems partners with VAECO for MRO Services in Vietnam

The agreement allows Spirit Aftermarket Solutions to provide regional engineering support to VAECO in Vietnam.

Spirit AeroSystems, Inc. has announced a significant Maintenance, Repair, and Overhaul (MRO) service agreement with Vietnam Airlines Engineering Limited Company (VAECO), a subsidiary of Vietnam Airlines. This collaboration was unveiled at the MRO Asia-Pacific Exhibition in Singapore and marks an important development in the aviation industry. Spirit AeroSystems, through its subsidiaries, has entered into a strategic partnership with VAECO, a leading aircraft maintenance service provider in Vietnam. The agreement allows Spirit Aftermarket Solutions to provide regional engineering support to VAECO. This collaboration is particularly valuable in addressing challenges related to supply chain disruptions in Airframe MRO (Maintenance, Repair, and Overhaul).

VAECO, established in 2009, is the largest and most experienced aircraft maintenance service provider in Vietnam. With approximately 2,500 employees, VAECO is headquartered in Hanoi and operates branches in Da Nang and Ho Chi Minh City. It serves all airports in Vietnam and operates six modern hangars equipped with advanced systems for efficient maintenance activities. VAECO aims to become a leading MRO provider in the Asia-Pacific (APAC) region. Its expanded capabilities and operational excellence position it to cater to demanding customers worldwide. The agreement with Spirit AeroSystems aligns with VAECO's long-term growth ambitions.

Spirit AeroSystems Aftermarket Solutions has experienced significant growth, exceeding 20% in recent years. With the addition of VAECO, Spirit Aftermarket will expand its footprint. The company will now have a presence in 11 locations worldwide, including wholly-owned, joint-venture, or authorized repair centers in the United States, Northern Ireland, Morocco, Jordan, India, China, Malaysia, Vietnam, and Taiwan. Additionally, Spirit has a strategic agreement with ST Engineering to serve select countries in the Middle East region.

Kailash Krishnaswamy, senior vice president of Spirit Aftermarket Services, said that this strategic collaboration allows Spirit Aftermarket Solutions to provide regional engineering support to VAECO.

"We expect the supply of materials to continue to disrupt Airframe MRO. Under this strategic collaboration, Spirit will bring its world-class engineering support to alleviate at least some of this pain," said Kailash Krishnaswamy, senior vice president, Spirit Aftermarket Services.

This collaboration underscores Spirit AeroSystems' commitment to providing high-quality aviation services and solutions across the globe. By partnering with VAECO, the company is well-positioned to support the rapidly growing aviation industry in the Asia-Pacific region, contributing to the maintenance and enhancement of aircraft fleets, thus ensuring safe and efficient air travel for passengers.

Textron Aviation to deliver up to 1,500 Cessna Citation jets to Netjets

The deal allows NetJets the option to acquire up to a staggering 1,500 additional Cessna Citation business jets over the next 15 years, extending their existing fleet agreement.

Textron Aviation and NetJets have announced a groundbreaking fleet agreement that could reshape the private aviation landscape. The deal allows NetJets the option to acquire up to a staggering 1,500 additional Cessna Citation business jets over the next 15 years, extending their existing fleet agreement. This arrangement includes provisions for an escalating number of aircraft each year, paving the way for NetJets to expand its fleet with a variety of Citation models, including the Citation Ascend, Citation Latitude, and Citation Longitude. Additionally, NetJets will serve as the fleet launch customer for Textron Aviation's newest jet, the Citation Ascend, with deliveries slated to commence in 2025 once the aircraft completes its development phase.

Cessna Citation business jets, renowned for their reliability, efficiency, and comfort, are designed, manufactured, and delivered by Textron Aviation Inc., a subsidiary of Textron Inc. With a history spanning over 40 years, the partnership between Textron Aviation and NetJets has seen the delivery of more than 800 aircraft to NetJets. Notably, in the past eight years alone, NetJets has exercised over 300 options for Citation Latitude and Longitude models. This enduring collaboration has consistently provided discerning customers with top-notch, safe, and reliable aviation travel experiences worldwide. NetJets' fleet has included various Citation models, such as the Citation SII, V, Excel/XLS, Sovereign, X, Latitude, and Longitude.

Ron Draper, President and CEO of Textron Aviation, said "NetJets customers around the world continually select Citations as their aircraft of choice. We're honored to be the largest provider of industry-leading aircraft to NetJets and look forward to continuing to work together to design and deliver the best aviation experience based on customer feedback. Expanding and adding the Citation Ascend to the NetJets fleet will provide its global customers with even more versatility and flexibility to accomplish their missions, building upon the exceptional performance and popularity of the Latitude and Longitude."

The addition of the Citation Ascend to NetJets' fleet is expected to provide customers with enhanced versatility and flexibility, building on the exceptional performance and popularity of the Citation Latitude and Longitude models.

The Citation series of business jets has been at the forefront of the industry, known for seamlessly combining reliability, efficiency, comfort, and advanced technology. Since Cessna delivered its inaugural Citation in 1972, it has consistently set the standard in the business jet market, often achieving the highest annual delivery numbers across the business and general aviation sector. With over 30 Citation models certified during its 50-year history, the Citation lineup offers an unmatched range of capabilities, systems, and options that allow customers to expand their business reach.

"As a long-time, trusted ally who shares our commitment to safety and service, Textron Aviation is the ideal partner to help us expand our offerings to NetJets Owners with the introduction of the new Ascend to our midsize jet class, as well as by growing our overall fleet," said Doug Henneberry, Executive Vice President Aircraft Asset Management, NetJets. "Based on past demand for the popular Citation Latitude and Longitude, the new Ascend and all our new Citations will undoubtedly be well received by our Owners, particularly those who depend on NetJets to help them do more and miss less," he further added.

The forthcoming Citation Ascend promises to introduce an entirely new cockpit, improved performance, and a more luxurious cabin to the midsize business jet market. Preliminary performance targets indicate a four-passenger range of 1,900 nautical miles at high-speed cruise power, with an estimated maximum range of 2,100 nautical miles. The aircraft will cruise at a speed of 441 knots and have the capability to climb directly to 45,000 feet, enhancing the overall travel experience for NetJets customers.

In conclusion, this historic fleet agreement between Textron Aviation and NetJets marks a significant step forward in the private aviation sector, with the potential to reshape the industry's landscape over the next 15 years.

Boeing to deliver 50 additional 787 Dreamliner jets to United Airlines

Boeing has announced that United Airlines has ordered 50 787-9 airplanes and secured an additional 50 options from Boeing modernizing its global fleet over the next decade.

Boeing has announced that United Airlines is expanding its 787 Dreamliner fleet by exercising options to order 50 787-9 airplanes and securing an additional 50 options from Boeing. This order will provide United with flexibility as it modernizes its global fleet over the next decade. This order comes after United's record-setting purchase of 100 787 airplanes in 2022. With this expansion, United now has a total of 150 firm orders for the Dreamliner, making it the airline with the largest Dreamliner order book on record. United already operates more than 70 Dreamliners, making it the first airline to operate all three models in the 787 family.

Scott Kirby, CEO, United said, "We're building a bright future at United, and this order takes our already successful United Next plan into the next decade and beyond. Our planning and focus on the long term have helped us surge past other airlines that stood still. I'm convinced our strategy is the right one as we continue to add new, larger aircraft to take full advantage of our growing flying opportunities both internationally and domestically."

The Boeing 787 Dreamliner is known for its fuel efficiency and reliability, which allows United to efficiently operate its global route network. The Dreamliner reduces fuel use and emissions by up to 25% compared to the airplanes it replaces. The 787-9, which United has ordered, has a long range that allows it to fly up to 7,565 nautical miles while seating up to 296 passengers.

Stan Deal 's President and CEO of Commercial Airplanes, Boeing said, "United's unprecedented commitment to the 787 Dreamliner family is a testament to the market-leading operating economics and reliability of Boeing's widebody jets. With the 787, United will enjoy all the synergies of operating one of the largest, most efficient fleets in the skies."

The Boeing 787 Dreamliner is the best-selling widebody in history,

with more than 1,800 orders from 87 customers. In the past year, customers have placed nearly 350 orders and commitments for the 787 family. This order reinforces United's position as a major operator of the Dreamliner and its commitment to modernizing its fleet with fuel-efficient and environmentally friendly aircraft. United Airlines continues to invest in its fleet and network to offer its passengers a better travel experience.

ATR to deliver ATR 42-600 jets for Maldivian fleet upgrade

These new ATR 42-600s will join Maldivian's existing regional fleet, which includes two ATR 72-600s and one ATR 42-600, and will serve to replace older-generation turboprop aircraft.

Maldivian, the national airline of the Maldives, has placed a firm order for two ATR 42-600 aircraft with ATR, the world's leading regional aircraft manufacturer. These new ATR 42-600s will join Maldivian's existing regional fleet, which includes two ATR 72-600s and one ATR 42-600, and will serve to replace older-generation turboprop aircraft. The ATR 42-600s are known for their high efficiency, powered by PW127XT engines, and feature spacious and appealing cabins. These modern aircraft will enable Maldivian to provide reliable and affordable connectivity to the various communities and businesses in the Maldives. This not only contributes to the economic dynamism of the Maldives but also aligns with efforts to reduce emissions.

Mohamed Mihad, Managing Director, Maldivian said, "We introduced our first two ATR aircraft into our fleet in January 2023, and our passengers already praise the comfort and modernity of their cabin, as well as the reliability of the services we are providing. As the benchmark in regional aviation, both in terms of financial efficiency and CO2 emissions, the ATR -600 series represents a valuable asset for us to achieve responsible growth while providing quick access to essential services and preserving destinations for the archipelago's residents and tourists."

Nathalie Tarnaud Laude, Chief Executive Officer of ATR, highlighted that Maldivian's decision to invest in ATR aircraft, which are the lowest-emission regional aircraft on the market, aligns with the airline's commitment to responsible growth. A mixed fleet of ATR 42-600s and ATR 72-600s will provide Maldivian with flexibility, reliability, comfort, and profitability on its smaller routes, ultimately benefiting passengers with state-of-the-art aircraft that offer responsible and affordable connectivity for years to come.

"To modernise its fleet and sustain the vital connections it is offering its communities, Maldivian has, yet again, chosen to invest in the lowest-emission regional aircraft on the market and the proven benchmark in terms of operating economics. Having a mixed fleet of both ATR 42-600 and 72-600 will offer Maldivian flexibility, reliability, comfort, and profitability on the smallest routes. Maldivian's passengers will benefit from state-of-the-art aircraft, providing responsible and affordable connectivity for many years to come," said Nathalie Tarnaud Laude, Chief Executive Officer, ATR.

Maldivian is the national airline of the Maldives and is known for embodying the spirit of the country by providing exceptional air travel services that showcase the natural beauty and warm hospitality of the Maldives. The airline operates the largest wheel-based fleet in the country, including DeHavilland Dash 8 and ATR aircraft. Additionally, its subsidiary, Maldivian Seaplane, utilizes DeHavilland DHC-6 Twin Otter aircraft to provide specialized tourist air transportation services, connecting customers directly to the doorstep of their chosen resorts. Maldivian operates from its hub in Male' and offers international scheduled flights to cities in India and Bangladesh.

GKN Aerospace and Pratt & Whitney Canada partners for hybrid-electric flight demonstrator

GKN Aerospace and Pratt & Whitney Canada have announced a collaboration to develop the High Voltage High Power EWIS for the RTX hybrid-electric flight demonstrator project.

GKN Aerospace and Pratt & Whitney Canada have announced a collaboration to develop the High Voltage High Power Electrical Wiring Interconnection System (EWIS) for the RTX hybrid-electric flight demonstrator project. The joint effort will focus on the design, construction, and installation of the electrical wiring system for the demonstrator aircraft, which aims to achieve a remarkable 30% improvement in fuel efficiency and reduced CO2 emissions compared to today's most advanced regional turboprop aircraft.

The hybrid-electric propulsion system of the demonstrator integrates a highly efficient Pratt & Whitney fuel-burning engine with a 1-megawatt electric motor developed by Collins Aerospace, both of which are business units of Raytheon Technologies (RTX). This hybrid-electric system is designed to optimize engine performance during various flight phases, including take-off, climb, and cruise.

John Pritchard, President Civil Airframe, GKN Aerospace said, "We are delighted to collaborate with Pratt & Whitney Canada on this hybrid-electric flight demonstrator program. This project extends our teamwork in hybrid-electric propulsion technology, which also encompasses the SWITCH project, backed by the Clean Aviation Joint Undertaking of the European Union. Pushing the boundaries of technology aligns perfectly with our mission to become the most trusted and sustainable partner in the sky. Companies like Pratt & Whitney will deliver the solutions that enable passengers to travel more sustainably and help achieve net-zero carbon emissions by 2050."

GKN Aerospace, based in the Netherlands, will lead the development and design of the High Voltage High Power EWIS for the hybrid-electric propulsion system. Following the design phase, GKN Aerospace will take on the responsibility of manufacturing the necessary hardware and installing it on the demonstrator aircraft.

Jean Thomassin, Executive Director new products and services, Pratt & Whitney Canada said, "Hybrid-electric propulsion technology has the potential to improve efficiency for a wide range of future aircraft applications, supporting the industry-wide goal of achieving net-zero CO2 emissions for aviation by 2050. Our collaboration with GKN Aerospace brings extensive expertise to the project, which will help integrate high voltage electrical systems on our experimental aircraft, as we target flight testing to begin in 2024."

GKN Aerospace is recognized globally as a leader in engine systems and EWIS (Electrical Wiring Interconnection Systems) solutions for aircraft. The company's advanced electrical distribution systems are used in a significant number of passenger planes and military aircraft today. GKN Aerospace's EWIS center of excellence in the Netherlands is supported by teams located worldwide, including in Montreal, Canada, where the hybrid-electric flight demonstrator project is based.

In conclusion, the collaboration between GKN Aerospace and Pratt & Whitney Canada on the hybrid-electric flight demonstrator project underscores the industry's commitment to advancing sustainable aviation technology. This project aims to significantly improve fuel efficiency and reduce emissions, contributing to the aviation industry's goal of achieving net-zero CO2 emissions by 2050.

Embraer and Nidec secure approval for Electric Propulsion System joint venture

Embraer and Nidec Corporation, have received regulatory approvals to form a joint venture, Nidec Aerospace LLC will invest USD 77 million to develop EPS for the aviation industry.

Embraer and Nidec Corporation, two leading engineering conglomerates from Japan and Brazil respectively, are celebrating the unconditional approval from all relevant regulatory authorities for the establishment of their joint venture, Nidec Aerospace LLC. This collaborative venture aims to harness their collective expertise to develop Electric Propulsion Systems (EPS) for the aerospace industry. Nidec Aerospace is expected to invest more than USD 77 million in the coming years, with the goal of commencing mass production by 2026. This ambitious investment reflects the commitment to advancing the electrification of aviation and contributing to the growth and sustainability of the aerospace industry.

This partnership, unveiled at the Paris Air Show in June, intends to tap into new opportunities by offering a diverse portfolio of products and services on a global scale, primarily driven by the growth of the Urban Air Mobility (UAM) sector. Morgan Stanley Research estimates that the UAM market could reach a value of USD 1.5 trillion by 2040, making it a substantial and promising market.

"We are thrilled with the unconditional clearance. The next step will be the integration of these two powerful operational and engineering capabilities focused on business excellence. Together, our extraordinary teams will be able to develop advanced solutions to collaborate with the future of sustainable aviation," said Dimas Tomelin, Senior Vice President of Corporate Strategy, Digital and Innovation, at Embraer.

The joint venture's first customer for Electric Propulsion Systems will be Eve Air Mobility, an electric Vertical Takeoff and Landing (eVTOL) manufacturer. Eve Air Mobility is strategically positioned to become a global leader in the UAM segment by providing an effective and sustainable mode of urban transportation. Embraer will contribute its expertise, knowledge, and resources related to the controller, while Nidec will offer its technological know-how and resources pertaining to electric motors. Nidec holds a majority stake of 51% in the joint venture, with Embraer owning the remaining 49%.

"This approval marks a significant milestone not only in Nidec Motion & Energy's joint venture with Embraer but also in our shared vision to advance and electrify the way the world travels," noted Michael Briggs, Senior Vice President and President of the Motion & Energy Business Unit, Nidec. "Now with official clearance to proceed, the Nidec Aerospace team is poised to bring the expertise, speed, and drive needed to accelerate sustainable aviation on a global scale," he further added.

In summary, the approval of the Nidec Aerospace joint venture marks a significant step toward accelerating the development of Electric Propulsion Systems for the aerospace sector, with a focus on the burgeoning Urban Air Mobility market. This partnership leverages the strengths of two prominent engineering companies and positions them at the forefront of sustainable aviation solutions.

IATA strengthens CO2 Connect with latest data inputs from more airlines

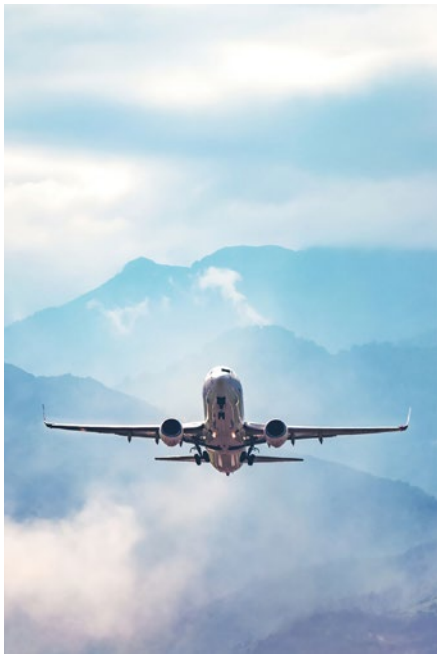
The airlines and airline groups joining the IATA efforts as data contributors to CO2 Connect include Aerolineas Argentinas, Air Baltic, LATAM Airlines Group, Luxair, and Nile Air.

The International Air Transport Association (IATA) is making significant strides in its efforts to improve the accuracy and transparency of carbon emissions calculations in the aviation industry. During the first World Sustainability Symposium held in Madrid, Spain, IATA signed agreements with several airlines and airline groups to expand its CO2 Connect emissions calculator. The airlines and airline groups joining as data contributors to CO2 Connect include Aerolineas Argentinas, Air Baltic, LATAM Airlines Group, Luxair, and Nile Air. This move is part of IATA's ongoing initiative to enhance the quality and reliability of emissions data, which is crucial for carbon offsetting, environmental reporting, and sustainability efforts within the aviation sector.

CO2 Connect, launched by IATA in June 2022, stands out from other emissions calculators due to its unique approach. Instead of relying on theoretical models and assumptions, CO2 Connect utilizes actual airline data, such as fuel burn, belly cargo, and load factors. This approach ensures that emissions calculations are based on real-world operational data, making them more accurate and reliable.

"Accessing the most accurate operational data is key to achieving global consistency and alignment in CO2 emissions calculations. Expanding this data pool is essential in providing greater transparency and coherence to passengers and stakeholders alike. This allows for more informed CO2 compensation choices while supporting ESG reporting. In continuously expanding our data sources, we will further enhance IATA CO2 Connect's calculation quality, far beyond what any theory-based or model-based tools can achieve", said Frederic Leger, Senior Vice President Commercial Products and Services, IATA.

The emissions calculator follows the Passenger CO2 Calculation Methodology (RP 1726), which was adopted by IATA's Passenger Service Conference



in March 2022. This methodology has been developed in collaboration with leading partners from 20 airlines, major aircraft manufacturers, international standard-setting bodies, and logistics services providers. It covers various critical factors, including fuel measurement, non-CO2 emissions, passenger and cargo weight, emissions factors, cabin class weighting, carbon offsets, and sustainable aviation fuel (SAF) considerations.

One of the key advantages of CO2 Connect is its ability to provide per-passenger CO2 emissions calculations. This allows airlines and passengers to understand the environmental impact of their flights more accurately. The calculator considers a range of factors that influence emissions, making it a valuable tool for airlines and passengers alike.

By expanding its data sources through agreements with additional airlines and airline groups, IATA aims to enhance the calculation quality of CO2 Connect even further. The goal is to provide greater transparency and coherence in emissions calculations, enabling passengers and stakeholders to make more informed choices when it comes to carbon offsetting and sustainability reporting.

IATA believes that using actual operational data from airlines is the most effective way to achieve global consistency and alignment in CO2 emissions calculations. This approach minimizes the need for assumptions and ensures that emissions data is based on real-world aviation practices.

CO2 Connect currently receives operational data from around 150 airlines, allowing for more accurate calculations. It covers a wide range of factors, including fuel burn data for 74 aircraft types, representing approximately 98% of the active global passenger fleet. Additionally, it considers traffic data from 881 aircraft operators, representing around 93% of global air travel. This comprehensive data pool makes CO2 Connect a valuable tool for the aviation industry.

IATA's commitment to improving emissions calculation tools aligns with the aviation industry's broader efforts to reduce its carbon footprint and address environmental challenges. Accurate emissions data is essential for monitoring progress toward sustainability goals and making informed decisions regarding emissions reduction strategies.

As part of its ongoing efforts, IATA is also developing new features for CO2 Connect. One of these features is a white-label microsite solution tailored for airlines. This solution will allow airlines to offer their customers environmentally-conscious options for minimizing their carbon footprint through compensation features.

In summary, IATA's agreements with additional airlines and airline groups to expand CO2 Connect demonstrate the aviation industry's commitment to transparency and accuracy in emissions calculations. By using real operational data, CO2 Connect provides a more reliable tool for airlines, passengers, and stakeholders to track and reduce carbon emissions, contributing to a more sustainable future for aviation.

Emirates signs contract with Shell Aviation for SAF supply at Dubai hub

Emirates has entered into an agreement with Shell Aviation to receive over 300,000 gallons of blended Sustainable Aviation Fuel (SAF) for use at its international hub in Dubai (DXB).

Emirates, one of the world's largest airlines has entered into an agreement with Shell Aviation to receive over 300,000 gallons of blended Sustainable Aviation Fuel (SAF) for use at its international hub in Dubai (DXB). This landmark agreement marks the first time that SAF will be supplied through the DXB airport fuelling system. Emirates' commitment to environmental sustainability is evident through this partnership, aligning with its broader environmental strategy focused on emissions reduction, responsible consumption, and conservation of wildlife and habitats.

SAF is regarded as a crucial component in reducing the aviation industry's carbon footprint. It is a drop-in fuel that can be blended with conventional jet fuel at ratios of up to 50%, significantly lowering the lifecycle carbon emissions of aviation fuel. In its pure form, SAF can reduce lifecycle emissions by up to 80% compared to conventional jet fuel.

Sir Tim Clark, President Emirates Airline, said "We are proud to work in partnership with Shell to make a SAF supply available for Emirates in Dubai for the first time, and to utilise the Avelia platform that provides business travellers the flexibility to align their sustainability targets and reduce their environmental footprint when travelling. We hope that this collaboration develops further to provide an ongoing future supply of SAF in our hub, as there are currently no production facilities for SAF in the UAE. Aviation plays a vital role in Dubai and the wider UAE economy, and we look forward to continue collaborating with like-minded organisations and government entities to look at viable solutions that introduce more SAF, a fuel that is currently extremely limited in supply, into the aviation fuel supply chain and support Emirates' efforts to reduce emissions across our operations."

Key points of the agreement include:

1. SAF Supply: Shell Aviation will supply Emirates with over 300,000 gallons of blended SAF. The first delivery is expected to commence by the end of the year. This marks a significant milestone as it's the first time SAF will be supplied through DXB's airport fuelling system.

2. Environmental Tracking: Emirates will track SAF delivery and usage data through Avelia, one of the world's first blockchain-powered SAF solutions. Avelia, powered by Shell Aviation and Accenture, supported by Energy Web and American Express Global Business Travel, will enable Emirates to purchase the physical SAF and associated environmental attributes to reduce Scope 1 emissions. Shell Corporate Travel will purchase Scope 3 environmental attributes associated with the same SAF to decarbonize its related business travel.

3. Shared Environmental Benefits: The agreement demonstrates how "book and claim" solutions can enable both airlines and corporates to share the environmental benefits of SAF, thus contributing to their sustainability targets.

4. Significance: This partnership is particularly significant because there are currently no SAF production facilities in the UAE. By collaborating with Shell, Emirates is taking a step towards reducing emissions across its operations and working towards a more sustainable aviation industry.

Chu Yong-Yi, Vice President, Shell Corporate Travel said, "Emirates and Shell have a long-standing commercial relationship, and it is fantastic to build on this to now work together on decarbonisation. This agreement marks a step forward for the aviation industry in the UAE. Enabling SAF to be supplied at DXB for the first time is an important milestone, and a perfect example of how the different parts of the aviation value chain have a role to play in unlocking progress on SAF. We hope that this can act as a springboard for more action on SAF across the aviation industry in the UAE and region, delivering another step forward for our net zero emissions journey."

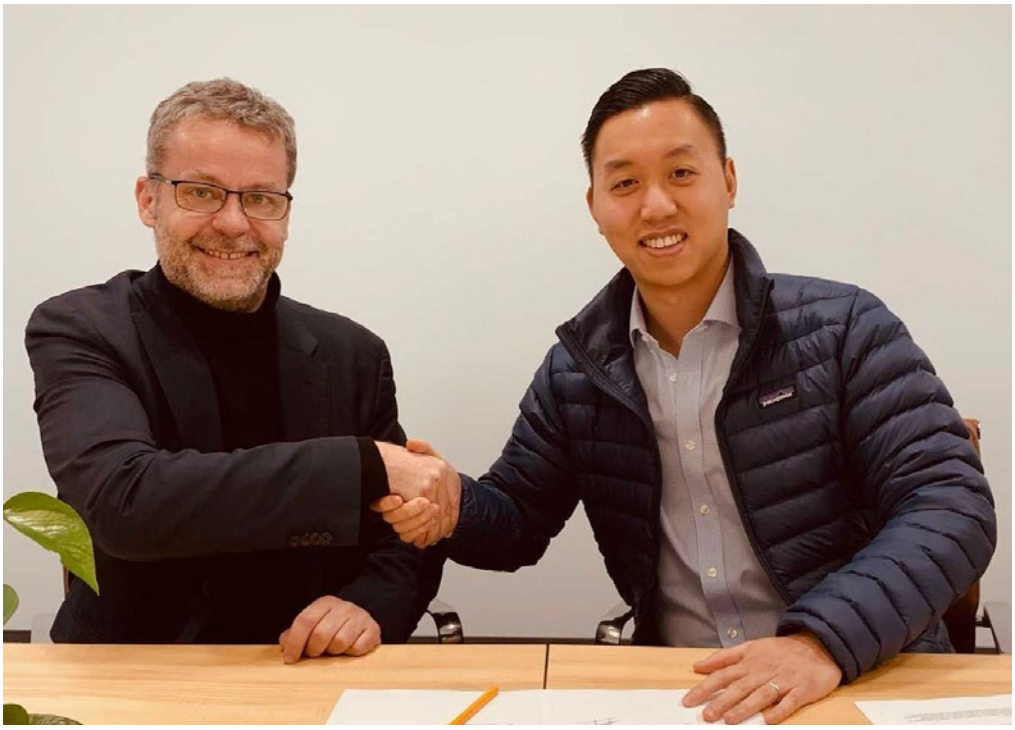
Emirates has been actively exploring the use of SAF in its operations. Earlier this year, the airline completed its first 100% SAF-powered demonstration flight in the region. It has also operated flights using blended SAF from various locations, such as Chicago, Stockholm, Paris, Lyon, and Oslo.

Emirates is engaged in various industry and government initiatives aimed at scaling up the production and supply of SAF. The airline has contributed to the development of the UAE's Power-to-Liquid (PtL) fuels roadmap, which aims to promote sustainable aviation fuels. Additionally, Emirates actively participates in the UAE's National Sustainable Aviation Fuel Roadmap, furthering its commitment to sustainability.

This partnership between Emirates and Shell Aviation represents a significant step forward in advancing the adoption of SAF in the aviation industry, supporting the sector's efforts to reduce its carbon emissions and transition towards more sustainable operations.

Safran partners with Cuberg to develop battery systems for eVTOL

Cuberg will manufacture rechargeable aviation battery systems based on its lithium metal cells, modules, and packs. Safran Electrical & Power will develop global energy storage systems.



Cuberg's battery systems are built on its configurable module, which has demonstrated a specific energy of 280 Wh/kg and an energy density of 320 Wh/L.

Safran Electrical & Power, a leader in electric aircraft systems, has entered into a collaboration agreement with Cuberg, a subsidiary of battery manufacturer Northvolt, to jointly develop an aviation energy storage system for future electric and hybrid aircraft. This partnership will combine their respective technologies and expertise to create a high-performance propulsive energy storage system. Cuberg, a vertically integrated battery provider, will manufacture and supply rechargeable aviation battery systems based on its lithium metal cells, modules, and packs. Safran Electrical & Power will design and develop global energy storage systems, including high-voltage protection components, integration, certification, and in-service support.

Cuberg's battery systems are built on its configurable module, which has demonstrated a specific energy of 280 Wh/kg and an energy density of 320 Wh/L. This specific energy is up to 40% higher than comparable modules based on lithium-ion technology, providing increased flight range and enabling new use cases for electric and hybrid aviation.

The Cuberg module features the company's 20 Ampere-hour lithium metal cell technology, which uses a lithium metal anode and proprietary liquid electrolyte to simultaneously address the challenges of high-performance cell design and manufacturability.

"We are excited to team with Cuberg as they propose unrivaled disruptive battery cell technologies associated with a best-in-class industrialization process strongly supported by Northvolt. Their unique technology, combined with our expertise in aircraft electrical systems, will enable cutting-edge energy storage systems for future platforms." said Bruno Bellanger, Vice President & General Manager of Power division, Safran Electrical & Power.

Safran Electrical & Power's collaboration with Cuberg is a significant step toward advancing electric and hybrid aviation, with the goal of creating high-performance energy storage solutions for future generations of aircraft.

Safran is a global high-technology group that operates in several key markets, including aviation (propulsion, equipment, and interiors), defense, and space. The company's overarching mission is to contribute to a safer, more sustainable world by making air transport more environmentally friendly, comfortable, and accessible. Safran is a prominent presence on the global stage, with a workforce of 83,000 employees and 2022 sales totaling 19.0 billion euros. The company holds leading positions, either independently or through partnerships, in its core markets, demonstrating its commitment to innovation and excellence.

"This partnership with Safran Electrical & Power will help both companies provide certifiable integrated battery systems to aviation customers around the world, and we are thrilled to be working with such an elite and respected provider of aviation products." said Richard Wang, CEO and Founder, Cuberg. "Cuberg has built the world's most established high-performance aviation battery systems program, and this agreement is a welcome endorsement of our technology, our people, and our vision for the future of flight," he further added.

Safran Electrical & Power, a subsidiary of Safran, is a major player in the aircraft electrical systems sector. With a workforce of 11,500 employees spread across 13 different countries, this division is at the forefront of equipment electrification and electric and hybrid propulsion technologies. Safran Electrical & Power plays a critical role in advancing aviation's electrification and sustainability efforts by developing cutting-edge solutions for the aerospace industry.

SkySelect partners with Ambry Hill Technologies to enhance supplier services

The integration of Ambry Hill's VistaQuote with the SkySelect platform automates inventory sharing, ensuring that suppliers do not miss requests for quotation (RFQ) opportunities.

SkySelect has entered into a partnership with Ambry Hill Technologies, a creator of aviation aftermarket business management software solutions. This collaboration aims to provide suppliers in the aviation industry with greater efficiency and capabilities to optimize demand. The integration of Ambry Hill's VistaQuote product with the SkySelect platform automates inventory sharing, ensuring that suppliers do not miss requests for quotation (RFQ) opportunities. It also streamlines the quote management process, significantly reducing manual work and enhancing efficiency.

One of the key benefits of this integration is the elimination of manual data entry. With VistaQuote, quotes can be sent directly from the platform to SkySelect, eliminating the need for suppliers to log into multiple systems for a single transaction.

"We pride ourselves in providing thoughtfully engineered software solutions for the aviation aftermarket," said Paul Stewart, President and CEO, Ambry Hill Technologies. "We are pleased to partner with SkySelect to offer this seamless integration with their platform, as it offers tremendous opportunities for enhancing aircraft parts distribution," he further added.

Efficient inventory sharing and quote management are critical aspects of the aviation industry, where timeliness and accuracy are paramount. By integrating VistaQuote into its platform, SkySelect aims to offer a comprehensive solution that enhances the aviation supply chain and benefits both buyers and suppliers.

"Our mission at SkySelect is to improve the entire supply chain and that means providing smart and effective tools to all parties involved instead of simply catering to the buyers," said Craig Skilton, Director of Supplier Development, SkySelect. "That's why we love partnering with companies like Ambry Hill Technologies, which build software to enhance the selling process," he further added.

This collaboration is part of SkySelect's commitment to providing innovative solutions to improve the aviation supply chain for all stakeholders.

Korean Air selects Boeing Insight Accelerator to strengthen predictive maintenance for B787 fleet

The Korean Air and Boeing collaboration will involve interpreting QAR/CPL full flight data to identify patterns related to part degradation or failure for the B787 fleet.

Korean Air is set to enhance its fleet maintenance operations by deploying Boeing's Insight Accelerator solution for its entire 787 fleet. This partnership between Boeing and Korean Air aims to leverage advanced analytics to improve predictive maintenance for the airline's aircraft. The collaboration will involve interpreting Quick Access Recorder/Continuous Parameter Logging (QAR/CPL) full flight data to identify patterns related to part degradation or failure. Boeing's Insight Accelerator solution employs powerful machine learning capabilities to make more informed decisions regarding fleet maintenance.

Korean Air has demonstrated its commitment to continuous improvement in fleet maintenance operations by establishing a Predictive Maintenance Team within its Engineering division. This dedicated team will work closely with Boeing to harness the capabilities of Insight Accelerator for more efficient maintenance practices.

"Our team recognized the capabilities of Boeing's Insight Accelerator to provide augmented analytics capabilities and statistical analysis, along with the ability to customize alerting unique to our operation," said Jonghoon OH, General Manager – Predictive Maintenance Team, Korean Air. "We look forward to working with the Boeing team to apply this tool to help us minimize unscheduled maintenance events, as we increase our efforts to greatly improve efficiency in our maintenance operations," he further added.

By transforming unscheduled maintenance into planned maintenance, Korean Air can significantly improve operational efficiency, reduce disruptions, and extend the service life of its aircraft. This proactive approach ensures more timely flights and enhanced overall performance.

Insight Accelerator is a groundbreaking solution that allows users to create custom alerts without the need for programming or coding experience. Its user-friendly interface empowers Korean Air to develop effective algorithms for prognostic insights, ultimately saving time and resources by preventing unwanted maintenance-related disruptions.

Furthermore, Insight Accelerator seamlessly integrates with Boeing's Airplane Health Management solution, which is already in use by Korean Air. This integration provides a comprehensive platform for monitoring alerts, streamlining the airline's maintenance processes.

Korean Air's adoption of Boeing's Insight Accelerator highlights the airline's commitment to staying at the forefront of predictive maintenance technology. By harnessing advanced analytics and machine learning, Korean Air aims to elevate its fleet maintenance operations, ensuring a smoother and more efficient flying experience for passengers.

RTX to build Gambit engine for DARPA

Raytheon has secured a contract from DARPA to develop the Gambit program i.e the air-breathing propulsion system that utilizes a novel rotating detonation engine.

Raytheon, a business under Raytheon Technologies, has secured a contract from the Defense Advanced Research Projects Agency (DARPA) to develop the Gambit program. This program focuses on the development of an air-breathing propulsion system that utilizes a novel rotating detonation engine. The Gambit program is a pioneering effort aimed at developing an innovative propulsion system. It employs a rotating detonation engine, which offers several advantages over conventional missile propulsion systems. These advantages include increased compactness, higher propulsion efficiency, and the potential for lower costs.

The development of the Gambit engine has significant implications for future weapons systems across multiple branches of the military. The compact and efficient nature of this engine can provide enhanced range and speed compared to current long-range weapons. This capability allows for rapid responses to advanced threats. Under the contract, Raytheon will employ an iterative development approach that involves creating performance models. These models will be informed by real-world data gathered from incremental system tests. This approach accelerates the learning process, leading to more predictable flight test outcomes while saving time and costs.

"This is a revolutionary propulsion system," said Colin Whelan, president of Advanced Technology at Raytheon. "We're leveraging existing digital design tools and experience from across the entire RTX business to rapidly prototype this next-generation strike weapon and mature the technology," he further added.

The Gambit program has future optional phases that will involve the construction of hardware for conducting a flight weight free-jet test. These phases will further validate the technology's performance and readiness.

Raytheon's contract with DARPA positions the company as the first to apply rotating detonation engine technology to an actual test system. This achievement underscores Raytheon's commitment to advancing propulsion systems and supporting the development of next-generation military technologies.

The development of the Gambit propulsion system represents a significant step forward in the field of air-breathing engines. Its potential to improve the performance and capabilities of future weapons systems is a noteworthy advancement in military technology.

Lockheed Martin completes initial flight test In U-2 Avionics Tech

Lockheed Martin Skunk Works, in collaboration with the U.S. Air Force, has completed the first flight of the U-2 Dragon Lady's ATR program, significantly representing a modernization effort for the U-2 aircraft.

Lockheed Martin Skunk Works, in collaboration with the U.S. Air Force, has successfully completed the first flight of the U-2 Dragon Lady's Avionics Tech Refresh (ATR) program. This significant milestone represents a modernization effort for the U-2 aircraft, incorporating advanced avionics and technology to enhance its capabilities.

The ATR program's success represents a critical step in the U-2's modernization efforts, aiming to become the first fully OMS-compliant fleet. Further testing will ensure a mature software baseline before the introduction of mission systems, guaranteeing functionality and interoperability to meet operational requirements.

"The successful first flight of the U-2 Avionics Tech Refresh is a significant moment in our journey to rapidly and affordably field new capabilities," said Sean Thatcher, U-2 Avionics Tech Refresh program manager, Lockheed Martin Skunk Works."Leveraging the platform's open architecture, we're expediting these capabilities needed for the future Joint All-Domain Operations battlespace," he further added.

Here are the key highlights of this achievement:

Advanced Avionics Suite: The ATR program includes an updated avionics suite encompassing communications, navigation, displays, and more. This modernization enables the U-2 to seamlessly integrate and utilize new technology.

Open Mission Systems (OMS): A new mission computer has been designed to adhere to the U.S. Air Force's open mission systems (OMS) standard. This allows the U-2 to integrate with systems across various domains, including air, space, sea, land, and cyber, even at different security levels.

Modern Cockpit Displays: The program introduces modern cockpit displays that not only simplify pilot tasks but also enhance the presentation of collected data. These improvements enable faster and more informed decision-making.

Functional Check Flight: During this mission, the U-2 aircraft conducted a low-altitude functional check flight. This flight allowed the integration of new avionics, cabling, and software to be tested successfully.

The U.S. Air Force awarded the U-2 ATR contract in 2020, with a total value of $50 million. This program underscores Lockheed Martin Skunk Works' commitment to advancing aviation technology and ensuring that the U.S. Air Force remains equipped with state-of-the-art capabilities for future battlespaces.

Lockheed Martin conducts Successful debut flight test Of Slovakian F-16 Block 70 jet

The flight test marks a major step forward for Slovakia, as it receives the F-16 Block 70 jet enhancing the air defense capabilities by receiving 14 F-16 jets in total from the program.

Lockheed Martin, a global aerospace and defense company, has achieved a significant milestone with the successful flight of the first Slovakian F-16 Block 70 fighter jet. The momentous flight took place on September 29 at 9:30 a.m. EST at Lockheed Martin's production facility in Greenville, South Carolina. Test pilot Ryan 'Cujo' Blake led the flight, conducting a series of rigorous system tests to validate the aircraft's performance and supersonic capabilities.

This achievement marks a major step forward for Slovakia, as it becomes the first European country to receive the advanced F-16 Block 70 aircraft, a testament to the nation's commitment to enhancing its air defense capabilities. Slovakia is set to receive a total of 14 F-16 Block 70 aircraft as part of this program. The country signed a Letter of Offer and Acceptance (LOA) for these aircraft in December 2018, marking its commitment to bolstering its defense capabilities with state-of-the-art fighter aircraft.

OJ Sanchez, Vice President and General Manager of the Integrated Fighter Group, Lockheed Martin said, "The Slovak Air Force is taking significant steps forward with the capabilities of the F-16. The integration of this proven platform will allow the Slovak Air Force to effectively safeguard its borders and partner with allies across Europe, NATO, and the world. The F-16 Block 70 offers allies and partners advanced 21st Century Security capabilities, affordable operating and lifecycle costs, and strategic partnership opportunities. It's a state-of-the-art fighter aircraft system that our Greenville, South Carolina, team is proud to build. The production line in Greenville is a national security asset, providing F-16 fighter capabilities to allies around the world, like Slovakia, who will rely on this platform for peacekeeping within their own borders and those of their partners."

The F-16 Block 70/72 aircraft has gained recognition and interest from multiple nations. Six countries, including Slovakia, have chosen these aircraft, and there is a significant backlog of orders, with 126 jets in the current official backlog. Additionally, Jordan signed an LOA for 12 jets in 2022, and Bulgaria signed an LOA for an additional eight jets, which, when finalized, will increase the backlog to 146 aircraft.

The F-16 has a storied history as a strategic and valuable choice for customers worldwide, offering advanced fighter capabilities, the potential for regional and global partnerships, and cost-effective lifecycle management. With more than 3,100 F-16s currently operational in 25 countries, this fighter aircraft has accumulated an estimated 19.5 million flight hours and over 13 million sorties. The latest iteration, the Block 70/72, delivers unparalleled capabilities and continues to garner interest from multiple countries, solidifying its position as a prominent aircraft in the global defense landscape.

In conclusion, Lockheed Martin's successful flight of the first Slovakian F-16 Block 70 represents a significant milestone in strengthening Slovakia's defense capabilities and underlines the continued global appeal and relevance of the F-16 family of fighter aircraft.

Airbus appoints Christian Scherer as CEO of Commercial Aircraft business

The new organizational structure with Christian Scherer as CEO is expected to be implemented over the next few months in coordination with Airbus' social partners projected January 1, 2024.

Airbus has announced a leadership change in its Executive Committee, appointing Christian Scherer as the new CEO of its Commercial Aircraft business. Scherer will report to Airbus CEO Guillaume Faury. This move establishes a dedicated leader for the Commercial Aircraft business, allowing Faury to focus on Airbus' global strategic agenda. The new organizational structure is expected to be implemented over the next few months in coordination with Airbus' social partners. The target start date for this change is projected to be in project mode from January 1, 2024.

"Since 2019, the leadership roles of Airbus and its Commercial Aircraft business have been combined, providing alignment and speed of execution during a period of multiple crises and change. Airbus has now put itself on a clear trajectory in line with its purpose of 'Pioneering sustainable aerospace for a safe and united world'. Empowering Christian in the Commercial Aircraft CEO role will enable us to reinforce focus on the success of our Commercial Aircraft business while allowing me to dedicate my time to steering Airbus in a complex and fast-evolving global environment," said Guillaume Faury, CEO, Airbus. "Christian and I have been working hand in hand over the last five years and we will continue to do so in this new configuration. I admire Christian's business acumen and I'm happy to move forward with him to deliver on Airbus' ambitions," he further added.

This leadership transition reflects Airbus' commitment to addressing the challenges and opportunities in the aviation industry with dedicated leadership for its Commercial Aircraft business, ensuring alignment with the company's broader strategic objectives under Faury's leadership.

"It is an honour and a thrill to be called upon to lead our Commercial Aircraft business at such a critical time for our industry," said Christian Scherer, CEO of Commercial Aircraft business, Airbus. "I'll put my passion and that of Team Airbus at the service of our customers to meet our operational objectives as we work to consolidate our success, continuously improve, and prepare the future of our products and services. As we do so, we will work closely with our partners and suppliers worldwide on our common roadmap to decarbonise aviation,"

This leadership change reflects Airbus' commitment to effectively address the evolving dynamics of the aviation industry. By appointing a dedicated CEO for the Commercial Aircraft business, Airbus aims to ensure focused leadership and alignment with its strategic goals while navigating a rapidly changing global environment.

Etihad Engineering names Daniel Hoffmann as CEO

Etihad Engineering has a strong track record of providing comprehensive MRO solutions to major airlines, including flag carriers, OEMs, aircraft operators, and leasing companies.

Etihad Engineering, a leading provider of aircraft maintenance, repair, and overhaul (MRO) solutions, has appointed Daniel Hoffmann as its new Chief Executive Officer. With over 20 years of experience in the global aviation industry, including leadership roles at Lufthansa Technik Sofia in Bulgaria and executive positions at Lufthansa Technik Base Maintenance facilities in Germany and the Philippines, Hoffmann brings a wealth of expertise to the role.

His experience encompasses various aspects of the aviation industry, from organizational leadership and change management to the standardization of core business functions, optimizing resource utilization, and successfully leading growth projects and negotiating joint venture partnerships.

"We are excited to have Daniel on board with Etihad Engineering as the CEO and I am confident that he will continue to drive the company's growth and success," said Abdul Khaliq Saeed.

Abdul Khaliq Saeed, has moved from the CEO role of Etihad Engineering to the position of Managing Director within an aviation group.

Etihad Engineering has a strong track record of providing comprehensive MRO solutions to a wide range of airlines, including flag carriers, OEMs, aircraft operators, and leasing companies. The company recently expanded its site area, adding more parking and hangar space to accommodate its growing business. The facility covers a total area of 545,000 square meters and includes two new hangars with three bays for freighter conversions, expanding existing hangar capacity to serve more aircraft and customers from around the world.

Daniel Hoffmann, Chief Executive Officer, Etihad Engineering said, "Etihad Engineering is one of the leading players in the aviation MRO industry, known for its workmanship, professionalism, and comprehensive capabilities. I am delighted to have the opportunity to work with its global team drawn from over 50 nationalities and look forward to leading the organization on our growth journey."

As the largest commercial aircraft maintenance, repair, and overhaul (MRO) services provider in the Middle East, Etihad Engineering offers a wide range of maintenance services, including design, advanced composite repair, cabin refurbishment, and component services. Its state-of-the-art facility is located in Abu Dhabi, adjacent to Abu Dhabi International Airport, and features 230,000 square meters of aircraft parking area, aircraft hangars covering 66,000 square meters, and a custom-designed hangar capable of accommodating up to three Airbus A380 aircraft simultaneously. The company has successfully completed maintenance projects for airlines worldwide.

Menzies Aviation names Carlos Font as new Executive VP of Air Menzies International

Carlos Font as the new Executive Vice President of Air Menzies International will be responsible for driving AMI's ambitious growth plans and further developing its innovation and digital capabilities.

Menzies Aviation, a leading global aviation services company, has appointed Carlos Font as the new Executive Vice President of Air Menzies International (AMI). Carlos, based in Barcelona, Spain, brings more than 20 years of experience in digital innovation and freight forwarding to his new role. He will be responsible for driving AMI's ambitious growth plans and further developing its innovation and digital capabilities. Carlos Font is set to assume his position as the Executive Vice President of AMI on December 1, 2023. He will be succeeding Jonathan Clark, who has decided to take on a new role.

Carlos Font joins Menzies Aviation from Shipa Freight and iContainers, where he served as CEO since 2019. Shipa Freight is a digital freight forwarder, and under Carlos's leadership, it has experienced growth and innovation in the digital logistics sector. Prior to his role at Shipa Freight, Carlos held various positions in the supply chain industry, including roles at DSV – Global Transport and Logistics and UTi Worldwide.

Philipp Joeinig, CEO, Menzies Aviation said, "I am delighted to welcome Carlos to Menzies Aviation as our new Executive Vice President of Air Menzies International (AMI). I look forward to working with him to develop AMI's innovation and digital capabilities while also progressing our growth ambitions for this very important division within Menzies."

Throughout his career, Carlos has been involved in overseeing large-scale digital transformation programs, managing international supply chain and transportation networks, and leveraging data and digital tools to optimize decision-making and operational efficiency.

Menzies Aviation is a globally recognized service partner for airports and airlines. With its extensive portfolio of aviation services, Menzies Aviation plays a crucial role in facilitating the smooth operation of airports and airlines worldwide. This appointment underscores the company's commitment to innovation and growth in the ever-evolving aviation industry.

International CALENDAR

Date	Event	Venue
17-19 Oct 2023	MRO Europe	Amsterdam, The Netherlands
17-19 Oct 2023	NBAA- BACE	Las Vegas, NV
01-03 Nov 2023	ATCA Global Conference & Expo	Washington, DC, USA
13-17 Nov 2023	Dubai Airshow 2023	DWC, Dubai
14-15 Nov 2023	Aerospace Tech Week Americas	Atlanta, USA
06 - 08 Dec 2023	Air Expo India	Indira Gandhi Intl Airport-New Delhi
20-24 Feb 2024	Singapore Airshow	Changi Exb Centre,Singapore
27-29 Feb 2024	MRO XPO INDIA	New Delhi, India
27-29 Feb 2024	Aircraft Interiors INDIA	New Delhi, India
28-29 Feb 2024	MRO South Asia 2024	New Delhi, India
9-11 April 2024	MRO Americas	Chicago, USA
17-18 April 2024	Aerospace Tech Week Europe	Munich, Germany
28-30 May 2024	Aircraft Interiors EXPO	Hamburg, Germany
02-04 June 2024	IATA AGM & World Air Transport Summit	Dubai, UAE

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