MRO BUSINESS TODAY

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Lufthansa Technik pens contract with Safran to support LEAP-1A nacelles engines powering Airbus A320neo jets

The Lufthansa Technik agreement covers more than 2,500 nacelles produced by Safran Nacelles currently in service on Airbus A320neo jets powered by CFM International's LEAP-1A engines.

Lufthansa Technik and Safran Nacelles have entered into a license agreement for the Maintenance, Repair and Overhaul (MRO) of Airbus A320neo's LEAP-1A nacelles. The agreement covers more than 2,500 nacelles produced by Safran Nacelles and currently in service on Airbus A320neo aircraft that are powered by CFM International's LEAP-1A engines. Lufthansa Technik will join Safran Nacelles' licensed MRO network and will be able to perform warranty tasks, repairs, and modifications guaranteed by the Original Equipment Manufacturer (OEM). The partnership will also enable Lufthansa Technik to offer its customers spare availability from OEM stock locations and MRO services.

The A320neo operators will benefit from Safran Nacelles and Lufthansa Technik's extensive repair experience, and a station nearby would ensure that repair time can be shortened and the cost of logistics reduced. With this partnership, both companies will ensure the highest standards in Nacelle MRO for the growing fleet of Airbus A320neo.

Alain Berger, Executive Vice President – Customer Support & Services, Safran Nacelles said, "I look forward to sharing with Lufthansa Technik our best OEM quality standards. Operators of the A320neo nacelles can, therefore, rest assured that they will benefit from the best repairs in an extensive network of global stations."

Safran is a high-technology group, contributing to a safer, more sustainable world, where air transport is more environmentally friendly, comfortable, and accessible. The company has a global presence, with 83,000 employees and sales of 19.0 billion euros in 2022, and holds world or regional leadership positions in its core markets.

Safran Nacelles designs, integrates and provides support and after-sales service for aircraft nacelles. The company is a global leader in the market for commercial aircraft with more than 100 seats, business aircraft and regional aircraft. At the cutting edge of technology, Safran Nacelles offers nacelles that are ever more integrated with the engine, aerodynamic, and lightweight with advanced acoustic treatments to contribute to the reduction of CO2 and noise emissions from aircraft.

Andreas Drosdowski, Vice President Aircraft Component Services,Lufthansa Technik, said, "We are delighted to extend our long-standing partnership with Safran Nacelles through this MRO license. The LEAP-1A engine type represents a major part of the future of Lufthansa Technik's nacelle portfolio,

and the long term commitment to providing top-level spare availability and MRO services to our valued customers."

Lufthansa Technik, with some 35 subsidiaries and affiliates, is one of the leading providers of technical aircraft services in the world. Certified internationally as a maintenance, production, and design organization, the company has a workforce of more than 20,000 employees. Lufthansa Technik's portfolio covers the entire range of services for commercial and VIP/special mission aircraft, engines, components, and landing gear in the areas of digital fleet support, maintenance, repair, overhaul, modification, completion, and conversion, as well as the manufacture of innovative cabin products.

The agreement between Safran Nacelles and Lufthansa Technik is a significant milestone for both companies in ensuring the highest standards in Nacelle MRO for the growing fleet of Airbus A320neo. The partnership will bring together the expertise of both companies to deliver world-class services to their customers ■

ST Engineering signs Maintenance Offload contract with Safran Aircraft Engines to enhance support for CFM Engines

ST Engineering has signed a three-year agreement with Safran Aircraft Engines to provide quick-turn maintenance offload support to LEAP-1A engines.

ST Engineering has signed a three-year agreement with Safran Aircraft Engines to provide quick-turn maintenance offload support to LEAP-1A engines, in a move that demonstrates the company's commitment to continuously strengthening its support for CFM engines. The deal builds on earlier maintenance offload agreements that ST Engineering signed with Safran for CFM56-5B, CFM56-7B, and LEAP-1B engines, showcasing the enduring relationship between the two companies.

As a licensed service centre for CFM56 and more recently, LEAP engines, ST Engineering and Safran Aircraft Engines have built a relationship on mutual trust. In March 2023, ST Engineering became the first MRO provider in Asia to join the LEAP MRO network under a CFM Branded Service Agreement, further deepening its level of support for CFM engines.

Tay Eng Guan, SVP/GM of Engine Services at ST Engineering said, "With this latest partnership, we will now be supporting the full range of CFM engines in offload services. As air travel continues to recover strongly, we look forward to partnering Safran Aircraft Engines even more closely to meet the forecasted rise of CFM engine MRO activities, and better support CFM operators as they ramp up their flight operations."

ST Engineering is a global technology, defence, and engineering group with a diverse portfolio of businesses across the aerospace, smart city, defence, and public security segments. The Group harnesses technology and innovation to solve real-world problems, enabling a more secure and sustainable world. Headquartered in Singapore, it has operations spanning Asia, Europe, the Middle East, and the U.S., serving customers in more than 100 countries.

ST Engineering reported revenue of $9b in FY2022 and ranks among the largest companies listed on the Singapore Exchange. It is a component stock of the FTSE Straits Times Index, Dow Jones Sustainability Asia Pacific Index, iEdge SG ESG Transparency Index, and iEdge SG ESG Leaders Index.

Nicolas Potier, EVP Support & Services, Safran Aircraft Engines' said, "We are looking forward to this new offload contract between Safran Aircraft Engines and ST Engineering that strengthens our partnership and the global MRO capacities for CFM engines. This agreement recognises ST Engineering's expertise in this field of activities."

This partnership between ST Engineering and Safran Aircraft Engines demonstrates the two companies' focus on the efficient support of airlines as they recover from the COVID-19 pandemic. As air travel continues to recover, ST Engineering is positioning itself as a leading provider of MRO services for CFM engines. The company's long-standing partnership with Safran Aircraft

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Engines and its deep expertise in the field of activities further cements its position as a trusted MRO partner for airlines operating CFM engines.

The aviation industry has been hit hard by the pandemic, with airlines seeking ways to streamline their operations and reduce costs. In response to this, MRO providers like ST Engineering are working to develop new and innovative solutions to support airlines as they recover. This latest partnership will enable ST Engineering to provide quick-turn maintenance offload support to LEAP-1A engines, enabling airlines to better manage their operations and save costs. With air travel set to continue its recovery, the partnership between ST Engineering and Safran Aircraft Engines is well-positioned to support the needs of the aviation industry ■

SR Technics forms "Sustainable Engine Alliance" with Kuehne+Nagel and Atlas Air

SR Technics, Kuehne+Nagel, and Atlas Air have formed a "Sustainable Engine Alliance" to establish standards for low-carbon aircraft engine supply chains in line with SBTi targets.

SR Technics, Kuehne+Nagel, and Atlas Air have formed a "Sustainable Engine Alliance" with a commitment to establish new industry standards for low-carbon aircraft engine supply chains in line with SBTi targets. The alliance, which represents a wide range of the aviation industry, aims to reduce their collective environmental impact by building networks for sustainable engine supply ecosystems and offering a portfolio of sustainable services. The initiative is expected to reduce engine supply chain-related scope 3 emissions in line with aviation's 2050 sustainability targets.

The initial modules of the Sustainable Engine Alliance include a global digital backbone for emission transparency, reduction, and avoidance, deployment of sustainable fuels, and engine stand management solutions. The alliance members are firmly committed to facilitating low-carbon engine supply chains and taking an active role in developing best practices.

"Sustainability is a strategic pillar of SR Technics' organization and service portfolio. By extending the engine life cycle and delivering best-in-class on-wing performance, SR Technics contributes to the environmental impact of airline operations," said Jean-Marc Lenz, CEO, SR Technics. "We are very pleased to be joining with the leaders in this growing market, and we look forward to working with them to pilot this zero-emission journey together. With Kuehne+Nagel and Atlas Air, we have experienced partners on board who support our major cornerstone in our company development to sustainable growth in the future, he further added."

With over 80,000 employees at almost 1,300 sites in close to 100 countries, the Kuehne+Nagel Group is one of the world's leading logistics providers.

The SR Technics Group is a world-leading MRO service provider in the civil aviation industry headquartered in Zurich, Switzerland. With an extensive network of partners and business development offices in Europe, America, Asia, and the Middle East, SR Technics offers comprehensive, fully customized solutions for the Maintenance, Repair & Overhaul of aircraft engines, airframes, and components, including technical support to over 500 customers worldwide.

Erik Goedhart, SVP Global Head of Aerospace, Kuehne+Nagel said, "Collaboration is key to industry-wide improvements in aerospace sustainability. With the "Sustainable Engine Alliance", we will set new standards for responsible sourcing and engine transportation, while creating further awareness within the industry to minimise environmental impact of engine supply chains jointly. I am confident that together with Atlas Air and SR Technics we will pave the way for future sustainability efforts in aerospace. And we invite other value chain companies to join us".

With over 80,000 employees at almost 1,300 sites in close to 100 countries, the Kuehne+Nagel Group is one of the world's leading logistics providers. It operates in sea logistics, air logistics, road logistics, and contract logistics, with a clear focus on integrated logistics solutions.

James Forbes, Executive Vice President and Chief Operating Officer, Atlas Air Worldwide said, "We look forward to working with Kuehne+Nagel and SR Technics to accelerate decarbonization in our combined value chain. Through our partnership, we will be developing maintenance and supply chain best practices that will guide us well into the future and help us achieve our environmental stewardship goals."

Atlas Air Worldwide is a leading global provider of outsourced aircraft and aviation operating services. It is the parent company of Atlas Air, Inc., and Titan Aviation Holdings, Inc., and is the majority shareholder of Polar Air Cargo Worldwide, Inc. The companies operate the world's largest fleet of 747 freighter aircraft and provide customers with the broadest array of Boeing 747, 777, 767, and 737 aircraft for domestic, regional, and international cargo and passenger operations ■

CTS Engines to build new headquarters in Florida to boost efficiency

The new CTS Engines facility will feature the latest advancements in engine maintenance and repair technology allowing CTS to add new engine variants, increasing the service offerings.

CTS Engines, a leading independent jet engine maintenance, repair, and overhaul (MRO) provider, has announced plans for a new state-of-the-art headquarters in Coral Springs, Florida. The company's new facility will boast over 215,000 square feet of space, doubling the current square footage and capacity. The Coral Springs facility will be located in close proximity to the company's current headquarters and is expected to induct its first engine in late-2023.

The new building will house CTS Engines' expanding operations, which have experienced significant growth over the past several years. The facility will feature the latest advancements in engine maintenance and repair technology, enabling the company to provide even higher levels of service to its customers. The new space will allow CTS to add new engine variants, increasing the service offerings to all customers.

"We are thrilled to announce our plans for a new building in Coral Springs. The new facility will allow us to expand our operations and continue to provide the highest quality MRO services to our customers," said Vesa Paukkeri, Chief Executive Officer, CTS. "Our recently constructed Turbulence Control Structure, combined with the investment in our new facility, will allow us to meet the increasing demands of our customers for years to come," he further added.

CTS Engines has built its reputation on the ability to provide its customers with high-quality, cost-effective solutions for engine maintenance. The company is a global leader in mature engine maintenance, rethinking business as usual. Since 2002, CTS Engines has proudly supported a wide range of both commercial and military customers.

Randy Mengel, Chief Operating Officer, CTS Engines said, "It's an exciting time for our company, and we look forward to the opportunities this new building will bring. The new facility will not just improve our ability to provide internal support for our existing customers' engines but also pave the way for our expansion into CF6-80E1 and PW4000 engine capabilities, thereby driving growth for our company."

The new CTS Engines Coral Springs facility will be outfitted with the latest equipment and technology.

The new Coral Springs facility will be outfitted with the latest equipment and technology to provide customers with faster turnaround times and the highest level of service. The additional space will allow the company to expand its capabilities and add new engine variants, increasing the service offerings to all customers.

The expansion of CTS Engines' operations comes at a time when the aviation industry is recovering from the COVID-19 pandemic, and the demand for MRO services is increasing. The company's investment in a new state-of-the-art facility positions them for continued success and growth in the years ahead.

In conclusion, the new CTS Engines headquarters in Coral Springs, Florida, marks a significant milestone for the company. With a doubling of the current square footage and capacity, the new state-of-the-art facility will enable CTS to meet the increasing demands of its customers and expand its capabilities, driving growth for the company ■

Image Courtesy :iStock

AIRCRAFT SPARES AND INVENTORY MARKET INSIGHTS

Aircraft aftermarket parts market size is to reach USD 43.33 billion by 2030 at a CAGR – 7.63% according to a report by Market Research Future. Forecast period 2021-2023. North America remains the leading market.

Leading Parts Company – Boeing/GE Aerospace/Honeywell/Raytheon Technologies/Textron Systems

There are myriads of components – mechanical, hydraulic, and electronic, housed inside any modern aircraft. Spare parts manufacturing and inventory management and servicing is a burgeoning business consisting of manufacturing fabricating, certifying, maintaining, supplying, and holding as stock, spares, and aftermarket parts. This includes all devices, parts, equipment, accessories, fixtures that are attached, or held as inventory. Massive operations are and will continue to see scale-up for several reasons like robust demand for commercial flights, fleet augmentation, MRO services for aging fleet, new technology for maintaining next-gen aircraft, and fleet coming back into services.

KEY DRIVERS ENABLING GROWTH OF SPARES & INVENTORY

Narrow-Body Segment to Hold Major Market Share

The narrow-body aircraft segment is estimated to hold the major market share of the market, due to the growing demand for domestic flights from low-cost carriers in the Asia Pacific and European regions. The rise in the volume of domestic travel increases the need for aircraft engine maintenance services, landing gears, and other small components related to passenger safety.

The wide-body segment is expected to grow at a significant rate during the forecast period due to the rise in the number of retired aircraft and the subsequent demand for repair or replacement of aircraft components services.

The regional jet segment is anticipated to grow at a steady rate due to the rise in business jets and private jets maintenance service requirements.

Applying Big Data and Digitisation

Induction of Big Data and Digitization in the operational processes are expected to drive the growth of spares and aftermarket parts markets. To ensure accessibility and availability of parts - spares and parts companies have been quick to leverage advanced technology like Big Data that helps streamline operational processes, and assists with predictive maintenance strategies.

Digitisation of the entire MRO process improves the visibility of the spare aftermarket and systems. Visibility thus created, helps with the management of the supply-chain, especially in vastly spread-out locations. Moreover, Next-Gen aircraft are equipped with advanced sensors that generate real-time data which is then analysed for optimising predictive maintenance algorithms and modelling processes.

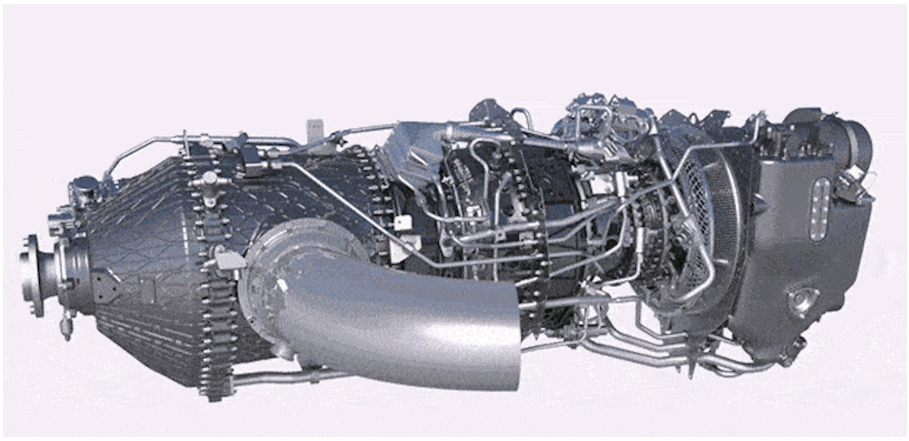
This ease of processes has given a further boost to the spares and aftermarkets business.

Demand for MRO Services to Propel Market Growth

According to Airbus SAS, the demand for commercial aircraft is estimated to be over 7,200 in the next 20 years. This will facilitate the demand for commercial aircraft PMO parts in Asian countries.

Globally, the total MRO spend is expected to rise to USD 115.9 billion by 2029, up from USD 81.8 billion in 2019. The major MRO spend is observed in the engine and airframe domain.

Growth of Used Serviceable Materials (USM)



To overcome the slump in revenue earnings due to the pandemic, airlines are paring losses by resizing their fleet size. This also includes the early retirement of aircraft and the accelerated growth of the commercial aircraft disassembly, dismantling, and recycling industry. This market has witnessed a significant growth rate since 2020, and that has increased the demand for used serviceable materials (USM). Demand for green-time engine offerings will also grow substantially, as will the markets for other expensive-to-overhaul assets such as landing gears and auxiliary power units. MRO activity will reduce with certain aircraft types retiring like the A380, MD80, 737 Classic, and DC-9.

Used aircraft parts will represent 11% of total aftermarket materials spending versus 9% in 2019.

For engine OEMs specifically, they face challenges from green-time engines being used as an alternative for engine shop visits.

Oliver Wyman recently estimated competition coming from these engines could result in a $1.75 billion reduction in engine MRO spending.

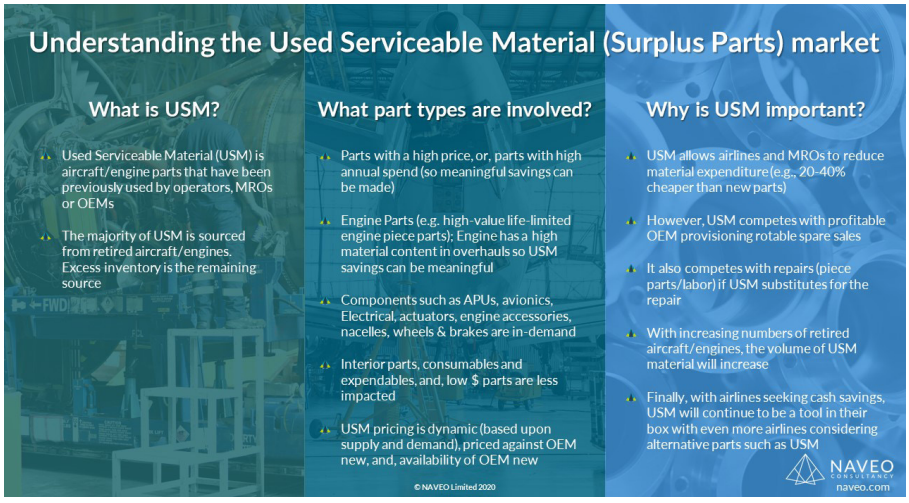


Image Courtesy :Naveo Consultancy

Demand for fuel-efficient aircraft and 3D printing in aircraft production is driving the expansion of the commercial aircraft aftermarket parts sector as well!

USM growth to the impact Materials market

USM growth impacts each main participant in the MRO materials market. For OEMs of airframe, engine, or component increased USM usage is likely to eat into new parts sales.

Several aircraft aftermarket parts providers such as General Electric Company, the Boeing Company, and other such entities prefer using USM parts from the retired aircraft to cut costs other than purchasing and using aircraft aftermarket parts.

SEGMENTATION of SPARES and AFTERMARKET PARTS BY PARTS TYPE

According to fortunebusinessinsights.com, Rotable Replacement Parts segment is expected to Grow at the Highest CAGR. The market is classified into MRO parts and rotable replacement parts.

The MRO parts segment growth is due to the rising next-generation aircraft and the growing need of the customers' maintenance demand for such advanced aircraft worldwide.

The rotatable replacement parts segment is anticipated to grow at the highest CAGR during the forecast period. The growth of the segment can be attributed to the increasing demand for scheduled checks such as class A checks, class B checks, and class D checks. The airlines are focusing more on the scheduled checks. However, every aircraft undergoes a complete check and components and systems replacement every six years. This will boost the growth of the market.

Interior Systems is set to witness the Fastest-Growing Segment

Image Courtesy : Aerospace Technology

Commercial Aircraft Aftermarket Parts Market - Growth Rate by Region (2023 - 2028)

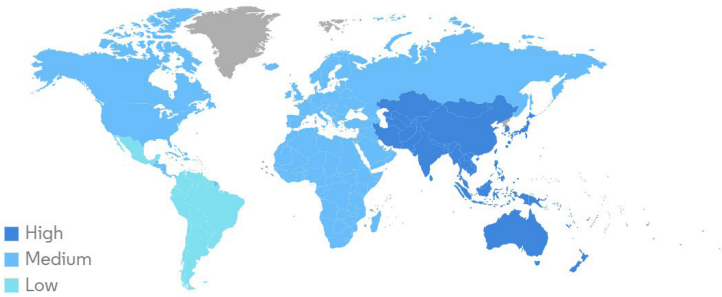


Image Courtesy : Mordor Intelligence

The global aviation PMO parts market is segmented into the engine, airframe, interior, cockpit systems, and others based on the component.

The engine segment is estimated to hold the largest aircraft aftermarket parts market share as the cost incurred in the maintenance and parts is high compared to other components.

In February 2021, Uganda Airlines signed a total care agreement with Rolls-Royce, where the latter charged Uganda Airlines on a dollar-per-flying-hour payment basis for maintenance related to Trent 7000 engines.

The airframe segment is expected to grow significantly during the forecast period due to the rise in aircraft modernization programs.

The aircraft interior segment is expected to exhibit a high growth rate during the forecast period given the demand for passenger safety and comfort. Aircraft interior refurbishment and modernizing the older aircraft with technologically advanced interior systems will continue to see an uptick.

The cockpit segment is anticipated to experience considerable growth Due to the emergence of artificial intelligence (AI) and Internet of Things (IoT) based systems and components, the cockpit segment will grow rapidly. Another segment comprises landing gear, wheels, and other components in the aircraft.

REGIONAL INSIGHTS

The global Aircraft Aftermarket Parts market is segmented into regions such as North America, Europe, Asia-Pacific, and the Rest of the World.

The **North American** market stood at USD 11.45 billion in 2020, and is expected to dominate the global market during the forecast period. This is attributed to maintenance repair and overhaul (MRO) service providers focusing on the rising investment in aftermarket facilities in the U.S. and Canada. Moreover, key players in the aviation PMO parts domain such as the Boeing Company, Collins Aerospace, and other dominant players, are in the US.

The U.S.-based firms have a strong supply chain network for MRO services and aircraft parts. Furthermore, the rise in the demand for standardization of parts manufacturer approval (PMA) processes in the U.S., will boost the market.

Europe is estimated to showcase exponential growth in the forthcoming years. The restructuring of the government norms related to the import and export of the aftermarket parts propel the growth of the market. However, the risk associated with the high fuel prices, the impact of Brexit on trades, labour shortage, and the global trade war may hamper the growth of the European countries.

The market in **Asia-Pacific** is projected to grow at the highest CAGR during the forecast period. Aftermarket parts providers are investing in establishing aftermarket hubs in countries such as Japan, Singapore, and Australia. This is set to augment spares and aftermarket parts market growth. Adding to this, several local carriers are replacing their fleet of maturing aircraft with next-gen planes.

Big players in the market like Boeing and HAECO have increased their consumables and disposable parts support agreement.

The **China** aviation PMO parts sector is expected to grow with a healthy narrow-body aircraft and related fleet services facilities in China.

The market in the **Rest of the World** is expected to grow at an exponential rate during the forecast period. The increasing number of next-generation fleet sizes in countries such as the UAE, Saudi Arabia, and Israel is expected to boost the Middle Eastern region, whereas, the growing aircraft aftermarket storage infrastructure spending by countries such as Brazil and Argentina will favour the market growth.

KEY INDUSTRY PLAYERS

MAJOR PLAYERS:
The Boeing Company
Collins Aerospace
Honeywell International Inc.
General Electric Company
Eaton Technologies
Meggitt PLC
UTC Aerospace Systems
AJW Group

KEY INDUSTRY DEVELOPMENTS SINCE 2020:

US based Barfield Inc., a subsidiary of AFI KLM E & M HAS entered a 3 -year repair agreement with AerCap Materials

Honeywell International Inc. secured an agreement of 10 years with ST Engineering to provide component MRO and warranty repair services to all Asia-Pacific operators. This agreement is for the components installed on CFM International Leap engines.

Barnes Aerospace, a business unit of Barnes Group Inc., announced its long-term agreement of 10 years with GE Aviation, a subsidiary of General Electric Corporation. In this agreement, both companies will collaborate to manufacture the LEAP engine components.

GAL, an EDGE Group company, has created the first regional aviation logistics distribution hub in Abu Dhabi, in collaboration with China National Aero-Technology Import & Export Corporation (CATIC) ■

AJW Group selected as sole aftermarket distributor for Honeywell Aerospace B787 latest products

The AJW Group agreement now covers the distribution of all Honeywell B787 Mechanical and Avionic Line Replacement Units (LRU's) fitted to current and future Boeing 787 aircraft.

AJW Group, a renowned independent aircraft supply chain solutions provider, has expanded its sole distributor agreement with Honeywell Aerospace for the global sales of 29 standard-fit avionic products and five additional mechanical products for the Boeing 787 platform. The agreement now covers the distribution of all Honeywell B787 Mechanical and Avionic Line Replacement Units (LRU's) fitted to current and future Boeing 787 aircraft. As per the agreement, AJW Group will be the sole aftermarket distributor for these LRUs, covering Initial Provisioning and ongoing purchasing requirements for all operators and integrated service providers worldwide.

The expanded distribution list covers various parts, ranging from Inertial Reference Units to Flight Control Modules, Global Navigation Satellite Systems Antenna to Active Clearance Control Valves. AJW will hold distribution inventory at their global facilities to meet the needs of worldwide B787 operators, complementing the extensive inventory of Boeing parts, maintenance, repair, and overhaul services that allow AJW to deliver complete support solutions to customers.

In addition to the sole distribution agreement, AJW Group has invested in additional Boeing 787, 737NG/MAX and Airbus A320 NEO material in serviceable and new condition from Honeywell to support their global customers.

Noelia Hernandez, Strategic Asset Manager, AJW Group, said, "We are excited to expand our partnership with Honeywell Aerospace as the sole distributor for all B787 Mechanical and Avionic LRU's worldwide. This agreement is a testament to AJW's expertise in providing world-class aircraft supply chain solutions and demonstrates Honeywell's trust in our ability to deliver exceptional customer service. We look forward to supporting B787 operators with our global inventory and complete support solutions."

The collaboration between AJW Group and Honeywell Aerospace is expected to provide efficient aircraft supply chain solutions to the aviation industry, transforming efficiency in commercial, business, and defence aviation. With operational hubs and local offices across Africa, Asia Pacific, China, CIS, Europe, Latin America, Middle East, and North America, AJW has a global presence. The AJW Technique, a state-of-the-art Component MRO facility based in Montreal, is a key part of the AJW Group.

This expansion of the sole distributor agreement between AJW Group and Honeywell Aerospace highlights the former's commitment to delivering complete support solutions to its global customers. The extensive inventory of Boeing parts and the collaboration with Honeywell Aerospace is expected to provide efficient and reliable services to operators and integrated service providers worldwide. The partnership between AJW and Honeywell Aerospace is expected to strengthen in the coming years and provide a range of services to the aviation industry ■

Diamond Aircraft Canada to deliver eight DA40 NG aircraft to Copa Airlines

Diamond Aircraft has signed an order to deliver four DA40 NG training aircraft to Copa Airlines, one of the leading airlines in Latin America, for the airlines' ALAS Academy flight school.

Diamond Aircraft has signed an order to deliver four DA40 NG training aircraft to Copa Airlines, one of the leading airlines in Latin America, for its ALAS Academy flight school. The airline aims to provide world-class flight education to train its next generation of pilots. Copa's Vice President for Flight Operations, Bolivar Dominguez, highlighted the technological advancements of the DA40 NG, stating that it will be an effective training platform for commercial cross-country navigation and instrument approach/landing procedures.

The purchase of the DA40 NG aircraft highlights Copa Airlines' dedication to investing in flight education and providing its students with the most technologically advanced training aircraft available on the market. The partnership with Diamond Aircraft Canada and D Aviation Group in Panama is set to enhance the airline's flight training capabilities and ensure its continued success in the aviation industry.

"The DA40 NG is one of the most technologically advanced training aircraft on the market and we are excited to partner with Diamond Aircraft Canada and D Aviation Group in Panama to bring it to our Academy (ALAS) to prepare our students for their future as pilots. We continue investing in flight education as we train the next generation of Copa Airlines pilots, who are the future of our airline," said Bolivar Dominguez, Vice President for Flight Operations, Copa Airlines. "These student pilots are receiving world-class flight training at ALAS Academy and I'm looking forward to the day when they join our current Copa Airlines pilots on the flight deck," he further added.

The DA40 NG is a modern and safe composite aircraft powered by the sophisticated Austro Engine 168 hp AE300 jet fuel engine. It features Garmin G1000 NXi glass cockpits and is exceptionally fuel efficient and silent. With more than 2,500 types of this aircraft in worldwide operations, it has become one of the most technologically advanced training aircraft on the market.

"Diamond Aircraft would like to congratulate Copa Airlines on the new aircraft purchase," commented Kevin Sheng, CEO, Diamond Aircraft Canada. "They will hugely benefit from the most modern piston training aircraft technology available today and Diamond's operational cost efficiencies as well as low emissions and noise signature," he further added.

Diamond Aircraft's Flight Training Solution has shaped its product line of modern fuel-efficient aircraft, each with a specific training application in mind. The company offers a complete line of piston aircraft including a dedicated flight training concept with Single Engine Piston (DA40 NG, DA40 XLT) and Multi Engine Piston (DA42-VI) trainers, along with type-specific flight training simulators and proprietary jet-fuel engines.

Copa Airlines is committed to providing the best flight education for its students, ensuring they are equipped with the necessary skills and knowledge to join the airline's current pilots on the flight deck. Bolivar Dominguez expressed his excitement for the day when these student pilots join the Copa Airlines team ■

Avolon handovers 15 Airbus A320neo jets to Vistara

Vistara has been making strides in the Indian aviation market since its inception in 2015, and this delivery of 15 Airbus A320neo aircraft will further its ambitions.

Avolon, the international aircraft leasing company, has announced the successful delivery of 15 Airbus A320neo aircraft to Vistara, a joint venture of Tata Group and Singapore Airlines. This delivery will aid Vistara's continued growth in the Indian aviation market. Vistara has been making strides in the Indian aviation market since its inception in 2015, and this delivery of 15 A320neo aircraft will further its ambitions. The airline has a strong reputation for customer service and is known for its unique cabin crew training program, which emphasizes the importance of empathy and emotional intelligence.

The successful delivery of 15 A320neo aircraft to Vistara is a positive development for both companies and the Indian aviation industry as a whole. The growth of Vistara is a testament to the potential of the Indian market, and Avolon's involvement in this delivery demonstrates the importance of leasing companies in supporting the industry.

Paul Geaney, President and Chief Commercial Officer, Avolon said, "We are delighted to have completed this delivery of 15 fuel-efficient new technology aircraft to Vistara. The rapidly growing Indian aviation market is benefitting from Vistara's continued success and we welcome the opportunity to have supported this expansion of their A320neo fleet."

The A320neo is a narrow-body aircraft that is equipped with the latest technology, making it fuel-efficient and eco-friendly. This aircraft is considered to be a game-changer in the aviation industry, providing airlines with the opportunity to reduce fuel consumption and emissions. With these aircraft, Vistara will be able to offer its customers a more sustainable and eco-friendly travel experience.

Deepak Rajawat, Chief Commercial Officer, Vistara said, "A modern and efficient fleet is the backbone of any airline operations and enables consistent growth. We are pleased to have worked with Avolon on the delivery of these 15 aircraft which enabled us to continue

our expansion and offer greater connectivity to our customers."

Avolon is a leading aircraft leasing company that provides customized leasing solutions to airlines around the world. The company has a strong portfolio of modern aircraft that are equipped with the latest technology, making them more efficient and sustainable. Avolon has a history of working with airlines to help them achieve their growth ambitions, and this delivery to Vistara is another example of the company's commitment to the industry ■

AFI KLM E&M announces latest deals and leadership changes

AFI KLM E&M supports almost 3,000 aircraft operated by 200 major international and domestic airlines.

Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) has announced the appointment of Gilles Mercier as the new Chief Executive Officer (CEO) of its American subsidiary, Barfield. He will succeed Hervé Page, who will take up a new role within AFI KLM E&M. The appointment of Mercier will be effective from July 1st, 2023.

Mercier joined Barfield about three years ago as Senior Vice President of Operations (SVP) and later became SVP of Customer Care and Business Development. Prior to Barfield, he held several positions within Air France-KLM Group, including Costing and Pricing Manager, Engine Shop Operations Manager, Air France Industries Executive VP Chief of Staff and Transformation Leader.

Barfield Inc., a subsidiary of Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) in the Americas, has secured a three-year repair agreement with AerCap Materials, the premier global distributor of airframe and engine material. The agreement covers a large scope of part numbers to help support AerCap Materials' customer base and ensure a better-quality repair service.

This agreement is crucial in supporting AerCap Materials' commitment to delivering quality products and services to meet the needs of its customers. With over five decades of experience, AerCap Materials provides trusted and innovative solutions, ranging from spares distribution to component financing, tailored to meet its customers' supply chain requirements, around the clock and around the world.

Equair, Ecuador's national airline has signed a new engine maintenance agreement with Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) for its fleet of Boeing 737NG aircraft. The contract builds on an initial agreement for component support and positions AFI KLM E&M as a trusted partner in Equair's aviation operations.

Under the new agreement, AFI KLM E&M will provide servicing and repair for the six CFM56-7B engines powering Equair's three Boeing 737-700s. As an MRO provider whose parent airline operates the 737NG, AFI KLM E&M has extensive knowledge of -7B engines, both technically and operationally. This expertise will enable Equair's aircraft to benefit from adaptive, tailored services that take into account the challenges faced by the operator ■

FL Technics to provide CAMO Solutions for Wizz Air fleet in the UK

The five-year contract will see FL Technics subcontract continuing airworthiness management tasks (SCATM) for Wizz Air UK's fleet of 16 Airbus A320 FAM aircraft.

FL Technics, a leading global provider of aircraft maintenance, repair, and overhaul (MRO) services, has signed a new contract with Wizz Air UK to provide Subcontracted CAMO (Continuous Airworthiness Management Operations) solutions to the airline's aircraft fleet operated in the United Kingdom. The five-year contract will see FL Technics subcontract continuing airworthiness management tasks (SCATM) for Wizz Air UK's fleet of Airbus A320 FAM aircraft, which currently operates 16 aircraft with potential future expansion in line with the airline's growth plans.

This new contract is an expansion of the existing FL Technics solutions provided to Wizz Air, including a similar scope of Subcontracted CAMO support for Wizz Air Abu Dhabi, which FL Technics has been providing since 2020.

Additionally, FL Technics has been providing the airline with line and base maintenance services across Europe and the Middle East.

Oleksandr Kulyk, Deputy CEO for Engineering, FL Technics said, "FL Technics engineering team has the capacity and flexibility to provide CAMO services worldwide, and we are thrilled to enter a new market, the UK, with our client and partner Wizz Air. The milestone once again proves the competencies and trust we gained over the years, to provide the highest quality engineering solutions with exceptional efficiency to the leading airlines and lessors. "For us and our clients, quality, transparency, and effectiveness are the priorities we focus on."

The services will be provided leveraging the AMOS (Aircraft Maintenance and Engineering Operating System), which allows both companies to align and maintain efficient service through each stage of operations.

FL Technics is part of the Avia Solutions Group, the world's largest ACMI (aircraft, crew, maintenance, and insurance) provider with more than 173 aircraft fleet operating on all continents in the world. The group provides various aviation services such as MRO (maintenance, repair, and overhaul), pilots and crew training, ground handling, and other interconnected solutions.

With this new contract, FL Technics is expanding its global reach and strengthening its position as a leading MRO service provider. The partnership with Wizz Air UK is a testament to the company's expertise and the trust it has earned from leading airlines and lessors worldwide ■

Airbus Opens New Research Facility in China

Airbus aims is to gather top talents and promote the development of the aerospace industry in the region.

Airbus inaugurated its Research Centre in China with a ceremony in Suzhou, China. The centre will capitalise on the highly qualified aviation and hydrogen expertise already in place in the Yangtze River Delta region. Manufacturing innovation, hydrogen infrastructure, cabin experience, and new technologies will all be researched. The goal is to attract outstanding personnel and encourage the development of the region's aerospace industry.

Furthermore, the Airbus China Research Centre will foster research and innovation initiatives with cutting-edge technology and promising market potential.

"Besides its promising aviation market China offers many advanced technological advantages in many fields." said Sabine Klauke, Airbus Chief Technical Officer. "Airbus is working with partners and with China in particular to nurture technologies, discovering different resources, introducing alternative fuels, and developing the hydrogen ecosystem as we work towards sustainable aviation. This expertise and experience will enable, to master the challenges ahead and shape the future of aviation," she further added.

The Airbus China Research Centre, strategically located in China's Yangtze River Delta Region, will benefit from the region's strong aeronautical and hydrogen supply chain. The new facility underlines Airbus' long-term commitment to develop and invest in China, as well as strengthens the Company's footprint in the nation, highlighting its position as a trustworthy partner to China ■

Spirit AeroSystems joins ST Engineering to boost nacelle MRO market presence in the Middle East

Spirit AeroSystems and ST Engineering will jointly market and offer competitive value propositions, to support commercial aircraft variants for operators in the Middle East.

Spirit AeroSystems and ST Engineering have announced the signing of an exclusive cooperation agreement to provide aircraft engine nacelle maintenance, repair, and overhaul (MRO) solutions to customers in select Middle Eastern countries, including the UAE, Qatar, Saudi Arabia, Jordan, Oman, and Kuwait. The companies will leverage their expertise and experience across various aircraft platforms to jointly market and offer competitive value propositions, intending to support a significant portion of commercial aircraft variants for operators in the Middle East.

Spirit AeroSystems' expertise lies in the design, build, and repair of select components on the nacelles of the Boeing 737 NG/MAX, 747, 757, 777, as well as the Airbus A320ceo and A330. Meanwhile, ST Engineering has expertise in design, build, and repair of select components on the nacelles of the Boeing 747, 767, and Airbus A330, A320neo. ST Engineering also holds MRO licenses for the Boeing 787 and Airbus A320neo LEAP engine nacelles, along with MRO expertise in the A320ceo and Boeing 737 NG/MAX.

"The cooperation will allow two strong MRO players to offer one-stop, comprehensive MRO solutions for our Middle Eastern customers. We will be able to pool our resources, offer our joint MRO capacity, and coordinate with our recently announced regional partners JORAMCO and GMR to deliver best-value MRO solutions. We are excited about the potential of this long-term exclusive cooperation in the region," said Kailash Krishnaswamy, Senior Vice President, Spirit Aftermarket Services.

Spirit's Aftermarket business has grown substantially in recent years, with the acquisition of select Bombardier maintenance, repair and overhaul operations in Belfast, Northern Ireland, and Dallas, Texas; the acquisition of assets from Applied Aerodynamics in Dallas, Texas, USA; and the signing of a joint venture agreement with Evergreen Aviation Technologies Corporation in Taiwan.

Since 2022 the last year, Spirit Aftermarket services has opened Spirit Evergreen Aftermarket Solutions (SEAS), a joint venture with Evergreen Aviation Technologies Corp. in Taiwan; signed agreements with Guangzhou Aircraft Maintenance Engineering Company Limited (GAMECO) in China, with GMR Aerotechnic in India, and with Jordan Aircraft Maintenance Company (Joramco) in Jordan, to be Spirit Authorized MRO centers, and signed a MOU with Malaysia Airlines Berhad (MAB) to develop maintenance, repair, and overhaul services.

Goh Poh Loh, Executive Vice President and Head of Component Services, ST Engineering said, "By bringing together the expertise and solution suites of both companies, ST Engineering and Spirit AeroSystems can cater to much of the nacelle MRO needs of operators in the Middle East. Under such an arrangement, customers can have the convenience of one-stop-shop services and yet enjoy a wide scope of services, which we believe is a huge value add that allows airlines to focus better on their flight operations."

The Aftermarket business revenues of Spirit have grown from $186 million in 2019 to $311 million in 2022. Meanwhile, ST Engineering's Commercial Aerospace business had revenue of over $2 billion in 2022, supporting airframe, engine, and components globally, and is the world's largest airframe MRO solutions provider.

ST Engineering supports more than 1,000 aircraft and provides integrated component solutions for over 23,500 unique aircraft parts, with more than 80,000 components delivered annually from its component MRO facilities located in Asia and Europe. Its global nacelles MRO services operate out of facilities located in the U.S., Asia, and Europe ■

CPaT Global signs new training support contract with Etihad Aviation Training

CPaT will provide Etihad Aviation Training Aircraft Systems, Interactive Diagrams, and the Cabin Crew Training Suite to support Etihad Aviation Training's in-flight training programs.

CPaT Global, the leading provider of distance learning solutions for the aviation industry, has announced a strengthened partnership with Etihad Aviation Training, one of the most reputable aviation training organizations in the Middle East, Asia, and Africa regions. The enhanced partnership will enable CPaT to provide its comprehensive training solutions, including Aircraft Systems, General Subjects, Interactive Diagrams, Aircraft Procedures, and the all-new Cabin Crew Training Suite to support Etihad Aviation Training's in-flight training programs.

The partnership with Etihad Aviation Training will enable CPaT to support the aviation industry in achieving its training goals by delivering practical, forward-looking, and invaluable training solutions. Through its software-as-a-service applications, CPaT serves more than 300 global aviation customers, providing training to over 100,000 individual users and delivering over 1.8 million hours of training each year.

Captain Greg Darrow, Vice President of Sales at CPaT Global said, "We are thrilled to partner with Etihad Aviation Training and provide our comprehensive training solutions to their airline clients. Etihad Aviation Training provides the very best training for pilots and cabin crew in the region, and we are proud to support Etihad Aviation Training in their commitment to provide fully integrated solutions that help their clients achieve their training goals."

Etihad Aviation Training, which is located in Abu Dhabi, offers an extensive portfolio of courses and programs covering all areas of aviation training, from pilots and cabin crew to maintenance and engineering. The organization is an Approved Training Organization and boasts a state-of-the-art facility equipped with full flight simulators, FBS/APTs, and cabin safety devices that enable it to provide flexible training programs designed to meet customer requirements.

Captain Paolo La Cava CEO, Etihad Aviation Training said, "We are delighted to extend our relationship with CPaT. Over the years, they have provided a smart solution to our training needs and expanding customer portfolio. We are growing the business in other regions, and we believe CPaT will provide the flexible and robust solution required for our clients."

The partnership between CPaT Global and Etihad Aviation Training highlights the importance of providing practical

and innovative training solutions that meet the evolving needs of the aviation industry. Through this partnership, CPaT Global and Etihad Aviation Training will continue to deliver quality training to the aviation industry, helping it to achieve its training goals while remaining competitive in an ever-evolving industry.

In conclusion, CPaT Global and Etihad Aviation Training's strengthened partnership is a testament to their commitment to providing practical and innovative training solutions to the aviation industry. The partnership will enable both organizations to leverage their expertise and resources to deliver comprehensive and flexible training programs that meet the evolving needs of the aviation industry ■

Israel Aerospace Industries and Sharp and Incheon International Airport to open facility for Boeing 777 P2F conversion

IAI with Sharp Technics K and IIAC will convert Boeing B777-300ER aircraft, starting in 2024, recently completing a test flight of a 777 after P2F conversion, the first of its kind in the world.

Israel Aerospace Industries (IAI) has signed an agreement with Sharp Technics K and Incheon International Airport Corporation to establish a facility for the passenger-to-freight conversion of Boeing 777-ERSF aircraft. The signing ceremony took place at South Korea's Incheon International Airport, in the presence of senior officials and representatives of each of the companies.

The collaboration agreement will see IAI convert Boeing B777-300ER aircraft, starting in 2024. IAI's Aviation Group recently completed a test flight of a 777 after it underwent passenger-to-cargo conversion, the first of its kind in the world. The company is also in the final stages of receiving the necessary licensing approval, a process expected to be concluded within the year.

Boaz Levy, IAI's President and CEO, said, "The signing ceremony held today reflects our close technological partnerships and business collaboration with the Republic of Korea. ROK and IAI are natural partners, sharing values and a bright vision of mutual technological innovation. We are happy to promote local partnerships and work together on developing advanced solutions for present and future changing needs. IAI offers a wide variety of defense solutions and technological advancements for the region and for the Republic of Korea."

Wide-body freighter aircraft capable of long-haul flights, such as the 777, are in high demand, and the conversion of these planes will allow them to carry loads of up to 100 tons. Analysts predict that the significant fuel savings resulting from the conversion will make the 777 one of the most popular freighter aircraft in the world, joining IAI's family of converted aircraft, which includes the Boeing 747, 767, NG737, and Classic 737.

Shmuel Kuzi, Executive VP and General Manager, IAI's Aviation Group said, "Today's signing of the agreement with Sharp and Incheon International Airport represents a direct continuation of the many collaboration agreements already existing between IAI and South Korean companies and underscores the confidence that the company has in South Korea's ability to set up a conversion facility within the required timetable, while training the necessary personnel. IAI's Aviation Group is a world leader in the field of wide-body passenger-to-freight aircraft conversions and operates several such lines in Israel and around the world. I look forward to expanding our strategic cooperation with Korean companies and with the South Korean government."

Israel Aerospace Industries (IAI) is a world-leading civil aviation, defense, and space company that develops sophisticated solutions in the air, in space, on land, at sea, and in the fields of cybersecurity and homeland defense. The company is active in both civilian and military markets, combining Israel's "start-up nation" spirit of innovation with decades of proven operational experience. IAI's customers benefit from pathbreaking solutions tailored to the specific challenges they face. Among the company's customers are the world's leading logistics companies, including Amazon, DHL, and FedEx ■

Piper Aircraft PA-46 single-engine turbine-powered jets can now fly on Sustainable Aviation Fuel

Piper Aircraft has announced the use of Sustainable Aviation Fuel (SAF) in all its PA-46-based single-engine turbine-powered aircraft, including the M600/SLS, M500, and Meridian models.

Piper Aircraft, a leading general aviation aircraft manufacturer, has announced the use of Sustainable Aviation Fuel (SAF) in all its PA-46-based single-engine turbine-powered aircraft, including the M600/SLS, M500, and Meridian models. The FAA has approved the use of SAF through SAIB NE-11-56R4, and it is available for use in every country where turbine M-Class aircraft operate. The new SAF designation is Jet A and Jet A-1, and its introduction to the Piper turboprop line will not require any change in aircraft placarding or Pilot's Operating Handbooks.

According to the company, any jet fuel that meets the requirements of the ASTM D7566 Standard Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons can be used in Piper turbine-powered aircraft. This fuel is usually made from fatty acids or other synthetic components and is acceptable for use on aircraft and engines certified for use with D1655 fuel, commonly known as traditional Jet A and Jet A-1 fuel.

This announcement comes after Piper's commitment to promoting sustainability in general aviation, which was initially revealed at EAA AirVenture 2022. The company is collaborating with CAE on an electrically powered conversion kit for in-service Archer TX aircraft. Upon certification, CAE plans to convert two-thirds of its existing Piper Archer TX training fleet, making it the first to develop a curriculum for new pilots to conduct training in an electric airplane. These Archer TX advancements will significantly reduce carbon emissions while preparing pilots to operate greener, electric aircraft.

"We are pleased with the continuous improvements made to our products, especially in regards to environmental consciousness," said Ron Gunnarson, Vice President of Sales, Marketing, and Customer Support, Piper Aircraft. "Prioritizing sustainability in our aircraft as technological advancements allow is important to Piper Aircraft, first seen in our electric Archer TX/CAE partnership and now with Sustainable Aviation Fuel compatibility in our turboprops. We are committed to a safer, greener aviation industry," he further added.

Piper Aircraft Inc., headquartered in Vero Beach, FL, offers aviators throughout the world efficient and reliable single- and twin-engine aircraft. It is the first general aviation aircraft manufacturer in the world to certify Garmin Autoland. The M-Class series, including the M600/SLS, M500, and M350 models, offers businesses and individuals elegant performance, value, and a superior ownership experience.

The Personal Class Archer LX and Archer DLX balance proven performance, efficiency, and simplicity in a piston-powered aircraft. The Trainer Class Pilot 100i, Archer TX, Archer DX, and Seminole aircraft form the most complete and technically-advanced line of pilot training aircraft in the world. Piper is a member of the General Aviation Manufacturers Association.

Air Canada procures 9.5 Million litres of Sustainable Aviation on Earth Day

Air Canada has partnered with SAF producer, Neste, to use Neste MY Sustainable Aviation FuelTM from San Francisco International Airport.

Air Canada announced on Earth Day the decision to purchase 9.5 million litres of Sustainable Aviation Fuel (SAF) to power its flights, furthering its commitment to sustainability and reducing its carbon footprint. The airline has partnered with SAF producer, Neste, to use Neste MY Sustainable Aviation FuelTM from San Francisco International Airport. This move is a five-fold increase in Air Canada's SAF procurement year over year and supports its target of using one per cent SAF by 2025, on the journey to achieving its 2050 net-zero decarbonization goals.

The purchase of 9.5 million litres of SAF will generate a reduction of approximately 23,500 tonnes of CO2e, equivalent to the annual GHG emissions absorbed by 28,000 acres of forest, according to the U.S. Environmental Protection Agency equivalencies calculator. Powering aircraft with SAF directly reduces GHG emissions at the source and is widely recognised as a key lever towards achieving aviation's GHG emission reduction goals. Neste MY Sustainable Aviation FuelTM has the potential to reduce GHG emissions by up to 80% over the fuel's lifecycle, compared to conventional jet fuel.

"At Air Canada, we have adopted a multifaceted approach to addressing climate change and sustainability. Environmental and social factors are incorporated into our strategic decisions, as are our fleet purchases and daily operations through our support of low-carbon alternatives. SAF comprises one of our core pillars in pursuing our net-zero emission targets. We have been purchasing Neste's SAF

since February 2022. Today's announced purchase represents a five-fold increase in our SAF procurement year over year and is an important step towards our target of one per cent fuel to be SAF by 2025, supporting our journey towards our 2050 net zero decarbonization goals," said Michael Rousseau, President and CEO, Air Canada.

Air Canada's Leave Less Travel Program allows corporate customers and cargo freight forwarders to purchase SAF, carbon offsets or a combination of both to offset or reduce GHG emissions related to business travel or cargo shipments, mitigating their carbon footprint. This program is part of Air Canada's comprehensive initiatives being implemented as part of its Climate Action Plan.

However, the current global SAF supply remains extremely limited, costly, and insufficient to support worldwide demand. Therefore, Air Canada looks forward to working with the Government of Canada to advance the availability and generate a meaningful supply of Canada-produced SAF for commercial aviation, which would also support Canada's position on climate change, the country's environment goals, as well as the Canadian aviation industry, an important economic contributor.

"Decarbonising aviation is more important than ever and Neste is committed to helping the aviation industry move towards a more sustainable future. We are proud to support Air Canada in working towards their ambitious goal of net-zero emissions from all its global operations by 2050 by supplying Neste's SAF which helps enable airlines to reduce their emissions. We look forward to continuing to work together as we increase our annual SAF production capability to 1.5 million tons per annum by the end of 2023," said Michael Sargeant, Vice President Americas from the Renewable Aviation business unit, Neste.

Air Canada has been a founding member of the Canadian Council for Sustainable Aviation Fuels (C-SAF), a not-for-profit organization seeking to accelerate the commercial production and use of Canadian-made SAF, since 2022. Air Canada has also been a signatory of the Clean Skies for Tomorrow Coalition and a founding member of the Aviation Climate Taskforce (ACT), established to accelerate research and advance innovation related to emerging decarbonization technologies, including through the development of sustainable aviation fuels.

Air Canada continues to work towards its ambitious goal of net-zero emissions from all its global operations by 2050, with absolute midterm GHG net reduction targets by 2030 for both its air and ground operations compared to its 2019 baseline. The airline has purchased 2,399,435 litres of SAF since 2012 and remains committed to reducing its carbon footprint and promoting sustainable aviation.

GE Digital forms alliance with FlightSafety International for efficient simulator data analysis

FSI will use GE Digital's Flight Analytics platform to analyze data generated by its advanced flight simulators improving the safety and effectiveness of its pilot training services.

GE Digital, a prominent provider of aviation software, has extended its partnership with FlightSafety International (FSI), a leading provider of aviation training and simulation solutions. Under the partnership, FSI will use GE Digital's Flight Analytics platform to analyze data generated by its advanced flight simulators. The collaboration will help FSI improve the safety and effectiveness of its pilot training services, backed by decades of experience in engineering and manufacturing.

FlightSafety International's flight simulators are widely used as pilot training tools by commercial, government, and military organizations. By utilizing GE Digital's expertise in data analytics, FSI aims to unlock new insights to enhance the performance of its flight simulators and deliver training via improved training scenarios. These insights will enable FSI to increase the performance and safety of its services and improve pilot performance, safety, and training effectiveness.

"Sophisticated flight simulator technology is critical to train pilots and prepare them to deal with real-world scenarios, such as technical faults or adverse weather events," said Andrew Coleman, General Manager of GE Digital's Aviation Software business.

GE Digital's Flight Analytics platform provides airlines, managers, and pilots with aircraft-wide time series flight data and analytics derived from this data to improve flight safety. The solution enables them to optimize operating procedures, reduce risk, and lower carbon emissions. By providing fuel efficiency analytics, the platform helps operators fly safely and efficiently, identifying cost-saving opportunities and quantifying the results.

"GE Digital's Flight Analytics platform will help FSI unlock new, data-driven insights from our simulators. Combining the two technologies is a big step towards helping to enhance the pilot training process, including everything

from improving decision-making, reducing errors, and enhancing safety and efficiency," said Richard Meikle, Executive Vice President of Operations and Safety, FSI.

FlightSafety International is the world's premier professional aviation training company and a supplier of flight simulators, visual systems, and displays to commercial, government, and military organizations. The company provides training for pilots, technicians, and other aviation professionals from 167 countries and independent territories. FlightSafety operates the world's largest fleet of advanced full-flight simulators at learning centers and training locations in the United States, Canada, France, and the United Kingdom.

The partnership between GE Digital and FlightSafety International is a significant milestone toward advancing the aviation industry's training and safety standards. The data-driven insights from GE Digital's Flight Analytics platform will help FSI enhance the pilot training process and equip pilots with the necessary skills to handle real-world scenarios confidently. The collaboration is expected to have a positive impact on the aviation industry's overall efficiency, safety, and environmental performance ■

AMETEK MRO Drake Air completes integration of repair capabilities for Hughes-Treitler heat transfer systems

Drake Air is approved to solicit repair business globally, and its partnership with Hughes-Treitler has enabled it to expand into new markets and strengthen the AMETEK presence.

AMETEK MRO Drake Air, a global leader in commercial and defense-related aerospace aftermarket MRO solutions, has announced the full integration of repair capabilities as an authorized repair center for all AMETEK Aerospace & Defense Hughes-Treitler's commercial and military products. With this agreement, Drake Air is approved to solicit repair business globally, and its partnership with Hughes-Treitler has enabled it to expand into new markets and strengthen the AMETEK presence. Drake Air provides Hughes-Treitler with a worldwide network of sales professionals and MRO capabilities that further support its global customer base.

Drake Air's partnership with Hughes-Treitler delivers value to customers through comprehensive aftermarket component repair capabilities underpinned by OEM quality. With exclusive access to OEM documentation, technical support, and materials, Drake Air has built a range of workscopes that better support the wide range of customers flying with Hughes-Treitler products.

"The AMETEK Hughes-Treitler portfolio has a strong suite of thermal management products deployed across commercial and military platforms," said David Bentley, Divisional Vice President & Business Manager, Drake Air. "Since we became an Authorized Repair Center we have demonstrated our commitment to continuous improvement with a dedicated programme to boost skills and streamline technical processes. This partnership has enabled us to expand into new markets and strengthen the AMETEK presence. Our relationship with Hughes-Treitler delivers value to our customers through comprehensive aftermarket component repair capabilities underpinned by OEM quality," he further added.

Bentley added that Drake Air is quickly building business from commercial airlines, military customers, and the business aviation sector. The crucial benefits Drake Air offers as an MRO are speed and flexibility. The partnership with Hughes-Treitler enables Drake Air to stay abreast of the market with an inside track to changes and developments that improve the repair of heat transfer parts.

Drake Air is an AS9100/9110-certified MRO Center of Excellence with capabilities to fabricate, manufacture, and repair aluminum and high-temperature alloys. The company specializes in the maintenance, repair, and overhaul of heat transfer components, including heat exchangers, pre-coolers, oil coolers, and fuel heaters for all types of commercial, regional, general aviation, military, and rotor wing aircraft.

David Bentley, Divisional Vice President & Business Manager, Drake Air said, "The crucial benefits we offer as an MRO are speed and flexibility. Our partnership with Hughes-Treitler enables us to stay abreast of the market with an inside track to changes and developments that improve the repair of heat transfer parts. In return, Drake Air provides Hughes-Treitler with a worldwide network of sales professionals and MRO capabilities that further support its global customer base."

AMETEK Hughes-Treitler offers a wide range of commercial and military products for thermal management solutions, specializing in heat exchangers, surface coolers, condensers, and evaporators for a wide range of working fluids. AMETEK MRO, a division of AMETEK, is a leading global provider of maintenance, repair, and overhaul services for commercial, regional, military, and general aviation aircraft.

AMETEK MRO has 14 locations around the world and approximately 800 employees across its businesses: AEM, Aeromedic, Ameron, AMETEK Singapore, Antavia, Avtech Avionics and Instruments, B&S Aircraft, Drake Air, Muirhead Avionics, and Southern Aeroparts. The company services more than 40,000 aircraft components, with capabilities including avionics, fuel, heat transfer, landing gear, hydraulics, pneumatics, power, safety and medical, wheels and brakes, and more ■

Bombardier secures regulatory certifications to install Smart Link Plus System on active Challenger and Global jets

The move enables operators of all in-service Bombardier Challenger and Global aircraft to install the innovative Smart Link Plus aircraft health management system on their business jets.

Bombardier, a global leader in aviation, has announced significant advancements in its Smart Link Plus connected aircraft system. The company has secured critical approvals from regulatory authorities including Transport Canada (TC), the European Union Aviation Safety Agency (EASA), and the Federal Aviation Administration (FAA) for nearly its entire fleet of Challenger and Global aircraft. This move enables operators of all in-service Challenger and Global aircraft to install the innovative Smart Link Plus aircraft health management system on their business jets.

Smart Link Plus is an advanced health monitoring system that collects critical aircraft data, enabling flight and maintenance crews to prioritize and troubleshoot in-flight alerts proactively, thereby increasing an aircraft's operational efficiency. With access to detailed maintenance data in real-time, operators can make concrete maintenance decisions quickly and efficiently, streamlining their operations.

The Smart Link Plus system was first introduced on the Bombardier flagship Global 7500 aircraft, and customers have benefited significantly from its advanced data-driven capabilities. A large majority of current Global 7500 aircraft customers have enrolled in the Smart Link Plus service, and Bombardier has been gradually expanding the program to offer retrofit options to its in-service fleet of Challenger and Global aircraft. The Smart Link Plus system will also be installed as a standard feature on all new Global 8000 aircraft.

Paul Sislian, Executive Vice President Aftermarket Services & Strategy, Bombardier said, "The Smart Link Plus system is fundamentally changing the way Bombardier supports its customers. With Smart Link Plus, customers can make concrete maintenance decisions in real-time – significantly enhancing the efficiency of their operations."

With the Smart Link Plus system, ground crews can use the program's remote parameter display to monitor an aircraft independently while in-flight, assisting in finding the root cause of potential issues. During flight, the system automatically sends ground crews ▸

takeoff, landing, and in-flight fault notifications together with contextual data, allowing the flight crew to focus on other tasks. Full flight data is automatically transmitted and accessible once the aircraft has landed, providing additional information required to troubleshoot more complex faults.

The aircraft data is displayed in an intuitive, user-friendly Bombardier application called the myMaintenance App and is available anytime, anywhere on any personal electronic device. Bombardier's 24/7 Customer Response Centre (CRC) and dedicated team of experts and specialists can support troubleshooting efforts using the myMaintenance App and mobilize additional support as required.

Bombardier is working to finalize all regulatory approvals for operators of Challenger 604 and Global 5500 and Global 6500 aircraft, with approvals expected from late 2023 through early 2024. With the recent expansion of Bombardier's worldwide Service Centre network, the introduction of several new products and services, and the latest developments in the Smart Link Plus system, Bombardier is committed to providing customers with the best service experience in the industry.

Bombardier's Challenger and Global aircraft families are renowned for their cutting-edge innovation, cabin design, performance, and reliability. With a worldwide fleet of approximately 5,000 aircraft in service, Bombardier aircraft are trusted by multinational corporations, charter and fractional ownership providers, governments, and private individuals around the world. Bombardier aircraft are also widely used in government and military special-mission roles, leveraging Bombardier Defense's proven expertise ■

ATR partners with Swiss-AS to boost MRO digitalization

ATR and Swiss-AS will work together to improve and customise the integration of ATR maintenance data into the AMOS software provided by Swiss-AS to ATR operators.

ATR, the world's leading regional aircraft manufacturer, has announced a partnership with Swiss-AS, a leading MRO (Maintenance, Repair, Overhaul) software company, to improve the digitalisation of airline maintenance management. This collaboration is the first between an aircraft manufacturer and an MRO software company, and the two partners will work together to improve and customise the integration of ATR maintenance data into the AMOS software provided by Swiss-AS to ATR operators.

The goal of this partnership is to enable airlines to digitalise their maintenance management in the most efficient way possible, with software tailored to their needs and operational constraints. At present, the integration of technical publications provided by the OEM (Original Equipment Manufacturer) into the software solution is the responsibility of the operator and often requires the use of standalone systems and various middleware to manage data integrity and revisions. By improving and customising the integration of ATR maintenance data into the AMOS software, this partnership will help operators save both time and money.

Fabiano Faccoli, CEO, Swiss-AS said, "We are pleased to sign this partnership with ATR. It represents a step further in supporting operators throughout their digital transformation, making the most of ATR's expertise as a manufacturer and Swiss-AS' proficiency in digital maintenance management. This will help them save both time and money."

Swiss-AS has become a fixture in the MRO software market, combining 30 years of innovation and excellence in the area of IT and aircraft maintenance. Swiss AviationSoftware Ltd. (Swiss-AS) is a 100% subsidiary

of Lufthansa Technik and is embedded into their Digital Tech Ops Ecosystem. Profitable from the first day and highly successful over the last years, Swiss-AS has laid the foundation for a trend-setting future by strongly and continuously investing in manpower as well as research and development.

Stefano Marazzani, SVP Customer Support and Services, ATR said, "An aircraft is only valuable when it is flying, which is why, over 20 years, ATR has been helping to increase operators' fleet time and reduce their costs by optimising maintenance and repair processes. This contributes to making regional air transport more reliable, accessible, and sustainable. Through this joint initiative with Swiss-AS, we continue to innovate and develop solutions through digitalisation to better support our customers in managing their in-service fleet including technical and logistic systems. This partnership will integrate our customers' requirements in terms of maintenance planning and management with an end-to-end approach to evolve our service and support offering."

By combining ATR's expertise as an aircraft manufacturer with Swiss-AS's proficiency in digital maintenance management, this partnership will enable airlines to streamline their maintenance processes and reduce costs. As the industry moves towards greater digitalisation, partnerships like this will become increasingly important in helping airlines to maximise the value of their assets and improve their operational efficiency ■

8tree introduces dentCHECK2 handheld aircraft inspection device

The dentCHECK2 platform has been designed around the company's successfully established measurement engine, with a focus on simplicity, usability, and efficiency.

8tree, a leading provider of precision 3D measurement solutions for the aviation industry, has unveiled the next-generation version of its popular dent-mapping tool, dentCHECK2. The announcement was made at the MRO Americas conference in Atlanta, USA. Over the past decade, 8tree's dentCHECK has established itself as the world's only handheld-portable, completely wireless 3D scanner tool with integrated augmented reality (AR) that is purpose-built for the aviation maintenance industry. With over 150 systems deployed globally among more than 4-dozen customers, the next-generation dentCHECK2 is expected to take the industry by storm.

The dentCHECK2 platform has been designed around the company's successfully established measurement engine, with a focus on simplicity, usability, and efficiency. With a significantly more compact form-factor, lighter weight, built-in LTE connectivity, zero setup time, and a streamlined user experience, the new tool is set to deliver instantly actionable precision 3D measurements within seconds, at the push of a single button.

The dentCHECK platform has been recognized by all major aerospace OEMs, including Airbus, Boeing, Bombardier, and Embraer. It can also be found integrated into drones and robotic automation cells. Leading airlines and MROs across the commercial, military, cargo, and business aviation sectors use 8tree's dentCHECK tool and dentCHECK-as-a-service for mapping aircraft damage and creating detailed SRM-compliant digital damage reports.

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"Everything we do at 8tree is shaped by insights from our customers – the world's leading MROs, Airlines and OEMs; our next-gen dentCHECK offering is no exception", said Arun Chhabra, CEO, 8tree. "By redesigning the tool around our successfully established measurement engine, we continue to build on our core principals of simplicity, usability and efficiency. This enables us to deliver instantly actionable precision 3D measurements within seconds, at the push of a single button. Some of the numerous improvements include significantly more compact form-factor, lighter weight, built-in LTE connectivity, zero setup time and a streamlined UX. Stop by booth #4745 at MRO Americas to get a hands-on demonstration of dentCHECK2", he further added.

From spot-checks, to hail-damage assessment, to nose-to-tail inspections during lease returns/redeliveries, dentCHECK empowers operators to assess airframe damage up to 90% faster and with 35x greater measurement accuracy and consistency than traditional methods. This has a direct impact on reducing turn-around-times and boosts operational efficiency. dentCHECK enhances safety through an improved understanding of airframe reliability.

With built-in AR, 8tree's tools empower operators of every skill-level to achieve accurate, consistent, and actionable inspection results within seconds. To learn more about how dozens of airlines/MROs are using dentCHECK, visit the company's website and read its customer testimonials.

Overall, the new dentCHECK2 promises to take dent-mapping to the next level by delivering faster, more precise, and more consistent results. With the aviation industry under constant pressure to reduce costs and improve efficiency, tools like dentCHECK2 are set to become an essential part of the maintenance and repair process ■

Baykar Technologies conducts fifth flight test of Bayraktar Kızılelma drone

During the test, Bayraktar Kızılelma performed various maneuvers with its landing gear both open and closed, passing all other flight training and test center maneuver tests successfully.

Baykar Technologies, a leading Turkish defense company, has announced the successful completion of the fifth system identification test for Türkiye's first indigenous unmanned fighter aircraft, Bayraktar Kızılelma. The Chief Technology Officer of Baykar Technologies, Selçuk Bayraktar, shared the news through a video post on Twitter.

During the test, Bayraktar Kızılelma performed various maneuvers with its landing gear both open and closed, passing all other flight training and test center maneuver tests successfully. This significant milestone followed the successful integration of its engine test in September 2022, and the successful

completion of taxi and ground driving tests two months later.

Bayraktar Kızılelma, an unmanned fighter aircraft developed by Baykar Technologies, is expected to make a difference on the battlefield, particularly with its "landing and take-off capability on ships with short runways." The drone will have a payload capacity of 1,500 kilograms and a flight range of 930 kilometers, with an operating altitude of 10,668 meters. Bayraktar Kızılelma can operate for five hours and has a maximum speed of 900 km/h.

Bayraktar Technologies is one of the most renowned defense companies in Turkey, specializing in the design and production of unmanned aerial vehicles (UAVs), including the Bayraktar Tactical UAV, Bayraktar TB2, and Bayraktar Akıncı. The company's success in the development of unmanned aerial vehicles has made a significant contribution to the country's defense capabilities ■

GE Aerospace to support avionics and electrical power systems for Lockheed Martin F-35 fighter jets

GE Aerospace has signed a four-year global performance-based logistics deal with Lockheed Martin to provide MRO services for electrical power systems on the F-35 Lightning II aircraft.

GE Aerospace has signed a four-year global performance-based logistics (PBL) deal with Lockheed Martin to provide maintenance, repair, and overhaul services for avionics and electrical power systems on the F-35 Lightning II aircraft. The deal will strengthen GE Aerospace's commitment to making the F-35 more affordable to operate as the aircraft's fleet continues to expand. Under the agreement, GE Aerospace will service F-35 systems at their repair and maintenance locations in California, Georgia, and Utah, as well as GE sites at Grand Rapids, Michigan, Long Island, New York, and Cheltenham, United Kingdom.

GE Aerospace has supported the F-35 since its inception and has extensive experience in maintaining the following systems: Electrical Power Management System, Standby Flight Display, Remote Input Output Unit, Aircraft Memory System, Fuselage Remote Interface Unit and Missile Remote Interface Unit, Engine Distress Monitoring System, and Ingested Debris Monitoring System.

"The F-35's reliability and mission readiness remain an essential focus," said Chris Newman, F-35 senior program manager, GE Aerospace. "As the F-35 fleet continues to expand, we've taken aggressive actions to strengthen lead time, supply availability and delivery to our customers. This Global PBL deal underpins our relentless drive to make the F-35 ever more affordable to operate," he further added.

GE Aerospace is a world-leading provider of jet engines, components, avionics, and electrical power systems for commercial and military aircraft with a global service network to support these offerings. The company, along with its joint ventures, has an installed base of more than 40,000 commercial and 26,000 military aircraft engines.

Lockheed Martin is an American aerospace and defense company that designs and manufactures advanced technologies to meet the needs of military, civil, and commercial customers worldwide. The F-35 Lightning II is a multirole fighter aircraft designed to perform ground-attack and air-superiority missions. It is one of the most advanced fighter jets in the world and is in service with the air forces of several countries, including the United States, Australia, and Japan.

The F-35 Lightning II is a critical asset for the militaries of many nations and requires reliable maintenance and repair services to remain mission-ready. With this new PBL deal, GE Aerospace and Lockheed Martin aim to ensure that the F-35 fleet is maintained to the highest standards and is always ready to support the needs of their customers ■

StandardAero names Lloyd Barker as Senior Vice President for LEAP Program Industrialization

StandardAero has made key appointments and initiatives in support of its long-term CFM Branded Service Agreement to provide MRO services for the LEAP-1A and LEAP-1B engines.

StandardAero, a leading global provider of aircraft maintenance, repair, and overhaul (MRO) services, has announced several key appointments and initiatives in support of its long-term CFM Branded Service Agreement (CBSA) to provide MRO services for the LEAP-1A and LEAP-1B engines. Lloyd Barker, who joined StandardAero in 2018 as Senior Vice President of Engineering & Quality, has been appointed to the newly created position of Senior Vice President of LEAP Program Industrialization and Executive Site Leader for StandardAero's San Antonio site. In his new role, Barker will lead StandardAero's efforts to establish the new LEAP-1A/1B MRO line at its San Antonio facility.

To support the LEAP stand-up activities, StandardAero has established a dedicated Program Management Office (PMO), led by Ron Gillette, to drive the formal New Product Introduction (NPI) process. The goal is to induct the first Quick Turn (QT) engines in early 2024, followed by full Performance Restoration Shop Visits (PRSVs) in early 2025.

Tim Mathis has been appointed as Vice President of Components & Accessories (C&A) Technical Operations and LEAP Industrialization. Mathis will lead the division's Repair Development Center of Excellence (RDCoE) and support component and accessories repairs related to the introduction of the LEAP line in San Antonio. In addition, StandardAero has launched its first wave of LEAP-related recruitment, with positions currently being recruited for key leadership posts, critical initial capability roles, and MRO technicians.

Lewis Prebble, President of Airlines & Fleets, StandardAero said, "Our CBSA agreement for the LEAP-1A/1B represents the largest single potential growth opportunity in StandardAero's more than 100 year history, and the importance to us of delivering on our promises to CFM and its customers is reflected in these new appointments. StandardAero will apply the breadth of our talent, technology and overall company resources to standing up our new LEAP capability, while still meeting all of our commitments to current programs and customers."

Under the CBSA agreement, StandardAero became part of CFM's authorized MRO network for the latest generation LEAP-1A and LEAP-1B engines, providing a full range of MRO services to operators worldwide. The LEAP-1A engine powers the Airbus A320neo family, while the LEAP-1B is the exclusive powerplant for the Boeing 737 MAX series aircraft.

StandardAero will showcase its capabilities at MRO Americas 2023, taking place April 18-20 at the Georgia World Congress in Atlanta.

With over 600 operators worldwide, CFM International is the world's leading supplier of commercial aircraft engines. The company produces the LEAP family of engines, which sets the industry standard for efficiency, reliability, durability, and optimized cost of ownership for narrowbody aircraft.

The new appointments and initiatives by StandardAero demonstrate the company's commitment to delivering on its promises to CFM and its customers, and to establishing itself as a key player in the MRO services market for the latest generation LEAP engines ■

Air India reserves top Engineering position for Vistara's Sisira Dash Appoints Dash as Chief Technical Officer (Head of Engineering)

Air India is all set to appoint Vistara's Sisira Kanta Dash as their Chief Technical Officer (Head of Engineering), effective June this year, according to media and industry sources. News of this key development in the higher echelons of the Management at Air India is being viewed by industry watchers as a precursor to the impending merger of Air India and Vistara.

The merger of the two airlines is pending regulatory approvals as was mentioned by Air India's CEO Campbell Wilson, earlier this year.

Sisira Dash, who is currently the Head of Engineering at Vistara, will be taking over as Chief Technical Officer of Air India from the current incumbent Mr. Arun Kashyap, who will be moving out to pursue other

opportunities, according to sources.

At a time, when massive aircraft orders have been placed by Air India, Sisira Dash would have his job cut out as CTO, and would need to bring his wealth of experience to the fore, not just for the maintenance of AI 's massive fleet going forward, but refurbishing the cabin interiors reflecting the airline's newest brand values.

International CALENDAR 2023

2023-2024

Date	Event	Venue
02-04 May	NBAA Maintenance Conference	Hartford CT
03-05 May 2023	Rotorcraft Asia and Unmanned Systems Asia 2023	Singapore
16-18 May 2023	IATA Ground Handling Conference	Abu Dhabi
17-18 May 2023	MRO AUSTRALASIA	Brisbane, Australia
17-18 May 2023	Asia Connect MRO	Istanbul
23-25 May 2023	NBAA – EBACE	Geneva
01-03 June 2023	FRANCE Air Expo	France
07-08 June 2023	ELTF EUROPE	London, UK
14-15 June 2023	Dubai Heli Conference 2023	Dubai
04 Sept 2023	Airport Innovation conference	Riyadh
13-14 Sept 2023	AERO-ENGINES EUROPE	Madrid, Spain
22-23 Sept 2023	Aerospace & Defence MRO Karnataka	Bengaluru, India
25-27 Sept 2023	Airspace Integration Congress	Madrid, Spain
26-27 Sept 2023	Helitech Expo	London
26-28 Sept 2023	World Aviation Festival	Portugal
26-28 Sept 2023	MRO ASIA-PACIFIC	Singapore
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
17-18 April 2024	Aerospace Tech Week Europe	Munich, Germany

For Editorial : **editorial@mrobusinesstoday.com**
For Advertisement : **advt@mrobusinesstoday.com**
Contact Us : **info@mrobusinesstoday.com**