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HAECO launches Lotus cabin design concept for A319neo

The "Lotus" aircraft cabin design is adaptable for Airbus, Boeing as well as other aircraft manufacturers' aircraft types.

HAECO Private Jet Solutions has launched the newly developed "Lotus", a new cabin design concept for the Airbus A319neo aircraft. As the name suggests, the latest state-of-the-art cabin concept was developed by HAECO taking inspiration from the lotus bloom. The Asian art deco cabin is jointly created by HAECO Xiamen and MBG International Design, LLC ("MBG"). The aircraft cabin design is adaptable for Airbus, Boeing as well as other aircraft manufacturers types. HAECO Private Jet Solutions is a cabin specialist unit of HAECO Xiamen.

The "Lotus" cabin is developed with an aim to offer time-pressured business travelers and VIPs a practical, uncluttered and fluid living space as well as comfort in a modern and oriental-style surrounding, with a range of options for business and pleasure.

"We are delighted to introduce a brand-new cabin design

that can be adapted to many aircraft types," said Kevin Guan, Chief Executive Officer, HAECO Xiamen. "It is the first collaboration between HAECO Xiamen and MBG, offering a simple, clean and comfortable design with a touch of Oriental connotation," he further added.

The state-of-the-art Lotus cabin comes with two lounges and can carry up to 19 passengers. A signature feature of the concept is the iconic dual-purpose dining room at the center of the cabin, which can be converted into a "Mahjong" area for the guests to unwind and socialize in a spacious area after dinner. HAECO Group comprises 16 operating companies, employing around 15,000 staff in Hong Kong, the Chinese Mainland, Europe and the United States.

"'Lotus' is a cutting-edge design inspired by the oriental culture and a successful collaboration between MBG and HAECO Xiamen," said Nikki Gledhill, Chief Executive Officer and Creative Director, MBG. "Sharing common values on quality designs, we look forward to creating more timeless spaces with HAECO Xiamen in the future."

HAECO Group is one of the world's leading aircraft engineering and maintenance service providers. The company provides a comprehensive range of solutions encompassing airframe services, line services, cabin solutions, private jet solutions, fleet technical management, inventory technical management, component overhaul, aerostructure repairs, landing gear services, engine services, global engine support, parts manufacturing and technical training.

American Airlines to launch new Flagship Suite seating for upcoming Airbus and Boeing fleet

The new state-of-the-art seating and cabin interiors will be fitted in the new Airbus A321XLR and Boeing 787-9 aircraft which are expected to be delivered to the airline in 2024.

American Airlines aims to take passenger comfort and luxury a few notches up by giving customers a suite new ride. American Airlines plans to unveil its new Flagship Suite premium seating and a reimagined aircraft interior for its long-haul fleet. The new state-of-the-art seating and cabin interiors will be fitted in the new Airbus A321XLR and Boeing 787-9 aircraft which are expected to be delivered to the airline in 2024. The Flagship Suite seats will offer customers a private premium experience with a privacy door, a chaise lounge seating option and more personal storage space.

American Airlines aims to grow the premium seating on its long-haul fleet by more than 45 percent by 2026.

Customers will receive the service of tailored luxury in their private retreat in the sky in American's premium cabin. With the introduction of new interiors on its long-haul aircraft, American Airlines aims to grow the premium seating on its long-haul fleet by more than 45 percent by 2026. American's Boeing 787-9 aircraft will have 51 Flagship Suite seats and 32 Premium Economy seats, and the airline's Airbus A321XLR aircraft will feature 20 Flagship Suite seats and 12 Premium Economy seats.

Members of American's AAdvantage loyalty program can earn miles through everyday activities such as shopping and dining that they can use for award tickets to experience American's new Flagship Suite seats when it debuts in 2024. American was the first U.S. airline to debut long-haul Premium Economy seats in 2016. According to the airline, the addition of even more Premium Economy seats to its long-haul aircraft is being done in response to customer demand. The new custom-designed Premium Economy seat creates more privacy and doubles the amount of in-seat storage space.

"We are enhancing the customer experience across their entire journey with American," American's Vice President of Customer Experience Julie Rath said. "The arrival of new long-haul aircraft and the customized seat design of the Flagship Suite seats will offer customers a truly private premium experience on our long-haul fleet," she further added.

American Airlines will also be retrofitting its aircraft, the Boeing 777-300ER, to include Flagship Suite seats. These 20 aircraft will be refreshed with new interiors starting in late 2024. American's aircraft will feature more premium seats than its current design, with 70 Flagship Suite seats and 44 Premium Economy seats.

American will also retrofit its Airbus A321T fleet to align those 16 aircraft with the rest of its A321 fleet. American will continue to offer lie-flat seats on its transcontinental routes departing New York and Boston along with its Northeast Alliance partner, JetBlue Airways, providing travelers with a premium experience and the opportunity to arrive refreshed after a cross-country flight.

Gulfstream flight-tests second outfitted G700 aircraft

The aim of the second G700 test aircraft is to ensure the maturity, durability and comfort of more cabin elements that were introduced with the G700's launch in 2019.

Gulfstream Aerospace Corp has recently announced that the company has successfully completed the flight test of a second fully outfitted Gulfstream G700 production-test aircraft. The completion of the test adds an additional testing platform for the most spacious cabin in business aviation. The aircraft has joined the first outfitted Gulfstream G700 that was introduced by the company. Gulfstream Aerospace Corp is a designer, developer, manufacturer, and service provider for business jet aircraft.

According to Gulfstream the aim of the second G700 test aircraft is to ensure the maturity, durability and comfort of more cabin elements that were introduced with the G700's launch in 2019. This also includes the all-new ultrahigh-definition dynamic circadian lighting system which is an optional feature capable of replicating sunlight.

The Gulfstream-designed system mixes warm white, cool white and amber LED lights and spans from 0.01 brightness to 100%, allowing it to simulate sunrise to sunset. The lighting can also be programmed individually for each cabin zone, tailored to passenger preferences and specific activities, such as dining or working.

"With its combination of cabin size and technological enhancements, the G700 interior presents an abundance of opportunity for customization," said Mark Burns, president, Gulfstream. "As part of our goal to exceed customer expectations, we are testing even more G700 cabin elements to ensure interior comfort and reliability, With two outfitted G700 test aircraft now flying, we can showcase even more of the interior flexibility of this aircraft and the passenger benefits gained from the award-winning comfort and signature cabin environment the G700 provides on globe-spanning flights," he further added.

The latest G700 outfitted aircraft also includes a grand suite and newly designed spacious lavatory with natural light, full vanity and shower, as well as a six-place dining area with a fully expandable, self-contained table.

Additional features available on the G700 jet include configurations of up to five living areas and the industry's longest galley with 10 feet/more than 3 meters of counter space. The G700 design is complemented by the Gulfstream Cabin Experience with fresh air, the lowest cabin altitude in the industry, a plasma ionization clean air system, whisper-quiet sound levels and 20 of the largest windows in the industry.

West Star Aviation to offer Lufthansa's niceHD CMS system for Challenger 300 retrofit

The niceHD is a fully integrated, Ethernet backbone CMS system, providing cabin control and entertainment features.

West Star, an airframe repair company, has announced the decision to offer the Lufthansa niceHD CMS system as a retrofit option in the Bombardier Challenger 300 aircraft. The niceHD is a fully integrated, Ethernet backbone CMS system, providing cabin control and entertainment features. This system is a natural fit in the Challenger 300 because it is installed in the Challenger 350 at the factory. West Star Aviation specializes in airframe repair, maintenance, engine repair and maintenance, modifications, avionics installation and repair.

The Lufthansa niceHD has been chosen to replace the existing Audio International cabin management system in the earlier serial number Challenger 300s. According to West Star Aviation, the currently equipped Audio International system lacks support and can be problematic to the operator when a switch panel or piece of hardware fails.

Lufthansa has created a standard package for the Challenger 300 with an aim to keep the costs down and still provide a tremendous amount of value to operators with unsupported CMS equipment. Adding the niceHD can give the Challenger 300 a similar look and feel as a new Challenger 350 Downtime is expected to initially be in the 6-8 range, but is expected to turn even faster. This installation is available at all four full-service locations (ALN, GJT, CHA, PCD).

The new upgrade provides fresh 4.3" touchscreen switch panels at each passenger seat, a 7" galley touchscreen, 22" and 20" HD LCD bulkhead monitors with HDMI/USB media input ports, Media Center with Blue Ray player, AVOD server and a new HI-FI audio system. Bluetooth modules supply headphone audio and allow for music streaming, and USB-C charging at each seat.

Lufthansa supplies tear drop-shaped bezels to make the transition from Audio International passenger seat switches simple and easy with minimal impact to the drink rail. Lufthansa membrane switches will replace the other entire various cabins switching such as entryway and lavatory swathes.

AIRCRAFT INTERIORS – CABIN SAFETY AND AIRWORTHINESS

It is not all 'sugar and spice and all that is nice'. Airline companies and aircraft manufacturers vie with each other to provide plush, quiet cabins, smart and soothing colour schemes reflecting an airline brand, ambient lighting that mimics the sky by night or day, luxury seats that effortlessly glide into flattest of beds, ergonomically superior economy class seats, streamlined storage and the best of entertainment on tap, and much more. Basically, every convenience that lets flyers arrive at their destinations, refreshed.

Yet, beneath all the cosmetics is a far serious concern at play – that of safety and survivability. It's priority number one and will always remain of paramount importance. Designing cabin interiors is pure science with art infused. Cabin interiors are enhanced for comfort and importantly must be rendered safe to travel in. Here, there is an ongoing effort for increasing the chances of survival in case of an accident or incident during take-off or landing. This is made possible by using aviation complaint materials to make or fabricate, amongst other important areas of consideration. Cabin crew training and compliance with regulators' mandates are equally important to make a cabin experience safe and as accident and incident free as possible. Passenger and crew safety is brought about by proactive safety management, timely hazard identification, risk management, and with prioritising survivability in an emergency situation.

Image Courtesy : Airbus image for reference only

Image Courtesy: Airbus image for reference only

Making airline operations safer

Learning from each other, based on research on past accidents and incidents, crunching tons of data, manufactures, carriers, regulators and airport operators across the globe, work closely to improve overall safety in airline operations. For this, modifications and innovative changes are carried out in the designing of aircraft and cabins, and as per regulator guidelines, newer operating laws are applied for operations to remain airworthy.

Aircraft cabins are fitted with emergency provisions that are life-saving like passenger oxygen supply, emergency equipment, seats, flammability, emergency exits, emergency lighting and escape path markings, and other safety enhancing systems.

Controlling cabin environment, cooling and ventilation requirements, and more recently making cabins safe from the spread of the covid infection, are important issues that are addressed in cabin maintenance and management.

Ensuring cabin safety behind the scenes, are a host of professionals and technical staff whose close cooperation and inputs contribute to achieving safety standards. These are engineering and certification managers, design engineers, airworthiness and certification engineers, program managers, consultants, agency representatives from Federal Aviation Administration, EASA and respective DGCAs who are responsible for airworthiness certification, and other technical and administrative personnel involved.

Survivability is key and cabin safety mandated standards if not adhered to, do not get the necessary certifications and that hampers airworthiness the main eligibility criteria for operating.

Boeing 787 (2011)

"Title 49 U.S.C. empowers FAA to prescribe regulations and minimum safety standards and requires air carriers to provide service with the highest possible degree of safety in the public interest. Air carriers, are responsible for safety management, quality assurance and quality control", as is mentioned in the faa.gov website.

Likewise, the European Union Air Safety Agency (EASA) and the Director General of Civil Aviation (DGCA)s of various countries would have similar responsibilities and service objectives in place.

Some cases of safer air travel and survivability

Most incidents and accidents occur during take-off or landing, and some events listed below highlight how passenger jet interiors have been reinforced to avoid or contain fatalities: (reference Boeing Aero Magazine)

- In December 2008, an airplane crashed while taking off, ending up on fire in a 40-foot-deep ravine several hundred yards from the runway. There were no fatalities among the 115 passengers and crew, even though the metal fuselage had been breached by fire.
- In August 2010, an airplane crashed while attempting to land during poor weather, breaking into three pieces on impact. There were 125 survivors among the 127 passengers and crew aboard the flight.

The three areas that airplanes are worked upon for safety and survivability are: surviving impact, surviving a fire, and evacuation.

Surviving impact, where survivability is dependent on hugely by the seat design. By remaining in place, the seats are able to absorb energy during an impact. This allows greater chances of survival for the passenger. Again, in order to prevent head injury, the seat back designs protect passenger seated behind a seat from such an injury.

Safety Factor in Seat design

Seat designs have undergone a sea-change in terms of safety and airworthiness. In the 1930s, passenger airplane seats could withstand a static force six times the force of gravity (6g). Today's seats are required to withstand a 16g dynamic force. A 16g seat is tested in a manner that simulates the loads that could be expected in an impact-survivable accident.

Head injury protection

There is a Head Injury Criterion (HIC) mandated by the U.S. regulator FAA

must be adhered to, to provide maximum protection from head injuries which may happen during turbulence or accidents. The head impact with seats or other structures should not exceed this head injury criterion.

Protection from Cabin Fire and Flashovers

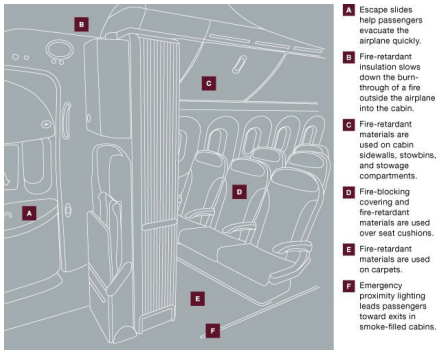
Over the years new testing methods are being developed by the FAA for fire proofing large surfaces in cabin interiors such as panels, ceilings, walls, overhead bins, and partitions. August 1988 onwards all commercial aircraft manufactured has had to use panels that display reduced heat and smoke emissions, delaying the onset of a flashover (i.e., the simultaneous or near-simultaneous ignition of all flammable material in an enclosed area). Furthermore, cabin / aircraft interiors are constantly updated with upgrades and refurbished several times, with safer materials in the event of cabin fire. Older aircraft too by default get the newer versions of refurbishment.

Effective August 1990 manufacturers are mandated to apply certain standards such as - maximum peak heat release, that is a limit of a maximum total heat release of 65 kilowatt minutes per square meter, and specific optical smoke density of 200 OSU 65/65/200 fire safety standard as defined by Ohio State University.

smoke detection and fire extinguishing systems, and insulation blankets that are burn-through resistant from a fuel fire next to the bottom half of the fuselage.

Evacuating the airplane

The time limit set by the FAA is 90 seconds for evacuation of all passengers from an aircraft. A typical aircraft interior has several built-in features such as escape slides, floor proximity slides that allow rapid emergency handling essential for survivability.



Floor proximity lighting aids airplane evacuation under dark or smoky conditions that pervade an aircraft cabin in the event of a crash. The presence of hot smoke and gases filling up a cabin block out overhead lighting and hence floor lighting marking out an emergency path on the floor of an aircraft cabin

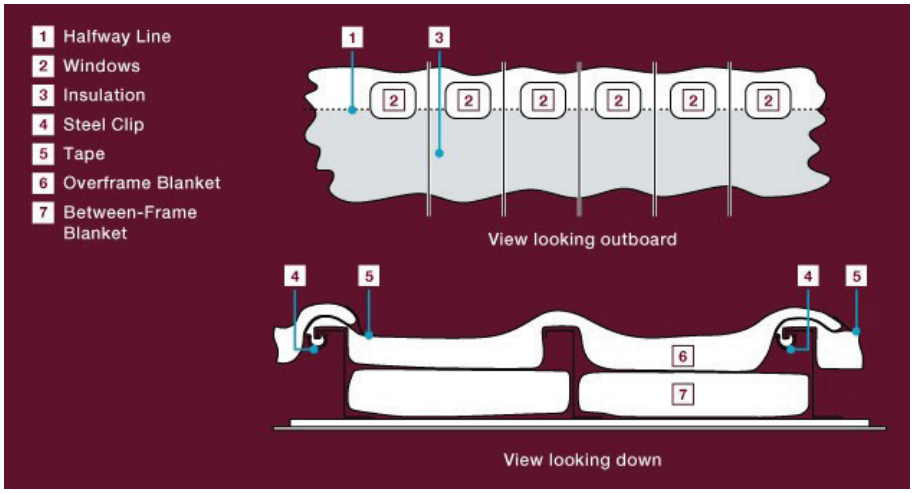


Image Courtesy : Boeing Aero Magazine. Fire-protective insulation blankets are designed to resist burn-through from a fuel fire next to the bottom half of the fuselage.

Throughout the passenger aircraft interior, manufacturers build in comprehensive fire protection systems, that use the use of fire-protective materials, assist evacuation very effectively. In fact, according to FAA, such a system betters the evacuation rate by twenty percent in some situations.

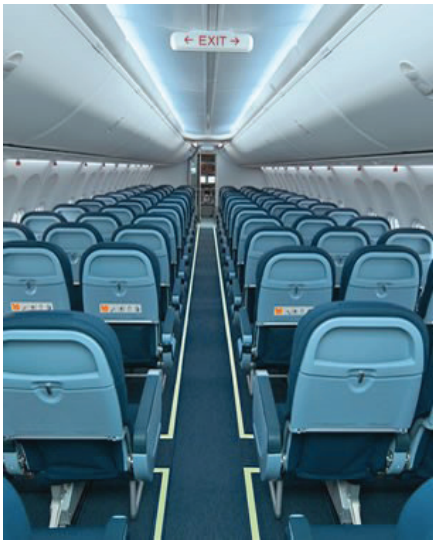


Image Courtesy: Boeing Aero Magazine: Floor proximity lighting

Escape slides/Chutes

Passenger airplanes are equipped with automatic, self-inflating slides that are made of fire-resistant materials and tested stringently to ensure 90 seconds limit of evacuation of passengers in an emergency. Safety regulations require 60 persons to be evacuated per sliding lane per minute. Such is the stringent nature of quality checks as the objective is about saving lives. New technologies and research data from past events have gone into developing the most advanced escape slides aiding survivability.
First put into service as the modern-day escape slide in 1971, superior fabrication and a host of tests for durability in tough situations such as burning resistant tests, latest radiant heat requirement tests, resistance to fluids, exposure to sun and many more. The door slides are mandated to inflate in 10 seconds of deployment, with off-wing slides given a 15 second

limit. These escape slides are made for all types of aircraft sizes and tested to withstand multiple contingencies.

Testing, Training and more... extensive test programmes are carried out by both the escape slide manufacturer and the airframe manufacturer to ensure the escape slide system meets all performance requirements. And all other aspects of safety and survivability undergo the same regime.

Importantly, IATA's Cabin Operations Safety Guide can be regarded as the bible for carriers. Best and recommended practices that are benchmarks, are imbibed by managements of airline companies. Regulations rolled out under ICAO'S Annex 6, ensure efficient cabin operations, cabin product and service design, and delivery of same in a safe manner. Cabin Safety is a vital part of any Safety Management System (SMS). Attending IATA's annual Cabin Operations Safety Conference (COSC) and similar such, are important events to attend for gaining valuable knowledge and insights, which adds to one's expertise.

Safety compliance by Airline Manufacturers /Certification and airworthiness

Product certifications are provided by aviation authorities. Aircraft manufacturers ensure compliance through design and certification of products, maintenance and retrofits, flight and cabin crew training. Some examples are Airbus approaches EASA, for various approvals, including monitoring of in-service safety through approved EASA Part-M Continuing Airworthiness Management Organisations (CAMO). Similarly, American plane makers like Boeing will be under the purview of FAA for certification of transport category cabin interiors as enlisted in FAA's Part 25 Transport Category, which explains aircraft cabin interior safety and crashworthiness regulations and compliance requirements.

Regardless of whether it is a simple modification, a customised business jet for a VIP, or airline passenger seating configuration, airworthiness personnel must understand and adhere to these requirements. While cabin interior emergency provisions are critical items to check off, equally important are environmental, cooling and ventilation standards and their maintenance, as per FAA's CFR Part 25 Airworthiness Standards and similar.

Continuous audits by regulators, and additionally third-party audits are conducted for quality certifications.

Reference Credit:
Websites of Boeing, Airbus, IATA, ICAO
mpofcinci.com
sae.org

SR Technics to support Garuda Indonesia CFM56-7B Engine for Boeing 737 fleet

The contract will allow SR Technics and Garuda Indonesia to explore areas of cooperation by providing the best quality service in engine support for B737NGs.

SR Technics, an engine MRO service provider, has signed a multi-year CFM56-7B Engine Support contract with PT Garuda Indonesia (Persero) Tbk. The engines' power the PT Garuda Indonesia Boeing 737 Next Generation aircraft. The contract will allow SR Technics and Garuda Indonesia to explore areas of cooperation by providing the best quality service in engine support for B737NGs.

The signing of the multi-year engine support contract was held at the MRO Asia-Pacific event in Singapore, ("Garuda"). The Boeing 737 Next Generation aircraft is commonly abbreviated as 737NG or 737 Next Gen. It is a narrow-body aircraft powered by two jet engines and

is produced by Aircraft manufacturer Boeing Commercial Airplanes.

"This is a great step forward for us in the Asia market, we look forward to continuing cooperation with Garuda Indonesia Airlines and strengthening our partnership even more." said Caroline Vandedrinck, Senior Vice President Business Development, SR Technics. Jean-Marc Lenz, Chief Executive Officer at SR Technics, stated "With previous work history, we are glad to welcome back Garuda Indonesia at our facilities. As a company with a great committed team, customer centricity, and professional standards, SR Technics will undoubtedly provide great engine service support".

Garuda is Indonesia's flagship carrier and with its fleet of commercial aircraft connects over 60 destinations around the globe. Garuda will send CFM65-7B Engines to the SR Technics facility in Zurich for MRO services in effort to continue its relationship with SR Technics.

GA Telesis Engine Services to support CFM56-7B Engines powering Lion Air Group Boeing 737NG fleet

GATES will cover the maintenance and repairs of the CFM56-7B engines that power the Lion Air Group airlines Boeing 737NG fleet including Batik Malaysia & Thai Lion Air.

GA Telesis Engine Services ("GATES") has entered into a long-term engine maintenance contract with Lion Air. According to the agreement signed between the two companies GA Telesis Engine Services will cover the maintenance and repairs of the CFM56-7B engines that power the Lion Air Group airlines Boeing 737NG fleet (including Batik Malaysia & Thai Lion Air). In addition, it includes lease engine support, LLP management, and logistics support.

The first engine under this contract will be inducted in GATES in early October 2022. GA Telesis Engine Services is a global jet engine maintenance provider offering customized engine overhaul services. Lion Air is the largest airline in Indonesia & second largest low-cost airline in Southeast Asia.

"I appreciate GATES tenacity in working together with Lion Air to reach an agreement which is beneficial to both parties and look forward to further business with GATES in the near future!" said Dennis Kirana, Asst. Director PT, Batam Aero Technic, MRO subsidiary, the Lion Air Group.

Lion Air group had 70% domestic market share post-pandemic in Q2, 2022 and continues to add capacity to meet increased passenger travel. GA Telesis Engine Services (GATES) is a fully integrated subsidiary of GA Telesis, offering customers a seamless engine solution that combines high-quality repair and overhaul services as well as world-class supply chain services.

"This win enables us to bring world class engine services to the world's fifth largest domestic aviation market through GATES EcosystemTM, pulling together combined strength of GA Telesis in offering innovative, integrated solutions," says Avinash Singh, Sr. Director – Sales & Business Development, GATES – APAC. "It also opens up business with Thai and Malaysian subsidiaries of the group, heralding a new era of growth for GATES in APAC, and we can't wait to get started!" he further added.

The GATES facility is based in Helsinki, Finland, and operates under FAA, EASA, CAAC, TCCA, DGAC (Indonesia), GACA, ANAC, and DGCA (India). The company has received ECAA approvals for the CFM56-5B, CFM56-7B, and General Electric CF6-80C2 turbine engines. In addition, GATES has an integrated test cell capable of up to 100,000 pounds of thrust and has the ability to overhaul up to 200 engines per year. GATES Go-Team is also one of the few companies authorized by EASA to perform remote repairs on engines that are installed on aircraft.

"This is a tremendous win for GATES and contributes significantly to our expansion plans in APAC. There was no better airline to partner with in this journey!" added Russ Shelton, President, GA Telesis Engine Services.

Through the GA Telesis Ecosystem, the Company is distinctly positioned, across six continents, to leverage its resources to create innovative solutions for its customers. Consisting of global operations encompassing Component Solutions, Leasing/Financing, Logistics Solutions, and MRO Services business units for landing gear, component/composite, and turbine engine repair, as well as digital solutions, the GA Telesis Ecosystem provides an unparalleled resource to airlines.

Gulfstream receives EASA certification for G700 and G800 jet engines

The Rolls-Royce Pearl 700 engines will power the flagship Gulfstream G700 and ultralong-range Gulfstream G800 aircraft.

Gulfstream Aerospace Corp. has been awarded approval in the form of certification from the European Union Aviation Safety Agency (EASA) for the latest Rolls-Royce Pearl 700 engines. The Rolls-Royce Pearl 700 engines will power the flagship Gulfstream G700 and ultralong-range Gulfstream G800 aircraft.

The G700 jet features a spacious cabin and can fly at its high-speed cruise of Mach 0.90 for 6,400 nautical miles/11,853 kilometers and for its long-range cruise the jet can fly at a speed of Mach 0.85 for 7,500 nm/13,890 km. The G800 boasts a 7,000-nm/12,964-km range at Mach 0.90 and an 8,000-nm/14,816-km range at Mach 0.85, the longest range in the business aviation industry.

"The certification of the Rolls-Royce Pearl 700 engines for the G700 and G800 is a significant step that brings us closer to delivering these game-changing aircraft to our customers," said Mark Burns, president, Gulfstream. "We are seeing a high level of demand for both the G700 and G800, and they are set to lead the upper end of the ultralong-range distance segment with their unique combination of range, speed and cabin size," he further added.

The G700 and G800 along with the

The G700 and G800 aircraft feature the Gulfstream Symmetry Flight Deck with the industry's only electronically linked active control sidesticks.

Rolls-Royce Pearl 700 engines feature the high-speed, aerodynamic Gulfstream wing design that was introduced on the Gulfstream G650 and G650ER aircraft. The two new aircraft will also feature a newly designed winglet. Combined these innovations will help to reduce fuel consumption and emissions for the jets.

"The G700 and G800 can deliver their impressive performance capabilities thanks to the Rolls-Royce Pearl 700 engines and the advanced Gulfstream wing and winglet on the two aircraft," said Mark Burns, president, Gulfstream. "With these powerful advancements, Gulfstream customers can reap the benefits of large cabins with enhanced comfort over the worldwide flights the G700 and G800 can accomplish."

The G700 and G800 aircraft feature the Gulfstream Symmetry Flight Deck with the industry's only electronically linked active control sidesticks. It is called by Gulfstream the most extensive use of touch-screen technology in business aviation and Gulfstream's award-winning Predictive Landing Performance System.

The G700 and G800 customers will benefit from the Gulfstream Cabin Experience with 100% fresh, never recirculated air that is purified by a plasma ionization clean air system. The jets are also equipped with the industry's lowest cabin altitude, whisper-quiet noise levels and iconic Gulfstream panoramic oval windows and the all-new ultrahigh-definition circadian lighting system introduced on the G700.

AFI KLM E&M extends support contract for China Airlines' Boeing 777Fs fleet GE90 engine

AFI KLM E&M will provide services on a PBH basis to China Airlines Boeing 777 Freighters including MRO services on engines and on-wing and on-site services.

AFI KLM E&M,a major multi-product Maintenance, Repair, Overhaul (MRO) provider has signed an extension to the engine support agreement with China Airlines. The extension of the support contract will now cover the maintenance of GE90 engines powering the four additional Boeing 777 Freighters operated by China Airlines. The initial support contract between the two companies was signed in June 2021.

The contract further established an exclusive long-term partnership between the two parties on a "Power By the Hour" (PBH) basis which also included MRO services on engines and LRUs, engineering solutions, spare engine support and transportation, and on-wing and on-site services. China Airlines also benefits from AFI KLM E&M's exclusive predictive maintenance solution, Prognos for Engine. China Airlines is the state-owned flag carrier of the Republic of China.

"This extension builds upon the trust-based working relationship established between our two airlines in 2021. Under our PBH agreement we've been satisfied with AFI KLM E&M's performance, confirming its role as a partner that is both reliable and highly responsive to our needs, during a period in which China Airlines is expanding its capabilities and operations in the air freight market." Said Jia-Min Sun, Senior Vice President, China Airlines.

Air France-KLM Group is the second-largest GE90 operator in the world. As an airline MRO, AFI KLM E&M has acquired unparalleled resources and expertise in GE90 engine overhaul and maintenance through an extensive technical development program. AFI KLM E&M on behalf of its international airline customers provides support for nearly 450 GE90 engines With its comprehensive in-house repair, overhaul and test capabilities. AFI KLM E&M is the world's largest non-OEM provider of GE90 services.

AFI KLM E&M combines its operator status with over 80 years of MRO experience providing daily operational support to customers, AFI KLM E&M is able to optimize the costs of maintenance programs due to its long-standing engineering expertise as an MRO centre of excellence by avoiding premature removals for overhaul, optimizing shop visit work scopes and minimizing costly parts replacement.

"We are truly honoured at this latest show of faith in our ability from China Airlines. This extension further demonstrates our services' proven track record on the GE90 product, and in a wider sense the effectiveness of our adapted maintenance solutions for cargo fleets – a particularly dynamic and strategic sector for our clients given the current international context." Tommaso Auriemma, Vice President Sales Asia Pacific, AFI KLM E&M.

In 2021, China Airlines joined a robust community of AFI KLM E&M customers operating the GE90, further strengthening AFI KLM E&M's footprint in the GE90 PBH market, which is particularly important in China and Southeast Asia. The new contract is the continuation of a close-knit relationship between the two groups since China Airlines and Air France-KLM Group are both SkyTeam partners. Taipei, meanwhile, is a destination served by both French and Dutch airlines.

Pratt & Whitney Canada awarded Type Certification for the PW800 engine program

Pratt & Whitney Canada's PW812GA engine was selected to power the Gulfstream G400 business jet.

The PW800 engine program by Pratt & Whitney Canada has reached a key phase of development after its PW812GA engine was awarded the Type Certification by Transport Canada Civil Aviation. Gulfstream Aerospace Corp had announced in October 2021 that Pratt & Whitney Canada's PW812GA engine was selected to power the Gulfstream G400 business jet. Pratt & Whitney Canada is a business unit of Pratt & Whitney. The PW814GA-powered G500 entered into service in September 2018 followed by the PW815GA-powered G600 in August 2019.

The PW812GA engine by Pratt & Whitney Canada showed noticeable performance during more than 3,400 hours of engine testing, which includes 260 hours of flight testing. Across the PW800 engine family, more than 175,000 hours of testing and field experience have been collectively achieved. The PW814GA and PW815GA engines have flown more than 144,000 hours since entering into service.

"We worked closely with Transport Canada to create an efficient and thorough certification process that successfully led us to this point," said Maria Della Posta, president, Pratt & Whitney Canada. "When it enters into service (EIS), the G400 will be the third Gulfstream aircraft to rely on our PW800 engine family. We are gratified by the steady progress the PW800 engine family has achieved based on its ability to deliver a new level of performance and efficiency to the large cabin business aircraft class," she further added.

According to Pratt & Whitney Canada, the PW800 engine is the most modern, efficient, and environmentally responsible engine in its class. Using the most sustainable and high-performance technologies, the engine offers double-digit improvements in fuel burn, emissions, maintenance intervals, and noise. The PW800 engine incorporates the latest generation of technologies in different aspects from advanced design to innovative maintenance functionality.

For the passengers flying aboard the aircraft, the PW800 engine provides a comfortable experience with an exceptionally quiet and comfortable cabin, making it the quietest engine in its class. The PW800 engine shares a common core with the Pratt & Whitney GTF commercial jet engine, which has flown more than 2.2 million hours since its launch in 2016.

"When we designed the PW800 engine, we did so with all of the engine's key stakeholders in mind – passengers, pilots and maintenance crews," said Edward Hoskin, vice-president, Engineering. "The PW800 has numerous inherent advantages and functionalities to ensure best-in-class availability and to create an exceptional engine response. It also sets the industry standard for maintenance, requiring 40% less scheduled maintenance and 20% fewer inspections than other engines in its class," he further added.

Jet Operators of PW800-powered engines can also be benefited from Pratt & Whitney's ESP engine maintenance program, a pay-per-hour maintenance program that guarantees long-term engine maintenance costs through a planned and preventative approach to maximize your flying time, claimed by the company as one of the most comprehensive coverage packages in the industry. The program offers exclusive personalized premium service for the engine's maintenance and support needs any time of the day, anywhere in the world.

Airbus Helicopters extends U.S. Army UH-72 Lakota engine support contract with Safran

Safran Helicopter Engines will provide MRO and other supporting services for over 900 Arriel 1E2 and Arriel 2E engines, operated by the U.S. Army on its UH-72A and UH-72B fleet.

Safran Helicopter Engines, a manufacturer of low- and medium-power gas turbine turboshaft engines for helicopters has announced that the company has been awarded a renewal of an engine support agreement with Airbus Helicopters. According to the agreement, Safran Helicopter Engines will continue to support the Arriel engines that power the U.S. Army UH-72 Lakota helicopter fleet.

This newly extended contract has formalized that Safran Helicopter Engines will provide services according to a Maintenance, Repair and Overhaul (MRO) and service agreement supporting over 900 Arriel 1E2 and Arriel 2E engines, operated by the U.S. Army on its UH-72A and UH-72B helicopter fleet.

This new Arriel engines support contract will be managed by Safran Helicopter Engines USA, from its Grand Prairie, TX, U.S. facility and its office located in Daleville, AL supporting the training fleet located at Fort Rucker, AL.

Thierry Derrien, Safran Helicopter Engines USA, President and CEO said: "Safran Helicopter Engines is honored to continue working alongside Airbus in providing the engine logistics support for the US Army fleet of UH-72 Lakota's. Our team remains ready to support Airbus and the U.S. Army through proximity locations and continues to show the importance of our U.S. presence."

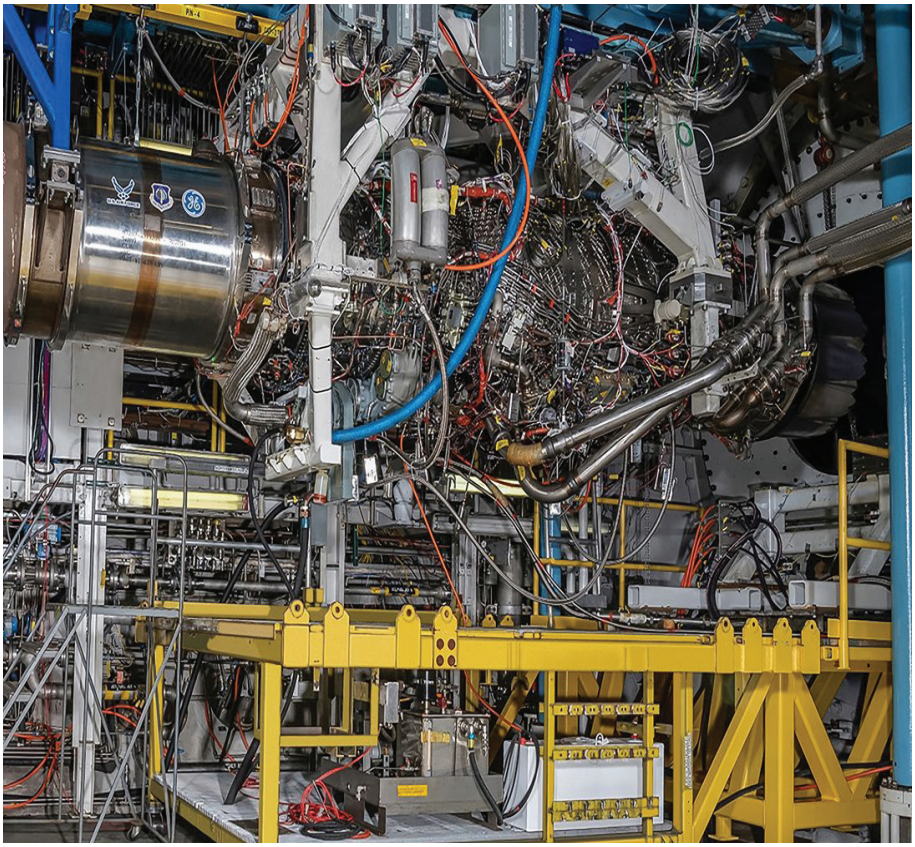
The Arriel engine powers over 40 different rotorcraft of the U.S. Army with power outputs ranging from 650 to over 1,000 shp. The Arriel is the best-selling helicopter engine in its class, with over 12,000 engines produced and over 50 million flight hours flown. An Arriel-powered helicopter takes off every 15 seconds, every day.

Safran Helicopter Engines assembles, tests and supports several Arriel engine variants in the company's Grand Prairie facility, including the Arriel 1E2 and the Arriel 2E. The Arriel engine has a reputation for reliability and footprint in the U.S., with more than 3,000 engines in service. The U.S. Army Arriel fleet has flown in excess of 2.5 million engine flight hours.

GE and The U.S. Air Force complete XA100 adaptive cycle engine test

The XA100's improved fuel efficiency provides a significant reduction in carbon emissions and will operate on any U.S. Air Force-approved Sustainable Aviation Fuel.

GE Aviation has announced that the company, in partnership with The United States Air Force, has successfully concluded testing on GE's second XA100 adaptive cycle engine at the Air Force's Arnold Engineering Development Complex (AEDC) located in Tennessee, U.S. According to GE, after concluding the testing at the Arnold Engineering Development Complex, the company has achieved the final major contract milestone of the Air Force's Adaptive Engine Transition Program (AETP), which began in 2016.



The XA100 adaptive cycle engine is a product of GE Edison Works, a business unit dedicated to the research, development, and production of advanced military solutions. This business unit has full responsibility for strategy, innovation, and execution of advanced programs.

"This is the culmination of more than a decade of methodical risk reduction and testing GE has completed with the Air Force across three different adaptive cycle engine programs," said David Tweedie, vice president and general manager for Advanced Products, GE Edison Works. "The engine performance data we gathered at AEDC continued to show the XA100's transformational capability, while also demonstrating a return on substantial Air Force and taxpayer investment. We now stand ready to transition to an Engineering and Manufacturing Development program and bring this engine to the field with the F-35 before the end of this decade," he further added.

The XA100 adaptive cycle engine combines three key innovations to deliver a generational change in combat propulsion performance:

- An adaptive engine cycle that provides both a high-thrust mode for maximum power and a high-efficiency mode for optimum fuel savings and loiter time.
- A third-stream architecture that provides a step-change in thermal management capability, enabling future mission systems for increased combat effectiveness.
- Extensive use of advanced component technologies, including ceramic matrix composites (CMC), polymer matrix composites (PMC), and additive manufacturing.

"This engine isn't a concept, proposal, or research program. This is a flight-weight, highly product-relevant engine that would provide the F-35 with 30% more range, greater than 20% faster acceleration, and significant mission systems growth to harness the F-35's full capabilities for Block 4 upgrades, and beyond," David Tweedie, vice president and general manager for Advanced Products, GE Edison Works continued. "The XA100 is the only F-35 propulsion modernization option that has been built, fully tested, and evaluated against Air Force performance targets, and the only option that provides the Air Force the capability it needs to outpace its adversaries for decades to come," he added further.

The above-mentioned revolutionary innovations increase thrust by more than 10%, improve fuel efficiency by 25%, and provide significantly more aircraft heat dissipation capacity, all within the same physical envelope as current propulsion systems. GE's engine is uniquely designed to fit in the F-35A, as well as the F-35C without modifications to the tailhook. The XA100's improved fuel efficiency provides a significant reduction in carbon emissions and will operate on any U.S. Air Force-approved Sustainable Aviation Fuel.

ACJ TwoTwenty 'Creative studio': An elegant appeal to business jet buyers

Airbus Corporate Jets, a business unit of Airbus SAS and part of Airbus, markets and completes corporate jet variants from the parent's airliner range. Types include the A318 Elite to the double/triple-decked Airbus A380 Prestige. Following the entry of the 737 based Boeing Business Jet, Airbus joined the business jet market with the A319 Corporate Jet in 1997. Although the term Airbus Corporate jet was initially used only for the A319CJ, it is now often used for all models, including the VIP widebodies. As of June 2019, 213 corporate and private jets are operating; 222 aircraft have been ordered, including 128 A320 family jets. **MRO Business Today** discusses the future of luxury private flying through the "smart" technology while still being on the path of sustainability in an exclusive interview with **Airbus Corporate Jet's President, Benoit Defforge**, READ ON.....

Q – The unique creative studio for business jet customers, it's a wonderful and novel concept. Can you tell our readers the inspiration behind such a concept?

A. We have created this studio that is dedicated to ACJ customers and showcases a real-size section of the ACJ TwoTwenty cabin, offering double the space and volume of any competitor aircraft, so they can customize it to make it their own and experience/see/feel 'first hand' the space advantage brought by the ACJ TwoTwenty compared to other large bizjets in the mock-up that shows physically the cross section delta with competition. This new creative studio is offering a unique and unprecedented real time and immersive experience.

Customers can imagine and design their own luxury interior with the ACJ designers and technical specialists who will help guide and advise them along the visit.

ACJ TwoTwenty customers will be invited to explore their layout ideas, see them develop, adjust and review before immersing themselves in their perfect cabin.

With an integrated use of virtual reality technology complemented by configurable customer-specific mock-ups, all these assets available under one roof make the creative studio a unique and attractive one-stop-shop for interior design.

Q – The demand for customized jets has increased manifold post-pandemic, mostly due to privacy and safety concerns. Your views

A. The demand for private jet has increased indeed, but not specifically for customized ones.

Q – How was the customer response to the new ACJ studio concept

A. Customers were delighted with the studio. Our clients were amazed by the fact that they could choose their interior, customize it, visualise it with the virtual reality technology and make it their own, bringing a near real feeling about what their jet could look like. The unique experience of the ACJ TwoTwenty is reflected with hundreds of soft natural fabrics, plush carpets, smooth wood veneers and plated metal finishings that our clients can choose on the spot. They have the chance to study the array of colours under different lighting before deciding their colour schemes for seating, carpets and walls or the wood effects and finishes for the

handcrafted cabinets. They can also choose one of the three available cabin ambiances and one special Cyril Kongo edition configuration which are part of the signature cabin catalogue.
They also enjoy the cabin size comparison with competition, as well as the information the Creative studio format brings to them. After the visit, the clients appreciate being able to make a fully informed decision about why they go for an ACJ TwoTwenty and what are the benefits of this business jet.

Q – Can you throw some light on the technology used for lower weight and reducing the maintenance cost for Airbus ACJ TwoTwenty

A. The A220 incorporates 40% advanced materials, such as: advanced composite (wing, wing box, empennage, rear fuselage, stabilisers, nacelle) and titanium (wing, wing box, rear fuselage, horizontal stabiliser) for an exceptional strength to weight ratio, less corrosion and fatigue compared to metal and reduced maintenance and extended service life.
As a result of the design and advanced material, light check is only every year and base check every 6 years. These pushed back checks will bring ~40% lower maintenance tasks and 80 extra availability days' vs large bizjets when compared over a 10 year horizon.
Like other ACJs, the ACJ TwoTwenty also benefits from more than 750 A220 in the order book, accumulated almost a million of flying experience, airline level reliability design, Airbus worldwide footprint and the economy of scale it brings, reducing parts and training unit costs.

Q – The most important and salient feature of ACJ TwoTwenty is Smart Cabin technology. How is the cabin different from the other competitive jets?

A. Connectivity is so important nowadays. Equipped with 2 times higher brandwise capability (up to 50 Mbps) and wifi throughout the cabin controlled at your fingertips, the ACJ TwoTwenty is a 'born connected' aircraft, bringing the best possible technology experience to passengers.
Inductive chargers, electrochromatic windows, LED lighting controlled with your smartphone are few other of the latest technologies which can be enjoyed with the ACJ TwoTwenty.

Q – Of all the customized designs so far for ACJ TwoTwenty what was the most challenging experience and which design was your personal favourite and why?

A. Our designers sometimes say that the project they are the most proud of is the next one on their list. However, ACJ had the chance to draw two major projects at the same time, an ACJ319 VVIP and the famous ACJ TwoTwenty project. The creative, economic, and industrial stakes were diametrically opposed.
Regarding the recent customizations of the TwoTwenty, I find it very exciting to make each cabin unique with the configurator we have imagined. The client's cultural and personal variables are widely honored. And that's probably my biggest satisfaction as president of ACJ.

Q – ACJ TwoTwenty boasts of the feel-at-home environment in a chic and calm atmosphere, can you tell us a bit about the amazing ambiance experience?

A. The ACJ TwoTwenty features unmatched personal space with 73m2/786 ft2 of floorspace, distributed over six wide VIP living areas of around 12m2/130ft2 each, the ACJ TwoTwenty offers selected interior arrangements and handcrafted furnishing. The cabin will allow passengers to unwind, perform, share, invigorate, dine or energise at their discretion thanks to its cabin

versatility and options suiting their needs and taste.
Distinctive cabin features, no other business jets can offer, are notably: Six wide living areas (12m2 each): 2.1m height and over 3.3m cabin cross-section, cuisine/bar separate and dedicated area, a US-size king bed, standing rainshower, table for 8, double door allowing simultaneous crossing, 2.7m width and 1.3m long meridienne, 55inch 4K TV screen...These cabin features make our customers' cabin experience unique and easily upscalable with the same features as they would have at home.
The ACJ TwoTwenty is reflected with hundreds of soft natural fabrics, plush carpets, smooth wood veneers and plated metal finishings. The array of colours under different lighting for seating, carpets and walls or the wood effects and finishes for the handcrafted cabinets makes it feel like a designer home.
Also available are the three available cabin ambiances are part of the signature cabin catalogue.
Avant-garde: This ambiance reflects the purity of a modern approach with contrasting notes. An ensemble of materials balances the clean lines with subtle warmth. The resulting experience is akin to a stay in a loft apartment on the 5th Avenue. The timeless ambiance makes you feel at home with your environment in an atmosphere that is both chic and calm. Embracing a spirit that is classic and spacious, infusing relaxation for whatever your destination may be.
The Quintessence nature ambiance is the holistic principle for this unique and organic approach. The soft materials and earthly tones encourage a sense of serenity to reimagine your place in the sky.
The special Cyril Kongo edition configuration notably in the main lounge, which will be partly hand painted by Cyril Kongo, combines carefully chosen branded textures and fabrics, crafted to kindle the sumptuous comfort, space and luxury of your own private art gallery.
The special cabin edition has been proudly curated to allow passengers to properly rest or enjoy fine dining with valued friends and family, while admiring all the colours that life has to offer.
While occupying the same parking space and being able to take off from the same airports as other business jets, the ACJ TwoTwenty will offer three times more cabin space, yet with a third less operating costs and around 2 times better value retention.
The ACJ TwoTwenty will have an increased range enabling the aircraft to fly up to 5,650 nm/10,500 km (over 12 flight hours), directly connecting city pairs like London and Los Angeles, Tokyo and Dubai as well as Beijing and Melbourne, benefitting the entire A220 Programme.

Q – Can you tell us a bit about the sustainability initiative in the latest ACJ TwoTwenty

A. The ACJ TwoTwenty builds on the A220 Family, benefitting from the latest technologies; the A220 Family is the quietest, cleanest and most eco- friendly aircraft in its category. Featuring a 50% reduced noise footprint compared to previous generation aircraft, up to 25% lower fuel burn and 50% lower NOx emissions than industry standards, the A220 Family is a great aircraft for neighborhood airports. Being a clean-sheet design, the A220 offers unrivalled operational efficiency.

GA-ASI inaugurates new Center of Excellence for Additive design and manufacturing

The new center will focus on rapid-reaction manufacturing of GA-ASI's line of UAS using fully functional and flight-ready Additive Manufacturing (AM) applications, and research.

General Atomics Aeronautical Systems, Inc. (GA-ASI), has created a new Center of Excellence for its Additive Design and Manufacturing (AD&M). The newly established center will focus on rapid-reaction manufacturing of GA-ASI's line of UAS using fully functional and flight-ready Additive Manufacturing (AM) applications, and research. The facility will also develop large-scale tooling and next-generation flight hardware. GA-ASI is a designer and manufacturer of Unmanned Aircraft Systems (UAS), radars, and electro-optic and related mission systems solutions.

GA-ASI performs limited recurring production activities at its AD&M Center of Excellence, but the demand for rapid-reaction and low-rate manufacturing has raised a requirement for the development of a strong AM manufacturing supply chain for the overflow production of complex end-use thermoplastics and metal parts. GA-ASI has been investing in the onboarding of Additive Manufacturing (AM) technologies for over a decade now. The company has also been leading the formation and rapid growth of a dedicated AM department five years ago.

GA-ASI has already qualified over 300 flight components across the different AM modalities used for production. GA-ASI is expanding its AN ecosystem composed of the key elements to develop and qualify flight-capable AM applications. The elements are required for bringing an AM application from a prototype stage (print right once) to a production-level stage (print right always).

"GA-ASI is continually looking for ways to enable, accelerate, and integrate Additive Manufacturing technologies into our designs, our operations, and our products," said GA-ASI President David R. Alexander. "Through our AD&M Center of Excellence, we're using a structured and stringent qualification process for AM applications that delivers a positive business case for us over conventional manufacturing methods. Through a comprehensive and holistic approach, our team of AM professionals are working to increase the adoption of AM parts for the benefit of our aircraft and ultimately, our customers," he further added.

GA-ASI's AM ecosystem has pushed the advancement process of repeatable and reliable production-grade 3D printing within the company. The advancement has been supplemented by ecosystem-controlled processes. The company has also established an applications team and has drafted a well-defined expansion roadmap.

GA-ASI estimates that the use of AM parts on its new UAS platform – the MQ-9B – has saved the company over $2 million in tooling costs and over $300,000 per aircraft in recurring cost avoidance by using approximately 240 AM parts on that aircraft platform. According to the company, the number of AM applications continues to grow rapidly, fueled by the AM ecosystem established at GA-ASI. As a result, the company already has more than 10,000 additively manufactured components on the aircraft it has produced, and the new MQ-9B SkyGuardian and SeaGuardian models are leading the industry in the use of AM parts.

Honeywell introduces First Integrated Smoke safety and indoor AQI monitoring system

The new monitoring system is built on the flagship VESDA-E line of aspirating smoke detectors.

Honeywell, a manufacturer of aircraft engines and avionics, has launched a newly developed solution that combines early warning smoke detection with advanced indoor air quality (IAQ) monitoring. The new monitoring system is built on the flagship VESDA-E line of aspirating smoke detectors. The VESDA Air solution has a unique five-in-one IAQ sensor within a single box, which can help improve building safety by identifying life safety, asset protection, or IAQ issues before they escalate into problems.

The VESDA Air solution complements Honeywell's Healthy Buildings solutions that function to improve occupant well-being, meet energy efficiency goals and, most importantly aim to change the way occupants experience a building of the aircraft. Honeywell's VESDA technology actively samples air, opposite to passively waiting for the smoke to reach traditional spot sensors. This helps in the identification of trace amounts of smoke and enables early intervention before it disrupts operations.

The plug-and-play cartridge-based indoor air quality (IAQ) sensor avoids costly calibration and other maintenance work. The parallel can be compared to replacing a printer's ink-jet cartridge. This convenience helps the airline to reduce total cost, minimize waste and provide accurate IAQ data.

"The emphasis on indoor air quality isn't going away – and that's a good thing as more organizations work to create safer, healthier environments that help boost occupant well-being and productivity," said Udaya Shrivastava, Vice President and Chief Technology Officer, Honeywell Building Technologies. "We challenged our engineering teams to find a way to complement the capabilities of our aspirating smoke detection systems with highly sensitive IAQ monitoring. The system identifies not only the minute presence of smoke, but also the presence of air quality contaminants of concern – allowing building operators to react and respond to out-of-bounds parameters quickly, before they escalate into unsafe situations," he further added.

Honeywell engineers have integrated a highly sensitive IAQ sensor into the same VESDA system that measures critical IAQ parameters, including volatile organic compounds (total VOCs) listed by ASHRAE as 'contaminants of concern, fine particulate matter of 1.0 micron (PM1.0) and PM2.5 or larger with unprecedented accuracy, CO and CO_2 concentration, temperature and humidity. Ideal for premium commercial buildings, healthcare facilities, hospitality, manufacturing and schools, the new sensor provides instrument-grade IAQ sensing for data uniformity and accuracy.

The new scalable solution can be used in both new construction and existing buildings. In new construction, the installation of an integrated VESDA Air solution can help in reducing the total cost of installation (TCI) and total cost of maintenance (TCM) as compared to the installation and maintenance of standalone smoke detection and IAQ monitoring systems. In buildings with a fully functional smoke detection system, a 'smokeless' IAQ-only system can be installed to provide accurate, actionable data to adjust ventilation parameters.

ST Engineering receives five-year component MBH contract for Nok Air Boeing 737-800 fleet

ST Engineering will provide a full suite of component support solutions and dedicated consignment stock for Nok Air's entire fleet of Boeing 737-800 aircraft in Bangkok.

ST Engineering, a technology and engineering group in aerospace has announced that the company's Aerospace arm has secured a five-year contract with Nok Air, a Thai budget carrier. According to the agreement ST Engineering will provide support for Nok Air's Boeing 737-800 fleet with component Maintenance-By-the-Hour (MBHTM) service. Under the new multi-year component MBH contract, ST Engineering will provide a full suite of component support solutions covering component repair management, pool support and dedicated consignment stock in Bangkok for Nok Air's entire fleet of Boeing 737-800 aircraft.

Wutthiphum Jurangkool, Chief Executive Officer, Nok Air, said, "We are happy to renew our partnership with ST Engineering and look forward to a mutually beneficial working relationship. Our decision was based on the good reputation and quality services of ST Engineering."

ST Engineering is recognized around the globe for its hallmark component Maintenance-By-the-Hour (MBH) programmes. The company supports more than 1000 aircraft and provides integrated component solutions for over 23,500 unique aircraft parts. The contract is a renewal of the partnership in component MRO between Nok Air and ST Engineering.

Jeffrey Lam, President of Commercial Aerospace at ST Engineering, said, "As flying volume steadily returns, we are working closely with our customers to ensure that quality maintenance services can keep pace with their recovery and growth. The renewal of this partnership with Nok Air reaffirms our commitment to be a long-term partner to the airline, and to continue supporting them with reliable and high-quality services."

ST Engineering is also the authorized service centre to over 20 leading OEMs. The company's Commercial Aerospace business provides round-the-clock support and delivers more than 80,000 components annually from its component MRO facilities located in Singapore, Hanoi and Ho Chi Minh City in Vietnam, as well as Stockholm, Sweden.

"Emergency oxygen for flights at 10,000ft"- Caeli Nova's Cordillera on a path to safe, sustainable aviation

The aviation industry has taken significant steps to reduce carbon emissions and Caeli Nova has efficiently played its part in this journey sustainable and safe aviation. Modern aircraft built with lightweight materials and improved technologies are helping to limit the industry's impact on the environment; but more has to be done. Here Caeli Nova's flagship product "Cordillera" comes to the aid. With Cordillera, Caeli Nova targets the root of the problem by focusing on the reduction of fuel consumption and enabling more efficient flying.

Cordillera allows airlines to operate shorter flights, with associated reductions in fuel and carbon emissions, and to reduce the fuel reserves needed to be carried on ETOPS flights. **Caeli Nova CEO Tim Wakeford** in conversation with **MRO Business Today** talks about the award winning "Cordillera", sustainable aviation, and the future of comfortable and safe air travel. Read On.....

Q - Can you tell our readers what is Cordillera, the award-winning passenger oxygen system?

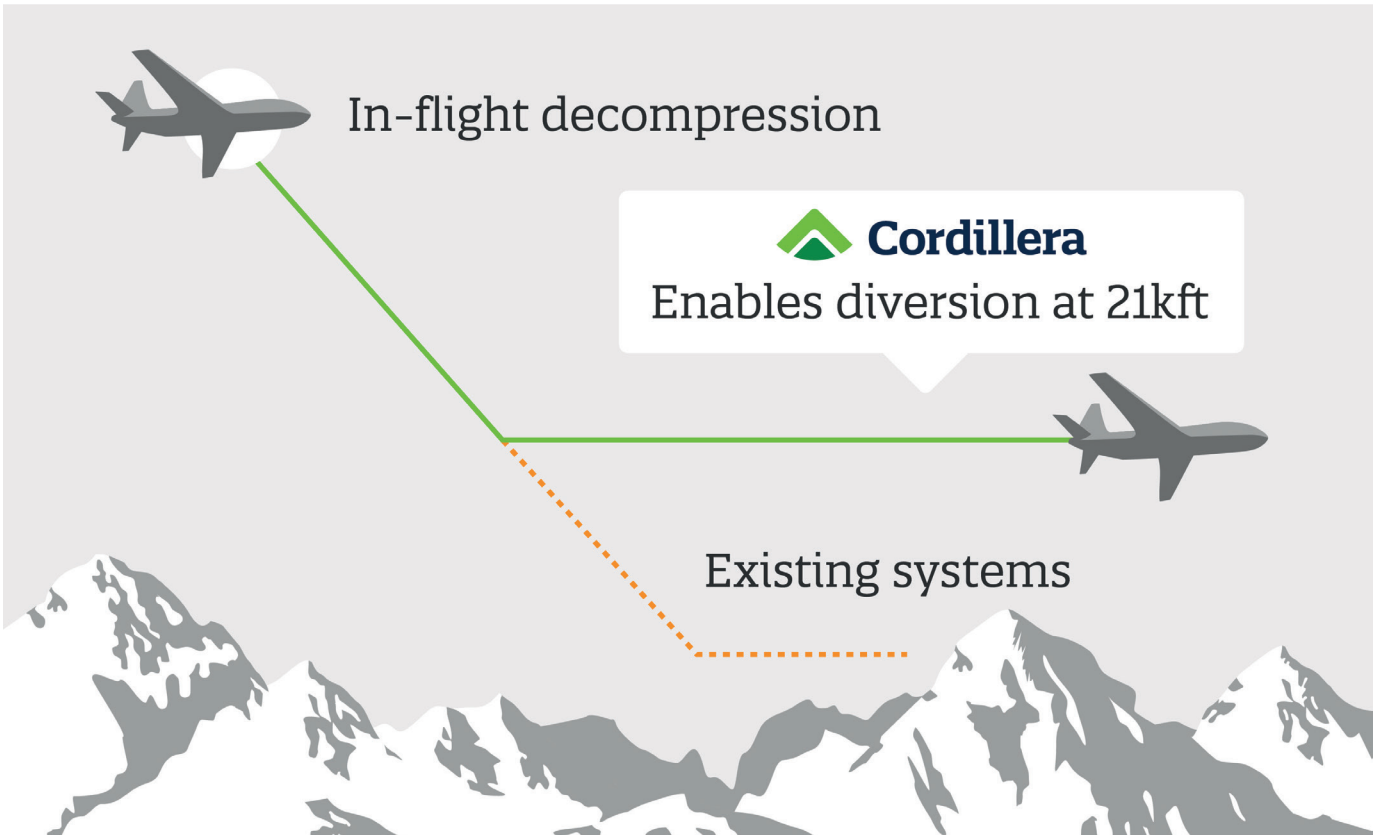
A - Cordillera is a retrofittable emergency oxygen system for passenger aircraft which removes a number of aircraft operational limitations and allows substantial economic benefits for aircraft operators. The system exploits Caeli Nova's patented technology, which improves the oxygenation of the human body in various situations, including for aircraft passengers after a cabin decompression. Cordillera has been intensively tested to comply with international medical and regulatory requirements and been developed with extensive industry collaboration, across airlines, manufacturers and airworthiness authorities.

In addition to keeping passengers safe, our innovative oxygenation solution overcomes historic capability limitations, enabling shorter flights, reduced fuel and carbon emissions, plus wider cost and sustainability benefits for airline operators.

Q - How does Cordillera enable aircraft operators to reduce both fuel usage and carbon emissions?

A - Enabling the flight to continue at a higher altitude, in the unlikely case of a cabin decompression, it allows airlines to plan for more direct routes on every single flight, shortening the flight time and consequently significantly reducing the fuel consumption.

In the primary use case – high terrain – Cordillera opens up most



direct existing airways for passenger flights, such as the Y1 and L888 routes over the Himalayas. Using shorter routes reduces the amount of fuel being burnt and the amount of reserve fuel needed onboard.

Q - How does Caeli Nova's innovative technology improve passenger oxygenation?

A - Caeli Nova's technology moves away from the traditional system that aims to deliver as much oxygen as possible to the mask in the hope enough gets absorbed. Such systems require carrying a lot of oxygen, but our bodies can't absorb it all and therefore these systems are highly inefficient. Therefore, keeping a decompressed aircraft higher for longer would mean making the oxygen cylinders of centralised systems or the chemical generators in decentralised systems larger and larger.

Our approach is based on the body's actual requirement for oxygen and how it can be managed by controlling the gas mixture that's breathed. It means we can maximise absorption, reducing wastage and extending the duration of oxygen supply while remaining within the current space and weight boundaries for such systems. A passenger or crew member using the system will notice no difference apart from a slightly better fitting mask, while Cordillera works in the background to ensure their oxygenation is optimised.

Q - How does Cordillera protect passengers in the rare event of a loss of cabin pressure?

Current regulations require aircraft to make a demanding and rapid descent to 10,000ft, which is defined as a safe breathing altitude for passengers, after loss of cabin pressure. But Cordillera's technology means passengers can stay well oxygenated and safe for more than 90 minutes at 21,000ft. Our product allows the pilots to use that time to safely divert the aircraft at a higher altitude to a suitable airport following a decompression.

Continuing the mission at a higher altitude means aircraft can remain in less congested airspace and allows pilots a longer duration to make critical decisions.

Q - What is a key component in your sustainability strategy in aviation that has taken significant steps to reduce carbon emissions?

A - Cordillera is proof that applying state of the art research and innovation to enhance longstanding aircraft technologies, like the emergency oxygen system, has the potential to transform the way we fly.

Caeli Nova wants to be part of the plan that allows aircraft operators to achieve their sustainability goals. Cordillera has the potential to save the aviation industry annually more than $500 million and 1.2 million tonnes of CO_2 emissions by opening direct routes over high-terrain and reducing reserve fuel on ETOPS routes.

We have identified 50 to 60 major airlines that would benefit from being able to access the more direct Himalayan routes, with 50% of the global widebody fleet seeing significant advantages.

Q - What are Caeli Nova's future plans? Can you discuss?

A - Caeli Nova is in advanced stages of discussions with major airlines, in Asia Pacific, Europe and North America regarding the retrofit of Cordillera onto existing widebody fleets. We are also in detailed discussions with OEMs about offering Cordillera as a line fit option in the near future and we signed a partnership agreement with Airbus in September 2021.

AJW Group inaugurates new regional support hub in Turkey

AJW Turkey will deliver the full suite of AJW's support solutions to companies in Turkey and the wider region with the intention to transform their aviation efficiency.

AJW Group, an independent aircraft component parts, repair, and supply chain solutions provider, announced the opening of a new regional support hub and office located in Istanbul. The newly established facility is named AJW Turkey. According to the company, the decision was taken after taking into consideration the growing demand for a full-service local office, operating in the local time zone.

Turkey along with the surrounding Eurasia region is one of the priority markets for AJW Group. AJW Turkey aims to deliver the full suite of AJW's support solutions to companies in Turkey and the wider region with the intention to transform their aviation efficiency.

Umit Caymaz, Managing Director, AJW Turkey commented, "I am honoured to join the world-leading AJW team and grow the AJW business in Turkey and beyond. My experience in the Used Serviceable Material (USM) market and belief that exemplary customer service is paramount to success means I am confident that the full nose-to-tail service we offer will deliver an enhanced level of customer support locally that exceeds our customers' expectations and builds the AJW brand presence within the region."

AJW Turkey will primarily support the AJW Group's regional customers, initially as a local extension of AJW's customer support. The unit will offer access to the inventory of Airbus and Boeing spare parts (valued at $500M), which will include Engines and Major Assets, contractual support negotiations, Maintenance Repair and Overhaul (MRO) services, and nose-to-tail support solutions. AJW Turkey, road mapped to expand with inventory located in Istanbul to support operational demands across the region and beyond, will be led by Umit Caymaz, Managing Director, AJW Turkey.

Christopher Whiteside, Chairman of AJW Group commented, "We are delighted to welcome Umit to AJW and announce the opening of AJW Turkey. Umit brings a wealth of knowledge and understanding of the Turkish and Eurasia aviation markets and exceptional experience in developing and executing regional sales strategies, whilst delivering exemplary customer service. We welcome Umit to his new role and are excited to see the growth and success that our new regional office will bring our valued customers in Turkey and the development of Umit's expansion road map in the region."

Caymaz brings over 15 years of aviation experience with previous roles at Onur Airlines and MNG Airlines in Turkey, in addition to roles at several global aviation support companies, including GA Telesis. Caymaz is based in Istanbul and is responsible for the growth and business development activities of AJW Group's services within the region. He is a key member of the Group's management team and provides strong commercial and sales leadership and the ability to create innovative support solutions. This, according to the company, will ensure the delivery of customer product and service needs as well as the longer-term business strategy for the region.

AJW Group sees this as a strong testament of the company's commitment to supporting customers in Turkey and the surrounding Eurasia region with local support. Together with the Group's network of global offices, the new support hub will aim to create a cohesive service network and further strengthen service capabilities in the region.

Kaman Corporation acquires Parker-Hannifin aircraft wheel & brake division

The addition of Aircraft Wheel & Brake to the company will increase Kaman's exposure to attractive aerospace and defense end markets with significant growth potential.

Kaman Corporation announced the completion of the acquisition process of the Parker-Hannifin Corporation ("Parker") Aircraft Wheel & Brake Division ("Aircraft Wheel & Brake") on September 16, 2022. The addition of Aircraft Wheel & Brake to the company will increase Kaman's exposure to attractive aerospace and defense end markets with significant growth potential. The deal will also provide Kaman an opportunity to increase its position in higher-margin aftermarket products.

The acquisition is expected to be accretive to Kaman's margin and cash flow within the first twelve months following the close of the transaction. Following the transaction, Kaman intends to apply the free cash flow from the combined business to deleverage the balance sheet.

Kaman aims to broaden the number of offerings available to serve customers with a larger and even more extensive portfolio of engineered products across a range of critical applications. Kaman's expertise in running a solutions-based business combined with Aircraft Wheel & Brake's proprietary manufacturing and material science technologies should enhance Kaman's Engineered Products segment and add scale to its operations.

"We are excited to welcome the Aircraft Wheel & Brake employees to the Kaman family," said Ian Walsh, Chairman, President and Chief Executive

Officer. "I want to thank the teams at Kaman and Aircraft Wheel & Brake for their conscientious efforts to complete the transaction and their thorough planning for a seamless integration. Kaman, together with Aircraft Wheel & Brake, is expanding the breadth of our product offerings, increasing our exposure to attractive markets, and driving meaningful near-term margin and cash flow accretion," he further added.

The Parker-Hannifin Corporation Aircraft Wheel & Brake has been a provider of mission-critical wheel and brake technology products and solutions for more than 80 years. With a strong OEM and aftermarket portfolio supporting more than 100 platforms, Aircraft Wheel & Brake specializes in wheels, brakes and related hydraulic components for helicopters, fixed-wing and UAV aircraft.

The Parker-Hannifin Corporation Aircraft Wheel & Brake has long-standing global relationships with leading military and general aviation customers providing customized proprietary designs, protected by intellectual property. Aircraft Wheel & Brake operates out of one centralized facility in Avon, Ohio, providing a full suite of capabilities including design, development and qualification, as well as manufacturing, assembly, product support and repairs.

Air India launches Vihaan.AI to boost makeover Strategy

Air India with the new plan aims to draw out a blueprint to offer the absolute best in class customer service, MRO assistance, technology, product, reliability and hospitality.

Air India, as part of Vihaan.AI has put into place a detailed roadmap with clear milestones focusing on dramatically growing both the airline's network and fleet.

India's first and longest-running airline, Air India has unveiled its comprehensive transformation plan, to re-establish itself, and affirm its position as a world-class global airline with an "Indian heart". Air India with the new plan aims to draw out a blueprint to offer the absolute best in class customer service, technology, the product, reliability, and in hospitality. The plan is fittingly titled "Vihaan.AI", which in Sanskrit signifies the dawn of a new era, with transformational strategies for Air India over the next 5 years.

Air India Engineering Services Limited (AIESL) is the Maintenance, Repairs and Overhaul (MRO) subsidiary of Air India Limited. The company was established following Air India Limited's decision to separate the engineering and ground handling services of Air India into two wholly-owned subsidiaries as part of its turnaround plan "AIESL" and Air India Transport Services Limited (AITSL). The subsidiary is treated as a separate profit centre and provides maintenance repair and overhaul (MRO) services for Air India and other carriers.

Air India Engineering Services has received certification approval from agencies around the globe like the DGCA (Director General of Civil Aviation) FAA (Federal Aviation Administration) EASA (European Aviation Safety Agency) ICAO (International Civil Aviation Organization) ISO-9001:2000 (Bureau of Indian Standards.

Campbell Wilson, MD, and CEO, Air India said, "This is the beginning of a historic transformation for Air India, and the dawn of a new era. We are laying the foundation for a brave new Air India, with a renewed sense of purpose and incredible momentum. Vihaan.AI is our transformation plan to make Air India the world-class airline it once was, and it deserves to be again. We are focussed on being recognized as a world-class airline serving global customers, with a proudly Indian heart."

Air India, as part of Vihaan.AI, has put into place a detailed roadmap with clear milestones focusing on dramatically growing both the airline's network and fleet. The airline plans on developing a completely revamped customer proposition, improving reliability and on-time performance, and taking a leadership position in technology, sustainability, and innovation, while aggressively investing in the best industry talent.

The Vihaan.AI plan was unveiled by Air India's CEO, Mr. Campbell Wilson along with senior management members who are together driving this transformation, with the entire organization through Workplace, its virtual communication and engagement platform. Over the coming days and weeks, the management team will engage employees across regions, departments, and

locations through a series of physical and hybrid sessions.

"The transformation has already started – a slew of initiatives in areas like refurbishing cabins, serviceable seats, in-flight entertainment systems are already underway. We are also adopting proactive maintenance and refining flight schedules to enhance on-time performance. Our fleet expansion will involve a combination of both narrow-bodied and wide-bodied aircraft to cater to varied network needs. The excitement and shared commitment to drive Vihaan.ai is palpable across the organization and stakeholders will recognize the changes as the new face of Air India emerges," added Campbell Wilson, MD, and CEO, Air India.

Air India Engineering offers extensive MRO Services to Air India and other Jet Operators

• Line and Base Maintenance: Expertise in handling a wide variety of aircraft such as A320 family, A310, A330, B737NG, B747-400, B777, B787, ATR & CRJ at all major airports in India with state-of-the-art Centralized.

• Maintenance Control, which fully supports all activities of maintenance on a 24X7 basis Maintenance activity backed by a full-scale planning facility, strong material and logistics support.

• Hangar facilities at major metros like Mumbai, Delhi, Kolkata, Hyderabad, Chennai, and Thiruvananthapuram.

• Large Stocking Stores at each station.

Over the next 5 years, Air India aims to strive to increase its market share to at least 30% in the domestic market while significantly growing the international routes from the present market share. The plan is aimed at putting Air India on a path to sustained growth, profitability and market leadership.

Air Works awarded EASA PART 145 approval for India MRO facility

With EASA approval received, Air Works will be able to offer full MPD support for the Airbus 320 family for base maintenance.

Air Works, India's largest independent Maintenance Repair and Operations (MRO) and aviation services and solutions major, recently announced that the company has received the European Aviation Safety Agency's [EASA] Part 145 Approval for its state-of-the-art twin-hangar MRO facility at the Cochin International Airport, India. Air Works is the first Indian Airline MRO service provider to be EASA certified and the first to be accredited with EN9110 aerospace standards in SE Asia. The Company offers line maintenance, aircraft cabin interior, commercial aircraft asset management, and safety management solutions.

With EASA approval received, Air Works will be able to offer full MPD support for the Airbus 320 family which will also include the A318, A319, A320 and the A321 Aircraft for Base maintenance up to and including 120-month inspection for all 4 engine options viz. PW1100G, CFM 56, Leap-1A and IAE V2500. The company can also conduct C-Checks, structural and corrosion inspections, as well as undertake major repairs and modifications for the Airbus 320 aircraft family, in addition to End-of-lease-transitions, bridging checks and engine changes.

D Anand Bhaskar, Managing Director & CEO, Air Works Group said, "We are excited to enhance our EASA-certified capacity and capabilities which will expand the scale of our operations and support to regional aircraft operators and global lessors. EASAs 145 approval of our Kochi facility was a much-awaited and long-overdue milestone and is a step forward in accelerating indigenous maintenance, complementing the country's ambition of becoming Atmanirbhar and an MRO hub. I take this occasion to acknowledge the relentless commitment of our Quality team who have been instrumental in securing this approval."

The twin-hangar MRO facility at Kochi, spread over 50,000 sqm, is a completely integrated, independent setup, housing key workshops equipped to undertake structures, interiors, and composite repairs to support timely aircraft maintenance & turnaround. Kochi complements Air Works' primary facility at Hosur, Tamil Nadu, India which is India's first EASA-certified Commercial MRO facility founded in 2009. In addition to the Airbus 320 family, the Hosur facility also offers full MPD support for ATR 42- 400/500/72-212A and Boeing 737-600/700/800 and 900.

The Kochi MRO facility located at the Cochin Int'l Airport is a strategic success for the company as Kochi has been a hub for leading carriers from the Middle East. The European Aviation Safety Agency (EASA) Part 145 approval has come at a time for the company when Air Works recently expanded its operations to Dubai in an endeavor to enhance access to its cost-effective and industry-leading workmanship to both international and domestic carriers, aiming to reinforce its position in India's MRO market.

The Kochi facility was commissioned in March 2021 during the pandemic and has already received certification by the Directorate General of Civil Aviation (DGCA). It is also a DGCA-certified facility for Air Works' Business Aviation (General Aviation) customers for a variety of aircraft.

Mangesh Karyakarte, Chief Sales Officer – Commercial & Defense MRO, Air Works Group said, "With EASA Part 145 approval, we are now uniquely poised to offer flexible maintenance support to our customers from two independent facilities providing end-to-end Engineering

& maintenance services. The approval enables us offer and undertake a comprehensive series of maintenance checks and repairs, ranging from simple to complex ones on A320 aircraft that dominate the narrow body market in India, including the various airworthiness directives (AD) & Supplemental Type Certifications (STC) from time to time." Over time, I see Kochi becoming a preferred maintenance facility for both domestic as well as incoming carriers from the SAARC, South-East Asia, Middle East and North Africa."

The consistent and successful renewal of Air Works' EASA certification for over a decade demonstrates Air Works' unwavering commitment to its customers to upholding the highest standards of quality in aviation. The Group also undertakes MRO work for the Indian Défence forces.

Having two independent facilities will allow the company to spin them into specialized bases offering a comprehensive yet independent scope of services at each location, creating Centres of Excellence. Air Works intends to deepen its capabilities at Kochi by adding Type Approvals for maintenance for the B737NG family.

ExecuJet MRO Services to construct new Purpose-Built MRO Facility at Malaysia's Subang Airport

The new facility will have a gross floor area of approximately 149,500 square feet including back shops which will further expand ExecuJet's capabilities.

ExecuJet MRO Services Malaysia, a service provider in Airframe, Avionics and Engine maintenance, has announced that the company will soon begin the construction of its new purpose-built Maintenance, Repair and Overhaul MRO facility at the Subang Airport in Kuala Lumpur, Malaysia. According to ExecuJet MRO Services, this new facility will reinforce Malaysia's position as a centre for business aviation in the region. ExecuJet MRO Services Malaysia is a Dassault Aviation company.

The new purpose-built MRO facility will be located at another area of the Subang airport and will have access to the runway and a dedicated apron. The new facility will have a gross floor area of approximately 149,500 square feet including back shops that will further expand ExecuJet's capabilities, as well as corporate offices and customer areas.

Ivan Lim, Regional VP Asia, ExecuJet MRO Services said, "The number of business jets in Asia, especially South East Asia has continued to grow, despite the pandemic. Business people have been turning to business aviation to meet their flying needs, because it is time-efficient with far fewer 'touch points' as compared to commercial aviation. ExecuJet MRO Services Malaysia has been expanding its capability and workforce to meet the continued growth in the market." Lim says the Selangor Aviation Show provides an ideal platform to promote ExecuJet MRO Services to the aviation community as an 'employer of choice'. "ExecuJet MRO Services has a strong and inclusive company culture that values talent and takes staff career development seriously."

ExecuJet MRO Services and Dassault Aviation are exhibiting at the Selangor Aviation Show. The Selangor Aviation Show at Subang Airport is unique because it is focused on general and business aviation. The Selangor Aviation Show will be taking place on 8-10 September 2022 at a site adjacent to ExecuJet MRO Services Malaysia's current MRO facility. The Subang airport itself is largely dedicated to general and business aviation. ExecuJet MRO Services, according to the company, is Malaysia's largest business aviation MRO that serves Dassault, Bombardier and Gulfstream operators from across the Asia region.

ExecuJet MRO Services Malaysia is certified by the CAA of Malaysia, US FAA, EASA and many other international airworthiness authorities. It is able to quickly dispatch repair teams around the region, when needed, including to growing markets such as Vietnam. ExecuJet MRO Services has world-class MRO facilities in Africa, Asia, Australasia, Europe and the Middle East; where major repair and refurbishment activities are conducted.

GKN Aerospace inaugurates Malaysian aero-engine parts repair facility

The new Johor facility is focusing on servicing engine low-pressure compressor (LPC) components for CFM56-5B, CFM56-7 and V2500.

GKN Aerospace, at the MRO Asia-Pacific show in Singapore, conducted an inauguration ceremony of its all-new facility for Aero-engine parts repair in Johor, Malaysia. The new facility was constructed with an investment of $35 million and will provide jobs for 300 highly skilled operators and engineers. The repair center will support engine parts repairs in Johor, serving customers in the APAC region. The repair facility will be working together in coordination with the facility in El Cajon, CA, U.S.

The new Johor site is focusing on servicing engine low-pressure compressor (LPC) components for CFM56-5B, CFM56-7 and V2500. The first CFM platforms have been repaired and delivered to customers in December 2021. The repair of V2500 Fan Blades kicked off in June 2022. The portfolio will be expanded with GTF 24K Fan Blades and CFM Fan Blades later this year and in early 2023. The Research is centered around the application of additive manufacturing technology to engine parts repair.

The company claims to have achieved the Facility stand-up, staffing, certification and production start-up for the facility during challenging pandemic circumstances. The ceremony was originally scheduled to take place in February 2020 but had to be postponed because of the Covid-19 pandemic. The ceremony was held at the MRO Asia-Pacific event on 22 September. GKN Aerospace, with the newly built facility, aims to Expand and strengthen its Asian footprint.

Joakim Andersson, President Engines Systems, GKN Aerospace said: "We are really proud to finally open this state of the art facility and to be able to share this celebration with our customers, employees and stakeholders. We have strongly invested in the site and we injected the latest automated manufacturing technology. It is a true demonstration of our commitment to support our customers in the Asian Pacific Region and this has already led to exciting growth opportunities. We thank the Government of Malaysia for the excellent collaboration and for their vital and valuable support in facilitating our decision to locate in their country."

The ceremony will be attended by Tuan Lee Ting Han, representing Johor's Chief Minister (Menteri Besar) Office/ Chairman of the State's Investment, Trade and Consumer Affairs Committee, his Excellency Joachim Bergstrom, Sweden's Ambassador to Malaysia, the Honorable Senator Datuk Lim Ban Hong, Deputy Minister, Malaysia International Trade and Industry, and Distinguished Richard Colley, representing British High Commissioner to Malaysia/Country Director.

The current team of 90 employees is expected to grow up to 150 operators in 2023 and further expand to 300 within five years. GKN Aerospace is providing on-site training for employees. The expansion to Asia is an important part of GKN Aerospace's long-term growth strategy and global operating model. The facility is complementary to GKN Aerospace's existing component repair facility in El Cajon, CA to meet growing demand in the Asia Pacific region.

The new site is a fully owned GKN Aerospace business. The reason behind choosing Johor for the facility is because it offers favourable conditions in the areas of business development, labour, education & training and infrastructure. It also has an excellent location relative to the company's major customers in Asian Pacific Region.

After the addition of the latest facility, GKN Aerospace now operates seven facilities in Asia, delivering aerostructures, engine systems, wiring systems and transparencies in China, India, Malaysia and Turkey. By the time all sites are fully up-and-running, around 15% of GKN Aerospace's employees are expected to be based in Asia.

MTU Aero Engines joins Open Invention Network to support Linux environment

The Open Invention Network industry consortium collects patents to protect the Linux environment that is available to any interested party to use free of charge.

MTU Aero Engines, Germany's largest engine manufacturer, has joined the Open Invention Network (OIN). The industry consortium collects patents to protect the Linux environment. The patents that are a part of the Open Invention Network are available to any interested party to use free of charge as long as that entity does not file patent claims against Linux or any other software involved.

About 450 development engineers work with computing-intensive simulation programs to develop competitive engines at MTU. Complex algorithms make it possible to predict the aerodynamic, thermodynamic, and mechanical behavior of components as early as during the design and configuration phase, thereby optimizing component geometry.

"We support OIN because it's important to us to keep the Linux kernel free of patents and possible lawsuits. The network enables a lot of interaction within the community. By joining, we are saying that we stand behind Linux and want it to stay open," says Dr. Lutz Seidenfaden, CIO, MTU.

MTU has been using and supporting open-source software for 20 years now. MTU was the first major industrial company in Germany to decide in favor of a Linux cluster when building up additional computing capacity. Dr. Moritz Kessel, the Team Leader for CAE IT Analytics is responsible for the working group that deals with Linux infrastructure at MTU.

"Within our organization, we have thousands of Linux-based applications in the field of engineering, most of which arose at MTU," explains Dr. Moritz Kessel, Team Leader, CAE IT Analytics, who is responsible for the working group that deals with Linux infrastructure at MTU. "Wherever the expertise from our engineering team goes into our computing power, we've been relying on Linux for two decades. That's because even back then, it enabled applications that didn't even exist on other platforms. It's also because it's relatively cheap. And because it's still the platform that next-generation computer scientists work on even when they are still in college," he further added.

Linux has also led to the standardization of the Unix world, which permits high degrees of consistency and automation within the company. At MTU, for example, everything from the engineering desktop and high-performance computing cluster to the Web infrastructure and SAP servers are based on the same MTU image. In addition to very high efficiency in operation – resulting from high levels of automation due to the standardized environment – this also involves quality assurance that enables outstanding availability of the MTU applications.

More than 3,300 companies, municipalities, and organizations are members of the Open Invention Network (OIN). They include Google, IBM, NEC, Toyota, Renault, SUSE, Philips, Alibaba, HP, Juniper, Facebook, Cisco, Casio, Huawei, Fujitsu, Sony, and Microsoft.

"For us, joining OIN is a statement," says Nadia Zerelli, head of the Engineering Systems department at MTU Aero Engines. "Linux has given MTU added value that can't be expressed in euros. We have powerful software available for designing, configuring, and producing engines and for fleet management. One especially valuable aspect is the freedom to continuously further develop and refine perfectly tailored tools and methods to design and configure our high-tech products ourselves, At MTU, supporting and cultivating expertise is a part of the corporate culture, That's why the company works with centers of competence at universities and supports the dissertation projects of next-generation scientists and scholars. "We have close ties to the academic and research community, and not just in the technical field of aircraft engines, either. In the CAE software segment as well, we deliberately refrain from keeping innovations to ourselves." She further added.

Another important aspect of open-source software is the flexibility it affords in terms of the use of the software, which is not artificially restricted by complicated licensing terms. This freedom in the design of the IT architectures enables innovative solutions for things like dynamic load-driven distribution of applications to container infrastructures. These solutions are difficult to impossible to implement cost-effectively outside the open-source world.

MTU is one of the leading companies in innovative engineering. The company's engineering IT is also state of the art. The engineers have 1.3 petaflops of computing power at their disposal. That level of power is in line with the world market – but it is all exclusive to MTU.

True Blue Power introduces 100-watt USB-C charging ports to the TA360 charger Series

The 100-watt chargers are engineered with the latest Power Delivery (PD) technology and have the capabilities of delivering 7 times more power than competing products in the market.

True Blue Power, a designer and manufacturer of advanced power solutions for aviation applications has announced the addition of 100-watt USB-C charging ports to the company's line of MAX Power USB Chargers (TA360 Series) offered on aircrafts. The new, 100-watt chargers are engineered with the latest Power Delivery (PD) technology and have the capabilities of delivering 7 times more power than competing products in the market. According to True Blue Power the new 100-watt USB-C charging ports will meet the requirements of personal electronics in the cabins and cockpits on aircraft for years to come.

"As new mandates require USB-C compatibility for personal electronics—and tablets and laptops need more and more power to operate—our new, 100-watt chargers fill the gap," explained Matthew Harrah, Senior Vice President of Technology and Products for True Blue Power. "And in many cases, they are replacing AC outlets. Now, your device can get all the power it needs by directly plugging into a USB port, without a bulky charging adaptor," he further added.

True Blue Power's newly announced 100-watt USB chargers will supply 5–20 volts of power at 3–5 amps for smartphones, tablets, electronic flight bags (EFBs) and headphones. The 100-watt USB-C charging ports feature intelligent, device-driven voltage output, which guarantees each device receives the maximum power needed, locking in the fastest, and most efficient charging possible.

Gulf Air selects Honeywell Forge software to improve operational efficiency

Honeywell's advanced data analytics platform has proved instrumental in Gulf Air's efforts to fly with increased operational efficiencies and lower costs.

Gulf Air, the national airline of the Kingdom of Bahrain, has signed a multiyear renewal of Honeywell Forge software with Honeywell. Gulf Air's decision to adopt the Honeywell Forge software follows the company's aim to increase operational efficiencies and decrease costs associated with several factors, including unnecessary fuel burn. Honeywell's advanced data analytics platform has proved instrumental in Gulf Air's efforts to fly with increased operational efficiencies and lower costs.

The Honeywell Forge Flight Efficiency is used by more than 2,700 aircraft worldwide, including Gulf Air's fleet, to deliver more profitable and sustainable operations. Honeywell Forge includes a mix of software products and enabling services that help companies use operational data to drive insights that improve processes, enhance productivity, support sustainability initiatives, and empower workers.

"We are proud that Gulf Air trusts Honeywell Forge Flight Efficiency to optimize the performance of its fleet and increase the sustainability of its operations through our software solution to improve fuel consumption," said Jason Wissink, vice president of sales, Honeywell Connected Aerospace. "Gulf Air continues to drive innovation by making smart investments in enterprise performance management solutions. Our offering empowers teams like flight ops and flight dispatch to make data-driven decisions for greater efficiency, which can help airlines lower operational costs," he added further.

Gulf Air plans to utilize the Honeywell Forge Flight Efficiency fleetwide in approximately 36 wide and narrow body Boeing and Airbus aircraft operated by the airline. By implementing the solution across its fleet, the airline has reported that it receives reliable, accurate data on fuel burn, which it has used to optimize its fueling strategies, develop and manage more efficient routes, and measure the impact on companywide efficiency and sustainability initiatives.

According to the company, Honeywell Forge Flight Efficiency makes it easier for operators to develop, implement and measure initiatives to reduce costs by consolidating, cleansing and analyzing data from a wide range of sources. Honeywell Forge Connected Aerospace provides airline and business aviation operators with a suite of end-to-end connectivity and operational efficiency solutions powered by an all-in-one dashboard, dedicated support and built-in cybersecurity.

Lucian Boldea joins Honeywell as President and CEO for Performance Materials and Technologies

Lucian Boldea holds a bachelor's degree in chemistry from the University of West Florida, U.S. a doctorate in organic chemistry from the University of Florida.

Honeywell has appointed Lucian Boldea, 51, as the President and Chief Executive Officer for Honeywell's Performance Materials and Technologies (PMT) segment. Lucian's appointment as president and CEO will come into effect from October 3, 2022. Boldea, at Honeywell, will succeed Vimal Kapur, who was promoted to President and Chief Operating Officer of Honeywell in July 2022. Boldea and Kapur will work together closely on the transition over the upcoming several weeks.

Lucian Boldea holds a bachelor's degree in chemistry from the University of West Florida, U.S. a doctorate in organic chemistry from the University of Florida and an MBA in finance from the Wharton School of the University of Pennsylvania.

"We are excited to have Lucian join Honeywell to lead the continued growth and innovation of our PMT business," said Vimal Kapur, President and Chief Executive Officer Performance Materials and Technologies, Honeywell. "His extensive experience in the chemical industry and proven track record will be an asset to the organization as we continue to develop and launch new technologies and further expand our sustainability offerings," he further added.

Before joining Honeywell, Lucian Boldea held the position of Executive Vice President of Additives & Functional products and Chemical Intermediates at Eastman Chemical. Boldea joined Eastman in 1997, where over the years he has held a variety of leadership roles, including Technology Director for Performance Chemicals and Intermediates, Director of Corporate Growth platforms, and Vice President and General Manager of Specialty Plastics.

Honeywell's PMT business develops process technologies, automation solutions, advanced materials, and industrial software. The PMT business currently has 20,000 employees and operates in more than 100 countries globally.

Rolls-Royce announces new leadership roles

Rolls-Royce has appointed Dr. Jörg Stratmann as the CEO of Rolls-Royce Power Systems AG, a Rolls-Royce business unit. Dr. Jörg will commence his new role in the company from 15 November 2022. Dr. Jörg Stratmann will report to CEO Warren East as part of the wider Executive Team. Separately, Dr. Andreas Strecker will join Power Systems as Chief Financial Officer from 1 December 2022.

Warren East, CEO, Rolls-Royce said, "I would like to welcome Dr Jörg Stratmann to the Rolls-Royce leadership team. He brings with him extensive experience of the energy transition and how it opens up valuable growth opportunities, which will benefit the whole group. He also has a record of driving operational performance and efficiency improvements, which will assist Power Systems as it continues to sharpen its focus on the profitability of the core mtu business."

Jörg Stratmann holds a doctorate in industrial engineering. Dr. Jörg Stratmann most recently held responsibility as the CEO and chairman of the executive board of the automotive supplier Mahle GmbH. In this role, he significantly expanded the business outside the area of combustion engines towards customized solutions for e-mobility and successfully developed new business opportunities based on sustainable technologies for global markets. Previously, Dr. Jörg has held numerous international positions for Siemens AG and leading positions at Mahle.

Dr. Jörg Stratmann CEO, Rolls-Royce Power Systems AG said: "Driving the further development of a leading industrial company into a provider of sustainable solutions and further expanding the product portfolio is an exciting and very appealing task. Rolls-Royce Power Systems has very good capabilities to successfully shape this transformation. The company has an impressive history and is known for its technological expertise. I look forward to getting to know all the employees and shaping the company's continued success together."

Additionally, Dr. Andreas Strecker will join Rolls-Royce Power Systems as Chief Financial Officer from 1 December 2022. Dr. Andreas will report to Rolls-Royce plc Chief Financial Officer Panos Kakoullis within the Rolls-Royce Group.

Panos Kakoullis, Chief Financial Officer, Rolls-Royce, added: "Dr Andreas Strecker has driven entrepreneurial transformation throughout his career and will be a very valuable addition to our wider Finance leadership within Rolls-Royce. His experience will be key in helping our Power Systems business to continue on its profitable journey from an engine manufacturer to a provider of more sustainable energy and propulsion solutions."

Andreas Strecker has extensive experience in the financial management of international corporations, primarily in the automotive and industrial sectors. Most recently, Dr. Andreas held the responsibility as President, Europe & Asia, at Accuride Wheels, a supplier to the global commercial vehicle industry, with responsibility for plants in Asia and Europe. Dr. Andreas was also the CFO of Cologne-based engine maker Deutz AG, and CEO of Solaris Bus & Coach sp. z o.o., where he turned the company into the leading manufacturer of electric buses.

Andreas Strecker, Chief Financial

Officer, Rolls-Royce Power Systems said: "I am very pleased to be joining Rolls-Royce at this important time as the group looks to enable its customers make the transition to more climate-neutral products and solutions across all its markets. I have been following the development of Power Systems for many years and am excited by the strategic direction that the business is taking and the potential profitable growth opportunities that creates for mtu products. From my time at Solaris and Deutz, I know the challenges facing the drive-power business and am looking forward to helping shape the way our whole industry evolves."

For nearly three decades, The Rolls-Royce family of turbofan aircraft engines have continued to push the boundaries of what is possible, as each new model sets new performance benchmarks for civil aviation. Collectively the engines have earned more than 100 million flying hours. Members of the Trent engine family are now in service on the Airbus A330, A340, A350, and A380, as well as the Boeing 777 and 787 Dreamliner.

STS Engineering Solutions announces latest Promotions

STS Aviation Group announced the promotions of John Fasano, Nolan Fletcher and Amber North to leadership positions.

STS Aviation Group has announced recent promotions at the leadership level in the company. The first promotion was awarded to John Fasano who was made the Director of Service Engineering for STS Engineering Solutions. John began his career at STS Engineering Solutions in 2015 after completing his graduation from Trinity College, Dublin, Ireland with a Bachelor of Science in Mechanical Engineering. John started his STS career as a primary Damage Tolerance (DT). He was later assigned the responsibility of managing and performing the support for DT analysis, certification and AMOCs.

In his new role as the Director of Service Engineering, John will be responsible for leading STS' Service Engineering organization. Additionally, John will ensure the consistent delivery of safe, compliant and highest quality solutions that STS Engineering Solutions offers to the customers.

STS Aviation Group announced the promotion of Nolan Fletcher as the Director of Project Engineering for STS Engineering Solutions. Nolan attended the Embry-Riddle Aeronautical University in Daytona Beach, Florida, the U.S. where he graduated Magna Cum Laude with a Bachelor of Science in Aerospace Engineering. Following graduation, Nolan accepted a position with SpaceX in Cape Canaveral Florida where he served as an essential member of their launch integration team.

As Director of the department, Nolan Fletcher will be responsible for growing the team to meet the rapidly increasing new customer demand while always maintaining the level of excellence the company's current partners have become accustomed to.

STS Aviation Group promoted Amber North to Manager of Service Engineering for STS Engineering Solutions. Amber began her career in commercial aviation in January 2000 working through a Co-Op program with Delta Airlines while she attended the Georgia Institute of Technology. Amber North completed her graduation with a B.S. degree in Mechanical Engineering.

In her new Managerial role, Amber North will oversee all the daily activities of the 24/7 service team. She will focus on the group hiring, training and retention programs as well as managing the expedited dispatch and delivery of the ever-growing volume of repair support requests.

Florian Rohe to lead GA-ATS as new Managing Director

Florian Rohe, as operational managing director, will advance the further development, process optimization and restructuring of GA-ATS.

Florian Rohe has joined the German aircraft manufacturer General Atomics AeroTec Systems GmbH, GA-ATS, as the company's new Managing Director. Florian Rohe commenced his job at GA-ATS on 1 August 2022 joining the team of Harald Robl and Erik Bollen. Florian's selection was followed by the company's decision to further strengthen the management board of GA-ATS. General Atomics AeroTec Systems, with the expansion of the management team, continues its ambitious plans to further grow. Florian Rohe will advance the further development, process optimization and restructuring of GA-ATS as operational managing director.

Florian Rohe has shared his industry and sector knowledge and experience with many students at the Technical University of Wildau during his teaching activities, where he lectured aircraft maintenance and aviation law for well over a decade. Florian Rohe holds a degree in engineering and a Master of Business Administration, bringing more than 20 years of experience to GA-ATS in the fields of commercial aviation as well as maintenance and repair.

Florian Rohe began his professional career in 2001 at the airline Deutsche BA, Munich in various positions in the technical department. Subsequently, Florian Rohe took over the technical management at Luftfahrtgesellschaft Walter (LGW) and from 2013 at airberlin. The most recent responsibility held by Florian Rohe was for the TUI Group where, as Head of Part-M, managed the engineering departments of the five group airlines in Belgium, Holland, Sweden, England and Germany.

Florian Rohe also took over the technical division of TUIfly in Hanover (EASA Part-145, Shops and CAMO) as Technical Director in 2018, where he reintegrated the maintenance and repair division into the TUI Group structure.

International CALENDAR 2022

2022

Date	Event	Venue
4-6 Oct	World Aviation Festival	Amsterdam
06-08 Oct	Istanbul Airshow	Istanbul Atatürk Airport, Istanbul
18-20 Oct	MRO EUROPE	London, UK
18-20 Oct	NBAA-BACE	Orlando, FL
24-26 Oct	Dubai Helishow	Dubai Harbour, UAE
25-27 Oct	IATA Safety Conference	Dubai, UAE
01-03 Nov	Abu Dhabi Air Expo	Abu Dhabi
06-09 Nov	ATCA	Washington, D.C.
9-10 Nov	Asia Connect MRO	Istanbul, Turkey
15-16 Nov	Predictive Aircraft Maintenance 2022	London, UK
05-06 Dec	Aviation Forum 2022	Munich
06-08 Dec	MEBAA	DWC, Dubai
1-3 March 2023	IASEA 2023	Marina Bay Sands, Singapore

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